



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUL 11 2008

David Wilson
Chief
South Carolina Department of Environmental Control
Bureau of Water
2600 Bull Street
Columbia, SC 29201

SUBJ: Approval of the State of South Carolina's 2008 303(d) List Submittal

Dear Mr. Wilson:

The U.S. Environmental Protection Agency (EPA), Region 4, has completed its review of the South Carolina Department of Health and Environmental Control's Final 2008 Clean Water Act (CWA) Section 303(d) list of water quality limited segments. EPA has determined that each of the water quality limited segments still requiring Total Maximum Daily Loads identified on the State's 2008 list meets the requirements of the CWA Section 303(d) and its implementing regulations, 40 CFR 130.7. EPA hereby approves the State of South Carolina's decision to include each of the waters designated by the State in its 2008 303(d) list. Enclosed for your information is the accompanying decision document for this approval action.

Appendix C of the enclosed decision document contains 23 waters of concern for which EPA is not acting on at this time. These waters were submitted based on a preliminary assessment method that has recently been modified in the State's monitoring program so that more representative data can be obtained. Listing determinations for these waters should be included in the 2010 303(d) list submittal.

If you have questions concerning this matter, please feel free to contact me at (404) 562-9345 or Annie Godfrey, Chief, East Standards, Monitoring, and TMDL Section at (404) 562-9967.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Giattina", is written over a horizontal line.

James D. Giattina, Director
Water Management Division

Enclosure

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March 31, 2008

Joanne Benante, Chief
Standards, Monitoring, & TMDL Branch
U.S. Environmental Protection Agency Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Ms. Benante:

The State of South Carolina's *2008 Integrated Report, Part 1: Listing of Impaired Waters*, required by Section 303(d) of the Clean Water Act and 40 CFR 130.7(b)(4), is enclosed for your approval. The list, which corresponds to Category 5 in EPA's *Guidance for 2008 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act*, is presented by 12-digit hydrologic unit and identifies waters not meeting State water quality standards after application of required pollutant controls. We have indicated TMDL development targets for the next two years, taking into account the severity of pollution and the designated uses of the waters. We have also included in our submission the listing, delisting, and TMDL targeting methodology; data solicitation, public notice, and responsiveness summary; a list of sites removed due to standard attainment and a list of sites removed due to approved TMDLs.

We complied with public participation requirements by publishing a notice of availability in three statewide newspapers, by e-mailing the notice to interested parties, and by posting the notice and draft list on our web site. The public notice included a 32-day comment period from February 8, 2008 through March 10, 2008. We requested written comments on the draft list and methodology. A responsiveness summary to the comments received during this time period is included in *Part 1, Appendix G* of this package. Minor revisions to the draft list were also made after public notice. The revisions were not as a result of public comments, but were due to errors in listing. Those corrections are also outlined in *Part 1, Appendix G* of this package.

The State of South Carolina's *2008 Integrated Report, Part 2: Section 305 (b) Assessment and Reporting*, required by Section 305(b) of the Clean Water Act, is also enclosed. *Part 2* includes a description of and data summaries from South Carolina's statewide probability-based monitoring design, through which all waters of the state are assessed.

The South Carolina Department of Health and Environmental Control (the Department) has included all 2008 assessment results in the Assessment Database (ADB) and is committed to continue and work closely with EPA Region 4 to complete reach indexing (georeferencing) for the 2008 Integrated Report. Once indexing is completed (approximately 30 days), electronic versions of State of South Carolina's *2008 Integrated Report Parts 1 & 2*, the ADB and associated reach indexing files will be uploaded to the following FTP site: <ftp://web05.dhec.sc.gov/>. The Department will notify EPA Region 4 staff once the information is available for download. The referenced information can be accessed on the FTP site by following these instructions:

From the toolbar, Go to File Login as...
UserID: water
Password: WaTeR2007 (case-sensitive)

Integrated Report Submittal
Page 2

The Department appreciates EPA Region 4 staff and management assistance and timely feedback during the process of developing the *2008 Integrated Report Parts 1 & 2*.

If you have any questions or need more information, please contact Matt Carswell at 803-898-3609 or by E-Mail at carsweme@dhec.sc.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Heather Preston", with a long, sweeping horizontal line extending to the right.

Heather Preston, Director
Division of Water Quality
Bureau of Water

cc: Amy Bennett
Matt Carswell
Annie Godfrey, EPA Region 4
Bonita Johnson, EPA Region 4
Tina Lamar, EPA Region 4
John Litton
Mihir Mehta
David Wilson

The State of South Carolina's 2008 Integrated Report
Part I: Listing of Impaired Waters

INTRODUCTION

The South Carolina Department of Health and Environmental Control (Department) developed this priority list of waterbodies pursuant to §303(d) of the Federal Clean Water Act (CWA) and Federal Regulation 40 CFR 130.7 last revised in 1992. The listing identifies South Carolina waterbodies that do not currently meet State water quality standards after application of required controls for point and nonpoint source pollutants. Use attainment determinations were made using water quality data collected from 2002-2006. Pollution severity and the classified uses of waterbodies were considered in establishing priorities and targets. The list will be used to target waterbodies for further investigation, additional monitoring, and water quality improvement measures, including Total Maximum Daily Loads (TMDLs).

Over the past three decades, impacts from point sources to waterbodies have been substantially reduced through point source controls achieved via National Pollutant Discharge Elimination System (NPDES) permits. Since 1990, steady progress in controlling nonpoint source impacts has also been made through implementation of South Carolina's Nonpoint Source Management Program. In conjunction with TMDL development and implementation, the continued expansion and promotion of these and other state and local water quality improvement programs are expected to be effective in reducing the number of impaired waterbodies.

In compliance with 40 CFR 25.4(c), the Department, beginning February 8, 2008, issued a public notice in statewide newspapers, to ensure broad notice of the Department's intent to update its list of impaired waterbodies. Public input was solicited. The notice included a person to contact for information regarding the development of the list and asked for comments regarding the draft listing and methodology. The notice will allow for a thirty-one day comment period in which to respond. The Department also provided direct notice to interested parties, including environmental groups, industries, private individuals, local governments, universities, research groups, federal agencies, other state agencies, and the USEPA. The Department also posted the public notice and the draft list on its Internet website. A copy of the notice of availability of the draft listing is provided in Appendix E.

Additional public input was solicited through regular interactions between Department staff, interested members of the public, and other resource agencies. Bureau of Water Watershed Managers have regular interaction with stakeholders throughout the eight major river basins during stakeholder meetings, educational events, and individual contact sessions. Through this process valuable information is received which supports list development and TMDL prioritization. Public participation in the §303(d) process will continue in accordance with the Department's watershed approach.

Part II of the integrated report submittal makes use of the identical data and assessment methodology that follows; therefore, no separate consideration of the 305(b) report is required for these listings. In consideration of EPA's Assessment Data Base (ADB) initiative all 303(d) listed assessment units will also be included in South Carolina's portion of that repository.

METHODOLOGY FOR DELISTING WATERBODIES FROM THE 2006 §303(d) LIST

The Department reviewed the final 2006 §303(d) list as the starting point for the development of the 2006 §303(d) list. All waterbodies on the 2006 §303(d) listing were evaluated for appropriate inclusion on the 2006 §303(d) list as defined in 40 CFR 130.2(j).

Good cause for delisting of waterbodies from the 2006 §303(d) list include the following: 1) the most recent data and information indicate that water quality standards are being met, 2) a TMDL has been developed and approved, and 3) the listing analysis conducted for the 2006 list contained errors (e.g., laboratory reporting error, QA/QC requirements not met, legal ruling). Any one or combination of these reasons may be used by the Department to delist waters.

For this list, a new 12-digit hydrologic unit code was instituted. All waterbodies appear on the 2006 §303(d) list under the new watershed code. Waterbodies listed for “BIO” (biological impairment, cause unknown) on the 2006 list have been removed for BIO if a pollutant responsible for the impairment has been identified. These waterbodies remain on the list for that pollutant and TMDLs will be developed for the pollutant of concern. Other waterbodies have been removed from the list when biological data have shown full use support despite other chemical and/or physical standards excursions.

Waterbodies that appeared on the 2006 §303(d) list that do not meet these justifications for delisting remain on the 2008 §303(d) list.

Summaries of Sites Removed from 2006 §303(d) List or Sites Not Included on 2008 §303(d) List

A list of monitoring sites and water quality measures removed (delisted) from the 2006 §303(d) List due to standard attainment, identified pollutant, or listing error are included in Appendix A. Sites and water quality measures either removed (delisted) from the 2006 §303(d) List or not included on the 2008 §303(d) List due to the existence of an approved TMDL are included in Appendix B. 2008 Waters of Concern, or sites that will be targeted for additional review through the 2010 303(d) listing cycle, are included in Appendix C.

METHODOLOGY FOR LISTING: THE SOUTH CAROLINA 2008 §303(d) LIST

In accordance with federal guidelines, the Department evaluated waterbodies identified as impaired for appropriate inclusion on the 2008 §303(d) list. The Department uses a watershed approach, as encouraged in the August 8, 1997, EPA Guidance Memorandum: New Policies for Establishing and Implementing Total Maximum Daily Loads, to perform its permitting and water quality monitoring. This approach divides the state into five major river basin groups. Permitting and monitoring are performed according to a schedule that cycles through all basins in a five-year period. Information on SCDHEC’s Watersheds Program can be found at: <http://www.scdhec.gov/water/>.

The Department has an extensive fixed ambient surface water monitoring network throughout the state with more than 650 stations. The SCDHEC monitoring effort also includes over 450 shellfish sanitation stations, 100 aquatic macroinvertebrate stations, approximately 220 fish tissue stations, over 125 beach monitoring stations, and several phytoplankton stations. Since 2002 a set of probability-based, or “random” sampling, stations has been added to the Department’s water

quality monitoring strategy. The use of this sampling methodology enhances the ability to make statistically valid inferences about large watershed areas based on a relatively few sampling stations. In collaboration with USEPA, numerous random stations are incorporated in the Department's monitoring program each year. DHEC's total monitoring effort for the assessment used for this 303(d) list included over 2200 stations and 300,000 water quality tests. DHEC's monitoring strategy can be found on the Internet at <http://www.scdhec.gov/eqc/water/pubs/strategy.pdf>.

The cyclical nature of the Department's permitting, monitoring, and data analysis results in a dynamic §303(d) listing. As new waters are monitored, new impaired sites may be discovered which require listing. As a result of increased monitoring, some waterbodies have been added to the 2008 §303(d) list. In compliance with water quality standards (SC Regulation 61-68), waterbodies with standards excursions attributable solely to natural conditions are not included on South Carolina's 303(d) list.

The Department has considered the South Carolina Short List of waterbodies which was prepared in 1989 pursuant to Section §304(l) of the CWA. This "one-time" §304(l) Short List identified waterbodies where the State did not expect applicable water quality standards to be achieved after technology-based requirements had been met due entirely or substantially to point source discharges of §307(a) toxics. The §304(l) Short List was considered as required, but not used for development of the 2008 §303(d) list since those water quality problems have already been addressed. If current data and information on water quality for the specific water bodies included on the 1989 §304(l) list ever indicate less than full support of uses, they will be included on the 303(d) list.

Sources of Data and Information and Their Use

For this listing cycle, the Department actively solicited data and information for the specific purpose of §303(d) listing. The Department has a standing data solicitation year round. This solicitation can be found on DHEC's website at: <http://www.scdhec.gov/environment/water/tmdl/index.htm>. This solicitation contains links and contacts to DHEC's Office of Quality Assurance for information regarding data specifications.

In addition, a solicitation notice was directly emailed to all state institutions known to collect environmental data (e.g., research universities, power utilities). A copy of the solicitation notice is provided (Appendix D). Traditionally multiple sources of information have been considered when compiling the South Carolina §303(d) list. The Department has reviewed a comprehensive assemblage of sources of readily available data and information, including federal agencies, local governments, 319 project grantees, academic institutions, electric utilities, NPDES compliance contractors, and volunteer monitoring groups. SCDHEC considered data from North Carolina and Georgia with common water bodies. In addition, SCDHEC monitors water quality at the state line and in specific locations within North Carolina and Georgia.

The following data sources were considered for the 2008 303(d) listing:

DHEC: Environmental Quality Control

- Water chemistry and biological data from over 1225 surface water and sediment monitoring sites

- Approximately 465 shellfish growing monitoring sites
- Fish, oyster, and crab tissue monitoring data
- Stream macroinvertebrate assessments
- Lake water quality assessment data (§314)
- Environmental Surveillance Oversight Program (Savannah River Site)
- State Nonpoint Source Management Plan (§319)
- §304(l) Short List
- State Watershed Water Quality Assessments
- Special studies or general knowledge

Other biological data

- Adler Biological Consulting
- Coastal Science Associates, Inc.
- E.T.T. Environmental, Inc.
- North Carolina Department of Environment and Natural Resources
- Shealy Environmental Services, Inc.
- South Carolina Public Service Authority (Santee Cooper)
- Swearingen Ecology Associates
- United States Fish and Wildlife Service
- South Carolina Department of Natural Resources

Other tissue data

- Georgia Department of Natural Resources
- National Marine Fisheries Service
- United States Environmental Protection Agency
- North Carolina Department of Environment and Natural Resources
- Florida Department of Environmental Protection
- University of Texas

Other chemical and bacteriological data

- United States Geological Survey
- Haile Mining Company
- Breedlove Dennis Young and Associates, Inc.
- Clemson University Extension Service
- Friends of Lake Keowee Society
- Lower Saluda River Scenic Advisory Council
- Coastal Carolina University
- University of South Carolina
- National Oceans and Atmospheric Administration
- Furman University
- Clemson University
- Newberry Soil and Water Conservation District
- Research Planning Institute Inc.
- Lancaster Soil and Water Conservation District
- Pee Dee RC&D Council

- City of Isle of Palms
- Horry County
- Santee Cooper Public Service Authority

Other Water Quality Information

- Lake Murray Association
- Wateree Homeowners' Association

The Department's Quality Assurance Management Plan (QAMP) has been approved by the EPA as part of its requirements under Section 106 of the CWA. All data and information sources used for the 2008 §303(d) list were reviewed in accordance with the QAMP. All data and information used were readily accessible and met the Department's criteria for quality assurance. A checklist of QA/QC considerations used by the Department can be found at:

<http://www.scdhec.gov/water/pubs/qaqc.pdf>

The following is a brief description of how the above data and information were used by the Department to support determinations for aquatic life, recreation, and other designated uses.

DETERMINATION OF ATTAINMENT OF CLASSIFIED USES

Physical, chemical, and biological data were evaluated, as described below, to determine if water quality met the criteria established to protect the State classified uses as promulgated in Regulation 61-68, Water Classifications and Standards. These regulations are subject to a triennial review as required in section 303 of the Clean Water Act. To determine the appropriate classified uses and water quality criteria for specific waterbodies and locations, refer to Regulation 61-69, Classified Waters, in conjunction with Regulation 61-68. These regulations are located on the Internet at: <http://www.scdhec.gov/water> under Laws and Regulations.

Most data were used on the basis of a minimum five year assessment period. Trend analysis was considered using up to 15 years of data. Less current data may still be the basis for listing previously listed sites where no new data was collected.

The use attainment decision process follows the basic approach set forth in the USEPA guidance for the preparation of state §305(b) water quality assessments.

A more detailed discussion of DHEC's use attainment determination methodology is contained in Appendix F.

Aquatic Life Use Support

One important goal of the Clean Water Act and state standards is to maintain the quality of surface waters to provide for the survival and propagation of a balanced indigenous aquatic community of fauna and flora. Aquatic life use support is assessed by comparing important water quality characteristics to criteria. Support of aquatic life uses is determined based on the percentage of criteria excursions and, where data are available, the composition and functional integrity of the biological community. Among the parameters assessed are: dissolved oxygen, pH, toxicants (priority pollutants, heavy metals, ammonia), nutrients, and turbidity. If the conclusion for any one

parameter is that the criterion is not met, then it is concluded that aquatic life use is not supported and the waterbody is thus listed as impaired.

A number of waterbodies have been given waterbody-specific criteria for pH and dissolved oxygen, which reflect natural conditions. To determine the appropriate criteria and classified uses for specific waterbodies and locations, please refer to Regulation 61-68, Water Classifications and Standards, and Regulation 61-69, Classified Waters.

For D.O. and pH, if 10 percent or less of the samples contravene the appropriate criterion, then the criterion is said to be fully supported. A percentage of criterion excursions greater than 10% indicates impairment and results in inclusion on the current 303(d) list, unless excursions are due to natural conditions.

For toxicants such as heavy metals, priority pollutants, ammonia, etc., if the appropriate acute and chronic aquatic life criterion is exceeded more than once in five years, the waterbody is listed as impaired.

For turbidity in all waters, and for waters with numeric total phosphorus, total nitrogen, and/or chlorophyll-a criteria, if the appropriate criterion is exceeded in more than 25 percent of the samples, the criterion is not supported and the waterbody is listed as impaired. For waters with contraventions of standards between 10% and 25%, further site specific evaluation is necessary to determine if standards violations indicate actual aquatic life use impairment.

For aquatic life uses, the goal of the standards is the protection of a balanced indigenous aquatic community. Therefore, biological data are generally considered as the deciding factor, regardless of chemical conditions. South Carolina Regulation 61-68 Section E. 12 d. (2) states that if the ambient concentration is higher than the numeric criterion for toxic pollutants, the criterion is not considered violated if biological monitoring has demonstrated that the in-stream indigenous biological community is not adversely impacted. Section E. 15 b. states that biological assessment methods may be employed in other appropriate situations to assess and ensure the maintenance of a balanced indigenous aquatic community. These sections from the State water quality standards regulation provide the Department with discretion in data assessment for compliance with water quality standards. There are some waterbodies where the Department has gathered both chemical and biological data. After evaluation of the data, the Department has in some instances made the decision that the aquatic life use is fully supported based upon the biological data. As always when there is conflicting data, the Department will continue to carefully monitor these waters to ensure that all applicable water quality standards are met.

Additionally, as stated in Appendix F, certain state waters, such as blackwater systems in the Sandhills and Coastal Plain are frequently characterized by naturally low pH and D.O. concentrations, as are many tidally influenced systems along the coast. The Department used biological community data as a factor in determining whether pH and D.O. excursions represent natural conditions. On a case-by-case basis, departmental staff also considered other factors such as land use, and critical hydrology in assessing use attainment at individual locations where natural conditions were potentially involved. The Department does not believe that it is appropriate to develop TMDLs for these sites, per Regulation 61-68 Section C. 9.

In the assessment of biological data, aquatic and semi-aquatic macroinvertebrates are identified to the lowest practical taxonomic level depending on the condition and maturity of specimens collected. The EPT Index (Ephemeroptera, Plecoptera, Trichoptera) and the North Carolina Biotic Index (BI) are the main indices used in analyzing macroinvertebrate data. A habitat evaluation is conducted at each biological monitoring site, and is considered in the aquatic community assessment score.

Recreational Use Support

The degree to which the swimmable goal of the Clean Water Act is attained (Recreational Use Support) is based on the frequency of fecal coliform bacteria excursions. Standards for primary contact recreation were derived from public health data that estimate the potential risks to humans of contracting waterborne illnesses after swimming due to exposure to sewage-related pathogens. For all waters classified for recreational use support, South Carolina R.61-68 requires a geometric mean and instantaneous fecal coliform bacteria standard for both fresh and tidal salt waters;

“Not to exceed a geometric mean of 200/100ml, based on five consecutive samples during any 30 day period; nor shall more than 10% of the total samples during any 30 day period exceed 400/100 ml”.

The standard is protective of primary contact recreational use; therefore, secondary contact recreational use is also protected.

For fecal coliform bacteria. If 10 percent or less of the samples exceed the instantaneous criteria then recreational uses are said to be fully supported. A percentage of criteria excursions greater than 10% indicates impairment of recreational uses and the waterbody is listed. In most cases, insufficient data are collected to evaluate against the geometric mean component of the standard as prescribed in R. 61-68.

South Carolina R.61-68 also prescribes a geometric mean and instantaneous enterococci bacteria standard for tidal salt waters;

“Not to exceed a geometric mean of 35/100 ml based on at least four samples collected from a given sampling site over a 30 day period; nor shall samples exceed a single sample maximum (SSM) of 104/100 ml.”

