



Allen Amsler, *Chairman*
Ann B. Kirol, DDS, *Vice Chair*
L. Clarence Batts, Jr., *Secretary*

Board:
R. Kenyon Wells
Charles M. Joye II, P.E.
David W. Gillespie, MD

South Carolina Board of Health and Environmental Control

September 7, 2017

Call to Order – 10:00 a.m., Board Room (#3420)
South Carolina Department of Health and Environmental Control, 2600 Bull Street,
Columbia, S.C.

1. Minutes of the August 10 meeting
2. Administrative Orders, Consent Orders and Sanction Letters issued by Health Regulation
3. Administrative Orders and Consent Orders issued by Environmental Affairs
4. Proposed Initial Groundwater Management Plans for the Lowcountry Capacity Use Area, the Pee Dee Capacity Use Area, and the Waccamaw Capacity Use Area: S.C. Code of Laws, Title 49, Chapter 5, Groundwater Use and Reporting Act, Legislative Review is not required
5. Notice of Proposed Regulation, South Carolina Stroke Care System
6. Proposed 2018 Board Meeting Dates

Executive Session (if needed)

Adjournment

Note: The next scheduled meeting is October 12.

SUMMARY SHEET
SOUTH CAROLINA BOARD OF HEALTH AND ENVIRONMENTAL CONTROL

September 7, 2017

() ACTION/DECISION

(X) INFORMATION

I. TITLE: Health Regulation Administrative and Consent Orders.

II. SUBJECT: Health Regulation Administrative Orders, Consent Orders, and Emergency Suspension Orders for the period of July 1, 2017, through July 31, 2017.

III. FACTS: For the period of July 1, 2017, through July 31, 2017, Health Regulation reports three (3) Consent Orders with a total of one thousand dollars (\$1,000) in assessed monetary penalties.

Health Regulation Bureau	Health Care Facility, Provider or Equipment	Administrative Orders	Consent Orders	Emergency Suspension Orders	License Suspensions	Assessed Penalties
EMS & Trauma	Paramedic	0	1	0	0	\$0
	Ambulance Services Provider	0	1	0	0	\$500
	EMT	0	1	0	0	\$500
TOTAL		0	3	0	0	\$1,000

Approved By:



 Shelly Bezanson Kelly
 Director of Health Regulation

HEALTH REGULATION ENFORCEMENT REPORT
SOUTH CAROLINA BOARD OF HEALTH AND ENVIRONMENTAL CONTROL

September 7, 2017

Bureau of EMS & Trauma

EMS Provider Type	Total # of Providers in South Carolina
EMT	5,960
Advanced EMT	381
Paramedic	3,693
Athletic Trainers	949
Ambulance Services Provider	261
First Responder Services Provider	2

1. Precise Care Transport, Inc. (Ambulance Services Provider)

Investigation: Based upon an emergency medical technician's ("EMT") failure to timely renew her EMT certification, the Department initiated an investigation to determine whether the EMT continued to perform patient care without a valid EMT certification. As a result of its investigation, the Department determined the employee performed patient care within the scope of an EMT while being uncertified as a South Carolina EMT on six (6) ambulance runs while working for Precise Care Transport, Inc. ("Precise") on January 16, 2017.

Violations: As a result of its investigation, the Department found Precise violated S.C. Code Section 44-61-70(B)(1) by allowing an uncertified person to perform patient care within the scope of an EMT. Specifically, while working for Precise, an uncertified person performed patient care within the scope of an EMT on six (6) ambulance runs.

Enforcement Action: Pursuant to the terms of the Consent Order executed July 12, 2017, Precise agreed to the assessment of a five hundred dollar (\$500) monetary penalty. The assessed monetary penalty shall be satisfied within one hundred twenty (120) days of execution of the Consent Order.

Prior Sanctions: None.

2. Betty Harris (EMT)

Investigation: Betty Harris is a certified South Carolina EMT. Ms. Harris's certification expired January 15, 2017. The Department received Ms. Harris's certification renewal package January 19, 2017. Subsequently, the Department renewed Ms. Harris's certification on January 26, 2017. Based upon Ms. Harris's failure to timely renew her certification, the Department initiated an investigation and determined Ms. Harris performed patient care within the scope of an EMT on six (6) ambulance runs while working for Precise Care Transport, Inc. on January 16, 2017.

Violations: Ms. Harris violated S.C. Code Section 44-61-80(A) and Section 901.A of Regulation 61-7, by providing patient care within the scope of an EMT without obtaining proper certification from the Department.

Enforcement Action: Pursuant to the terms of the Consent Order executed July 13, 2017, Ms. Harris agreed to the assessment of a five hundred dollar (\$500) monetary penalty. The assessed monetary penalty shall be held in abeyance for twelve (12) months following execution of the Consent Order. If at any time during the twelve (12) month period the Department finds Ms. Harris violated the EMS Act or Regulation 61-7, the Department may call in all or part of the assessed monetary penalty.

Prior Sanctions: None.

3. Amy Cline (Paramedic)

Investigation: On July 27, 2016, the Department received a complaint regarding alleged actions of Ms. Cline on July 14, 2016, while employed by Family Medical Transport (“FMT”). Based upon an investigation, the Department found that on July 14, 2016, Ms. Cline and her partner responded to a nursing home for a call regarding a patient with low blood pressure. Upon arrival to the nursing home, Ms. Cline observed the patient sitting in the dining room eating his lunch. The patient subsequently put his remaining food in his mouth and moved himself to the stretcher. At that time, the patient began to have trouble breathing and subsequently stopped breathing. After determining the patient was in cardiac arrest, Ms. Cline and her partner began CPR. While her partner performed chest compressions, Ms. Cline attempted to clear the patient’s airway but was unsuccessful. After her unsuccessful attempts to clear the patient’s airway, Ms. Cline started an IV line on the patient. Ms. Cline was in the process of starting the IV line on the patient upon arrival of another FMT crew for backup assistance. The backup crew’s paramedic established and secured the patient’s airway. FMT’s Adult Asystole Protocol, approved and signed by FMT’s medical control physician and assistant medical control physician, requires establishment and securing of the patient’s airway before attempting IV access.

Violations: As a result of its investigation, the Department found Ms. Cline committed “misconduct,” as defined by S.C. Code Section 44-61-80(F)(6) and Section 1100(B)(6) of Regulation 61-7, by disregarding an appropriate order by a physician regarding treatment. Additionally, Ms. Cline failed to provide emergency medical treatment of a quality deemed acceptable by the Department, in accordance with S.C. Code Section 44-61-80(F). Specifically, Ms. Cline failed to provide treatment in accordance with nationally accepted CPR and advanced cardiac life support (“ACLS”) standards. Nationally accepted standards require EMTs to establish and secure a patient’s airway prior to attempting to establish an IV line.

Enforcement Action: Pursuant to the Consent Order executed July 25, 2017, Ms. Cline agreed to a six (6) month suspension of her Paramedic certificate. The suspension will be held in abeyance for six (6) months. Should Ms. Cline fail to comply with the EMS Act, Regulation 61-7, or the terms of the Consent Order, the Department may call in all or a portion of the agreed upon suspension. Additionally, Ms. Cline agreed to take a sixteen (16) hour ACLS course within six (6) months following execution of the Consent Order and provide proof of successful completion to the Department.

Prior Sanctions: None.

SUMMARY SHEET
 BOARD OF HEALTH AND ENVIRONMENTAL CONTROL
 September 7, 2017

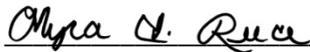
_____ ACTION/DECISION

X INFORMATION

1. **TITLE:** Administrative and Consent Orders issued by Environmental Affairs.
2. **SUBJECT:** Administrative and Consent Orders issued by Environmental Quality Control (EQC) and Ocean and Coastal Resource Management (OCRM) during the period July 1, 2017 – July 31, 2017.
3. **FACTS:** For the period of July 1, 2017, through July 31, 2017, Environmental Affairs issued one hundred one (101) Consent Orders with total assessed civil penalties in the amount of \$178,370.00. Also, two (2) Administrative Orders were issued during the reporting period with total assessed civil penalties in the amount of \$1,000.00. Also, ten (10) Consent Agreements were issued during the reporting period.

Bureau and Program Area	Administrative Orders	Assessed Penalties	Consent Agreements	Consent Orders	Assessed Penalties
Land and Waste Management					
UST Program	0	0	0	1	\$1,000.00
Aboveground Tanks	0	0	0	0	0
Solid Waste	0	0	0	1	\$5,000.00
Hazardous Waste	0	0	0	3	\$44,500.00
Infectious Waste	0	0	0	0	0
Mining	0	0	0	2	\$1,600.00
SUBTOTAL	0	0	0	7	\$52,100.00
Water					
Recreational Water	0	0	0	14	\$9,180.00
Drinking Water	0	0	0	3	0
Water Pollution	0	0	0	6	\$29,000.00
Dam Safety	0	0	10	2	0
SUBTOTAL	0	0	10	25	\$38,180.00
Air Quality					
SUBTOTAL	0	0	0	4	\$26,500.00
Environmental Health Services					
SUBTOTAL	2	\$1,000.00	0	65	\$61,590.00
OCRM					
SUBTOTAL	0	0	0	0	0
TOTAL	2	\$1,000.00	10	101	\$179,370.00

Submitted by:



Myra C. Reece
 Director of Environmental Affairs

**ENVIRONMENTAL AFFAIRS ENFORCEMENT REPORT
BOARD OF HEALTH AND ENVIRONMENTAL CONTROL
September 7, 2017**

BUREAU OF LAND AND WASTE MANAGEMENT

Underground Storage Tank Enforcement

- 1) Order Type and Number: Consent Order 17-0114-UST
 Order Date: July 26, 2017
 Individual/Entity: **Cayce Investments LLC**
 Facility: Gasway 1
 Location: 2000 Rosewood Drive
 Columbia, SC 29205
 Mailing Address: 184 Park Place Circle
 Lexington, SC 29072

 County: Richland
 *Previous Orders: None
 Permit/ID Number: 10313
 Violations Cited: The State Underground Petroleum
 Environmental Response Bank Act of 1988 (SUPERB Act), S.C. code Ann. § 44-2-10 *et*
 seq. (2002 and Supp. 2014); and South Carolina Underground Storage Tank Control
 Regulation, 7 S.C. Code Ann. Regs. 61-92.280.20(c)(1)(ii) (2012).

Summary: Cayce Investments LLC (Individual/Entity), located in Columbia, South Carolina, owns and operates underground storage tanks. The Department conducted a routine inspection on May 4, 2017, and issued a Notice of Alleged Violation because there was a stick in the overfill prevention device on the regular unleaded tank. The stick was removed while the Department's Inspector was on site. The Individual/Entity has violated the South Carolina Underground Storage Tank Control Regulation as follows: failed to maintain overfill prevention equipment.

Action: The Individual/Entity is required to: pay a civil penalty in the amount of one thousand dollars (**\$1,000.00**).

Solid Waste Enforcement

- 2) Order Type and Number: Consent Order 17-03-SW
 Order Date: July 26, 2017
 Individual/Entity: **VIVA St. Stephen, LLC**
 Facility: VIVA St. Stephen, LLC
 Location: 315 Ravenel Drive
 St. Stephen, SC
 Mailing Address: P.O. Box 1162
 St. Stephen, SC

 County: Berkeley

Previous Orders: None
Permit/ID Number: N/A
Violations Cited: South Carolina Solid Waste Policy and Management Act of 1991 (Act) (2002), and Solid Waste Management: Waste Tires Regulation 61-107.3 (Supp. 2012).

Summary: VIVA St. Stephen, LLC (Individual/Entity), located in St. Stephen, South Carolina, is the property owner of record. The Department conducted an inspection in response to a complaint on December 12, 2016. The Individual/Entity has violated the South Carolina Solid Waste Policy and Management Act of 1991 (Act) (2002), and Solid Waste Management: Waste Tires Regulation 61-107.3 (Supp. 2012) as follows: operated a waste tire processing facility without a permit issued by the Department.

Action: The Individual/Entity is required to: remove all trailers loaded with waste tires to a permitted waste tire collection or processing facility; and, pay a civil penalty in the amount of five thousand dollars (**\$5,000.00**).

Hazardous Waste Enforcement

3) Order Type and Number: Consent Order 17-17-HW
Order Date: May 26, 2017
Individual/Entity: **Gulbrandsen Chemicals**
Facility: Gulbrandsen Chemicals
Location: 183 Gulbrandsen Road
Orangeburg, SC 29115
Mailing Address: Same
County: Orangeburg
Previous Orders: None
Permit/ID Number: SCD 987 582 913
Violations Cited: The South Carolina Hazardous Waste Management Act, S.C. Code Ann. §44-56-10 *et seq.* (2002 and Supp. 2016), and the South Carolina Hazardous Waste Management Regulation, 6 and 7 S.C. Code Ann. Regs. 61-79 (2012 and Supp. 2016).

Summary: Gulbrandsen Chemicals (Individual/Entity) located in Orangeburg, South Carolina, specializes in manufacturing aluminum chloride. The Department conducted an inspection on March 7, 2017. The Individual/Entity has violated the Hazardous Waste Management Regulations as follows: failed to maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and any decontamination equipment to any area of facility operation in an emergency; failed to conduct weekly inspections; failed to prohibit improper disposal of universal waste; failed to prohibit sending or taking universal waste to a place other than another universal hauler or designated facility; and, failed to inform and describe for all employees who handle or have responsibility for managing universal waste, the proper handling and emergency procedures appropriate for the type(s) of universal waste handled at the facility.

Action: The Individual/Entity is required to: ensure compliance with the South Carolina Hazardous Waste Management Act and Regulations; ensure that aisle space is maintained; ensure that weekly inspections are conducted; ensure that universal waste is disposed of, managed and training is conducted; and, pay a civil penalty in the amount of eight thousand dollars (**\$8,000.00**).

4) Order Type and Number: Consent Order 17-18-HW
Order Date: July 26, 2017
Individual/Entity: **McLeod Regional Medical Center**
Facility: McLeod Regional Medical Center
Location: 555 East Cheves Street
Florence, SC 29506
Mailing Address: P.O. Box 100551
Florence, SC 29502
County: Florence
Previous Orders: None
Permit/ID Number: SCD 987 591 294
Violations Cited: The South Carolina Hazardous Waste Management Act, S.C. Code Ann. §44-56-10 *et seq.* (2002 and Supp. 2016), and the South Carolina Hazardous Waste Management Regulation, 6 and 7 S.C. Code Ann. Regs. 61-79 (2012 and Supp. 2016); and, the South Carolina Solid Waste Policy and Management Act S.C. Code Ann. §44-96-10 *et seq.* (2002 and Supp. 2016) and the South Carolina Solid Waste Regulations, 6 and 7 S.C. Code Ann. Regs. 61-107.279.22(c)(1) (2012 and Supp. 2016)

Summary: McLeod Regional Medical Center (Individual/Entity) operates a health care facility in Florence, South Carolina. On November 2, 2016, the Department conducted an inspection of the facility. The Individual/Entity has violated the Hazardous Waste Management Regulations as follows: failed to ensure that each container holding hazardous waste is closed during storage, except when necessary to add or remove waste; failed to accurately determine if a solid waste is a hazardous waste; failed to prepare a manifest according to the instructions included in the regulations; failed to contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonable foreseeable conditions; failed to contain any universal waste battery that shows evidence of leakage, spillage or damage that could cause leakage under reasonable foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage or damage that could cause leakage under reasonable foreseeable conditions; failed to label or mark clearly a container with universal waste lamps with the words "Universal Waste - Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s);" failed to label or mark clearly universal waste batteries or a container of such batteries with the words "Universal Waste Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies);" failed to demonstrate the length of time that the universal waste has been accumulated from the date that it becomes a waste or is received; failed to label or mark clearly universal waste mercury-containing equipment or a container in which the equipment is contained with the words, "Universal Waste - Mercury Containing Equipment," or "Waste Mercury Containing

Equipment," or "Used Mercury Containing Equipment;" and, failed to ensure that containers and above ground tanks used to store used oil are labeled or marked clearly with the words "Used Oil."

Action: The Individual/Entity is required to: submit a written procedure/protocol for the management of U-listed and P-listed waste (acute hazardous waste) and pay a civil penalty in the amount of fourteen thousand, five hundred dollars (**\$14,500.00**).

5) Order Type and Number: Consent Order 17-19-HW
 Order Date: July 27, 2017
 Individual/Entity: **Pharmaceutical Associates, Inc.**
 Facility: Pharmaceutical Associates, Inc.
 Location: 201 Delaware Street
 Greenville, SC 29605
 Mailing Address: P.O. Box 128
 Conestee, SC 29636

 County: Greenville
 Previous Orders: None
 Permit/ID Number: SCD 982 126 922
 Violations Cited: The South Carolina Hazardous Waste
 Management Act, S.C. Code Ann. §44-56-10 *et seq.* (2002 and Supp. 2016), and the
 South Carolina Hazardous Waste Management Regulation, 6 and 7 S.C. Code Ann.
 Regs. 61-79 (2012 and Supp. 2016).

Summary: Pharmaceutical Associates, Inc. (Individual/Entity) located in Greenville, South Carolina, manufactures and markets generic liquid pharmaceuticals. The Department conducted inspections on January 25, 2017, and February 7, 2017. The Individual/Entity has violated the Hazardous Waste Management Regulations as follows: failed to accurately determine if a waste was a hazardous waste; failed to keep containers holding hazardous waste closed during storage, except when it is necessary to add or remove waste; failed to ensure that the date upon which each period of accumulation begins is clearly marked and visible for inspection on each container; failed to permanently and legibly mark each container containing hazardous waste with the following or equivalent statement: "Hazardous Waste – federal laws prohibit improper disposal"; failed to label each container with the appropriate EPA Hazardous Waste Number(s); failed to conduct weekly inspections of the hazardous waste storage areas; failed to receive an extension from the Department granting hazardous waste to remain onsite for longer than 180 days; failed to equip hazardous waste tanks with a means to stop the inflow; failed to gather data from monitoring equipment at least once each operating day to ensure the tanks are operating according to design; failed to inspect the level of waste hazardous waste in the tanks each operating day; failed to inspect the construction materials of the tanks, the area immediately surrounding, and discharge confinement structures weekly for erosion or obvious signs of leakage; failed to file a revised or new Notification Form with the Department when a new hazardous waste was produced and the generator status changed; and, failed to declare generator status annually on or before January 31 of each calendar year.

Action: The Individual/Entity is required to: ensure compliance with the South Carolina Hazardous Waste Management Act and Regulations; ensure that hazardous waste containers are managed and stored properly; ensure that waste determinations and notifications are handled properly; ensure that annual reporting is submitted; ensure that hazardous waste is managed and stored in appropriate tanks; submit the following for review and approval: a hazardous waste training program; documentation demonstrating that the hazardous waste storage area(s) has been equipped with a containment system that is properly designed; a copy of the facility's contingency plan and documentation demonstrating that copies have been submitted to local authorities; and, pay a civil penalty in the amount of twenty-two thousand dollars (**\$22,000.00**).

Mining Enforcement

6) Order Type and Number: Consent Order 17-17-MSWM
Order Date: July 26, 2017
Individual/Entity: **Stone Construction, LLC**
Facility: Stone Mine
Location: Powell Road
Andrews, SC
Mailing Address: 11191 Gapway Road
Andrews, SC 29510
County: Georgetown
Previous Orders: None
Permit/ID Number: GP1-001868
Violations Cited: South Carolina Mining Act (2008 and Supp. 2015), and, South Carolina Mining Regulation (2012).

Summary: Stone Construction, LLC (Individual/Entity) owns and operates a mine in Georgetown County, South Carolina. An inspection was conducted on September 23, 2016. The Individual/Entity has violated the Mining Act, South Carolina Mining Regulation and the SC General Operating Permit as follows: conducted mining in an area greater than 5 acres and mining inside a suspected wetland.

Action: The Individual/Entity is required to: cease and desist all mining activities until the individual permit is issued and effective; if the individual permit is not obtained, begin reclamation of the site; and, pay a civil penalty in the amount of one thousand dollars (**\$1,000.00**).

7) Order Type and Number: Consent Order 17-18-MSWM
Order Date: July 26, 2017
Individual/Entity: **Lee Barker**
Facility: Barker Mine
Location: Germantown Place Road
Dillon, SC
Mailing Address: 412 1st Avenue South
North Myrtle Beach, SC 29582

County: Dillon
Previous Orders: 16-31-MSWM (\$600.00)
Permit/ID Number: GP1-002043
Violations Cited: South Carolina Mining Act (2008 and Supp. 2015), and, South Carolina Mining Regulation (2012).

Summary: Lee Barker (Individual/Entity), operates a permitted mine located off Germantown Road, near Dillon, South Carolina. On July 1, 2016, the Department sent an invoice to the Individual/Entity for an annual report and annual operating fee for fiscal year 2017. The Individual/Entity has violated the South Carolina Mining Act and the South Carolina Mining Regulation as follows: failed to submit an annual report and the annual operating fee for fiscal year 2017.

Action: The Individual/Entity is required to: submit an annual report; pay the annual operating fees and associated late fees; and, pay a civil penalty in the amount of six hundred dollars **(\$600.00)**.

BUREAU OF WATER

Recreational Water Enforcement

8) Order Type and Number: Consent Order 17-078-RW
Order Date: July 5, 2017
Individual/Entity: **RKS Group, LLC**
Facility: Baymont Inn & Suites
Location: 1826 West Lucas Street
Florence, SC 29501
Mailing Address: Same
County: Florence
Previous Orders: None
Permit/ID Number: 21-105-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: RKS Group, LLC (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 6, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: the pool furniture was not at least four feet from the edge of the pool; the foot rinse shower was not operating properly; the gate did not self-close and latch; the chlorine level was not within the acceptable range of water quality standards; the life ring was deteriorated, the rope was too short, and the rope was not permanently attached; the pool rules sign was not completely filled out; and the bound and numbered log book was not maintained on a daily basis.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars **(\$340.00)**. The civil penalty has been paid.

9) Order Type and Number: Consent Order 17-079-RW
Order Date: July 5, 2017
Individual/Entity: **HIT Portfolio I Owner, LLC**
Facility: Hampton Inn
Location: 4701 Saul White Blvd.
 North Charleston, SC 29418
Mailing Address: 3950 University Drive, Suite 301
 Fairfax, VA 22030
County: Charleston
Previous Orders: None
Permit/ID Number: 10-302-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: HIT Portfolio I Owner, LLC (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On May 23, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: a universal "no diving" tile was missing at the shallow end entrance; a ladder and handrail were not tight and secure; the pool floor was dirty; there was algae on the pool walls; the pool furniture was not at least four feet from the edge of the pool; the pool rules sign did not have all of the required rules; the facility could not produce current valid documentation of pool operator certification; the bound and numbered log book was not available for review; and the disinfection equipment and filtration equipment were not accessible.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars **(\$340.00)**.

10) Order Type and Number: Consent Order 17-080-RW
Order Date: July 6, 2017
Individual/Entity: **Rosebank Condominium Horizontal
Property Association**
Facility: Rosebank Condos
Location: 312-A Laurens Street SW
 Aiken, SC 29801
Mailing Address: 208 Park Avenue SW
 Aiken, SC 29801
County: Aiken
Previous Orders: None
Permit/ID Number: 02-031-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: Rosebank Condominium Horizontal Property Association (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On May 25, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows:

there were cracked floats on the lifeline; a ladder was not tight and secure; the pool floor was dirty; there was algae on the pool walls; a depth marker tile was cracked; there was debris in the skimmer baskets; a skimmer was missing a weir; the water level was too high; there was no drinking water fountain; there was no foot rinse shower; the pool equipment room was not locked; the flow meter was not operating; the gate did not self-close and latch; a section of the perimeter fencing had openings greater than four inches; the pH level was not within the acceptable range of water quality standards; the main drain grates were not visible due to cloudy water; the life ring was deteriorated and was not in its designated location; the emergency notification device was not operational; the facility address was not posted at the emergency notification device; the pool rules sign did not contain acceptable open and close times; and the bound and numbered log book was not available for review.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars **(\$340.00)**.

11)	<u>Order Type and Number:</u>	Consent Order 17-081-RW
	<u>Order Date:</u>	July 8, 2017
	<u>Individual/Entity:</u>	Twin Lakes Country Club
	<u>Facility:</u>	Twin Lakes Country Club
	<u>Location:</u>	141 West Country Club Road Hamer, SC 29547
	<u>Mailing Address:</u>	P.O. Box 975 Dillon, SC 29536
	<u>County:</u>	Dillon
	<u>Previous Orders:</u>	16-050-RW (\$680.00)
	<u>Permit/ID Number:</u>	17-014-1
	<u>Violations Cited:</u>	S.C. Code Ann. Regs. 61-58.7

Summary: Twin Lakes Country Club (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 13, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: the lifeline was in disrepair; the pool furniture was not at least four feet from the edge of the pool; the gate did not self-close and latch; the chlorine level was not within the acceptable range of water quality standards; there was no life ring; the emergency notification device was not accessible; the "Shallow Water – No Diving Allowed" signs did not have the appropriate size lettering; and the bound and numbered log book was not available for review.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of six hundred eighty dollars **(\$680.00)**.

12)	<u>Order Type and Number:</u>	Consent Order 17-082-RW
-----	-------------------------------	-------------------------

Order Date: July 17, 2017
Individual/Entity: **The Cliffs at Keowee Community Association, Inc.**
Facility: Cliffs at Keowee
Location: 203 Junaluska Trail
Sunset, SC 29685
Mailing Address: P.O. Box 8253
Seneca, SC 29678
County: Pickens
Previous Orders: None
Permit/ID Number: 39-067-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: The Cliffs at Keowee Community Association, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 1, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: a depth marker tile did not have the appropriate non-slip finish; there was no drinking water fountain; the gate did not self-close and latch; the bound and numbered log book was not available for review; the automatic controller was not accessible; and the disinfection equipment was not accessible.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars **(\$340.00)**.

13) Order Type and Number: Consent Order 17-083-RW
Order Date: July 17, 2017
Individual/Entity: **Motel Associates**
Facility: Thunderbird Motor Inn
Location: 2004 West Lucas Street
Florence, SC 29501
Mailing Address: Same
County: Florence
Previous Orders: None
Permit/ID Number: 21-032-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: Motel Associates (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 5, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: the lifeline floats were not properly spaced; the drinking water fountain was not operating properly; the foot rinse shower was not operating properly; the gate did not self-close and latch; the chlorine and pH levels were not within the acceptable range of water quality standards; the pool rules sign was not completely filled out; and the bound and numbered log book was not maintained on a daily basis.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars (**\$340.00**). The civil penalty has been paid. The Individual/Entity submitted a corrective action plan and corrected the deficiencies.

14) Order Type and Number: Consent Order 17-084-RW
Order Date: July 17, 2017
Individual/Entity: **Sweta, LLC**
Facility: Motel 6
Location: 831 South Irby Street
Florence, SC 29501-5236
Mailing Address: Same
County: Florence
Previous Orders: None
Permit/ID Number: 21-030-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: Sweta, LLC (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 5, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: the deck was not clean and clear of hazards; there was debris in the skimmer baskets; the drinking water fountain was not operating properly; the foot rinse shower was not operating properly; the gate did not self-close and latch; the chlorine and pH levels were not within the acceptable range of water quality standards; the main drain grates were not visible due to cloudy water; the life ring rope was not the appropriate length; the pool rules sign was deteriorated; there were no "Shallow Water - No Diving Allowed" signs posted; there were no "No Lifeguard on Duty - Swim At Your Own Risk" signs posted; the facility could not produce current valid documentation of pool operator certification; and the bound and numbered log book was not maintained on a daily basis.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars (**\$340.00**). The civil penalty has been paid.

15) Order Type and Number: Consent Order 17-085-RW
Order Date: July 21, 2017
Individual/Entity: **The Park Recreational Development, Inc.**
Facility: The Park at Rivers Edge
Location: 7990 Riverbirch Lane
North Charleston, SC 29418
Mailing Address: Same
County: Charleston
Previous Orders: None
Permit/ID Number: 10-278-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: The Park Recreational Development, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On May 30, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: the lifeline did not have the minimum number of required floats and the floats were not properly spaced; a handrail was not tight and secure; a skimmer was missing a weir; there was no drinking water fountain; chemicals were stored in the pump room; a section of the perimeter fencing had openings greater than four inches; the shepherd's crook bolts were facing the wrong direction; the bound and numbered log book was not maintained on a daily basis; there were chlorine sticks in the skimmer baskets; and the recirculation and filtration system was not operating.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars (**\$340.00**). The Individual/Entity submitted a corrective action plan and corrected the deficiencies.

16) <u>Order Type and Number:</u>	Consent Order 17-086-RW
<u>Order Date:</u>	July 25, 2017
<u>Individual/Entity:</u>	Best Western Three D Inn, Inc.
<u>Facility:</u>	Best Western
<u>Location:</u>	9059 Highway 6 East Santee, SC 29142
<u>Mailing Address:</u>	P.O. Box 188 Santee, SC 29142
<u>County:</u>	Orangeburg
<u>Previous Orders:</u>	None
<u>Permit/ID Number:</u>	38-056-1
<u>Violations Cited:</u>	S.C. Code Ann. Regs. 61-51(J)

Summary: Best Western Three D Inn, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 28, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: there was debris in the skimmer baskets; the flow meter was not operating; the chlorine level was not within the acceptable range of water quality standards; the cyanuric acid level was above the water quality standards acceptable limit; the life ring was deteriorated; the emergency notification device was not operating; the pool rules sign was not legible; and the current pool operator of record information was not posted to the public.

Action: The Individual/Entity is required to pay a civil penalty in the amount of three hundred forty dollars (**\$340.00**). The civil penalty has been paid. On June 29, 2017, a follow-up inspection was conducted and it was determined that all of the deficiencies had been corrected.

17) <u>Order Type and Number:</u>	Consent Order 17-088-RW
<u>Order Date:</u>	July 26, 2017

<u>Individual/Entity:</u>	McLeod Regional Medical Center of the Pee Dee, Inc.
<u>Facility:</u>	McLeod Health & Fitness Center
<u>Location:</u>	2437 Willwood Drive Florence, SC 29501
<u>Mailing Address:</u>	Same
<u>County:</u>	Florence
<u>Previous Orders:</u>	None
<u>Permit/ID Number:</u>	21-146-1
<u>Violations Cited:</u>	S.C. Code Ann. Regs. 61-51(J)

Summary: McLeod Regional Medical Center of the Pee Dee, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a spa. On March 21, 2017, June 1, 2017, and June 21, 2017, the spa was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: the chlorine level was not within the acceptable range of water quality standards during all three inspections.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of two thousand, forty dollars **(\$2,040.00)**.

18) <u>Order Type and Number:</u>	Consent Order 17-089-RW
<u>Order Date:</u>	July 27, 2017
<u>Individual/Entity:</u>	Golf Colony Resort I Homeowners' Association, Inc.
<u>Facility:</u>	Golf Colony Resort I at Bay Tree
<u>Location:</u>	3700 Golf Colony Lane Little River, SC 29566
<u>Mailing Address:</u>	Same
<u>County:</u>	Horry
<u>Previous Orders:</u>	None
<u>Permit/ID Number:</u>	26-893-1 & 26-894-1
<u>Violations Cited:</u>	S.C. Code Ann. Regs. 61-51(J)

Summary: Golf Colony Resort I Homeowners' Association, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool and a spa. On May 31, 2017, the pool and spa were inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: a ladder was missing a bumper; a skimmer was missing a weir; a skimmer lid was cracked; the chlorine and pH levels were not within the acceptable range of water quality standards; the cyanuric acid level was above the water quality standards acceptable limit; the pool rules sign was not completely filled out; there were no "No Lifeguard on Duty - Swim at Your Own Risk" signs posted; and the facility could not produce current valid documentation of pool operator certification.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of six hundred eighty dollars (**\$680.00**).

19) Order Type and Number: Consent Order 17-090-RW
Order Date: July 27, 2017
Individual/Entity: **Siddehshwar, Inc.**
Facility: Rodeway Inn
Location: 2070 New Cut Road
Spartanburg, SC 29303
Mailing Address: Same
County: Spartanburg
Previous Orders: None
Permit/ID Number: 42-131-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: Siddehshwar, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 13, 2017, the pool was inspected and a violation was issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: a skimmer was missing a weir; the foot rinse shower was not operating properly; the gate did not self-close and latch; the life ring did not have a permanently attached rope; the pool rules sign was not legible; only one "Shallow Water – No Diving Allowed" sign was posted and the sign posted was damaged; and only one "No Lifeguard On Duty – Swim At Your Own Risk" sign was posted.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of three hundred forty dollars (**\$340.00**). The civil penalty has been paid. The Individual/Entity submitted a corrective action plan and corrected the deficiencies.

20) Order Type and Number: Consent Order 17-091-RW
Order Date: July 27, 2017
Individual/Entity: **Rosehill Homeowners Association, Inc.**
Facility: Rose Hill Villas
Location: 600 Anderson Highway
Clemson, SC 29631
Mailing Address: Same
County: Pickens
Previous Orders: None
Permit/ID Number: 39-036-1
Violations Cited: S.C. Code Ann. Regs. 61-51(J)

Summary: Rosehill Homeowners Association, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a pool. On June 7, 2017, the pool was inspected and a violation was issued for failure to provide a drinking water fountain within fifty feet of the pool and for failure to provide a foot rinse shower within twenty feet of the major entrance points to the pool. The Individual/Entity has violated the Public Swimming

Pools Regulation as follows: there was no drinking water fountain and there was no foot rinse shower.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of six hundred eighty dollars (**\$680.00**). The civil penalty has been paid. The Individual/Entity submitted a corrective action plan and corrected the deficiencies.

21)	<u>Order Type and Number:</u>	Consent Order 17-092-RW
	<u>Order Date:</u>	July 28, 2017
	<u>Individual/Entity:</u>	WMJ, LLC
	<u>Facility:</u>	Sea Dip Motel
	<u>Location:</u>	2608 North Ocean Boulevard Myrtle Beach, SC 29577
	<u>Mailing Address:</u>	Same
	<u>County:</u>	Horry
	<u>Previous Orders:</u>	None
	<u>Permit/ID Number:</u>	26-260-1, 26-Q20-1, & 26-Q21-1
	<u>Violations Cited:</u>	S.C. Code Ann. Regs. 61-51(J)

Summary: WMJ, LLC (Individual/Entity) owns and is responsible for the proper operation and maintenance of an outdoor pool, an indoor pool, and a spa. On May 25, 2017, and June 16, 2017, the pools and spa were inspected and violations were issued for failure to properly operate and maintain. The Individual/Entity has violated the Public Swimming Pools Regulation as follows: a handrail was not tight and secure; the drinking water fountain was not operating properly on the first inspection and was missing on the second inspection; the gate did not self-close and latch; the facility address was not posted at the emergency notification device; there were no "Shallow Water – No Diving Allowed" signs posted on the first inspection, and only one sign was posted on the second inspection; the chlorine and pH levels were not within the acceptable range of water quality standards; a ladder was not tight and secure; and the log book was not bound.

Action: The Individual/Entity is required to: submit a corrective action plan and schedule of implementation to address the deficiencies; and pay a civil penalty in the amount of two thousand, forty dollars (**\$2,040.00**).

Drinking Water Enforcement

22)	<u>Order Type and Number:</u>	Consent Order 17-013-DW
	<u>Order Date:</u>	July 7, 2017
	<u>Individual/Entity:</u>	Dowd's Hash, Inc.
	<u>Facility:</u>	Dowd's Bar-B-Q
	<u>Location:</u>	299 Pender Ridge Road Newberry, SC 29108
	<u>Mailing Address:</u>	P.O. Box 666 Newberry, SC 29108

County: Newberry
Previous Orders: None
Permit/ID Number: 3630801
Violations Cited: S.C. Code Ann. Regs. 61-58.17.K(1)

Summary: Dowd's Hash, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a public water system (PWS). On May 26, 2017, a violation was issued as a result of review of monitoring records. The Individual/Entity has violated the State Primary Drinking Water Regulations as follows: the PWS tested present for total coliform and E. coli, which resulted in a violation of the maximum contaminant level (MCL) for E. coli.

Action: The Individual/Entity is required to: submit a corrective action plan to include proposed steps to address the MCL violation; and pay a **stipulated penalty** in the amount of four thousand dollars (**\$4,000.00**) should any requirement of the Order not be met.

23) Order Type and Number: Consent Order 17-014-DW
Order Date: July 26, 2017
Individual/Entity: **Rural Water, Inc.**
Facility: Pinehurst Subdivision
Location: Highway 203
Abbeville, SC 29627
Mailing Address: P.O. Box 359
Ware Shoals, SC 29692
County: Abbeville
Previous Orders: None
Permit/ID Number: 0150003
Violations Cited: S.C. Code Ann. Regs. 61-58.7

Summary: Rural Water, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of a public water system (PWS). On April 25, 2017, the PWS was inspected and rated unsatisfactory for failure to properly operate and maintain. The Individual/Entity has violated the State Primary Drinking Water Regulations as follows: the snifter valve at Well 3 was leaking; the storage tanks were not being inspected on a weekly basis and documentation of tank inspections was not being maintained; the storage tank at Well 1 was waterlogged; the storage tank at Well 3 was located in the open with no restriction to access and graffiti was observed on the tank; Well 2 was offline and was no longer in use; and deficiencies from the previous survey were not corrected.

Action: The Individual/Entity is required to: submit a corrective action plan to include proposed steps to correct the deficiencies; and pay a **stipulated penalty** in the amount of four thousand dollars (**\$4,000.00**) should any requirement of the Order not be met.

24) Order Type and Number: Consent Order 17-015-DW
Order Date: July 27, 2017
Individual/Entity: **Edgefield County Water & Sewer Authority**
Facility: Edgefield County Water & Sewer Authority
Location: 100 Water Works Road

Mailing Address: Edgefield, SC 29824
P.O. Box 416
Edgefield, SC 29824

County: Edgefield

Previous Orders: None

Permit/ID Number: 1920001

Violations Cited: S.C. Code Ann. Regs. 61-58.5.P(2)(b)

Summary: Edgefield County Water & Sewer Authority (Individual/Entity) owns and is responsible for the proper operation and maintenance of a public water system (PWS). On May 25, 2017, a violation was issued as a result of review of monitoring records. The Individual/Entity has violated the State Primary Drinking Water Regulations as follows: the PWS exceeded the maximum contaminant level (MCL) for haloacetic acids five (HAA5).

Action: The Individual/Entity is required to: submit a corrective action plan to include proposed steps to address the MCL violation; and pay a **stipulated penalty** in the amount of four thousand dollars (**\$4,000.00**) should any requirement of the Order not be met.

WATER POLLUTION ENFORCEMENT

25) Order Type and Number: Consent Order 17-046-W

Order Date: July 7, 2017

Individual/Entity: **Amalie Oil Company**

Facility: Amalie Oil WWTF

Location: 4950 Virginia Avenue
North Charleston, SC 29405

Mailing Address: Same

County: Charleston

Previous Orders: None

Permit/ID Number: SC0003026

Violations Cited: Pollution Control Act, S.C. Code Ann. § 48-1-110 (d) (Supp. 2016) and Water Pollution Control Permits, 3 S.C. Code Ann Regs. 61-9.122.41(a) (2011)

Summary: Amalie Oil Company (Individual/Entity) owns and is responsible for the proper operation and maintenance of a wastewater treatment facility located in Charleston County, South Carolina. On November 7, 2016, a Notice of Violation was issued as a result of discharge monitoring reports submitted to the Department. The Individual/Entity has violated the Pollution Control Act and the Water Pollution Control Permits Regulation as follows: failed to comply with the effluent limits of its National Pollutant Discharge Elimination System permit for Total Residual Chlorine.

Action: The Individual/Entity is required to: submit a corrective action plan to address the deficiencies; and, pay a civil penalty in the amount of one thousand, eight hundred dollars (**\$1,800.00**).

26) Order Type and Number: Consent Order 17-047-W
Order Date: July 7, 2017
Individual/Entity: **Pickens County Public Service Commission**
Facility: Cateechee WWTF
Location: 165 Scout Hut Road
Central, SC 29630
Mailing Address: 151 Clearwater Drive
Liberty, South Carolina 29657
County: Pickens
Previous Orders: None
Permit/ID Number: SC0022012
Violations Cited: Pollution Control Act, S.C Code Ann § 48-1- 110
(d) (Supp. 2016); Water Pollution Control Permits, 3 S.C. Code Ann Regs. 61-9.122.41
(a) and (d) (2016).

Summary: Pickens County Public Service Commission (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Cateechee Wastewater Treatment Facility (WWTF) located in Pickens County, South Carolina. On February 27, 2017, a Notice of Violation was issued as a result of discharge monitoring reports submitted to the Department. The Individual/Entity has violated the Pollution Control Act and Water Pollution Control Permits Regulation as follows: failed to comply with the effluent discharge limits of the National Pollutant Discharge Elimination System permit for *E. coli*.

Action: The Individual/Entity is required to: submit a corrective action plan to address the deficiencies; and, pay a civil penalty in the amount of three thousand dollars (**\$3,000.00**).

27) Order Type and Number: Consent Order 17-049-W
Order Date: July 26, 2017
Individual/Entity: **Total Environmental Solutions, Inc.**
Facility: Foxwood Subdivision WWTP
Location: 103 Walnut Drive
Westminster, SC 29693
Mailing Address: P.O. Box 14059
Baton Rouge, LA 70898
County: Oconee
Previous Orders: None
Permit/ID Number: SC0022357
Violations Cited: Pollution Control Act, S.C Code Ann § 48-1- 110
(d) (Supp. 2016); Water Pollution Control Permits, 3 S.C. Code Ann Regs. 61-9.122.41
(a) and (d) (2016).

Summary: Total Environmental Solutions, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Foxwood Subdivision Wastewater Treatment Plant (WWTP) located in Oconee County, South Carolina. On February 16, 2017, a Notice of Violation was issued as a result of discharge monitoring reports

submitted to the Department. The Individual/Entity has violated the Pollution Control Act and Water Pollution Control Permits Regulation as follows: failed to comply with the effluent discharge limits of the National Pollutant Discharge Elimination System permit for Biochemical Oxygen Demand.

Action: The Individual/Entity is required to: submit a Corrective Action Plan to address the deficiencies; and, pay a civil penalty in the amount of one thousand, six hundred dollars **(\$1,600.00)**.

28) Order Type and Number: Consent Order 17-050-W
Order Date: July 26, 2017
Individual/Entity: **Pickens County Public Service Commission**
Facility: Liberty Roper WWTP
Location: 120 Campground Road
Liberty, SC 29657
Mailing Address: 151 Clearwater Drive
Liberty, SC 29657
County: Pickens
Previous Orders: 15-036-W (\$2,800.00)
Permit/ID Number: SC0026191
Violations Cited: Pollution Control Act, S.C Code Ann § 48-1- 110 (d) (Supp. 2016); Water Pollution Control Permits, 3 S.C. Code Ann Regs. 61-9.122.41 (a) and (d) (2016).

Summary: Pickens County Public Service Commission (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Liberty Roper Wastewater Treatment Plant (WWTP) located in Pickens County, South Carolina. On January 27, 2017, a Notice of Violation was issued as a result of discharge monitoring reports submitted to the Department. The Individual/Entity has violated the Pollution Control Act and Water Pollution Control Permits Regulation as follows: failed to comply with the effluent discharge limits of its National Pollutant Discharge Elimination System permit for *E. coli*.

Action: The Individual/Entity is required to: submit a corrective action plan to address the deficiencies; and, pay a civil penalty in the amount of four thousand, two hundred dollars **(\$4,200.00)**.

29) Order Type and Number: Consent Order 17-058-W
Order Date: July 27, 2017
Individual/Entity: **Spartanburg Sanitary Sewer District**
Facility: Fairforest Creek WWTF
Location: Off of S.C. Highway 295
Spartanburg, SC 29306
Mailing Address: P.O. Box 251
Spartanburg, SC 29304
County: Spartanburg

Previous Orders: None
Permit/ID Number: SC0020435
Violations Cited: Pollution Control Act, S.C Code Ann § 48-1- 110 (d) (Supp. 2016); Water Pollution Control Permits, 3 S.C. Code Ann Regs. 61-9.122.41 (a) and (d) (2016).

Summary: Spartanburg Sanitary Sewer District (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Fairforest Creek Wastewater Treatment Plant (WWTP) located in Spartanburg County, South Carolina. On March 7, 2017, a Notice of Violation was issued as a result of discharge monitoring reports submitted to the Department. The Individual/Entity has violated the Pollution Control Act and Water Pollution Control Permits Regulation as follows: failed to comply with the effluent discharge limits of the National Pollutant Discharge Elimination System permit for Biochemical Oxygen Demand and Ultimate Oxygen Demand.

Action: The Individual/Entity is required to: submit a corrective action plan to address the deficiencies; and, pay a civil penalty in the amount of six thousand, four hundred dollars **(\$6,400.00)**.

30) Order Type and Number: Consent Order 17-060-W
Order Date: July 31, 2017
Individual/Entity: **Carolina Water Service, Inc.**
Facility: Friarsgate WWTF
Location: Off of Irmo Drive
Lexington County, SC 29063
Mailing Address: 150 Foster Brothers Drive
West Columbia, SC 29172
County: Lexington
Previous Orders: 16-039-W (\$78,940.00)
Permit/ID Number: SC0036137
Violations Cited: Pollution Control Act, S.C. Code Ann. § 48-1-90(A)(1) and 110(d)(Supp. 2016)

Summary: Carolina Water Service, Inc. (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Friarsgate Wastewater Treatment Facility (WWTF) and the associated wastewater collection system (WWCS) located in Lexington County, South Carolina. On April 12, 2017, a Notice of Violation was issued as a result of site visits conducted by the Department. The Individual/Entity has violated the Pollution Control Act as follows: discharged untreated or partially treated wastewater into the environment in a manner other than in compliance with a Permit issued by the Department, and failed to report sewer system overflows to the Department as required by the National Pollutant Discharge Elimination System (NPDES) permit.

Action: The Individual/Entity is required to: report sewer system overflows (SSOs) to the Department; submit copies of public notices of SSOs to the Department; develop and implement a Sewer Overflow Response Program; develop and implement a Wastewater Collection System Training Program; conduct a capacity, management, operations and

maintenance audit of the WWCS; and, pay a civil penalty in the amount of twelve thousand dollars (**\$12,000.00**).

Dams Enforcement

31) Order Type and Number: Consent Agreement 17-042-W
Order Date: June 7, 2017
Individual/Entity: **Tracy Durant**
Facility: Lakewood Pond Dam
Location: six (6.0) miles east of the intersection of Hwy. 301 and Hwy. 521
Mailing Address: 1427 Jasmin Lane
Murrells Inlet, SC 29576
County: Clarendon
Previous Orders: 2015 Emergency Order
Permit/ID Number: D 3490
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Tracy Durant (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Lakewood Pond Dam in Clarendon County, South Carolina. On October 15, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until Certification of Completion is issued by the Department; submit a permit application prepared by a qualified registered professional engineer licensed to practice in South Carolina for the repair or removal of the Dam; submit documentation that all local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

32) Order Type and Number: Consent Agreement 17-043-W
Order Date: July 7, 2017
Individual/Entity: **Joel T. Presley and Carolyn B. Presley**
Facility: Arrow Head Lake Dam
Location: two (2.0) miles southwest from the intersection of Woodward Lake Road and Bettis Academy Road
Mailing Address: P.O. Box 6033
North Augusta, SC 29861
County: Aiken
Previous Orders: 2015 Emergency Order

Permit/ID Number: D0900
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Joel T. Presley and Carolyn B. Presley (Individuals/Entities) own and are responsible for the proper operation and maintenance of the Arrow Head Lake Dam in Aiken County, South Carolina. On October 15, 2015, the Department issued an Emergency Order to the Individuals/Entities, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individuals/Entities with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individuals/Entities are required to: maintain a lowered water level in the reservoir until Certification of Completion is issued by the Department; submit a permit application prepared by a qualified registered professional engineer licensed to practice in South Carolina for the repair or removal of the Dam; submit documentation that all local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

33) Order Type and Number: Consent Agreement 17-044-W
Order Date: July 7, 2017
Individual/Entity: **Alva C. Kirby**
Facility: Cook Pond/Kirby Pond Dam
Location: one and a half (1.5) miles from exit 87 off I-20
Mailing Address: 2148 Heath Pond Dam
Elgin, SC 29045
County: Kershaw
Previous Orders: 2015 Emergency Order
Permit/ID Number: D 1068
Violations Cited: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Alva C. Kirby (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Cook Pond/Kirby Pond Dam in Kershaw County, South Carolina. On October 15, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until Certification of Completion is issued by the Department; submit a permit application prepared by a qualified registered professional engineer licensed to practice in

South Carolina for the repair or removal of the Dam; submit documentation that all necessary local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

34) Order Type and Number: Consent Agreement 17-045-W
Order Date: July 7, 2017
Individual/Entity: **Phyllis K. Teal**
Facility: Teals Pond Dam
Location: three and one half (3.5) miles northeast of the Chesterfield County Courthouse
Mailing Address: 1846 Zoar Rd
Cheraw, SC 29520
County: Chesterfield
Previous Orders: 2016 Emergency Order
Permit/ID Number: D 3203
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Phyllis K. Teal (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Teals Pond Dam in Chesterfield County, South Carolina. On October 13, 2016, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until Certification of Completion is issued by the Department; submit a permit application prepared by a qualified registered professional engineer licensed to practice in South Carolina for the repair or removal of the Dam; submit documentation that all necessary local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

35) Order Type and Number: Consent Order 17-048-W
Order Date: July 26, 2016
Individual/Entity: **Mrs. Florence Mitchell Hare and Mr. Michael Louie Mitchell**
Facility: Lake Florence Dam
Location: one and two-tenths (1.2) miles from the intersection of Atomic Road and Silver Bluff Road
Mailing Address: P.O. Box 204115
Martinez, GA 30917
County: Aiken
Previous Orders: 2015 Emergency Order
Permit/ID Number: D 1996

Violations Cited:
S.C. Code Ann. § 49-11-150 (2008)

SC Dams and Reservoirs Safety Act,

Summary: Mrs. Florence Mitchell Hare and Mr. Michael Louie Mitchell (Individuals/Entities) own and are responsible for the proper operation and maintenance of the Lake Florence Dam in Aiken County, South Carolina. On February 17, 2017, the Department issued a Notice to Comply to the Individuals/Entities, notifying the Individuals/Entities of the deficiencies regarding the Dam. The Individuals/Entities has failed to comply with the SC Dams and Reservoirs Safety Act in that the dam or reservoir was not maintained in safe condition throughout the life of the structure.

Action: The Individuals/Entities are required to: remove small trees (less than four (4) inches in diameter), thick weeds, and brush from the Dam; provide an updated Emergency Action Plan (EAP) to the Department; have large trees evaluated by a qualified registered professional engineer licensed to practice in South Carolina to determine if they should be removed; submit a permit application package for the removal of large trees, as appropriate, and the repair or removal of the Dam; submit documentation that all local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

36) Order Type and Number: Consent Agreement 17-051-W
Order Date: July 26, 2017
Individual/Entity: **Town of Lexington**
Facility: Gibson's Pond Dam
Location: one (1.0) mile southwest of the Lexington
County Courthouse
Mailing Address: 111 Maiden Lane
Lexington, SC 29071
County: Lexington
Previous Orders: None
Permit/ID Number: D 0959
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code
Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq.
(2012)

Summary: The Town of Lexington (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Gibson's Pond Dam in Lexington County, South Carolina. On October 15, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until a Certificate of Operation is issued by the Department; submit a permit application prepared by a qualified Professional Engineer for the repair or removal of the Dam; submit documentation that all necessary local, state, and federal permit applications

have been submitted; and, complete all construction activities in accordance with approved plans for the repair or removal of the Dam.

37) Order Type and Number: Consent Agreement 17-052-W
Order Date: July 26, 2017
Individual/Entity: **Scott Derrick**
Facility: Scott Derrick Pond Dam
Location: one-half (0.5) miles northwest of the intersection of Lee Street and Lanier Road
Mailing Address: P.O. Box 446
Johnston, SC 29832
County: Edgefield
Previous Orders: 2015 Emergency Order
Permit/ID Number: D 0905
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Scott Derrick (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Scott Derrick Pond Dam in Edgefield County, South Carolina. On October 16, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until a Certificate of Operation is issued by the Department; submit a permit application prepared by a qualified Professional Engineer for the repair or removal of the Dam; submit documentation that all necessary local, state, and federal permit applications have been submitted; complete all construction activities in accordance with approved plans for the repair or removal of the Dam; and, pay a **stipulated penalty** in the amount of fifty-six thousand, three hundred fifty-six dollars and two cents (**\$56,356.02**) should any requirement of the Agreement not be met.

38) Order Type and Number: Consent Agreement 17-053-W
Order Date: July 26, 2017
Individual/Entity: **Walter J. Corbett**
Facility: Corbett Pond Dam
Location: two (2.0) miles southwest from the intersection of Whetstone Rd and Hwy. 178
Mailing Address: 127 Palmetto Farms Rd
Aiken, SC 29805
County: Aiken
Previous Orders: 2015 Emergency Order
Permit/ID Number: D 2052
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code

Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Walter J. Corbett (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Corbett Pond Dam in Aiken County, South Carolina. On October 15, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until Certification of Completion is issued by the Department; submit a permit application prepared by a qualified registered professional engineer licensed to practice in South Carolina for the repair or removal of the Dam; submit documentation that all local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

39) Order Type and Number: Consent Agreement 17-054-W
 Order Date: July 27, 2017
 Individual/Entity: **NB Jordan Properties, LLC**
 Facility: Baxley Farm Pond
 Location: two miles (2.0) northeast from the intersection
 of Hwy. 501 and Grady Road
 Mailing Address: P.O. Box 720
 Marion, SC 28571
 County: Marion
 Previous Orders: 2015 Emergency Order
 Permit/ID Number: D 0509
 Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code
 Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq.
 (2012)

Summary: NB Jordan Properties, LLC (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Baxley Farm Pond Dam in Marion County, South Carolina. On October 15, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until a Certificate of Operation is issued by the Department; submit a permit application prepared by a qualified Professional Engineer for the repair or removal of the Dam; submit documentation that all necessary local, state, and federal permit applications have been submitted; and, complete all construction activities in accordance with approved plans for the repair or removal of the Dam.

40) Order Type and Number: Consent Agreement 17-055-W

Order Date: July 27, 2017
Individual/Entity: **Pages Mill, LLC**
Facility: Pages Millpond Dam
Location: one-half (0.5) mile north of the Lake View Branch of the Dillon County Library
Mailing Address: 1887 Oakton Church Road
Fairmont, SC 28340
County: Dillon
Previous Orders: 2015 Emergency Order
Permit/ID Number: D 3600
Law Citations: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-170 (2008) and Dams and Reservoirs Safety Act Regulation 72.1, et seq. (2012)

Summary: Pages Mill, LLC (Individual/Entity) owns and is responsible for the proper operation and maintenance of the Pages Millpond Dam in Dillon County, South Carolina. On October 12, 2015, the Department issued an Emergency Order to the Individual/Entity, requiring appropriate safety actions and the submittal of a detailed inspection. The Agreement is entered into by the Department and the Individual/Entity with respect to remedial actions addressing deficiencies in the condition of the dam.

Action: The Individual/Entity is required to: maintain a lowered water level in the reservoir until Certification of Completion is issued by the Department; submit a permit application prepared by a qualified registered professional engineer licensed to practice in South Carolina for the repair or removal of the Dam; submit documentation that all local, state, and federal permit applications have been submitted; and, complete all construction activities with approved plans for the repair or removal of the Dam.

41) Order Type and Number: Consent Order 17-056-W
Order Date: July 27, 2017
Individual/Entity: **Howard Townsend & Fred Townsend Jr.**
Facility: Upper Windsor Lake Dam
Location: one (1.0) miles southeast from the intersection of Hwy.1 and I-77
Mailing Address: P.O. Box 50124
Columbia, SC 29250
County: Richland
Previous Orders: None
Permit/ID Number: D 0570
Violations Cited: SC Dams and Reservoirs Safety Act, S.C. Code Ann. § 49-11-150 (2008)

Summary: Howard Townsend and Fred Townsend Jr. (Individuals/Entities) own and are responsible for the proper operation and maintenance of the Upper Windsor Lake Dam (Dam) in Richland County, South Carolina. On March 29, 2017, a Notice of Violation was issued as a result of conditions at the Dam. The Order is entered into by the Department and the

43) Order Type and Number: Consent Order 17-022-A
Order Date: July 05, 2015
Individual/Entity: **Mr. Verney Cumbee**
Facility: Commercial Property
Location: 178 Freddie Lane
Andrews, SC 29510
Mailing Address: Same
County: Georgetown
Previous Orders: None
Permit/ID Number: U1605334
Violations Cited: EPA 40 CFR 61 Subpart;
7 S.C. Code Ann. Regs. 61-86.1

Summary: Mr. Verney Cumbee (Individual/Entity) was contracted to demolish a commercial building located at 109 West main Street, Andrews, South Carolina. On May 16, 2016, the Department conducted a complaint investigation and issued a Notice of Alleged Violation on December 08, 2016. The Individual/Entity violated U.S. EPA and South Carolina standards of Performance for Asbestos Projects as follows: failed to ensure that a building inspection was performed prior to the start of demolition, failed to submit a written notice of intent to demolish to the Department; failed to ensure that the required work practice requirements were adhered to; failed to obtain a Department-issued asbestos project license; and, engaged in an asbestos project without licensed to do so by the Department.

Action: The Individual/Entity is required to: cease engagement in all future regulated asbestos projects unless licensed to do so by the Department; comply with all requirements of EPA 40 CFR 61 Subpart M and 7 S.C. Code Ann. Regs. 61-86.1; and pay a civil penalty in the amount of three thousand dollars **(\$3,000.00)**.

44) Order Type and Number: Consent Order 17-023-A
Order Date: July 7, 2017
Individual/Entity: **Mr. Jeremy Timmerman**
Facility: Residential Property
Location: 1533 Brushy Creek Road
Easley, SC 29642
Mailing Address: Same
County: Pickens
Previous Orders: None
Permit/ID Number: N/A
Violations Cited: 5 S.C. Code Ann. Regs.
61-62.2 (2011 & Supp. 2016), Prohibition of Open Burning

Summary: Mr. Jeremy Timmerman (Individual/Entity) owns property located at 1533 Brushy Creek Road, Easley, South Carolina. On December 22, 2016, and February 23, 2017, the Department conducted investigations in response to a complaint of open burning and issued a Notice of Alleged Violation on March 29, 2017. The Individual/Entity violated South Carolina Air Pollution Control Regulations as follows: burned materials other than those specifically allowed by the regulations.

Action: The Individual/Entity is required to: cease all open burning except as in compliance with 5 S.C. Code Ann. Regs. 61-62.2, Prohibition of Open Burning; ensure that all prohibited burned materials are properly disposed of at an approved landfill; and pay a civil penalty in the amount of one thousand, five hundred dollars (**\$1,500.00**), payable in three monthly payments.

45) Order Type and Number: Consent Order 17-024-A
Order Date: July 11, 2015
Individual/Entity: **Mr. Mark Amick**
Facility: Commercial Property
Location: 121 East Main Street
Ninety Six, SC 29666
Mailing Address: 102 Leisure Lane
Ninety Six, SC 29666
County: Greenwood
Previous Orders: None
Permit/ID Number: U1602090
Violations Cited: EPA 40 CFR 61 Subpart M
and 7 S.C. Code Ann. Regs. 61-86.1

Summary: Mr. Mark Amick (Individual/Entity) partially demolished and renovated a commercial building located at 121 East Main Street in Ninety Six, South Carolina. On February 2, 2016, and August 2, 2016, the Department conducted investigations and issued a Notice of Alleged Violation on March 20, 2017. The Individual/Entity violated U.S. EPA and South Carolina standards of Performance for Asbestos Projects as follows: failed to ensure that a building inspection was performed prior to the start of demolition; failed to submit a written notice of intent to demolish to the Department; failed to ensure that the required work practice requirements were adhered to; failed to comply with waste disposal requirements for an outdoor NESHAP project; failed to ensure that all persons engaged in an asbestos project involving RACM, or ACM rendered regulated, are licensed by the Department; failed to obtain a Department-issued asbestos project license; and, failed to ensure that all asbestos-containing materials are removed from a structure prior to demolition.

Action: The Individual/Entity is required to: comply with all requirements of EPA 40 CFR 61 Subpart M and 7 S.C. Code Ann. Regs. 61-86.1; cease engagement in all future regulated asbestos projects unless licensed to do so by the Department; submit a demolition application for the demolition activities that already occurred and pay applicable fees; file a Notation to the Deed to record the burial of RACM; and pay a civil penalty in the amount of fourteen thousand, five hundred dollars (**\$14,500.00**).

46) Order Type and Number: Consent Order 17-025-A
Order Date: July 12, 2017
Individual/Entity: **Johnson Controls Battery Group, Inc.**
Facility: Johnson Controls Battery Group, Inc.
Location: 1800 Paper Mill Road
Florence, SC 29506
Mailing Address: Same

County: Florence
Previous Orders: 15-053-A (\$250,000.00)
Permit/ID Number: 1040-0129
Violations Cited: U.S. EPA 40 CFR 63.545(c)(2) and (c)(5),
5 S.C. Code Ann. Regs. 61-62.63, Subpart X, and 5 S.C. Code Ann. Regs. 61-62.1,
Section II

Summary: Johnson Controls Battery Group, Inc. (Individual/Entity), located in Florence, South Carolina, operates a lead-acid battery recycling facility. The Department conducted an inspection on September 14, 2016, and observed loading equipment outside with potentially lead-bearing material on its surfaces, and potential lead-bearing material visible on portions of the paved surfaces in the staging area. The Individual/Entity violated South Carolina Air Pollution Control Regulations as follows: failed to operate in accordance with the Fugitive Dust SOP by allowing equipment to exit a ventilated building without being cleaned, and by allowing the accumulation of potentially lead-bearing material on paved surfaces.

Action: The Individual/Entity is required to: operate in accordance with the Fugitive Dust SOP for vehicles exiting the facility's material storage and handling areas and for outdoor areas, and pay to the Department a civil penalty in the amount of seven thousand, five hundred dollars (**\$7,500.00**).

BUREAU OF ENVIRONMENTAL HEALTH SERVICES

Food Safety Enforcement

47) Order Type and Number: Administrative Order 2016-206-07-044
Order Date: July 10, 2017
Individual/Entity: **Green Goat**
Facility: Green Goat
Location: 1300 Savannah Highway
Charleston, SC 29407
Mailing Address: Same
County: Charleston
Previous Orders: None
Permit Number: 10-206-08739
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Green Goat (Individual/Entity) is a restaurant located in Charleston, South Carolina. The Department conducted inspections on June 30, 2016, and July 1, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand dollars (**\$1,000.00**).

48) Order Type and Number: Consent Order 2016-206-02-008
Order Date: July 3, 2017
Individual/Entity: **La Finca**
Facility: La Finca
Location: 1722 East Main Street
Easley, SC 29640
Mailing Address: Same
County: Pickens
Previous Orders: None
Permit Number: 39-206-01405
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: La Finca (Individual/Entity) is a restaurant located in Easley, South Carolina. The Department conducted inspections on February 26, 2016, and March 4, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to properly cool cooked time/temperature control for safety foods; and failed to use effective methods to cool cooked time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

49) Order Type and Number: Consent Order 2016-206-02-046
Order Date: July 3, 2017
Individual/Entity: **Jimmy John's #995**
Facility: Jimmy John's #995
Location: 2301 Augusta Street
Greenville, SC 29605
Mailing Address: 2004 Fox Drive, Suite J
Champaign, IL 61820
County: Greenville
Previous Orders: None
Permit Number: 23-206-10320
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Jimmy John's #995 (Individual/Entity) is a restaurant located in Greenville, South Carolina. The Department conducted inspections on August 11, 2015, December 4, 2015, December 14, 2015, and October 19, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to cover the receptacles and waste handling units for refuse, recyclables and returnables.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of four hundred dollars (**\$400.00**).

50) Order Type and Number: Consent Order 2016-206-02-052
Order Date: July 3, 2017

Individual/Entity: **Super Carnicereia El Gallo Giro**
Facility: Super Carnicereia El Gallo Giro
Location: 3401 White Horse Road
Greenville, SC 29611
Mailing Address: 4 Linda Avenue
Greenville, SC 29605
County: Greenville
Previous Orders: None
Permit Number: 23-206-10162
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Super Carnicereia El Gallo Giro (Individual/Entity) is a restaurant located in Greenville, South Carolina. The Department conducted inspections on August 16, 2016, August 26, 2016, and January 5, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

51) Order Type and Number: Consent Order 2016-206-04-021
Order Date: July 3, 2017
Individual/Entity: **TJT Discount Grocery & Fish**
Facility: TJT Discount Grocery & Fish
Location: 306 North Elm Street
Pageland, SC 29728
Mailing Address: 2460 Highway 207
Pageland, SC 29728
County: Chesterfield
Previous Orders: None
Permit Number: 13-206-01290
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: TJT Discount Grocery & Fish (Individual/Entity) is a restaurant located in Pageland, South Carolina. The Department conducted inspections on March 25, 2015, and March 10, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; and failed to store foods in a manner to prevent cross contamination.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

52) Order Type and Number: Consent Order 2016-206-06-122
Order Date: July 3, 2017
Individual/Entity: **El Rinconcito Salvadoreno**
Facility: El Rinconcito Salvadoreno
Location: 4019 Highway 17 South
North Myrtle Beach, SC 29582
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-12760
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: El Rinconcito Salvadoreno (Individual/Entity) is a restaurant located in North Myrtle Beach, South Carolina. The Department conducted inspections on June 17, 2016, June 30, 2016, and September 28, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

53) Order Type and Number: Consent Order 2016-206-06-140
Order Date: July 3, 2017
Individual/Entity: **Shawarma Company**
Facility: Shawarma Company
Location: 4036 River Oaks Drive, Unit A-10
Myrtle Beach, SC 29579
Mailing Address: 919 South Dunes Drive
Florence, SC 29501
County: Horry
Previous Orders: None
Permit Number: 26-206-12978
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Shawarma Company (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on September 25, 2015, July 27, 2016, and March 21, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars **(\$550.00)**.

54) Order Type and Number: Consent Order 2017-206-01-004

Order Date: July 3, 2017
Individual/Entity: **McDonald's #24608**
Facility: McDonald's #24608
Location: 1475 Pearman Dairy Road, Suite G
Anderson, SC 29625
Mailing Address: 2505 Brenda Drive
County: Anderson, SC 29625
Previous Orders: 2016-206-01-004 (\$800)
Permit Number: 04-206-02885
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: McDonald's #24608 (Individual/Entity) is a restaurant located in Anderson, South Carolina. The Department conducted an inspection on December 13, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to provide written procedures, upon request, regarding the facility using Time as a Public Health Control.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

55) Order Type and Number: Consent Order 2017-206-02-001
Order Date: July 3, 2017
Individual/Entity: **Super Mercado of Greenville**
Facility: Super Mercado of Greenville
Location: 2803-A White Horse Road
Greenville, SC 29611
Mailing Address: Same
County: Greenville
Previous Orders: None
Permit Number: 23-206-11311
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Super Mercado of Greenville (Individual/Entity) is a restaurant located in Greenville, South Carolina. The Department conducted inspections on January 11, 2017, January 12, 2017, January 20, 2017, April 20, 2017, April 28, 2017, and May 5, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; failed to properly cool cooked time/temperature control for safety foods; failed to maintain the premises free of insects, rodents, and other pests; and failed to protect the outer openings of a retail food establishment against the entry of insects and rodents.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of two thousand, four hundred dollars **(\$2,400.00)**.

56) Order Type and Number: Consent Order 2016-206-01-042

Order Date: July 6, 2017
Individual/Entity: **Pizza & Then Some**
Facility: Pizza & Then Some
Location: 319 North Main Street
Belton, SC 29627
Mailing Address: 1012 Laurel Court
Williamston, SC 29697
County: Anderson
Previous Orders: None
Permit Number: 04-206-03747
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Pizza & Then Some (Individual/Entity) is a restaurant located in Belton, South Carolina. The Department conducted inspections on July 8, 2015, June 23, 2016, and August 12, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars (**\$550.00**).

57) Order Type and Number: Consent Order 2016-206-02-060
Order Date: July 6, 2017
Individual/Entity: **Augusta Grill**
Facility: Augusta Grill
Location: 1818 Augusta Street
Greenville, SC 29605
Mailing Address: Same
County: Greenville
Previous Orders: None
Permit Number: 23-206-05835
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Augusta Grill (Individual/Entity) is a restaurant located in Greenville, South Carolina. The Department conducted inspections on January 13, 2016, November 3, 2016, and November 8, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars (**\$550.00**).

58) Order Type and Number: Consent Order 2016-206-03-099
Order Date: July 6, 2017
Individual/Entity: **ARA/Thomson Cafeteria**

Facility: ARA/Thomson Cafeteria
Location: 112 Thomson Hall
Rock Hill, SC 29733
Mailing Address: 701 Oakland Avenue
Rock Hill, SC 29733
County: York
Previous Orders: None
Permit Number: 46-206-00707
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: ARA/Thomson Cafeteria (Individual/Entity) operates a cafeteria located in Rock Hill, South Carolina. The Department conducted inspections on March 22, 2016, October 13, 2016, and December 1, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars (**\$550.00**).

59) Order Type and Number: Consent Order 2016-206-08-041
Order Date: July 6, 2017
Individual/Entity: **Patel's**
Facility: Patel's
Location: 3569 Okatie Highway
Hardeeville, SC 29927
Mailing Address: P.O. Box 445
Hardeeville, SC 29927
County: Jasper
Previous Orders: None
Permit Number: 27-206-00590
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Patel's (Individual/Entity) is a restaurant located in Hardeeville, South Carolina. The Department conducted inspections on July 29, 2015, August 7, 2015, July 26, 2016, and August 16, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to provide a test kit of other device that accurately measures the concentration in MG/L of sanitizing solutions.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

60) Order Type and Number: Consent Order 2017-206-01-005
Order Date: July 6, 2017
Individual/Entity: **China**
Facility: China

Location: 4369 Highway 24
Anderson, SC 29625
Mailing Address: Same
County: Anderson
Previous Orders: 2016-206-01-007 (\$800)
Permit Number: 04-206-03590
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: China (Individual/Entity) is a restaurant located in Anderson, South Carolina. The Department conducted an inspection on January 4, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to ensure employees washed their hands between tasks or working with foods, prior to donning gloves.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

61) Order Type and Number: Consent Order 2017-206-02-003
Order Date: July 6, 2017
Individual/Entity: **Blockhouse Restaurant**
Facility: Blockhouse Restaurant
Location: 1619 Augusta Street
Greenville, SC 29605
Mailing Address: Same
County: Greenville
Previous Orders: None
Permit Number: 23-206-03818
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Blockhouse Restaurant (Individual/Entity) is a restaurant located in Greenville, South Carolina. The Department conducted inspections on December 15, 2016, December 20, 2016, and December 22, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

62) Order Type and Number: Consent Order 2017-206-05-002
Order Date: July 6, 2017

Individual/Entity: **Fatz Café #14**
Facility: Fatz Café #14
Location: 3575 Saint Matthews Road
Orangeburg, SC 29118
Mailing Address: 4324 Wade Hampton Boulevard,
Suite B
Taylors, SC 29687
County: Orangeburg
Previous Orders: None
Permit Number: 38-206-01614
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Fatz Café #14 (Individual/Entity) is a restaurant located in Orangeburg, South Carolina. The Department conducted inspections on March 2, 2017, March 10, 2017, and April 28, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

63) Order Type and Number: Consent Order 2017-206-06-031
Order Date: July 6, 2017
Individual/Entity: **T-Bonz Restaurant Group**
Facility: T-Bonz Restaurant Group
Location: 4732 South Kings Highway
North Myrtle Beach, SC 29582
Mailing Address: 1177 Southgate Drive
Charleston, SC 29407
County: Horry
Previous Orders: 2016-206-06-109 (\$800)
Permit Number: 26-206-05056
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: T-Bonz Restaurant Group (Individual/Entity) is a restaurant located in North Myrtle Beach, South Carolina. The Department conducted an inspection on February 8, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

64) Order Type and Number: Consent Order 2017-206-07-002
Order Date: July 6, 2017

Individual/Entity: **China Buffet**
Facility: China Buffet
Location: 7800 Rivers Avenue
North Charleston, SC 29406
Mailing Address: Same
County: Charleston
Previous Orders: 2015-206-07-086 (\$800)
Permit Number: 10-206-03425
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: China Buffet (Individual/Entity) is a restaurant located in North Charleston, South Carolina. The Department conducted an inspection on October 25, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

65) Order Type and Number: Consent Order 2016-206-07-078
Order Date: July 7, 2017
Individual/Entity: **Iacofano's Catering & Food Service**
Facility: Iacofano's Catering & Food Service
Location: 1749 Sam Rittenberg Boulevard
Charleston, SC 29407
Mailing Address: Same
County: Charleston
Previous Orders: None
Permit Number: 10-206-09200
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Iacofano's Catering & Food Service (Individual/Entity) is a restaurant located in Charleston, South Carolina. The Department conducted inspections on August 22, 2016, August 24, 2016, September 27, 2016, September 28, 2016, and October 3, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; failed to properly cool cooked time/temperature control for safety foods; failed to ensure cooked time/temperature control for safety foods were cooled within 6 hours to 41° F (5° C) or less; failed to maintain proper sanitization concentration for the warewashing (dish) machine; and failed to maintain the premises free of insects, rodents, and other pests.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, seven hundred fifty dollars **(\$1,750.00)**.

66) Order Type and Number: Consent Order 2017-206-03-005

Order Date: July 7, 2017
Individual/Entity: **Hokkaido Buffet**
Facility: Hokkaido Buffet
Location: 1100 Dutch Fork Road, Suite K
Irmo, SC 29063
Mailing Address: Same
County: Richland
Previous Orders: None
Permit Number: 40-206-06596
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Hokkaido Buffet (Individual/Entity) is a restaurant located in Irmo, South Carolina. The Department conducted inspections on December 2, 2015, September 7, 2016, and May 5, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

67) Order Type and Number: Consent Order 2017-206-06-034
Order Date: July 7, 2017
Individual/Entity: **Bangkok House**
Facility: Bangkok House
Location: 318 North Kings Highway
Myrtle Beach, SC 29577
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-08947
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Bangkok House (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on September 26, 2016, January 20, 2017, and June 9, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to separate the ice used as food from the medium for cooling the exterior surfaces of food such as melons or fish, packaged foods such as canned beverages, or cooling coils and tubes of equipment.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

68) Order Type and Number: Consent Order 2016-206-03-096
Order Date: July 11, 2017
Individual/Entity: **Fini'z Oyster Bar and Grill**

Facility: Fini'z Oyster Bar and Grill
Location: 4555 Charlotte Highway, Suite 19
Lake Wylie, SC 29710
Mailing Address: Same
County: York
Previous Orders: None
Permit Number: 46-206-03401
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Fini'z Oyster Bar and Grill (Individual/Entity) is a restaurant located in Lake Wylie, South Carolina. The Department conducted inspections on August 15, 2016, September 14, 2016, and November 10, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to ensure that when time without temperature control is used as a public health control, the food in unmarked containers or packages shall be discarded.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

69) Order Type and Number: Consent Order 2016-206-03-111
Order Date: July 11, 2017
Individual/Entity: **Corner Mart #44**
Facility: Corner Mart #44
Location: 12780 SC Highway 121
Newberry, SC 29801
Mailing Address: P.O. Box 2969
Greenville, SC 29602
County: Newberry
Previous Orders: None
Permit Number: 36-206-00895
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Corner Mart #44 (Individual/Entity) is a convenience store located in Newberry, South Carolina. The Department conducted inspections on September 1, 2015, September 10, 2015, September 15, 2015, and August 23, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; and failed to provide individual disposable towels at each hand sink or group of adjacent handwashing sinks.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

70) Order Type and Number: Consent Order 2016-206-08-035
Order Date: July 11, 2017
Individual/Entity: **Palm & Moon Bagel Company**
Facility: Palm & Moon Bagel Company
Location: 221 Scott Street
Beaufort, SC 29902
Mailing Address: 900 Preserve Avenue West, Apartment 9302
Port Royal, SC 29935
County: Beaufort
Previous Orders: None
Permit Number: 07-206-02287
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Palm & Moon Bagel Company (Individual/Entity) is a restaurant located in Beaufort, South Carolina. The Department conducted inspections on July 15, 2016, July 28, 2016, and August 8, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain the premises free of insects, rodents, and other pests.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of four hundred dollars (**\$400.00**).

71) Order Type and Number: Consent Order 2016-206-08-038
Order Date: July 11, 2017
Individual/Entity: **Smokehouse**
Facility: Smokehouse
Location: 34 Palmetto Bay Road
Hilton Head Island, SC 29928
Mailing Address: P.O. Box 6122
Hilton Head Island, SC 29938
County: Beaufort
Previous Orders: None
Permit Number: 07-206-09266
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Smokehouse (Individual/Entity) is a restaurant located in Hilton Head Island, South Carolina. The Department conducted inspections on July 26, 2016, August 5, 2016, and April 17, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

72) Order Type and Number: Consent Order 2017-206-02-007
 Order Date: July 11, 2017
 Individual/Entity: **First Wok**
 Facility: First Wok
 Location: 1152 Pendleton Street
 Greenville, SC 29601

 Mailing Address: Same
 County: Greenville
 Previous Orders: None
 Permit Number: 23-206-11288
 Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: First Wok (Individual/Entity) is a restaurant located in Greenville, South Carolina. The Department conducted inspections on December 8, 2015, October 13, 2016, and October 20, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

73) Order Type and Number: Consent Order 2017-206-06-013
 Order Date: July 11, 2017
 Individual/Entity: **Lil Tokyo**
 Facility: Lil Tokyo
 Location: 780 Coastal Grand Circle
 Myrtle Beach, SC 29577

 Mailing Address: Same
 County: Horry
 Previous Orders: None
 Permit Number: 26-206-11705
 Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Lil Tokyo (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on October 9, 2015, July 28, 2016, and April 10, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; and failed to use effective methods to cool cooked time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

74) Order Type and Number: Consent Order 2017-206-06-026
Order Date: July 11, 2017
Individual/Entity: **Friendly's Family Restaurant**
Facility: Friendly's Family Restaurant
Location: 4705 North Kings Highway
Myrtle Beach, SC 29577
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-07777
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Friendly's Family Restaurant (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on September 21, 2016, January 27, 2017, and May 1, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

75) Order Type and Number: Consent Order 2017-206-06-038
Order Date: July 11, 2017
Individual/Entity: **Admirals Room**
Facility: Admirals Room
Location: 5200 North Ocean Boulevard
Myrtle Beach, SC 29577
Mailing Address: Same
County: Horry
Previous Orders: 2015-206-06-105 (\$800)
Permit Number: 26-206-10638
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Admirals Room (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted an inspection on February 28, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand two hundred dollars **(\$1,200.00)**.

76) Order Type and Number: Consent Order 2017-206-07-003
Order Date: July 11, 2017
Individual/Entity: **Ms. Rose's**
Facility: Ms. Rose's
Location: 1090 Sam Rittenberg Boulevard
Charleston, SC 29407
Mailing Address: Same
County: Charleston
Previous Orders: 2016-206-07-015 (\$800)
Permit Number: 10-206-08523
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Ms. Rose's (Individual/Entity) is a restaurant located in Charleston, South Carolina. The Department conducted an inspection on November 30, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

77) Order Type and Number: Consent Order 2016-206-06-102
Order Date: July 13, 2017
Individual/Entity: **Liberty at the Lake**
Facility: Liberty at the Lake
Location: 1602 Marina Road
Irmo, SC 29063
Mailing Address: 1177 Southgate Drive
Charleston, SC 29407
County: Richland
Previous Orders: 2015-206-03-059 (\$1,200)
Permit Number: 40-206-07068
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Liberty at the Lake (Individual/Entity) is a restaurant located in Irmo, South Carolina. The Department conducted an inspection on August 30, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

78) Order Type and Number: Consent Order 2016-206-06-146
Order Date: July 13, 2017
Individual/Entity: **Casa Villa Little River**
Facility: Casa Villa Little River
Location: 1529 Highway 17
Little River, SC 29566
Mailing Address: Same
County: Horry
Previous Orders: 2016-206-06-111 (\$800)
Permit Number: 26-206-08682
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Casa Villa Little River (Individual/Entity) is a restaurant located in Little River, South Carolina. The Department conducted an inspection on April 18, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

79) Order Type and Number: Consent Order 2017-206-03-007
Order Date: July 13, 2017
Individual/Entity: **Country Corner**
Facility: Country Corner
Location: 600 Pope Street
Newberry, SC 29108
Mailing Address: Same
County: Newberry
Previous Orders: None
Permit Number: 36-206-01171
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Country Corner (Individual/Entity) is a convenience store located in Newberry, South Carolina. The Department conducted inspections on March 18, 2016, November 2, 2016, and January 23, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

80)	<u>Order Type and Number:</u> <u>Order Date:</u> <u>Individual/Entity:</u> <u>Facility:</u> <u>Location:</u> <u>Mailing Address:</u> <u>County:</u> <u>Previous Orders:</u> <u>Permit Number:</u> <u>Violations Cited:</u>	Consent Order 2017-206-06-011 July 13, 2017 Dino's House of Pancakes Dino's House of Pancakes 2120 South Highway 17 North Myrtle Beach, SC 29582 Same Horry None 26-206-08390 S.C. Code Ann. Regs. 61-25
-----	---	---

Summary: Dino's House of Pancakes (Individual/Entity) is a restaurant located in North Myrtle Beach, South Carolina. The Department conducted inspections on January 25, 2016, September 7, 2016, and March 10, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

81)	<u>Order Type and Number:</u> <u>Order Date:</u> <u>Individual/Entity:</u> <u>Facility:</u> <u>Location:</u> <u>Mailing Address:</u> <u>County:</u> <u>Previous Orders:</u> <u>Permit Number:</u> <u>Violations Cited:</u>	Consent Order 2017-206-06-012 July 13, 2017 Bar-B-Que House Bar-B-Que House 1205 Highway 17 North Surfside Beach, SC 29575 Same Horry None 26-206-11621 S.C. Code Ann. Regs. 61-25
-----	---	---

Summary: Bar-B-Que House (Individual/Entity) is a restaurant located in Surfside Beach, South Carolina. The Department conducted inspections on March 28, 2016, September 6, 2016, and March 14, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars (**\$550.00**).

82)	<u>Order Type and Number:</u> <u>Order Date:</u>	Consent Order 2017-206-06-015 July 13, 2017
-----	---	--

Individual/Entity: **Ruby Tuesday #4256**
Facility: Ruby Tuesday #4256
Location: 10177 North Kings Highway
Myrtle Beach, SC 29582
Mailing Address: 150 West Church Avenue
Maryville, TN 37801
County: Horry
Previous Orders: None
Permit Number: 26-206-08190
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Ruby Tuesday #4256 (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on February 17, 2016, September 12, 2016, and March 10, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

83) Order Type and Number: Consent Order 2017-206-06-017
Order Date: July 13, 2017
Individual/Entity: **New China Buffet DBA Lucky Cho**
Facility: New China Buffet DBA Lucky Cho
Location: 1700 Highway 17 North
Surfside Beach, SC 29575
Mailing Address: Same
County: Horry
Previous Orders: 2016-206-06-089 (\$800)
Permit Number: 26-206-13065
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: New China Buffet DBA Lucky Cho (Individual/Entity) is a restaurant located in Surfside Beach, South Carolina. The Department conducted an inspection on June 14, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

84) Order Type and Number: Consent Order 2017-206-06-024
Order Date: July 13, 2017
Individual/Entity: **Ocean Dragon**
Facility: Ocean Dragon
Location: 1725 Highmarket Street
Georgetown, SC 29440
Mailing Address: Same
County: Georgetown
Previous Orders: 2016-206-06-018 (\$550)
Permit Number: 26-206-05831
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Ocean Dragon (Individual/Entity) is a restaurant located in Georgetown, South Carolina. The Department conducted an inspection on February 1, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of nine hundred fifty dollars **(\$950.00)**.

85) Order Type and Number: Consent Order 2017-206-06-029
Order Date: July 13, 2017
Individual/Entity: **Denny's #7849**
Facility: Denny's #7849
Location: 1200 Highway 17 North
Surfside Beach, SC 29575
Mailing Address: 800 South Kings Highway
Myrtle Beach, SC 29577
County: Horry
Previous Orders: None
Permit Number: 26-206-10284
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Denny's #7849 (Individual/Entity) is a restaurant located in Surfside Beach, South Carolina. The Department conducted inspections on May 9, 2016, January 6, 2017, and May 18, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

86) Order Type and Number: Consent Order 2017-206-06-030

Order Date: July 13, 2017
Individual/Entity: **Wicked Tuna**
Facility: Wicked Tuna
Location: 4123 Highway 17 South
Murrells Inlet, SC 29576
Mailing Address: Same
County: Georgetown
Previous Orders: 2016-206-06-087 (\$800)
Permit Number: 26-206-06214
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Wicked Tuna (Individual/Entity) is a restaurant located in Murrells Inlet, South Carolina. The Department conducted an inspection on March 3, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

87) Order Type and Number: Consent Order 2017-206-06-033
Order Date: July 13, 2017
Individual/Entity: **Harry the Hats**
Facility: Harry the Hats
Location: 351 Lake Arrowhead Road, Unit 114
Myrtle Beach, SC 29572
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-10835
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Harry the Hats (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on October 20, 2016, November 4, 2016, and April 4, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

88) Order Type and Number: Consent Order 2017-206-07-004
Order Date: July 13, 2017
Individual/Entity: **Grand Buffet**
Facility: Grand Buffet

Location: 4905 Center Pointe Drive
North Charleston, SC 29418
Mailing Address: Same
County: Charleston
Previous Orders: 2016-206-07-006 (\$800)
Permit Number: 10-206-06253
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Grand Buffet (Individual/Entity) is a restaurant located in North Charleston, South Carolina. The Department conducted an inspection on January 11, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

89) Order Type and Number: Consent Order 2016-206-03-113
Order Date: July 17, 2017
Individual/Entity: **Buddy's on Wilson #2**
Facility: Buddy's on Wilson #2
Location: 2453 Wilson Road
Newberry, SC 29108
Mailing Address: Same
County: Newberry
Previous Orders: None
Permit Number: 36-206-01104
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Buddy's on Wilson #2 (Individual/Entity) is a convenience store located in Newberry, South Carolina. The Department conducted inspections on September 17, 2014, September 3, 2015, August 23, 2016, and August 31, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain the premises free of insects, rodents, and other pests.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

90) Order Type and Number: Consent Order 2017-206-01-013
Order Date: July 17, 2017
Individual/Entity: **McDonald's**
Facility: McDonald's
Location: 1651 East Greenville Street
Anderson, SC 29621
Mailing Address: 2505 Brenda Drive

County: Anderson, SC 29625
Previous Orders: Anderson
2016-206-01-015 (\$800)
Permit Number: 04-206-04262
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: McDonald's (Individual/Entity) is a restaurant located in Anderson, South Carolina. The Department conducted an inspection on May 16, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to ensure written procedures were in place and made available to the Department when the facility uses Time as a Public Health Control.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

91) Order Type and Number: Consent Order 2017-206-02-006
Order Date: July 17, 2017
Individual/Entity: **Junction Too**
Facility: Junction Too
Location: 150 Simuel Road
Spartanburg, SC 29303
Mailing Address: P.O. Box 161299
Boiling Springs, SC 29316
County: Spartanburg
Previous Orders: None
Permit Number: 42-206-04320
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Junction Too (Individual/Entity) is a restaurant located in Spartanburg, South Carolina. The Department conducted inspections on April 5, 2017, May 15, 2017, and May 18, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; and failed to clean the physical facilities as often as necessary to keep them clean.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

92) Order Type and Number: Consent Order 2017-206-02-008
Order Date: July 17, 2017
Individual/Entity: **Bojangles #846**

Facility: Bojangles #846
Location: 7475 Augusta Road
Piedmont, SC 29673
Mailing Address: 9432 Southern Pine Boulevard
Charlotte, NC 28273
County: Greenville
Previous Orders: None
Permit Number: 23-206-09825
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Bojangles #846 (Individual/Entity) is a restaurant located in Piedmont, South Carolina. The Department conducted inspections on February 10, 2016, January 19, 2017, and January 30, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; failed to clean the physical facilities as often as necessary to keep them clean; and failed to keep food contact surfaces, nonfood contact surfaces, and utensils clean and free of accumulation of dust, dirt, food residue and other debris.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand dollars (**\$1,000.00**).

93) Order Type and Number: Consent Order 2017-206-06-008
Order Date: July 17, 2017
Individual/Entity: **PF Chang's China Bistro**
Facility: PF Chang's China Bistro
Location: 1190 Farrow Parkway
Myrtle Beach, SC 29577
Mailing Address: 7676 East Pinnacle Peak Road
Scottsdale, AZ 85255
County: Horry
Previous Orders: 2015-206-06-101 (\$800)
Permit Number: 26-206-10671
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: PF Chang's China Bistro (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on August 18, 2016, January 3, 2017, and May 24, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

94) Order Type and Number: Consent Order 2017-206-06-009
Order Date: July 17, 2017
Individual/Entity: **American Hero**
Facility: American Hero
Location: 4019 Broad Street
Loris, SC 29569
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-07513
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: American Hero (Individual/Entity) is a restaurant located in Loris, South Carolina. The Department conducted inspections on August 19, 2015, August 16, 2016, and January 23, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars **(\$550.00)**.

95) Order Type and Number: Consent Order 2017-206-06-023
Order Date: July 17, 2017
Individual/Entity: **New Ho Wah Restaurant Inc.**
Facility: New Ho Wah Restaurant Inc.
Location: 409 South Kings Highway
Myrtle Beach, SC 29577
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-08598
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: New Ho Wah Restaurant Inc. (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on September 19, 2016, November 10, 2016, and February 15, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to properly cool, cooked time/temperature control for safety foods; and failed to use effective methods to cool, cooked time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

96) Order Type and Number: Consent Order 2017-206-06-037
Order Date: July 17, 2017
Individual/Entity: **Dick's Last Resort**
Facility: Dick's Last Resort
Location: 4700 South Kings Highway
North Myrtle Beach, SC 29582
Mailing Address: Same
County: Horry
Previous Orders: 2016-206-06-104 (\$800)
Permit Number: 26-206-04011
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Dick's Last Resort (Individual/Entity) is a restaurant located in North Myrtle Beach, South Carolina. The Department conducted an inspection on March 9, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

97) Order Type and Number: Consent Order 2017-206-08-001
Order Date: July 17, 2017
Individual/Entity: **Sodexo/Hilton Head Middle**
Facility: Sodexo/Hilton Head Middle
Location: 55 Wilborn Road
Hilton Head Island, SC 29926
Mailing Address: P.O. Box 352
Buffalo, NY 14240
County: Beaufort
Previous Orders: None
Permit Number: 07-206-05016
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Sodexo/Hilton Head Middle (Individual/Entity) operates a cafeteria located in Hilton Head Island, South Carolina. The Department conducted inspections on January 12, 2017, January 13, 2017, and January 23, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to provide water at a temperature of at least 100°F through a mixing valve or combination faucet at the handwashing sink(s).

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of four hundred dollars **(\$400.00)**.

98) Order Type and Number: Consent Order 2016-206-06-143
 Order Date: July 18, 2017
 Individual/Entity: **Prosser's BBQ**
 Facility: Prosser's BBQ
 Location: 3750 Highway 17 Business
 Murrells Inlet, SC 29576
 Mailing Address: P.O. Box 801
 Murrells Inlet, SC 29576
 County: Georgetown
 Previous Orders: 2016-206-06-039 (\$800)
 Permit Number: 22-206-05675
 Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Prosser's BBQ (Individual/Entity) is a restaurant located in Murrells Inlet, South Carolina. The Department conducted an inspection on November 9, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

99) Order Type and Number: Consent Order 2016-206-06-148
 Order Date: July 18, 2017
 Individual/Entity: **Canton Express, LLC**
 Facility: Canton Express, LLC
 Location: 205 North Longstreet Street
 Kingstree, SC 29556
 Mailing Address: 1382 Fulton Street
 Kingstree, SC 29556
 County: Williamsburg
 Previous Orders: 2016-206-06-061 (\$800)
 Permit Number: 45-206-00421
 Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Canton Express, LLC (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on April 6, 2016, November 21, 2016, and January 20, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; and failed to store foods in a manner to prevent cross contamination.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

100) Order Type and Number: Consent Order 2017-206-06-042
Order Date: July 18, 2017
Individual/Entity: **McDonald's #31323**
Facility: McDonald's #31323
Location: 9527 Highway 707
Myrtle Beach, SC 29588
Mailing Address: 1741 McDonald Court
Myrtle Beach, SC 29588
County: Horry
Previous Orders: 2016-206-06-069 (\$800)
Permit Number: 26-206-09888
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: McDonald's #31323 (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted an inspection on April 5, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

101) Order Type and Number: Consent Order 2017-206-01-002
Order Date: July 20, 2017
Individual/Entity: **Hodges One Stop**
Facility: Hodges One Stop
Location: 4528 Main Street
Hodges, SC 29653
Mailing Address: 11 Landing Lane
Simpsonville, SC 29681
County: Greenwood
Previous Orders: None
Permit Number: 24-206-01993
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Hodges One Stop (Individual/Entity) is a convenience store located in Hodges, South Carolina. The Department conducted inspections on November 8, 2016, November 18, 2016, and December 30, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of five hundred fifty dollars **(\$550.00)**.

102) Order Type and Number: Consent Order 2017-206-01-006
Order Date: July 20, 2017
Individual/Entity: **Wilson's Snack Bar**
Facility: Wilson's Snack Bar
Location: 210 West Main Street
Clinton, SC 29325
Mailing Address: Same
County: Laurens
Previous Orders: None
Permit Number: 30-206-00230
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Wilson's Snack Bar (Individual/Entity) is a restaurant located in Clinton, South Carolina. The Department conducted inspections on November 28, 2016, November 29, 2016, and February 23, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; and failed to ensure there was no bare hand contact with ready-to-eat foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars **(\$800.00)**.

103) Order Type and Number: Consent Order 2017-206-03-010
Order Date: July 20, 2017
Individual/Entity: **Flaming Grill Supreme Buffet**
Facility: Flaming Grill Supreme Buffet
Location: 115 Afton Court
Columbia, SC 29212
Mailing Address: Same
County: Lexington
Previous Orders: None
Permit Number: 32-206-06518
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Flaming Grill Supreme Buffet (Individual/Entity) is a restaurant located in Columbia, South Carolina. The Department conducted inspections on December 8, 2016, March 22, 2017, and May 17, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper sanitization concentration for the warewashing (dish) machine.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of eight hundred dollars (**\$800.00**).

104) Order Type and Number: Consent Order 2017-206-06-010
Order Date: July 20, 2017
Individual/Entity: **McDonald's #07055**
Facility: McDonald's #07055
Location: 1734 Highway 17 North
Surfside Beach, SC 29577
Mailing Address: P.O. Box 245
Myrtle Beach, SC 29578
County: Horry
Previous Orders: 2016-206-06-020 (\$800)
Permit Number: 26-206-00977
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: McDonald's #07055 (Individual/Entity) is a restaurant located in Surfside Beach, South Carolina. The Department conducted an inspection on March 23, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to ensure written procedures were in place and made available to the Department when the facility uses Time as a Public Health Control.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

105) Order Type and Number: Consent Order 2017-206-06-018
Order Date: July 20, 2017
Individual/Entity: **Logan's Roadhouse #216**
Facility: Logan's Roadhouse #216
Location: 1136 Oak Forest Lane
Myrtle Beach, SC 29577
Mailing Address: 7751-C North Kings Highway
Myrtle Beach, SC 29572
County: Horry
Previous Orders: None
Permit Number: 26-206-09390
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Logan's Roadhouse #216 (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on February 25, 2016, January 4, 2017, and May 18, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods; failed to properly cool cooked time/temperature control for safety foods; and failed to keep food contact surfaces, nonfood contact surfaces, and utensils clean and free of accumulation of dust, dirt, food residue and other debris.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand dollars **(\$1,000.00)**.

106) Order Type and Number: Consent Order 2017-206-06-040
Order Date: July 20, 2017
Individual/Entity: **Texas Roadhouse**
Facility: Texas Roadhouse
Location: 760 Coastal Grand Circle
Myrtle Beach, SC 29577
Mailing Address: Same
County: Horry
Previous Orders: 2016-206-06-084 (\$800)
Permit Number: 26-206-10814
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Texas Roadhouse (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on January 8, 2016, May 3, 2016, and March 22, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to use effective methods to cool cooked time/temperature control for safety foods; and failed to properly cool cooked time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

107) Order Type and Number: Consent Order 2017-206-06-025
Order Date: July 21, 2017
Individual/Entity: **Finn McCool's**
Facility: Finn McCool's
Location: 501 Lake Arrowhead Road
Myrtle Beach, SC 29572
Mailing Address: Same
County: Horry
Previous Orders: None
Permit Number: 26-206-07933
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Finn McCool's (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted inspections on February 18, 2016, November 16, 2016, March 30, 2017, and April 6, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, six hundred dollars **(\$1,600.00)**.

108) Order Type and Number: Consent Order 2016-206-03-103
Order Date: July 24, 2017
Individual/Entity: **Cook Out**
Facility: Cook Out
Location: 515 West Main Street
Lexington, SC 29072
Mailing Address: 125 North Ridgewood Avenue,
Suite 200
Daytona Beach, FL 32114
County: Lexington
Previous Orders: 2015-206-03-126 (\$800)
Permit Number: 32-206-06183
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: Cook Out (Individual/Entity) is a restaurant located in Lexington, South Carolina. The Department conducted an inspection on August 3, 2016. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars **(\$1,200.00)**.

109) Order Type and Number: Consent Order 2017-206-03-008
Order Date: July 24, 2017
Individual/Entity: **The Yolk**
Facility: The Yolk
Location: 1912 Mt. Gallant Road, Suite 108
Rock Hill, SC 29732
Mailing Address: Same
County: York
Previous Orders: None
Permit Number: 46-206-03251
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: The Yolk (Individual/Entity) is a restaurant located in Rock Hill, South Carolina. The Department conducted inspections on December 2, 2016, January 27, 2017, March 23, 2017, and May 25, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, six hundred dollars **(\$1,600.00)**.

110) Order Type and Number: Consent Order 2017-206-05-003
Order Date: July 24, 2017
Individual/Entity: **E-Z Shop #11**
Facility: E-Z Shop #11
Location: 3295 Charleston Road
Orangeburg, SC 29115
Mailing Address: P.O. Box 330
Bamberg, SC 29003
County: Orangeburg
Previous Orders: None
Permit Number: 38-206-01254
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: E-Z Shop #11 (Individual/Entity) is a convenience store located in Orangeburg, South Carolina. The Department conducted inspections on April 18, 2017, April 27, 2017, and May 4, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of six hundred forty dollars **(\$640.00)**.

111) Order Type and Number: Consent Order 2017-206-06-041
Order Date: July 24, 2017
Individual/Entity: **The Breakfast House**
Facility: The Breakfast House
Location: 5023 Dick Pond Road, Unit 4
Myrtle Beach, SC 29588
Mailing Address: Same
County: Horry
Previous Orders: 2016-206-06-110 (\$800)
Permit Number: 26-206-13133
Violations Cited: S.C. Code Ann. Regs. 61-25

Summary: The Breakfast House (Individual/Entity) is a restaurant located in Myrtle Beach, South Carolina. The Department conducted an inspection on March 28, 2017. The Individual/Entity has violated the South Carolina Retail Food Establishment Regulation as follows: failed to maintain proper holding temperatures of time/temperature control for safety foods.

Action: The Individual/Entity is required to: operate and maintain the facility in accordance with the requirements of all applicable regulations, including S.C. Regs. 61-25; and pay a civil penalty in the amount of one thousand, two hundred dollars (**\$1,200.00**).

On-Site Wastewater Enforcement

112) Order Type and Number: Administrative Order 17-02-OSWW
Order Date: July 10, 2017
Individual/Entity: **Gilbert Mateus**
Facility: Gilbert Mateus
Location: 4 Goethe Road
Bluffton, SC 29910
Mailing Address: 81 Heritage Lake Drive
Bluffton, SC 29910
County: Beaufort
Previous Orders: None
Permit Number: None
Violations Cited: S.C. Code Ann. Regs. 61-56

Summary: Gilbert Mateus (Individuals/Entities) owns property located in Bluffton, South Carolina. The Department conducted a complaint investigation on November 28, 2016, and observed the discharge of wastewater to the ground surface. The Individuals/Entities have violated the South Carolina Onsite Wastewater (OSWW) Systems Regulation as follows: failed to ensure that no septic tank effluent or domestic wastewater or sewage was discharged to the surface of the ground without an appropriate permit from the Department.

Action: The Individuals/Entities are required to: repair the system immediately to stop the discharging of domestic wastewater to the ground surface, or immediately vacate the residence until repairs have been made to the OSWW system to eliminate the discharge of domestic wastewater to the ground surface.

113) Order Type and Number: Consent Order 17-04-OSWW
Order Date: July 7, 2017
Individual/Entity: **George Buffkin**
Facility: George Buffkin
Location: 1020 38th Avenue South
North Myrtle Beach, SC 29527
Mailing Address: 2600 Green Sea Road
Green Sea, SC 29582
County: Horry
Previous Orders: None
Permit Number: None
Violations Cited: S.C. Code Ann. Regs. 61-56

Summary: George Buffkin (Individual/Entity) owns property located in North Myrtle Beach, South Carolina. The Department conducted a complaint investigation on May 20, 2016,

and observed the discharge of wastewater to the ground surface. The Individual/Entity has violated the South Carolina Onsite Wastewater Systems (OSWW) Regulation as follows: failed to ensure that no septic tank effluent or domestic wastewater or sewage was discharged to the surface of the ground without an appropriate permit from the Department.

Action: The Individual/Entity is required to: immediately repair the OSWW system to stop the discharging of wastewater to the ground surface, or immediately vacate the residence to eliminate the discharge of wastewater to the OSWW system, and ensure the residence remains vacated until all repairs are made.

* Unless otherwise specified, "Previous Orders" as listed in this report include orders issued by Environmental Affairs Programs within the last five (5) years.

**BOARD OF HEALTH AND ENVIRONMENTAL CONTROL
SUMMARY SHEET**

September 7, 2017

(X) ACTION/DECISION
() INFORMATION

I. TITLE: Proposed Initial Groundwater Management Plan for the Lowcountry Capacity Use Area, the Pee Dee Capacity Use Area, and the Waccamaw Capacity Use Area: S.C. Code of Laws, Title 49, Chapter 5, *Groundwater Use and Reporting Act*

Legislative Review is not required.

II. SUBJECT: Request for Plan Approval

III. FACTS:

1. Pursuant to S.C. Code Section 49-5-60(B), the Department of Health and Environmental Control (Department) is directed to develop a groundwater management plan to achieve goals and objectives stated in Section 49-5-20.

2. 49-5-60 (B) states: "After notice and public hearing, the department shall coordinate the affected governing bodies and groundwater withdrawers to develop a groundwater management plan to achieve the goals and objectives stated in Section 49-5-20. In those areas where the affected governing bodies and withdrawers are unable to develop a plan, the department shall take action to develop the plan. The plan must be approved by the board before the department may issue groundwater withdrawal permits for the area."

3. The Board approved the initial Groundwater Management Plan for the Trident Capacity Use Area on May 11, 2017. The Department is proposing initial groundwater management plans for the Lowcountry Capacity Use Area, the Pee Dee Capacity Use Area, and the Waccamaw Capacity Use Area to the Board for approval. The Department has coordinated with local stakeholders to develop these plans and begins the process of establishing goals and processes to ensure sustainable growth of our groundwater resources. This is achieved by the establishment of five strategies outlined in the plans that support growth while conserving and protecting this valuable water resource. It should be noted the initial plans are based on current department procedures for evaluating permit applications and establishing conservation measures. As the plans are updated every five years, the most current information can be incorporated and the plan refined over time.

Therefore, to comply with this provision, the following actions were taken to invite stakeholder participation:

- A Notice of General Public Interest was published in the State Register on February 24, 2017

Lowcountry Management Plan Schedule

- June 27, 2017 – DHEC Stakeholder meeting (Yemassee)
- August 7, 2017 – DHEC Public Hearing (Yemassee)
- August 24, 2017 – Presentation to the Lowcountry COG Board

Pee Dee Management Plan Schedule

- June 19, 2017 - DHEC Stakeholder meeting (Florence)

- August 2, 2017 – DHEC Public Hearing (Florence)
- August 14, 2017 - Presentation to the Pee Dee COG Board

Waccamaw Management Plan Schedule

- June 12, 2017 - Presentation to the Waccamaw COG Board
 - July 10, 2017 - DHEC Stakeholder meeting (Conway)
 - August 16 – DHEC Public Hearing (Conway)
-
- The Comment period for all plans ended Friday, August 18, 2017

A copy of the Notice of General Public Interest is submitted as Attachment D. A summary of the public comments received and the Department’s responses is submitted as Attachment E.

4. Department staff requests the Board to grant approval of the proposed Initial Groundwater Management Plans for the Lowcountry, Pee Dee, and Waccamaw Capacity Use Areas.

IV. ANALYSIS:

The proposed Initial Groundwater Management Plans establish a management strategy for groundwater resources in the Lowcountry (Beaufort, Colleton, Hampton, and Jasper Counties), Pee Dee (Darlington, Dillon, Florence, Marion, Marlboro, and Williamsburg Counties) and Waccamaw (Georgetown and Horry Counties) Capacity Use Areas. All new permit requests, permit renewals and requests for permit modifications are on hold until groundwater management plans for each of the Capacity Use Areas can be finalized. Economic development and growth will be impacted if management plans are not put in place to allow the Department to issue new permits, permit renewals, and modifications to existing permits.

The initial plan relies on currently available data from the Department, the U.S. Geological Survey (USGS) and the South Carolina Department of Natural Resources (SCDNR). The data (actual groundwater use and actual groundwater levels) provide a basis for a scientifically sound analysis of proposed groundwater withdrawals. However, as more tools become available, such as the updated Groundwater Availability Model for the South Carolina Coastal Plain from the USGS and SCDNR, the groundwater management plan will be updated to incorporate these tools. The groundwater management plan includes a process for updates to the plan on a 5 year cycle to coincide with permit renewals for each of the Capacity Use Areas. Stakeholder participation is part of this process.

V. RECOMMENDATION:

Department staff recommends that the Board grant approval of the proposed Initial Groundwater Management Plan for the Pee Dee, Lowcountry, and Waccamaw Capacity Use Areas.