Some South Carolina coastal waters are monitored for enterococci levels. Beach advisories are issued for the period in which elevated levels persist. These advisories do not warrant listing for 303(d) purposes. Instead, an approach was developed in accordance with EPA guidance and South Carolina Regulations 61-68 (See <http://www.scdhec.gov/eqc/water/html/reg.html#wcs>).

At sites where sufficient data are collected to assess for enterococci during the 2002-2006 time-frame, data were evaluated for the purposes of §303(d) listings.

Fish and Shellfish Consumption

Fish consumption use support is determined by the occurrence of advisories on human consumption for a given waterbody. For the support of consumption uses, a mercury or PCB advisory which restricts fish consumption, indicates nonsupport of uses.

Shellfish use support is determined by the harvesting status for a given shellfish harvesting area. Based on an evaluation against the appropriate water quality standard, elevated fecal coliform bacteria levels or a classification which restricts shellfish harvesting in a designated harvesting area indicates nonsupport of uses.

Fish consumption advisories and shellfish sanitation information are updated periodically. For background information and the most up-to-date advisories please visit the DHEC Bureau of Water webpage at <http://www.scdhec.gov/water/> and click on "Advisories" beneath the Water Program Index. For shellfish growing area status reports click on "Shellfish Information".

TMDL DEVELOPMENT: METHODOLOGY FOR TARGETING IMPAIRED WATERBODIES

The *Integrated Report Part I: Listing of Impaired Waters* serves to identify those sites that need additional management actions to meet water quality standards. TMDL (Total Maximum Daily Load) development is one way in which the Clean Water Act §303(d) was intended to promote these management actions. TMDLs will be developed for all §303(d) listed sites pursuant to EPA guidance.

A TMDL is a calculation of the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards. It is the sum of the allowable loads of a given pollutant from all contributing point and nonpoint sources. It also incorporates a margin of safety and consideration of seasonal variation. For an impaired waterbody, the TMDL document specifies the level of pollutant reductions needed for waterbody use attainment. Targeting for TMDL development is necessary to focus limited technical and monetary resources. As per Federal regulation 40CFR 130.7(b)(4), TMDLs targeted for completion over the next two years were based on the following factors:

- > Severity of pollution
- > Classified Use
- > Aquatic endangered species: Species present and potentially adversely affected by a pollutant.
- > Adequacy of existing and readily available data and information for TMDL development
- > Adequacy of existing technical tools for TMDL development
- > Hydrologic connection, allowing "nesting" or "bundling" of TMDLs
- > Identified funding or cooperators
- > Degree of public interest and support for improvement of the waterbody
- > Ongoing activities and water quality related initiatives in the watershed
- > Recreational, economic, and aesthetic importance
- > Other national and departmental priorities and policies

In cooperation with EPA Region IV, SCDHEC Bureau of Water has developed TMDLs. At the time of publication of this list over 320 TMDLs have been approved by EPA in South Carolina. An updated listing of approved and draft TMDLs can be found at DHEC's TMDL webpage: <http://www.scdhec.gov/water/tmdl>.

These approved TMDLs have been incorporated into the Department's Continuing Planning Process in accordance with §303(d) of the Clean Water Act. TMDL development is continuing.

TMDL IMPLEMENTATION

DHEC §319 and Watershed Program staff have initiated a process for implementation of approved TMDLs. The Department's TMDL implementation program also includes stakeholder involvement and funding assistance. Periodically, requests for proposals are made for projects that will implement the nonpoint source components of existing TMDLs. Interested persons may send a message to npsgrants@dhec.sc.gov to be notified of grant opportunities.

As of February 2008, 22 such TMDL implementation projects have been funded addressing 69 TMDLs. Implementation of TMDLs involving point sources is occurring through departmental NPDES permitting mechanisms. South Carolina's TMDL implementation plan for nonpoint sources can be viewed on the web at:

<http://www.scdhec.gov/eqc/water/html/npsplan.html>

LIST OF IMPAIRED WATERS

The South Carolina 2008 §303(d) list follows. Waterbodies are listed by point locations; however, the impairment is considered to extend for some distance upstream and/or downstream of the point location listed. The extent of the impairment of the waterbodies is determined during TMDL development and implementation.

The column headings included on the South Carolina 2008 list of impaired waters refer to the following:

BASIN – One of eight major basins contained in the State

HUC - Hydrologic Unit Code, a sub-basin unit in which the water body is located

LOCATION – Name and brief description of the location of the impaired waterbodies

STATION – The Department’s station code where samples were collected

COUNTY – County in which station is located

USE – Use support impairment for aquatic life and/or recreational uses

Aquatic Life Use: AL

Fish Consumption: FISH

(For information on the full extent of fish advisories, see the current Fish Consumption Advisories on our website at <http://www.scdhec.gov/fish>)

Recreational Use (Swimming): REC

Shellfish Harvesting: SHELLFISH

(For information on the current shellfish harvesting areas status, see the current Annual Update Reports on our website at <http://www.scdhec.gov/water/html/shellfish.html>)

CAUSE – Pollutant(s) that resulted in impaired classified use. The parameters are denoted as follows:

Chlorophyll A: CHLA

Chromium: CR

Mercury: HG

Copper: CU

Dissolved Oxygen: DO

Enterococci: ENTERO

Fecal Coliform Bacteria: FC

Nickel: NI

Zinc: ZN

Cadmium: CD

Macroinvertebrate: BIO

Turbidity: TURBIDITY

Total Phosphorus: TP

Ammonia Nitrogen: NH3N

Polychlorinated Biphenyls: PCB

Lead: PB

Hydrogen Ion Concentration: PH

Total Nitrogen: TN

NOTE – * TMDL to be developed within two years

Further investigation planned

TMDL TARGET DATE(S) ++ – Target dates are established for development of TMDLs from 2-13 years after a site is listed as impaired by each pollutant. All target dates are subject to change, based on the severity of pollution, designated use, the availability of additional site-specific information, or other factors the Department deems appropriate for scheduling TMDL development. If the water quality standard demonstrates attainment for the pollutant of concern subsequent to initial listing, a TMDL will not be necessary.

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2015		BROAD	030501050805	BUFFALO CK AT SC 5 1 MI W OF BLACKSBURG	B-057	CHEROKEE	AL	CU
2013		BROAD	030501051002	LITTLE THICKETTY CREEK AT S-42-307 1.2 MI NE OF COWPENS	RS-04376	SPARTANBURG	AL	BIO
2013		BROAD	030501051003	GILKEY CK AT S-11-231, 9 MI SE OF GAFFNEY	B-334	CHEROKEE	AL	BIO
2015		BROAD	030501051004	THICKETTY CK AT SC 211 2 MI AB JCT WITH BROAD RVR	B-062	CHEROKEE	AL	CU
2016		BROAD	030501051101	CLARK FORK INTO CRAWFORD LK ON UN# RD NEAR SC 161 & 705-KINGS MT	B-325	YORK	AL	BIO
2020		BROAD	030501051203	N PACOLET RVR AT S-42-978, 1 MI SE OF FINGERVILLE	B-126	SPARTANBURG	AL	CU
2013		BROAD	030501051203	OBED CREEK AT UNNUMBERED CHRISTOPHER ROAD OFF SC 11	RS-03514	SPARTANBURG	AL	BIO
2013		BROAD	030501051301	MOTLOW CRK. AT SR 888	B-790	SPARTANBURG	AL	BIO
2013		BROAD	030501051401	LAWSONS FK CK AT S-42-40 BL INMAN MILL EFF	B-221	SPARTANBURG	AL	BIO
2013		BROAD	030501051401	MEADOW CRK. AT SR 56	B-531	SPARTANBURG	AL	BIO
2013		BROAD	030501051402	LAWSONS FORK CK AT S-42-108	BL-001	SPARTANBURG	AL	BIO
2016		BROAD	030501051502	LAKE BLALOCK AT US 221	RL-04461	SPARTANBURG	AL	CU
2010		BROAD	030501051504	POTTER BR ON RD 30 BL OUTFALL FROM HOUSING PROJ COWPENS	B-191	SPARTANBURG	AL	DO
2016		BROAD	030501051504	PACOLET RVR AT S-42-59, BEACON LIGHT ROAD IN CLIFTON	B-331	SPARTANBURG	AL	CU
2013		BROAD	030501051505	MILL CREEK AT SR 73	B-780	UNION	AL	BIO
2018		BROAD	030501051601	BROAD RVR AT SC 18 4 MI NE GAFFNEY	B-042	CHEROKEE	AL	CU
2013		BROAD	030501051602	CHEROKEE CREEK AT SC 329	B-679	CHEROKEE	AL	BIO
2014		BROAD	030501051602	LAKE WELCHEL 2.7 M N OF GAFFNEY	RL-01029	CHEROKEE	AL	CHLA
2014		BROAD	030501051602	LAKE WELCHEL 2.7 MI NE OF GAFFNEY LAUNCH FROM GAFFNEY PUBLIC WORKS BOAT LANDING	RL-03341	CHEROKEE	AL	PH
2010		BROAD	030501060102	ROSS BR TO TURKEY CK AT SC 49 SW OF YORK	B-086	YORK	AL	TURBIDITY
2014		BROAD	030501060102	TURKEY CREEK AT S-46-41 5.3 MI SW YORK	RS-05562	YORK	AL	BIO
2015		BROAD	030501060105	TURKEY CK AT SC 9, 14 MI NW OF CHESTER	B-136	CHESTER	AL	CU
2015		BROAD	030501060202	DRY FORK AT S-12-304 2 MI SW OF CHESTER	B-074	CHESTER	AL	BIO
2011		BROAD	030501060202	MONTICELLO LAKE 1.7 MI NW OF MONTICELLO	RL-04370	FAIRFIELD	AL	PH
2011		BROAD	030501060202	MONTICELLO LAKE 3.5 MI N OF JENKINSVILLE	RL-04374	FAIRFIELD	AL	PH
2021, 2021, 2021		BROAD	030501060202	LAKE AT CHESTER STATE PARK 0.8 MI SE OF ENTRANCE	RL-06438	CHESTER	AL	CHLA, PH, TURBIDITY
2021, 2021		BROAD	030501060202	CHESTER STATE PARK LAKE 2.5 MI SW OF CHESTER	RL-06468	CHESTER	AL	CHLA, PH, TURBIDITY
2010		BROAD	030501060302	MENG CK AT SC 49 2.5 MI E OF UNION	B-064	UNION	AL	PH
2017		BROAD	030501060302	BROWNS CK AT S-44-86, 8 MI E OF UNION	B-155	UNION	AL	CU
2010		BROAD	030501060302	TRIB TO MENG CK AT CLVT ON S-44-384 3 MI E OF UNION	B-243	UNION	AL	PH
2021		BROAD	030501060303	LAKE JOHN D. LONG IN FOREBAY NEAR DAM	B-344	UNION	AL	PH

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2018		BROAD	030501060305	BROAD RVR AT SC 72/215/121 3 MI E OF CARLISLE	B-046	CHESTER	AL	CU
2015		BROAD	030501060401	BEAVER CRK. AT SR 95	B-143	FAIRFIELD	AL	BIO
2013		BROAD	030501060401	MCCLURES CREEK AT SC-215 6.7 MI SE OF CARLISLE	RS-04527	FAIRFIELD	AL	BIO
2013		BROAD	030501060402	HELLERS CRK. AT SR 97	B-151	NEWBERRY	AL	BIO
2011		BROAD	030501060403	MONTICELLO LK-LOWER IMPOUNDMENT BETWEEN LARGE ISLANDS	B-327	FAIRFIELD	AL	PH
2015		BROAD	030501060405	CANNON CREEK AT OXNER ROAD	B-831	NEWBERRY	AL	BIO
2016		BROAD	030501060406	PARR RESERVOIR IN FOREBAY NEAR DAM	B-345	NEWBERRY	AL	CU
2016		BROAD	030501060406	PARR RESERVOIR 4.8 KM N OF DAM, UPSTREAM MONTICELLO RESERVOIR	B-346	NEWBERRY	AL	TP
2016		BROAD	030501060504	WINNSBORO BR BELOW PLANT OUTFALL	B-077	FAIRFIELD	AL	CU
2016, 2016		BROAD	030501060504	JACKSON CK AT S-20-54, 5 MI W OF WINNSBORO	B-102	FAIRFIELD	AL	CU, ZN
2013		BROAD	030501060701	CRIMS CRK. AT SC 213	B-800	NEWBERRY	AL	BIO
2018		BROAD	030501060703	BROAD RVR AT SO. RR TRESTLE, 0.5 MI DS OF SC 213	B-236	FAIRFIELD	AL	CU
2013		BROAD	030501060707	CRANE CREEK AT US 321	B-081	RICHLAND	AL	BIO
2021		BROAD	030501060707	CRANE CK AT S-40-43 UNDER I-20 - N COLA	B-316	RICHLAND	AL	DO
2013		BROAD	030501060708	SMITH BR AT N MAIN ST (US 21) IN COLA	B-280	RICHLAND	AL	BIO
2018		BROAD	030501060708	BROAD RVR AT US 176 (BROAD RIVER RD) IN COLUMBIA	B-337	RICHLAND	AL	CU
2015		BROAD	030501070102	BEAVERDAM CRK. AT SC 357	B-784	SPARTANBURG	AL	BIO
2016		BROAD	030501070103	MIDDLE TYGER RVR AT S-42-64	B-014	SPARTANBURG	AL	CU
2013		BROAD	030501070201	N TYGER RVR AT US 29 7.2 MI W OF SPARTANBURG	B-219	SPARTANBURG	AL	BIO
2016		BROAD	030501070203	NORTH TYGER RVR AT S-42-231, 11 MI S OF SPARTANBURG	B-018A	SPARTANBURG	AL	CU
2017		BROAD	030501070203	UNNAMED TRIB TO TIMMS CREEKFIRST TRIB ENTERING TIMM CREEK	B-829	SPARTANBURG	AL	BIO
2017		BROAD	030501070203	DOWNSTREAM OF MONTGOMERY POND. TIMM CREEK100 METERS UPSTREAM OF FELT RD.	B-830	SPARTANBURG	AL	BIO
2013		BROAD	030501070303	SOUTH TYGER RIVER AT 293	B-005A	SPARTANBURG	AL	BIO
2017		BROAD	030501070305	S TYGER RVR AT S-42-86, 5 MI NE OF WOODRUFF	B-332	SPARTANBURG	AL	CU
2016		BROAD	030501070305	UNNAMED TRIB TO SOUTH TYGER RIVER ROGERS MILL SUBDIVISION, DOWNSTREAM OF THE 2ND STORMWATER DISCHARGE.	B-833	SPARTANBURG	AL	BIO
2015, 2010		BROAD	030501070401	TRIB TO FAIRFOREST CK 200 FT BL S-42-65	B-321	SPARTANBURG	AL	NI, PH
2013		BROAD	030501070402	FAIRFOREST CK AT SC 56	B-021	SPARTANBURG	AL	BIO
2014, 2014, 2014, 2014		BROAD	030501070402	LAKE JOHNSON AT SPILLWAY AT S-42-359	CL-035	SPARTANBURG	AL	CHLA, DO, PH, TP
2013		BROAD	030501070405	MITCHELL CREEK AT SR 19, 1ST REPLICATE OF TWO STATIONS, DOWNSTREAM OF BRIDGE	B-781	UNION	AL	BIO

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2013		BROAD	030501070405	FAIRFOREST CK ON CO RD 12 SW OF JONESVILLE	BF-007	UNION	AL	CU
2016		BROAD	030501070406	TOSCHS CK AT S-44-75 2 MI SW OF UNION	B-067A	UNION	AL	CU
2013		BROAD	030501070501	JIMMIES CRK. AT STEWART RD, 1 MILE UPSTREAM OF SR 113	B-786	SPARTANBURG	AL	BIO
2012, 2012		BROAD	030501070505	TINKER CK AT UN# CO RD 1.7 MI SSE OF UNION	B-287	UNION	AL	PH, TURBIDITY
2015		BROAD	030501070506	CANE CRK. AT SR 359	B-777	UNION	AL	BIO
2016		BROAD	030501070507	TYGER RVR AT S-44-35 3.5 MI S OF CARLISLE	B-349	UNION	AL	CU
2015		BROAD	030501080101	BUCKHORN CRK. AT SR 562	B-795	GREENVILLE	AL	BIO
2015		BROAD	030501080101	BEAVERDAM CRK. AT SC 253	B-796	GREENVILLE	AL	BIO
2013	#	BROAD	030501080101	ENOREE R. AT PINE LOG FORD RD., 2ND CROSSING ABOVE SC 253 BRIDGE	B-797	GREENVILLE	AL	BIO
2012, 2012	#	BROAD	030501080101	ENOREE RVR AT UNNUM RD W US 25 N TRAVELERS REST	BE-001	GREENVILLE	AL	PH, ZN
2014		BROAD	030501080101	MOUNTAIN CRK. AT SR 279	BE-008	GREENVILLE	AL	BIO
2012	#	BROAD	030501080101	BEAVERDAM CK AT RD 1967	BE-039	GREENVILLE	AL	PH
2013		BROAD	030501080102	PRINCESS CREEK AT SUBER MILL RD, SECOND RD S OF US 29 OFF S-23-540	B-192	GREENVILLE	AL	BIO
2013		BROAD	030501080102	ROCKY CK AT BRDG IN BATESVILLE 1 MI AB JCT WITH ENOREE	BE-007	GREENVILLE	AL	BIO
2015		BROAD	030501080102	BRUSHY CK AT S-23-164	BE-009	GREENVILLE	AL	BIO
2015		BROAD	030501080102	BRUSHY CK AT HOWELL RD (S-23-273/335) APPROX 5 MI NE OF GREENVILLE (BIO B-798)	BE-035	GREENVILLE	AL	BIO
2013		BROAD	030501080103	GILDER CK AT S-23-142 2.75 MI ENE OF MAULDIN	B-241	GREENVILLE	AL	TURBIDITY
2013		BROAD	030501080103	HORSE PEN CRK. AT SR 145	B-793	GREENVILLE	AL	BIO
2013		BROAD	030501080103	GILDER CK AT S-23-143 1/4 MI AB JCT WITH ENOREE RVR	BE-020	GREENVILLE	AL	BIO
2013		BROAD	030501080104	ENOREE RVR AT SC 296, 7.5 MI NE OF MAULDIN	BE-017	GREENVILLE	AL	BIO
2014		BROAD	030501080105	DURBIN CREEK AT SC 418	B-097	LAURENS	AL	TURBIDITY
2013		BROAD	030501080106	ENOREE RVR AT S-30-75	BE-018	LAURENS	AL	TURBIDITY
2013		BROAD	030501080106	ENOREE RIVER AT SC HWY 418	BE-019	LAURENS	AL	BIO
2016		BROAD	030501080201	BEAVERDAM CK AT S-30-97, 7 MI NE OF GRAY COURT	B-246	LAURENS	AL	CU
2011		BROAD	030501080201	BEAVERDAM CREEK AT S-30-399 10 MI N OF LAURENS	RS-05566	LAURENS	AL	BIO
2016, 2012		BROAD	030501080206	ENOREE RVR AT SC 72, 121, & US 176, 1 MI NE WHITMIRE	B-053	NEWBERRY	AL	CU, ZN
2013		BROAD	030501080501	KINGS CRK. AT US 176, DOWNSTREAM OF BRIDGE	B-799	NEWBERRY	AL	BIO
2016		BROAD	030501080502	ENOREE RVR AT S-36-45 3.5 MI AB JCT WITH BROAD RVR	B-054	NEWBERRY	AL	CU
2016		CATAWBA	030501011502	LAKE WYLIE AB MILL CK ARM AT END OF S-46-557	CW-197	YORK	AL	CU
2012		CATAWBA	030501011504	BROWN CREEK AT S-46-228 (GUINN ST), 0.3 MI WEST OF OLD NORTH MAIN STREET IN CLOVER, SC	CW-105	YORK	AL	TURBIDITY
2012		CATAWBA	030501011504	BEAVERDAM CK AT S-46-152 8 MI E OF CLOVER	CW-153	YORK	AL	TURBIDITY

2008 SC List of Impaired Waters by 12-Digit HUC

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2011		CATAWBA	030501011504	BEAVERDAM CREEK AT BRIDGE ON S-46-64 3.2 MI ENE OF CLOVER	RS-06020	YORK	AL	BIO
2017		CATAWBA	030501011505	CROWDERS CK AT S-46-564 NE CLOVER	CW-023	YORK	AL	CU
2013		CATAWBA	030501011505	CROWDERS CREEK AT S-46-1104	CW-024	YORK	AL	BIO
2016		CATAWBA	030501011505	LK WYLIE, CROWDERS CK ARM AT SC 49 AND SC 274	CW-027	YORK	REC	FC
2016		CATAWBA	030501011508	LAKE WYLIE AT DAM, UNDER POWERLINES	CW-230	YORK	AL	CU
2014		CATAWBA	030501030103	SUGAR CK US OF CONFLUENCE W/ MCALPINE CK	CW-246	YORK	AL	BIO
2013		CATAWBA	030501030107	MCALPINE CK AT S-29-64	CW-064	LANCASTER	AL	BIO
2013		CATAWBA	030501030107	MCALPINE CK AT S-29-64	CW-064	LANCASTER	REC	FC
2013		CATAWBA	030501030108	STEEL CR. AT US BY-PASS 21	CW-681	YORK	AL	BIO
2014		CATAWBA	030501030109	SUGAR CK AT SC 160 E OF FORT MILL	CW-013	LANCASTER	AL	BIO
2014		CATAWBA	030501030109	SUGAR CK AT SC 160 E OF FORT MILL	CW-013	LANCASTER	REC	FC
2014		CATAWBA	030501030109	SUGAR CREEK AT S-46-36	CW-036	LANCASTER	AL	CU
2014		CATAWBA	030501030109	SUGAR CREEK AT S-46-36	CW-036	LANCASTER	REC	FC
2009	*	CATAWBA	030501030204	TWELVEMILE CK AT S-29-55 0.3 MI NW OF VAN WYCK	CW-083	LANCASTER	AL	CU
2010		CATAWBA	030501030302	CANE CK AT SC 200 5 MI NNE OF LANCASTER	CW-185	LANCASTER	AL	DO
2010		CATAWBA	030501030303	BEAR CK AT S-29-362 3.5 MI SE OF LANCASTER	CW-151	LANCASTER	AL	DO
2012		CATAWBA	030501030304	GILLS CK AT US 521 NNW OF LANCASTER	CW-047	LANCASTER	AL	TURBIDITY
2010		CATAWBA	030501030304	BEAR CK AT S-29-292 1.6 MI W OF LANCASTER	CW-131	LANCASTER	AL	DO
2019		CATAWBA	030501030304	HANNAHS CREEK AT S-29-376 3.4 MI E OF LANCASTER	RS-05403	LANCASTER	AL	DO
2010, 2010, 2010		CATAWBA	030501030305	CANE CK AT S-29-50	CW-017	LANCASTER	AL	CU, DO, PH
2015		CATAWBA	030501030305	CANE CR. AT SC 9 BYPASS	CW-210	LANCASTER	AL	BIO
2010		CATAWBA	030501030305	RUM CK AT S-29-187	CW-232	LANCASTER	AL	DO
2010		CATAWBA	030501030401	WILDCAT CK AT S-46-650	CW-006	YORK	AL	DO
2010		CATAWBA	030501030401	WILDCAT CK AT S-46-998 9 MI ENE OF MCCONNELLS	CW-096	YORK	AL	DO
2009	*	CATAWBA	030501030401	TOOLS FORK CREEK @ S-46-47	CW-169	YORK	REC	FC
2012		CATAWBA	030501030401	TOOLS FORK AT S-46-195 7 MI NW OF ROCK HILL	CW-212	YORK	AL	TURBIDITY
2009	*	CATAWBA	030501030401	TOOLS FORK CREEKUPSTREAM OF RETENTION POND IN HAWKINS RIDGE OFF S-46-195	CW-545	YORK	REC	FC
2010		CATAWBA	030501030402	FISHING CK AT S-46-347 DS YORK WWTP	CW-005	YORK	AL	TURBIDITY
2016		CATAWBA	030501030402	FISHING CREEK AT S-46-503	CW-225	YORK	AL	CU
2013		CATAWBA	030501030403	STONEY FORK CRK. AT SC 121 & 72	CW-697	YORK	AL	BIO
2014		CATAWBA	030501030404	LAKE OLIPHANT, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CL-021	CHESTER	AL	CHLA
2013	#	CATAWBA	030501030406	SOUTH FORK OF FISHING CRK. AT SR 50	CW-007	CHESTER	AL	BIO
2013		CATAWBA	030501030407	FISHING CR. AT SR 655	CW-654	YORK	AL	BIO
2013		CATAWBA	030501030407	TAYLORS CRK. AT SR 735	CW-695	YORK	AL	BIO

2008 SC List of Impaired Waters by 12-Digit HUC

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2016		CATAWBA	030501030408	TINKERS CK AT S-12-599	CW-234	CHESTER	AL	CU
2010		CATAWBA	030501030409	FISHING CK AT SC 223 NE RICHBURG	CW-008	CHESTER	AL	TURBIDITY
2015		CATAWBA	030501030503	BEAVER DAM CRK. AT SR 555	CW-691	CHESTER	AL	BIO
2011		CATAWBA	030501030503	BEAVERDAM CREEK AT BRIDGE ON S-12-198 3.5 MI NW OF GREAT FALLS	RS-06171	CHESTER	AL	BIO
2008, 2012	*	CATAWBA	030501030505	CEDAR CK RESERVOIR/ROCKY CK AT S-12-141 SE OF GREAT FALLS	CW-175	CHESTER	AL	TP, TURBIDITY
2016		CATAWBA	030501030505	ROCKY CK AT S-12-138	CW-236	CHESTER	AL	CU
2011	#	CATAWBA	030501030603	WAXHAW CK AT S-29-29	CW-145	LANCASTER	AL	CU
2013		CATAWBA	030501030604	GREENE CREEK AT S-12-465 8.2 MI N OF FORT LAWN	RS-03511	CHESTER	AL	BIO
2009	*	CATAWBA	030501030604	GREENE CREEK AT S-12-465 8.2 MI N OF FORT LAWN	RS-03511	CHESTER	REC	FC
2016		CATAWBA	030501030604	SIXMILE CREEK AT BRIDGE ON S-46-691 2.6 MI NE OF RODDEY	RS-06176	YORK	AL	BIO
2008, 2008	*	CATAWBA	030501030606	FISHING CK RES 2 MI BL CANE CREEK	CW-016F	CHESTER	AL	TN, TP
2010, 2008, 2008	*	CATAWBA	030501030606	FISHING CK RES 75 FT AB DAM NR GREAT FALLS	CW-057	CHESTER	AL	NH3N, PH, TP
2008, 2010, 2008	*	CATAWBA	030501030606	CEDAR CK RESERVOIR AT UNIMP RD AB JCT WITH ROCKY CK	CW-174	CHESTER	AL	DO, TN, TP
2008, 2008	*	CATAWBA	030501030606	CEDAR CK RES 2.15 M SE OF GREAT FALLS	RL-01007	LANCASTER	AL	CHLA, DO
2008	*	CATAWBA	030501030606	FISHING CK RES 3.8 M S OF FORT LAWN OFF W SHORE OF THE TOWN OF LAKE VIEW	RL-01012	CHESTER	AL	CHLA
2010		CATAWBA	030501030606	CEDAR CK RES FROM W OF BIG ISL 7 MI BELOW ROCKY CK CONFL	RL-02319	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	CEDAR CK RES 0.15 MI SE OF S TIP PICKETT ISLAND	RL-02452	LANCASTER	AL	TP
2008, 2008, 2012	*	CATAWBA	030501030606	GREAT FALLS RESERVOIR 0.9 MI NE OF GREAT FALLS	RL-03332	CHESTER	AL	TN, TP, TURBIDITY
2016, 2008, 2012	*	CATAWBA	030501030606	CEDAR CREEK RESERVOIR 0.3 MI NE OF DAM AND W OF BIG ISLAND	RL-03351	CHESTER	AL	CU, TP, TURBIDITY
2008, 2012	*	CATAWBA	030501030606	CEDAR CREEK RESERVOIR 1.9 MI SE OF GREAT FALLS AND E OF BIG ISLAND	RL-03353	CHESTER	AL	TP, TURBIDITY
2008, 2012	*	CATAWBA	030501030606	GREAT FALLS RSVR 1 MI NE OF GREAT FALLS	RL-03458	CHESTER	AL	TP, TURBIDITY
2008	*	CATAWBA	030501030606	CEDAR CREEK RESERVOIR 2.2 MI SE OF GREAT FALLS SE OF BOWDEN ISLAND	RL-04375	LANCASTER	AL	TP
2008	*	CATAWBA	030501030606	CEDAR CREEK RESERVOIR 1.25 MI ESE OF GREAT FALLS NW OF HILL ISLAND	RL-04379	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	CEDAR CREEK RESERVOIR 0.42 MI NNW OF S-29-405 ON LANCASTER	RL-05391	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	CHESTER COUNTY LINE	RL-05391	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	GREAT FALLS RESERVOIR 1 MI EAST OF JUNCTION OF SC 99 AND US 21	RL-05414	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	CEDAR CREEK RESERVOIR DEBUTARY CREEK BRANCH 0.4 MI E OF DEBUTARY CREEK AND S-20-268	RL-05416	FAIRFIELD	AL	TP
2008	*	CATAWBA	030501030606	GREAT FALLS RESERVOIR 1.2 MI SE OF GREAT FALLS W OF BIG ISLAND	RL-06429	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	CEDAR CREEK RESEVOIR 1.6 MI SE OF GREAT FALLS E OF BIG ISLAND	RL-06431	CHESTER	AL	TP
2008	*	CATAWBA	030501030606	CEDAR CREEK RESEVOIR 2.3 MI SE OF GREAT FALLS S OF PICKET ISLAND	RL-06443	CHESTER	AL	PH
2010		CATAWBA	030501040102	LITTLE WATEREE CK AT S-20-41 5 MI E OF WINNSBORO	CW-040	FAIRFIELD	AL	DO
2020, 2010		CATAWBA	030501040105	BIG WATEREE CK AT US 21	CW-072	FAIRFIELD	AL	CU, DO
2008, 2012	*	CATAWBA	030501040106	CEDAR CK RESERVOIR 100 M N OF DAM	CW-033	LANCASTER	AL	TP, TURBIDITY
2008, 2008, 2012	*	CATAWBA	030501040106	LK WATEREE HEADWATERS APPROX 50 YDS DS CONFL CEDAR CK	CW-231	LANCASTER	AL	PH, TP, TURBIDITY
2008, 2008, 2008	*	CATAWBA	030501040108	LK WATEREE AT S-20-101 11 MI ENE WINNSBORO	CW-208	FAIRFIELD	AL	CHLA, PH, TP
2009	*	CATAWBA	030501040108	DUTCHMANS CK AT S-20-106	RS-02321	FAIRFIELD	REC	FC

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2020, 2008		CATAWBA	030501040111	LK WATEREE IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CL-089	KERSHAW	AL	DO, PH
2008, 2008	*	CATAWBA	030501040111	LK WATEREE AT END OF S-20-291	CW-207	FAIRFIELD	AL	PH, TP
2008, 2008	*	CATAWBA	030501040111	LK WATEREE AT SMALL ISLAND 2.3 MI N OF DAM	CW-209	KERSHAW	AL	PH, TP
2008, 2008	*	CATAWBA	030501040111	LAKE WATEREE 1.0 MI SW FROM MOUTH OF BEAVER CK	RL-02314	KERSHAW	AL	PH, TP
2008, 2008	*	CATAWBA	030501040111	LAKE WATEREE NEARSHORE ALONG S-28-802 OPP COLONEL CK CONFL	RL-03336	KERSHAW	AL	PH, TP
2009	*	CATAWBA	030501040202	GRANNIES QUARTER CK AT SC 97	CW-237	KERSHAW	REC	FC
2010		CATAWBA	030501040206	BEAR CK AT S-40-82	CW-229	RICHLAND	AL	DO
2013		CATAWBA	030501040207	TWENTYFIVE MILE CK AT S-28-05 3.7 MI W OF CAMDEN	CW-080	KERSHAW	AL	BIO
2017		CATAWBA	030501040208	WATEREE RIVER BELOW LAKE WATEREE DAM	CW-039	KERSHAW	FISH	HG
2008	*	CATAWBA	030501040302	LITTLE PINE TREE CREEK AT S-28-132	CW-223	KERSHAW	REC	FC
2010		CATAWBA	030501040304	WATEREE RIVER @ I-20	CW-214	KERSHAW	AL	DO
2017		CATAWBA	030501040304	WATEREE RIVER @ I-20	CW-214	KERSHAW	FISH	HG
2011		CATAWBA	030501040305	SWIFT CK AT S-28-12	CW-082	KERSHAW	AL	DO
2016, 2011		CATAWBA	030501040305	SWIFT CK AT SC 261	CW-238	KERSHAW	AL	CU, DO
2017		CATAWBA	030501040406	WATEREE RIVER @ US 378/76	CW-206	SUMTER	FISH	HG
2017		CATAWBA	030501040407	BIG LAKE @ SUMTER WATEREE HUNT CLUB	CW-698	SUMTER	FISH	HG
2019		EDISTO	030502030101	CHINQUAPIN CREEK AT S-02-210	E-606	AIKEN	AL	BIO
2010		EDISTO	030502030102	LIGHTWOOD KNOT CK OFF S-32-77 AT BATESBURG WATER INTAKE	E-101	LEXINGTON	REC	FC
2020		EDISTO	030502030103	N FORK EDISTO RVR AT S-02-74	E-084	AIKEN	AL	NH3N
2017		EDISTO	030502030106	N FORK EDISTO RVR AT S-02-110	E-102	AIKEN	FISH	HG
2014		EDISTO	030502030206	BULL SWP CK AT CLVT ON UNIMP RD 1.1 MI NW OF SWANSEA	E-034	LEXINGTON	AL	DO
2015		EDISTO	030502030206	BULL SWAMP CREEK AT SC 6	E-591	LEXINGTON	AL	BIO
2014		EDISTO	030502030208	BULL SWP CK AT US 321 0.9 MI S OF SWANSEA	E-035	LEXINGTON	REC	FC
2009	*	EDISTO	030502030210	N FORK EDISTO RVR AT SC 3 5.5 MI NW NORTH	E-092	ORANGEBURG	REC	FC
2017		EDISTO	030502030210	NORTH EDISTO RIVER @ SLAB LANDING	E-704	ORANGEBURG	FISH	HG
2009	*	EDISTO	030502030304	N FORK EDISTO RVR AT S-38-74 NW ORANGEBURG	E-099	ORANGEBURG	REC	FC
2008	*	EDISTO	030502030306	CAW CAW SWAMP AT S-38-1032 (1148?)	E-105	ORANGEBURG	REC	FC
2017		EDISTO	030502030308	N FORK EDISTO RVR AT US 601 AT ORANGEBURG	E-007	ORANGEBURG	FISH	HG
2010	#	EDISTO	030502030308	N FORK EDISTO RVR AT US 601 AT ORANGEBURG	E-007	ORANGEBURG	AL	PH
2009	*	EDISTO	030502030308	N FORK EDISTO RVR 4 MI BL E-007 AT A CABIN	E-007B	ORANGEBURG	REC	FC
2017		EDISTO	030502030308	N FORK EDISTO RVR AT POLICEMANS CAMP 6 MI BL E-007	E-007C	ORANGEBURG	FISH	HG
2009	*	EDISTO	030502030308	NORTH EDISTO RIVER @ SEC RD 39	E-008	ORANGEBURG	REC	FC
2017		EDISTO	030502030308	NORTH EDISTO RIVER @ SEC RD 39	E-008	ORANGEBURG	FISH	HG

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2017		EDISTO	030502030308	NORTH EDISTO RIVER @ KILL KARE	E-008A	ORANGEBURG	FISH	HG
2012		EDISTO	030502040106	HILLYER BRANCH AT UNNAMED HILLYER BRANCH ROAD OFF S-19-75 3.5 MI NE OF TRENTON	RS-03344	EDGEFIELD	AL	PH
2010		EDISTO	030502040107	SHAW CREEK AT S-02-26 4.2 MI NE AIKEN	E-094	AIKEN	AL	PH
2008	*	EDISTO	030502040109	S FORK EDISTO RVR AT S-02-152	E-113	AIKEN	REC	FC
2017		EDISTO	030502040207	SOUTH EDISTO RIVER @ AIKEN STATE PARK	E-585	AIKEN	FISH	HG
2017		EDISTO	030502040207	SOUTH EDISTO RIVER @ KEADLE'S BRIDGE	E-600	AIKEN	FISH	HG
2013		EDISTO	030502040305	WINDY HILL CRK. AT SR 38	E-029	BARNWELL	AL	BIO
2017		EDISTO	030502040307	SOUTH EDISTO RIVER @ HWY 39 LANDING	E-011	BARNWELL	FISH	HG
2013		EDISTO	030502040309	ROBERTS SWAMP AT SR 690	E-592	ORANGEBURG	AL	BIO
2017		EDISTO	030502040311	SOUTH EDISTO RIVER @ BOBCAT LANDING	E-500	BAMBERG	FISH	HG
2017		EDISTO	030502040311	SOUTH EDISTO RIVER @ SC 365	E-501	BAMBERG	FISH	HG
2008	*	EDISTO	030502050101	LITTLE BULL CK CK AT SC 33-BL UTICA TOOL CO	E-076	ORANGEBURG	AL	PH
2013		EDISTO	030502050101	GRAMBLING CRK. AT SR 154	E-589	ORANGEBURG	AL	BIO
2015		EDISTO	030502050101	BULL SWAMP AT SR 65	E-590	ORANGEBURG	AL	BIO
2013		EDISTO	030502050105	GOODBYS SWAMP AT US 176 6 M SW OF ELLOREE	RS-01036	ORANGEBURG	AL	BIO
2017		EDISTO	030502050108	FOUR HOLE SWAMP @ US 301	E-048	ORANGEBURG	FISH	HG
2017		EDISTO	030502050108	FOUR HOLE SWP AT S-38-50 5.2 MI SE OF CAMERON	E-059	ORANGEBURG	FISH	HG
2009	*	EDISTO	030502050108	FOUR HOLE SWAMP AT SC 210	E-111	ORANGEBURG	REC	FC
2013		EDISTO	030502050108	UNNAMED TRIBUTARY TO FOUR HOLE SWAMP AT CO RD S-38-92 5.5 MI NE OF BOWMAN	RS-04537	ORANGEBURG	AL	BIO
2017		EDISTO	030502050202	DEAN SWAMP AT US 176	E-030	BERKELEY	REC	FC
2014, 2014		EDISTO	030502050302	PROVIDENCE SWP AT E FRONTAGE RD TO I-95 NW OF HOLLY HILL	E-051	ORANGEBURG	AL	CU, DO
2014		EDISTO	030502050305	FOUR HOLE SWAMP AT SC 453	E-112	DORCHESTER	AL	DO
2017		EDISTO	030502050305	FOUR HOLE SWAMP AT SC 453	E-112	DORCHESTER	FISH	HG
2010		EDISTO	030502050311	4 HOLE SWP AT US 78 E OF DORCHESTER	E-100	DORCHESTER	REC	FC
2011		EDISTO	030502060103	EDISTO RIVER @ ZIG ZAG LANDING	E-013	BAMBERG	REC	FC
2017		EDISTO	030502060103	EDISTO RIVER @ ZIG ZAG LANDING	E-013	BAMBERG	FISH	HG
2009	*	EDISTO	030502060105	CATTLE CK AT S-18-19	E-108	DORCHESTER	AL	PH
2011		EDISTO	030502060106	EDISTO RIVER NEAR THE END OF FISHTALE RD SAMPLE OFF OF DOCK BETWEEN WHITE TRAILER AND BRICK HOUSE 6.5 MI SE OF BRACHVILLE	RS-06180	DORCHESTER	REC	FC
2017		EDISTO	030502060108	EDISTO RIVER @ US 15 (T COKE WEEKS LDG..)	E-014	DORCHESTER	FISH	HG
2011		EDISTO	030502060203	POLK SWP AT UNIMP RD S-18-180 2 MI S OF ST GEORGE	E-016	DORCHESTER	AL	DO