Submitted By:


Mark E. Hollis
Chief Bureau of Water
Environmental Affairs

Approved By


Myra C. Reece
Director of Environmental Affairs

Attachments:

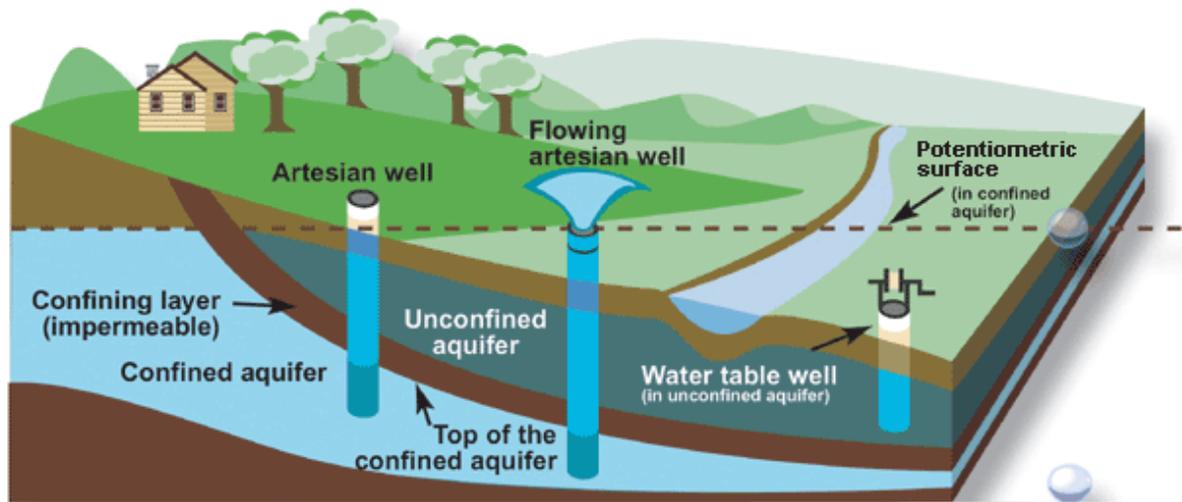
- A. Proposed Lowcountry Capacity Use Area Initial Groundwater Management Plan
- B. Proposed Pee Dee Capacity Use Area Initial Groundwater Management Plan
- C. Proposed Waccamaw Capacity Use Area Initial Groundwater Management Plan
- D. State Register Notice of General Public Interest, February 24, 2017
- E. Public Comment Summary

ATTACHMENT A

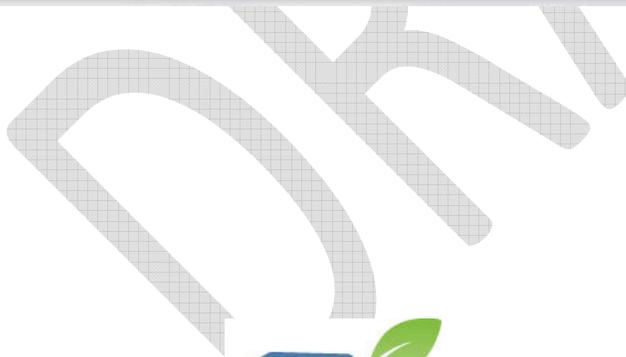
**PROPOSED LOWCOUNTRY CAPACITY USE AREA
INITIAL GROUNDWATER MANAGEMENT PLAN
AUGUST 2017**

INITIAL GROUNDWATER MANAGEMENT PLAN FOR THE LOWCOUNTRY CAPACITY USE AREA

Aquifers and wells



Source: Environment Canada, USGS



S.C. Department of Health and
Environmental Control

August 2017

Contents

Executive Summary	1
Introduction.....	2
Definitions.....	3
Regional Description	4
Groundwater Level Trends	9
Current Groundwater Demand.....	12
Groundwater Demand Trends.....	18
Population, Growth, and Water Use Projections	20
Groundwater Management Strategy	25
Groundwater Management Plan Reports.....	28
Upper Floridan Aquifer and Salt Water Intrusion	29

DRAFT

Executive Summary

South Carolina's Groundwater Use and Reporting Act (Chapter 5, Section 49-5-60) gives the South Carolina Department of Health and Environmental Control (DHEC) the legal authority and mandate to establish and implement a local groundwater management program in designated Capacity Use Areas. Effective groundwater management ensures that the groundwater resources of the State are put to beneficial use to the fullest extent which they are capable, conserves and protects the resource, prevents waste, and establishes conditions which are conducive to the development and long-term viability of the water resources. As aquifers and the relative social and economic requirements of the State vary by area and region, groundwater management should be locally and/or regionally assessed, balancing all needs and interests. In this regard, DHEC coordinates with local stakeholders to achieve the stated goals of the plan leading to sustainable development of the groundwater resources. Sustainable development is the key guiding principle, where South Carolina's groundwater resources are managed so that development meets the needs of the present without compromising the ability of future generations to meet their needs.

DRAFT

Introduction

On July 24, 1981, the South Carolina Water Resources Commission established and declared the whole of Jasper County, Beaufort County, and Colleton County as the *Lowcountry Capacity Use Area* (Lowcountry Area), Figure 1. Hampton County was added on June 10, 2008. The Lowcountry Area was the second of the four currently declared Capacity Use Areas in South Carolina. Within the Lowcountry Area, no person shall withdraw, obtain, or otherwise utilize groundwater at or in excess of three (3) million gallons per month for any purpose unless said person shall first obtain a Groundwater Withdrawal Permit from DHEC. A groundwater withdrawer is defined as any person withdrawing groundwater at or in excess of three (3) million gallons during any one month from a *single well* or *multiple wells* within a one-mile radius of any existing or proposed well.

A part of this designation is the development of the Lowcountry Area Groundwater Management Plan. The plan will guide the initial groundwater management strategy and provide direction for future groundwater management goals by evaluating, as data become available, the hydrologic, environmental, social, and economic impacts of groundwater withdrawals at various rates on the long-term sustainable levels for the aquifers of the Lowcountry Area. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their needs and requirements. Therefore, the three general goals of the Lowcountry Area Groundwater Management Plan are:

1. Ensure sustainable development of the groundwater resource by management of groundwater withdrawals;
2. The protection of groundwater quality from salt-water intrusion; and,
3. Monitoring of groundwater quality and quantity to evaluate conditions.

To accomplish the above goals, the Lowcountry Area Groundwater Management Plan will address the following aspects of water use in the Lowcountry region:

- Groundwater sources currently utilized;
- Current water demand by type and amount used;
- Current aquifer storage and recovery and water reuse;
- Population and growth projections;
- Water demand projections;
- Projected opportunities for aquifer storage and recovery, as well as water reuse;
- Projected groundwater and surface water options; and,
- Water conservation measures.

Planning is a multi-stage process that includes provisions for updating/amending as conditions change over time. In this first plan, only general goals can be established. As more data are developed about the groundwater resources of the Lowcountry Area, more specific goals and withdrawal limits will be incorporated.

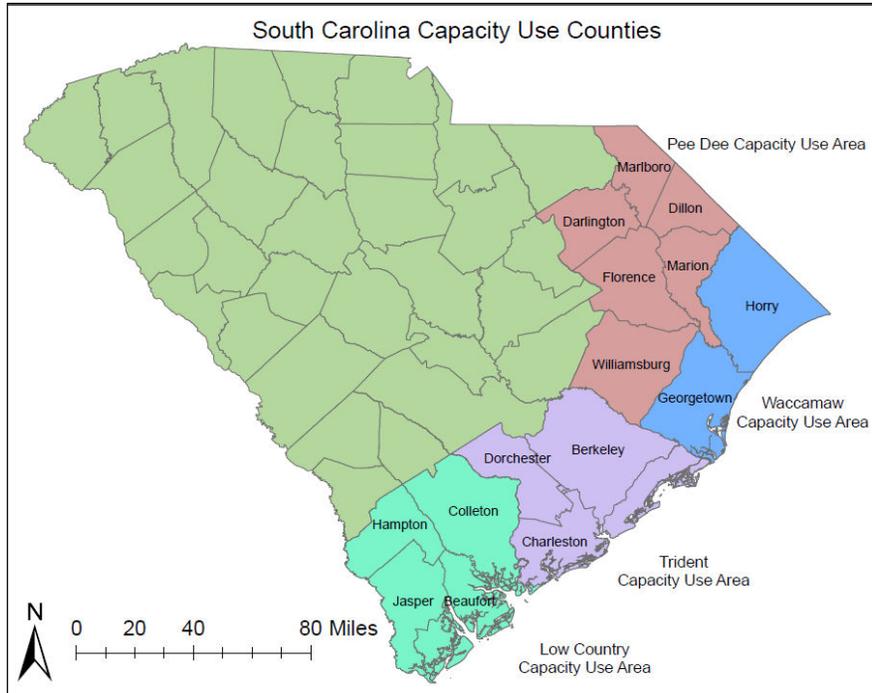


Figure 1. Capacity Use Areas.

Definitions

“Adverse Effects” – Undesirable consequences of withdrawing groundwater that may include: changes in water quality, significant reduction in water level of the aquifer, saltwater intrusion, land subsidence, and decreases in stream flow.

“Beneficial Use” - The use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is lawfully made.

“Best Management Plan” means a document that supports the design, installation, maintenance, and management of water conveyance systems and/or water withdrawal systems (water supply, commercial, industrial, agricultural, etc.), which promotes water conservation, and protects water quality.

“Person” means an individual, firm, partnership, association, public or private institution, municipality or political subdivision, local, state, or federal government agency, department, or instrumentality, public water system, or a private or public corporation organized under the laws of this State or any other state or county.

“Sustainable Yield” - ground-water sustainability as development and use of ground water in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences.

“Water User” - A person using groundwater for any purpose.

Geo-Political Structure

Currently, the four county Lowcountry Area contains twenty-four cities and towns and just under a quarter million people. This includes a few central cities surrounded by smaller cities, island communities, and rural towns. All four Counties use Council-Administrator forms of government. The majority of the municipalities in the region utilize a Mayor-Council form of government.

The SCDHEC has permit authority for all groundwater withdrawals in the Lowcountry Area. Permits will be issued after appropriate review in accordance with Chapter 5, The Groundwater Use and Reporting Act, Groundwater Use and Reporting Regulation, R.61-113, and the goals and management strategy developed in the Lowcountry Area Groundwater Management Plan.

Regional Description

Comprised of Beaufort, Colleton, Jasper and Hampton Counties, the Lowcountry Area covers 3,364.8 square miles, of which approximately 470 square miles are surface water. The Lowcountry area stretches approximately sixty miles through south western South Carolina, bordered by the Savannah River on the south, the Edisto River on the north, and the Atlantic Ocean on the east. The region extends some 67 miles inland towards the counties of Allendale and Bamberg to the northwest, and includes over 49 miles

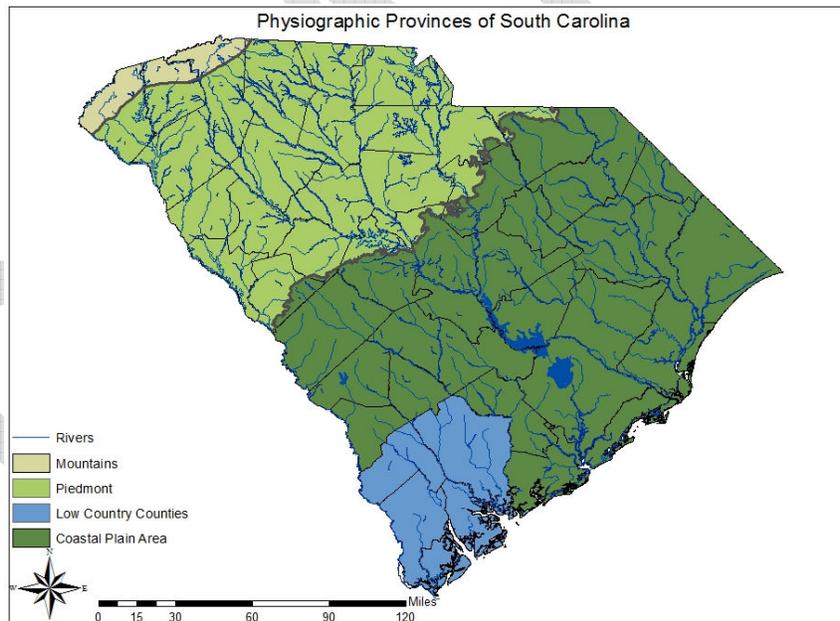


Figure 2. Physiographic provinces of South Carolina.

of Atlantic coastline. All four counties are located in the Coastal Plain physiographic region, Figure 2. There are several major water bodies in the area in addition to the Atlantic Ocean including numerous rivers such as the Edisto, Salkehatchie and Savannah Rivers and a network of streams, wetlands, and marshes, Figure 3. The topography of the region is very level with only slight undulations in the landscape. Elevations range from mean sea level to slightly over one hundred feet.

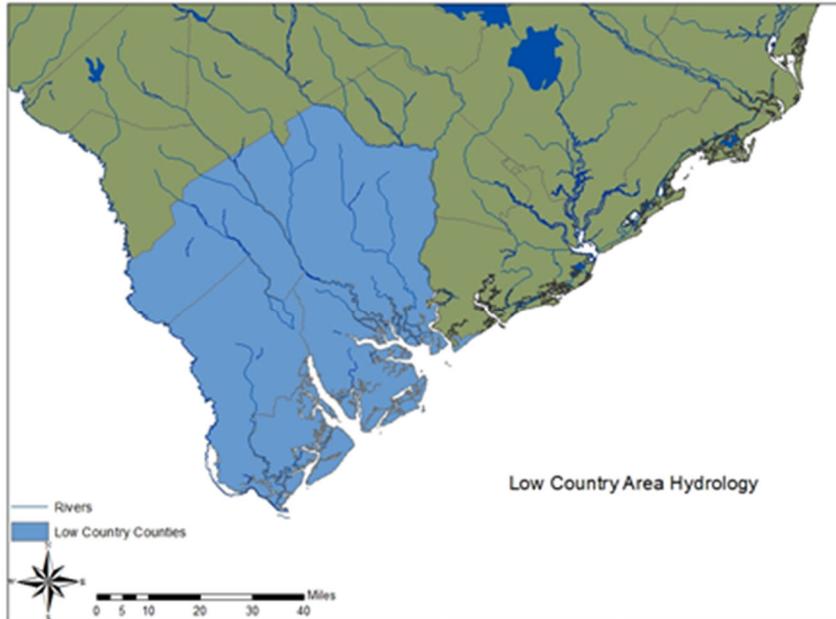


Figure 3. Hydrology of the Lowcountry.

The Lowcountry Area enjoys a relatively mild and moderate climate characteristic of its southeast US coastal location. Compared to overall State averages, winter temperatures are generally warmer and summers tend to be cooler and less humid. The average annual temperature is 65.8°F, with an average daily maximum of 74.5°F and a minimum of 57°F. Approximately forty percent of the forty-nine inches of average annual precipitation occurs during the summer months (Figure 4, and 5). Thunderstorms are most frequent during the summer and create relatively short durations of concentrated runoff.

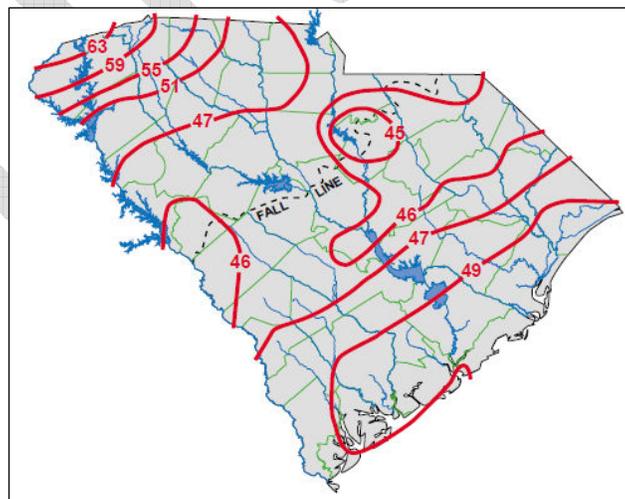


Figure 4. Average annual precipitation, in inches for the period 1948-1990. Source: South Carolina Department of Natural Resources (SCDNR)-Hydrology/Geology Map 2, R.N. Cherry, A.W. Badr, and Andrew Wachob, 2001.



Figure 5. Average annual water yield (precipitation less evapotranspiration), in inches, 1948-1990. Source: SCDNR-Hydrology/Geology Map 2, R.N. Cherry, A.W. Badr, and Andrew Wachob, 2001.

Groundwater Supplies

The oldest (and deepest) aquifers or water-bearing units underlying the Lowcountry Area are of Late Cretaceous age and comprise sediments that have been subdivided into four (4) aquifer systems (oldest to youngest): the Gramling, Charleston/McQueen Branch, Crouch Branch, and Gordon, Figure 6. These units are generally continental shelf to inner marine shelf and deltaic deposits and range from fine to medium grained sand, silts and clays. Water bearing zones typically are beds of sands of varying thickness and extent separated by silty, clayey beds or lenses.

- The Gramling Aquifer is not well defined and no known outcrop has been identified in South Carolina. It is thought to mainly consist of sand and gravel beds separated by thick layers of silt and clay.
- The Charleston/McQueen Branch Aquifer occurs throughout the Coastal Plain, from the Fall Line to the coast. The McQueen Branch crops out (catchment area) adjacent to the Fall Line from Chesterfield County to Edgefield County. In the Lowcountry Area the aquifer is generally composed of thin- to thick-bedded sands and clays deposited in marginal marine and/or lower delta plain environments. In the Lowcountry area, the McQueen Branch-Charleston aquifer is approximately 400 feet thick.
- The Crouch Branch Aquifer occurs throughout the Lower Coastal Plain and crops out in the eastern portion of the Coastal Plain from Lexington County to Dillon County. The aquifer is generally composed of thin- to thick-bedded sands and clays deposited in marginal marine and/or lower delta plain environments. In the Lowcountry area, the Crouch Branch is approximately 400-800 feet thick.

Units overlying the Late Cretaceous formations include the Tertiary age Gordon, Floridan, and Surficial Formations, Figure 6. These units range from marginal marine to outer shelf deposits and their lithologies consist predominantly of sand, silt, and clay, with the upper part being mainly pure to impure limestone.

- The Gordon Aquifer extends from its catchment area in the middle of the Lower Coastal Plains to the southwest. In the Lowcountry area, the Gordon is approximately 300 feet thick.
- The Floridan Aquifer occurs throughout the southern portion of the coastal plain. In the Lowcountry Area, the Floridan aquifer ranges from approximately 310-500 feet thick.
- The Tertiary units are overlain by a sequence of sand, silt, clay, and shells of Pleistocene age that are generally not more than fifty feet thick.

Source: (Bruce G. Campbell, 2010 Hydrogeologic Framework of the Atlantic Coastal Plain, North and South Carolina: U.S. Geological Survey Professional Paper 1773, pp. 71-76)

Groundwater recharge occurs with infiltration of precipitation in catchment (recharge) areas. Figure 7 depicts the general recharge or catchment areas for the aquifers of the Lowcountry Area. Although limited recharge of the Tertiary Sand/Limestone Aquifer occurs in the Lowcountry area, the majority of recharge of aquifers in the area occurs mainly north of the region proper.

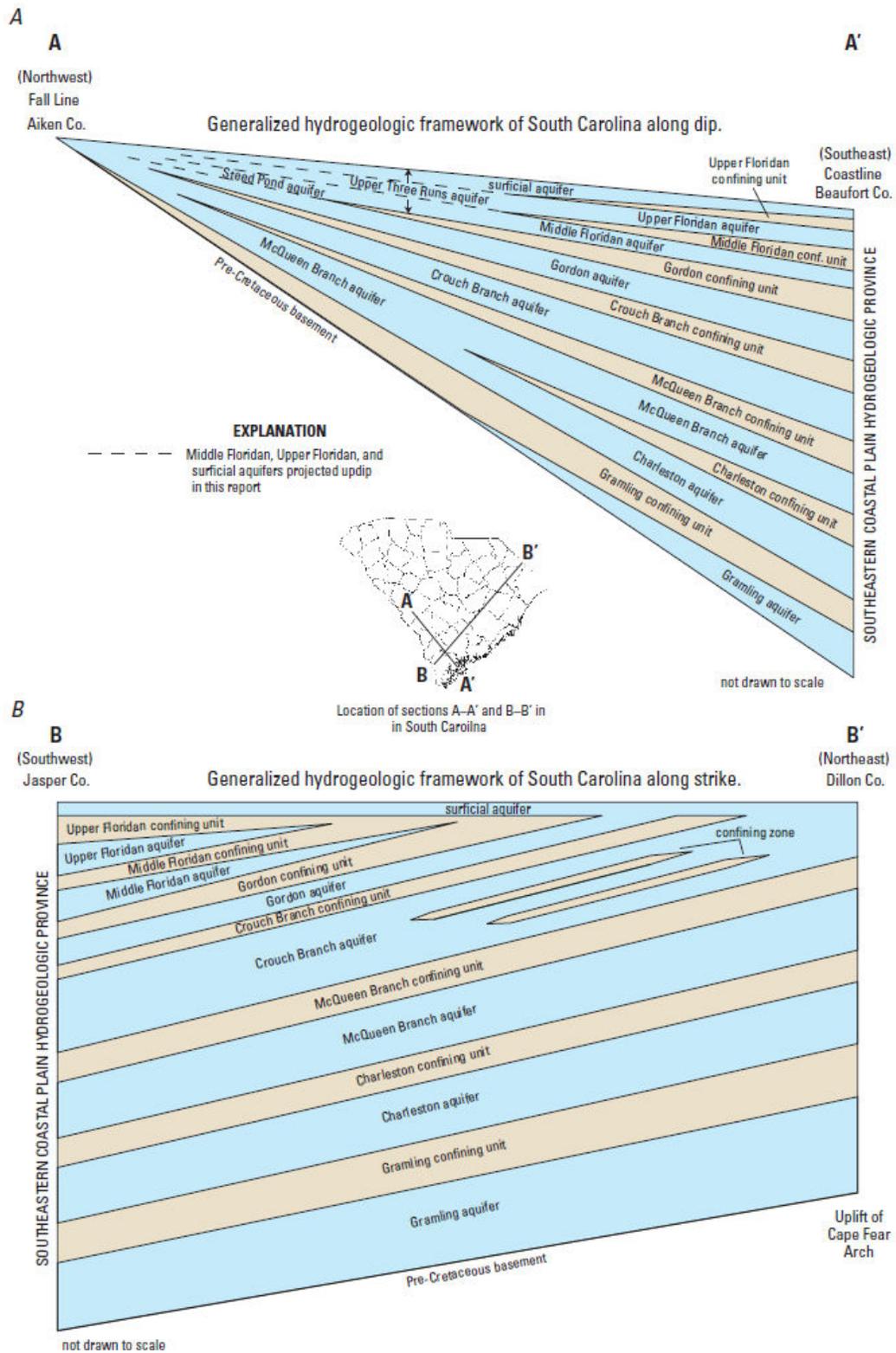


Figure 6. Generalized hydrogeologic framework, J. Gellici and J. Lautier, 2010 *Hydrogeologic Framework of the Atlantic Coastal Plain, North and South Carolina: U.S. Geological Survey Professional Paper 1773*, 113p.

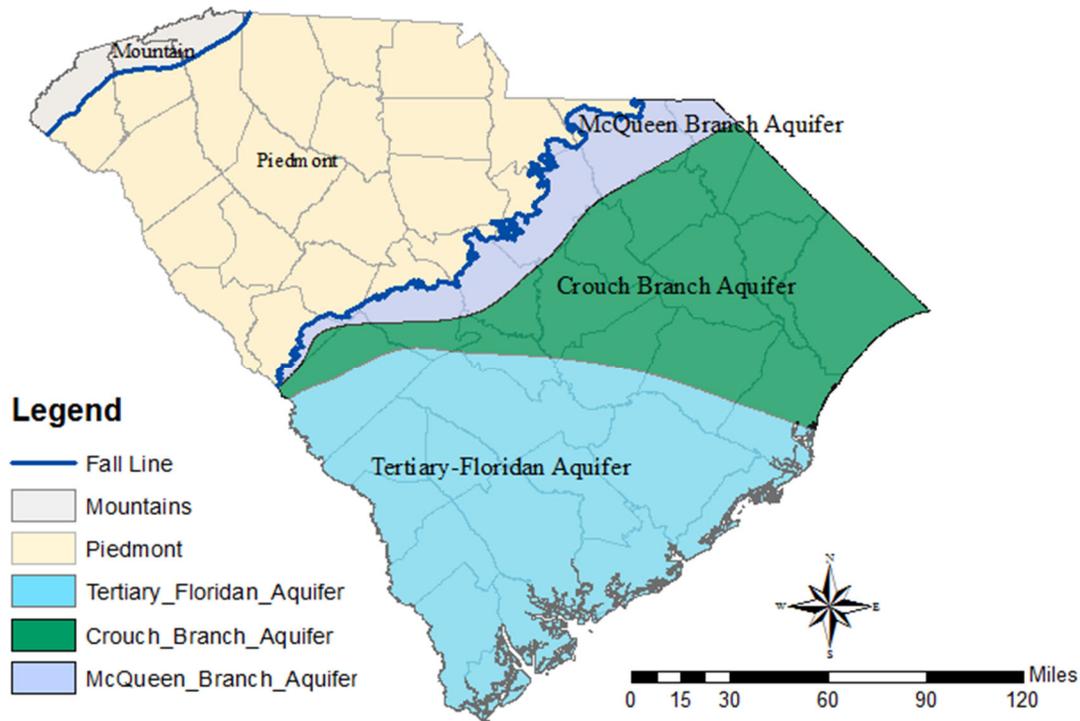


Figure 7. Generalized aquifer recharge areas.

Groundwater Level Trends

Groundwater levels in the Floridan Aquifer System have declined over the period from pre-development (1879) to the present in the Lowcountry Area. Much of this decline is attributed to public water supply and irrigation usage. In 2004, the potentiometric surfaces of the Atlantic Coastal Plain aquifers were mapped in detail. The most prominent feature within the Tertiary aquifer system is the large water-level decline associated with pumping at Savannah, GA, and Hilton Head, SC. Much of the updip area of the Tertiary aquifers, however, is unaffected by pumping and is, therefore, close to pre-development conditions. (Bruce G. Campbell, 2010 Professional Paper 1773, pp.9) Since 2004, there has been a large decline in groundwater use, this decline in use has positively affected the aquifer systems underlying the Lowcountry Area. These improvements in groundwater levels can be seen through the potentiometric maps published by the South Carolina Department of Natural Resources. Water-levels in the Floridan Aquifer System have rebounded up to 20 feet in certain areas, primarily in the most affected region, Beaufort County. As the population is anticipated to continue growing in the area, expected to reach 304,300 in 2030, the practices that have been adopted to limit the use and over-pumping of groundwater will be especially important. With consistent practice, the water-levels in the area should continue to rise.

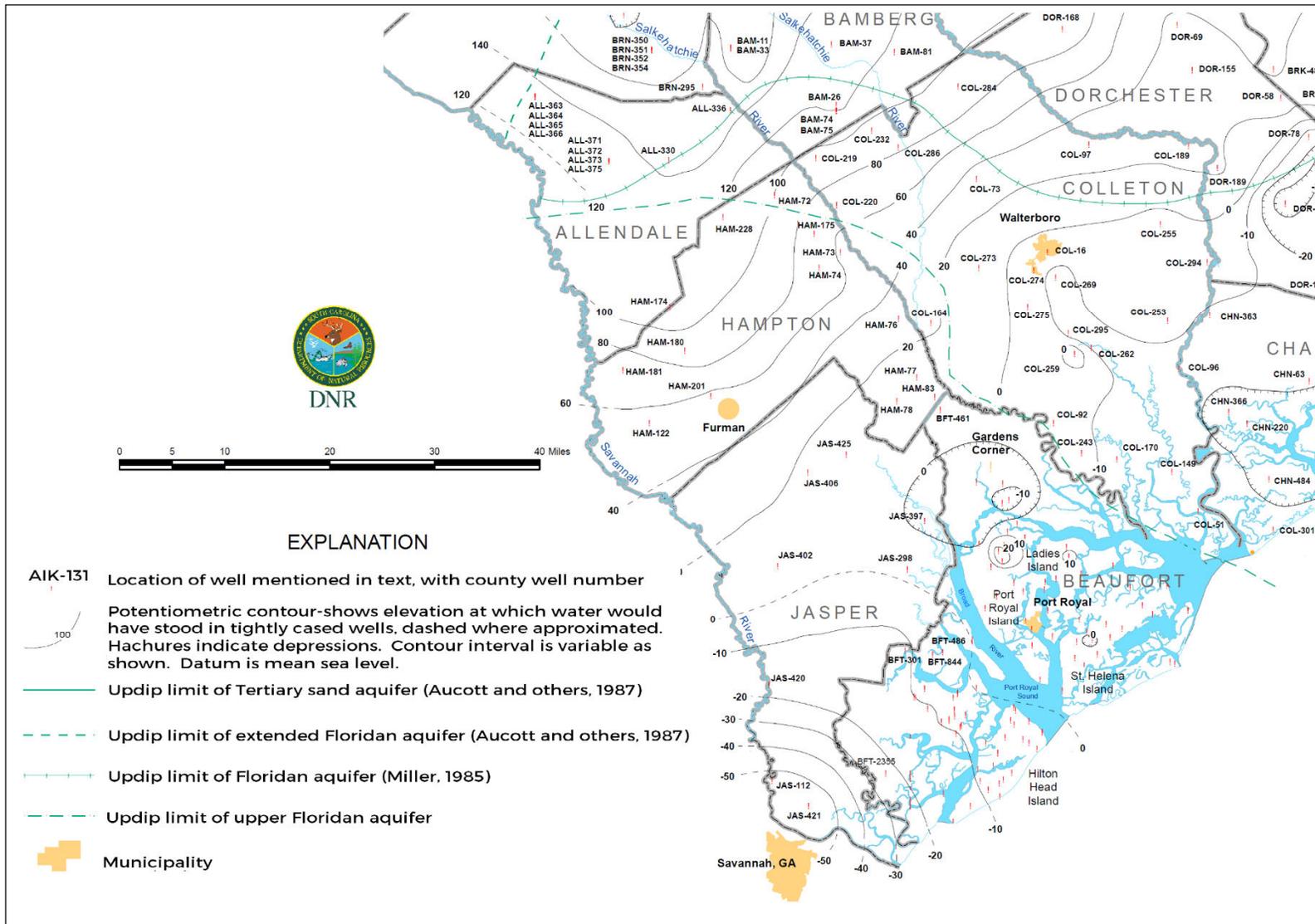


Figure 8. Water level map for the Floridan and Tertiary Sands Aquifer, 2004. Source: Hockensmith, 2009, SCDNR Water Resources Report 48.

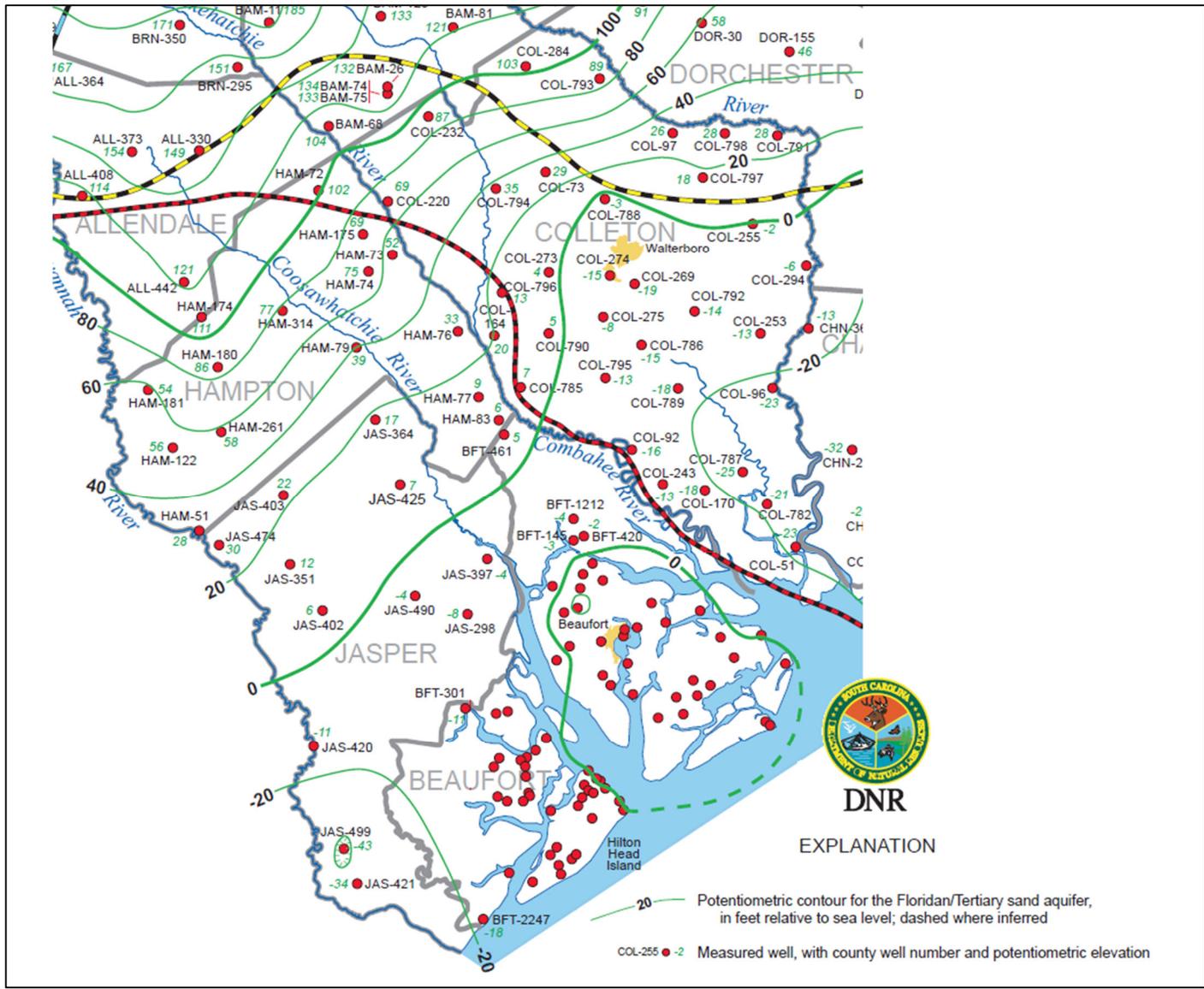


Figure 9. Water level map of the Floridan and Tertiary Sands Aquifer, 2013. Source: Wachob, 2014, SCDNR Water Resources Report 56.

Current Groundwater Demand

For purposes of water use reporting, DHEC defines the following groundwater withdrawal categories:

- Aquaculture (**AQ**)– Water used for raising, farming and/or harvesting of organisms that live in water, such as fish, shrimp and other shellfish and vegetal matter (seaweed),
- Golf course irrigation (**GC**)- Water applied to maintain golf course turf, including tee boxes, fairways, putting greens, associated practice areas and periphery aesthetic landscaping,
- Industrial process (**IN**)- Water used for commercial and industrial purposes, including fabrication, processing, washing, in-plant conveyance and cooling,
- Agricultural and aesthetic irrigation (**IR**)- Water that is used for agricultural and landscaping purposes including turf farming and livestock management.
- Mining process (**MI**)- Water used in mine operations, including mining, processing, washing and cooling,
- Water supply (**WS**)- Water withdrawn by public and private water suppliers and conveyed to users or groups of users. Water suppliers provide water for a variety of uses including domestic, commercial, industrial and public water use.

Currently in the Lowcountry Area there are 129 **permitted** groundwater withdrawers distributed as follows: 26 WS, 32 GC, 2 IN, 65 IR, 2AQ, and 2 OT. These 129 facilities have 446 wells of which 445 are currently active, Figure 10.

Table 1. Permitted Groundwater Withdrawers by County.

	BEAUFORT	COLLETON	HAMPTON	JASPER		
Category	No. Facilities	No. Facilities	No. Facilities	No. Facilities	Total	% Withdrawers
Aquaculture	1	-	1	-	2	1.55%
Golf Courses	26	2	1	3	32	24.81%
Industry	1	-	1	-	2	1.55%
Irrigation	15	8	31	11	65	50.39%
Other	1	1	-	-	2	1.55%
Public Water Supply	12	2	7	5	26	20.16%
Total	56	13	41	19	129	
% Withdrawers	43.41%	10.08%	31.78%	14.73%		

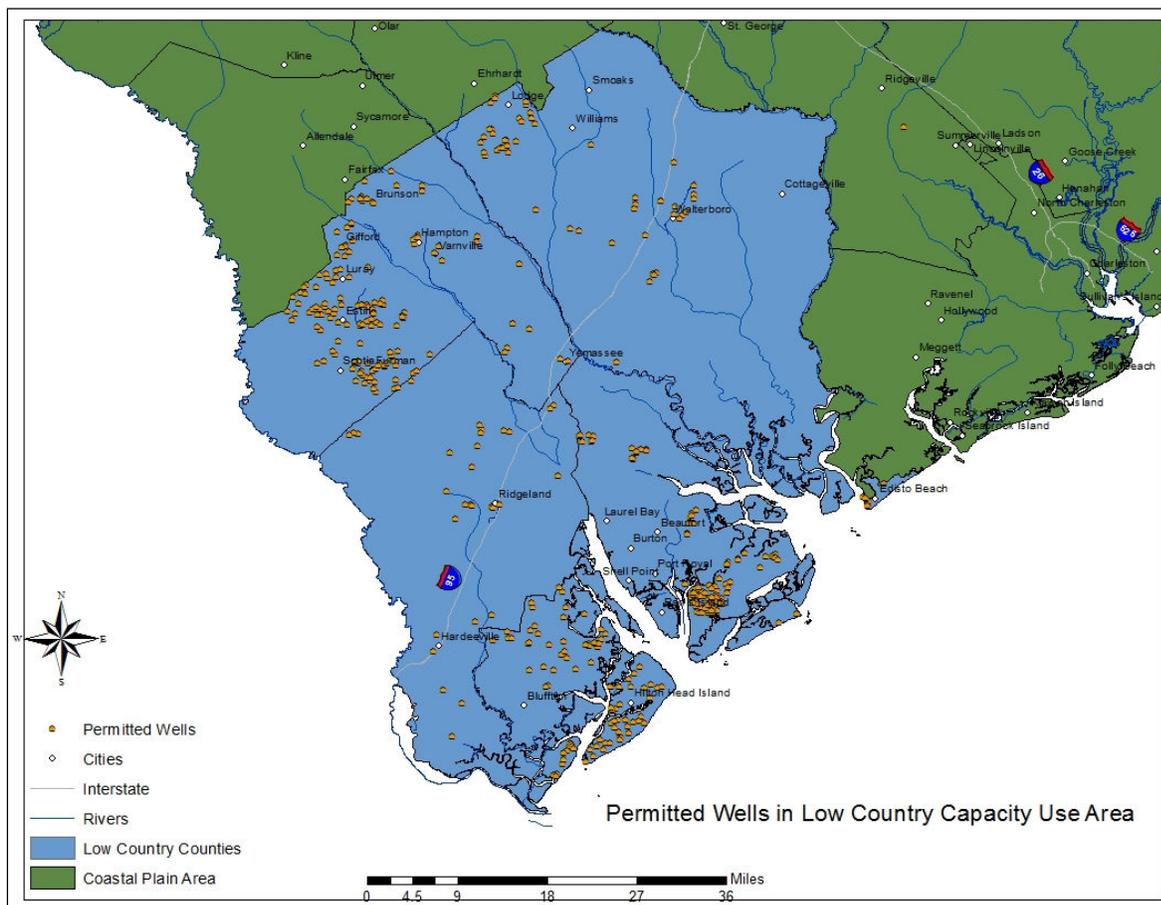


Figure 10. Locations of permitted groundwater withdrawals.

During the period 2010 through 2015, total reported groundwater withdrawals for the Lowcountry Area averaged 12,784.4 million gallons per year or approximately 35.03 million gallons per day (MGD). Withdrawals for water supply averaged 6,042.5 million gallons per year or approximately 16.55 MGD, agricultural irrigation use averaged 5,121.2 million gallons per year or approximately 14.03 MGD, and remaining withdrawal categories averaged 405.16 million gallons per year or approximately 1.11 MGD. For reporting year 2015, withdrawers in Beaufort county reported total withdrawals of 5,907,870,000 gallons (approximately 5.91 billion gallons), Colleton county 3,002,870,000 gallons (approximately 3 billion gallons), and Hampton county 2,705,320,000 gallons (approximately 2.7 billion gallons), and Jasper county 595,580,000 gallons (approximately 595 million gallons). Reported usage by category for 2015 is listed in Table 2 and shown in Figure 11.

Table 2. Reported Groundwater Use by Category of Use, 2015

2015 Reported Groundwater Use						
Category	Beaufort	Colleton	Hampton	Jasper	Totals MGY	Totals MGD
Aquaculture	34.05	-	108.20	-	142.25	0.39
Golf Courses	729.00	34.70	16.56	23.21	803.48	2.20
Industry	32.01	-	51.20	-	83.21	0.23
Irrigation	565.66	2,215.60	2,129.94	278.19	5,189.39	14.22
Other	26.44	20.55	-	-	46.99	0.13
Public Water Supply	4,520.71	732.02	399.42	294.18	5,946.33	16.29
Totals MGY	5,907.87	3,002.87	2,705.32	595.58	12,211.64	33.46
Totals MGD	16.19	8.23	7.41	1.63	33.46	

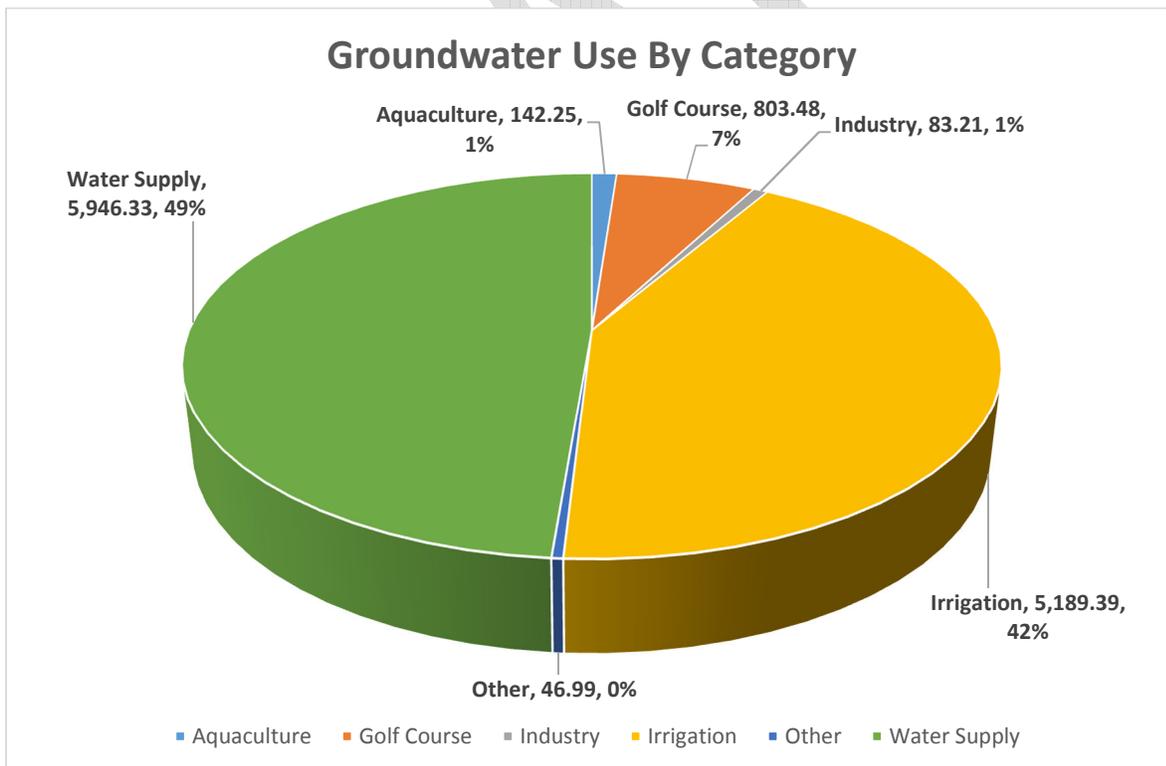


Figure 11. Reported groundwater use by category, 2015.

For the Lowcountry Area in 2015 reported groundwater withdrawals from the Surficial aquifer were 30,700,000 gallons (0.084 MGD), the Floridan aquifer were 8,485,700,000 gallons (23.249 MGD), the Gordon aquifer 1,052,700,000 gallons (2.884 MGD), the Crouch Branch aquifer 1,842,800,000 gallons (5.049 MGD), the McQueen Branch aquifer 275,230,000 gallons (0.754 MGD), and the Gramling aquifer 524,510,000 gallons (1.437 MGD). Groundwater withdrawals by aquifer/county are presented in Table 3 and Figure 12. In 2015, Beaufort County used 49.38% of the region's water usage while Colleton County used 24.59%, Hampton County used 22.15%, and Jasper County used 4.88%.

Table 3. Reported Groundwater Use (Million Gallons) By Aquifer and County, 2015.

2015 Reported Totals Use (Million Gallons)							
	Beaufort	Colleton	Hampton	Jasper	Aquifer Total	Million Gallons/Day	% Reported Total
Surficial	30.70	-	-	-	30.70	0.084	0.25%
Floridan	5,284.32	350.55	2,255.26	595.583	8,485.70	23.249	69.49%
Gordon	68.35	599.99	384.37	-	1,052.70	2.884	8.62%
Crouch Branch	-	1,777.10	65.70	-	1,842.80	5.049	15.09%
McQueen Branch	-	275.23	-	-	275.23	0.754	2.25%
Gramling	524.51	-	-	-	524.51	1.437	4.30%
Total	5,907.87	3,002.87	2,705.322	595.583	12,211.64	33.457	100.00%
% County Use	48.38%	24.59%	22.15%	4.88%			

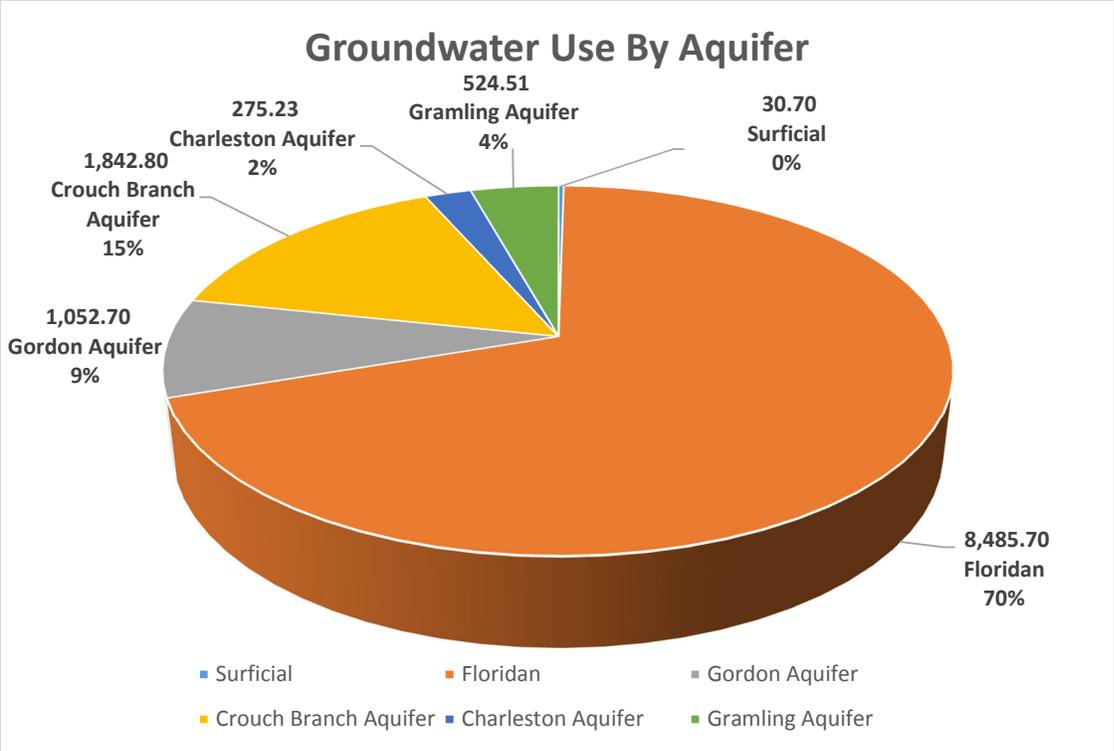


Figure 12. Reported groundwater use by aquifer, 2015.

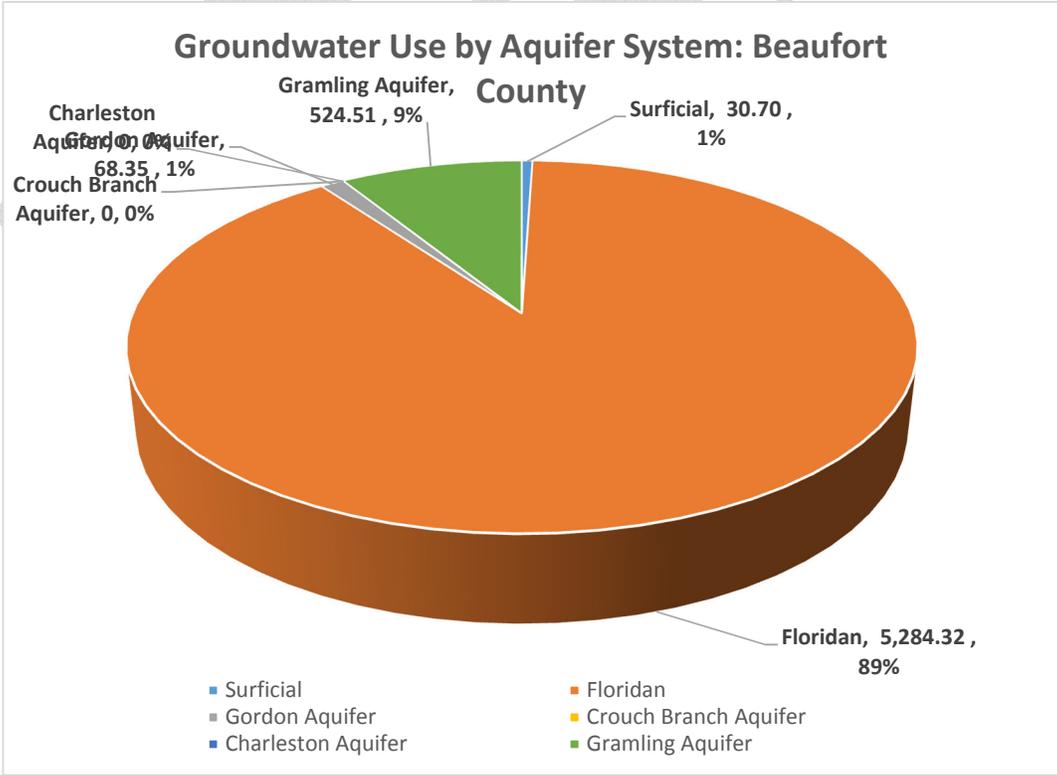


Figure 13. Reported groundwater use by aquifer for Beaufort County, 2015.

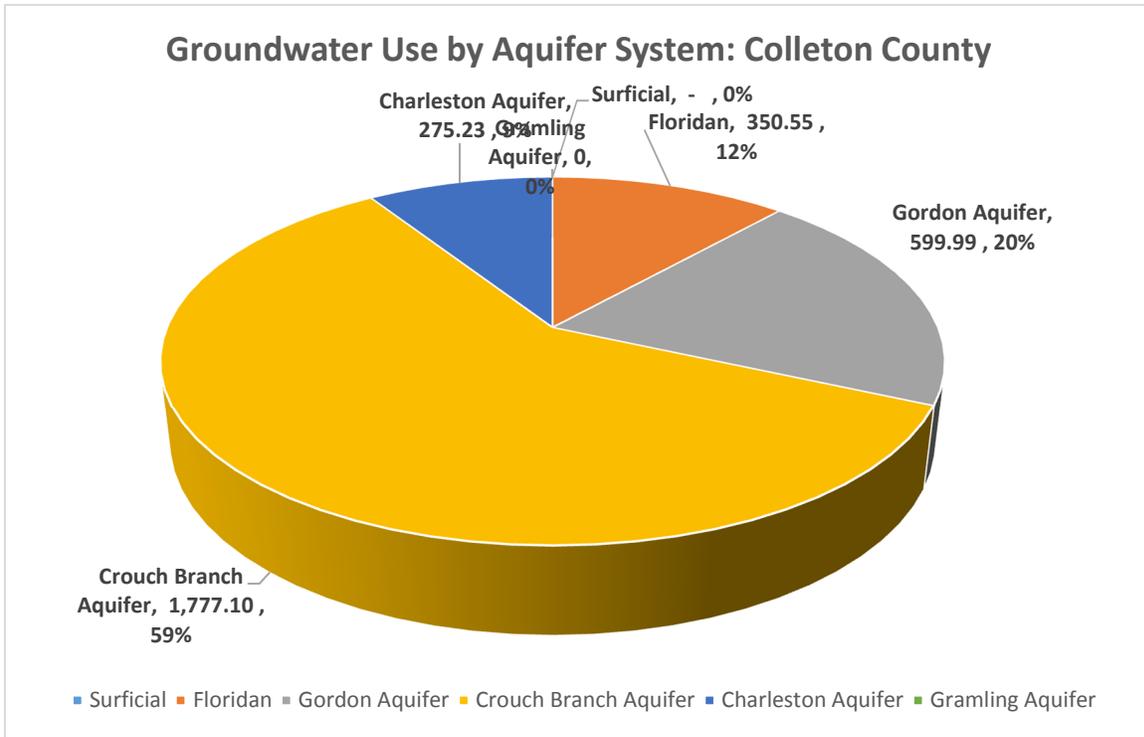


Figure 14. Reported groundwater use by aquifer for Colleton County, 2015.

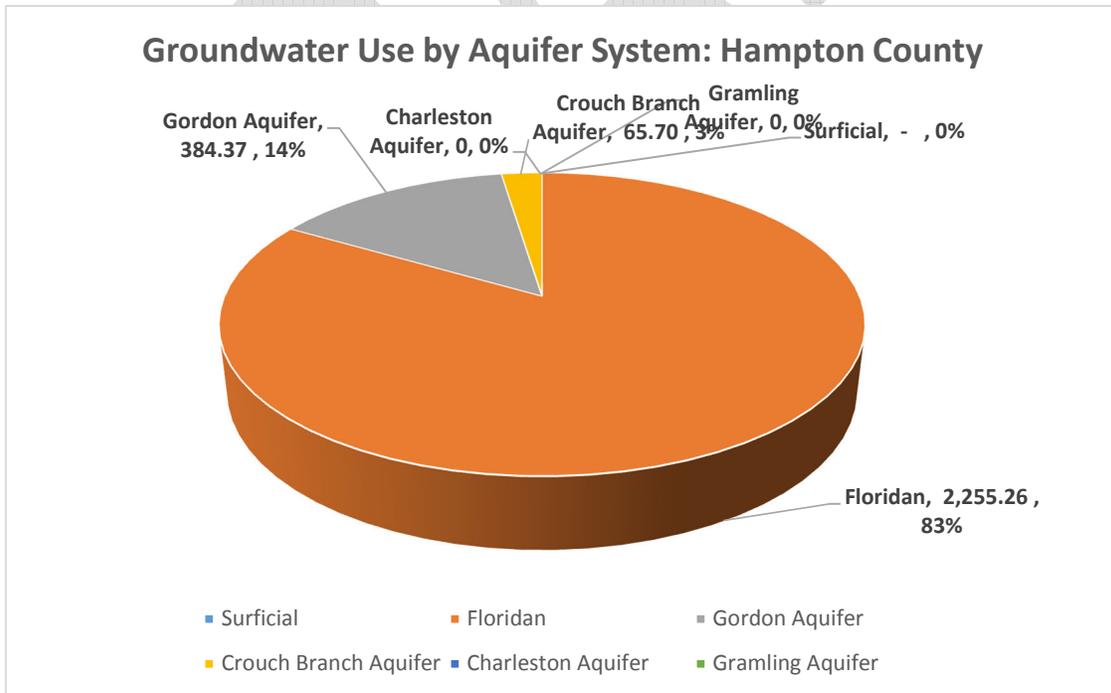


Figure 15. Reported groundwater use by aquifer for Hampton County, 2015.

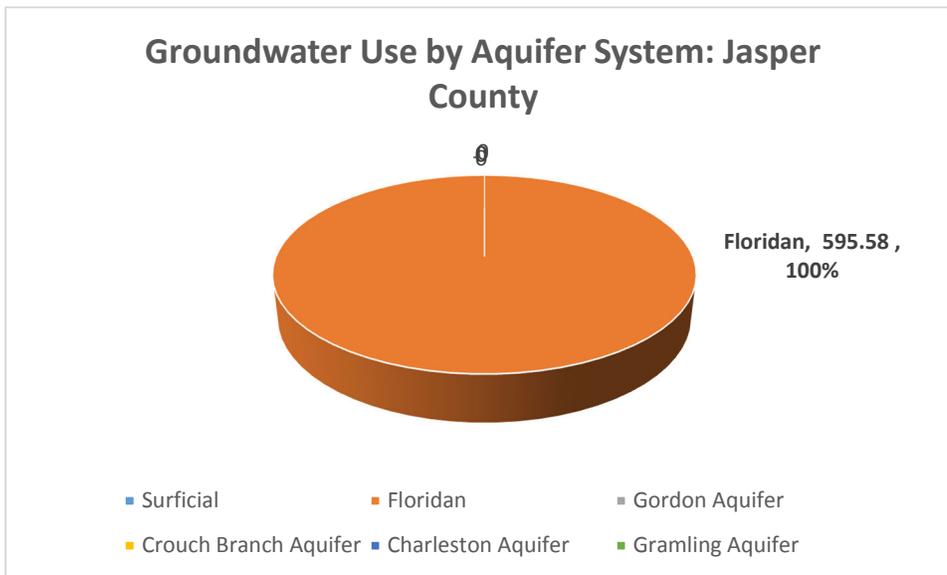


Figure 16. Reported groundwater use by aquifer for Jasper County, 2015.

Groundwater Demand Trends

To provide an historical perspective on reported groundwater use in the Lowcountry Capacity Use Area, Figures 17 and 18 show reported use by category of use. Since 1996, the reported permitted use of groundwater for public water supply has remained relatively steady. The reported use for industry has declined since 2002. Between 1996 and 2010, the reported use for golf courses showed an increasing trend. After 2010, golf course reported use of groundwater declined. Reported irrigation use has shown an increase after 2004. Comparing 2004 reported groundwater use data:

- Public water supply reported use was 5,896 million gallons in 2004 and 5,946 million gallons in 2015.
- Industrial use has declined from 537 million gallons in 2004 to 83 million gallons in 2015.
- Reported groundwater use for Golf Courses declined from 1656 million gallons in 2004 to 803 million gallons in 2015.
- Reported use for irrigation has increased however, from 2,797 million gallons in 2004 to 5,189 million gallons in 2015.

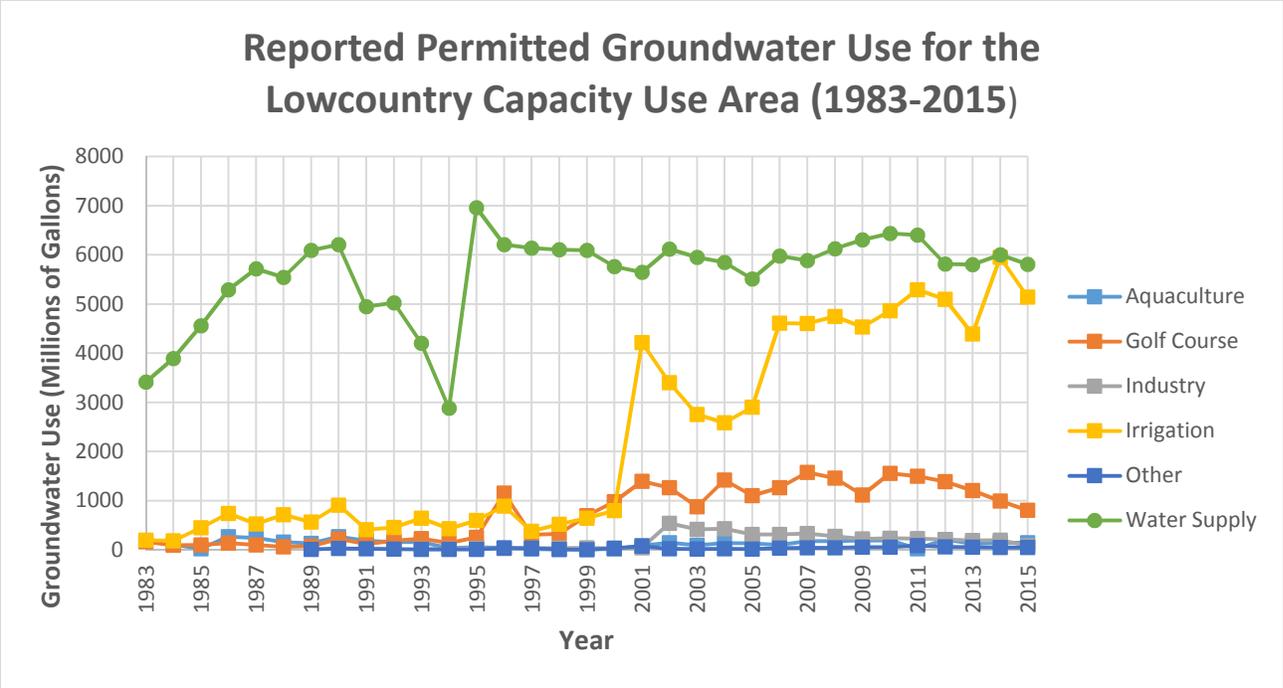


Figure 17. Reported permitted groundwater use for the Lowcountry Capacity Use Area, 1983-2015.

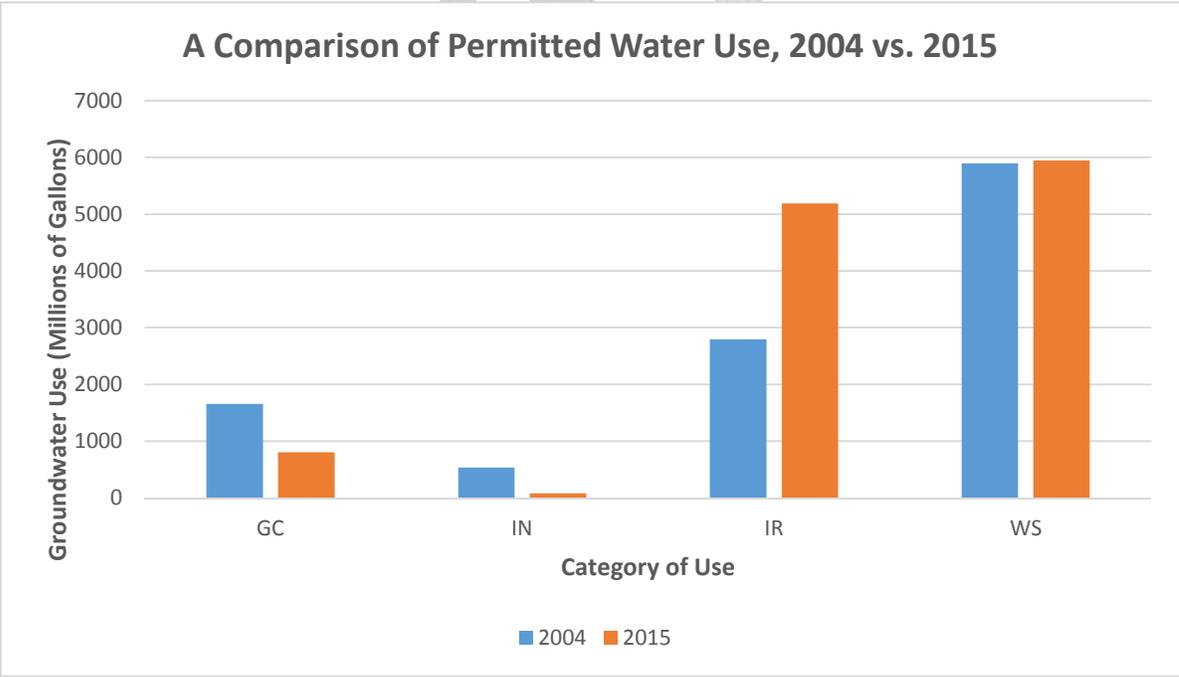


Figure 18. A comparison of reported groundwater use for 2004 to 2015.

Population, Growth, and Water Use Projections

As with coastal communities around the nation, the population in the Lowcountry Area has increased dramatically, rising over 54 percent the last 10 years. At the time of the 2010 Census, over 240,000 people were living in the region. Since the 2000 Census, Beaufort County experienced the largest percent increase in population, followed by Jasper and Colleton Counties, as shown in Table 4.

Table 5 depicts population projections for the three counties and the region as a whole from 2000 to 2030 presented in the *South Carolina Statistical Abstract, 2010*, as prepared by the Office of Revenue and Fiscal Affairs, South Carolina Department of Administration. The region is expected to grow by more than 103,035 people between 2000 and 2030, an increase of 51.2 percent. Beaufort County is projected to experience the largest percent increase, followed by Jasper and Colleton Counties.

Table 4. County Population Change 2000-2010.

Area	2000	2010	Number Change	Percent Change
Beaufort County	120,937	162,233	41,296	34.1%
Colleton County	38,264	38,892	628	1.6%
Hampton County	21,386	21,090	296	-1.4%
Jasper County	20,678	24,777	4,099	19.8%

Source: US Census Bureau & SC State Data Center

Table 5. County Projected Population Change, 2000-2030.

County	2000	2010	2015	2020	2025	2030	Number Change	Percent Change
Beaufort	120,937	162,233	175,900	189,500	202,400	215,300	94,363	78 %
Colleton	38,264	38,892	39,000	39,200	39,300	39,500	1,236	3.2%
Hampton	21,386	21,090	21,000	20,900	20,800	20,700	-686	-3.2%
Jasper	20,678	24,777	26,000	27,300	28,000	28,800	8,122	39.3%
Lowcountry Total	201,265	246,992	261,900	276,900	290,500	304,300	103,035	51.2%

Source: <http://abstract.sc.gov/chapter14/pop5.html>, SC Statistical Abstract, Table 5, Status of Population Projections Based on the 2010 Census Data, South Carolina Revenue and Fiscal Affairs Office).

Permitted withdrawal limits in the Lowcountry Area are 32,525.94 million gallons per year. Total reported usage for 2015 in the Lowcountry Area was 12,211.643 million gallons (Table 6 through 8).

Table 6. Permit limits versus reported use (million gallons) for Beaufort County.

Beaufort								
Permit	Permitted Amount	Reported 2015 Use	Permit	Permitted Amount	Reported 2015 Use	Permit	Permitted Amount	Reported 2015 Use
07AQ002	36	34.047	07GC039	50	40.657	07IR060	84	20.382
07GC005	36	4.332	07GC040	128	27.645	07IR064	45.783	8.12
07GC009	75	40.344	07GC041	14	13.933	07IR066	26.93	22.222
07GC012	25.261	0.387	07GC045	60	14.005	07IR067	89.76	33.606
07GC013	27.35	24.881	07GC046	100	56.1	07IR068	105	18.1
07GC017	88.5	81.1	07GC047	85	36.956	07OT021	54	26.44
07GC018	60	20.88	07GC048	60	3.732	07WS005	300	13.134
07GC019	48	9.9	07GC049	55	6.96	07WS014	583.8	555.8331
07GC022	175	74.9709	07IN005	48	32.008	07WS016	3,520.256	1,424.122
07GC024	43.49	13.617	07IR003	60.3	30.102	07WS017	895.942	281.8197
07GC026	96	32.41	07IR007	300	170.4	07WS018	1,961.27	1,299.47
07GC028	149.5	0	07IR008	25	3.838	07WS028	49.116	2.614
07GC030	110	24.9	07IR016	65	28.62	07WS032	75	43.558
07GC031	97.5	5.12	07IR018	99.063	44.362	07WS051	49.116	13.148
07GC032	62.9	20.31	07IR054	159.8	68.349	07WS052	3,520.256	105.85
07GC034	75	4.16	07IR056	84	26.926	07WS053	3,520.256	634.158
07GC036	75	55.5	07IR057	116.6	53.852	07WS054	3,520.256	143.218
07GC037	75	34.8	07IR058	98	18.54	07WS055	20	3.783
07GC038	170	81.405	07IR059	45	18.241			
Totals							21,599.01	5,907.87

Table 7. Permit limits versus reported use (million gallons) for Colleton and Hampton Counties.

Colleton			Jasper					
Permit	Permitted Amount	Reported 2015 Use	Permit	Permitted Amount	Reported 2015 Use	Permit	Permitted Amount	Reported 2015 Use
15GC001	80	6.4	27GC002	50	10.971	27IR011	22	5.969
15GC003	72	28.3	27GC003	36	0	27IR013	42	10.2
15IR007	35	8.4	27GC051	223	12.24	27IR014	70	23.853
15IR012	2,294.4	2,205	27IR001	85.528	51.05	27IR046	190	46.01
15IR016	42	0.189	27IR004	200	65.257	27IR047	44	9.31
15IR017	15	2.01	27IR007	30	2.538	27WS001	10	16.656
15OT002	84	20.548	27IR008	45	11.649	27WS002	679	243.188
15WS001	778.3	579.13	27IR009	44.1	6.024	27WS004	250.7	17.014
15WS002	256	152.89	27IR010	63.5	46.333	27WS005	83.87	14.739
Totals	3656.70	3002.87				27WS006	4	2.582
						Totals	2,172.70	595.583

<i>Hampton</i>								
Permit	Permit Amount	Reported 2015 Use	Permit	Permit Amount	Reported 2015 Use	Permit	Permit Amount	Reported 2015 Use
25AQ033	190	108.2	25IR034	36	16.1	25IR067	20.2	50.3
25GC012	57.72	16.56	25IR051	20	13.5	25WS001	132	122.58
25IN001	393.4	51.2	25IR052	36	7	25WS002	111	83.825
25IR005	429	124.84	25IR053	120	91.351	25WS003	225	100.323
25IR015	395.93	371.7	25IR055	55	37.651	25WS004	73	54.227
25IR018	36	14.5	25IR056	98	95.568	25WS005	36	18.327
25IR025	125	68.5	25IR058	36	30.166	25WS006	24	12.36
25IR027	260	137.4	25IR059	178.2	45.35	25WS007	36	7.779
25IR028	47.28	121	25IR060	36	4.5	Total	5,097.53	2,705.32
25IR029	78	24.68	25IR061	32	9.5			
25IR030	108	47.694	25IR062	36	26.3			
25IR031	48	33.837	25IR064	140	129			
25IR032	36	13.044	25IR065	1228.8	566.44			
25IR033	72	29.5	25IR066	112	20.52			

Table 8. Permit limits versus reported use (million gallons) for Hampton County.

Potential future groundwater demands are estimated for water supply, based on population projections, and all other categories (total) based on an estimated nominal growth of 2.5% per year.

Water Supply:

For 2015 in the Lowcountry Area, total groundwater withdrawal for water supply is approximately 5,946,330,000 gallons. Combined with reported surface water supply (9,668,859,000 gallons), the per capita use of water in the Lowcountry Area is approximately 163 gallons per day. Utilizing this value (163 gpd), projected population, and assuming groundwater will represent approximately 38% of the total water supply demand, groundwater demand is projected through 2030 (Table 9).

Table 9. Projected groundwater demand-water supply (million gallons) in Lowcountry Area.

2015	2020	2025	2030
5,946.33 MGY	6,453.75 MGY	7,004.47 MGY	7,602.18 MGY
16.29 MGD	17.68 MGD	19.19 MGD	20.83 MGD

Other:

Groundwater demand for all other categories through 2030 is calculated based on an estimated nominal and steady growth of 1.71% per year (Table 8).

Table 10. Projected groundwater demand-other (million gallons) in Lowcountry Area.

2015	2020	2025	2030
6265.31 MGY	6,799.95 MGY	7,380.21 MGY	8,009.99 MGY
17.17 MGD	18.63 MGD	20.22 MGD	21.95 MGD

Total Projected Water Demand:

Total potential groundwater demand for the Lowcountry Area is estimated from the calculations for Water Supply (Table 9) and All Other Uses category (Table 10) (see Table 11).

Table 11. Total projected groundwater demand-Lowcountry Area (million gallons).

Category	2015	2020	2025	2030
Water Supply	5,946.33	6,453.75	7,004.47	7,602.18
All Other Uses	6265.31	6,799.95	7,380.21	8,009.99
Total MGY	12,211.64	13,253.70	14,384.68	15,612.17
Total MGD	33.46	36.31	39.41	42.77

Groundwater Management Strategy

The ultimate goal of the Groundwater Management Plan is to outline a process to conserve and protect the groundwater resource while establishing conditions that are conducive to the continued development and long-term viability of the aquifers of the Lowcountry Area. In short, the goal is to develop and implement a sustainable development strategy. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their needs. Ultimately, good scientific data must be available that allow the sustainable yields from each aquifer system in the Lowcountry Area to be determined, and permits for withdrawals issued accordingly. However, these data do not fully exist at this date. This plan, therefore, must focus on obtaining this critical data and the issuance of permits for reasonable water withdrawals in the interim. The key strategies to achieve these goals are outlined below.

Strategy #1: Identify areas where a leveling and/or reduction in pumping is appropriate.

Prior to each permit renewal cycle, SCDHEC will consider the best available information on the geologic and hydrogeologic characteristics of the aquifer(s) and groundwater withdrawals of the area to protect against or abate unreasonable, or potentially unreasonable, adverse effects on the aquifer(s) and water users of the Lowcountry Area. Measures that the SCDHEC may require applicants, permit holders and groundwater withdrawers to take may include, but not be limited to, the following:

- Reduction of groundwater withdrawal in areas of concentrated pumping;
- Withdrawals from other available freshwater aquifers than those currently used;
- Selective curtailment or reduction of groundwater withdrawals where it is found to be in the public interest or general welfare or to protect the water resource;
- Conjunctive use of aquifers, or waters of less desirable quality, where water quality of a specific character is not essential;
- Construction and use of observation or monitor wells;
- Abandonment of wells that have penetrated zones of undesirable water quality where such wells are found to cause contamination of freshwater aquifers. Undesirable water quality is defined as not meeting the standards for Class GB Waters as listed in *Water Classifications & Standards*, R.61-68.H.9;
- Prohibiting the hydraulic connection of aquifers that could result in deterioration of water quality in a freshwater aquifer(s);
- Abandonment of wells, which will be filled with cement grout, plugged, and sealed;
- Implement reasonable and practical methods to conserve and protect the water resources and to avoid or minimize adverse effects of the quantity and quality of water available to persons whose water supply has been materially reduced or impaired as a result of groundwater withdrawals;
- Such other necessary and appropriate control or abatement techniques as are technically feasible.

Strategy #2: Review of permit applications based on demonstrated reasonable use.

Proposed withdrawals will be evaluated considering reasonableness of use and need, aquifer(s) being utilized, potential adverse effects on adjacent groundwater withdrawers, previous reported water use, anticipated demand for the proposed activities, availability of alternate water sources and reported water use at facilities with similar activities. Applications for groundwater withdrawal will incorporate a “Water Use Plan” or a “Best Management Strategy” detailing actual or proposed water use activities and all conservation techniques for site specific water management including, but not limited, to:

- Provide appropriate documentation that the proposed water use is a beneficial use of the resource and necessary to meet the reasonable needs of the applicant;
- Describe in detail the applications for which the water is being withdrawn and approximate quantities utilized in each application;
- Identify the aquifer(s) currently utilized and the hydrogeologic (groundwater quality, specific capacity/yield, etc.) factors for utilization. Identify if a less utilized aquifer is suitable to the facility's need;
- Identify additional or alternate sources of water, including surface water, effluent, or recycled water, among others, suitable to meet the needs of the applicant and supplement, minimize, or eliminate groundwater sources;
- Identify reasonable and appropriate conservation methods or practices that maximize current water use and reduce current water demand;
- Identify any existing or anticipated adverse effects on other groundwater withdrawers, including public use, and strategies to eliminate or minimize these effects.

As part of the permitting process, stakeholder involvement, comment and recommendations will be incorporated during the public notice of the permit application

Strategy #3: Establish a comprehensive groundwater monitoring program.

With increased population and a growing industrial base, water demand (from both surface and groundwater) is increasing at an expanding rate. Although water level declines are a normal response to groundwater withdrawals, not stabilizing these declines may cause serious impairment to the aquifers and groundwater quality of the region. SCDHEC will pursue partnerships with local entities, groundwater users and other agencies (both Federal and State) to facilitate the most effective use of resources in designing and maintaining a monitoring network for the Lowcountry Area. Both the USGS (Southeast Region) and the SCDNR maintain several groundwater level monitoring locations in the Lowcountry area. The table below lists the wells currently being used to monitor groundwater levels in the Lowcountry Capacity Use Area. Their locations are shown in Figure 19.

County	Well Id	Aquifer	Agency
Beaufort	BFT1810	Floridan	USGS
Beaufort	BFT0101	Floridan	SCDNR
Beaufort	BFT0429	Floridan	SCDNR
Beaufort	BFT1846	Floridan	SCDNR
Colleton	COL0030	Black Creek	SCDNR
Colleton	COL0097	Floridan	SCDNR
Hampton	HAM0050	Tertiary Sand	SCDNR
Hampton	HAM0083	Floridan	SCDNR
Jasper	JAS0426	McQueen	SCDNR

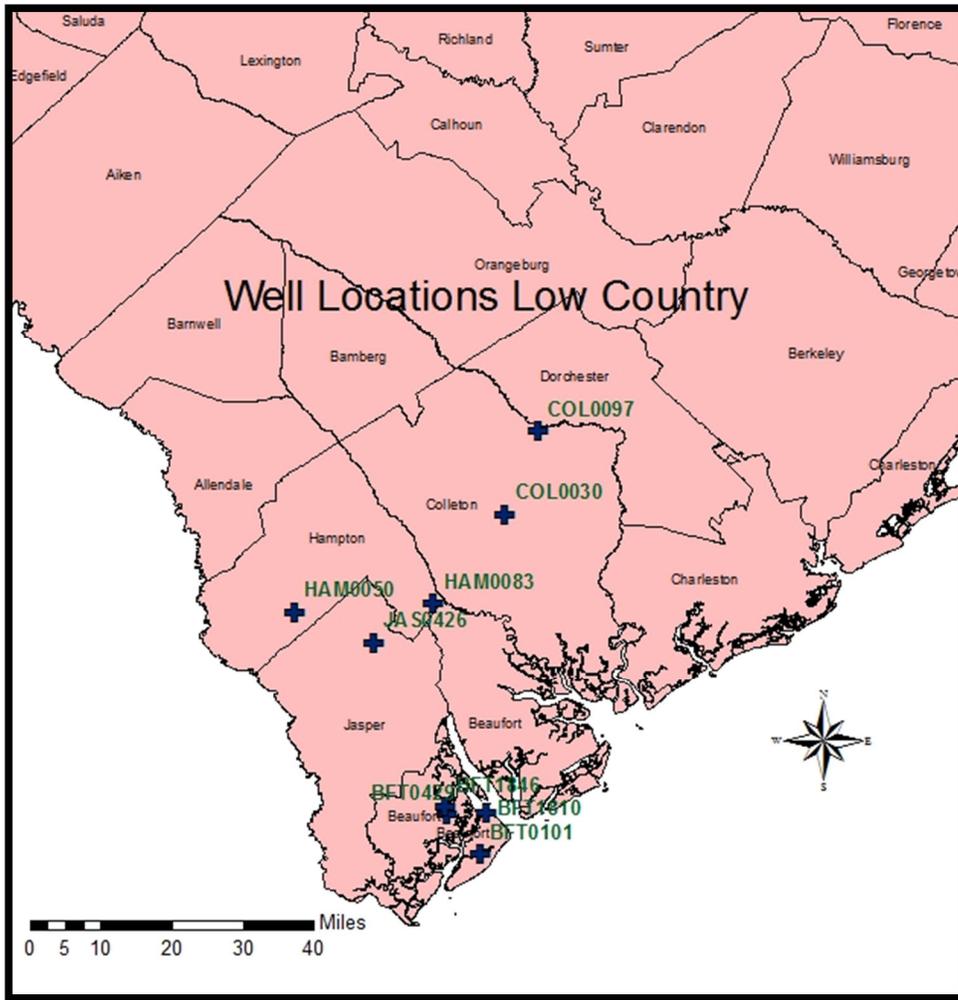


Figure 19. Locations of existing groundwater level monitoring wells.

The existing groundwater monitoring network is necessary to:

- Provide accurate data on the amount and rate of groundwater level declines;
- Establish the correlation between groundwater pumping and water level changes, both on a local and regional scale;
- Guide management efforts to minimize potential impairment of the aquifers and track progress in reversing water level declines;
- Provide groundwater withdrawers with timely and accurate information to effectively manage withdrawal activities.

Strategy #4: Establish a conservation educational plan for the general public and existing groundwater withdrawers.

Water conservation has increasingly become a cornerstone to the development of water management strategies. An effective, viable water conservation program should incorporate the following:

- Provide public education and outreach programs;
- Determine and enhance water use efficiency;
- Determine water losses and establish corrective actions;
- Prepare for water shortages and provide appropriate responses.

Strategy #5: Regulation and Planning.

The Groundwater Use and Reporting Act provides for regulation of water withdrawals in South Carolina. Groundwater regulation is necessary to protect and provide for the long-term sustainability of the resource. As data are developed on the groundwater resources of the designated Capacity Use Areas, the regulations should will be reviewed to ensure that sufficient and adequate protection of the resource is provided.

SCDNR is responsible for developing and updating the State Water Plan. A groundwater model of the coastal aquifers is currently being developed by the USGS and SCDNR. As the results of the modeling effort and the updates to the State Water Plan become available, they will help inform potential regulatory and policy changes and will be incorporated into this Groundwater Management Plan.

Groundwater Management Plan Reports

Every 5 years, or length of the permitting cycle, total annual groundwater withdrawals will be compiled and compared to available aquifer potentiometric maps. The report will include the following information:

- Listing of all permitted withdrawers, permitted withdrawal limits, and average groundwater withdrawal;
- Evaluation of withdrawal by category and by aquifer;
- Identification of areas of aquifer stress and all withdrawers utilizing the stressed aquifer(s).

Based on the information developed for the plan report, modifications of groundwater withdrawals in stressed areas will be reviewed and subsequently the Groundwater Management Plan may be amended. The report will also evaluate, as information is developed, changes in water quality of the aquifers, available storage capacity of the aquifers, project future rates of withdrawal and estimate future groundwater declines from the projected withdrawal rates. Through time, a safe sustainable yield for each aquifer will be developed and subsequent withdrawal limits will be based on this available yield. The Department will host a stakeholder meeting to discuss the draft report. Comments on the draft plan will be taken into consideration as the Department finalizes the report and updates the groundwater management plan based on the report recommendations. The final report and updated groundwater management plan will be shared with the Stakeholders and the permit renewals will be issued consistent with the report and the plan.

Upper Floridan Aquifer and Salt Water Intrusion

By 1990, groundwater withdrawals from the Upper Floridan aquifer at Savannah and Hilton Head Island had reached about 88 and 14.5 Million gallons per day (MGD), respectively. Groundwater withdrawals remained at peak levels throughout much of the 1990's and chloride concentration was increasing in public supply wells near the northern part of Hilton Head Island. Efforts to mitigate water-level declines in the Upper Floridan aquifer required the use of alternative sources by permitted users to include surface water, deeper aquifers, and reclaimed water for irrigation use. Permits for long-term golf-course irrigation require reclaimed water or from wells that withdraw water from a deeper part of the aquifer. The States of Georgia and South Carolina continue to work closely through their respective agencies, GaEPD and SCDHEC, to manage by reducing groundwater withdrawals in the Upper Floridan aquifer by conservation and alternative sources. The City of Savannah in cooperation with GaEPD has decreased permitted withdrawals from the Upper Floridan aquifer to 1950 levels through conservation and increased use of surface water, and SCDHEC has held Hilton Head Island's permitted withdrawals from the aquifer at 9.5 MGD since 1998.

Salt-water migration in the Upper Floridan aquifer continues to be monitored. Specific strategies are currently being used, both in Georgia and South Carolina, to address increasing chloride concentrations in the aquifer. Further actions may be necessary and will be evaluated in the Groundwater Management Plan Report to be drafted prior to permit renewals.

Aquifer Recharge/Storage and Recovery

ASR is the re-injection of potable water back into an aquifer for later recovery and use. This process replenishes ground water stored in aquifers for beneficial purposes. Presently, SCDHEC regulation states that only 80% of water injected can be recovered for potable use leaving millions of gallons for replenishing declining water levels. "Potable" refers to water of high quality posing no health risk when consumed.

Some recognized environmental benefits of ASR:

- A significant amount of water can be stored underground reducing the need to construct large and expensive surface reservoirs.
- ASR systems are considered to be more environmentally and aesthetically friendlier than surface reservoirs and offer better protection from tampering and contamination.
- ASR adds millions of gallons that may stabilize or reverse declining water levels in an aquifer that has experienced long-term declines in water levels due to heavy pumping.

This process has proven to be a viable option for storing water for emergencies and reducing capital cost for meeting peak summer tourism demands. ASR is an important management tool for maintaining declining aquifer water levels and certain items should be considered to continue its success.

- Permitted ASR sites are limited to recover no more than 80% of total injected water.
- ASR sites should have top priority and the process should not be jeopardized by groundwater withdrawal.
- Applications and renewal for use should be evaluated for water use purpose and location to an ASR site.

- Reducing or limiting existing groundwater usage in close proximity of an ASR site to reduce the risk of pulling injected water away from an ASR site.

DRAFT

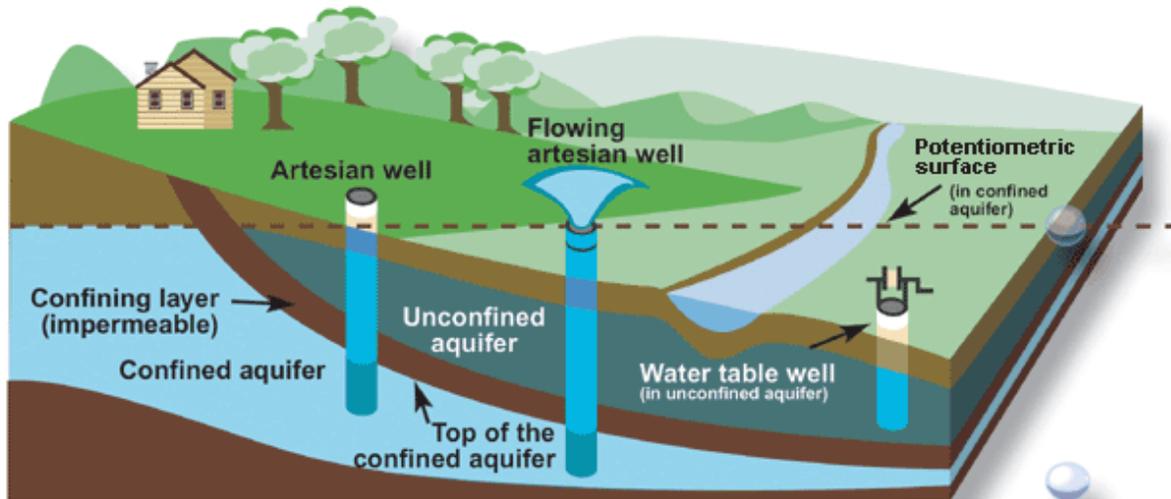
ATTACHMENT B

**PROPOSED PEE DEE CAPACITY USE AREA
INITIAL GROUNDWATER MANAGEMENT PLAN
AUGUST 2017**

INITIAL GROUNDWATER MANAGEMENT PLAN FOR THE PEE DEE CAPACITY USE AREA

August 2017

Aquifers and wells



Source: Environment Canada, USGS



S.C. Department of Health and
Environmental Control

Contents

Executive Summary	1
Introduction.....	2
Definitions.....	3
Geo-Political Structure.....	4
Regional Description	4
Groundwater Level Trends	9
Current Groundwater Demand.....	11
Groundwater Demand Trends.....	19
Population, Growth, and Water Use Projections	20
Groundwater Management Strategy	24
Groundwater Management Plan Reports	28

Executive Summary

South Carolina's Groundwater Use and Reporting Act (Chapter 5, Section 49-5-60) gives the South Carolina Department of Health and Environmental Control (DHEC) the legal authority and mandate to establish and implement a local groundwater management program in designated Capacity Use Areas. Effective groundwater management ensures that the groundwater resources of the State are put to beneficial use to the fullest extent which they are capable, conserves and protects the resource, prevents waste, and establishes conditions which are conducive to the development and long-term viability of the water resources. As aquifers and the relative social and economic requirements of the State vary by area and region, groundwater management should be locally and/or regionally assessed, balancing all needs and interests. In this regard, DHEC coordinates with local stakeholders to achieve the stated goals of the plan leading to sustainable development of the groundwater resources. Sustainable development is the key guiding principle, where South Carolina's groundwater resources are managed so that development meets the needs of the present without compromising the ability of future generations to meet their needs.

DRAFT

Introduction

On February 12, 2004, the South Carolina Department of Health and Environmental Control Board, as established in Section 49-5-60, Capacity Use Designation, declared the whole of Darlington County, Dillon County, Florence County, Marion County, Marlboro County, and Williamsburg County as the ***Pee Dee Capacity Use Area*** (Pee Dee Area), Figure 1. The Pee Dee Area was the fourth of the four currently declared Capacity Use Areas in South Carolina. Within the Pee Dee Area, no person shall withdraw, obtain, or otherwise utilize groundwater at or in excess of three (3) million gallons per month for any purpose unless said person shall first obtain a Groundwater Withdrawal Permit from DHEC. A groundwater withdrawer is defined as any person withdrawing groundwater at or in excess of three (3) million gallons during any one month from a *single well* or *multiple wells* within a one-mile radius of any existing or proposed well.

The plan for the Pee Dee will guide the initial groundwater management strategy and provide direction for future groundwater management goals by evaluating, as data become available, the hydrologic, environmental, social, and economic impacts of groundwater withdrawals at various rates on the long-term sustainable levels for the aquifers of the Pee Dee Area. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their needs and requirements. Therefore, the three general goals of the Pee Dee Area Groundwater Management Plan are:

1. Ensure sustainable development of the groundwater resource by management of groundwater withdrawals;
2. The protection of groundwater quality from salt-water intrusion; and,
3. Monitoring of groundwater quality and quantity to evaluate conditions.

To accomplish the above goals, the Pee Dee Area Groundwater Management Plan addresses the following aspects of water use in the Pee Dee region:

- Groundwater sources currently utilized;
- Current water demand by type and amount used;
- Current aquifer storage and recovery and water reuse;
- Population and growth projections;
- Water demand projections;
- Projected opportunities for aquifer storage and recovery, as well as water reuse;
- Projected groundwater and surface water options; and,
- Water conservation measures.

Planning is a multi-stage process that includes provisions for updating/amending as conditions change over time. In this first plan, only general goals can be established. As more data are developed about the groundwater resources of the Pee Dee Area, more specific goals and withdrawal limits will be incorporated.

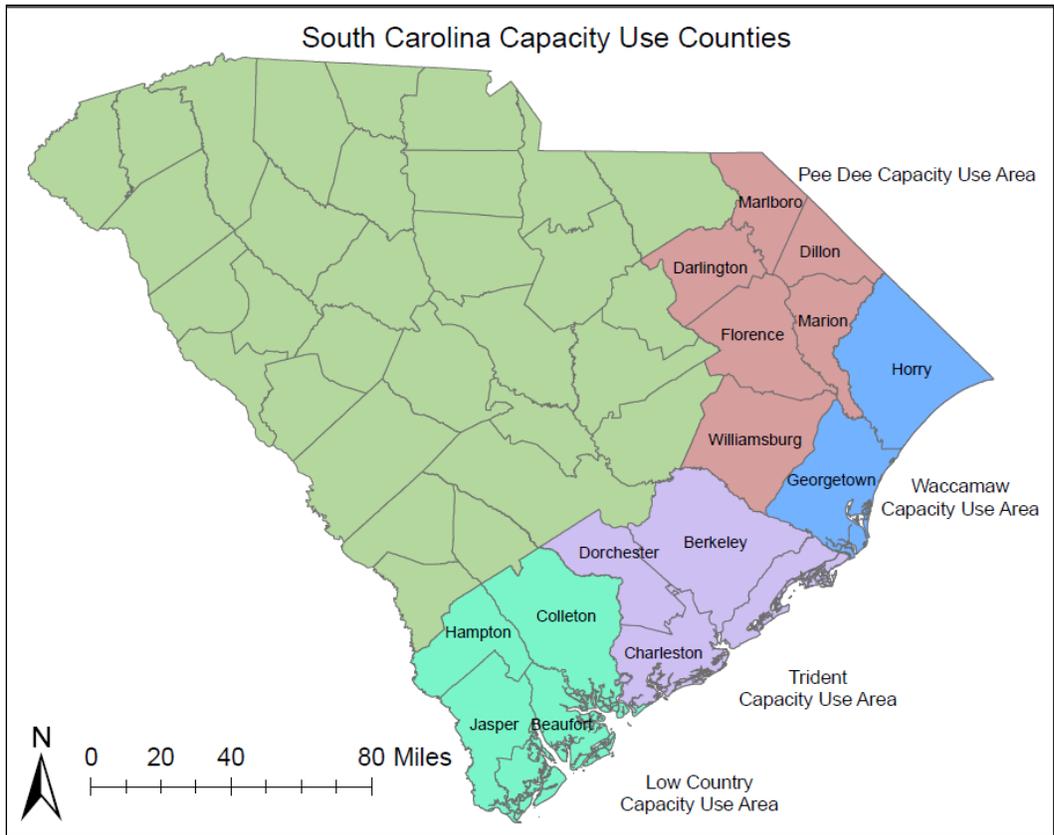


Figure 1. Capacity Use Areas.

Definitions

“**Adverse Effects**” – Undesirable consequences of withdrawing groundwater that may include: changes in water quality, significant reduction in water level of the aquifer, saltwater intrusion, land subsidence, and decreases in stream flow.

“**Beneficial Use**” - The use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is lawfully made.

“**Best Management Plan**” means a document that supports the design, installation, maintenance, and management of water conveyance systems and/or water withdrawal systems (water supply, commercial, industrial, agricultural, etc.), which promotes water conservation, and protects water quality.

“**Person**” means an individual, firm, partnership, association, public or private institution, municipality or political subdivision, local, state, or federal government agency, department, or instrumentality, public water system, or a private or public corporation organized under the laws of this State or any other state or county.

“**Sustainable Yield**” - ground-water sustainability as development and use of ground water in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences.

“**Water User**” - A person using groundwater for any purpose.

Geo-Political Structure

This area is a part of two out of ten of South Carolina's Regional Planning Councils. The WRCOG and PDRCOG primary objectives include providing planning and technical support to local governments and assisting them in the development of local and regional plans. The two COG are governed by a twenty-six-member board and a twenty-nine-member board, all of who are appointed by local governments within the six and 3 county regions. These boards, led by an Executive Committee, set policy and provide direction to the programs of the two COGs.

Currently, the six-county Pee Dee area contains forty-eight cities and towns and over three-hundred thousand people. This includes a few central cities surrounded by smaller cities, area incorporations, and rural towns. Williamsburg County's government is conducted through a Supervisor-Council form of government, while Darlington, Dillon, Florence, Marion, and Marlboro Counties use Council-Administrator forms of government. The majority of the municipalities in the region utilize a Mayor-Council form of government.

The SCDHEC has permit authority for all groundwater withdrawals in the Pee Dee Area. Permits are issued after appropriate review in accordance with Chapter 5, The Groundwater Use and Reporting Act, Groundwater Use and Reporting Regulation, R.61-113, and the goals and management strategy developed in the Pee Dee Area Groundwater Management Plan.

Regional Description

Comprised of Darlington, Dillon, Florence, Marion, Marlboro, and Williamsburg Counties, the Pee Dee Capacity Use Area covers 3,694 square miles, of which approximately 24.6 square miles are surface water. The Pee Dee area stretches over seventy miles through northeastern to central South Carolina, bordered by North Carolina on the north, the Santee River on the south, and the Waccamaw Capacity Use Area on the east. The region is partially split by interstate 95 and contains much of the Pee Dee River Basin, draining into the Waccamaw Capacity Use Area. All six counties are located in the Coastal Plain physiographic region, Figure 2.

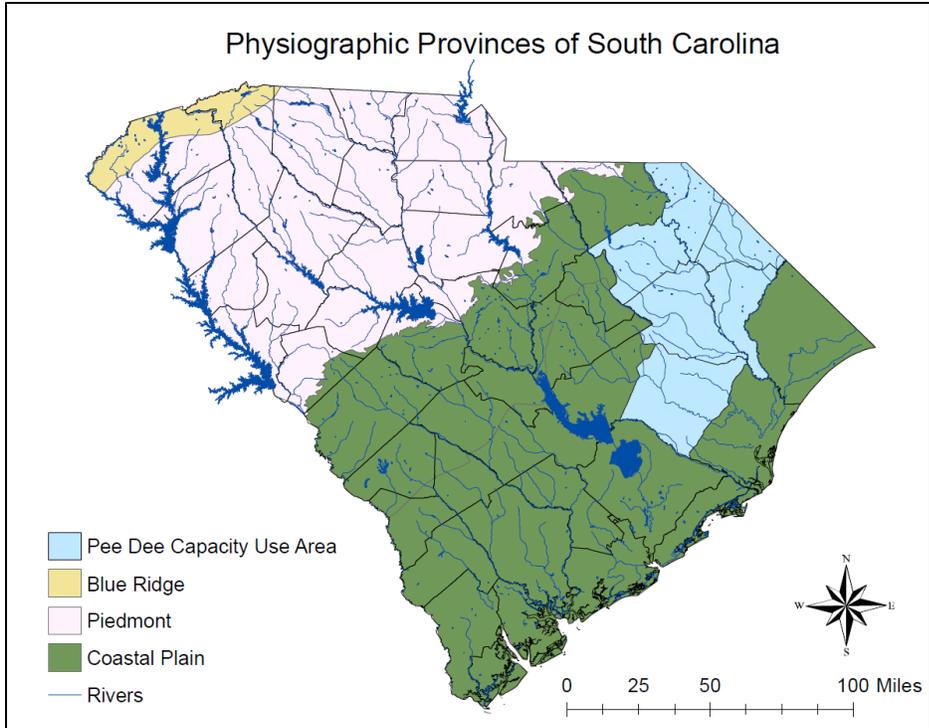


Figure 2. Physiographic Provinces of South Carolina.

There are several major water bodies in the area including the Great Pee Dee River and Little Pee Dee River, the Lynches River, Black Creek, and a network of streams, wetlands, and marshes, Figure 3. The topography of the region is very level with only slight undulations in the landscape. Elevations range from mean sea level to slightly over four hundred sixty feet.

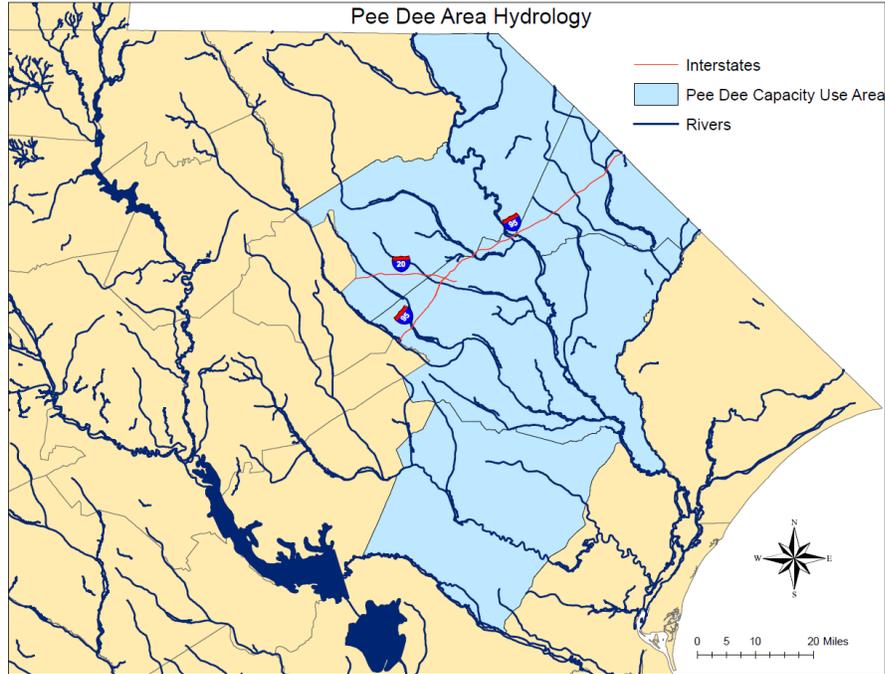


Figure 3. Hydrology of the area.

The Pee Dee Area enjoys a relatively mild and moderate climate characteristic of its southeast US coastal location. Compared to overall State averages, winter temperatures are generally warmer and summers tend to be cooler and less humid. The average annual temperature is 63.2°F, with an average daily maximum of 73.5°F and a minimum of 54.5°F. Approximately thirty-two percent of the forty-six inches of average annual precipitation occurs during the summer months (Figure 4, 5). Thunderstorms are most frequent during the summer and create relatively short durations of concentrated runoff.

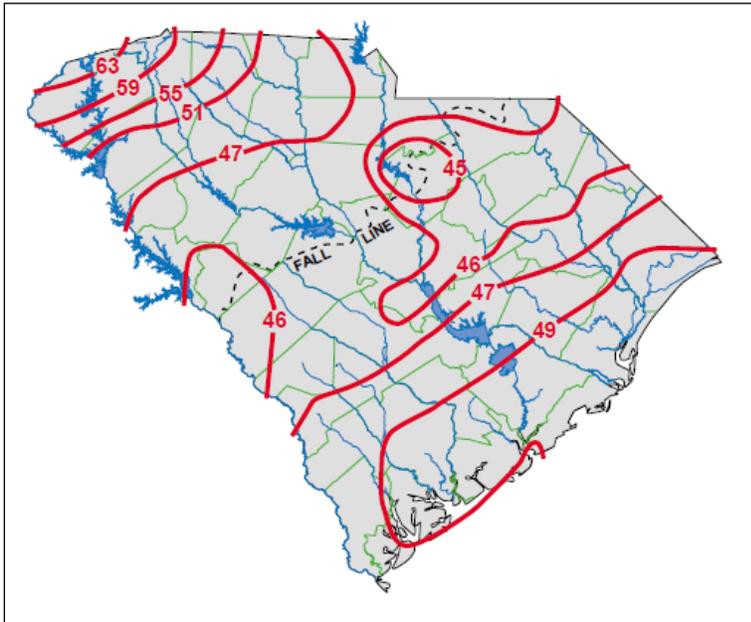


Figure 4. Average annual precipitation, in inches for the period 1948-1990. Source: South Carolina Department of Natural Resources (SCDNR)-Hydrology/Geology Map 2, R.N. Cherry, A.W. Badr, and Andrew Wachob, 2001.

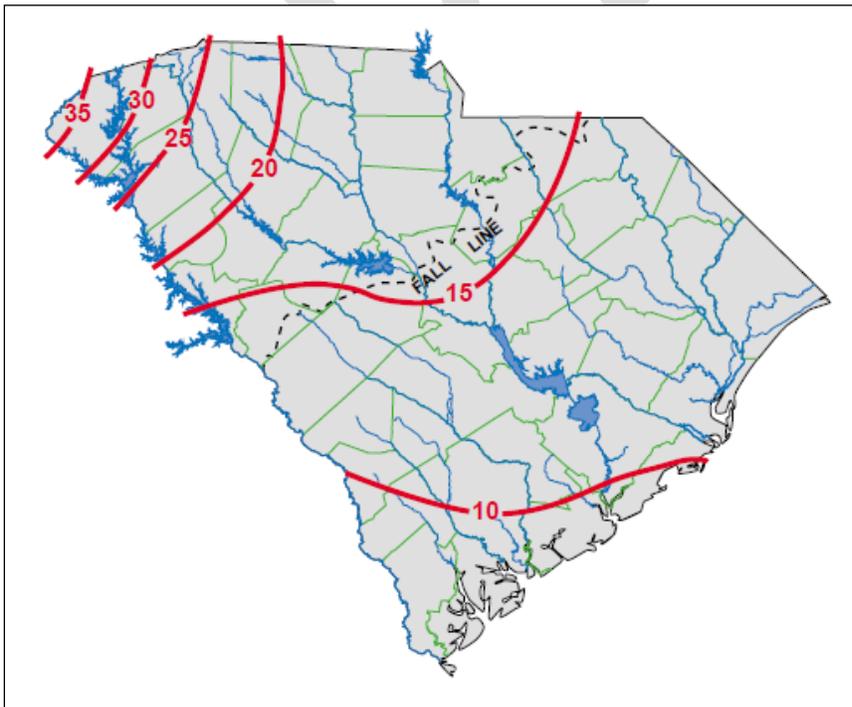


Figure 5. Average annual water yield (precipitation less evapotranspiration), in inches, 1948-1990. Source: SCDNR-Hydrology/Geology Map 2, R.N. Cherry, A.W. Badr, and Andrew Wachob, 2001.

Groundwater Supplies

The oldest (and deepest) aquifers or water-bearing units underlying the Pee Dee Area are of Late Cretaceous age and comprise sediments that have been subdivided into four (4) aquifer systems (oldest to youngest): the Gramling, Charleston, McQueen Branch, Crouch Branch, and Gordon, Figure 6. These units are generally continental shelf to inner marine shelf and deltaic deposits and range from fine to medium grained sand, silts and clays. Water bearing zones typically are beds of sands of varying thickness and extent separated by silty, clayey beds or lenses.