2008 SC List of Impaired Waters by 12-Digit HUC

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2011		EDISTO	030502060203	POLK SWAMP AT S-18-19	E-109	DORCHESTER	AL	DO
2014		EDISTO	030502060204	INDIAN FIELD SWAMP AT S-18-19	E-032	DORCHESTER	AL	DO
2017		EDISTO	030502060301	EDISTO RIVER @ MARS OLDFIELD	E-601	COLLETON	FISH	HG
2017		EDISTO	030502060302	EDISTO RIVER @ SC 61 (GIVHANS FERRY LDG.)	E-015	DORCHESTER	FISH	HG
2017		EDISTO	030502060302	EDISTO RIVER @ GOOD HOPE LANDING	E-602	COLLETON	FISH	HG
2017		EDISTO	030502060303	EDISTO RIVER @ SULLIVANS FERRY	E-087	COLLETON	FISH	HG
2017		EDISTO	030502060304	EDISTO RIVER ABOVE HWY 17 (MARTINS LANDING)	CSTL-589	CHARLESTON	FISH	HG
2017		EDISTO	030502060304	EDISTO RIVER BELOW HWY 17 (WEST BANK LDG.)	MD-119	COLLETON	FISH	HG
2017		EDISTO	030502060306	EDISTO RIVER @ WILLTOWN BLUFF	CSTL-590	CHARLESTON	FISH	HG
2019		EDISTO	030502060307	ST. PIERRE CREEK MOUTH	13-03	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060307	ST. PIERRE CREEK AT PETERS PT.	13-04	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060307	FISHING CREEK AT SANDY CREEK CONFLUENCE OF SHINGLE CREEK AND BAILEY CREEK (D7-01)	13-05	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060307	STORE CREEK OPPOSITE HOUSE WITH DOCKS ON RIGHT	13-07	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060307	FISHING CREEK AT POLLUTION LINE	13-10	COLLETON	SHELLFISH	FC
2019		EDISTO	030502060307	SHINGLE CREEK AND MILTON CREEK CONFLUENCE	13-28	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060307	BAILEY CREEK, FIRST BEND ADJACENT TO BLUFF ON BAILEY ISLAND (NEAR CONFLUENCE WITH ST. PIERRE CREEK) (C7-01)	13-29	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060307	BAILEY CREEK AT CONFLUENCE WITH UNNAMED TRIBUTARY NEAR SOUTHWESTERN POINT OF SCANAWAH ISLAND (C7-01)	13-30	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060308	SCOTT CREEK AT THE MOUND	13-01	COLLETON	SHELLFISH	FC
2019		EDISTO	030502060308	EDISTO RIVER AT ASHEPOO RIVER RUSSELL CREEK AT AREA 12/13 BOUNDARY (1993-98)	13-08	COLLETON	SHELLFISH	FC
2019		EDISTO	030502060308	ALLIGATOR CREEK AND S. FORK EDISTO RVR NORTHERN CONFLUENCE	13-20	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060308	BIG BAY CR. HDWTRS AT FIRST BEND TO RIGHT PAST THE NECK	13-21	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060308	SCOTT CREEK, HEADWATERS AT JEREMY INLET AT BOAT LANDING	13-22	COLLETON	SHELLFISH	FC
2019		EDISTO	030502060308	JEREMY INLET AT ATLANTIC OCEAN	13-23	COLLETON	SHELLFISH	FC
2019		EDISTO	030502060308	FRAMPTON INLET AT NORTH END OF JEREMY CAY	13-24	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060308	FRAMPTON INLET AT ATLANTIC OCEAN	13-25	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060308	FRAMPTON INLET CREEK UPSTREAM OF BOATRAMP PAST FIRST BEND (C6-01)	13-27	COLLETON	SHELLFISH	FC
2019		EDISTO	030502060308	BAILEY CREEK AT CONFLUENCE WITH SOUTH EDISTO RIVER	13-31	CHARLESTON	SHELLFISH	FC
2019		EDISTO	030502060308	SOUTH EDISTO RIVER W BOUNDARY OF 1000 FOOT RESTRICTED RADIUS @ STATION 02 (CONFLUENCE OF BIG BAY CREEK)	13-32	CHARLESTON	SHELLFISH	FC
2017, 2010	#	EDISTO	030502060308	S EDISTO RVR AT NORTHERN CONFLUENCE WITH ALLIGATOR CREEK (13-20)	MD-260	CHARLESTON	AL	CU, TURBIDITY NH3N,
2014, 2010		EDISTO	030502060308	SOUTH EDISTO RIVER, 1 M.MW OF EDISTO BEACH	RO-01123	COLLETON	AL	TURBIDITY
2008	*	EDISTO	030502060401	TOOGOODOO CREEK SSG AT LAST CREEK BEFORE FORK	12B-34	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060401	TOOGOODOO CREEK LOWER, AT PUBLIC BOAT RAMP	12B-35	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060401	TOOGOODOO CREEK AT THE SECOND BEND PAST THE CONFLUENCE WITH LOWER TOOGOODOO CREEK	12B-45	CHARLESTON	SHELLFISH	FC
2018		EDISTO	030502060402	STONO RIVER (AIWW) AT MARKER #63	11-15	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060402	RAVEN POINT CREEK AT CONFLUENCE WITH CHURCH CREEK	12A-29	CHARLESTON	SHELLFISH	FC

2008 SC List of Impaired Waters by 12-Digit HUC

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2009	*	EDISTO	030502060402	CHURCH CREEK AT DRAINAGE DISCHARGE 1/8 MILE EAST OF POWER LINES, NORTH BANK OF	12A-38	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060402	PINE CREEK AT FIRST FORK	12A-40	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060402	CHURCH CREEK AND NEW CUT CONFLUENCE	12A-41	CHARLESTON	SHELLFISH	FC
2020		EDISTO	030502060403	UNNAMED CREEK TO LEADENWAH CREEK 3.7 MI NW OF ROCKVILLE	RT-052099	CHARLESTON	AL	TURBIDITY
2009	*	EDISTO	030502060404	BOHICKET CREEK AT FICKLING CREEK	12A-13	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060404	S.C. HIGHWAY 700 BRIDGE OVER BOHICKET CREEK	12A-14	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060404	BOHICKET CREEK OPPOSITE HOOPSTICK ISLAND	12A-20	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060404	BOHICKETT CREEK OPPOSITE OLD DAM BEHIND RAST HOUSE RESTAURANT	12A-21	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060404	BOHICKETT CREEK OPPOSITE BOY SCOUT CAMP	12A-22	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060404	CHURCH CREEK ~ 350 YDS WEST S.C. HWY.700 BRIDGE	12A-39	CHARLESTON	SHELLFISH	FC
2009	*	EDISTO	030502060404	BOHICKET CREEK MIDWAY BETWEEN STATIONS 21 AND 22 AT SMALL UNNAMED TRIBUTARY ON WEST BANK	12A-46	CHARLESTON	SHELLFISH	FC
2014		EDISTO	030502060404	CHURCH CR AT SC 700 1 MI SW OF CEDAR SPRINGS	MD-195	CHARLESTON	AL	DO
2014		EDISTO	030502060404	BOHICKET CK AT FICKLING CK	MD-209	CHARLESTON	AL	DO
2014		EDISTO	030502060404	BOHICKET CK 3 MI SW SC 700 BRIDGE	RO-036041	CHARLESTON	AL	DO
2008	*	EDISTO	030502060405	DAWHO RIVER AT MARKER #119 (C8/00)	12B-09	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	TOM POINT CREEK AT PARK ISLAND	12B-30	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	RUSSELL CREEK AT ESTUARY ENTERING SUNBELT CLAM FARMS	12B-43	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	SAND CREEK BRIDGE AT HIGHWAY 174	12B-47	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	SAND CREEK AT INTAKE TO WESTENDORF CLAM FARM	12B-50	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	WHOOPING ISLAND CREEK AT CONFLUENCE OF STEAMBOAT CREEK	12B-52	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	DAWHO RIVER, MARKER #126	12B-53	CHARLESTON	SHELLFISH	FC
2008	*	EDISTO	030502060405	TOM POINT CREEK 3 BENDS US STATION 3	12B-54	CHARLESTON	SHELLFISH	FC
2014		EDISTO	030502060405	DAWHO RVR AT SC 174 9 MI N OF EDISTO BCH SP	MD-120	CHARLESTON	AL	DO
2014, 2010		EDISTO	030502060405	DAWHO RIVER, 10.5 M N OF EDISTO BEACH	RT-01665	CHARLESTON	AL	DO, TURBIDITY
2010		EDISTO	030502060405	FISHING CK NEAR JEHOSSIE ISLAND	RT-02005	CHARLESTON	AL	TURBIDITY
2013		PEEDEE	030402010402	THOMPSON CRK. AT SC 109	PD-673	CHESTERFIELD	AL	BIO
2010		PEEDEE	030402010402	CLAY CREEK AT S-13-55	RS-02305	CHESTERFIELD	AL	DO
2010		PEEDEE	030402010403	DEEP CREEK 75 FT UPSTREAM OF SC 9, 5.5 M W OF CHESTERFIELD	RS-01013	CHESTERFIELD	AL	TURBIDITY
2013		PEEDEE	030402010407	NORTH PRONG CRK. AT SC 102	PD-677	CHESTERFIELD	AL	BIO
2010		PEEDEE	030402010501	WESTFIELD CREEK AT US 52	PD-339	CHESTERFIELD	AL	PH
2013		PEEDEE	030402010501	WESTFIELD CREEK AT SR 62	PD-641	CHESTERFIELD	AL	BIO
2017, 2017		PEEDEE	030402010504	GREAT PEE DEE RIVER @ SC 9/US 1	PD-012	CHESTERFIELD	AL	CU, PB
2017		PEEDEE	030402010504	GREAT PEE DEE RIVER @ SC 9/US 1	PD-012	CHESTERFIELD	FISH	HG
2021, 2021		PEEDEE	030402010509	CEDAR CREEK AT US 52	PD-151	CHESTERFIELD	AL	CU, NI
2017		PEEDEE	030402010510	GREAT PEE DEE RVR AT US 15 & 401	PD-015	DARLINGTON	FISH	HG
2017		PEEDEE	030402010606	LAKE HB ROBINSON	PD-327	CHESTERFIELD	FISH	HG
2009	*	PEEDEE	030402010702	BOGGY SWAMP AT S-16-50 4.9 MI NE OF HARTSVILLE	RS-03507	DARLINGTON	REC	FC

2008 SC List of Impaired Waters by 12-Digit HUC

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2009	*	PEEDEE	030402010704	BLACK CK AT S-16-18 1 MI NNE HARTSVILLE	PD-021	DARLINGTON	REC	FC
2010		PEEDEE	030402010704	SNAKE BR AT RR AVE IN HARTSVILLE	PD-258	DARLINGTON	AL	DO
2009	*	PEEDEE	030402010704	SNAKE BR AT RR AVE IN HARTSVILLE	PD-258	DARLINGTON	REC	FC
2016		PEEDEE	030402010704	BLACK CREEK NEAR DIRT ROAD OFF COUNTY RD 41, 6 M NE OF HARTSVILLE	RS-01043	DARLINGTON	AL	CU
2010, 2014		PEEDEE	030402010707	60" TILE DISCHARGING TO DITCH ACROSS RD AT DARLINGTON STP	PD-141	DARLINGTON	AL	DO, NH3N
2010		PEEDEE	030402010707	60" TILE DISCHARGING TO DITCH ACROSS RD AT DARLINGTON STP	PD-141	DARLINGTON	REC	FC
2016		PEEDEE	030402010707	TRIBUTARY TO SWIFT CREEK AT COUNTY RD 213 JUST NORTH OF DARLINGTON	RS-01023	DARLINGTON	AL	CU
2008	*	PEEDEE	030402010707	TRIBUTARY TO SWIFT CREEK AT COUNTY RD 213 JUST NORTH OF DARLINGTON	RS-01023	DARLINGTON	REC	FC
2016		PEEDEE	030402010709	BLACK CK AT US 401 & 52 6 MI NW DARLINGTON	PD-024A	DARLINGTON	AL	CU
2009	*	PEEDEE	030402010709	BLACK CK AT S-16-133 2.25 MI NE OF DARLINGTON	PD-025	DARLINGTON	REC	FC
2010		PEEDEE	030402010709	BLACK CK AT S-16-133 2.25 MI NE OF DARLINGTON	PD-025	DARLINGTON	AL	PH
2017		PEEDEE	030402010710	BLACK CREEK @ SC 327	PD-623	FLORENCE	FISH	HG
2018, 2018		PEEDEE	030402010710	ASHBY BRANCH AT CULVERT ON S-21-1511(CLARK ST) WHICH IS NEXT TO QUINBY UNITED METHODIST CHURCH	RS-06027	FLORENCE	AL	DO, PH
2018		PEEDEE	030402010710	ASHBY BRANCH AT CULVERT ON S-21-1511(CLARK ST) WHICH IS NEXT TO QUINBY UNITED METHODIST CHURCH	RS-06027	FLORENCE	REC	FC
2017		PEEDEE	030402010805	GREAT PEE DEE RIVER @ BLUE'S LANDING	PD-242	MARLBORO	FISH	HG
2016, 2016		PEEDEE	030402010805	THREE CREEKS AT SC 38, S OF BLENHEIM	PD-367	MARLBORO	AL	CU, ZN
2017		PEEDEE	030402010808	GREAT PEE DEE RIVER @ SC 34	PD-028	DARLINGTON	AL	CU
2017		PEEDEE	030402010808	GREAT PEE DEE RIVER @ SC 34	PD-028	DARLINGTON	FISH	HG
2017		PEEDEE	030402010810	LOUTHER'S LAKE	PD-666	DARLINGTON	FISH	HG
2010		PEEDEE	030402010901	MIDDLE SWP AT SC 51 3.5 MI SSE OF FLORENCE	PD-230	FLORENCE	AL	DO
2008	*	PEEDEE	030402010901	MIDDLE SWP AT SC 51 3.5 MI SSE OF FLORENCE	PD-230	FLORENCE	REC	FC
2016		PEEDEE	030402010902	GULLEY BR AT S-21-13, TIMROD PARK	PD-065	FLORENCE	AL	PH
2010		PEEDEE	030402010902	JEFFRIES CK AT SC 340 6.8 MI SSW OF DARLINGTON	PD-255	DARLINGTON	AL	DO
2010		PEEDEE	030402010902	JEFFRIES CK AT S-21-112 4.8 MI W OF FLORENCE	PD-256	FLORENCE	AL	DO
2009	*	PEEDEE	030402010902	JEFFRIES CK AT S-21-112 4.8 MI W OF FLORENCE	PD-256	FLORENCE	REC	FC
2013		PEEDEE	030402010902	JEFFERIES CREEK AT S-16-13	PD-639	DARLINGTON	AL	BIO
2008	*	PEEDEE	030402010904	WILLOW CREEK AT S-21-57	PD-167	FLORENCE	REC	FC
2013		PEEDEE	030402010904	WILLOW CREEK AT SC 327	PD-630	FLORENCE	AL	BIO
2016		PEEDEE	030402010905	JEFFRIES CK AT UN# RD 3.3 MI ESE OF CLAUSSEN	PD-231	FLORENCE	AL	CU
2017		PEEDEE	030402011003	GREAT PEE DEE RIVER @ HWY 301	PD-337	FLORENCE	FISH	HG
2014		PEEDEE	030402011102	SMITH SWP AT US 501 1.9 MI SSE OF MARION	PD-187	MARION	AL	DO
2014		PEEDEE	030402011102	SMITH SWP AT S-34-19 1 MI E OF MARION	PD-320	MARION	AL	DO
2010		PEEDEE	030402011105	CATFISH CANAL AT S-34-34 6 MI SW OF MARION	PD-097	MARION	AL	DO
2017		PEEDEE	030402011201	GREAT PEE DEE RIVER @ DEWITT BLUFF	PD-622	FLORENCE	FISH	HG