- The Gramling Aquifer is not well defined and no known outcrop has been identified in South Carolina. It is thought to mainly consist of sand and gravel beds separated by thick layers of silt and clay.
- The Charleston/McQueen Branch Aquifer occurs throughout the Coastal Plain, from the Fall Line to the coast. The McQueen Branch crops out (catchment area) adjacent to the Fall Line from Chesterfield County to Edgefield County. In the Pee Dee Area the aquifer is generally composed of thin- to thick-bedded sands with some gravel and laminated. In the Pee Dee area, the McQueen Branch-Charleston aquifer is approximately 300 feet thick.
- The Crouch Branch Aquifer occurs throughout the Lower Coastal Plain and crops out in the eastern portion of the Coastal Plain from Lexington County to Dillon County. The aquifer is generally composed of thin- to thick-bedded sands and clays deposited in marginal marine and/or lower delta plain environments. In the Pee Dee area, the Crouch Branch is approximately 100 to 400 feet thick.

Units overlying the Late Cretaceous formations include the Tertiary age Gordon and Surficial Formations, Figure 6. These units range from marginal marine to outer shelf deposits and their lithologies consist predominantly of sand, silt, and clay, with the upper part being mainly pure to impure limestone.

- The Gordon Aquifer extends from its catchment area in the middle of the Lower Coastal Plains southwest. In the Pee Dee area, the Gordon is very thin if even present.
- The Tertiary units are overlain by a sequence of sand, silt, clay, and shells of Pleistocene age that are generally not more than fifty feet thick.

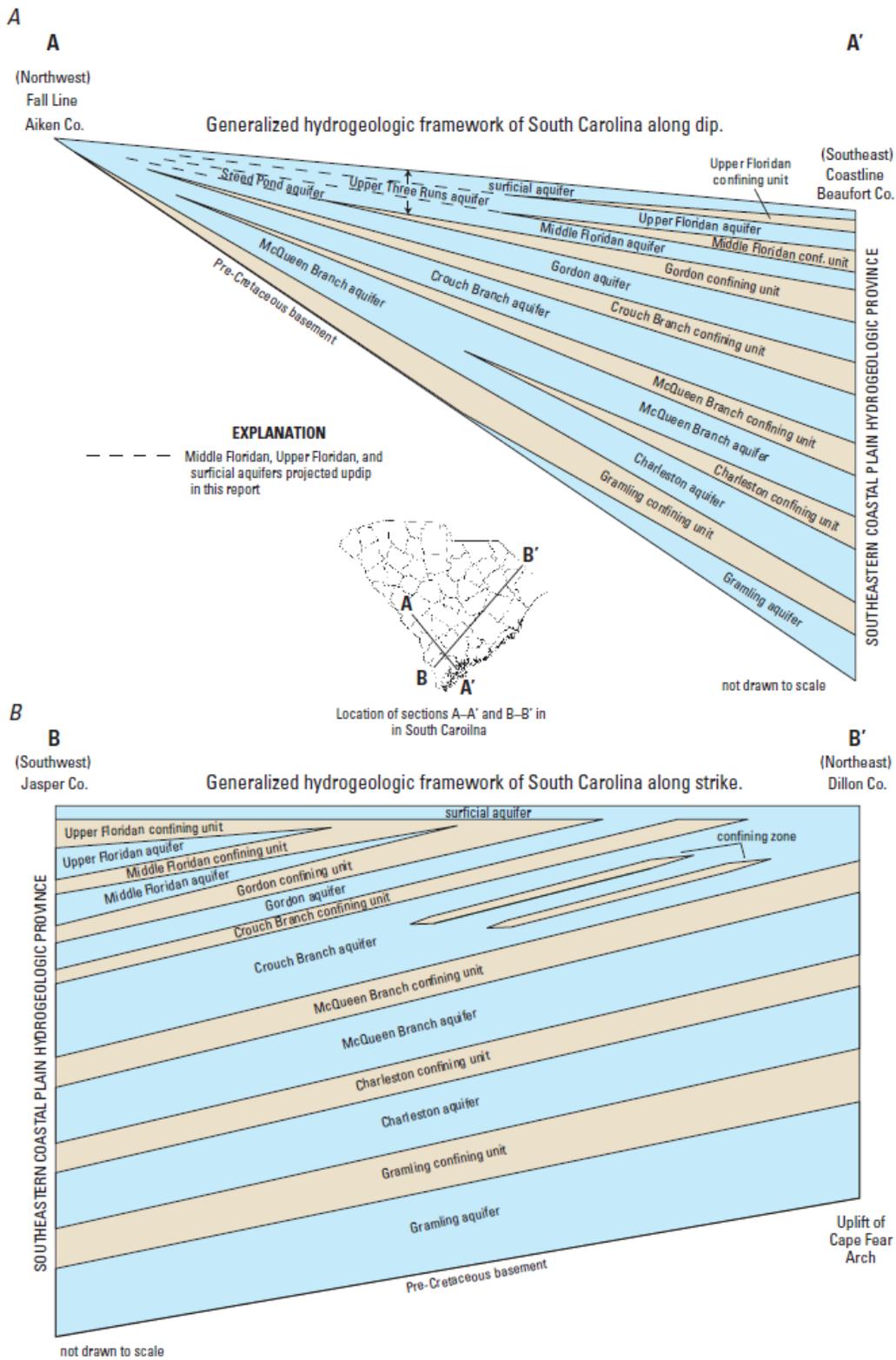


Figure 6. Generalized hydrogeologic framework, J. Gellici and J. Lautier, 2010 Hydrogeologic Framework of the Atlantic Coastal Plain, North and South Carolina: U.S. Geological Survey Professional Paper 1773, 113p.

Groundwater recharge occurs with infiltration of precipitation in catchment (recharge) areas. Figure 7 depicts the general recharge or catchment areas for the aquifers of the Pee Dee Area. Although limited recharge of the Tertiary Sand/Limestone Aquifer occurs in the region, the majority of recharge of aquifers in the Pee Dee area occurs mainly west-northwest of the region proper.

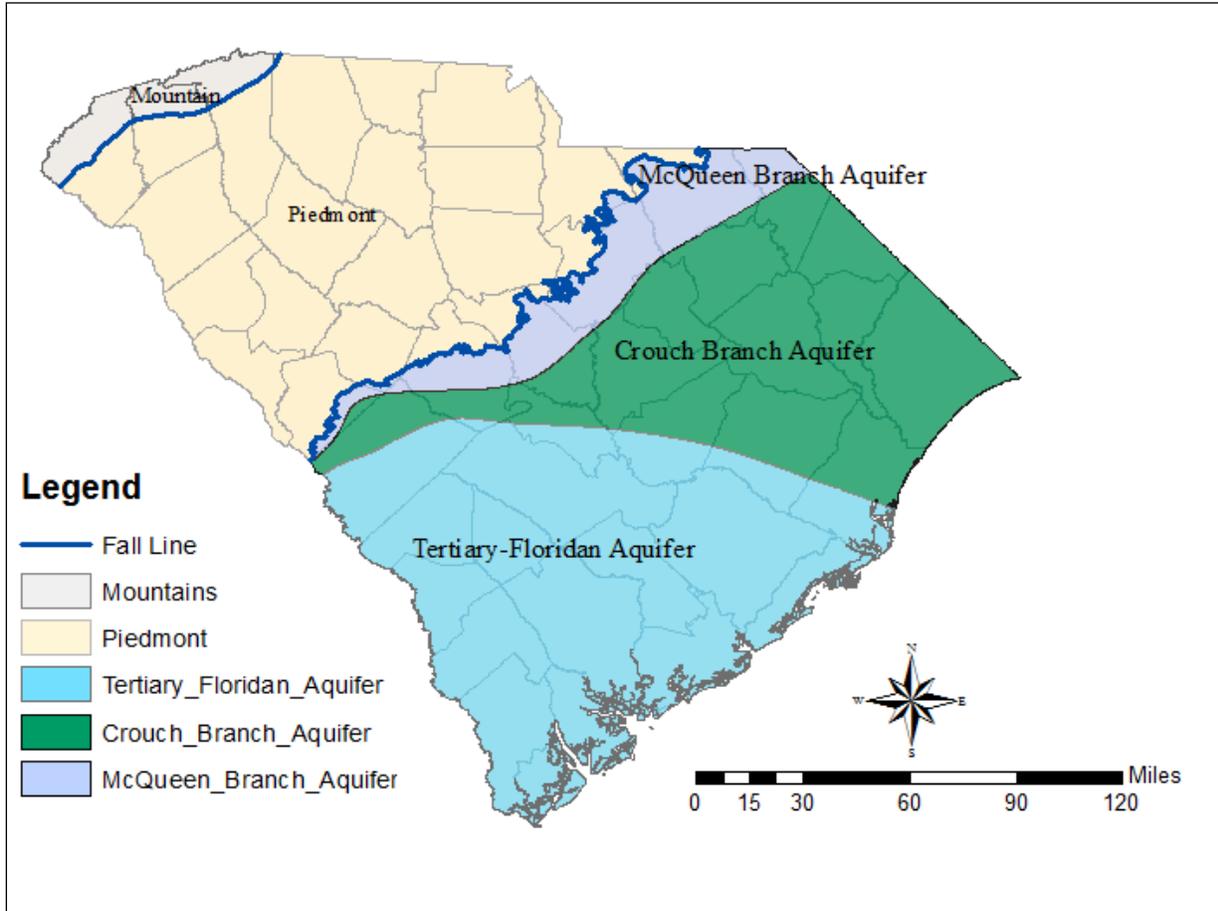


Figure 7. Generalized aquifer recharge areas.

Groundwater Level Trends

Groundwater levels in the Charleston/McQueen Branch aquifer have declined substantially from pre-development (1879) levels in the Pee Dee area, especially around the Florence area. Much of this decline can be attributed to concentrated public supply and industrial usage. In 2000, the water level in the McQueen Branch was around 60 feet below mean sea level, and has declined to about 77 feet below sea level in 2106. Even with the increased use of surface water when a cone of depression in the Florence County region was identified, groundwater levels continued to decline. Interpretation of published hydrographs indicates that groundwater decline in the Charleston/McQueen Branch Aquifer in Darlington County was around 1.2 feet per year in the early 2000s. However, the FLO-0128 SCDNR well (in the now named McQueen Branch Aquifer) has shown decent rebound since November of 2011, rising almost 10 feet as of December 2016 (from 44.15 feet below land surface to 35.09 feet below land surface). Figure 8 shows the 2004 water levels in the McQueen Branch aquifer (formerly known as the Middendorf). Figure 9 shows a more recent map of the McQueen Branch aquifer, and there has not been

any real rebound due to increased use of groundwater for public water supply. Due to increasing population in the region, (Source: South Carolina Revenue and Fiscal Affairs Office, <http://abstract.sc.gov/chapter14/pop5.html>), demands on the groundwater resource are certain to increase in the future.

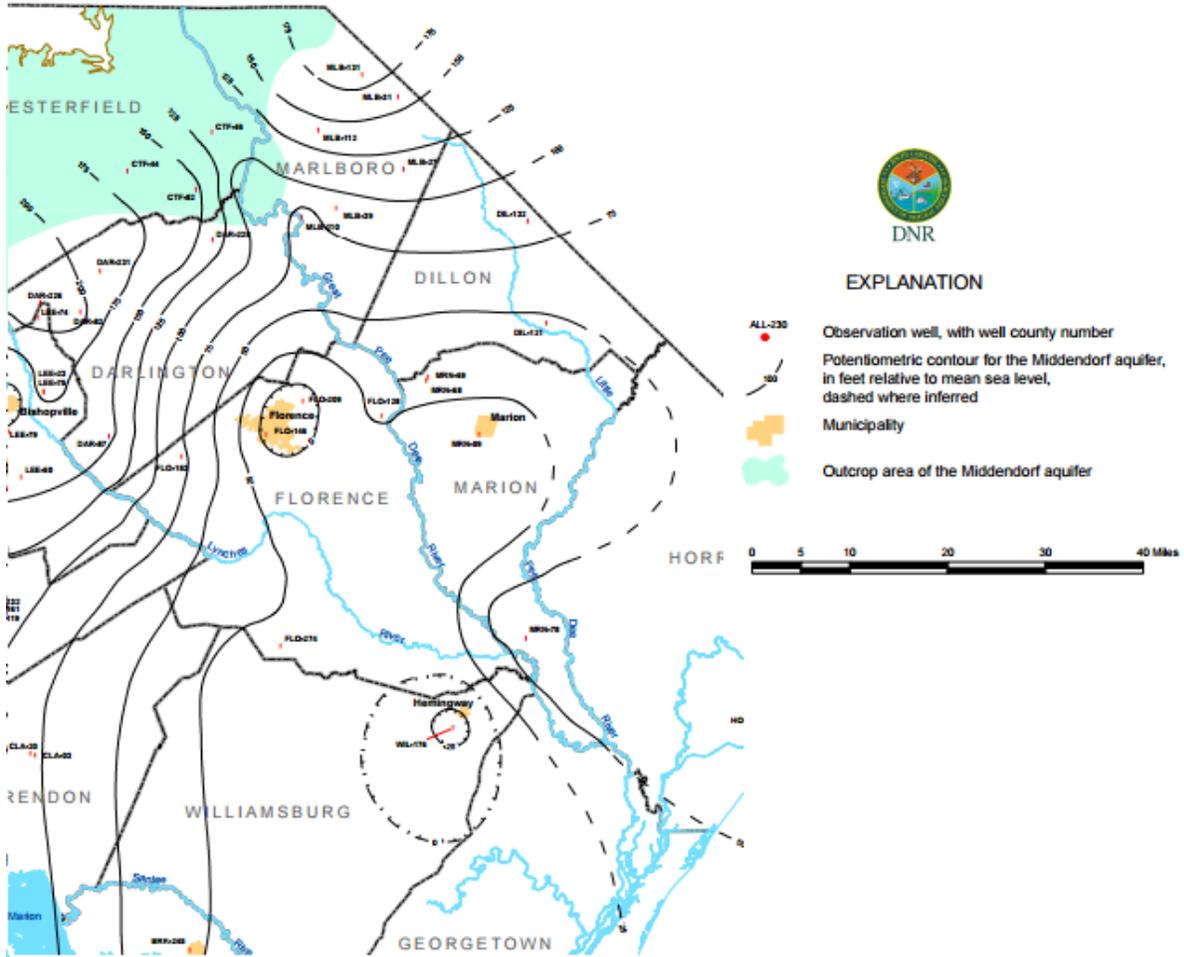


Figure 8. Water level map for the McQueen Branch/Charleston Aquifer (Middendorf), 2004. Source: Hockensmith, 2008, SCDNR Water Resources Report 46.

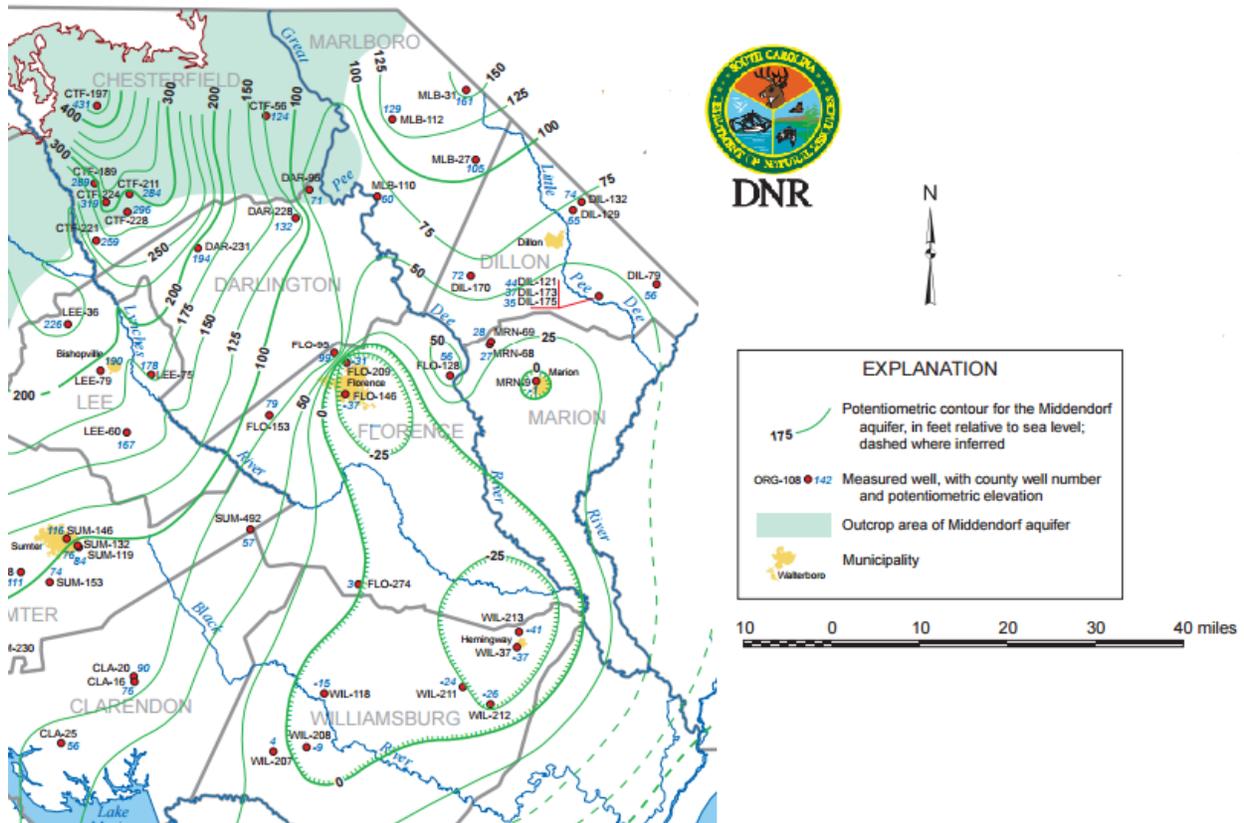


Figure 9. Water level map of the McQueen Branch Aquifer, 2014. Source: Wachob, 2015, SCDNR Water Resources Report 58.

Current Groundwater Demand

For purposes of water use reporting, DHEC defines the following groundwater withdrawal categories:

- Aquaculture (AQ)– Water used for raising, farming and/or harvesting of organisms that live in water, such as fish, shrimp and other shellfish and vegetal matter (seaweed),
- Golf course irrigation (GC)- Water applied to maintain golf course turf, including tee boxes, fairways, putting greens, associated practice areas and periphery aesthetic landscaping,
- Industrial process (IN)- Water used for commercial and industrial purposes, including fabrication, processing, washing, in-plant conveyance and cooling,
- Agricultural and aesthetic irrigation (IR)- Water that is used for agricultural and landscaping purposes including turf farming and livestock management.
- Mining process (MI)- Water used in mine operations, including mining, processing, washing and cooling,
- Water supply (WS)- Water withdrawn by public and private water suppliers and conveyed to users or groups of users. Water suppliers provide water for a variety of uses including domestic, commercial, industrial and public water use.

Currently in the Pee Dee Area there are 104 **permitted** groundwater withdrawers distributed as follows: 31 public water supply facilities, 3 golf course facilities, 13 industries, 56 agricultural irrigation facilities, and 1 nuclear power facility (Table 1). These 104 facilities have 326 wells, Figure 10.

Table 1. Permitted Groundwater Withdrawers by County.

Number of Facilities By Type and By County							
Use	Darlington	Dillon	Florence	Marion	Marlboro	Williamsburg	Total
Golf Courses	1		1	1			3
Industry	4		5		2	2	13
Agricultural Irrigation	19	10	6	5	13	3	56
Nuclear Power	1						1
Public Water Supply	4	4	7	4	5	7	31
Total	29	14	19	10	20	12	104

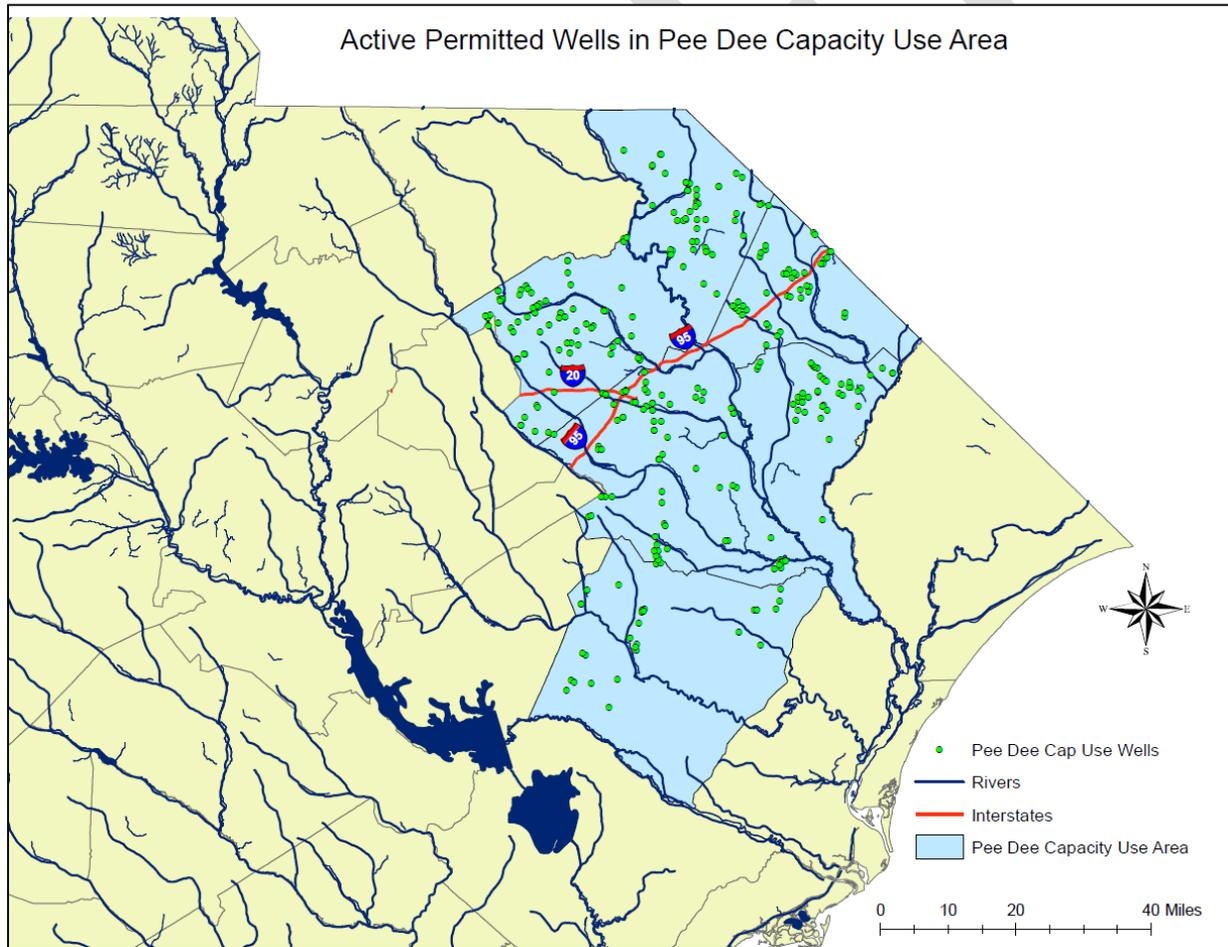


Figure 10. Locations of permitted groundwater withdrawals.

During the period 2010 through 2015, total reported groundwater withdrawals for the Pee Dee Area averaged 16,224.9 million gallons per year or approximately 44.45 million gallons per day (mgd). For Darlington County, average withdrawals were: 34.38 million gallons for golf courses, 432.71 million gallons for agricultural irrigation, 366.11 million gallons for nuclear power, 1,369.79 million gallons for industrial use, and 2,348.9 million gallons for public water supply. For Dillon County, average withdrawals were: 183.35 million gallons for agricultural irrigation and 1,572.5 million gallons for public water supply. For Florence County, average withdrawals were: 67.14 million gallons for golf courses, 1,083.79 million gallons for industrial use, 239.75 million gallons for agricultural irrigation, and 4,421.62 million gallons for public water supply. For Marion County, average withdrawals were: 13.06 million gallons for golf courses, 164.06 million gallons for agricultural irrigation, and 1,170.72 million gallons for public water supply. For Marlboro, average withdrawals were: 93.47 million gallons for industrial use, 234.45 million gallons for agricultural irrigation, and 1,118.35 million gallons for public water supply. For Williamsburg County, average withdrawals were: 363.82 million gallons for industrial use, 56.91 million gallons for agricultural use, and 888.76 million gallons for public water supply. For reporting year 2015, withdrawers in Darlington County reported total withdrawals of 5,362,850,000 gallons (approximately 5.36 billion gallons), Dillon County 1,946,709,000 gallons (approximately 1.95 billion gallons), Florence County 5,944,742,050 gallons (approximately 5.94 billion gallons), Marion County 1,600,921,000 gallons (approximately 1.6 billion gallons), Marlboro County 1,692,343,500 gallons (approximately 1.69 billion gallons), and Williamsburg 1,518,261,000 gallons (approximately 1.52 billion gallons). Reported usage by category for 2015 is listed in Table 2 (in millions of gallons a year) and shown in Figure 11.

Table 2. Reported Use (Million Gallons) By County and Category For 2015.

Category	Darlington	Dillon	Florence	Marion	Marlboro	Williamsburg	Total	Percentage
Golf Courses	0.84		64.55	14.15			79.54	0.44%
Industry	1,709.0		1,464.68		68.87	369.91	3,612.46	20.00%
Agricultural Irrigation	947.42	326.47	278.31	343.19	440.96	151.50	2,487.86	13.77%
Nuclear Power	367.49						367.49	2.03%
Public Water Supply	2,338.09	1,620.24	4,137.20	1,243.58	1,182.51	996.86	11,518.48	63.79%
Totals for Counties	5,362.85	1,946.71	5,944.74	1,600.92	1,692.34	1,518.26	18,065.83	
Percentage	29.69%	10.78%	32.91%	8.86%	9.37%	8.40%		

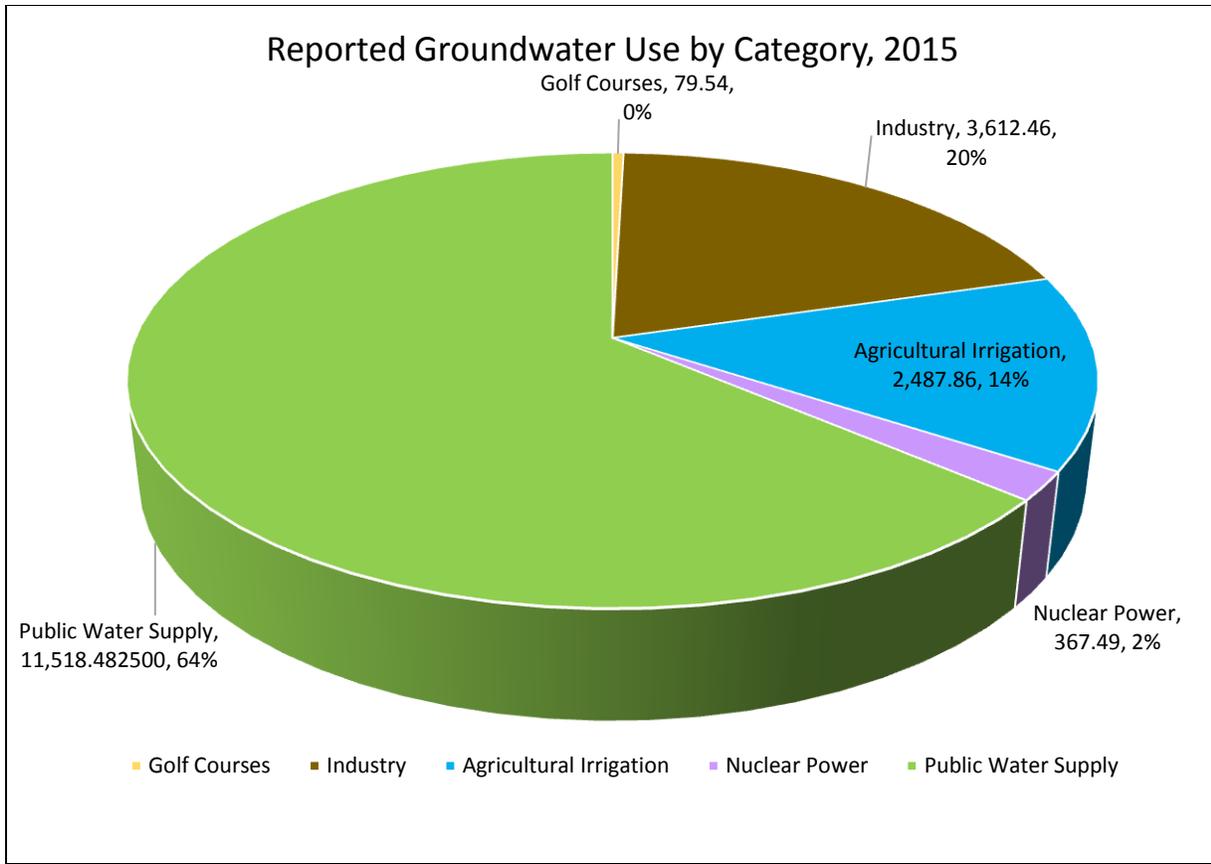


Figure 11. Reported groundwater use by category, 2015.

For the Pee Dee Area in 2015, reported groundwater withdrawals from the Surficial Aquifer were 0.84 million gallons, from the Crouch Branch Aquifer were 3,735.32 million gallons, from the McQueen Branch Aquifer were 13,852.13 million gallons, from the Charleston Aquifer were 347.98 million gallons, and from the Gramling Aquifer were 129.54 million gallons. Groundwater withdrawals by aquifer/county are presented in Table 3 and Figures 12, 13, 14, 15, 16, 17, and 18. In 2015 Florence County used 32.90% of the region’s groundwater while Darlington County accounted for 29.68% of the use. Dillon County used 10.77% of the total reported groundwater use for the Pee Dee area in 2015. Marlboro used 9.37% and Marion and Williamsburg Counties both used under 9% each of the reported groundwater use in the region.

Table 3. Reported Groundwater Use (Million Gallons) By Aquifer and County, 2015.

Aquifer Name	Darlington	Dillon	Florence	Marion	Marlboro	Williamsburg	Total	Percentage
Surficial	0.84		0.00				0.84	0.00%
Crouch Branch Aquifer	59.64		1,560.17	787.78	1,053.39	274.35	3,735.32	20.68%
McQueen Branch Aquifer	5,302.37	1,946.71	4,384.58	813.14	509.41	895.93	13,852.13	76.68%
Charleston Aquifer						347.98	347.98	1.93%
Gramling Aquifer	0.00				129.54		129.54	0.72%
Total	5,362.85	1,946.71	5,944.74	1,600.92	1,692.34	1,518.26	18,065.83	
Percentage	29.68%	10.77%	32.90%	8.86%	9.37%	8.40%		

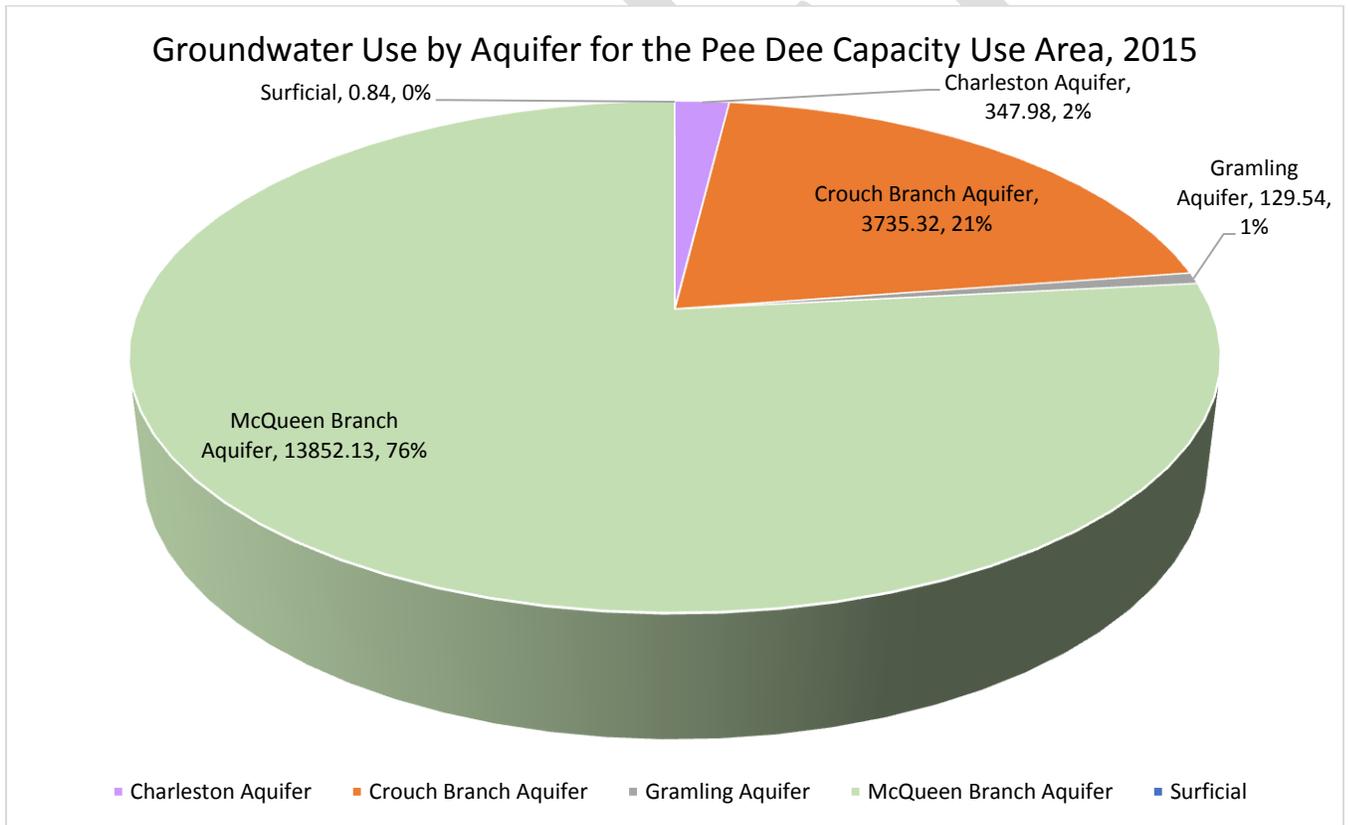


Figure 12. Reported groundwater by aquifer, 2015.

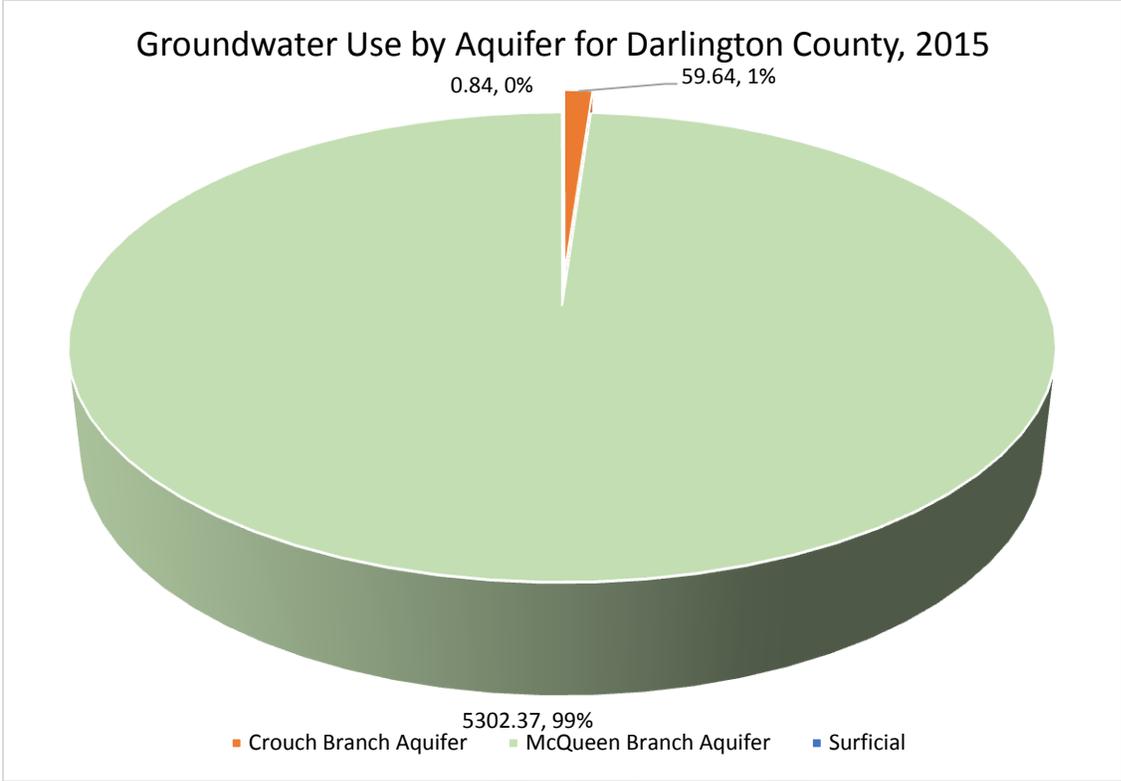


Figure 13. Reported groundwater use by aquifer for Darlington County, 2015.

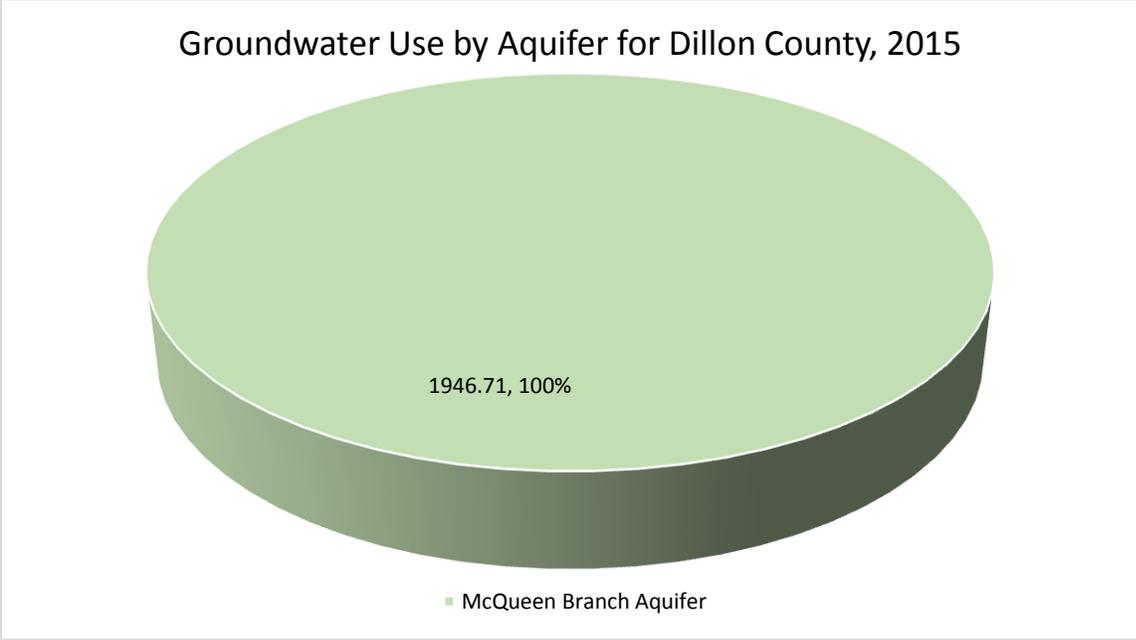


Figure 14. Reported groundwater use by aquifer for Dillon County, 2015.

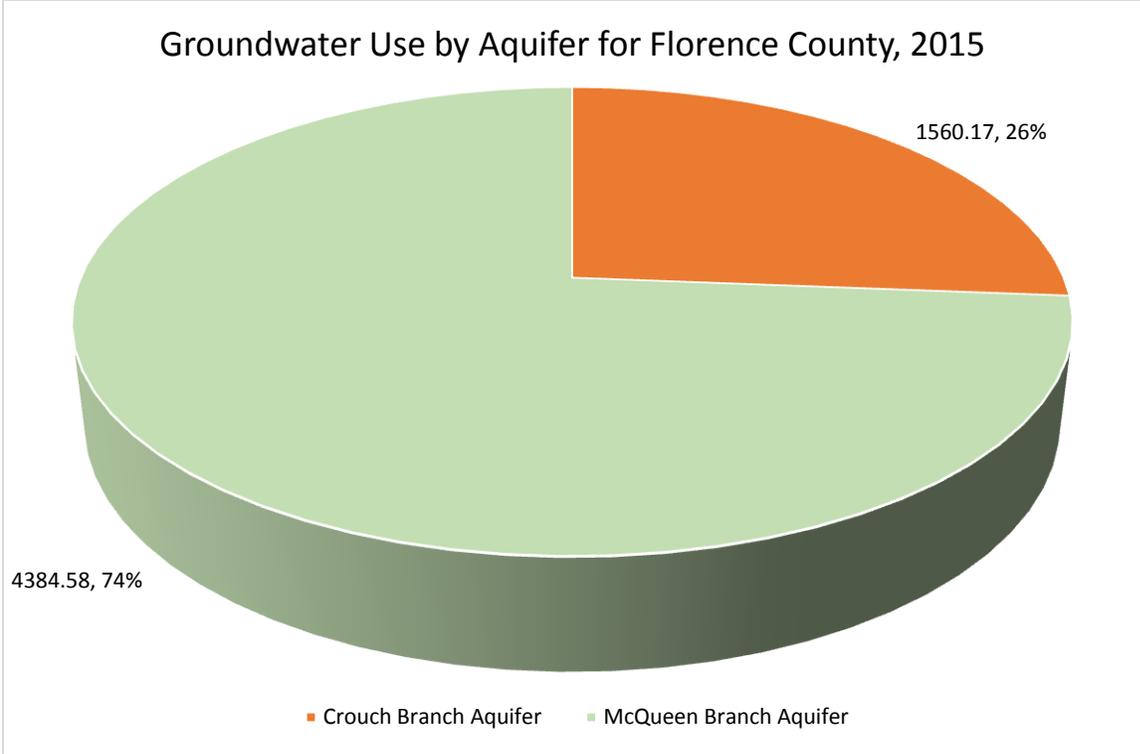


Figure 15. Reported groundwater use by aquifer for Florence County, 2015.

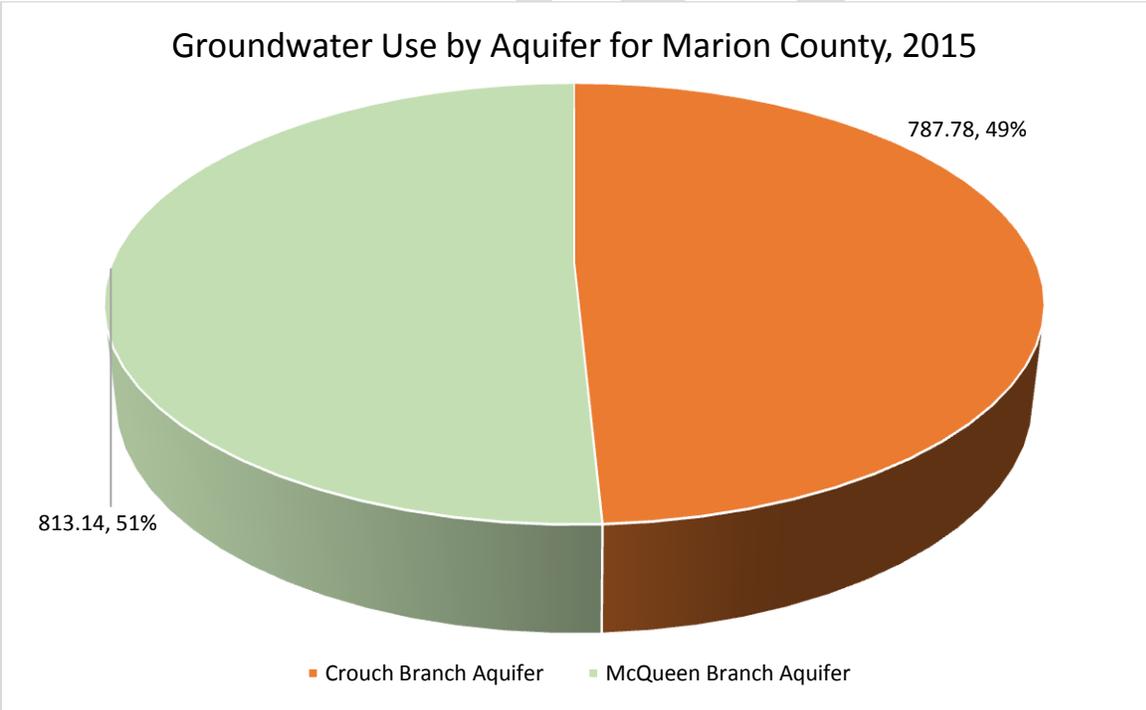


Figure 16. Reported groundwater use by aquifer for Marion County, 2015.

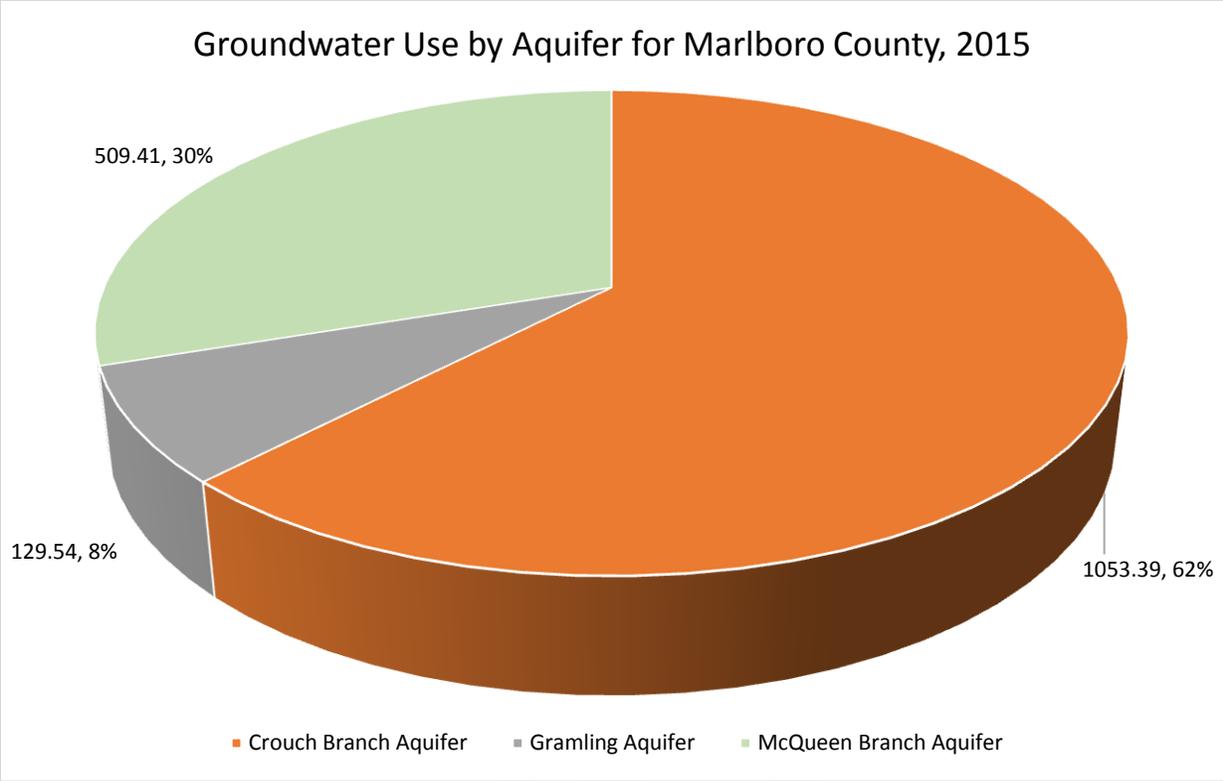


Figure 17. Reported groundwater use by aquifer for Marlboro County, 2015.

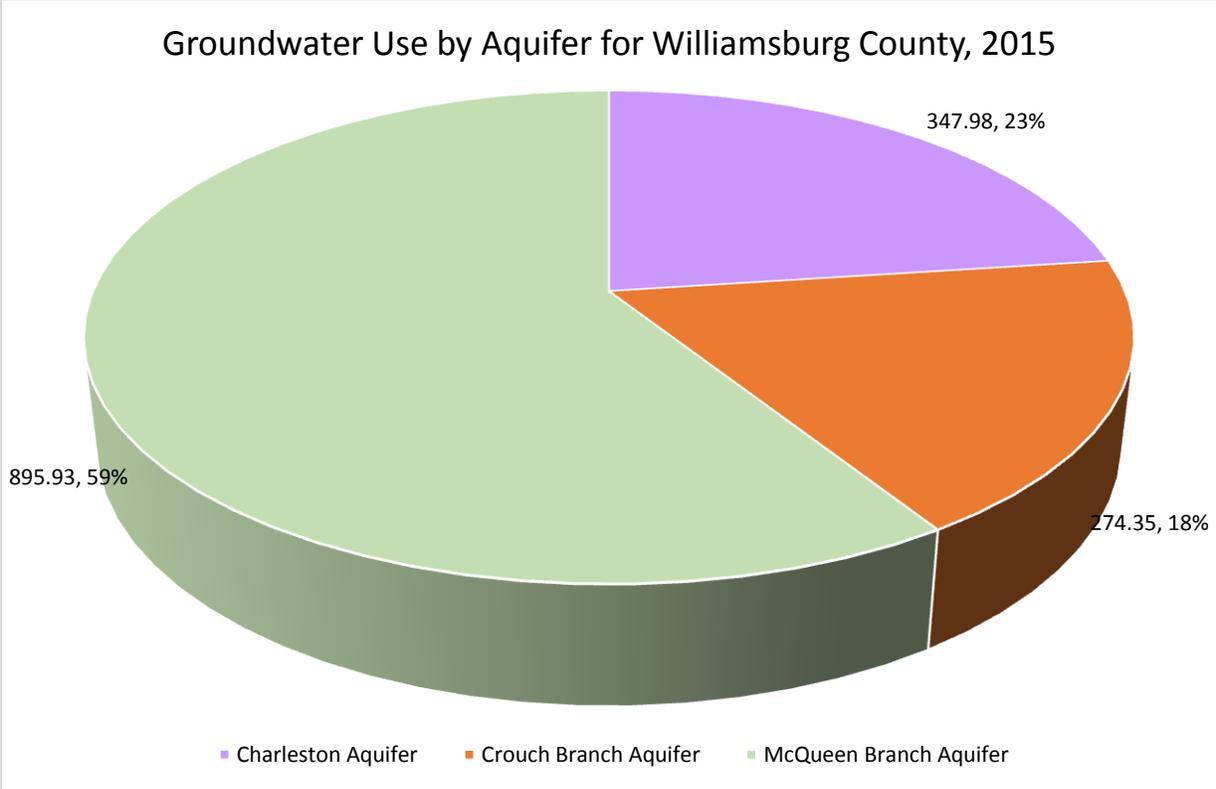


Figure 18. Reported groundwater use by aquifer for Williamsburg County, 2015.

Groundwater Demand Trends

To provide an historical perspective on reported groundwater use in the Pee Dee Capacity Use Area, Figures 19 and 20 show reported use by category of use. Public water supply use increased until about 2003, when it began to level off. Reported use for Irrigation was fairly low but started increasing between 2013 and 2014, going up from 828 million gallons to 1,658 million gallons. Industrial use has fluctuated between 3,192 million gallons in 2004 to 1,853 million gallons in 2010 and back up to 3,612 million gallons in 2015. Reported groundwater use for Golf Courses stayed relatively consistent, hovering around 120 million gallons. Reported Nuclear Power use has also stayed relatively constant, around 378 million gallons.

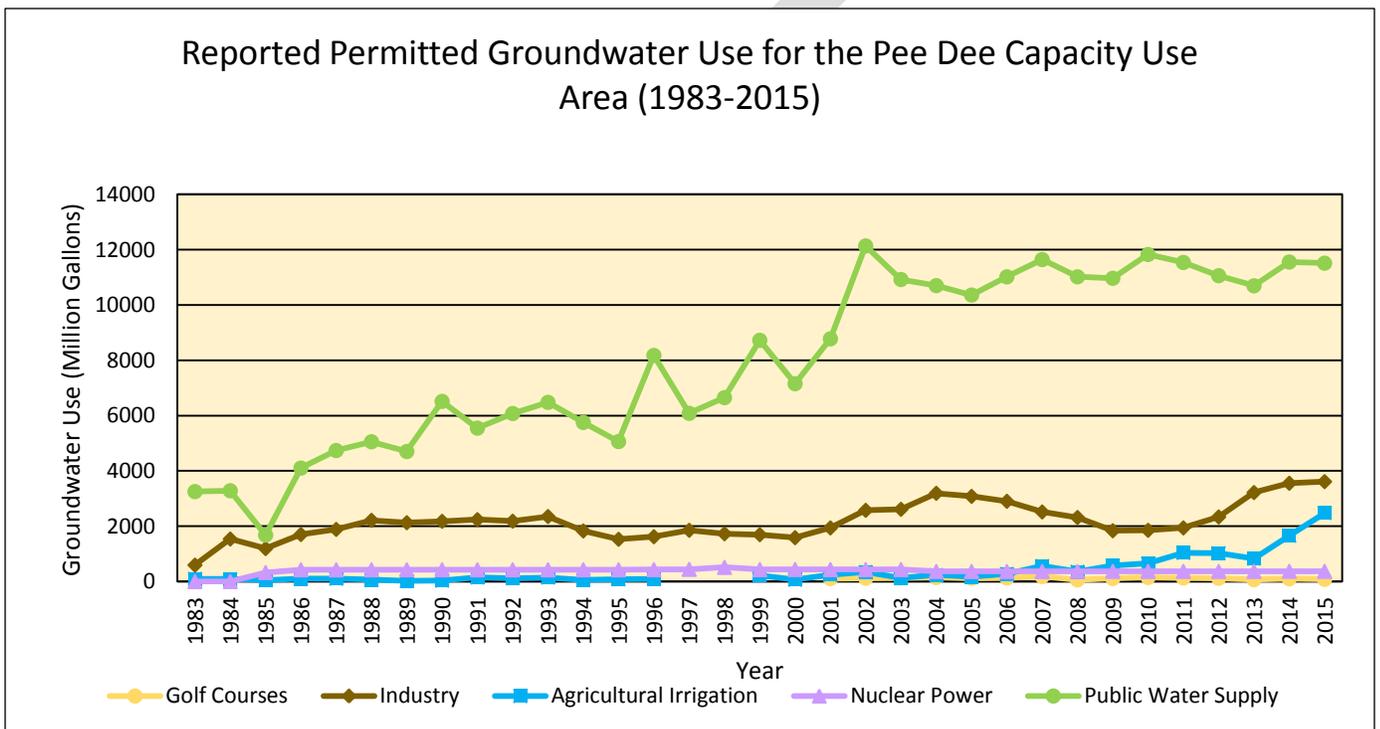


Figure 19. Reported permitted groundwater use for the Pee Dee Capacity Use Area, 1983-2015.