2008 SC List of Impaired Waters by 12-Digit HUC

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2017		PEEDEE	030402011202	GREAT PEE DEE RIVER @ POSTON (ELLISON'S)	PD-076	FLORENCE	FISH	HG
2017		PEEDEE	030402011202	GREAT PEE DEE RIVER @ BOSTICK	PD-662	FLORENCE	FISH	HG
2013		PEEDEE	030402020101	HILLS CREEK AT S-13-105	PD-333	CHESTERFIELD	AL	BIO
2013		PEEDEE	030402020101	HILLS CRK. AT SR 105	PD-672	CHESTERFIELD	AL	BIO
2013		PEEDEE	030402020103	NORTH BRANCH OF WILDCAT CRK. AT SR 178	PD-679	LANCASTER	AL	BIO
2013	#	PEEDEE	030402020104	FLAT CR. AT US 601	PD-182	LANCASTER	AL	BIO
2016	#	PEEDEE	030402020104	FLAT CREEK AT S-29-123	PD-342	LANCASTER	AL	CU
2015		PEEDEE	030402020105	LYNCHES RVR AT SC 9 W OF PAGELAND	PD-113	CHESTERFIELD	AL	CU
2013		PEEDEE	030402020105	HILLS CREEK AT S-13-545	PD-366	CHESTERFIELD	AL	BIO
2008	*	PEEDEE	030402020201	TODD'S BR AT S-29-564 1.5 MI NE OF KERSHAW	PD-005	LANCASTER	REC	FC
2009	*	PEEDEE	030402020201	HORTON CREEK AT S-29-95	PD-335	LANCASTER	REC	FC
2013		PEEDEE	030402020201	LITTLE LYNCHES R. AT SR 88	PD-640	LANCASTER	AL	BIO
2013		PEEDEE	030402020202	HANGING ROCK CRK. AT SR 770	PD-669	LANCASTER	AL	BIO
2008	*	PEEDEE	030402020202	UNNAMED TRIBUTARY TO HANGING ROCK CREEK AT CULVERT ON CO RD S-29-773. 3.25 MI SSE OF KERSHAW.	RS-04549	LANCASTER	REC	FC
2008	*	PEEDEE	030402020203	LITTLE LYNCHES RVR AT US 601 2 MI NE KERSHAW	PD-006	LANCASTER	REC	FC
2013		PEEDEE	030402020203	LITTLE LYNCHES R. AT SC 157	PD-632	LANCASTER	AL	BIO
2015		PEEDEE	030402020206	LITTLE LYNCHES RIVER AT S-28-42	PD-343	KERSHAW	AL	PH
2013	#	PEEDEE	030402020301	FORK CK AT UN# RD 1.5 MI SW JEFFERSON	PD-068	CHESTERFIELD	AL	BIO
2015	#	PEEDEE	030402020301	LITTLE FORK CK AT S-13-265 1.5 MI SW JEFFERSON	PD-215	CHESTERFIELD	AL	CU
2013	#	PEEDEE	030402020301	LITTLE FORK CRK. AT CO.RD. 39 UPSTREAM OF BREWER GOLD MINE	PD-647	CHESTERFIELD	AL	BIO
2009	*	PEEDEE	030402020307	LYNCHES RVR AT US 1	PD-009	CHESTERFIELD	REC	FC
2010		PEEDEE	030402020403	NEWMAN SWP AT S-16-449 0.9 MI NE OF LAMAR	PD-229	DARLINGTON	AL	DO
2008	*	PEEDEE	030402020403	NEWMAN SWP AT S-16-449 0.9 MI NE OF LAMAR	PD-229	DARLINGTON	REC	FC
2009	*	PEEDEE	030402020405	SPARROW SWP AT S-16-697 2.5 MI E OF LAMAR	PD-072	DARLINGTON	REC	FC
2016, 2016, 2016		PEEDEE	030402020405	SPARROW SWAMP AT US 76 1.1 MI SOUTHWEST OF TIMMONSVILLE. SITE IS A USGS GAUGING SITE.	RS-04548	FLORENCE	AL	CR, CU, NI
2016, 2016, 2016		PEEDEE	030402020406	LAKE SWAMP AT S-21-38	PD-345	FLORENCE	AL	CR, CU, NI
2016		PEEDEE	030402020406	LAKE SWAMP AT S-21-38	PD-345	FLORENCE	REC	FC
2017		PEEDEE	030402020503	LYNCHES RIVER @ HWY 15	PD-071	LEE	FISH	HG
2010		PEEDEE	030402020503	COUSAR BR 1/4 MI BELOW BISHOPVILLE FINISHING CO	PD-112	LEE	AL	PH
2017		PEEDEE	030402020504	LYNCHES RIVER @ SC 401	PD-364	LEE	FISH	HG
2015		PEEDEE	030402020505	LYNCHES RIVER AT S-21-55	PD-093	FLORENCE	AL	PH
2015		PEEDEE	030402020505	LYNCHES RIVER AT SC 403	PD-319	FLORENCE	AL	PH
2010		PEEDEE	030402020601	CAMP BRANCH AT S-21-278	PD-346	FLORENCE	AL	DO
2010		PEEDEE	030402020601	CAMP BRANCH AT S-21-278	PD-346	FLORENCE	REC	FC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2012 2010		PEEDEE PEEDEE	030402020602 030402020602	SINGLETON SWAMP AT S-21-67 SINGLETON SWAMP AT S-21-67	PD-314 PD-314	FLORENCE FLORENCE	AL REC	DO FC
2016		PEEDEE	030402020603	LAKE SWAMP ON SC 341	PD-086A	FLORENCE	AL	DO
2016, 2016		PEEDEE	030402020604	LAKE SWAMP AT SC 341 2.6 MI W OF JOHNSONVILLE	PD-087	FLORENCE	AL	CU, NI
2010 2017		PEEDEE PEEDEE	030402020701 030402020701	LYNCHES RVR AT US 52 NEAR EFFINGHAM LYNCHES RIVER @ US 52	PD-041 PD-624	FLORENCE FLORENCE	AL FISH	PH HG
2010 2009 2010	*	PEEDEE PEEDEE PEEDEE	030402020703 030402020703 030402020703	BIG SWP AT S-21-360 1.1 MI W OF PAMPLICO BIG SWP AT S-21-360 1.1 MI W OF PAMPLICO BIG SWP AT US 378 & SC 51 0.9 MI W OF SALEM	PD-168 PD-168 PD-169	FLORENCE FLORENCE FLORENCE	AL REC AL	DO FC DO
2015, 2015, 2015		PEEDEE	030402020704	LYNCHES RVR AT S-21-49 5 MI NW JOHNSONVILLE	PD-281	FLORENCE	AL	CU, NI, PH
2017		PEEDEE	030402020705	LYNCHES RIVER @ JOHNSONVILLE	PD-048	FLORENCE	FISH	HG
2010		PEEDEE	030402031302	BEAR SWAMP AT S-17-56	PD-368	DILLON	AL	DO
2017 2017		PEEDEE PEEDEE	030402031404 030402031404	LUMBER RIVER @ RICEFIELD COVE LUMBER RIVER @ CAUSEY LANDING	PD-038 PD-664	HORRY HORRY	FISH FISH	HG HG
2010		PEEDEE	030402040403	BUCK SWP AT S-17-33	PD-031	DILLON	AL	DO
2010 2008	*	PEEDEE PEEDEE	030402040404 030402040404	BUCK SWAMP AT S-17-42 BUCK SWAMP AT S-17-42	PD-349 PD-349	DILLON DILLON	AL REC	DO FC
2017		PEEDEE	030402040504	LITTLE PEE DEE RIVER @ MOCOCASIN'S BLUFF	PD-283	DILLON	FISH	HG
2011		PEEDEE	030402040505	MAPLE SWP AT SC 57	PD-030	DILLON	AL	DO
2017 2017		PEEDEE PEEDEE	030402040506 030402040506	LITTLE PEE DEE RIVER @ DILLON COUNTY PARK LITTLE PEE DEE RIVER @ FLOYDALE BRIDGE	PD-030A PD-618	DILLON DILLON	FISH FISH	HG HG
2016 2017		PEEDEE PEEDEE	030402040508 030402040508	LITTLE PEE DEE AT S-34-60 LITTLE PEE DEE RIVER @ GILCREST LANDING	PD-052 PD-053	MARION MARION	AL FISH	CU HG
2020		PEEDEE	030402040601	BOB'S BRANCH AT BRIDGE ON S-26-637 2.2 MI N OF GREEN SEA	RS-06009	HORRY	AL	DO
2010		PEEDEE	030402040604	LOOSING SWAMP AT S-26-23 3.7 MI NE OF AYNOR	RS-03513	HORRY	AL	DO
2010		PEEDEE	030402040801	CEDAR CREEK AT S-26-23	PD-351	HORRY	AL	DO
2017 2017		PEEDEE PEEDEE	030402040803 030402040803	LITTLE PEE DEE RIVER @ SANDY BLUFF LITTLE PEE DEE RIVER @ RED BLUFF	PD-054 PD-654	HORRY MARION	FISH FISH	HG HG
2017 2017		PEEDEE PEEDEE	030402040804 030402040804	LITTLE PEE DEE RIVER @ GALAVANTS FERRY LITTLE PEE DEE RIVER @ DAVIS LANDING	PD-619 PD-655	MARION MARION	FISH FISH	HG HG
2017 2017		PEEDEE PEEDEE	030402040808 030402040808	LITTLE PEE DEE RIVER @ LOCUST TREE LANDING LITTLE PEE DEE RIVER @ GUNTER'S LAKE	PD-656 PD-657	MARION HORRY	FISH FISH	HG HG

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2017		PEEDEE	030402040808	LITTLE PEE DEE @ HUGHES LANDING	PD-691	HORRY	FISH	HG
2017		PEEDEE	030402040810	LITTLE PEE DEE RIVER @ PUNCHBOWL LAND	PD-350	HORRY	FISH	HG
2017		PEEDEE	030402040810	LITTLE PEE DEE RIVER @ HWY 378	PD-620	HORRY	FISH	HG
2017		PEEDEE	030402040810	LITTLE PEE DEE RIVER @ SAMPSON LANDING	PD-658	MARION	FISH	HG
2017		PEEDEE	030402040810	RUSS CREEK @ PARKERS LANDING	PD-665	MARION	FISH	HG
2015		PEEDEE	030402050103	BEAVER DAM CREEK AT S-31-313	PD-636	LEE	AL	BIO
2012, 2012		PEEDEE	030402050104	LAKE ASHWOOD, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CL-077	LEE	AL	CHLA, TN
2011		PEEDEE	030402050104	MECHANICSVILLE SWAMP AT S-31-500	PD-356	LEE	AL	DO
2011		PEEDEE	030402050104	MCGIRTS CREEK AT COUNTY RD 73, 7.5 M SW OF BISHOPVILLE	RS-01017	LEE	AL	DO
2010, 2010		PEEDEE	030402050203	UNNAMED DRAINAGE CANAL TO ATKINS CANAL AT SC 527 (3/4 MI N OF US 76)	PD-354	LEE	AL	DO, PH
2010		PEEDEE	030402050203	UNNAMED DRAINAGE CANAL TO ATKINS CANAL AT SC 527 (3/4 MI N OF US 76)	PD-354	LEE	REC	FC
2010		PEEDEE	030402050301	GREEN SWP AT S-43-33	PD-039	SUMTER	AL	DO
2010		PEEDEE	030402050302	NASTY BR AT S-43-251 7.5 MI SW OF SUMTER	PD-239	SUMTER	AL	DO
2020, 2020		PEEDEE	030402050303	BRUNSON SWAMP CREEK AT S-43-251 - 1.3 MI W OF SC 120 - 9.25 MI SW SUMTER	RS-03345	SUMTER	AL	DO, PH
2011		PEEDEE	030402050303	BRUNSON SWAMP CREEK AT S-43-251 - 1.3 MI W OF SC 120 - 9.25 MI SW SUMTER	RS-03345	SUMTER	REC	FC
2017		PEEDEE	030402050401	TURKEY CREEK	PD-040	SUMTER	FISH	HG
2011		PEEDEE	030402050401	POCOTALIGO RVR AT US 15 3.5 MI S SUMTER	PD-091	SUMTER	AL	DO
2011		PEEDEE	030402050401	POCOTALIGO RVR AT S-43-32 9 MI SSE OF SUMTER	PD-202	SUMTER	AL	DO
2015		PEEDEE	030402050401	BRIAR BRANCH AT S-43-459	PD-617	SUMTER	AL	BIO
2015		PEEDEE	030402050404	BIG BR. AT SC 261	PD-627	CLARENDON	AL	BIO
2020, 2020		PEEDEE	030402050406	DEEP CREEK AT S-14-25 AND 1.2 MI NE OF BLOOMVILLE	RS-03347	CLARENDON	AL	DO, PH
2009	*	PEEDEE	030402050406	DEEP CREEK AT S-14-25 AND 1.2 MI NE OF BLOOMVILLE	RS-03347	CLARENDON	REC	FC
2009	*	PEEDEE	030402050407	POCOTALIGO RVR AT S-14-50 9.5 MI NE MANNING	PD-043	CLARENDON	AL	DO
2011		PEEDEE	030402050407	POCOTALIGO RVR AT S-14-50 9.5 MI NE MANNING	PD-043	CLARENDON	REC	FC
2017		PEEDEE	030402050407	POCOTALIGO RVR AT S-14-50 9.5 MI NE MANNING	PD-043	CLARENDON	FISH	HG
2009	*	PEEDEE	030402050407	POCOTALIGO RVR AT 3RD BRDG N OF MANNING ON US 301	PD-115	CLARENDON	AL	DO
2010		PEEDEE	030402050502	DOUGLAS SWAMP OFF THIGPEN ROAD BEHIND WHITE HOUSE, 3.5 M E OF TURBEVILLE	RS-01002	FLORENCE	AL	DO
2018		PEEDEE	030402050503	HORSE BRANCH AT S-14-106 1.2 MI SE OF TURBEVILLE	RS-05557	CLARENDON	REC	FC
2010		PEEDEE	030402050603	BLACK RVR AT S-14-40 E OF MANNING	PD-116	CLARENDON	AL	DO
2010		PEEDEE	030402050603	BLACK RVR AT S-14-40 E OF MANNING	PD-116	CLARENDON	REC	FC
2010		PEEDEE	030402050701	CLAPP SWAMP AT SC 527	RS-02325	WILLIAMSBURG	AL	DO
2017		PEEDEE	030402050710	BLACK RIVER @ KINGSTREE	PD-044	WILLIAMSBURG	FISH	HG

2008 SC List of Impaired Waters by 12-Digit HUC

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2010		PEEDEE	030402050805	BLACK MINGO CREEK AT S-45-121	PD-360	WILLIAMSBURG	AL	DO
2017		PEEDEE	030402050806	MINGO CREEK	PD-172	GEORGETOWN	FISH	HG
2014		PEEDEE	030402050806	SMITH SWAMP AT BRIDGE ON SC 51 12.2 MI S OF HEMINGWAY	RS-06189	GEORGETOWN	AL	DO
2013		PEEDEE	030402050903	SPRING GULLY AT BRIDGE ON US 521 3.8 MI NE OF TRIO	RS-04533	WILLIAMSBURG	AL	BIO
2017		PEEDEE	030402050906	BLACK RIVER @ PINE TREE LANDING	PD-046	GEORGETOWN	FISH	HG
2010		PEEDEE	030402050906	BLACK RVR AT SC 51 11.6 MI NE OF ANDREWS	PD-170	GEORGETOWN	AL	DO
2017		PEEDEE	030402050906	BLACK RVR AT SC 51 11.6 MI NE OF ANDREWS	PD-170	GEORGETOWN	FISH	HG
2017		PEEDEE	030402050906	BLACK RIVER @ PUMPHOUSE LANDING	PD-626	WILLIAMSBURG	FISH	HG
2017		PEEDEE	030402050906	BLACK RIVER @ OLD PUMP STATION	PD-659	GEORGETOWN	FISH	HG
2017		PEEDEE	030402050906	BLACK RIVER @ PEA HOUSE LANDING	PD-692	GEORGETOWN	FISH	HG
2009	*	PEEDEE	030402050908	GREENS CREEK AT S-22-318 (JOHNSON ROAD) 7.7 MI NW OF GEORGETOWN	RS-03353	GEORGETOWN	REC	FC
2017		PEEDEE	030402050909	BLACK RIVER @ PETER'S CREEK	PD-171	GEORGETOWN	FISH	HG
2017		PEEDEE	030402050909	BLACK RIVER @ ROCKY POINT	PD-660	GEORGETOWN	FISH	HG
2017		PEEDEE	030402050910	BLACK RIVER @ PRINGLE'S FERRY	PD-661	GEORGETOWN	FISH	HG
2016, 2016		PEEDEE	030402060703	BUCK CREEK AT SC 905	PD-362	HORRY	AL	CU, NI
2015		PEEDEE	030402060704	WACCAMAW RVR AT SC 9 7.0 MI W OF CHERRY GROVE	MD-124	HORRY	AL	CU
2017		PEEDEE	030402060704	WACCAMAW RVR AT SC 9 7.0 MI W OF CHERRY GROVE	MD-124	HORRY	FISH	HG
2015, 2015		PEEDEE	030402060705	SIMPSON CREEK AT SC 905	PD-363	HORRY	AL	NI, ZN
2019		PEEDEE	030402060802	HELLHOLE SWAMP AT S-26-67 6.6 MI SW OF LORIS	RS-05561	HORRY	AL	DO
2020		PEEDEE	030402060803	KINGSTON LK NR PUMP STA ON LAKESIDE DR CONWAY	MD-107	HORRY	AL	DO
2009	*	PEEDEE	030402060803	KINGSTON LK NR PUMP STA ON LAKESIDE DR CONWAY	MD-107	HORRY	REC	FC
2019		PEEDEE	030402060803	CRAB TREE SWAMP AT LONG ST BL OUTFALL OF CONWAY #1 POND	MD-158	HORRY	AL	DO
2019		PEEDEE	030402060803	CRAB TREE SWAMP AT BRIDGE ON US 501 1.5 MI NW OF CONWAY	RS-04375	HORRY	AL	DO
2009	*	PEEDEE	030402060803	CRAB TREE SWAMP AT BRIDGE ON US 501 1.5 MI NW OF CONWAY	RS-04375	HORRY	REC	FC
2017		PEEDEE	030402060902	WACCAMAW RIVER @ SC 31	CSTL-553	HORRY	FISH	HG
2017		PEEDEE	030402060902	WACCAMAW RIVER @ SEC RD 105	CSTL-554	HORRY	FISH	HG
2018		PEEDEE	030402060903	STERITT SWAMP AT BRIDGE ON UNNUMBERED DIRT RD(STERITT SWAMP RD) ACROSS FROM HORRY CO SOLID WASTE AUTHORITY 4.8 MI E OF CONWAY	RS-06165	HORRY	AL	DO
2018		PEEDEE	030402060903	STERITT SWAMP AT BRIDGE ON UNNUMBERED DIRT RD(STERITT SWAMP RD) ACROSS FROM HORRY CO SOLID WASTE AUTHORITY 4.8 MI E OF CONWAY	RS-06165	HORRY	REC	FC
2017		PEEDEE	030402060904	WACCAMAW RIVER @ SEC RD 901	CSTL-555	HORRY	FISH	HG
2017		PEEDEE	030402060905	WACCAMAW RIVER @ PITCH LANDING	CSTL-556	HORRY	FISH	HG
2017		PEEDEE	030402060905	WACCAMAW RIVER @ TODDVILLE	MD-144	HORRY	FISH	HG
2015		PEEDEE	030402060905	BEAR SWAMP AT S-26-110	PD-638	HORRY	AL	BIO

2008 SC List of Impaired Waters by 12-Digit HUC

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2017		PEEDEE	030402060906	INTRACOASTAL WATERWAY @ SOCASTEE	CSTL-558	HORRY	FISH	HG
2011		PEEDEE	030402060906	UNNAMED TRIBUTARY TO INTERCOASTAL WATERWAY AT SC 707 1.2 MI ENE OF SOCASTEE & SC 544	RS-03332	HORRY	REC	FC
2017		PEEDEE	030402060907	WACCAMAW RIVER @ PEACH TREE	MD-136	HORRY	FISH	HG
2017		PEEDEE	030402060907	WACCAMAW RIVER @ BUCKSVILLE	MD-145	HORRY	FISH	HG
2017		PEEDEE	030402061002	WACCAMAW RIVER @ BUCKSPORT LANDING	CSTL-557	HORRY	FISH	HG
2017		PEEDEE	030402061002	WACCAMAW RIVER @ WACCA WACHE LANDING	MD-138	GEORGETOWN	FISH	HG
2017		PEEDEE	030402061003	WACCAMAW RIVER @ SANDY ISLAND	MD-140	GEORGETOWN	FISH	HG
2017		PEEDEE	030402061003	WACCAMAW RIVER @ HAGLEY LANDING	MD-141	GEORGETOWN	FISH	HG
2014		PEEDEE	030402070103	SAMPIT RVR BTWN MOUTHS OF PORTS CK & PENNY ROYAL CK	MD-075	GEORGETOWN	AL	DO
2014	#	PEEDEE	030402070106	SAMPIT RVR OPP AMER CYANAMID CHEM CO	MD-073	GEORGETOWN	AL	DO
2014, 2014	#	PEEDEE	030402070106	SAMPIT RVR AT CHANNEL MARKER #30	MD-074	GEORGETOWN	AL	DO, PH
2014	#	PEEDEE	030402070106	SAMPIT RVR AT US 17	MD-077	GEORGETOWN	AL	DO
2014		PEEDEE	030402070106	WHITES CK 100 YDS UPSTRM OF JCT WITH SAMPIT RVR	MD-149	GEORGETOWN	REC	FC
2017		PEEDEE	030402070106	SAMPIT RIVER APPROXIMATELY 1.4 MILES WEST OF US 17 BRIDGE	PD-628	GEORGETOWN	FISH	HG
2017		PEEDEE	030402070203	CLARKS CREEK @ SNOW LAKE	PD-317	WILLIAMSBURG	FISH	HG
2017		PEEDEE	030402070203	GREAT PEE DEE RIVER @ STAPLES LAKE	PD-621	WILLIAMSBURG	FISH	HG
2016		PEEDEE	030402070204	PEE DEE RVR AT PETERS FIELD LANDING OFF S-22-36 US IP PUMP STATION	PD-060	GEORGETOWN	AL	CU
2017		PEEDEE	030402070204	PEE DEE RVR AT PETERS FIELD LANDING OFF S-22-36 US IP PUMP STATION	PD-060	GEORGETOWN	FISH	HG
2017		PEEDEE	030402070205	GREAT PEE DEE RIVER ABOVE HWY 701 BRIDGE	CSTL-559	HORRY	FISH	HG
2010	#	PEEDEE	030402070207	WINYAH BAY AT JCT OF PEE DEE & WACCAMAW AT MARKER 92	MD-080	GEORGETOWN	AL	PH
2016	#	PEEDEE	030402070207	PEE DEE RVR AT WHITE HOUSE PLANTATION	MD-275	GEORGETOWN	AL	CU
2017		PEEDEE	030402070207	GREAT PEE DEE RIVER @ SAMWORTH WMA	PD-663	GEORGETOWN	FISH	HG
2017		PEEDEE	030402070207	CYPRESS CREEK AT BRIDGE ON S-22-264 1.5 MI SE OF PLANTERSVILLE	RS-06013	GEORGETOWN	REC	FC
2012		PEEDEE	030402070208	JONES CREEK AT NANCY CREEK	05-01	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402070208	OYSTER BAY NEAR CUTOFF CREEK	05-05	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402070208	MUD BAY AT NO MAN'S FRIEND CREEK	05-06	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402070208	JONES CREEK AT MUD BAY	05-07	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402070208	WINYAH BAY MAIN CHANNEL, BUOY 19A, RANGE E	05-20	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402070208	WINYAH BAY MAIN CHANNEL, BUOY 17, RANGE E	05-21	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402070208	WINYAH BAY, TIP OF WESTERN CHANNEL ISLAND	05-25	GEORGETOWN	SHELLFISH	FC
2016		PEEDEE	030402080301	INTRACOASTAL WTRWAY AT PT 3 MI N OF BRDG ON US 501	MD-085	HORRY	AL	CU
2016		PEEDEE	030402080301	INTRACOASTAL WTRWY (LITTLE RVR) ON SC 9 (US 17)	MD-125	HORRY	AL	CU
2017		PEEDEE	030402080301	INTRACOASTAL WATERWAY @ NORTH MYRTLE	MD-163	HORRY	FISH	HG
2011		PEEDEE	030402080305	LITTLE RIVER JETTY	01-01	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080305	MOUTH OF DUNN SOUND CREEK	01-02	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080305	BIG BEND UP DUNN SOUND CREEK	01-05	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080305	BRIDGE TO WAITES ISLAND	01-06	HORRY	SHELLFISH	FC

2008 SC List of Impaired Waters by 12-Digit HUC

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2011		PEEDEE	030402080306	HOG INLET	01-07	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080306	42ND AVENUE - CHERRY GROVE	01-17	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080306	53RD AVENUE BRIDGE ON CANAL	01-17A	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080306	DUNN SOUND AT HOG INLET	01-18	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080306	MAIN CREEK AT 53RD AVENUE	01-19	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080306	WHITE POINT SWASH	02-01	HORRY	SHELLFISH	FC
2016, 2016		PEEDEE	030402080306	HOUSE CK AT 53RD AVE OUT FROM BOAT LANDING (01-19)	MD-276	HORRY	AL	CU, DO
2011		PEEDEE	030402080306	WAC-005A-7TH AVE S	WAC-005A	HORRY	REC	ENTERO
2011		PEEDEE	030402080306	WAC-09A-WHITEPOINT SWASH	WAC-009A	HORRY	REC	ENTERO
2011		PEEDEE	030402080307	SINGLETON SWASH	02-02	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080307	CANEPATCH SWASH	02-03	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080307	WAC-015-SINGLETON SWASH ARCADIA	WAC-015	HORRY	REC	ENTERO
2011		PEEDEE	030402080308	WITHERS SWASH	03-01	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080308	MIDWAY SWASH - PEBBLE BEACH	03-02	HORRY	SHELLFISH	FC
2011		PEEDEE	030402080308	WAC-025A-MIDWAY SWASH	WAC-025A	HORRY	REC	ENTERO
2016		PEEDEE	030402080310	PARSONNAGE CREEK AT INLET PORT BASIN (04-17)	MD-277	GEORGETOWN	AL	NH3N
2011		PEEDEE	030402080314	WAC-016A-CANE PATCH SWASH MB	WAC-016A	HORRY	REC	ENTERO
2011		PEEDEE	030402080314	WAC-017A-DEEP HEAD SWASH MB	WAC-017A	HORRY	REC	ENTERO
2011		PEEDEE	030402080315	WAC-020-24TH AVE NORTH MB	WAC-020	HORRY	REC	ENTERO
2011		PEEDEE	030402080315	WAC-022A-WITHERS SWASH	WAC-022A	HORRY	REC	ENTERO
2011		PEEDEE	030402080316	WAC-028-PIRATELAND SWASH	WAC-028	HORRY	REC	ENTERO
2011		PEEDEE	030402080316	WAC-29A-S OCEAN LAKES	WAC-029A	HORRY	REC	ENTERO
2011		PEEDEE	030402080316	WAC-31A-SWASH AT 5TH	WAC-031A	HORRY	REC	ENTERO
2012		PEEDEE	030402080402	DEBIDUE CREEK AT BOAT BASIN	05-13	GEORGETOWN	SHELLFISH	FC
2012		PEEDEE	030402080402	DEBIDUE CREEK AND BASS HOLE BAY	05-16	GEORGETOWN	SHELLFISH	FC
2017		SALKEHATCHIE	030502060308	TRIB TO PINE ISLAND CK W OF PINE ISLAND	RT-02019	COLLETON	AL	CU
2020		SALKEHATCHIE	030502070103	LAKE EDGAR BROWN IN FOREBAY NEAR DAM	CL-064	BARNWELL	AL	CHLA
2008	*	SALKEHATCHIE	030502070103	TURKEY CK 1 MI BL MILLIKEN BARNWELL OUTFALL AT CLINTON ST.	CSTL-001B	BARNWELL	REC	FC
2008	*	SALKEHATCHIE	030502070104	SALKEHATCHIE RVR AT SC 64 2 MI W OF BARNWELL	CSTL-028	BARNWELL	REC	FC
2008	*	SALKEHATCHIE	030502070110	WELLS BRCH AT SC 300	RS-02472	ALLENDAL	REC	FC
2008	*	SALKEHATCHIE	030502070111	SALKEHATCHIE RVR AT SC 278 2.5 MI S BARNWELL	CSTL-003	BARNWELL	REC	FC
2016		SALKEHATCHIE	030502070203	WHIPPY SWAMP AT S-25-13	CSTL-076	HAMPTON	REC	FC
2009	*	SALKEHATCHIE	030502070302	LEMON CREEK AT S-05-541	CSTL-116	BAMBERG	REC	FC
2013		SALKEHATCHIE	030502070302	LEMON CREEK AT S-74	CSTL-576	BAMBERG	AL	BIO
2017		SALKEHATCHIE	030502070401	LITTLE SALKEHATCHIE @ SC 70	CSTL-566	BAMBERG	FISH	HG
2009	*	SALKEHATCHIE	030502070403	LITTLE SALKEHATCHIE RIVER AT U.S. 601	CSTL-115	BAMBERG	REC	FC

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2008	*	SALKEHATCHIE	030502070504	BUCKHEAD CREEK AT SC 212	CSTL-119	COLLETON	REC	FC
2009	*	SALKEHATCHIE	030502070505	WILLOW SWAMP AT S-15-27	CSTL-118	COLLETON	AL	CU
2009	*	SALKEHATCHIE	030502070505	WILLOW SWAMP AT S-15-27	CSTL-118	COLLETON	REC	FC
2013		SALKEHATCHIE	030502070505	WILLOW CRK. AT SR 42	CSTL-570	COLLETON	AL	BIO
2009	*	SALKEHATCHIE	030502070506	LITTLE SALKEHATCHIE RIVER AT SC 64	CSTL-117	COLLETON	REC	FC
2015, 2015		SALKEHATCHIE	030502070508	LITTLE SALKEHATCHIE RIVER AT SC 63	CSTL-120	COLLETON	AL	CU, ZN
2017		SALKEHATCHIE	030502070508	LITTLE SALKEHATCHIE RIVER AT SC 63	CSTL-120	COLLETON	FISH	HG
2013		SALKEHATCHIE	030502070602	SAVANNAH CREEK AT S.R.-87	CSTL-053	BAMBERG	AL	BIO
2017		SALKEHATCHIE	030502070603	SALKEHATCHIE RIVER @ HWY 301	CSTL-048	BAMBERG	FISH	HG
2017		SALKEHATCHIE	030502070603	SALKEHATCHIE RIVER @ SC 641	CSTL-105	BAMBERG	FISH	HG
2014		SALKEHATCHIE	030502070604	RICEPATCH CRK. AT SC 63	CSTL-569	COLLETON	AL	BIO
2009	*	SALKEHATCHIE	030502070606	SALKEHATCHIE RVR AT 601 9 MI NE HAMPTON	CSTL-006	COLLETON	REC	FC
2017		SALKEHATCHIE	030502070606	SALKEHATCHIE RIVER @ US 601	CSTL-562	HAMPTON	FISH	HG
2014		SALKEHATCHIE	030502070704	COMBAHEE RVR AT US 17 10 MI ESE YEMASSEE	CSTL-098	BEAUFORT	AL	DO
2017		SALKEHATCHIE	030502070704	COMBAHEE RVR AT US 17 10 MI ESE YEMASSEE	CSTL-098	BEAUFORT	FISH	HG
2017		SALKEHATCHIE	030502070704	COMBAHEE RIVER @ SEC RD 756	CSTL-561	COLLETON	FISH	HG
2012		SALKEHATCHIE	030502070705	CHEHAW RVR AT OLD CHEHAW BOAT LANDING ON S-15-161	RT-02017	COLLETON	AL	ZN
2018, 2018		SALKEHATCHIE	030502070803	IRELAND CK AT S-15-116 5 1/2 MI N OF WALTERBORO	CSTL-044	COLLETON	AL	DO, PH
2008	*	SALKEHATCHIE	030502070803	IRELAND CK AT S-15-116 5 1/2 MI N OF WALTERBORO	CSTL-044	COLLETON	REC	FC
2017		SALKEHATCHIE	030502070902	CHESSIE CREEK @ CHESSIE LANDING	CSTL-070	COLLETON	FISH	HG
2009	*	SALKEHATCHIE	030502070903	HORSESHOE CREEK AT SC 64	CSTL-071	COLLETON	REC	FC
2017		SALKEHATCHIE	030502070903	HORSESHOE CREEK AT SC 64	CSTL-071	COLLETON	FISH	HG
2017		SALKEHATCHIE	030502070903	HORSESHOE CREEK AT SC 64	CSTL-071	COLLETON	AL	ZN
2013		SALKEHATCHIE	030502070903	FULLER SWAMP CRK. AT US 17A	CSTL-581	COLLETON	AL	BIO
2010		SALKEHATCHIE	030502071001	ASHEPOO RVR AT SC 303 10 MI SSW OF WALTERBORO	CSTL-068	COLLETON	REC	FC
2015		SALKEHATCHIE	030502071001	ASHEPOO RVR AT SC 303 10 MI SSW OF WALTERBORO	CSTL-068	COLLETON	AL	ZN
2015		SALKEHATCHIE	030502071002	ASHEPOO RVR AT US 17 3.4 MI ESE OF GREEN POND	CSTL-069	COLLETON	AL	DO
2015		SALKEHATCHIE	030502071002	ASHEPOO RVR AT US 17 3.4 MI ESE OF GREEN POND	CSTL-069	COLLETON	REC	FC
2017		SALKEHATCHIE	030502071002	ASHEPOO RVR AT US 17 3.4 MI ESE OF GREEN POND	CSTL-069	COLLETON	FISH	HG
2012		SALKEHATCHIE	030502071003	ASHEPO RIVER POG	14-19	COLLETON	SHELLFISH	FC
2012		SALKEHATCHIE	030502071003	S. EDISTO RVR & ASHEPOO RVR CUT	14-20	COLLETON	SHELLFISH	FC
2012		SALKEHATCHIE	030502071003	SCOTT CREEK, HEADWATERS AT JEREMY INLET AT BOAT LANDING	14-21	COLLETON	SHELLFISH	FC
2015	#	SALKEHATCHIE	030502071003	ASHEPOO RIVER AT S-15-26	MD-251	COLLETON	AL	TURBIDITY
2015		SALKEHATCHIE	030502071003	ASHEPOO RIVER AT PUBLIC OYSTER GROUND (14-19)	MD-253	COLLETON	AL	TURBIDITY
2015	#	SALKEHATCHIE	030502071003	ASHEPOO RIVER AT HOLE-IN-THE-WALL OXBOW 0.5 MI SW (DOWNRIVER) OF S-15-26	RO-046071	COLLETON	AL	TURBIDITY
2010	#	SALKEHATCHIE	030502071003	ROCK CK 0.75 MI SW CONFL W/ ASHEPOO RVR	RT-032035	COLLETON	AL	TURBIDITY

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2017, 2011		SALKEHATCHIE	030502071101	COOSAW RVR NEAR MOUTH OF BULL RVR	RO-02005	BEAUFORT	AL	CU, TURBIDITY
2014		SALKEHATCHIE	030502071101	WIMBEE CK 0.7 MI SE OF MOUTH OF S WIMBEE CK	RO-036037	BEAUFORT	AL	TURBIDITY
2010		SALKEHATCHIE	030502071101	TRIBUTARY TO BULL RIVER, 7.5 M NE OF BEAUFORT	RT-01643	BEAUFORT	AL	TURBIDITY
2011		SALKEHATCHIE	030502071102	LUCY POINT CREEK AT ROCKY SPRINGS CREEK	16A-13	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071102	LUCY POINT CREEK APPROX. 0.75 MI NE OF CONFL ROCK SPRINGS CK	16A-33	BEAUFORT	SHELLFISH	FC
2017, 2010		SALKEHATCHIE	030502071102	TIDAL CK NEAR CONFL OF COOSAW AND BULL RVRS CHISOLM ISL	RT-02015	BEAUFORT	AL	CU, TURBIDITY
2011		SALKEHATCHIE	030502071103	DOE CR BEHIND COASTAL SEAFOOD - BEHIND DATAW ISLAND	16A-14	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	EDDING CREEK AT SHRIMP DOCK	16A-18	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	ROCK SPRINGS CREEK, UPPER REACHES	16A-19	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	EDDING CR AT SMALL TRIBUTARY BETWEEN STATIONS 9 AND 18	16A-23	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	JENKINS CREEK AT SMALL UNNAMED TRIBUTARY NORTH SIDE OF WARSAW ISLAND	16A-25	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	COFFIN CREEK MOUTH AT MORGAN RIVER	16A-27	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	COFFIN CREEK, HEADWATERS AT SHRIMP DOCKS	16A-28	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	JENKINS CREEK, 500FT. NORTH OF STORMWATER AT DAWTAW ISLAND GOLF COURSE,	16A-30	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	LUCY POINT CREEK APPROX. 1.4 MI N OF CONFL MORGAN RIVER	16A-34	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	MORGAN RIVER AT CONFL LUCY POINT CK	16A-35	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	JENKINS CREEK APPROX. 1.0 MI SE CONFL WARSAW FLATS	16A-36	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	JENKINS CREEK AT POLOWANA ISLAND	16A-37	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502071103	PINE ISLAND CREEK NEAR CONFL VILLAGE CREEK	16A-38	BEAUFORT	SHELLFISH	FC
2017		SALKEHATCHIE	030502071103	TRIB TO SPARROW NEST CK NEAR DATHA ISLAND	RT-02027	BEAUFORT	AL	CU
2014	#	SALKEHATCHIE	030502071103	COFFIN CK 0.7 MI SE OF CONFL W/ MORGAN RVR	RT-032033	BEAUFORT	AL	TURBIDITY
2010	#	SALKEHATCHIE	030502071104	SAINT HELENA SOUND, 7 M SW OF EDISTO BEACH	RO-01163	BEAUFORT	AL	TURBIDITY
2011		SALKEHATCHIE	030502071104	COOSAW RVR NEAR MOUTH OF COMBAHEE RVR	RO-02001	BEAUFORT	AL	TURBIDITY
2016		SALKEHATCHIE	030502080102	LAKE GEORGE WARREN IN FOREBAY NEAR DAM	CL-062	HAMPTON	AL	ZN
2015		SALKEHATCHIE	030502080102	LAKE WARREN, BLACK CK ARM, AT S-25-41 5 MI SW OF HAMPTON	CSTL-075	HAMPTON	AL	ZN
2012, 2012, 2012, 2016		SALKEHATCHIE	030502080102	LAKE GEORGE WARREN 0.2 MI W OF SPILLWAY NE CORNER OF LAKE CLOSER TO LAKE WARREN ST PARK SHORELINE	RL-03331	HAMPTON	AL	CHLA, TN, TP, ZN
2014		SALKEHATCHIE	030502080201	DUCK CREEK AT THE DOWNSTREAM SIDE OF US 278, 2.6 M SE OF ALLENDALE	RS-01025	ALLENDALE	AL	DO
2015		SALKEHATCHIE	030502080202	COOSAWHATCHIE RVR AT S-03-47	CSTL-110	ALLENDALE	AL	DO
2015		SALKEHATCHIE	030502080202	COOSAWHATCHIE RVR AT S-03-47	CSTL-110	ALLENDALE	REC	FC
2015, 2015		SALKEHATCHIE	030502080204	COOSAWHATCHIE RIVER AT SC 363	CSTL-121	HAMPTON	AL	DO, ZN
2015		SALKEHATCHIE	030502080204	COOSAWHATCHIE RIVER AT SC 363	CSTL-121	HAMPTON	REC	FC
2009	*	SALKEHATCHIE	030502080204	BLOOD HILL CREEK AT S-25-69 2.4 MI NE OF GIFFORD	RS-03360	HAMPTON	REC	FC
2019		SALKEHATCHIE	030502080302	CYPRESS CREEK AT S-27-108	CSTL-122	JASPER	AL	ZN
2009	*	SALKEHATCHIE	030502080401	SANDERS BR AT SC 278	CSTL-010	HAMPTON	REC	FC
2009	*	SALKEHATCHIE	030502080401	SANDERS BR AT S-25-50	CSTL-011	HAMPTON	REC	FC
2009	*	SALKEHATCHIE	030502080401	SANDERS BRANCH AT SC RD 363	CSTL-108	HAMPTON	REC	FC
2009	*	SALKEHATCHIE	030502080401	SANDERS BR FROM BRIDGE AT PAVED RD FROM SC 363 N	RS-02488	HAMPTON	REC	FC
2012		SALKEHATCHIE	030502080401	SANDERS BR FROM BRIDGE AT PAVED RD FROM SC 363 N	RS-02488	HAMPTON	AL	ZN

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2015		SALKEHATCHIE	030502080404	COOSAWHATCHIE RVR AT S-25-27 2.5 MI SW CUMMINGS	CSTL-109	HAMPTON	AL	ZN
2017		SALKEHATCHIE	030502080405	COOSAWHATCHIE RIVER @ SEC RD 36	CSTL-077	JASPER	FISH	HG
2014		SALKEHATCHIE	030502080406	BEES CK AT SC 462 5.9 MI NE OF RIDGELAND	MD-128	JASPER	AL	DO
2015, 2015		SALKEHATCHIE	030502080406	BEES CK AT WALL FAMILY CAMP FLOATING DOCK APPROX 1 MI E SC 462 AS CROW FLIES	MD-280	JASPER	AL	DO, TURBIDITY
2015		SALKEHATCHIE	030502080406	BEES CK AT WALL FAMILY CAMP FLOATING DOCK APPROX 1 MI E SC 462 AS CROW FLIES	MD-280	JASPER	REC	FC
2015, 2015, 2015		SALKEHATCHIE	030502080407	COOSAWHATCHIE RVR AT US 17 AT COOSAWHATCHIE	CSTL-107	JASPER	AL	DO, PH, ZN
2015		SALKEHATCHIE	030502080407	COOSAWHATCHIE RVR AT US 17 AT COOSAWHATCHIE	CSTL-107	JASPER	REC	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK AT UNNAMED CREEK AT (FORMER) DISCHARGE OF BC HIGH AND CHERRY HILL HIGH	15-21	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - SC HWY 280 BRIDGE (C6-97)	15-24	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - DOWLINGWOOD TRIBUTARY (C6-97)	15-25	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - PICKET FENCE TRIBUTARY (C6-97)	15-26	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - CHERRY HILL TRIBUTARY (C6-97)	15-27	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - COTTAGE FARMS COMMUNITY DOCK (C6-97)	15-30	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - BATTERY POINT COMMUNITY DOCK	15-31	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080501	BATTERY CREEK - UNDER POWER LINE	15-32	BEAUFORT	SHELLFISH	FC
2011		SALKEHATCHIE	030502080601	POCOTALIGO RVR AT US 17 AT POCOTALIGO	MD-007	BEAUFORT	REC	FC
2011		SALKEHATCHIE	030502080601	POCOTALIGO RVR AT US 17 AT POCOTALIGO	MD-007	BEAUFORT	AL	TURBIDITY
2012		SALKEHATCHIE	030502080602	HUSPAH CREEK AT RAILROAD TRESTLE	14-14	BEAUFORT	SHELLFISH	FC
2012		SALKEHATCHIE	030502080602	HUSPAH CREEK AT BULL POINT - WHALE BRANCH POG	14-18	BEAUFORT	SHELLFISH	FC
2019		SALKEHATCHIE	030502080602	HUSPAH CREEK AT RAILROAD TRESTLE (14-14)	MD-254	BEAUFORT	AL	CU
2008	*	SALKEHATCHIE	030502080606	CHECHESSEE CREEK AT OKATIE RIVER	18-03	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080606	OKATIE RIVER AT INDIGO PLANTATION	18-07	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080606	OKATIE RIVER AT DOCK WITHOUT HOUSE	18-08	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080606	CHECHESSEE CREEK FIRST UNNAMED TRIBUTARY FROM COLLETON RIVER	18-09	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080606	OKATIE RV AT CONFLUENCE OF PINKNEY COLONY TRIBU. (C10-97)	18-16	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080606	OKATIE RV AT CONFLUENCE OF CHERRY POINT TRIBU. (C6-97)	18-17	BEAUFORT	SHELLFISH	FC
2014		SALKEHATCHIE	030502080606	COLLETON RVR AT COLLETON NECK-AT JCT WITH CHECHESSEE RV	MD-176	BEAUFORT	AL	DO
2014		SALKEHATCHIE	030502080606	COLLETON RIVER AT MOUTH OF CALLAWASSIE CREEK, 4.5 M N OF BLUFFTON	RO-01125	BEAUFORT	AL	DO
2013		SALKEHATCHIE	030502080607	HAZZARD CREEK AT SECOND RIGHT BEND ABOVE STATION #17 & 18	17-25	JASPER	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080607	CHECHESSEE CREEK SECOND BRIDGE TO CALLAWASSIE ISLAND	18-10	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080607	CHECHESSEE CREEK FIRST BRIDGE TO CALLAWASSIE ISLAND	18-11	BEAUFORT	SHELLFISH	FC
2008	*	SALKEHATCHIE	030502080607	CHECHESSEE CREEK TRIBUTARY FROM SPRING ISLAND SHRIMP POND	18-14	BEAUFORT	SHELLFISH	FC
2014		SALKEHATCHIE	030502080607	CHECHESSEE RIVER, 6.5 M WEST OF PORT ROYAL	RO-01146	BEAUFORT	AL	DO
2014		SALKEHATCHIE	030502080607	CHECHESSEE RVR 1.4 MI SE CONFL W/ COLLETON RVR	RO-036032	BEAUFORT	AL	DO
2010		SALKEHATCHIE	030502080608	FISH HAUL CREEK AT PORT ROYAL SOUND	20-27	BEAUFORT	SHELLFISH	FC
2019		SALKEHATCHIE	030502080608	BROAD RVR AT SC 170 7.5 MI SW OF BEAUFORT	MD-116	BEAUFORT	AL	CU
2019		SALKEHATCHIE	030502080608	PORT ROYAL SOUND 1.8 MI SW OF TIP OF PARRIS ISLAND	RO-036034	BEAUFORT	AL	CU
2021, 2021		SALKEHATCHIE	030601090406	WRIGHT RIVER 1.5 MILES US FROM FIELDS CUT (19-20)	MD-259	JASPER	AL	CU, NI