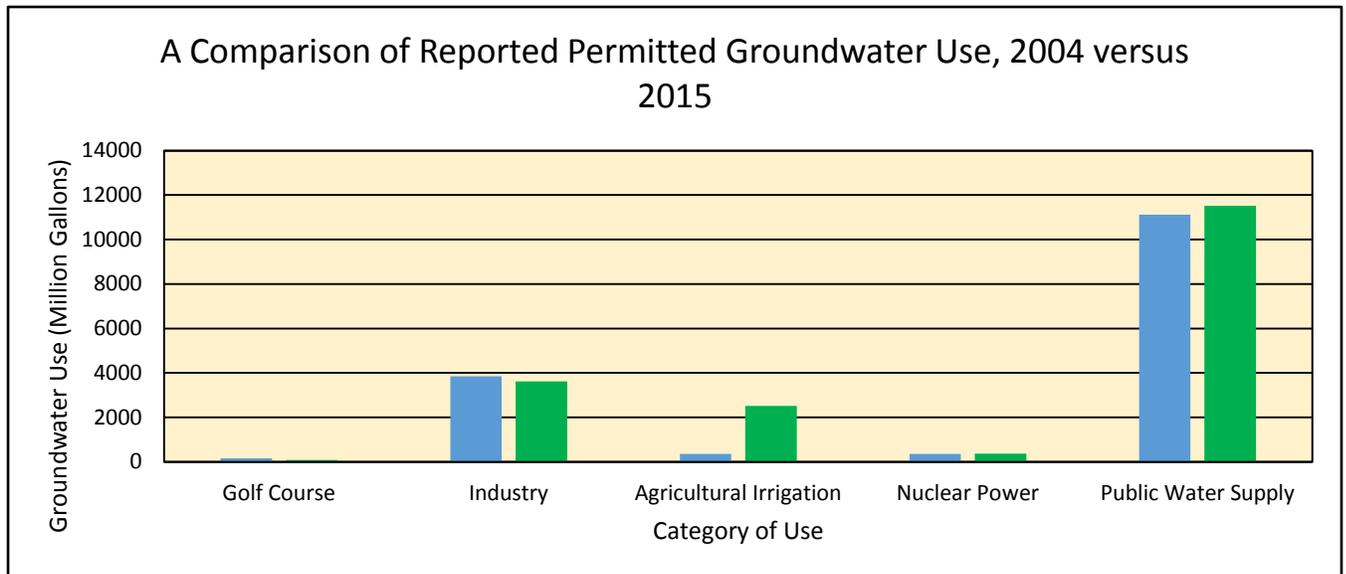


Figure 20. A comparison of reported groundwater use for 2004 to 2015.

Population, Growth, and Water Use Projections

The population in the Pee Dee area has not increased very much, only rising 3 percent the last 10 years. At the time of the 2010 Census, only 334,046 people were living in the region. Since the 2000 Census, Florence County experienced the largest percent increase in population, followed by Dillon and Darlington Counties, as shown in Table 4.

Table 4. County Population Change 2000-2010.

County	April 1, 2000 Census	April 1, 2010 Census	Change in Population	Percent Change
Darlington	67,394	68,681	1,287	1.9%
Dillon	30,722	32,062	1,340	4.2%
Florence	125,761	136,885	11,124	8.1%
Marion	35,466	33,062	-2,404	-7.3%
Marlboro	28,818	28,933	115	0.4%
Williamsburg	37,217	34,423	-2,794	-8.1%

Source: <http://abstract.sc.gov/chapter14/pop5.html>, SC Statistical Abstract, Table 5, Status of Population Projections Based on the 2010 Census Data, South Carolina Revenue and Fiscal Affairs Office).

Table 5 depicts population projections for the three counties and the region as a whole from 2000 to 2030 presented in the *South Carolina Statistical Abstract, 2010*, as prepared by the South Carolina Revenue and Fiscal Affairs Office. The region is expected to grow by approximately 23,322 people between 2000 and 2030, an increase of 7.17 percent. Florence County has the highest population (140,000 in 2015) and is projected to continue to have a higher population than the other counties, as well as experience the largest percent increase in population, followed by Dillon County (by percentage) and Darlington County (by actual population increase).

Table 5. County Projected Population Change, 2000-2030.

Population Counts and Projections 2000-2030								
County	April 1, 2000 Census	April 1, 2010 Census	July 1, 2015 Projection	July 1, 2020 Projection	July 1, 2025 Projection	July 1, 2030 Projection	Projected Change	Projected Percent Change
Darlington	67,394	68,681	69,000	69,300	69,900	70,500	3,106	4.61%
Dillon	30,722	32,062	32,400	32,800	33,100	33,400	2,678	8.72%
Florence	125,761	136,885	140,000	143,100	147,000	150,900	25,139	19.99%
Marion	35,466	33,062	32,500	32,000	31,900	31,800	-3,666	-10.34%
Marlboro	28,818	28,933	29,000	29,000	29,100	29,200	382	1.33%
Williamsburg	37,217	34,423	33,800	33,100	33,000	32,900	-4,317	-11.60%
Pee Dee Area	325,378	334,046	336,700	339,300	344,000	348,700	23,322	7.17%

Source: <http://abstract.sc.gov/chapter14/pop5.html>, SC Statistical Abstract, Table 5, Status of Population Projections Based on the 2010 Census Data, South Carolina Revenue and Fiscal Affairs Office).

Permitted withdrawal limits in the Pee Dee Area total 28,799 million gallons per year. Total reported usage for 2015 in the Pee Dee Area was 18,065.83 million gallons (Table 6).

Table 6. Permit limits versus reported use (million gallons).

Darlington			Dillon			Florence		
Permit	Permit Limit	Reported 2015 Use	Permit	Permit Limit	Reported 2015 Use	Permit	Permit Limit	Reported 2015 Use
16GC001	50	0.843	17IR001	40	39.5	21GC005	154	64.55
16IN001	500	13.123	17IR017	300	123.024	21IN001	65	46.432
16IN004	108	0	17IR018	23	3	21IN002	900	639.904
16IN005	1758	1655.548	17IR019	49.7	21.214	21IN008	240	248.26
16IN006	315	40.33	17IR020	54	9.462	21IN010	76	65.045
16IR016	381	280.3	17IR021	140	56.883	21IN012	600	465.037
16IR017	40	34.953	17IR022	50	16.2	21IR012	40	15.56
16IR018	30	24.561	17IR023	86	36.89	21IR014	25	45
16IR030	46	37.05	17IR024	34	10.7	21IR015	135	127
16IR041	79	45.75	17IR025	100	9.6	21IR052	54	47
16IR042	36	23.4	17WS001	554	353.658	21IR054	50	43.75105
16IR081	93	106.92	17WS003	175	130.594	21WS001	300	170.849
16IR082	45	55.3	17WS004	1500	1070.188	21WS002	5940	3220.26
16IR083	24	0.5	17WS005	70	65.796	21WS005	661	563.6
16IR085	30	38	Total	3,175.7	1,946.71	21WS007	150	44.239
16IR086	63	42				21WS008	50	37.105
16IR087	25	36				21WS009	75	53.114
16IR088	34	1.583				21WS010	58	48.036
16IR089	140	52				Total	9,573	5,944.74
16IR090	30	17.5						
16IR091	90	30						
16IR092	60	86.693						
16IR095	50	34.91						
16PN001	663.6	367.492						
16WS001	1800	1572.655						
16WS002	375	293.268						
16WS003	712	445.884						
16WS005	40	26.287						
Total	7,617.60	5,362.85						

Marion			Marlboro			Williamsburg		
Permit	Permit Limit	Reported 2015 Use	Permit	Permit Limit	Reported 2015 Use	Permit	Permit Limit	Reported 2015 Use
33GC002	24	14.146	34IN003	175	67.92	45IN001	900	369.84
33IR026	201	122.15	34IN006	180	0.95	45IN003	109	0.066
33IR054	163	68.8	34IR001	100	68.1	45IR002	200	136
33IR055	35	18.5	34IR003	169	116.81	45IR003	24	11.5
33IR056	125	55.407	34IR015	50	30	45IR025	18	4
33IR057	318.5	78.335	34IR016	60	0	45WS001	288	139.44
33WS001	706	421.039	34IR019	67	47.76	45WS002	430	320.88
33WS002	675	519.633	34IR020	48	15.5	45WS003	54.2	25.93
33WS003	390	294.872	34IR021	25	19	45WS004	41	16.99
33WS004	20	8.039	34IR022	125	8	45WS005	36	8.75
Total	2,657.5	1,600.92	34IR023	37	10	45WS006	432	405.54
			34IR024	61	33.3	45WS007	432	79.32
			34IR025	59	74.5	Total	2,964.2	1,518.26
			34IR027	68	18			
			34WS001	803	530.56			
			34WS002	480	429.93			
			34WS003	120	91.84			
			34WS004	100	84.28			
			34WS050	50	45.9			
			Total	2,811	1,692.34			

Potential future groundwater demands are estimated for water supply, based on population projections, and all other categories (total) based on an estimated nominal growth of .24% per year.

Water Supply:

For 2015 in the Pee Dee Area, total groundwater withdrawal for water supply is approximately 11,518,482,500 gallons. Combined with reported surface water supply (1,583,936,000 gallons), the per capita use of water in the Pee Dee Area is approximately 54 million gallons per day. Utilizing this value (54 mgpd), projected population, and assuming groundwater will represent approximately 88% of the total water supply demand, groundwater demand is projected through 2030 (Table 7).

Table 7. Projected groundwater demand-water supply (million gallons) in Pee Dee Area.

2015	2020	2025	2030
11,518.48 MGY	11,656.01 MGY	11,795.33 MGY	11,936.24 MGY
31.55 MGD	31.93 MGD	32.32 MGD	32.70 MGD

Other:

Groundwater demand for all other categories through 2030 is calculated based on an estimated nominal and steady growth of .24% per year (Table 8).

Table 8. Projected groundwater demand-other (million gallons) in Pee Dee Area.

	2015	2020	2025	2030
	6,547.34 MGY	6,625.56 MGY	6,704.71 MGY	6,784.80 MGY
	17.94 MGD	18.15 MGD	18.37 MGD	18.59 MGD

Total Projected Water Demand:

Total potential groundwater demand for the Pee Dee Area is estimated from the calculations for Water Supply (Table 7) and Other categories (Table 8) (see Table 9).

Table 9. Total projected groundwater demand-Pee Dee Area (million gallons).

	2015	2020	2025	2030
Water Supply	11,518.48	11,656.08	11,795.33	11,936.24
Other	6,547.34	6,625.52	6,704.71	6,784.80
Total MGY	18,065.83	18,281.64	18,500.04	18,721.04
Total Mgal/day	49.50	50.09	50.69	51.29

Groundwater Management Strategy

The ultimate goal of the Groundwater Management Plan is to outline a process to conserve and protect the groundwater resource while establishing conditions that are conducive to the continued development and long-term viability of the aquifers of the Pee Dee Area. In short, the goal is to develop and implement a sustainable development strategy. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their needs. Ultimately, good scientific data must be available that allow the sustainable yields from each aquifer system in the Pee Dee Area to be determined, and permits for withdrawals issued accordingly. However, these data do not fully exist at this date. This plan, therefore, must focus on obtaining this critical data and the issuance of permits for reasonable water withdrawals in the interim. The key strategies to achieve these goals are outlined below.

Strategy #1: Identify areas where a leveling and/or reduction in pumping is appropriate.

Prior to each permit renewal cycle, SCDHEC will consider the best available information on the geologic and hydrogeologic characteristics of the aquifer(s) and groundwater withdrawals of the area to protect against or abate unreasonable, or potentially unreasonable, adverse effects on the aquifer(s) and water users of the Pee Dee Area. Measures that the SCDHEC may require applicants, permit holders and groundwater withdrawers to take may include, but not be limited to, the following:

- Reduction of groundwater withdrawal in areas of concentrated pumping;
- Withdrawals from other available freshwater aquifers than those currently used;
- Selective curtailment or reduction of groundwater withdrawals where it is found to be in the public interest or general welfare or to protect the water resource;
- Conjunctive use of aquifers, or waters of less desirable quality, where water quality of a specific character is not essential;
- Construction and use of observation or monitor wells;
- Abandonment of wells that have penetrated zones of undesirable water quality where such wells are found to cause contamination of freshwater aquifers. Undesirable water quality is defined as not meeting the standards for Class GB Waters as listed in *Water Classifications & Standards*, R.61-68.H.9;
- Prohibiting the hydraulic connection of aquifers that could result in deterioration of water quality in a freshwater aquifer(s);
- Abandonment of wells, which will be filled with cement grout, plugged, and sealed;
- Implement reasonable and practical methods to conserve and protect the water resources and to avoid or minimize adverse effects of the quantity and quality of water available to persons whose water supply has been materially reduced or impaired as a result of groundwater withdrawals;
- Such other necessary and appropriate control or abatement techniques as are technically feasible.

Strategy #2: Review of permit applications based on demonstrated reasonable use.

Proposed withdrawals will be evaluated considering reasonableness of use and need, aquifer(s) being utilized, potential adverse effects on adjacent groundwater withdrawers, previous reported water use, anticipated demand for the proposed activities, availability of alternate water sources and reported water use at facilities with similar activities. Applications for groundwater withdrawal will incorporate a “Water Use Plan” or a “Best Management Strategy” detailing actual or proposed water use activities and all conservation techniques for site specific water management including, but not limited, to:

- Provide appropriate documentation that the proposed water use is a beneficial use of the resource and necessary to meet the reasonable needs of the applicant;
- Describe in detail the applications for which the water is being withdrawn and approximate quantities utilized in each application;
- Identify the aquifer(s) currently utilized and the hydrogeologic (groundwater quality, specific capacity/yield, etc.) factors for utilization. Identify if a less utilized aquifer is suitable to the facility’s need;
- Identify additional or alternate sources of water, including surface water, effluent, or recycled water, among others, suitable to meet the needs of the applicant and supplement, minimize, or eliminate groundwater sources;
- Identify reasonable and appropriate conservation methods or practices that maximize current water use and reduce current water demand;
- Identify any existing or anticipated adverse effects on other groundwater withdrawers, including public use, and strategies to eliminate or minimize these effects.

As part of the permitting process, stakeholder involvement, comment and recommendations will be incorporated during the public notice of the permit application.

Strategy #3: Establish a comprehensive groundwater monitoring program.

With increased population and a growing industrial base, water demand (from both surface and groundwater) is increasing at an expanding rate. Although water level declines are a normal response to groundwater withdrawals, not stabilizing these declines may cause serious impairment to the aquifers and groundwater quality of the region. SCDHEC will pursue partnerships with local entities, groundwater users and other agencies (both Federal and State) to facilitate the most effective use of resources in designing and maintaining a monitoring network for the Pee Dee Area. Both the USGS (Southeast Region) and the SCDNR maintain several groundwater level monitoring locations in the Pee Dee area. The table below lists the wells currently being used to monitor groundwater levels in the Pee Dee Capacity Use Area.

County	Well Id	Aquifer	Agency
Darlington	DAR-0228	Middendorf	SCDNR
Darlington	DAR-228	Middendorf	USGS
Dillon	DIL-0121	Middendorf	SCDNR
Dillon	DIL-0173	Middendorf	USGS
Dillon	DIL-0174	Black Creek	USGS
Dillon	DIL-0175	Middendorf	USGS
Florence	FLO-0128	Middendorf	SCDNR
Florence	FLO-0274	Middendorf	SCDNR
Florence	FLO-0276	Black Creek	SCDNR
Marion	MRN-0077	Black Creek	SCDNR
Marion	MRN-78	Cape Fear	USGS
Marlboro	MLB-0112	Middendorf	SCDNR
Williamsburg	WL-0355	McQueen Branch	SCDNR
Williamsburg	WL-12	Black Creek	USGS

Expanding the current network will allow more accurate monitoring of groundwater level conditions and facilitate scientifically-based recommendations for strategies to address any stressed conditions identified in the aquifers used in the Pee Dee area.

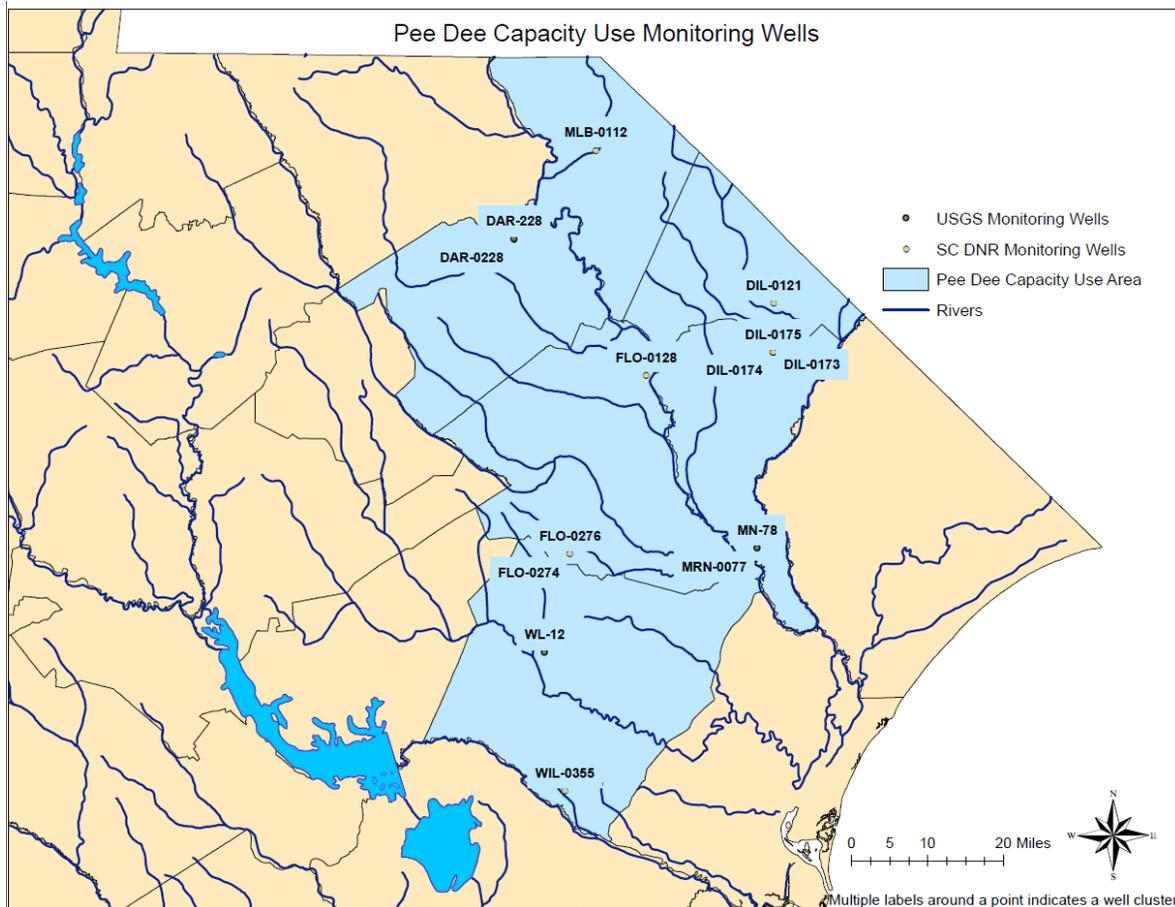


Figure 21. Locations of current monitoring wells.

The existing groundwater monitoring network with the additional locations is necessary to:

- Provide accurate data on the amount and rate of groundwater level declines;
- Establish the correlation between groundwater pumping and water level changes, both on a local and regional scale;
- Guide management efforts to minimize potential impairment of the aquifers and track progress in reversing water level declines;
- Provide groundwater withdrawers with timely and accurate information to effectively manage withdrawal activities.

Strategy #4: Establish a conservation educational plan for the general public and existing groundwater withdrawers.

Water conservation has increasingly become a cornerstone to the development of water management strategies. An effective, viable water conservation program should incorporate the following:

- Provide public education and outreach programs;
- Determine and enhance water use efficiency;
- Determine water losses and establish corrective actions;
- Prepare for water shortages and provide appropriate responses.

Strategy #5: Regulation and Planning.

The Groundwater Use and Reporting Act provides for regulation of water withdrawals in South Carolina. Groundwater regulation is necessary to protect and provide for the long-term sustainability of the resource. As data are developed on the groundwater resources of the designated Capacity Use Areas, the regulations should will be reviewed to ensure that sufficient and adequate protection of the resource is provided.

SCDNR is responsible for developing and updating the State Water Plan. A groundwater model of the coastal aquifers is currently being developed by the USGS and SCDNR. As the results of the modeling effort and the updates to the State Water Plan become available, they will help inform potential regulatory and policy changes and will be incorporated into this Groundwater Management Plan.

Groundwater Management Plan Reports

Every 5 years, or length of the permitting cycle, total annual groundwater withdrawals will be compiled and compared to available aquifer potentiometric maps. The report will include the following information:

- Listing of all permitted withdrawers, permitted withdrawal limits, and average groundwater withdrawal;
- Evaluation of withdrawal by category and by aquifer;
- Identification of areas of aquifer stress and all withdrawers utilizing the stressed aquifer(s).

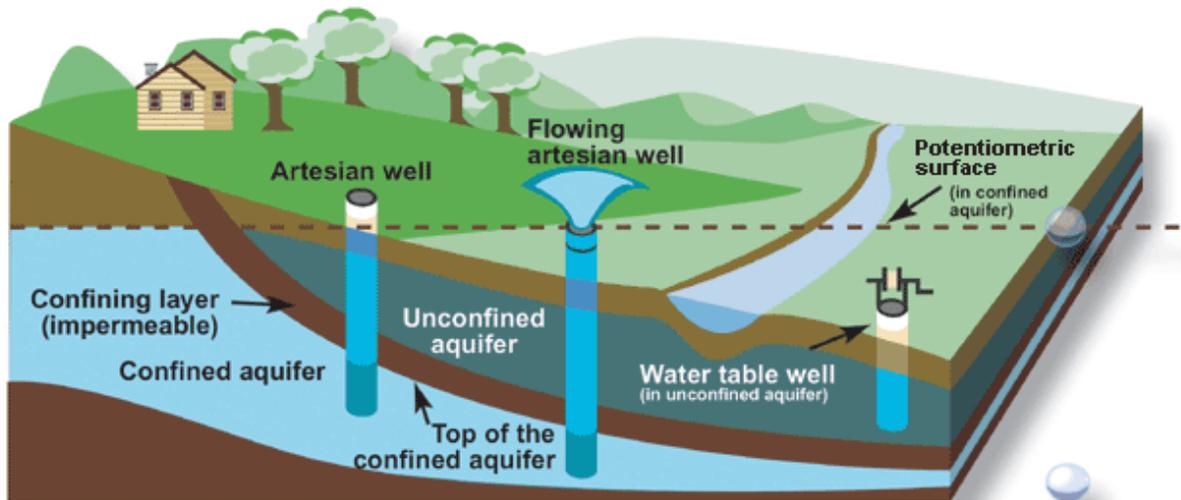
Based on the information developed for the plan report, modifications of groundwater withdrawals in stressed areas will be reviewed and subsequently the Groundwater Management Plan may be amended. The report will also evaluate, as information is developed, changes in water quality of the aquifers, available storage capacity of the aquifers, project future rates of withdrawal and estimate future groundwater declines from the projected withdrawal rates. Through time, a safe sustainable yield for each aquifer will be developed and subsequent withdrawal limits will be based on this available yield. The Department will host a stakeholder meeting to discuss the draft report. Comments on the draft plan will be taken into consideration as the Department finalizes the report and updates the groundwater management plan based on the report recommendations. The final report and updated groundwater management plan will be shared with the Stakeholders and the permit renewals will be issued consistent with the report and the plan.

ATTACHMENT C

**PROPOSED WACCAMAW CAPACITY USE AREA
INITIAL GROUNDWATER MANAGEMENT PLAN
AUGUST 2017**

INITIAL GROUNDWATER MANAGEMENT PLAN FOR THE WACCAMAW CAPACITY USE AREA

Aquifers and wells



Source: Environment Canada, USGS

August 2017



Healthy People. Healthy Communities.

Contents

Executive Summary	1
Introduction.....	2
Definitions.....	3
Geo-Political Structure.....	4
Regional Description	4
Groundwater Level Trends	10
Current Groundwater Demand.....	16
Groundwater Demand Trends.....	21
Population, Growth, and Water Use Projections	22
Groundwater Management Strategy	26
Groundwater Management Plan Reports	29

Executive Summary

South Carolina's Groundwater Use and Reporting Act (Chapter 5, Section 49-5-60) gives the South Carolina Department of Health and Environmental Control (DHEC) the legal authority and mandate to establish and implement a local groundwater management program in designated Capacity Use Areas. Effective groundwater management ensures that the groundwater resources of the State are put to beneficial use to the fullest extent which they are capable, conserves and protects the resource, prevents waste, and establishes conditions which are conducive to the development and long-term viability of the water resources. As aquifers and the relative social and economic requirements of the State vary by area and region, groundwater management should be locally and/or regionally assessed, balancing all needs and interests. In this regard, DHEC coordinates with local stakeholders to achieve the stated goals of the plan leading to sustainable development of the groundwater resources. Sustainable development is the key guiding principle, where South Carolina's groundwater resources are managed so that development meets the needs of the present without compromising the ability of future generations to meet their needs.

DRAFT

Introduction

On June 22, 1979, the South Carolina Department of Health and Environmental Control Board, as established in Section 49-5-60, Capacity Use Designation, declared the whole of Georgetown County and Horry County as the **Waccamaw Capacity Use Area** (Waccamaw Area), Figure 1. The Waccamaw Area was the first of the four currently declared Capacity Use Areas in South Carolina. Within the Waccamaw Area, no person shall withdraw, obtain, or otherwise utilize groundwater at or in excess of three (3) million gallons per month for any purpose unless said person shall first obtain a Groundwater Withdrawal Permit from DHEC. A groundwater withdrawer is defined as any person withdrawing groundwater at or in excess of three (3) million gallons during any one month from a *single well* or *multiple wells* within a one-mile radius of any existing or proposed well.

The Waccamaw Area plan will guide the initial groundwater management strategy and provide direction for future groundwater management goals by evaluating, as data become available, the hydrologic, environmental, social, and economic impacts of groundwater withdrawals at various rates on the long-term sustainable levels for the aquifers of the Waccamaw Area. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their needs and requirements. Therefore, the three general goals of the Waccamaw Area Groundwater Management Plan are:

1. Ensure sustainable development of the groundwater resource by management of groundwater withdrawals;
2. The protection of groundwater quality from salt-water intrusion; and,
3. Monitoring of groundwater quality and quantity to evaluate conditions.

To accomplish the above goals, the Waccamaw Area Groundwater Management Plan addresses the following aspects of water use in the Georgetown and Horry County region:

- Groundwater sources currently utilized;
- Current water demand by type and amount used;
- Current aquifer storage and recovery and water reuse;
- Population and growth projections;
- Water demand projections;
- Projected opportunities for aquifer storage and recovery, as well as water reuse;
- Projected groundwater and surface water options; and,
- Water conservation measures.

Planning is a multi-stage process that includes provisions for updating/amending as conditions change over time. In this first plan, only general goals can be established. As more data are developed about the groundwater resources of the Waccamaw Area, more specific goals and withdrawal limits will be incorporated.

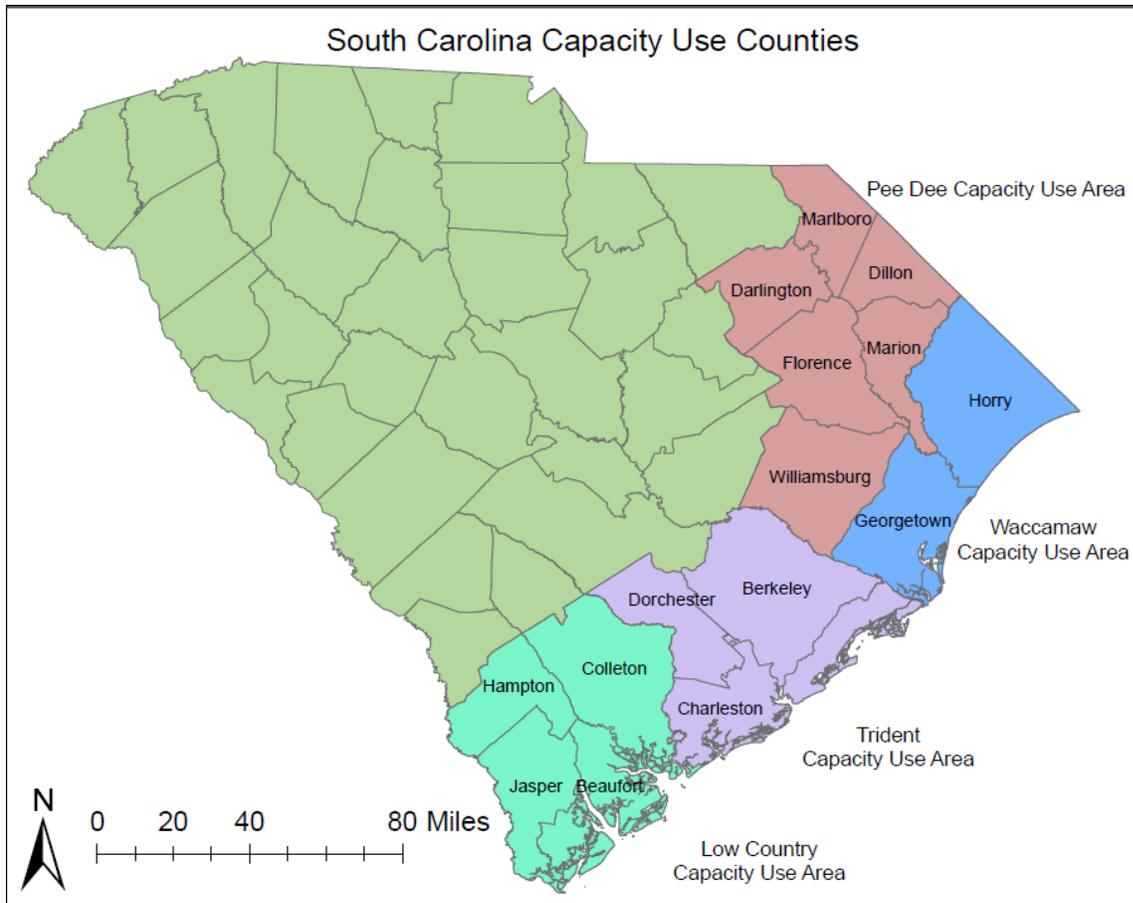


Figure 1. Capacity Use Areas.

Definitions

“Adverse Effects” – Undesirable consequences of withdrawing groundwater that may include: changes in water quality, significant reduction in water level of the aquifer, saltwater intrusion, land subsidence, and decreases in stream flow.

“Beneficial Use” - The use of that amount of water that is reasonable and appropriate under reasonably efficient practices to accomplish without waste the purpose for which the appropriation is lawfully made.

“Best Management Plan” means a document that supports the design, installation, maintenance, and management of water conveyance systems and/or water withdrawal systems (water supply, commercial, industrial, agricultural, etc.), which promotes water conservation, and protects water quality.

“Person” means an individual, firm, partnership, association, public or private institution, municipality or political subdivision, local, state, or federal government agency, department, or instrumentality, public water system, or a private or public corporation organized under the laws of this State or any other state or county.

“Sustainable Yield” - ground-water sustainability as development and use of ground water in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences.

“Water User” - A person using groundwater for any purpose.

Geo-Political Structure

As one of South Carolina’s ten Regional Planning Councils, the WRCOG’s primary objectives include providing planning and technical support to local governments and assisting them in the development of local and regional plans. The WRCOG is governed by a twenty-five-member board, who are appointed by the legislative delegation of each respective county (Georgetown, Horry and Williamsburg Counties). This board, led by an Executive Committee, sets policy and provides direction to the programs of the WRCOG.

Currently, the two-county (Georgetown and Horry Counties) Waccamawarea contains 11 cities and towns and over 360,000 people. This includes a few central cities surrounded by smaller cities, island communities, and rural towns (up to 59 small unincorporated areas). Georgetown and Horry Counties’ governments are conducted through a Council-Administrator form of government. Of these 11 jurisdictions, 5 utilize a Mayor-Council form of government.

The SCDHEC has permit authority for all groundwater withdrawals in the Waccamaw Area. Permits are issued after appropriate review in accordance with Chapter 5, The Groundwater Use and Reporting Act, Groundwater Use and Reporting Regulation, R.61-113, and the goals and management strategy developed in the Waccamaw Area Groundwater Management Plan.

Regional Description

Comprised of Georgetown and Horry Counties, the Waccamaw area covers 2,290 square miles, of which approximately 342 square miles are surface water. The Waccamaw area stretches about seventy miles through the northern coast of South Carolina, bordered by the Santee River on the south, the North Carolina border to the north, Pee Dee to the west, and the Atlantic Ocean on the east. The region includes over sixty miles of uninterrupted Atlantic coastline, also known as the Grand Strand. Both counties are located in the Coastal Plain physiographic region, Figure 2.

Physiographic Provinces of South Carolina

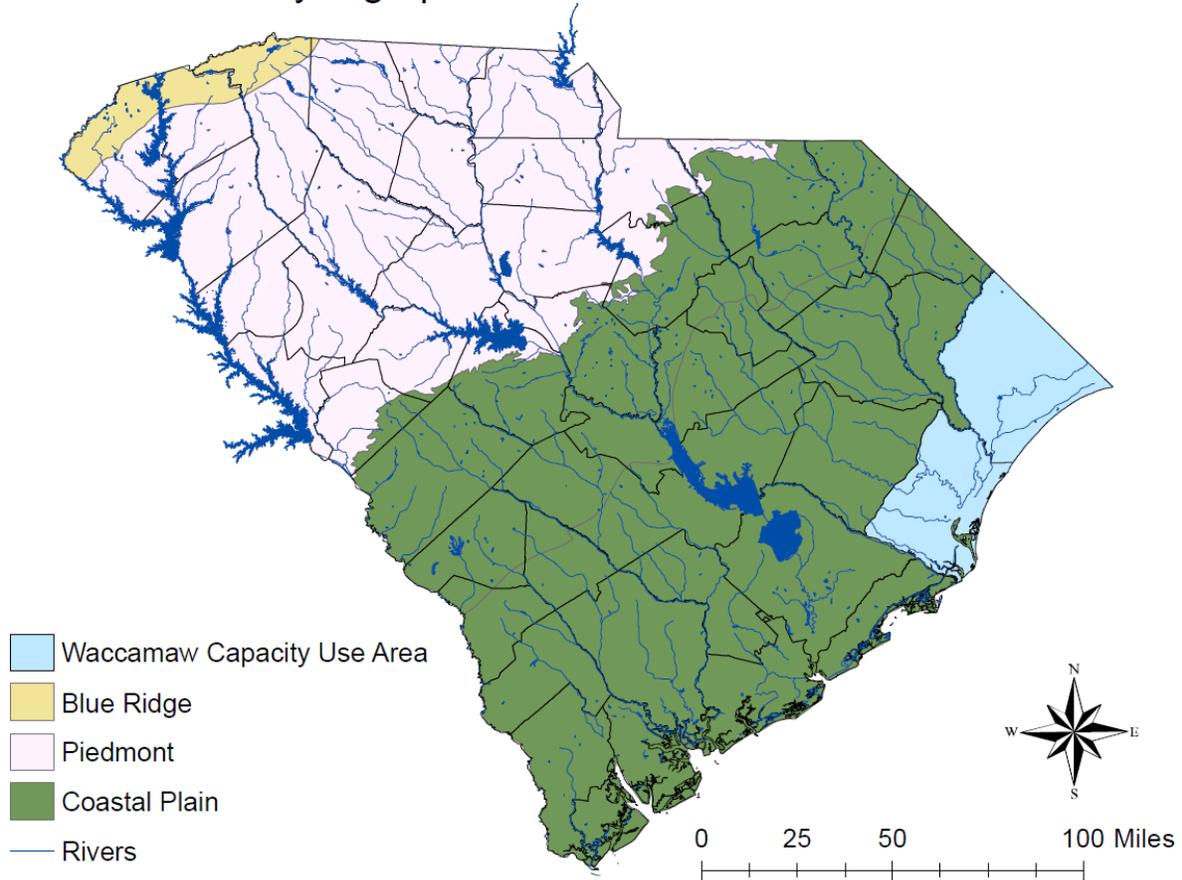


Figure 2. Physiographic Provinces of South Carolina.

There are several major water bodies in the area in addition to the Atlantic Ocean including the Intracoastal Waterway, numerous rivers such as the Waccamaw, Pee Dee, and part of the Santee Rivers and a network of streams, wetlands, and marshes, Figure 3. The topography of the region is very level with only slight undulations in the landscape. Elevations range from mean sea level to slightly over one hundred feet. Soil types vary from well-drained sandy loams to muck lands. Generally, alluvial deposits border the larger streams, organic deposits underlie the swamps, and various types of loams cover the better-drained areas.

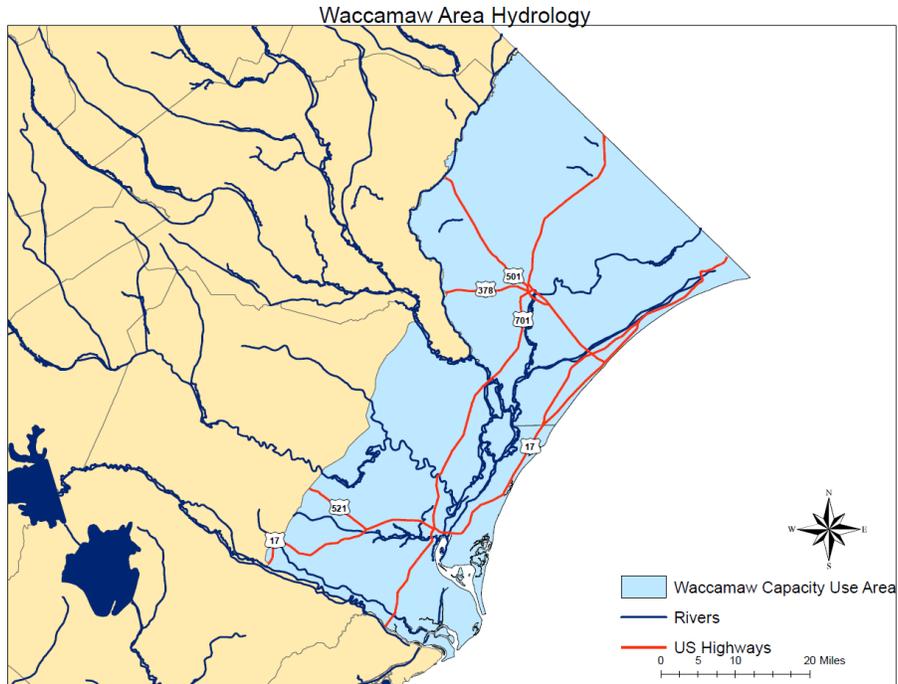


Figure 3. Hydrology of the area.

The Waccamaw Area enjoys a relatively mild and moderate climate characteristic of its southeast US coastal location. Compared to overall State averages, winter temperatures are generally warmer and summers tend to be cooler and less humid. The average annual temperature is 64.58°F, with an average daily maximum of 75.63°F and a minimum of 53.5°F. Approximately thirty-five percent of the fifty-four inches of average annual precipitation occurs during the summer months (Figure 4, 5). Thunderstorms are most frequent during the summer and create relatively short durations of concentrated runoff.

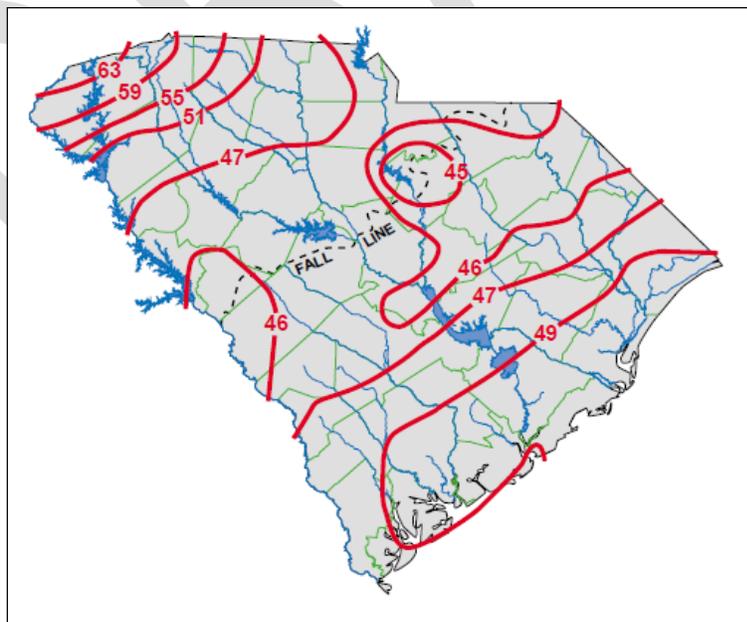


Figure 4. Average annual precipitation, in inches for the period 1948-1990. Source: South Carolina Department of Natural Resources (SCDNR)-Hydrology/Geology Map 2, R.N. Cherry, A.W. Badr, and Andrew Wachob, 2001.



Figure 5. Average annual water yield (precipitation less evapotranspiration), in inches, 1948-1990. Source: SCDNR-Hydrology/Geology Map 2, R.N. Cherry, A.W. Badr, and Andrew Wachob, 2001.

Groundwater Supplies

The oldest (and deepest) aquifers or water-bearing units underlying the Waccamaw Area are of Late Cretaceous age and comprise sediments that have been subdivided into four (4) aquifer systems (oldest to youngest): the Gramling, Charleston, McQueen Branch, Crouch Branch, and Gordon, Figure 6. These units are generally continental shelf to inner marine shelf and deltaic deposits and range from fine to medium grained sand, silts and clays. Water bearing zones typically are beds of sands of varying thickness and extent separated by silty, clayey beds or lenses.

- The Gramling Aquifer is not well defined and no known outcrop has been identified in South Carolina. It is thought to mainly consist of sand and gravel beds separated by thick layers of silt and clay.
- The Charleston/McQueen Branch Aquifer occurs throughout the Coastal Plain, from the Fall Line to the coast. The McQueen Branch crops out (catchment area) adjacent to the Fall Line from Chesterfield County to Edgefield County. In the Waccamaw Area the aquifer is generally composed of thin- to thick-bedded sands and clays deposited in marginal marine and/or lower delta plain environments. In the Waccamaw area, the McQueen Branch-Charleston aquifer is approximately 400 feet thick.
- The Crouch Branch Aquifer occurs throughout the Lower Coastal Plain and crops out in the eastern portion of the Coastal Plain from Lexington County to Dillon County. The aquifer is generally composed of thin- to thick-bedded sands and clays deposited in marginal marine and/or

lower delta plain environments. In the Waccamaw area, the Crouch Branch is approximately 450 feet thick.

Units overlying the Late Cretaceous formations include the Tertiary age Gordon, Floridan, and Surficial Formations, Figure 6. These units range from marginal marine to outer shelf deposits and their lithologies consist predominantly of sand, silt, and clay, with the upper part being mainly pure to impure limestone.

- The Gordon Aquifer extends from its catchment area in the middle of the Lower Coastal Plains southwest. In the Waccamaw area, the Gordon is approximately 50 feet thick.
- The Floridan Aquifer occurs throughout the southern portion of the coastal plain. In the Waccamaw area, the Floridan Aquifer is not very well represented, only in the southernmost part of Georgetown County.
- The Tertiary units are overlain by a sequence of sand, silt, clay, and shells of Pleistocene age that are generally not more than fifty feet thick.

DRAFT

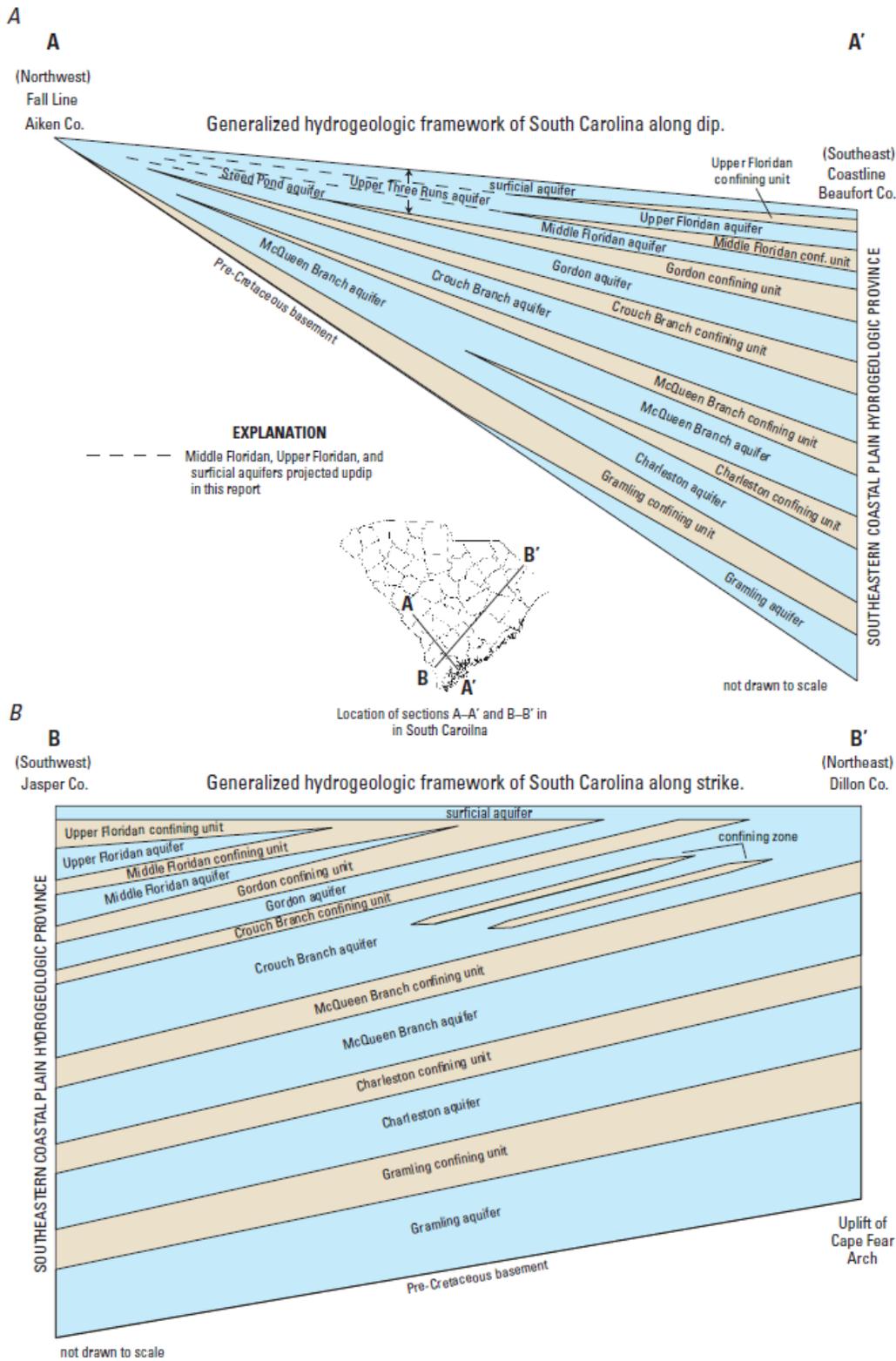


Figure 6. Generalized hydrogeologic framework, J. Gellici and J. Lautier, 2010 Hydrogeologic Framework of the Atlantic Coastal Plain, North and South Carolina: U.S. Geological Survey Professional Paper 1773, 113p.

Groundwater recharge occurs with infiltration of precipitation in catchment (recharge) areas. Figure 7 depicts the general recharge or catchment areas for the aquifers of the Waccamaw Area. The majority of recharge of aquifers in the Waccamaw area occurs mainly north of the region proper.

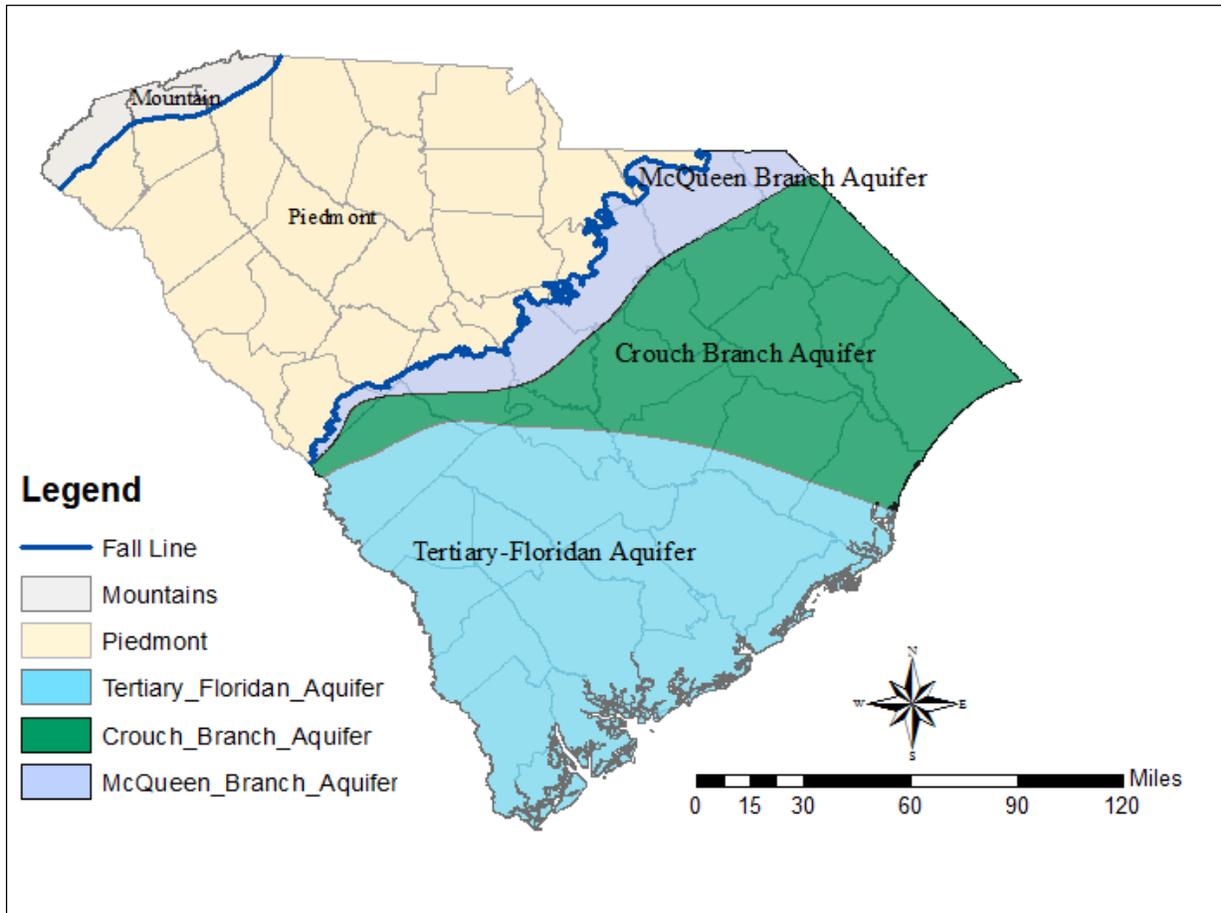


Figure 7. Generalized aquifer recharge areas.

Groundwater Level Trends

Crouch Branch Aquifer

Groundwater levels in the Crouch Branch Aquifer have declined substantially from pre-development levels in the Waccamaw area. Most of this decline can be attributed to concentrated public water supply usage. By 2000, the water level had dropped to 125 feet below mean sea level. Even with surface water being utilized for public water supply, the sharp influx of people over a short period of time has caused severe depressions in the region. Figure 8 shows the 2004 water levels in the Crouch Branch Aquifer (formerly known as the Black Creek). Figure 9 shows the 2015 potentiometric map for the Crouch Branch Aquifer produced by SCDNR. In 2015, the cone of depression centered in near the City of Georgetown is more well-defined as is the smaller area of concern in Horry County.