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2011		SALKEHATCHIE	030601100202	NEW RIVER 3.4 MI SSE OF SC 170 BRIDGE OVER NEW RIVER	RT-06021	BEAUFORT	REC	FC
2010		SALUDA	030050109404	BALDWIN CREEK@ N. MOORE ROAD	S-972	GREENVILLE	AL	BIO
2013		SALUDA	030501090102	N SALUDA RVR AT BRDG AB JCT WITH SALUDA RVR E OF SC 186	S-004	GREENVILLE	AL	BIO
2013		SALUDA	030501090102	NORTH SALUDA R. AT US HWY 25	S-773	GREENVILLE	AL	BIO
2010		SALUDA	030501090201	ADAMS CK AT UNPVD RD FROM SC 8 AND END OF S-39-34	RS-02330	PICKENS	AL	TURBIDITY
2013		SALUDA	030501090201	OOLENOY RVR AT S-39-47	S-103	PICKENS	AL	BIO
2016		SALUDA	030501090302	BURDINE CREEK AT BRIDGE ON S-39-192 3 MI NE OF EASLEY	RS-06151	PICKENS	AL	BIO
2019		SALUDA	030501090302	GEORGES CK AT S-39-28	S-300	PICKENS	AL	CU
2019		SALUDA	030501090302	GEORGES CREEK AT ROAD ABOVE SR 36	S-865	PICKENS	AL	BIO
2014		SALUDA	030501090303	BIG BRUSHY CK AT S-04-143	S-301	ANDERSON	AL	BIO
2013		SALUDA	030501090305	GROVE CR. AT SEC. RD. 541	S-774	GREENVILLE	AL	BIO
2014		SALUDA	030501090306	BIG CK AT S-04-116	S-302	ANDERSON	AL	BIO
2016		SALUDA	030501090307	MILL CK AT BENT BRIDGE RD, BL CAROLINA PLATING	S-315	GREENVILLE	AL	CR
2008	*	SALUDA	030501090401	REEDY RVR AT UN# RD OFF US 276 .75 MI W TRAVELERS REST	S-073	GREENVILLE	REC	FC
2008	*	SALUDA	030501090401	LANGSTON CK AT SC 253	S-264	GREENVILLE	REC	FC
2012		SALUDA	030501090401	LANGSTON CREEK @ OLD BUNCOMB ROAD	S-265	GREENVILLE	AL	BIO
2014	#	SALUDA	030501090401	REEDY RIVER AT SR 133	S-868	GREENVILLE	AL	BIO
2014		SALUDA	030501090401	REEDY RIVER AT SR 88	S-928	GREENVILLE	AL	BIO
2014		SALUDA	030501090402	REEDY RVR AT S-23-30 3.9 MI SE GREENVILLE	S-013	GREENVILLE	AL	CU
2008	*	SALUDA	030501090402	REEDY RVR AT S-23-30 3.9 MI SE GREENVILLE	S-013	GREENVILLE	REC	FC
2017		SALUDA	030501090402	LAKE CONESTEE	S-015	GREENVILLE	FISH	HG
2008	*	SALUDA	030501090402	BRUSHY CK ON GREEN ST EXT BL DUNEAN MILL ON SC 20	S-067	GREENVILLE	REC	FC
2014		SALUDA	030501090402	REEDY RVR AT RIVERS ST, DOWNTOWN GREENVILLE	S-319	GREENVILLE	AL	BIO
2008	*	SALUDA	030501090402	REEDY RVR AT RIVERS ST, DOWNTOWN GREENVILLE	S-319	GREENVILLE	REC	FC
2015		SALUDA	030501090402	BRUSHY CREEK AT SR 30	S-867	GREENVILLE	AL	BIO
2014		SALUDA	030501090402	RICHLAND CREEK@ E. NORTH STREET CITY OF GREENVILLE	S-981	GREENVILLE	AL	BIO
2009	*	SALUDA	030501090403	HUFF CK AT SC 418 1.6 MI NW FORK SHOALS	S-178	GREENVILLE	REC	FC
2013		SALUDA	030501090403	HUFF CREEK AT SR 459	S-863	GREENVILLE	AL	BIO
2013		SALUDA	030501090403	HUFF CREEK@ GRIFFIN MIL RD	S-983	GREENVILLE	AL	BIO
2010		SALUDA	030501090403	BAKER CREEK TRIBUTARY@ ALVERSON RD	S-984	GREENVILLE	AL	BIO
2014		SALUDA	030501090404	UNNAMED TRIB TO THE REEDY RIVER IN THE THE PRESERVE AT PLANTERS ROW S/D FROM S-23-448	RS-06167	GREENVILLE	AL	BIO
2014		SALUDA	030501090404	UNNAMED TRIB TO THE REEDY RIVER IN THE THE PRESERVE AT PLANTERS ROW S/D FROM S-23-448	RS-06167	GREENVILLE	REC	FC
2014		SALUDA	030501090404	REEDY RVR AT S-23-448 1.75 MI SE CONESTEE	S-018	GREENVILLE	AL	BIO
2008	*	SALUDA	030501090404	REEDY RVR AT S-23-448 1.75 MI SE CONESTEE	S-018	GREENVILLE	REC	FC
2008	*	SALUDA	030501090404	REEDY RVR ON HWY 418 AT FORK SHOALS	S-072	GREENVILLE	REC	FC
2013		SALUDA	030501090404	ROCKY CK AT S-23-453 3.5 MI SW OF SIMPSONVILLE	S-091	GREENVILLE	AL	BIO
2008	*	SALUDA	030501090404	ROCKY CK AT S-23-453 3.5 MI SW OF SIMPSONVILLE	S-091	GREENVILLE	REC	FC
2014		SALUDA	030501090404	LAUREL CREEK @ MAULDIN ROAD (BUTLER ROAD)	S-139	GREENVILLE	AL	BIO
2008	*	SALUDA	030501090404	REEDY RVR AT S-23-316 3.5 MI SSW OF MAULDIN	S-323	GREENVILLE	REC	FC
2014		SALUDA	030501090404	REEDY RIVER@ SR 542	S-833	GREENVILLE	AL	BIO

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2014		SALUDA	030501090404	REEDY RIVER@ SR 154	S-834	GREENVILLE	AL	BIO
2015		SALUDA	030501090501	HARRISON CREEK@ HARRISON BRIDGE RD	S-982	GREENVILLE	AL	BIO
2008, 2008	*	SALUDA	030501090602	BOYD MILL POND 0.5 MI NW OF BRIDGE OVER REEDY RIVER ON SC 252	RL-05403	LAURENS	AL	PH, TP
2008	*	SALUDA	030501090602	REEDY RVR AT U.S. 76	S-070	LAURENS	REC	FC
2008, 2008	*	SALUDA	030501090602	BOYD MILL POND .6 KM W DAM	S-311	LAURENS	AL	PH, TP
2014		SALUDA	030501090602	REEDY RIVER@ SR 985	S-835	GREENVILLE	AL	BIO
2008	*	SALUDA	030501090604	REEDY RVR AT S-30-06 E WARE SHOALS	S-021	LAURENS	REC	FC
2010		SALUDA	030501090604	REEDY FORK OF LK GREENWOOD AT S-30-29	S-022	LAURENS	AL	PH
2008, 2008	*	SALUDA	030501090604	LAKE GREENWOOD, REEDY RVR ARM, 150 YDS US RABON CK	S-308	LAURENS	AL	PH, TP
2013		SALUDA	030501090701	ROCKY CREEK AT SC 72 BY-PASS AND SC 254 IN GREENWOOD	RS-03346	GREENWOOD	AL	BIO
2011		SALUDA	030501090701	ROCKY CREEK AT SC 72 BY-PASS AND SC 254 IN GREENWOOD	RS-03346	GREENWOOD	REC	FC
2013		SALUDA	030501090701	CORONACA CK AT S-24-100 4 MI NW OF 96	S-092	GREENWOOD	REC	FC
2013		SALUDA	030501090701	CORONACA CREEK AT SC HWY 221	S-184	GREENWOOD	AL	BIO
2008	*	SALUDA	030501090702	WILSON CK AT S-24-101	S-233	GREENWOOD	REC	FC
2013		SALUDA	030501090702	WILSON CK AT S-24-124	S-235	GREENWOOD	AL	BIO
2010		SALUDA	030501090702	WILSON CK AT S-24-124	S-235	GREENWOOD	REC	FC
2016		SALUDA	030501090704	NINETY SIX CK AT SC 702 5.2 MI ESE OF 96	S-093	GREENWOOD	AL	CU
2008	*	SALUDA	030501090704	NINETY SIX CK AT SC 702 5.2 MI ESE OF 96	S-093	GREENWOOD	REC	FC
2016		SALUDA	030501090704	NINETY SIX CREEK AT SR 42	S-856	GREENWOOD	AL	BIO
2014		SALUDA	030501090801	MOUNTAIN CREEK TIBUTARY@ OAK HILL RD (SR 50)	S-990	GREENVILLE	AL	BIO
2015		SALUDA	030501090802	BROAD MOUTH CREEK AT BRIDGE ON CO RD S-04-265 (ROCKY FORD ROAD)	RS-04364	ANDERSON	AL	BIO
2013		SALUDA	030501090802	3.5 MI NNW OF HONEA PATH	S-776	ANDERSON	AL	BIO
2013		SALUDA	030501090804	TRIB.BROAD MOUTH CR. AT SEC. RD.205				
2013		SALUDA	030501090804	TURKEY CREEK AT SR 96	S-858	GREENWOOD	AL	BIO
2017		SALUDA	030501090805	UNNAMED TRIB TO THE SALUDA RIVER AT BRIDGE ON UNNUMBERED RD(RIVER RD) 7.1 MI SE OF WILLIAMSTON	RS-06030	GREENVILLE	REC	FC
2010		SALUDA	030501090807	LAKE GREENWOOD 1.0 MI NW OF SEABOARD RR CROSSING	RL-02311	GREENWOOD	AL	PH
2010		SALUDA	030501090807	LAKE GREENWOOD, HEADWATERS, JUST US S-30-33	S-024	LAURENS	AL	PH
2020		SALUDA	030501090808	LAKE GREENWOOD 200 FT US OF DAM	S-303	GREENWOOD	AL	CU
2015		SALUDA	030501091003	WEST CREEK AT S-41-105 12.4 MI ESE OF SALUDA	RS-05398	SALUDA	AL	BIO
2014		SALUDA	030501091103	BIG CREEK AT SC 39 5.1 MI NW OF SALUDA	RS-05590	SALUDA	REC	FC
2015		SALUDA	030501091103	BIG CREEK AT SR 122	S-855	SALUDA	AL	BIO
2010		SALUDA	030501091104	LITTLE SALUDA RVR AT US 378 E SALUDA	S-050	SALUDA	AL	DO
2010		SALUDA	030501091104	LITTLE SALUDA RVR AT S-41-39 5.2 MI NE SALUDA	S-123	SALUDA	AL	DO
2012, 2012		SALUDA	030501091105	LAKE MURRAY, LITTLE SALUDA ARM AT SC 391	S-222	SALUDA	AL	PH, TP
2010		SALUDA	030501091204	BUSH RIVER AT SC 560 S OF JOANNA	S-042	NEWBERRY	AL	DO

2008 SC List of Impaired Waters by 12-Digit HUC

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2015		SALUDA	030501091206	BUSH RIVER AT COUNTY RD 395, 3 M S OF NEWBERRY	RS-01044	NEWBERRY	AL	BIO
2020		SALUDA	030501091206	SCOTT CK AT SC 34 SW OF NEWBERRY	S-044	NEWBERRY	AL	DO
2012, 2012		SALUDA	030501091206	LAKE MURRAY, BUSH RVR ARM, 4.6 KM US SC 391	S-309	NEWBERRY	AL	CHLA, TP
2010		SALUDA	030501091207	SALUDA RVR AT SC 121	S-047	NEWBERRY	REC	FC
2017		SALUDA	030501091207	SALUDA RVR AT SC 121	S-047	NEWBERRY	FISH	HG
2017		SALUDA	030501091207	SALUDA RIVER @ SC 395	S-105	NEWBERRY	FISH	HG
2012		SALUDA	030501091207	LAKE MURRAY, SALUDA RVR ARM, US BUSH RVR, 3.8 KM US SC 391	S-310	NEWBERRY	AL	PH
2016		SALUDA	030501091305	CAMPING CREEK AT SR 72	S-850	NEWBERRY	AL	BIO
2010		SALUDA	030501091307	MACEDONIA LANDING LK MURRAY AT END OF S-36-26 MACEDONIA	S-212	NEWBERRY	AL	PH
2016		SALUDA	030501091311	LK MURRAY IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CL-083	LEXINGTON	AL	CU
2013		SALUDA	030501091402	TWELVE MILE CREEK AT SR 106	S-052	LEXINGTON	AL	BIO
2013		SALUDA	030501091402	TWELVEMILE CREEK AT U.S. ROUTE 378	S-294	LEXINGTON	AL	BIO
2013		SALUDA	030501091402	FOURTEEN MILE CREEK AT SR 28	S-848	LEXINGTON	AL	BIO
2013		SALUDA	030501091403	RAWLS CREEK AT COUNTY RD 175, 0.25 M W OF IRMO	RS-01012	LEXINGTON	AL	BIO
2010		SALUDA	030501091403	SALUDA RVR AT MEPCO ELECT. PLANT WATER INTAKE SSE IRMO	S-149	LEXINGTON	AL	TURBIDITY
2020		SALUDA	030501091403	LORICK BR AT PT UPSTRM OF JCT WITH SALUDA RVR	S-150	LEXINGTON	AL	DO
2017		SALUDA	030501091403	SALUDA RVR JUST BELOW LK MURRAY DAM	S-152	LEXINGTON	FISH	HG
2011		SALUDA	030501091403	KINLEY CK AT S-32-36 (ST. ANDREWS RD) IN IRMO	S-260	LEXINGTON	AL	BIO
2013		SALUDA	030501091403	RAWLS CREEK AT S-32-107	S-287	LEXINGTON	AL	TURBIDITY
2010		SALUDA	030501100104	SIXMILE CK ON US 21 S OF CAYCE	C-005	LEXINGTON	AL	DO
2017		SALUDA	030501100201	SESQUICENTENNIAL STATE PARK	C-046	RICHLAND	FISH	HG
2010		SALUDA	030501100201	WINDSOR LK SPILLWAY ON WINDSOR LK BLVD	C-048	RICHLAND	AL	DO
2009	*	SALUDA	030501100203	GILLS CK AT BRDG ON US 76 (GARNERS FERRY ROAD)	C-001	RICHLAND	REC	FC
2010		SALUDA	030501100203	GILLS CK AT SC 48 (BLUFF ROAD)	C-017	RICHLAND	AL	DO
2009	*	SALUDA	030501100203	GILLS CK AT SC 48 (BLUFF ROAD)	C-017	RICHLAND	REC	FC
2017		SALUDA	030501100203	FOREST LAKE AT DAM	C-068	RICHLAND	FISH	HG
2009	*	SALUDA	030501100301	BROAD RIVER DIVERSION CANAL AT COLA WATER PLANT	B-080	RICHLAND	REC	FC
2017		SALUDA	030501100301	CONGAREE RIVER @ BARNEY JORDAN RAMP	C-007A	RICHLAND	FISH	HG
2017		SALUDA	030501100301	CONGAREE RIVER @ ST HWY 378	C-007F	LEXINGTON	FISH	HG
2011		SALUDA	030501100301	CONGAREE RVR AT BLOSSOM ST (SALUDA RIVER)	CSB-001L	LEXINGTON	REC	FC
2011		SALUDA	030501100301	CONGAREE RVR AT BLOSSOM ST (BROAD RIVER)	CSB-001R	LEXINGTON	REC	FC
2008	*	SALUDA	030501100304	MILL CK AT SC 262	C-021	RICHLAND	REC	FC
2009	*	SALUDA	030501100304	REEDER POINT BR AT SC 48	C-073	RICHLAND	REC	FC
2015		SALUDA	030501100305	CEDAR CK AT S-40-734	C-071	RICHLAND	AL	BIO
2011		SALUDA	030501100310	CONGAREE RVR, WEST BOUNDARY OF CONGAREE SWAMP MONUMENT	C-074	RICHLAND	REC	FC
2011		SALUDA	030501100310	CONGAREE RIVER@ DEVRO-TEEPK DISCHARGE OUTFALL	S-967	LEXINGTON	AL	CU
2008	*	SALUDA	030501100401	TOMS CK AT SC 48	C-072	RICHLAND	REC	FC
2013		SALUDA	030501100401	TOMS CREEK AT POWER LINE AND RR TRACK	C-579	RICHLAND	AL	BIO
2013		SALUDA	030501100401	TOM'S CREEK AT RED BLUFF RD.	S-950	RICHLAND	AL	BIO