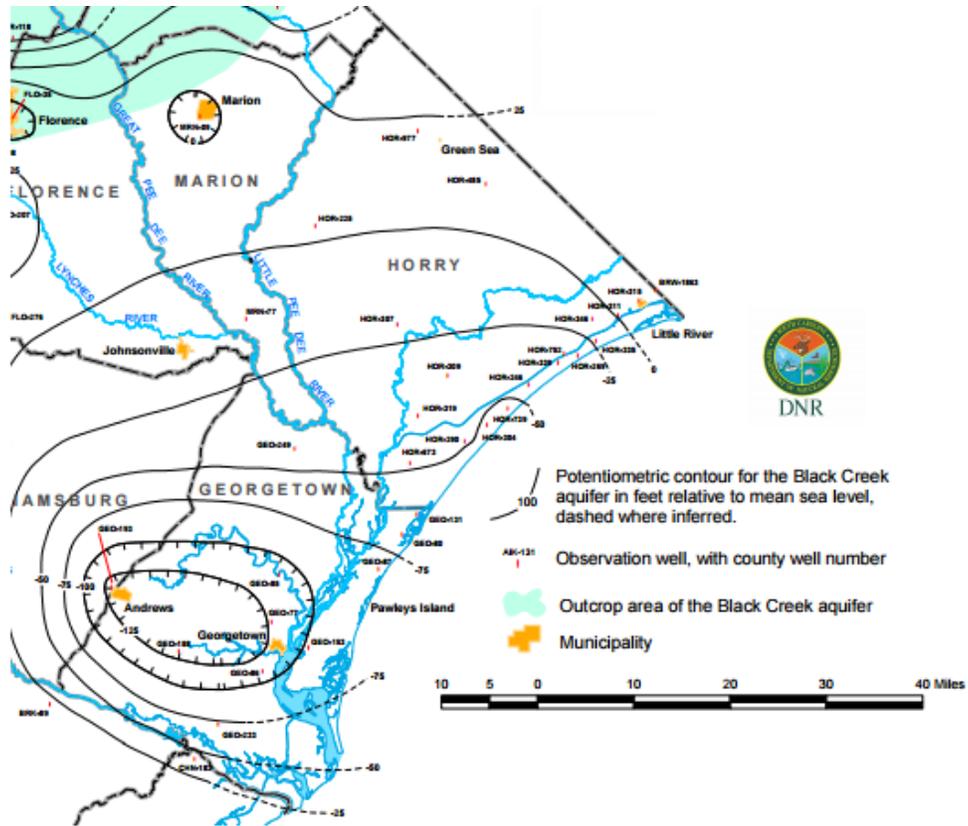


Figure 8. Water level map for the Black Creek Aquifer (Crouch Branch), 2004. Source: Hockensmith, 2008, SCDNR Water Resources Report 47.

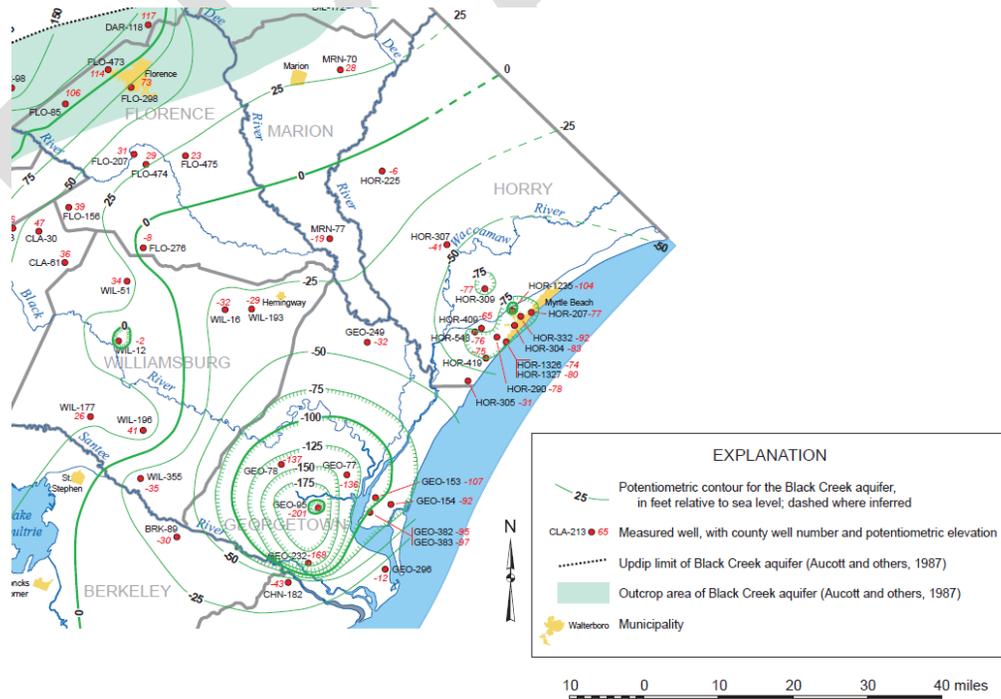


Figure 9. Water level map of the Crouch Branch Aquifer, 2015. Source: Wachob and Czwartacki, 2015, SCDNR Water Resources Report 59.

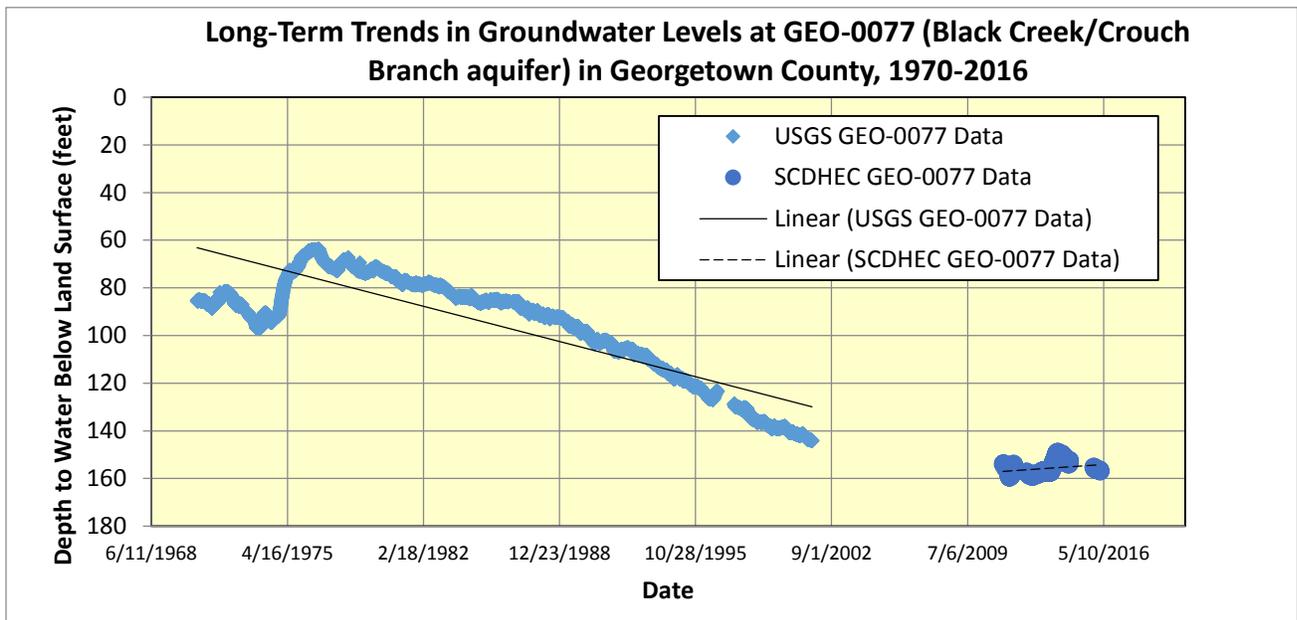


Figure 10: Long-Term Trends in Groundwater Levels at GEO-0077 in Georgetown County, 1970-2016

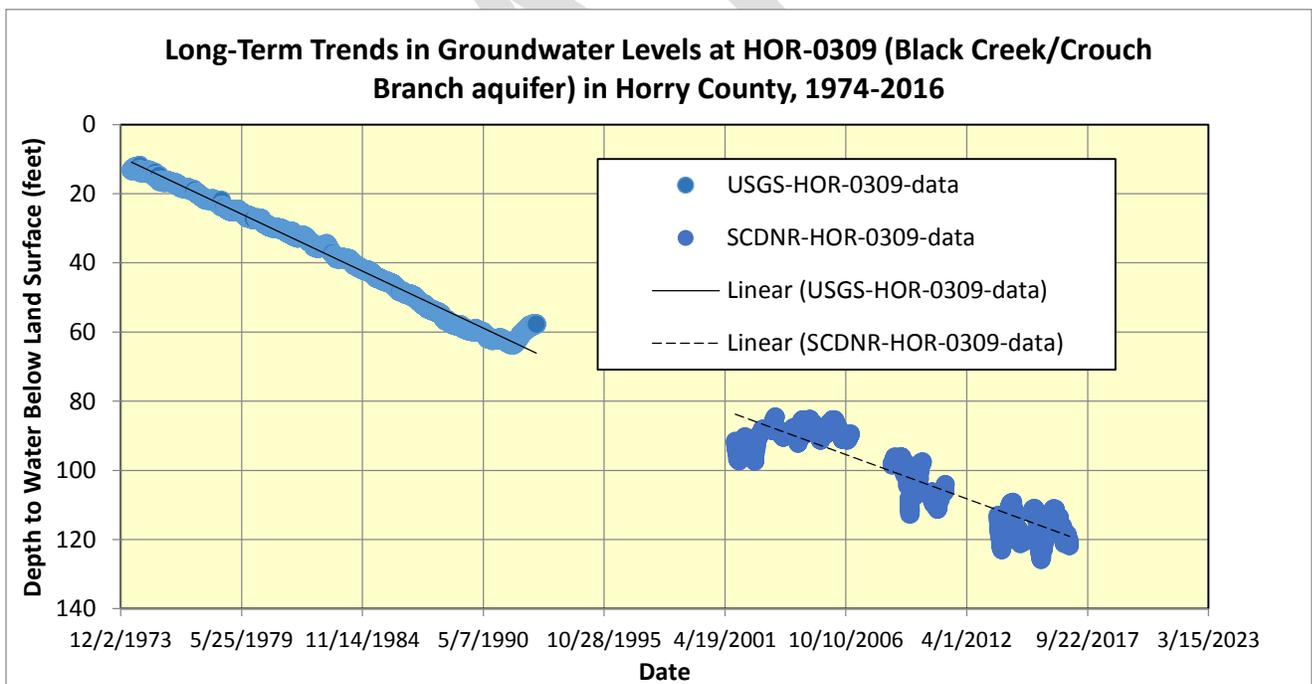


Figure 11: Long-Term Trends in Groundwater Levels at HOR-0309 in Horry County, 1974-2016

Continuous water level data for the Crouch Branch Aquifer is available from two wells, GEO-0077 (Georgetown) and HOR-0309 (Horry County). The United States Geological Survey (USGS) collected water level data from GEO-0077 between 1970 and 2001. SCDHEC began collecting water level data from this well in 2011. The USGS collected water level data from HOR-0309 between 1974 and 1992 with SCDNR continuing monitoring at this location in 2001. Data from these two wells (Figure 10 and Figure 11, respectively) was used to evaluate long-term trends in groundwater levels in the Crouch Branch Aquifer in the Waccamaw area.

Between 1970 and 2001, the groundwater levels in the Crouch Branch Aquifer at the GEO-077 well have declined at an approximate rate of 1.9 feet per year, with a total decline at this well of approximately 100 feet. Subsequent monitoring data appears to indicate that this decline has leveled off. However, this data set is too limited to make a definitive determination that groundwater levels in the Crouch Branch (Black Creek) Aquifer have stabilized in Georgetown County. Additional monitoring at this location is needed as are additional new monitoring locations to evaluate the status of the cone of depression observed in the Georgetown area.

Between 1974 and 1992, the groundwater levels in the Crouch Branch Aquifer at the HOR-0309 well (Horry County) have declined at a rate of about 2.5 feet per year. Between 2001 and 2016, the rate of decline in groundwater levels was approximately 1.9 feet per year at the HOR-0309 well, which suggests that the rate of decline in this aquifer in the Horry County area is slowing. This is most likely due to changes in water use (an increased reliance on surface water) by groundwater withdrawers in the region.

The population of the region increased and is projected to reach 436,800 by 2030 (Source: South Carolina Revenue and Fiscal Affairs Office, <http://abstract.sc.gov/chapter14/pop5.html>), demands on the groundwater resource are certain to increase in the future.

McQueen Branch/Charleston Aquifer

The Middendorf/McQueen Branch Aquifer potentiometric maps produced by SCDNR appear to show a water level increase in the Myrtle Beach area of approximately 50 feet between 2004 (Figure 12) and 2014 (Figure 13). In the Georgetown County, there appears to be a 75 foot increase in water levels between 2004 and 2014 potentiometric maps. However, data from only two monitoring locations in Horry County and no wells in Georgetown County were used in producing the 2004 potentiometric map. For the 2014 potentiometric map, only one well in Horry County and no wells in Georgetown County were used. This introduces some uncertainty in what conclusions can be drawn regarding groundwater conditions in the McQueen Branch/Charleston aquifer in the Waccamaw area based on the two potentiometric maps. Note that the potentiometric maps were produced based on water level measurements collected by the USGS, SCDNR and SCDHEC during November/December of 2004 and 2014 respectively.

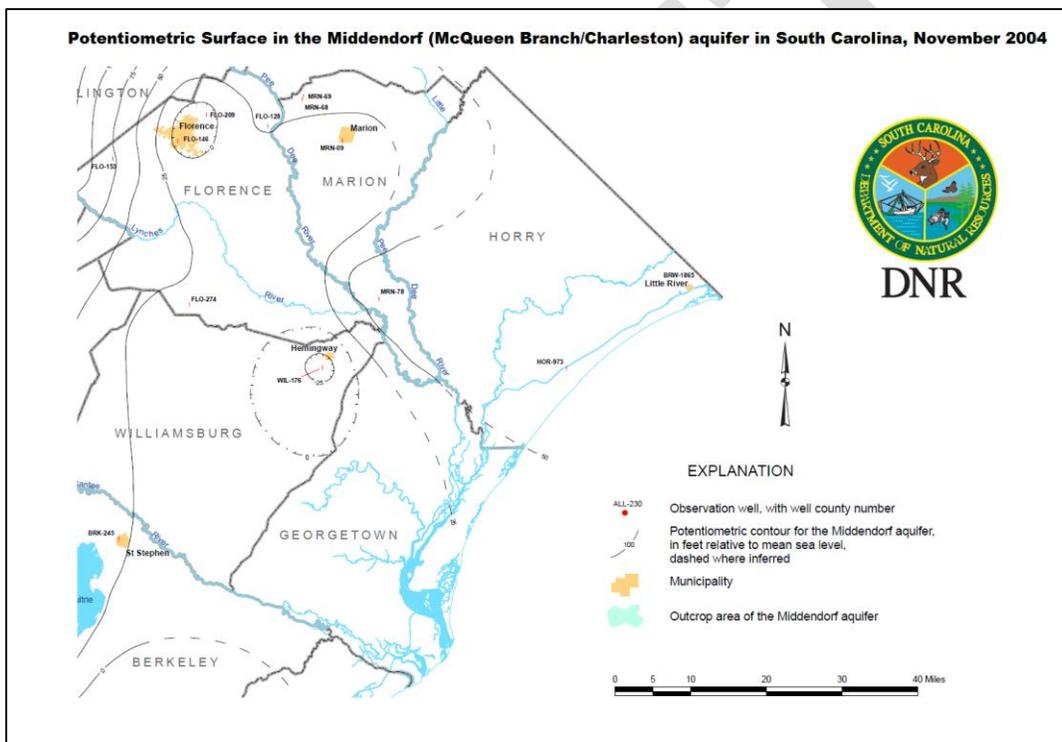


Figure 12: Water level map for the Middendorf/McQueen Branch/Charleston Aquifer, 2004. Source: Hockensmith, 2008, SCDNR Water Resources Report 46.

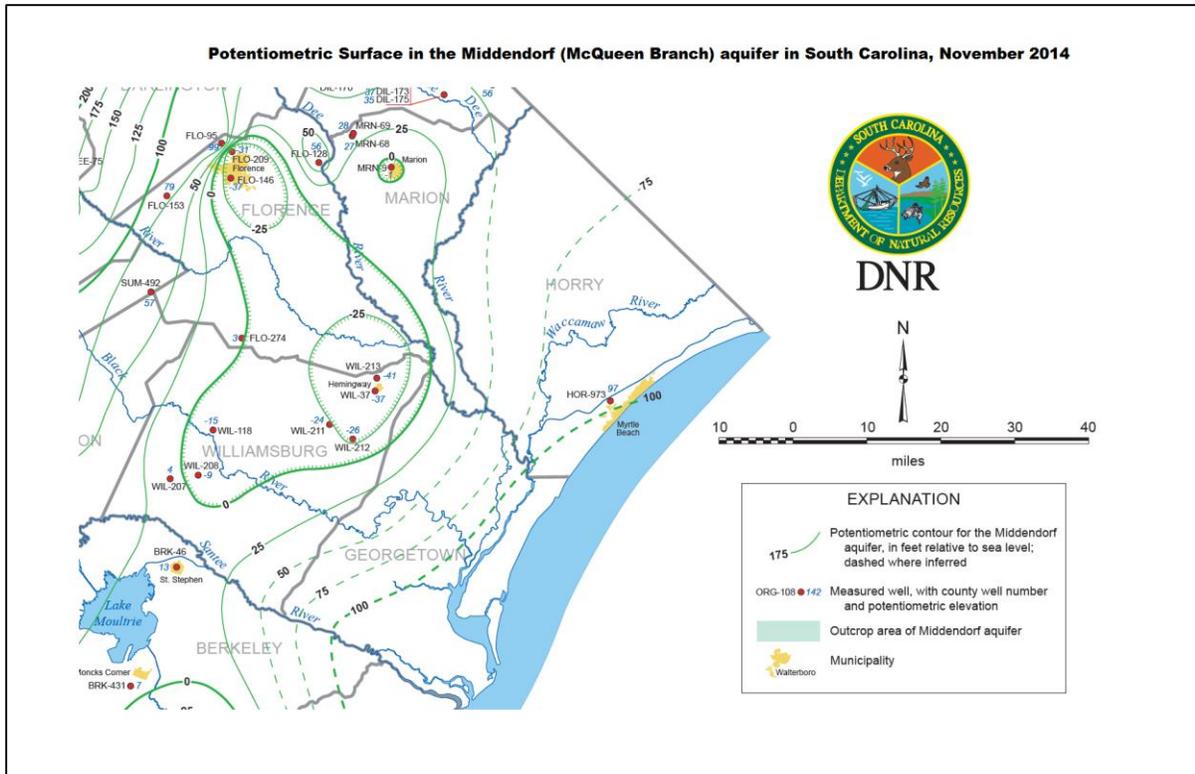


Figure 13: Water level map for the Middendorf/McQueen Branch/Charleston Aquifer, 2014. Source: Wachob, 2015, SCDNR Water Resources Report 58.

However, long-term water level data collected at well HOR-0973 is available for evaluation. SCDNR collects manual water level measurements from this well periodically. Based on HOR-0973 well groundwater level data (Figure 14), there has been an overall decline (approximately 12 feet) in the groundwater level since 1998, averaging about 0.5 feet per year. Between 2010 and 2016 the rate of decline appears to have increased as groundwater levels declined by 6 feet or approximately 1 foot a year. If one looks at the reported water use in Figure 15, between 2007 and 2016, there was an increase in reported groundwater use from the McQueen Branch/Charleston aquifer system. This most likely accounts for the increase in the rate of decline noted in water level data presented in Figure 14.

Despite the noted declines, water levels in this aquifer are still above mean sea level, and also approximately 500 feet above the top of the aquifer itself. While declines in the aquifer are documented by data from HOR-0973, overall conditions in the Middendorf/McQueen Branch/Charleston Aquifer in the Waccamaw Capacity Use Area don't show the same evidence of stress from long-term use that exist in the Crouch Branch aquifer.

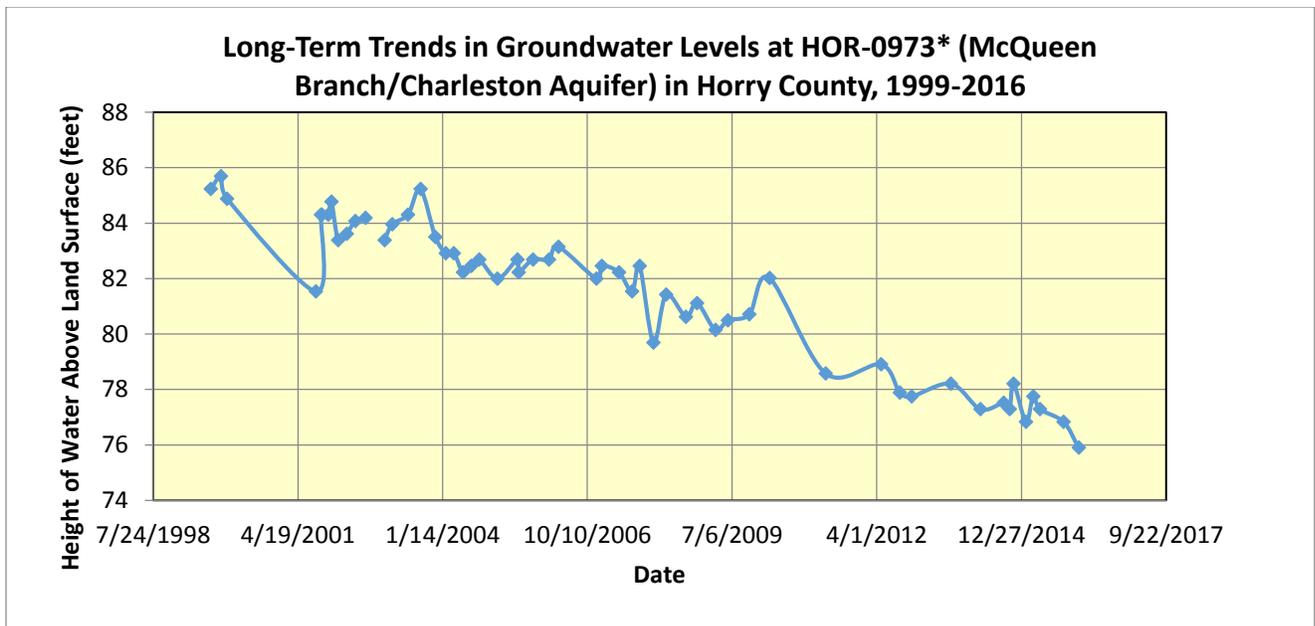


Figure 14: Long-Term Trends in Groundwater Levels at HOR-0973 in Horry County, 1999-2016

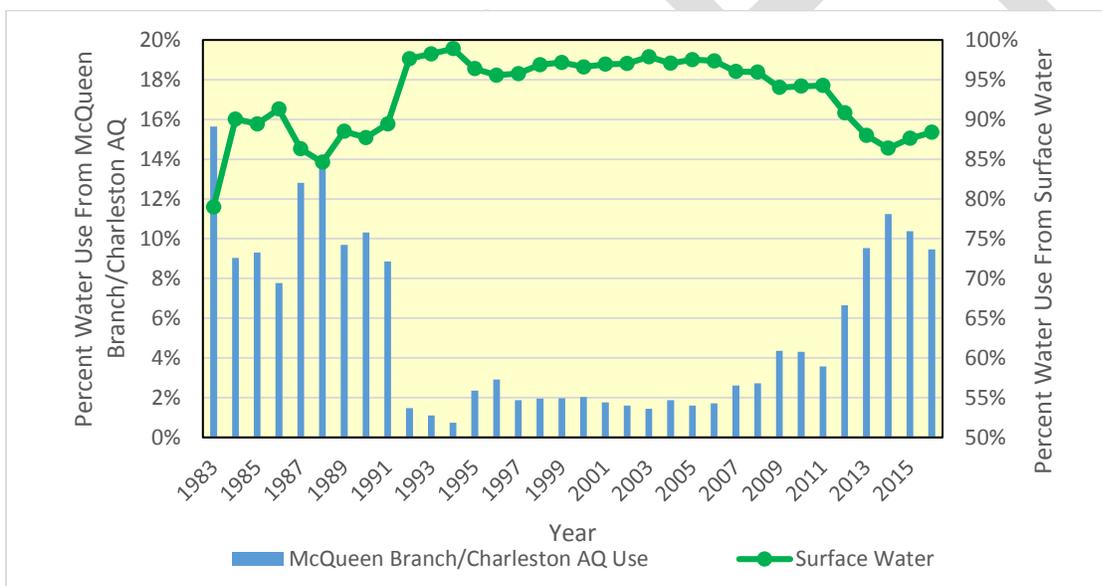


Figure 15. A comparison of reported surface water use to groundwater use from the McQueen Branch/Charleston aquifer system in Horry County.

Current Groundwater Demand

For purposes of water use reporting, DHEC defines the following groundwater withdrawal categories:

- Aquaculture (AQ)– Water used for raising, farming and/or harvesting of organisms that live in water, such as fish, shrimp and other shellfish and vegetal matter (seaweed),
- Golf course irrigation (GC)- Water applied to maintain golf course turf, including tee boxes, fairways, putting greens, associated practice areas and periphery aesthetic landscaping,

- Industrial process (IN)- Water used for commercial and industrial purposes, including fabrication, processing, washing, in-plant conveyance and cooling,
- Agricultural and aesthetic irrigation (IR)- Water that is used for agricultural and landscaping purposes including turf farming and livestock management.
- Mining process (MI)- Water used in mine operations, including mining, processing, washing and cooling,
- Water supply (WS)- Water withdrawn by public and private water suppliers and conveyed to users or groups of users. Water suppliers provide water for a variety of uses including domestic, commercial, industrial and public water use.

Currently in the Waccamaw Area there are 50 **permitted** groundwater withdrawers distributed as follows: 11 public water supply facilities, 24 golf course facilities, 8 industries, and 11 agricultural irrigation facilities (Table 1). These 50 facilities have 211 wells, Figure 16.

Table 1. Permitted Groundwater Withdrawers by County.

Category	Georgetown County	Horry County	Totals
Golf Courses	2	22	24
Industry	4	3	7
Agricultural Irrigation	1	7	8
Public Water Supply	5	6	11
Totals	12	38	50

Active Permitted Wells in the Waccamaw Capacity Use Area

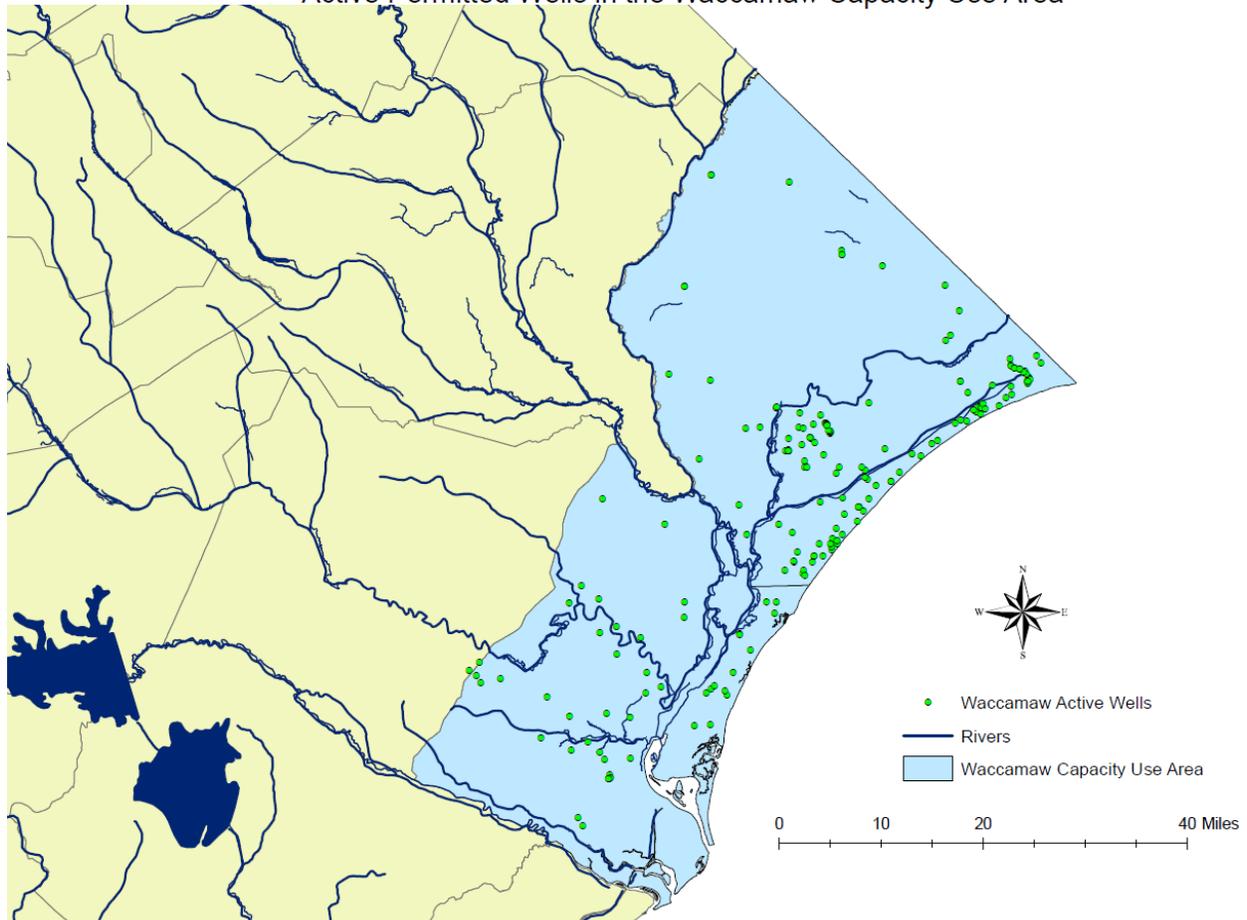


Figure 16. Locations of permitted groundwater withdrawals.

During the period 2010 through 2015, total reported groundwater withdrawals for the Waccamaw Area averaged 4,008.44 million gallons per year or approximately 10.98 million gallons per day (MGD). Withdrawals for water supply averaged 3,032.88 million gallons per year, or approximately 8.31 MGD. Agricultural irrigation averaged 178.02 million gallons per year, or approximately 0.49 MGD, golf courses used an average of 629.55 million gallons per year, approximately 1.72 MGD. The remaining categories averaged 167.99 million gallons per year, or approximately 0.46 MGD. For reporting year 2015, withdrawers in Georgetown County reported total withdrawals of 1,399,600,000 gallons (approximately 1.40 billion gallons) and Horry County reported withdrawals of 2,690,090,000 gallons (approximately 2.69 billion gallons). Reported usage by category for 2015 is listed in Table 2 and shown in Figure 16.

Table 2. Reported Use (Million Gallons) By County and Category For 2015.

Category	Georgetown	Horry	Totals By Category	Percent
Golf Courses	45.05	384.09	429.14	10.49%
Industry	78.04	2.59	80.62	1.97%
Agricultural Irrigation	9.0	209.26	218.26	5.34%
Public Water Supply	1267.51	2094.15	3,361.66	82.20%
Totals For Counties	1,399.60	2,690.09	4,089.69	100.00%
Percent	34.22%	65.78%	100.00%	

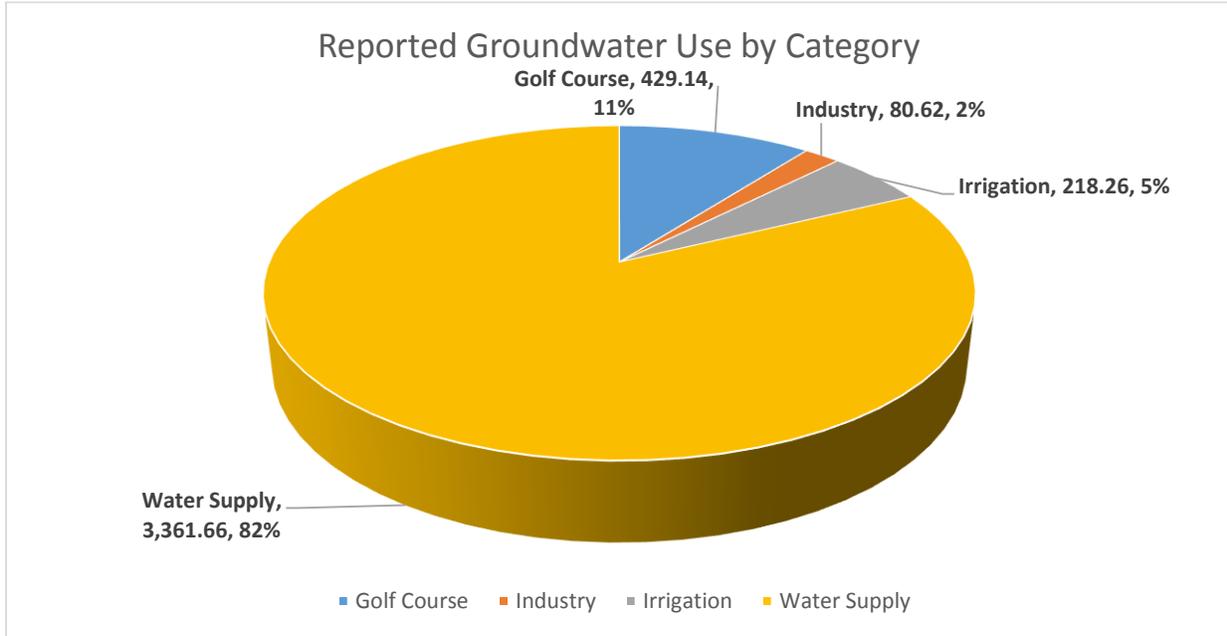


Figure 17. Reported groundwater use by category, 2015.

For the Waccamaw Area in 2015, reported groundwater withdrawals from the Surficial aquifer totaled 82.19 million gallons, from the Crouch Branch Aquifer a total of 1,567.89 million gallons, from the Charleston aquifer withdrawals totaled 1,093.17 million gallons, and from the McQueen Branch 1,346.44 million gallons. Groundwater withdrawals by aquifer/county are presented in Table 3 and Figures 17, 18, and 19. In 2015 Horry County used 65.43% of the region’s groundwater while Georgetown County accounted for 35.57% of the use.

Table 3. Reported Groundwater Use (Million Gallons) By Aquifer and County, 2015.

Aquifer	Georgetown County	Horry County	Totals	Percent
Surficial	17.82	64.38	82.19	2.01%
Crouch Branch	1,141.78	426.11	1,567.89	38.34%
Charleston	-	1,093.17	1,093.17	26.73%
McQueen Branch	240.00	1,106.44	1,346.44	32.92%
Totals	1,399.60	2,690.10	4,089.69	100%
Percent	34.22%	65.78%		

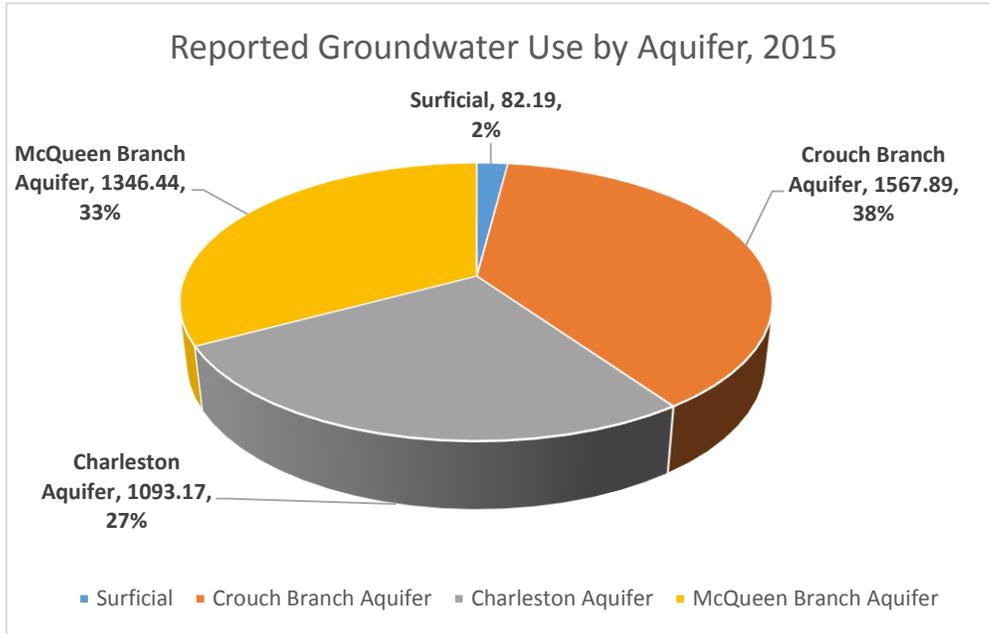


Figure 18. Reported groundwater by aquifer, 2015.

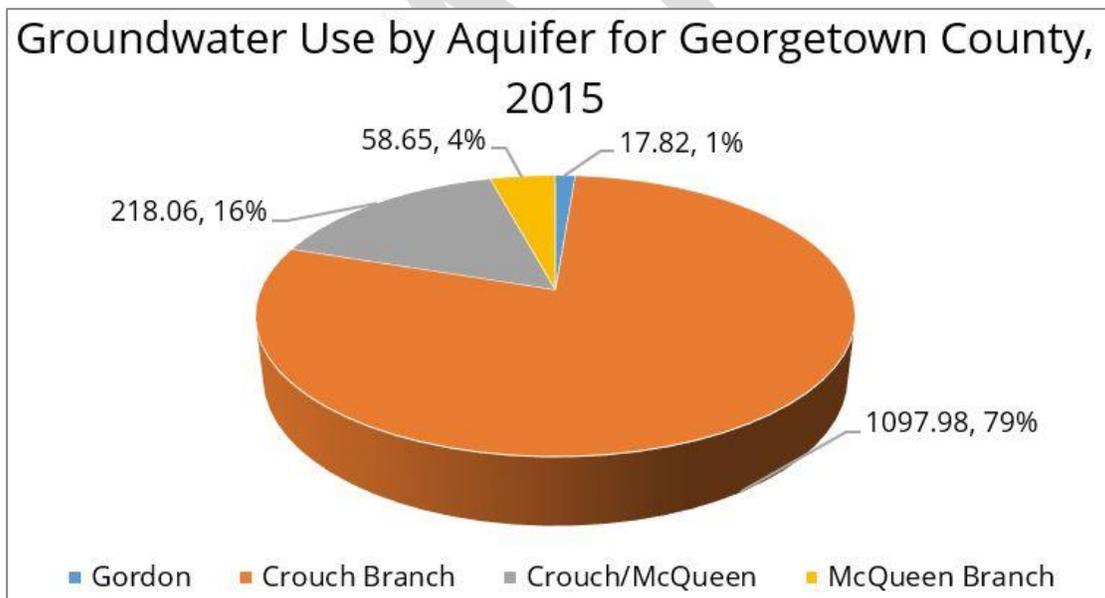


Figure 19. Reported groundwater use by aquifer for Georgetown County, 2015.

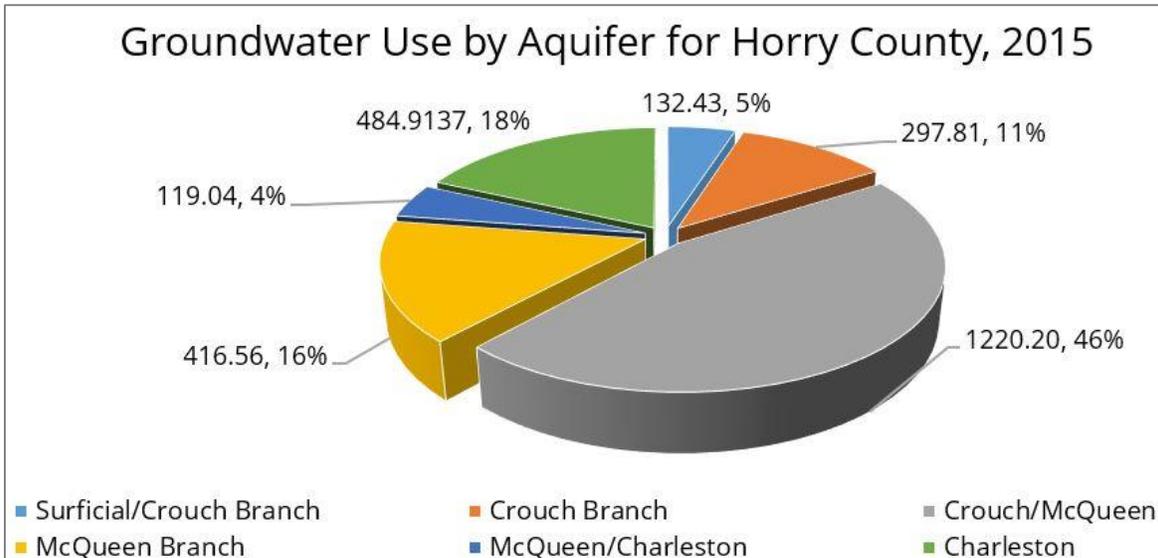


Figure 20. Reported groundwater use by aquifer for Horry County, 2015.

Groundwater Demand Trends

To provide an historical perspective on reported groundwater use in the Waccamaw Capacity Use Area, Figures 20 and 21 show reported use by category of use. Since 2004, the reported permitted use of groundwater for industry and golf courses has declined. Industrial use has declined from about 275 million gallons in 2004 to 102 million gallons in 2015. Reported groundwater use for Golf Courses declined from 590 million gallons in 2004 to 429 million gallons in 2015. Public water supply increased from 1,861 million gallons to 3,361 million gallons in 2015. Reported use for irrigation has increased slightly from about 179 million gallons in 2004 to 218 million gallons in 2015.

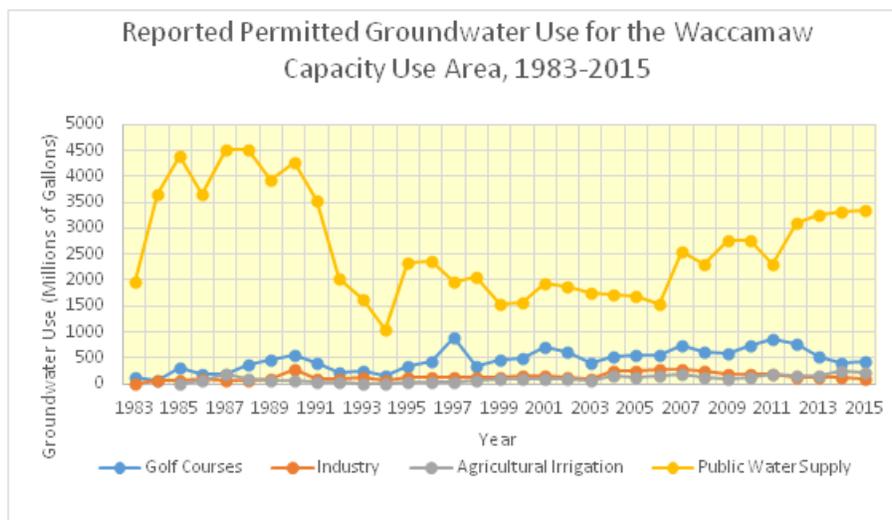


Figure 21. Reported Permitted Groundwater Use for the Waccamaw Capacity Use Area, 1983-2015.

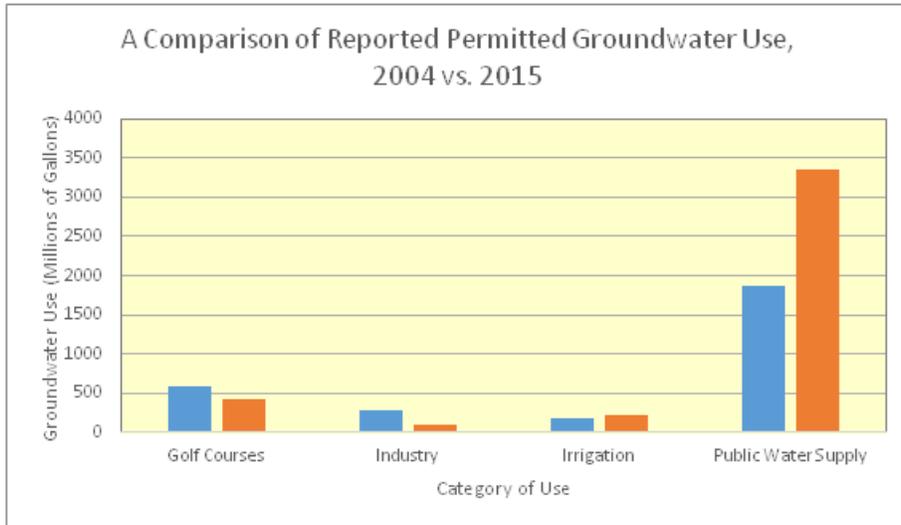


Figure 22. A comparison of reported permitted groundwater use, 2004 vs. 2015.

Population, Growth, and Water Use Projections

As with coastal communities around the nation, the population in the Waccamaw area has increased dramatically, rising over 30 percent the last 30 years. The two county region has increased by approximately 129% over the past 30 years (1980-143,880 to 20110-329,449). At the time of the 2010 Census, almost 330,000 people were living in the region. Since the 2000 Census, Horry County experienced the largest percent increase in population, followed by Georgetown County, as shown in Table 4.

Table 4. County Population Change 2000-2010.

County	April 1, 2000 Census	April 1, 2010 Census	Change in Population	Percent Change
Georgetown	55,797	60,158	4,361	7.8%
Horry	196,629	269,291	72,662	36.9%

Source: <http://abstract.sc.gov/chapter14/pop5.html>, *SC Statistical Abstract, Table 5, Status of Population Projections Based on the 2010 Census Data*, South Carolina Revenue and Fiscal Affairs Office).

Table 5 depicts population projections for the two counties and the region as a whole from 2000 to 2030 presented in the *South Carolina Statistical Abstract, 2010*, as prepared by the South Carolina Revenue and Fiscal Affairs Office. The region is expected to grow by more than 184,374 people between 2000 and 2030, an increase of 73 percent. Horry County has the highest population (294,600 in 2015) and is projected to continue to have a higher population than Georgetown County.

Table 5. County Projected Population Change, 2000-2030.

Source: <http://abstract.sc.gov/chapter14/pop5.html>, SC Statistical Abstract, Table 5, Status of Population Projections Based on the 2010 Census Data, South Carolina Revenue and Fiscal Affairs Office).

Population Counts and Projections 2000-2030								
County	April 1, 2000 Census	April 1, 2010 Census	July 1, 2015 Projection	July 1, 2020 Projection	July 1, 2025 Projection	July 1, 2030 Projection	Projected Change	Projected Percent Change
Georgetown	55,797	60,158	61,300	62,500	63,800	65,100	9,303	17%
Horry	196,629	269,291	294,600	319,900	345,800	371,700	175,071	89%
Waccamaw Area	252,426	329,449	355,900	382,400	409,600	436,800	184,374	73%

DRAFT

Georgetown County			Horry County		
Facility Permit	Permit Limit*	Reported Use*	Facility Permit	Permit Limit*	Reported Use*
22GC006	70	0	26GC001	50	2.85
22GC011	50	45.05	26GC003	65	54.52
22IN001	145	70.95	26GC009	55	10.79
22IN002	5	0	26GC010	60	27.94
22IN008	60	7.09	26GC013	90.34	32.70
22IR038	25.2	9	26GC020	25	11.51
22WS001	1024	613.02	26GC021	72	37.20
22WS002	195.95	157.11	26GC025	25	15.73
22WS003	258	149.97	26GC028	70	18.60
22WS004	300	285.64	26GC029	30	0
22WS007	76.698	61.78	26GC034	54.73	13.02
Total	2,209.848	1,399.60	26GC036	46.033	19.32
*Limits and use reported in million gallons ‡ No longer permitted due to not meeting permitting threshold			26GC041	24.84	0.06
			26GC043	25	2.66
			26GC044	99	53.60
			26GC046	36	5.42
			26GC051	36	6.73
			26GC054	70	22.20
			26GC055	36	4.81
			26GC056	40	17.82
			26GC058	54.5	26.63
			26GC060	36	0
			26IN002	40.02	0
			26IN006	18.88	2.45
			26IN007	98.4	0.137
			26IR019	36	1.54
			26IR020	100	96.69
			26IR025	50	53
			26IR026	36	1.31
			26IR027	42.4	32.58
			26IR028	130	24.14
			26WS001	453.6	199.79
			26WS002	500	364.74
			26WS003	17	5.91
			26WS005	128	89.28
			26WS009	4661.241	1399.61
			Total	7,471.98	2,690.10

Table 6. Permit limits versus reported use in 2015 (million gallons).

Permitted withdrawal limits in the Waccamaw Area total 9,681.83 million gallons per year. Total reported usage for 2015 in the Waccamaw Area was 4,089.69 million gallons (Table 6).

Potential future groundwater demands are estimated for water supply, based on population projections, and all other categories (total) based on an estimated nominal growth of 2.43% per year.

Water Supply:

For 2015 in the Waccamaw Area, total groundwater withdrawal for water supply is approximately 3,361,660,000 gallons. Combined with reported surface water supply (18,116,346,000 gallons), the per capita use of water in the Waccamaw Area is approximately 25.88million gallons per day. Utilizing this value (25.88MGD), projected population, and assuming groundwater will represent approximately 16% of the total water supply demand, groundwater demand is projected through 2030 (Table 7).

Table 7. Projected groundwater demand-water supply (million gallons) in Waccamaw Area.

2015	2020	2025	2030
3,361.66 MGY	3,770.66 MGY	4,229.43 MGY	4,744.01 MGY
9.21MGD	10.33MGD	11.59MGD	13.00MGD

Other:

Groundwater demand for all other categories through 2030 is calculated based on an estimated nominal and steady growth of 2.4% per year (Table 8).

Table 8. Projected groundwater demand-other (million gallons) in Waccamaw Area.

2015	2020	2025	2030
728.03 MGY	816.61 MGY	915.96 MGY	1,027.40 MGY
1.99 MGD	2.24 MGD	2.51 MGD	2.81 MGD

Total Projected Water Demand:

Total potential groundwater demand for the Waccamaw Area is estimated from the calculations for Water Supply (Table 7) and Other category (Table 8) (see Table 9).

Table 9. Total projected groundwater demand-Waccamaw Area (million gallons).

	2015	2020	2025	2030
Water Supply	3361.66	3,770.66	4,229.43	4,744.01
Other	728.03	816.61	915.96	1,027.40
Total MGY	4,089.69	4,587.27	5,145.39	5,771.41
Total MGD	11.20	12.57	14.10	15.81

Groundwater Management Strategy

The ultimate goal of the Groundwater Management Plan is to outline a process to conserve and protect the groundwater resource while establishing conditions that are conducive to the continued development and long-term viability of the aquifers of the Waccamaw Area. In short, the goal is to develop and implement a sustainable development strategy. Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their needs. Ultimately, good scientific data must be available that allow the sustainable yields from each aquifer system in the Waccamaw Area to be determined, and permits for withdrawals issued accordingly. However, these data do not fully exist at this date. This plan, therefore, must focus on obtaining this critical data and the issuance of permits for reasonable water withdrawals in the interim. The key strategies to achieve these goals are outlined below.

Strategy #1: Identify areas where a leveling and/or reduction in pumping is appropriate.

Prior to each permit renewal cycle, SCDHEC will consider the best available information on the geologic and hydrogeologic characteristics of the aquifer(s) and groundwater withdrawals of the area to protect against or abate unreasonable, or potentially unreasonable, adverse effects on the aquifer(s) and water users of the Waccamaw Area. Measures that the SCDHEC may require applicants, permit holders and groundwater withdrawers to take may include, but not be limited to, the following:

- Reduction of groundwater withdrawal in areas of concentrated pumping;
- Withdrawals from other available freshwater aquifers than those currently used;
- Selective curtailment or reduction of groundwater withdrawals where it is found to be in the public interest or general welfare or to protect the water resource;
- Conjunctive use of aquifers, or waters of less desirable quality, where water quality of a specific character is not essential;
- Construction and use of observation or monitor wells;
- Abandonment of wells that have penetrated zones of undesirable water quality where such wells are found to cause contamination of freshwater aquifers;
- Prohibiting the hydraulic connection of aquifers that could result in deterioration of water quality in a freshwater aquifer(s);
- Abandonment of wells, which will be filled with cement grout, plugged, and sealed. Undesirable water quality is defined as not meeting the standards for Class GB Waters as listed in *Water Classifications & Standards*, R.61-68.H.9;
- Implement reasonable and practical methods to conserve and protect the water resources and to avoid or minimize adverse effects of the quantity and quality of water available to persons whose water supply has been materially reduced or impaired as a result of groundwater withdrawals;
- Such other necessary and appropriate control or abatement techniques as are technically feasible.

As an example, a cone of depression in the McQueen Branch/Charleston aquifer developed in the Charleston/Mt. Pleasant area between the 1980's and early 2000's. Water-levels in the USGS well CHN-0014 (Figure 18.) declined approximately 90 feet in the McQueen Branch/Charleston aquifer. In 2006, public water supply systems reduced their use of groundwater by increasing their reliance on surface water (Figure 19.). Groundwater use for public water supply was reported at 3,248.9 million gallons in 2005; by 2015 the amount reported used had declined to 2,104.7 million gallons. Surface water use for public water supply increased from 32,973.2 million gallons in 2005 to 36,709.6 million gallons. This has resulted in a rebound of groundwater levels in the area of approximately 50 feet.

The reduction in the reliance on groundwater versus surface water for public water supply required the coordination and cooperation of the utilities in the area and is a prime example of users working together to protect and manage the groundwater resource.

Strategy #2: Review of permit applications based on demonstrated reasonable use.

Proposed withdrawals will be evaluated considering reasonableness of use and need, aquifer(s) being utilized, potential adverse effects on adjacent groundwater withdrawers, previous reported water use, anticipated demand for the proposed activities, availability of alternate water sources and reported water use at facilities with similar activities. Applications for groundwater withdrawal will incorporate a “Water Use Plan” or a “Best Management Strategy” detailing actual or proposed water use activities and all conservation techniques for site specific water management including, but not limited, to:

- Provide appropriate documentation that the proposed water use is a beneficial use of the resource and necessary to meet the reasonable needs of the applicant;
- Describe in detail the applications for which the water is being withdrawn and approximate quantities utilized in each application;
- Identify the aquifer(s) currently utilized and the hydrogeologic (groundwater quality, specific capacity/yield, etc.) factors for utilization. Identify if a less utilized aquifer is suitable to the facility’s need;
- Identify additional or alternate sources of water, including surface water, effluent, or recycled water, among others, suitable to meet the needs of the applicant and supplement, minimize, or eliminate groundwater sources;
- Identify reasonable and appropriate conservation methods or practices that maximize current water use and reduce current water demand;
- Identify any existing or anticipated adverse effects on other groundwater withdrawers, including public use, and strategies to eliminate or minimize these effects.

As part of the permitting process, stakeholder involvement, comment and recommendations will be incorporated during the public notice of the permit application.

Strategy #3: Establish a comprehensive groundwater monitoring program.

With increased population and a growing industrial base, water demand (from both surface and groundwater) is increasing at an expanding rate. Although water level declines are a normal response to groundwater withdrawals, not stabilizing these declines may cause serious impairment to the aquifers and groundwater quality of the region. SCDHEC will pursue partnerships with local entities, groundwater users and other agencies (both Federal and State) to facilitate the most effective use of resources in designing and maintaining a monitoring network for the Waccamaw Area. Both the SCDNR and SCDHEC maintain several groundwater level monitoring locations in the Waccamaw area. The table below lists the wells currently being used to monitor groundwater levels in the Waccamaw Capacity Use Area.

County	Well Id	Aquifer	Agency
Horry	HOR-0290	Crouch Branch	SCDNR
Horry	HOR-0305	Crouch Branch	SCDHEC
Horry	HOR-0307	Crouch Branch	SCDHEC
Horry	HOR-0309	Crouch Branch	SCDNR

Horry	HOR-0973	McQueen Branch	SCDNR
Georgetown	GEO-0077	Crouch Branch	SCDHEC
Georgetown	GEO-0381	Surficial	SCDNR
Georgetown	GEO-0382	McQueen Branch	SCDNR
Georgetown	GEO-0383	Crouch Branch	SCDNR

Current groundwater level monitoring locations (Figure 22.) include a SCDNR well cluster installed in 2014 in Georgetown County (GEO-0381, GEO-0382, and GEO-0383), one SCDHEC well in Georgetown County (GEO-0077) and several wells in Horry County. Crouch Branch wells include HOR-0290 and HOR-0309. The McQueen Branch water levels in Horry County are monitored by one SCDNR well, HOR-0973. SCDHEC monitors water levels in wells GEO-0077 (Crouch Branch), HOR-0305 (Crouch Branch) and HOR-0307 (Crouch Branch). Data from the new SCDNR well GEO-0383 in Georgetown will supplement the long-term data available from GEO-0077, HOR-0290 and HOR-0309 for the Crouch Branch. GEO-0382 will address the lack of data in the McQueen Branch aquifer in Georgetown County. Additional monitoring locations within the McQueen Branch aquifer in both Georgetown and Horry Counties would clarify conditions in the aquifer in the Waccamaw area.

Expanding the current network will allow more accurate monitoring of groundwater level conditions and facilitate scientifically-based recommendations for strategies to address any stressed conditions identified in the aquifers used in the Waccamaw area.

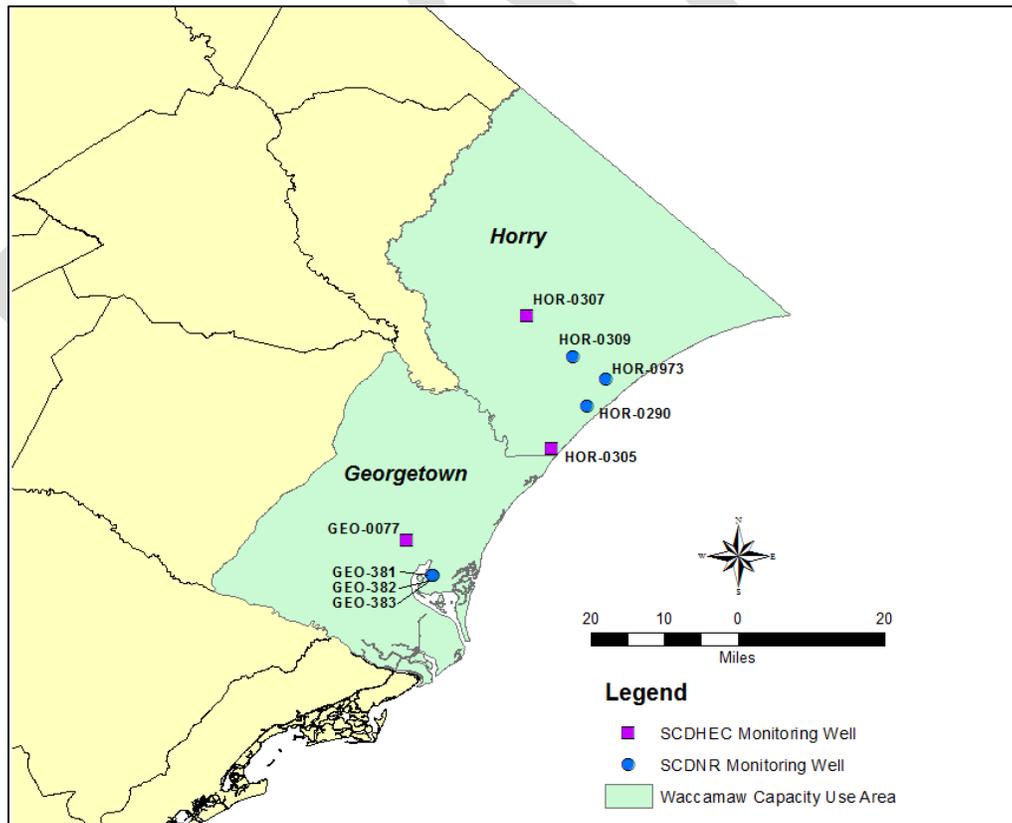


Figure 23. Locations of monitoring wells.

The existing groundwater monitoring network with the additional locations is necessary to:

- Provide accurate data on the amount and rate of groundwater level declines;
- Establish the correlation between groundwater pumping and water level changes, both on a local and regional scale;
- Guide management efforts to minimize potential impairment of the aquifers and track progress in reversing water level declines;
- Provide groundwater withdrawers with timely and accurate information to effectively manage withdrawal activities.

Strategy #4: Establish a conservation educational plan for the general public and existing groundwater withdrawers.

Water conservation has increasingly become a cornerstone to the development of water management strategies. An effective, viable water conservation program should incorporate the following:

- Provide public education and outreach programs;
- Determine and enhance water use efficiency;
- Determine water losses and establish corrective actions;
- Prepare for water shortages and provide appropriate responses.

Strategy #5: Regulation and Planning.

The Groundwater Use and Reporting Act provides for regulation of water withdrawals in South Carolina. Groundwater regulation is necessary to protect and provide for the long-term sustainability of the resource. As data are developed on the groundwater resources of the designated Capacity Use Areas, the regulations should will be reviewed to ensure that sufficient and adequate protection of the resource is provided.

SCDNR is responsible for developing and updating the State Water Plan. A groundwater model of the coastal aquifers is currently being developed by the USGS and SCDNR. As the results of the modeling effort and the updates to the State Water Plan become available, they will help inform potential regulatory and policy changes and will be incorporated into this Groundwater Management Plan.

Groundwater Management Plan Reports

Every 5 years, or length of the permitting cycle, total annual groundwater withdrawals will be compiled and compared to available aquifer potentiometric maps. The report will include the following information:

- Listing of all permitted withdrawers, permitted withdrawal limits, and average groundwater withdrawal;
- Evaluation of withdrawal by category and by aquifer;
- Identification of areas of aquifer stress and all withdrawers utilizing the stressed aquifer(s).

Based on the information developed for the plan report, modifications of groundwater withdrawals in stressed areas will be reviewed and subsequently the Groundwater Management Plan may be amended.

The report will also evaluate, as information is developed, changes in water quality of the aquifers, available storage capacity of the aquifers, project future rates of withdrawal and estimate future groundwater declines from the projected withdrawal rates. Through time, a safe sustainable yield for each aquifer will be developed and subsequent withdrawal limits will be based on this available yield. The Department will host a stakeholder meeting to discuss the draft report. Comments on the draft plan will be taken into consideration as the Department finalizes the report and updates the groundwater management plan based on the report recommendations. The final report and updated groundwater management plan will be shared with the Stakeholders and the permit renewals will be issued consistent with the report and the plan.

Aquifer Recharge/Storage and Recovery

ASR is the re-injection of potable water back into an aquifer for later recovery and use. This process replenishes ground water stored in aquifers for beneficial purposes. Presently, SCDHEC regulation states that only 80% of water injected can be recovered for potable use leaving millions of gallons for replenishing declining water levels. "Potable" refers to water of high quality posing no health risk when consumed.

Some recognized environmental benefits of ASR:

- A significant amount of water can be stored underground reducing the need to construct large and expensive surface reservoirs.
- ASR systems are considered to be more environmentally and aesthetically friendlier than surface reservoirs and offer better protection from tampering and contamination.
- ASR adds millions of gallons that may stabilize or reverse declining water levels in an aquifer that has experienced long-term declines in water levels due to heavy pumping.

The Waccamaw capacity use area has approximately 23 active ASR wells that have been installed since around 2000. This process has proven to be a viable option for storing water for emergencies and reducing capital cost for meeting peak summer tourism demands. To date in Horry County, 3.4 billion gallons of water has been injected and remain in the Black Creek aquifer for replenishing water levels and maintaining a buffer between newly injected water and native groundwater. The Black Creek Aquifer appears to be a suitable aquifer for ASR development. ASR is an important management tool for maintaining declining aquifer water levels and certain items should be considered to continue its success.

- Permitted ASR sites are limited to recover no more than 80% of total injected water.
- ASR sites should have top priority and the process should not be jeopardized by groundwater withdrawal.
- Applications and renewal for use should be evaluated for water use purpose and location to an ASR site.
- With the increasing ASR growth, the Black Creek Aquifer should be considered primary for ASR use in the Waccamaw capacity use area when considering new withdrawal applications.
- Reducing or limiting existing groundwater usage in close proximity of an ASR site to reduce the risk of pulling injected water away from an ASR site.

ATTACHMENT D

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

**STATE REGISTER NOTICE OF GENERAL PUBLIC INTEREST
CAPACITY USE AREA GROUNDWATER MANAGEMENT PLAN
AND PUBLIC HEARING**

February 24, 2017

The Groundwater Use and Reporting Act requires that the groundwater resources of the State be put to beneficial use to the fullest extent to which they are capable, subject to reasonable regulation, in order to conserve and protect these resources, prevent waste, and to provide and maintain conditions which are conducive to the development and use of water resources. See S.C. Code Section 49-5-20. Further, the Act states that the Department of Health and Environmental Control (the Department) shall coordinate the affected governing bodies and groundwater withdrawers (of a designated Capacity Use Area) to develop a groundwater management plan to achieve goals and objectives stated in Section 49-5-20. See S.C. Code Section 49-5-60(B). In those areas where the governing bodies and withdrawers are unable to develop a plan, the Department shall take action to develop the plan as required by law.

The Department is initiating the process of developing local groundwater management plans for the Trident, Low Country, Waccamaw, and Pee Dee Capacity Use Areas. A public hearing for the Trident Capacity Use Area is scheduled for March 29, 2017. The hearing will be held from 5:30 PM- 8:30 PM in the 3rd Floor Council Chambers of North Charleston City Hall located at 2500 City Hall Lane, North Charleston, SC 29406. Local governments, permitted water users, industry, public water suppliers, and the general public are invited to participate in the plan development.

If you have questions or comments, or wish to be notified of meetings, please contact Robert Devlin, Division of Water Monitoring, Assessment and Protection, at (803) 898-3798 or by email at DevlinRJ@dhec.sc.gov. You may also visit our webpage at www.scdhec.gov/groundwaterplans for more information.

ATTACHMENT E

SUMMARY OF PUBLIC COMMENTS AND DEPARTMENT RESPONSES
Proposed Lowcountry, Pee Dee, and Waccamaw Capacity Use Areas
Initial Groundwater Management Plans
August 2017



Environmental Affairs

Summary of Public Comments and Department Responses

This document is a summary of comments received on the draft groundwater management plan for the Waccamaw, Lowcountry, and Pee Dee Capacity Use Areas during the open comment period (ending August 18, 2017) and DHEC's responses to those comments. They are grouped by Capacity Use Area.

Waccamaw:

In the Geo-Political Structure section on page 4: As a clarification, the WRCOG board is appointed by the legislative delegation of each respective county. In paragraph two- there are 11 cities and towns within Horry and Georgetown County area. Also, of these 11 jurisdictions only 5 utilize a Mayor-Council form of Government. Please recheck and verify.

Thank you, we corrected the information in the plan.

In the Population, Growth and Water Use Projections Section on Page 18, the two county region has increased by approximately 129% over the past 30 years (1980-143,880 to 2010-329,449) in Table 4, the percent change in Georgetown County should be 7.8% and the percent change in Horry County should be 36.9%.

Thank you, we added this information to the plan.

Also we were a little bit concerned by the details provided in the Groundwater Level Trends section beginning on Page 10. It paints a different outlook than the information that you presented at our Board meeting on June 12. In one of your slides you reported the following outlook for the Waccamaw Capacity Use Area:

- **Comparing SC DNR's 2001 potentiometric map to the 2014 potentiometric map, Myrtle Beach, Horry County, has seen a water-level increase of over 50 feet, and throughout Georgetown County there has been a 75 feet increase in water levels.**
- **There is now only one small pocket of area at or below mean average sea level in the entire capacity use region.**

Meanwhile in the groundwater management plan it states:

"Groundwater levels in the Crouch Branch aquifer have declined substantially from pre-development levels in the Waccamaw area. Much of this decline can be mostly attributed to concentrated public supply usage and golf course irrigation. By 2000, the water levels had dropped to 125 feet below mean sea level. Even with surface water being utilized for public water supply, the sharp influx of people over a short period of time, as well as increased golf course irrigation has caused severe depressions in the region. The interpreted rate of groundwater decline in the Crouch Branch Aquifer in the Georgetown is around 6.8 feet/year. Between 2004 and 2015, levels in Horry County have begun to fall as well, causing a cone of depression around Myrtle Beach due to population and tourism increases. There are depressions of up to 100 feet below mean sea level in 2015 that were previously 25 feet below mean sea level in 2004. Figure 8 shows the 2004 water levels in the Crouch Branch aquifer (Formerly known as the Black Creek). In Georgetown, the groundwater levels have not been able to rebound and have gotten worse, from 125 feet to now 200 feet below sea level based on potentiometric maps produced by the SCDNR (see Figure 9)"

We will revise the plan to more clearly elaborate the conditions in each aquifer. The presentation focused on the results in the McQueen Branch/Charleston aquifers rather than the Crouch Branch aquifer. Conversely, the write-up in the plan that was referenced focuses on the Crouch Branch. Based on our evaluation of the water use data and the aquifer information provided by the USGS, we believe that the majority of groundwater use in the area of Horry County is from the McQueen Branch/Charleston aquifer system. In Georgetown County, the majority of groundwater used is from the Crouch Branch aquifer.

We would like to see more focus on Aquifer Storage and Recovery consideration in the Capacity use management plan. ASR is one of the greatest benefits to healthy aquifer preservation and maintaining a viable cost effective water supply for growth and development.

We agree and a section on the use of ASR has been added to the plan.

Lowcountry:

Longer permit period to help yield stable farms. A farm requires more than five years to plan, invest, grow its crops and replenish its expenses. With the current permit period of five or less years, ag lenders and the farms themselves are concerned over the now condensed unpredictability, vacillation and potential wild card of ground water permits of water allocation were unexpectedly to become so detrimentally limited that the farm could no longer viably grow crops. A longer permit period of 10 to 15 years would help insure there is adequate time for on-farm ROI.

The five-year permit renewal period has proven to be an appropriate time-frame. This allows for any potential problems, such as developing cones of depression, to be identified in a timely manner so solutions can be identified and implemented. Any mitigating actions may therefore be less expensive or extensive than with a longer permit renewal period.

Reasonable Use Collaborative Discussion. With permit decisions and future allocation being influenced by 'reasonable use' for a crop we would like to have assurance there would be allowance for collaborative discussion or a mechanism for

appeal if we feel a reasonable use decision does not represent actual on-site reasonable use. There is no 'magic number' in agriculture when considering the differences in irrigation methods, soil type - water holding capacity, farming practices, evapotranspiration, so forth. An ability to collaboratively discuss or appeal would provide greater assurance to farmers regarding their future.

The criteria from Clemson used to determine average water irrigation per crop per acre are used as general guidelines and permit-specific rates can always be used if justified and determined to be reasonable.

Growing Crops is Critically Time-Sensitive. A protracted permitting process or appeal process immediately affects a pending crop, future crops, a farm's investments, land value, and much more (a farm wouldn't be able to produce crops as planned until it could irrigate). Is there consideration for response time for food-producing crop irrigation permits & appeals where applications are on a relationally efficient & receptive path to its need for growing and producing food?

Our current time-frame for issuing permits is about 60 days. There is a provision for the installation of emergency wells if needed.

An allowance for Contingency. The one constant in agriculture is there are none. Our weather, soil types (water holding capacity), ET is different from one county to the next and even one field to the next in addition to crops themselves requiring different sustainable yields. How can we build an allowance into the permitted period of the unpredictable? How do you plan for/accommodate for change that will happen in agriculture?

We work with each applicant to determine the appropriate permit conditions for their particular operations, crop, etc.

Rewarding good practices and conservation. Is there consideration for water credits or a unit banking system so in the event of an unforeseen limiting occurrence, good water credits were already established and could be utilized while still maintaining an overall sustainable system.

There is currently no such system in place, but this may be evaluated in future plans.

In fresh produce an interchangeability of surface water and ground water is not a simple flip of a switch. The Food Safety Modernization Act is very specific in its requirements of surface water versus ground water under FDA (<https://www.fda.gov/Food/GuidanceRegulation/FSMA/>)

The use of both surface water and groundwater are allowable for agricultural operations.

Pee Dee:

[This] comment has to do with the strategy one where it's listing out the construction of observation wells, monitoring wells, and the abandonment of these wells in pertinent zones of undesirable water quality. I would like to see in this permit process, a clear definition of what we consider undesirable water quality. I mean there are chemical contaminants, there are iron contaminants. What are you as an agency trying to correct or keep from -- you know, we've got wells all over that are blended in

different formations, which are supposedly illegal. Is this something that DHEC will enforce and require them to be plugged back if an issue arises?

We agree and will add clarification to the plan.

The first thing I would like to cover is the withdrawal requirement, which is 3 million gallons a month, which is like 70 gallons a minute. I think that the requirement should be based on the specific yield of the well because the well can last longer than the intended purpose, the initial purpose. It could be transferred to another client. And the size and capacity could be increased. If you use the specific yield of the well, then if that well's capable of producing 3 million gallons a month, no matter what the actual withdrawal is at the time, it should be included in this permit process.

The permit trigger is detailed in statute and regulation, and we therefore cannot require a permit based solely on the potential for pumping over the 3 million gallons in any month.

A 5 year permitting cycle is short by Agricultural standards. It can take 8-10 years to pay for a well and equipment. It is difficult to make a business investment on something that may change within 5 years.

The five-year permit renewal period has proven to be an appropriate time-frame. This allows for any potential problems, such as developing cones of depression, to be identified in a timely manner so solutions can be identified and implemented. Any mitigating actions may therefore be less expensive or extensive than with a longer permit renewal period.

(x) ACTION/DECISION
() INFORMATION

Date: September 7, 2017

To: S.C. Board of Health and Environmental Control

From: Bureau of Emergency Medical Services and Trauma

Re: Notice of Proposed Regulation South Carolina Stroke Care System.

I. Introduction

The Bureau of Emergency Medical Services and Trauma proposes the attached Notice of Proposed Regulation of the South Carolina Stroke Care System for publication in the September 22, 2017, *South Carolina State Register*. Legal authority for this new regulation resides in S.C. Code Sections 44-61-610 *et seq.* (Supp. 2016), which requires the Department of Health and Environmental Control (“Department”) to promulgate regulations establishing a process of application and recognition of acute care hospitals wishing to be recognized as Stroke Centers within South Carolina. Legislative review is required.

II. Facts

1. The General Assembly passed the Stroke System of Care Act of 2011 (“Act”) requiring the Department to promulgate regulations establishing a process of application and recognition of acute care hospitals wishing to be recognized as Stroke Centers within the State. The Department must post a list of all recognized Stroke Centers on its website and distribute the list to all licensed Emergency Medical Services (“EMS”) agencies. The Act further requires the Department to establish a statewide stroke registry for the collection and analysis of stroke care by acute care hospitals within South Carolina. Additionally, the Act requires the Department to adopt and distribute a nationally recognized, standardized stroke-triage assessment tool. The Department must post this assessment tool on its website and distribute it to all licensed EMS agencies.
2. A Notice of Drafting for the new regulation was published April 28, 2017, and the Department received public comments from the American Heart Association, Lexington Medical Center, and Dr. Bill Gerard by the May 29, 2017, close of the comment period.
3. A summary of public comments and Department responses is included herein as Attachment C, “Summary of Public Comments and Department Responses.”
4. The Department completed an internal review of the regulation August 15, 2017. All appropriate personnel have reviewed the regulation.
5. The Department held a regulation development meeting with stroke care stakeholders, members of the Stroke Advisory Council, and other interested parties on June 7, 2017. The meeting gave Department representatives an opportunity to receive input on regulatory requirements for stroke care.

III. Request for Approval

The Bureau of EMS and Trauma respectfully requests the Board to grant approval of the attached Notice of Proposed Regulation for publication in the September 22, 2017, *South Carolina State Register*.



Robert Wronski
Chief of EMS and Trauma



Shelly Bezanson Kelly, J.D.
Director of Health Regulation

Attachments:

- A. Notice of Proposed Regulation
- B. Notice of Drafting published in the April 28, 2017, *State Register*
- C. Summary of Public Comments and Department Responses

ATTACHMENT A

STATE REGISTER NOTICE OF PROPOSED REGULATION
FOR REGULATION 61-__, South Carolina Stroke Care System

September 22, 2017

Document No. _____

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61

Statutory Authority: 1976 Code Sections 44-61-610 et seq.

Regulation 61-__, South Carolina Stroke Care System

Preamble:

The Department of Health and Environmental Control (“Department”) proposes a new regulation to address the requirements of the Stroke System of Care Act of 2011, S.C. Code Sections 44-61-610 *et seq.* (Supp. 2016). The proposed regulation establishes a process of application and recognition of acute care hospitals wishing to be recognized as stroke centers within South Carolina. The proposed regulation establishes a statewide stroke registry for the collection and analysis of stroke care by acute care hospitals within the State. Additionally, the proposed regulation adopts a nationally recognized, standardized stroke-triage assessment tool, posted on the Department’s website and distributed to all Emergency Medical Services (“EMS”) agencies licensed by the Department. Legislative review is required.

A Notice of Drafting was published in the State Register on April 28, 2017.

Section-by-Section Discussion of Proposed Regulation:

TABLE OF CONTENTS

The table of contents was added.

Section 100. DEFINITIONS

The definitions of 100.A Acute Care Hospital, 100.B Acute Stroke Ready Hospital, 100.C Certificate of Recognition, 100.D Certificate Holder, 100.E Comprehensive Stroke Center, 100.F Department, 100.G Emergency Medical Services, 100.H Primary Stroke Center, 100.I Recognition, 100.J State Stroke Registry Database, 100.K Stroke Advisory Council, 100.L Stroke Care System, 100.M Stroke Center, and 100.N Stroke Patient were added.

Section 200. RECOGNITION PROCESS

Section 200 delineates the process for recognition by the Department.

Section 201. Eligibility for Recognition

Section 201 allows for any acute care hospital certified or accredited as a Stroke Center by the Joint Commission or other nationally recognized organization to apply to the Department for recognition.

Section 202. Application Process

Section 202 outlines the process for application to the Department for recognition and delineates the required documentation therein.

Section 203. Recognition Renewal

Section 203 states that recognition expires upon expiration of current disease-specific certification or accreditation by the Joint Commission or other nationally recognized organization.

Section 204. Recognition Levels

Section 204 delineates the available levels of recognition and states that the Department may adopt and recognize any certification or accreditation by nationally recognized organizations that may become available at a later date.

Section 205. Recognition

Section 205 delineates the Department’s process for recognizing hospitals under the requirements of this regulation.

Section 206. Process of Re-recognition

Section 206 delineates the process for acute care hospitals seeking recognition after previously, but no longer, being a Certificate Holder.

Section 300. CERTIFICATE OF RECOGNITION REQUIREMENTS

Section 300 outlines the Certificate of Recognition requirements.

Section 301. Issuance and Terms of the Certificate of Recognition

Section 301 delineates the terms of certificates indicating Recognition and states that a Certificate of Recognition is not assignable or transferable.

Section 302. Exceptions to the Standards

Section 302 was added to grant the Department authority to make exceptions to these standards when the health and safety of patients will not be compromised and the standard is not specifically required by statute.

Section 400. STATEWIDE SYSTEM OF STROKE CARE

Section 400.A requires licensed EMS providers to utilize the South Carolina Stroke Assessment and Triage tool identified by the Department in the SC EMS Protocol “Suspected Stroke.” Section 400.B requires licensed EMS providers to utilize the SC EMS Protocol “Adult Stroke Patient Destination Determination by Stroke Center Capability” for transport of acute stroke patients to the closest stroke center within a specified timeframe of onset of symptoms unless one (1) or more exceptions listed therein applies.

Section 500. STATE STROKE REGISTRY DATABASE

Section 500 outlines the requirements of submission to the State Stroke Registry Database.

Section 501. Data Submission

Section 501 requires Certificate Holders to participate in the State Stroke Registry Database and outlines the required schedule for submission.

Section 502. Inclusion and Exclusion Criteria

Section 502 states that patient inclusion and exclusion criteria will be established by the Department under the guidance of the Stroke Advisory Council and maintained in the State Stroke Registry Guidelines.

Section 503. Confidentiality Protection of Data and Reports

Section 503 requires that reports show only general information and shall not identify any protected information or hospital information.

Section 600. SEVERABILITY

Section 600 was added to allow the regulation to remain valid should it be determined that a portion of the regulation be invalid or unenforceable.

Section 700. GENERAL

Section 700 was added to allow the Department to utilize best practices to manage any conditions not covered by these regulations.

Notice of Public Hearing and Opportunity for Public Comment:

Interested persons may submit comments on the proposed new regulation in writing to Robert Wronski by mail at Bureau of EMS and Trauma, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, SC 29201; or by e-mail at HealthRegComm@dhec.sc.gov. Interested persons may also submit comments electronically at the following address: <http://www.scdhec.gov/Agency/RegulationsAndUpdates/PublicComments/>, under the Notice of Proposed Regulation for South Carolina Stroke Care System. To be considered, comments must be received no later than 5:00 p.m. on October 23, 2017, the close of the public comment period. Comments received shall be submitted in a “Summary of Public Comments and Department Responses” for the Board of Health and Environmental Control’s consideration at the public hearing.

Interested persons may also make oral and/or written comments on the proposed new regulation at a public hearing to be conducted by the Board of Health and Environmental Control at its regularly scheduled meeting on December 7, 2017. The Board will conduct the public hearing in the Board Room, Third floor, Aycock Building of the Department of Health and Environmental Control at 2600 Bull Street, Columbia, South Carolina 29201. The Board meeting commences at 10:00 a.m., at which time the Board will consider items on its agenda in the order presented. The order of presentation for public hearings will be noted in the Board’s agenda published by the Department twenty-four (24) hours in advance of the meeting at the following address: <http://www.scdhec.gov/Agency/docs/AGENDA.PDF>. Persons desiring to make oral comments at the hearing are asked to limit their statements to five (5) minutes or less and, as a courtesy, are asked to provide written copies of their presentations for the record. Due to admittance procedures at the DHEC Building, all visitors should enter through the Bull Street entrance and register at the front desk.

The DHEC Regulation Development Update (accessible at <http://www.scdhec.gov/Agency/RegulationsAndUpdates/RegulationDevelopmentUpdate/>) provides a summary of the proposed new regulation, a link to the proposed new regulation, and applicable contact information. Interested persons may also obtain a copy of the proposed new regulation by contacting Robert Wronski at the above mailing address or by email at wronskra@dhec.sc.gov.

Preliminary Fiscal Impact Statement:

There is no anticipated additional cost by the Department or State government due to any inherent requirements of this regulation. There are no external costs anticipated.

Statement of Need and Reasonableness:

The following is based on an analysis of the factors listed in 1976 Code Section 1-23-115(C)(1)-(3) and (9)-(11):

DESCRIPTION OF REGULATION, ITS PURPOSE, LEGAL AUTHORITY, AND PLAN FOR IMPLEMENTATION:

Purpose: The purpose of this new regulation is to establish a process of application and recognition of acute care hospitals wishing to be recognized as Stroke Centers within the State, encourage Stroke Centers to submit data to the State Stroke Registry Database, and establish a statewide stroke assessment and triage tool for EMS. This regulation seeks to direct EMS agencies to transport stroke patients to appropriate facilities to treat stroke patients in a timely manner.

Legal Authority: 1976 Code Sections 44-61-610 et seq.

Plan for Implementation: The proposed regulation is available electronically on the South Carolina Legislature website. The DHEC Regulation Development Update (accessible at <http://www.scdhec.gov/Agency/RegulationsAndUpdates/RegulationDevelopmentUpdate/>) also provides a link to the proposed regulation. Printed copies are available for a fee from the Department's Freedom of Information Office.

DETERMINATION OF NEED AND REASONABLENESS OF THE PROPOSED REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

Pursuant to S.C. Code Section 44-61-640(B) (Supp. 2016), the Department must establish a process to recognize acute care hospitals as Stroke Centers within the State, given an applicant is certified as a Stroke Center by the Joint Commission or another nationally recognized organization that provides disease-specific certification or accreditation for stroke care. Furthermore, the Department must supply a list of these recognized Stroke Centers to EMS agencies and create and provide a statewide stroke assessment-triage tool. This proposed regulation establishes the process of recognition of Stroke Centers, requires the use of a statewide stroke assessment-triage tool and transport plan, and outlines the process to participate in the State Stroke Registry Database.

DETERMINATION OF COSTS AND BENEFITS:

Implementation of this regulation will not require additional resources. There is no anticipated additional cost to the Department, State government, or the regulated community due to any inherent requirements of this regulation.

UNCERTAINTIES OF ESTIMATES:

None.

EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

The proposed regulation seeks to support the Department's goals relating to protection of public health through the anticipated benefits highlighted above. There is no anticipated effect on the environment.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

There is no anticipated detrimental effect on the environment. If the proposed regulation is not implemented, transport of stroke patients within the State by EMS agencies will be up to the determination and agreements between EMS agencies and the local hospitals regardless of their certification as Stroke Centers.

Statement of Rationale:

The Department proposes a new regulation to address the requirements of the Stroke System of Care Act of 2011. This regulation is necessary to establish a process of application and recognition of acute care hospitals wishing to be recognized as Stroke Centers within South Carolina. The regulation establishes a State Stroke Registry Database for the collection and analysis of stroke care by acute care hospitals within the State. Finally, the regulation adopts a nationally recognized, standardized stroke-triage assessment tool to be posted on the Department's website and distributed to all EMS agencies licensed by the Department.

Text:

New text is underlined.

Add new regulation as follows:

TABLE OF CONTENTS:

SECTION 100 – DEFINITIONS

SECTION 200 – RECOGNITION PROCESS

201. Eligibility for Recognition

202. Application Process

203. Recognition Renewal

204. Recognition Levels

205. Recognition

206. Process of Re-recognition

SECTION 300 – CERTIFICATE OF RECOGNITION REQUIREMENTS

301. Issuance and Terms of the Certificate of Recognition

302. Exceptions to the Standards

SECTION 400 – STATEWIDE SYSTEM OF STROKE CARE

SECTION 500 – STATE STROKE REGISTRY DATABASE

501. Data Submission

502. Inclusion and Exclusion Criteria

503. Confidentiality Protection of Data and Reports

SECTION 600 – SEVERABILITY

SECTION 700 – GENERAL

SOUTH CAROLINA STROKE CARE SYSTEM

SECTION 100

DEFINITIONS

A. Acute Care Hospital. A hospital licensed by the Department that has facilities, medical staff and all necessary personnel to provide diagnosis, care, and treatment of a wide range of acute conditions, including injuries.

B. Acute Stroke Ready Hospital (“ASRH”). Disease-specific certification by the Joint Commission or other nationally recognized organization at the level of Acute Stroke Ready Hospital and recognized by the Department.

C. Certificate of Recognition. A document issued by the Department to an Acute Care Hospital indicating the Department has recognized the Acute Care Hospital as a Stroke Center at a stroke Recognition level appearing in Section 204 of this regulation.

D. Certificate Holder. An Acute Care Hospital with a current Certificate of Recognition from the Department and with whom rests the ultimate responsibility for compliance with this regulation.

E. Comprehensive Stroke Center (“CSC”). Disease-specific certification by the Joint Commission or other nationally recognized organization at the level of Comprehensive Stroke Center, and recognized by the Department.

F. Department. The South Carolina Department of Health and Environmental Control (“DHEC”).

G. Emergency Medical Services (“EMS”). The treatment and transport of patients in crisis health situations occurring from a medical emergency or from an accident, natural disaster, or similar life-threatening situation, through a system of coordinated response and emergency medical care.

H. Primary Stroke Center (“PSC”). Disease-specific certification by the Joint Commission or other nationally recognized organization at the level of Primary Stroke Center, and recognized by the Department.

I. Recognition. The formal determination by the Department that an Acute Care Hospital is certified or accredited to provide a particular level of stroke care services.

J. State Stroke Registry Database. The stroke data collection and evaluation system, also known as “Get With The Guidelines-Stroke,” designed to include, but not be limited to, stroke studies, patient care and outcomes, and severity of illness in the State. The data elements collected in the State Stroke Registry Database are determined by the Department with collaboration from the Stroke Advisory Council.

K. Stroke Advisory Council (“SAC”). Stroke System of Care Advisory Council created pursuant to S.C. Code Section 44-61-650(A).

L. Stroke Care System. An organized statewide system of care for the Stroke Patient, including the Department, EMS providers, hospitals, inpatient rehabilitation providers, and other providers who have agreed to participate in coordinating stroke care services and who have been recognized by the Department in an organized statewide system.

M. Stroke Center. A hospital recognized by the Department as certified or accredited by the Joint Commission or another nationally recognized organization that provides disease-specific certification or accreditation for stroke care.

N. Stroke Patient. An individual being treated for a sudden brain dysfunction due to a disturbance of cerebral circulation. The resulting impairments include, but are not limited to, paralysis, slurred speech, and/or vision loss. Strokes can be classified as either ischemic or hemorrhagic.

SECTION 200

RECOGNITION PROCESS

201. Eligibility for Recognition

A. Any Acute Care Hospital certified or accredited as a Stroke Center by the Joint Commission or other nationally recognized organization that provides disease-specific certification or accreditation for stroke care may apply to the Department for Recognition.

B. In order to maintain Department Recognition, an Acute Care Hospital shall maintain certification or accreditation as a Stroke Center by the Joint Commission or from an equivalent process by another nationally recognized organization that provides disease-specific certification or accreditation for stroke care.

C. Any facility that no longer meets nationally recognized, evidence-based standards as a Stroke Center, or no longer possesses disease-specific certification or accreditation for stroke care, shall notify the Department within thirty (30) business days as required by S.C. Code Section 44-61-640(D), and surrender the Certificate of Recognition to the Department.

202. Application Process

A. An Acute Care Hospital seeking Recognition shall submit to the Department a completed application. The application shall include the applicant's attestation assuring that the contents of the application and other requested documents are accurate and true. The application shall be authenticated as follows:

1. If the applicant is an individual or a partnership, the application shall be signed by the owner(s);

2. If the applicant is a corporation, nonprofit organization, or limited liability company, the application shall be signed by two (2) of its officers;

3. If the applicant is a governmental unit, the application shall be signed by the head of the governmental unit having jurisdiction.

B. The application shall set forth the full name and address of the Acute Care Hospital for which the Recognition is sought, and the name and address of the owner of the facility in the event that his or her address is different from that of the facility. In the event of a change in ownership of the Acute Care Hospital, the Department shall be notified in writing within forty-eight (48) hours of the change.

C. The application shall include a copy of the full accreditation report by the Joint Commission or other nationally recognized organization at the level of Recognition requested.

D. The application shall include signed copies of agreements to allow the Department to access data submitted to the State Stroke Registry Database.

E. The Department may require additional information evidencing the applicant's ability to comply with this regulation.

203. Recognition Renewal

A. Recognition shall expire upon expiration of current disease-specific certification or accreditation for stroke care by the Joint Commission or other nationally recognized organization.

B. To maintain Recognition, an Acute Care Hospital shall renew its recognition upon renewal of current disease-specific certification or accreditation for stroke care as required by the Joint Commission or other nationally recognized organization.

C. The application process for renewal shall follow the same process outlined in Section 202.

204. Recognition Levels

A. Recognition Levels by the Department for Stroke Centers include Acute Stroke Ready Hospital (“ASRH”), Primary Stroke Center (“PSC”), and Comprehensive Stroke Center (“CSC”).

B. As nationally recognized, disease-specific certification or accreditation programs become available at more comprehensive and less comprehensive levels, the Department may adopt and recognize those hospitals that have achieved the certification or accreditation.

205. Recognition

A. Recognition is based upon Department review and verification of the application and its supporting documents, as indicated in Section 202. Failure to meet recognition requirements, misrepresentation, and/or false information provided by the hospital is grounds for denial.

B. Upon approval, the Department will issue a Certificate of Recognition to the hospital denoting the Recognition level. The Department will also place the name of the hospital and its corresponding Recognition level on the Department’s website.

206. Process of Re-recognition

An Acute Care Hospital seeking Recognition after previously, but no longer, being a Certificate Holder shall follow the Recognition procedures outlined in Section 202.

SECTION 300

CERTIFICATE OF RECOGNITION REQUIREMENTS

301. Issuance and Terms of the Certificate of Recognition

A. The issuance of a Certificate of Recognition does not guarantee adequacy of individual care, treatment, procedures, and/or services, personal safety, fire safety, or the well-being of any patient.

B. A Certificate of Recognition is not assignable or transferable.

C. A Certificate of Recognition shall be effective for a specific Stroke Center at a specific physical location. A Certificate of Recognition shall remain in effect until expiration of current disease-specific certification or accreditation.

302. Exceptions to the Standards

The Department may grant exceptions to standards of this regulation if it determines that the health, safety, and well-being of the patients will not be compromised and such standard is not specifically required by statute.

SECTION 400

STATEWIDE SYSTEM OF STROKE CARE

A. Licensed EMS providers shall establish a stroke assessment and triage system that incorporates the South Carolina Stroke Assessment and Triage tool identified by the Department and located in the SC EMS Protocol “Suspected Stroke.”

B. Licensed EMS providers shall utilize SC EMS Protocol “Adult Stroke Patient Destination Determination by Stroke Center Capability” for transport of acute Stroke Patients to the closest Stroke Center within a specified timeframe of onset of symptoms unless one (1) or more of the following exceptions apply:

1. It is medically necessary to transport the patient to another hospital;
2. It is unsafe or medically inappropriate to transport the patient directly to a Stroke Center due to adverse weather or ground conditions;
3. Transporting the patient to a Stroke Center would cause a shortage of local EMS resources (defined as no resources available for longer than thirty (30) minutes in a reasonable response area) and air transport is unavailable;
4. No appropriate Stroke Center is able to receive and provide stroke care to the Stroke Patient without undue delay; or
5. Before transport of a patient begins, the patient requests to be taken to a particular hospital that is not a Stroke Center or, if the patient is less than eighteen (18) years of age or is not able to communicate, such request is made by an adult member of the patient’s family or a legal representative of the patient.

SECTION 500

STATE STROKE REGISTRY DATABASE

501. Data Submission

A. All Certificate Holders shall participate in the State Stroke Registry Database by:

1. Submitting data identified by the Department to the State Stroke Registry Database; and
2. Signing and completing agreements to allow the Department to access data submitted to the State Stroke Registry Database.

B. The Certificate Holder shall ensure that all data is submitted to the State Stroke Registry Database quarterly, as outline below. The Certificate Holder shall ensure that the data entered in the State Stroke Registry Database is accurate and complete.

<u>Admission Period</u>	<u>Due Date</u>
January – March	July 1
April – June	October 1

July – September	January 1
October – December	April 1

502. Inclusion and Exclusion Criteria

Patient inclusion and exclusion criteria shall be established by the Department under the guidance of the Stroke Advisory Council and maintained in the State Stroke Registry Guidelines.

503. Confidentiality Protection of Data and Reports

Information that identifies individual patients shall not be disclosed. Reports that do not contain protected health information or any identifiable information may be generated and distributed. Such reports shall not identify any protected information or hospital information.

SECTION 600

SEVERABILITY

In the event that any portion of this regulation is construed by a court of competent jurisdiction to be invalid or otherwise unenforceable, such determination shall in no manner affect the remaining portions of this regulation, and it shall remain in effect, as if such invalid portions were not originally a part of this regulation.

SECTION 700

GENERAL

Conditions which have not been addressed in this regulation shall be managed in accordance with best practices as interpreted by the Department.

ATTACHMENT B

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

CHAPTER 61

Statutory Authority: 1976 Code Sections 44-61-610 et seq.

Notice of Drafting:

The Department of Health and Environmental Control proposes to draft a new regulation that addresses the Stroke System of Care Act of 2011. Interested persons may submit comments to Robert Wronski, Bureau Chief, DHEC Bureau of EMS and Trauma, 2600 Bull Street, Columbia, South Carolina 29201, or via email at wronskra@dhec.sc.gov. Comments may also be submitted electronically at the following address: <http://www.scdhec.gov/Agency/RegulationsAndUpdates/PublicComments/>, under the Notice of Drafting for South Carolina Stroke Care System. To be considered, all comments must be received no later than 5:00 p.m. May 29, 2017, the close of the drafting comment period.

Synopsis:

In 2011, the General Assembly passed the Stroke System of Care Act of 2011 which requires the Department of Health and Environmental Control (DHEC) to promulgate regulations to establish a process of application and recognition of acute care hospitals that wish to be recognized as stroke centers within the State. A list of all recognized stroke centers must be posted on the Department website and distributed to all DHEC licensed Emergency Medical Service (EMS) agencies. The act further requires the Department to establish a statewide stroke registry for the collection and analysis of stroke care by acute care hospitals within the State. Additionally, the act requires the Department to adopt and distribute a nationally recognized, standardized stroke-triage assessment tool. This assessment tool must be posted on the Department's website and distributed to all DHEC licensed EMS agencies.

Legislative review of this amendment is required.

ATTACHMENT C

SUMMARY OF PUBLIC COMMENTS AND DEPARTMENT RESPONSES

Document No. ____

R.61-__, South Carolina Stroke Care System

As of the May 29, 2017, close of the Notice of Drafting Comment period:

NAME	PUBLIC COMMENT	DEPARTMENT RESPONSE
<p>1. Yarley Steedly, American Heart Association</p>	<p><u>Stroke Facility Designation</u> The purpose of the state independently verifying a hospital’s stroke certification (Acute Stroke Ready Hospital, Primary Stroke Center, or Comprehensive Stroke Center) and making the information readily available to the public and EMS providers, is to remove any potential confusion about a hospital’s capability and certification to treat stroke patients as determined by circumstance and severity of symptoms. In addition to the certification levels mentioned above, the state should also recognize Primary Stroke Centers receiving further distinction, which includes but is not limited to centers that offer mechanical endovascular therapies, by attaining a supplementary level of stroke care certification from accrediting nationally recognized certifying bodies.</p> <p>It is not recommended for the state to develop their own certification/verification process, but instead rely on the efficient and effective processes that have been developed by nationally recognized certifying bodies such as the Joint Commission or American Heart Association. Dual certification by a national body and a state body would be redundant and unnecessarily burdensome to DHEC and hospitals.</p>	<p><u>Clarified.</u> The Department is recognizing, not certifying, stroke centers, as required by S.C. Code Section 44-61-640(B).</p>
<p>2. Yarley Steedly, American Heart Association</p>	<p><u>Stroke Transport Protocols</u> American Heart Association applauds DHEC for developing and implementing Protocol 20b – SC R.A.C.E. Tool (Rapid Arterial Occlusion Evaluation Scale) as mandated in statute. As the trauma system regulations appropriately mandate the use of transport protocols for trauma patients, it is equally important and vital that DHEC develops regulations requiring the development and implementation of transport protocol plans by all EMS authorities for stroke patients. In both cases, it is recognized that fast response times and appropriate care is required for the best possible outcomes for stroke and trauma patients. In order to protect patients, uphold the spirit of the law, and follow the trauma system precedent, we look forward to seeing DHEC require transport protocol plan language in the stroke system regulations. All EMS authorities across the state should be required to develop and implement plans that transport acute stroke patients, including patients suspected of large vessel occlusion strokes, to the closest, most appropriate stroke-certified hospital within a specified timeframe of symptom onset.</p>	<p><u>Adopted.</u> See Section 400.B.</p>

NAME	PUBLIC COMMENT	DEPARTMENT RESPONSE
3. Yarley Steedly, American Heart Association	<p><u>Statewide Registry</u> It is strongly recommended that all acute care hospitals in the state participate in the statewide registry and submit their data to DHEC. This will give the most accurate and quantifiable picture of how the incidence of stroke affects the health and productivity of our residents and the related monetary burden to the state. At a minimum, all hospitals certified at the Acute Stroke Ready, Primary Stroke Center, Comprehensive Stroke Center level, and any other future stroke certifications that become available by nationally certifying bodies at a future date, should be required to participate in the registry.</p>	<p><u>Partially adopted.</u> The enabling statute does not grant the Department authority to require all acute care hospitals to submit data. However, Section 501.A requires all Certificate Holders to submit data to the State Stroke Registry Database.</p>
4. Erin Stillinger, Lexington Medical Center	<p>One of the categories of “recognized stroke centers” on the Department website must include Primary Stroke Centers with endovascular thrombectomy (EVT) capabilities. According to the published American Stroke Association Severity Based Stroke Triage Algorithm for EMS, Primary Stroke Centers with EVT capability is the recommended second choice after a Comprehensive Stroke Center within 15 minutes is ruled out as an option and “may make sense to be the preferred destination” if no CSC meets the time frame.</p>	<p><u>Not adopted.</u> S.C. Code Section 44-61-640(B) requires the Department to recognize as many accredited acute care hospitals as apply and are certified as primary stroke centers by the Joint Commission or another nationally recognized organization that provides disease-specific certification or accreditation for stroke care. Currently, primary stroke centers with EVT capability is not a certification offered by the Joint Commission or other nationally recognized organization.</p>
5. Erin Stillinger, Lexington Medical Center	<p>The SC DHEC has developed its own protocol for EMS to follow regarding care of the patient with a probable stroke. The SC DHEC Adult Stroke Patient Destination Determination of Stroke Center Capability should be replaced with the American Stroke Association Severity Based Stroke Triage Algorithm for EMS. At a minimum the published American Stroke Association Severity Based Stroke Triage Algorithm for EMS including time interval parameters should be reflected in the SC DHEC Adult Stroke Patient Destination Determination of Stroke Center Capability.</p>	<p><u>Partially adopted.</u> This is not within the purview of the regulation. This is to be determined by protocol developed by the BEMS with recommendations from the Stroke Advisory Council.</p>
6. Erin Stillinger, Lexington Medical Center	<p>Specifics in the 2017 SC State EMS Protocol 21 “Adult Stroke Patient Destination Determination by Stroke Center Capability” do not adhere to the evidence based guidelines published by American Heart Association/American Stroke Association Mission: Lifeline Stroke Severity-Based Stroke Triage Algorithm for EMS include:</p> <ol style="list-style-type: none"> a. If by-pass to a CSC will be delayed by more than 15 minutes (Department protocol now states 30 minutes), transport to the nearest EVT-capable center. b. Patients should be transported to the nearest Alteplase-capable facility if bypassing to a CSC would make the patient ineligible for IV tPA (Not noted by the SC DHEC protocols). c. Last known well less than 6 hours (DHEC protocol states 7 hours). 	<p><u>Clarified.</u> This is not within the purview of the regulation. This is to be determined by protocol developed by the BEMS with recommendations from the Stroke Advisory Council.</p>

NAME	PUBLIC COMMENT	DEPARTMENT RESPONSE
7. Erin Stillinger, Lexington Medical Center	If the SC DHEC protocol is going to include the term “Comprehensive Capable Stroke Center” as it is currently written, then a specific definition must be written to include Primary Stroke Centers with endovascular thrombectomy (EVT) capabilities.	<u>Not adopted.</u> S.C. Code Section 44-61-640(B) requires the Department to recognize as many accredited acute care hospitals as apply and are certified as primary stroke centers by the Joint Commission or another nationally recognized organization that provides disease-specific certification or accreditation for stroke care. Currently, primary stroke centers with EVT capabilities is not a certification offered by the Joint Commission or other nationally recognized organization.
8. Erin Stillinger, Lexington Medical Center	<u>Statewide Stroke Registry</u> a. The American Heart Association/American Stroke Association Get with the Guidelines Registry should be the registry used by the state of SC. This registry is endorsed by experts in the field, indicators are evidence based and represents a large national patient population for benchmarking. b. American Heart Association/American Stroke Association Get with the Guidelines Registry supports sampling patients over time verses 100%. c. Identify who will be responsible for Stroke Registry data collection (mainly, prehospital data). d. Identify what resources are being provided by the State of South Carolina to meet the financial burden this will create.	<u>Adopted.</u> The Department will utilize the stroke registry data platform of “Get With The Guidelines-Stroke” in accordance with S.C. Code Section 44-61-670(A)(5).
9. Bill Gerard, Palmetto Health	Obviously would need DNV along with TJC designation. Would define in reg.	<u>Adopted.</u> Section 201.A allows for recognition of any acute care hospital certified or accredited by the Joint Commission or other nationally recognized organization that provides disease-specific certification or accreditation for stroke care.
10. Bill Gerard, Palmetto Health	Would like definitions other than Primary and Comprehensive. Tele, Endovasc capabilities.	<u>Not adopted.</u> Currently, primary stroke centers with EVT capability is not a certification offered by the Joint Commission or other nationally recognized organization.
11. Bill Gerard, Palmetto Health	Would like to see all sites with Tele-Stroke potential and referral pattern.	<u>Not adopted.</u> The enabling statute does not grant the Department authority over referral patterns.

NAME	PUBLIC COMMENT	DEPARTMENT RESPONSE
12. Bill Gerard, Palmetto Health	Clarified that either you are or aren't designated. No "almost" or we have it all but not surveyed. You either are, or are NOT.	<u>Adopted.</u> Section 201 requires acute care hospitals to be certified or accredited by the Joint Commission or other nationally recognized organization prior to being recognized by the Department.
13. Bill Gerard, Palmetto Health	Probably need to consider Primary Centers, or any center, that additionally has Interventional Endovascular capabilities 24/7.	<u>Not adopted.</u> Currently, primary stroke centers with EVT capability is not a certification offered by the Joint Commission or other nationally recognized organization.
14. Bill Gerard, Palmetto Health	When is it appropriate to go to tele or primary and get quick CT or drive / fly XX minutes to Comprehensive? This is the political-medical conundrum.	<u>Clarified.</u> This is not within the purview of the regulation. This is to be determined by protocol with local medical control physician approval.



Board:

Allen Amsler, *Chairman*
Ann B. Kirol, DDS, *Vice Chair*
L. Clarence Batts, Jr., *Secretary*

R. Kenyon Wells
Charles M. Joye II, P.E.
David W. Gillespie, MD

Meeting Dates for 2018*

Thursday, January 4 (1st Thursday)
Thursday, February 8
Thursday, March 8
Thursday, April 13
Thursday, May 9 (Wednesday, due to a state holiday on Thursday)
Thursday, June 7 (1st Thursday)
Thursday, July 12
Thursday, August 9
Thursday, September 13
Thursday, October 11
Thursday, November 8
Thursday, December 13

*Meetings are scheduled for 10:00 am in the Board Room of the S.C. Department of Health and Environmental Control. Date, time or locations may change if necessary. Public notice will be given.

Approved this 7th day of September 2017.

Allen Amsler, Chairman
S.C. Board of Health and Environmental Control