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2013		SALUDA	030501100401	TOM'S CREEK AT RED BLUFF RD.	S-950	RICHLAND	REC	FC
2015		SALUDA	030501100402	BUCKHEAD CREEK AT S-09-151 2.1 MI NE OF FORT MOTTE	RS-04521	CALHOUN	AL	BIO
2011	#	SALUDA	030501100403	CONGAREE RVR AT US 601 (SC-001)	C-007	CALHOUN	AL	CU
2011		SALUDA	030501100403	CONGAREE RVR AT US 601 (SC-001)	C-007	CALHOUN	REC	FC
2017		SALUDA	030501100403	CONGAREE RVR AT US 601 (SC-001)	C-007	CALHOUN	FISH	HG
2013		SANTEE	030501110101	WARLEY CREEK AT CO RD S-09-287 3.4 MI NW OF LONE STAR	RS-04389	CALHOUN	AL	BIO
2010		SANTEE	030501110102	DUCKFORD BRANCH AT S-43-52 3.2 MI SW OF PINEWOOD	RS-05585	SUMTER	REC	FC
2009	*	SANTEE	030501110102	SPRING GROVE CREEK @ SECONDARY ROAD 26 BRIDGE	SC-009	CLARENDON	REC	FC
2013, 2013, 2013		SANTEE	030501110103	LK INSPIRATION - ST MATTHEWS (FRONT OF HEALTH DEPT)	C-058	CALHOUN	AL	TN, TP, TURBIDITY
2015		SANTEE	030501110103	FURTICK BRANCH@ COUNTY RD. 11	CW-517	CALHOUN	REC	FC
2018		SANTEE	030501110103	LYONS CREEK@ COUNTY RD. 20	CW-546	CALHOUN	REC	FC
2013		SANTEE	030501110103	LYONS CREEK AT SC 6	ST-533	CALHOUN	AL	BIO
2014	#	SANTEE	030501110104	UPPER LAKE MARION @ THE MOUTH OF HALFWAY SWAMP CREEK	SC-038	CALHOUN	AL	TP
2013		SANTEE	030501110104	HALFWAY SWAMP CREEK AT SR 157	ST-534	CALHOUN	AL	BIO
2021		SANTEE	030501110105	BIG POPLAR CREEK @ SECONDARY ROAD 105 BRIDGE	SC-011	CALHOUN	AL	DO
2009	*	SANTEE	030501110106	BIG BRANCH AT S-14-41 (SC-047)	CW-243	CLARENDON	REC	FC
2009	*	SANTEE	030501110107	UNNAMED TRIBUTARY TO TAWCAW CREEK AT S-14-559 (WILLIAM BRUNSON ROAD) 4.6 MI SE OF SUMMERTON	RS-03505	CLARENDON	REC	FC
2016		SANTEE	030501110107	MID LAKE MARION @ TAW CAW CREEK EMBAYMENT	SC-017	CLARENDON	AL	TP
2014		SANTEE	030501110107	TAWCAW CK AT S-14-127 3.2 MI S OF SUMMERTON (SC-018)	ST-018	CLARENDON	AL	DO
2008	*	SANTEE	030501110107	TAWCAW CK AT S-14-127 3.2 MI S OF SUMMERTON (SC-018)	ST-018	CLARENDON	REC	FC
2008	*	SANTEE	030501110108	WHITE OAK CREEK AT COUNTY RD 345, 4.5 M ESE OF SUMMERTON	RS-01051	CLARENDON	REC	FC
2009	*	SANTEE	030501110108	POTATO CREEK AT S-14-715 (ROGERS ROAD) 5.5 MI SE OF SUMMERTON	RS-03501	CLARENDON	REC	FC
2017		SANTEE	030501110108	LAKE MARION @ WYBOO CREEK	ST-024	CLARENDON	FISH	HG
2014		SANTEE	030501110108	POTATO CK AT S-14-127 3.2 MI S OF SUMMERTON (SC-020)	ST-035	CLARENDON	AL	DO
2008	*	SANTEE	030501110108	POTATO CK AT S-14-127 3.2 MI S OF SUMMERTON (SC-020)	ST-035	CLARENDON	REC	FC
2017		SANTEE	030501110109	LAKE MARION @ TREZVANT'S LANDING	C-007K	CALHOUN	FISH	HG
2017		SANTEE	030501110109	LAKE MARION @ DANIELS 4H CAMP	C-057	CALHOUN	FISH	HG
2014		SANTEE	030501110109	LAKE MARION FOREBAY, SPILLWAY MARKER 44 (SC-022)	CL-042	ORANGEBURG	AL	CU
2016		SANTEE	030501110109	LK MARION @ CHANNEL MARKER 69; USE SANTEE COOPER SC-016	RL-02308	CLARENDON	AL	TP
2016	#	SANTEE	030501110109	LAKE MARION 0.5 MI NE OF CALHOUN LANDING (USE SC-044)	RL-04388	CALHOUN	AL	TP
2014, 2014		SANTEE	030501110109	UPPER LAKE MARION NEAR PACK'S LANDING	SC-005	SUMTER	AL	DO, TP
2016		SANTEE	030501110109	LAKE MARION AT RR TRESTLE AT LONE STAR (SC-008)	SC-008	CALHOUN	AL	TP
2014	#	SANTEE	030501110109	UPPER LAKE MARION AT CHANNEL MARKER 150	SC-010	CALHOUN	AL	TP
2014, 2014		SANTEE	030501110109	UPPER LAKE MARION @ HEADWATERS OF CHAPEL BRANCH CREEK	SC-014	ORANGEBURG	AL	PH, TP
2014		SANTEE	030501110109	UPPER LAKE MARION 2.0 KM BELOW RIMINI RAILROAD TRESTLE	SC-039	CLARENDON	AL	TP
2016		SANTEE	030501110109	MID LAKE MARION @ CHANNEL MARKER 79	SC-040	ORANGEBURG	AL	TP
2008	*	SANTEE	030501110109	STREAM FLOWING THRU SANTEE NATIONAL GOLF COURSE POND @ HWY 6	SC-045	ORANGEBURG	REC	FC
2015		SANTEE	030501110109	SURFACE DRAINAGE FROM SAFETY KLEEN HAZARDOUS LANDFILL	SC-057	SUMTER	AL	NI
2016		SANTEE	030501110109	LK MARION AT OLD US 301/15 BRDG AT SANTEE (SC-015)	ST-025	ORANGEBURG	AL	TP
2017		SANTEE	030501110109	LAKE MARION @ DAM	ST-027	CLARENDON	FISH	HG

2008 SC List of Impaired Waters by 12-Digit HUC

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2017		SANTEE	030501110109	LAKE MARION @ RIMINI	ST-519	SUMTER	FISH	HG
2017		SANTEE	030501110109	LAKE MARION @ LOW FALLS LANDING	ST-529	CALHOUN	FISH	HG
2017		SANTEE	030501120101	SANTEE RIVER BELOW LAKE MARION (WILSONS)	ST-532	BERKELEY	FISH	HG
2013		SANTEE	030501120102	BENNETTS BRANCH AT S-14-351 11.5 MI SSE OF MANNING	RS-05399	CLARENDON	REC	FC
2015		SANTEE	030501120102	BENNETTS BRANCH AT SR 351	ST-536	CLAREDON	AL	BIO
2013		SANTEE	030501120102	DOCTOR BRANCH AT SR 48	ST-537	CLAREDON	AL	BIO
2017		SANTEE	030501120105	REDIVERSION CANAL AT US 52 (SC-037A)	ST-031	BERKELEY	FISH	HG
2017		SANTEE	030501120106	SANTEE RIVER @ US 52 (HWY 52 LANDING)	ST-528	WILLIAMSBURG	FISH	HG
2009	*	SANTEE	030501120205	ECHAW CK AT PITCH LANDING FRANCIS MARION NATL FOREST	RS-02467	BERKELEY	REC	FC
2017		SANTEE	030501120206	SANTEE RIVER @ SC 41/US 17A	ST-001	BERKELEY	FISH	HG
2017		SANTEE	030501120302	WAMBAW CREEK (STILL'S LANDING)	CSTL-112	CHARLESTON	FISH	HG
2012		SANTEE	030501120303	SOUTH SANTEE RIVER AT ALLIGATOR CREEK	06A-01	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120303	SOUTH SANTEE RIVER NEAR THE MIDPOINT OF GRACE ISL. (C-3/01)	06A-01A	CHARLESTON	SHELLFISH	FC
2012		SANTEE	030501120303	SOUTH SANTEE INLET	06A-02	GEORGETOWN	SHELLFISH	FC
2013		SANTEE	030501120303	ALLIGATOR CREEK NEAREST S. SANTEE RVR BTWN MRKRS 24&25	06B-13	CHARLESTON	SHELLFISH	FC
2009	*	SANTEE	030501120303	CEDAR CREEK AT CNTY RD 857 HAMPTON PLANTATION STATE PARK	RS-01056	CHARLESTON	REC	FC
2017		SANTEE	030501120303	S SANTEE RVR AT US 17	ST-006	CHARLESTON	FISH	HG
2017		SANTEE	030501120402	WADMACON CREEK @ SANDHOLE	CSTL-586	GEORGETOWN	FISH	HG
2017		SANTEE	030501120402	WADMACON CREEK @ THE BLUFF	CSTL-587	GEORGETOWN	FISH	HG
2012		SANTEE	030501120403	NORTH SANTEE RIVER AT BEACH CREEK	06A-03	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120403	NORTH SANTEE INLET	06A-04	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120403	NORTH SANTEE BAY - E OF CANE ISLAND (C6-97)	06A-04A	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120403	NORTH SANTEE RIVER - SW OF CANE ISLAND (C6-97)	06A-04B	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120403	NORTH SANTEE RVR NEAR THE NORTHWESTERN TIP OF CONE ISL (C-3/-01)	06A-04C	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120403	NORTH SANTEE RIVER AND MOSQUITO CREEK	06A-05	GEORGETOWN	SHELLFISH	FC
2012		SANTEE	030501120403	AIWW AT MINUM CREEK	06A-11	GEORGETOWN	SHELLFISH	FC
2017		SANTEE	030501120403	NORTH SANTEE RIVER @ HARRIS LANDING	CSTL-593	GEORGETOWN	FISH	HG
2010		SANTEE	030501120403	MINIM CREEK, 9 M S OF GEORGETOWN	RT-01654	GEORGETOWN	AL	TURBIDITY
2017		SANTEE	030501120403	NORTH SANTEE RIVER @ POLE YARD	ST-005	GEORGETOWN	FISH	HG
2017		SANTEE	030502010101	DIVERSION CANAL	CSTL-079	BERKELEY	FISH	HG
2017		SANTEE	030502010101	LAKE MOULTRIE @ DAM	CSTL-080	BERKELEY	FISH	HG
2011		SANTEE	030502010101	TRIBUTARY 0.6 KM UPSTR OF SC HWY. 6 NEAR CROSS HS	SC-026	BERKELEY	REC	FC
2009	*	SANTEE	030502010101	TRIBUTARY FLOWING TO LAKE MOULTRIE FROM CROSS GENER. STATION	SC-043	BERKELEY	REC	FC
2017		SANTEE	030502010101	LAKE MOULTRIE @ FRED L. DAY LANDING	ST-530	BERKELEY	FISH	HG
2017		SANTEE	030502010101	LAKE MOULTRIE @ HATCHERY LANDING	ST-531	BERKELEY	FISH	HG
2008	*	SANTEE	030502010201	WADBOO SWAMP AT S-08-447 THIRD BRIDGE FROM WEST	RS-02461	BERKELEY	REC	FC
2008	*	SANTEE	030502010201	WALKER SW AT US 52 2.5 MI S ST STEPHENS	ST-007	BERKELEY	REC	FC
2017		SANTEE	030502010203	WADBOO CREEK @ REMBERT C. DENNIS RAMP	CSTL-113	BERKELEY	FISH	HG
2009	*	SANTEE	030502010203	CANE GULLEY BRANCH AT S-08-97 6.1 MI NE OF MONCK'S CORNER	RS-03333	BERKELEY	REC	FC
2011		SANTEE	030502010301	TURKEY CK AT FOREST SERVICE RD 251 IRISHTOWN FM SC 402	RS-02483	BERKELEY	REC	FC

2008 SC List of Impaired Waters by 12-Digit HUC

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2017		SANTEE	030502010304	EAST FORK OF COOPER RIVER NEAR QUINBYCR	CSTL-564	BERKELEY	FISH	HG
2017		SANTEE	030502010401	WANDO RIVER AT DEEP CREEK	09B-04	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010401	WANDO RIVER OPPOSITE BIG PARADISE ISLAND	09B-05	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010401	WANDO RIVER AT PARADISE BOAT LANDING	09B-06	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010401	DEEP CREEK - 1 MILE FROM CONFLUENCE WITH WANDO RIVER	09B-09	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010401	WANDO RIVER AT ALSTON CREEK CONFLUENCE	09B-10	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010401	WANDO RIVER AT GUERIN CREEK	09B-11	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010401	GUERIN CREEK AT OLD HOUSE CREEK	09B-12	BERKELEY	SHELLFISH	FC
2020		SANTEE	030502010401	TOOMER CREEK 2.5 MI E SC 41 BRIDGE OVER WANDO RIVER	RT-06012	CHARLESTON	AL	DO
2017		SANTEE	030502010402	BOONE HALL CREEK OPPOSITE COUNTY RECREATION AREA	09B-07	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010402	RAT HALL CRK AT CONFLUENCE WITH WANDO RVR. (C6-97/U4/01)	09B-18	CHARLESTON	SHELLFISH	FC
2017		SANTEE	030502010402	WANDO RIVER AT I-526 MARK CLARK EXPRESSWAY (09B-15)	MD-264	CHARLESTON	AL	NH3N
2021		SANTEE	030502010402	BERESFORD CREEK 5.3 MI NNE OF WANDO AND COOPER RIVER CONFLUENCE	RO-056092	BERKELEY	AL	DO
2017		SANTEE	030502010402	BOONE HALL CREEK 1.5 MI WNW OF INTERSECTION OF US 17 AND SC 41	RT-052100	CHARLESTON	REC	FC
2017		SANTEE	030502010505	CYPRESS SWP AT US 78	CSTL-078	DORCHESTER	REC	FC
2014, 2014		SANTEE	030502010601	DORCHESTER CK AT SC 165	CSTL-013	DORCHESTER	AL	DO, NH3N
2014		SANTEE	030502010601	SAWMILL BR AT SC 78 E OF SUMMERVILLE	CSTL-043	DORCHESTER	AL	DO
2010		SANTEE	030502010602	ASHLEY RVR AT SC 165 4.8 MI SSW OF SUMMERVILLE	CSTL-102	DORCHESTER	REC	FC
2009	*	SANTEE	030502010603	EAGLE CK AT SC 642 5 MI SSE OF SUMMERVILLE	CSTL-099	DORCHESTER	REC	FC
2010		SANTEE	030502010603	EAGLE CK AT SC 642 5 MI SSE OF SUMMERVILLE	CSTL-099	DORCHESTER	AL	TURBIDITY
2017		SANTEE	030502010604	ASHLEY RIVER @ DORCHESTER STATE PARK	CSTL-560	DORCHESTER	FISH	HG
2010		SANTEE	030502010604	ASHLEY RVR AT MAGNOLIA GARDENS	MD-049	CHARLESTON	REC	FC
2010		SANTEE	030502010604	ASHLEY RVR AT MAGNOLIA GARDENS	MD-049	CHARLESTON	AL	TURBIDITY
2009	*	SANTEE	030502010604	ASHLEY RV 1.8 MI NW RUNNYMEDE PLANTATION	RT-032046	CHARLESTON	REC	FC
2009	*	SANTEE	030502010605	CHURCH CK MOUTH	MD-246	CHARLESTON	REC	FC
2016		SANTEE	030502010605	JAMES ISLAND CREEK N OF WHITE HALL PLANTATION	RT-052098	CHARLESTON	AL	DO
2016		SANTEE	030502010605	JAMES ISLAND CREEK N OF WHITE HALL PLANTATION	RT-052098	CHARLESTON	REC	FC
2017		SANTEE	030502010701	COOPER RIVER @ US 17A	CSTL-062	BERKELEY	FISH	HG
2014		SANTEE	030502010703	FOSTER CREEK AT CHARLESTON CPW WATER INTAKE	MD-240	BERKELEY	AL	DO
2014		SANTEE	030502010704	BACK RIVER RES IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CSTL-124	BERKELEY	AL	DO
2017		SANTEE	030502010704	COOPER RIVER @ BUSHY PARK	MD-042	BERKELEY	FISH	HG
2017		SANTEE	030502010704	BACK RIVER RESERVOIR	MD-152	BERKELEY	FISH	HG
2017		SANTEE	030502010704	DURHAM CREEK	MD-217	BERKELEY	FISH	HG
2009	*	SANTEE	030502010706	GOOSE CK AT S-08-136 BRIDGE	MD-039	BERKELEY	REC	FC
2015		SANTEE	030502010706	GOOSE CK AT US 52 N CHTN	MD-114	CHARLESTON	AL	DO
2015		SANTEE	030502010706	GOOSE CK RES 2.3 M S OF GOOSE CREEK TOWN CENTER	RL-01008	BERKELEY	AL	DO
2015, 2015, 2015		SANTEE	030502010706	GOOSE CREEK RESERVOIR 1.0 MI NW OF SPILLWAY NEAR W SHORELINE	RL-03340	BERKELEY	AL	CHLA, DO, TP
2015, 2015		SANTEE	030502010706	GOOSE CREEK RESERVOIR 2.8 MI NW OF SPILLWAY NEAR OTRANTO	RL-04390	BERKELEY	AL	DO, TP
2015		SANTEE	030502010706	GOOSE CREEK RESERVOIR 0.55 MI W OF DAM	RL-05412	BERKELEY	AL	TP
2015, 2015		SANTEE	030502010706	GOOSE CREEK RESERVOIR 2 MI N OF SPILLWAY	RL-06434	BERKELEY	AL	DO, TP

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2015, 2015		SANTEE	030502010706	GOOSE CREEK RESERVOIR 100 M US OF DAM	ST-032	BERKELEY	AL	CHLA, TP
2017		SANTEE	030502010706	GOOSE CREEK RESERVOIR 100 M US OF DAM	ST-032	BERKELEY	FISH	HG
2015, 2015, 2015		SANTEE	030502010706	GOOSE CK RESERVOIR AT 2ND POWERLINES US OF BOAT RAMP	ST-033	BERKELEY	AL	CHLA, PH, TP
2018		SANTEE	030502010707	BLOCK ISL. CREEK - 100 YDS S. OF SPLIT FROM SPOIL AREA	10A-32	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502010707	BLOCK ISLAND CREEK - 100 YDS S. OF SPLIT FROM SPOIL AREA	10A-32	CHARLESTON	SHELLFISH	FC
2017	#	SANTEE	030502010707	INTRACOASTAL WATERWAY AT SC 703 E MT PLEASANT	MD-069	CHARLESTON	AL	CU
2017	#	SANTEE	030502010707	SHEM CK AT BRDG ON US 17	MD-071	CHARLESTON	AL	CU
2010		SANTEE	030502010707	SHEM CK AT BRDG ON US 17	MD-071	CHARLESTON	REC	FC
2017	#	SANTEE	030502010707	CHAS HBR AT FT JOHNSON PIER AT MARINE SCI LAB	MD-165	CHARLESTON	AL	CU
2009	*	SANTEE	030502010707	FILBIN CREEK AT VIRGINIA AVE, NORTH CHARLESTON	MD-249	CHARLESTON	REC	FC
2017	#	SANTEE	030502010707	CHARLESTON HARBOR 0.5 MI SE OF MOUTH OF SHEM CK	RO-036044	CHARLESTON	AL	CU
2014	#	SANTEE	030502010707	UNNAMED TRIBUTARY TO PARROT POINT CREEK 0.8 MI S OF FT JOHNSON	RT-042072	CHARLESTON	AL	TURBIDITY
2018		SANTEE	030502020105	RANTOWLES CREEK AT CONFLUENCE OF STONO RIVER	11-18	CHARLESTON	SHELLFISH	FC
2008	*	SANTEE	030502020201	LOG BRIDGE CK AT SC 162	MD-121	CHARLESTON	REC	FC
2018		SANTEE	030502020202	STONO RIVER (AIWW) AT MARKER #27	11-12	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020202	STONO RIVER (AIWW) AT MARKER #51	11-16	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020202	STONO RIVER (LOG BRIDGE CREEK) AT MARKER #54	11-17	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020202	STONO RIVER AT MOUTH OF PENNY CREEK NEAR MARKER #25	11-27	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502020202	STONO RVR AT SC 700	MD-026	CHARLESTON	AL	DO
2017		SANTEE	030502020202	STONO RVR AT S-10-20 2 MI UPSTRM OF CLEMSON EXP STA	MD-202	CHARLESTON	AL	CU
2017		SANTEE	030502020204	FOLLY RIVER AT SC 171	MD-130	CHARLESTON	AL	CU
2018		SANTEE	030502020205	ABBAPOOLA CREEK AT FIRST LARGE BEND	11-06	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020205	ABBAPOOLA CREEK AT CONFLUENCE WITH SMALL CREEK ON WEST BANK AT SEVENTH BEND (C-4/99)	11-06A	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020205	BASS CREEK AT CONFLUENCE WITH CINDER CREEK	11-32	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020205	CINDER CREEK AT PUBLIC DOCK (3RD BEND FROM CONFLUENCE WITH BASSK CREEK) (C5-01)	11-34	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020205	BASS CREEK AT PUBLIC DOCK (5TH BEND FROM CONFLUENCE WITH CINDER CREEK (C5-01)	11-35	CHARLESTON	SHELLFISH	FC
2018		SANTEE	030502020205	ABBAPOOLA CREEK@ BLIND ROAD	MD-802	CHARLESTON	REC	FC
2010		SANTEE	030502020205	TRIBUTARY TO STONO INLET, 11 M SW OF CHARLESTON	RT-01642	CHARLESTON	AL	TURBIDITY
2013		SANTEE	030502090101	ALLIGATOR CREEK AND OCEAN INLET	06B-06	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	ALLIGATOR CREEK AT MARKER #26	06B-07	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	CASINO CREEK AT MARKER #29	06B-08	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	DUPREE CREEK - 500 FEET N. OF NEW DOCK (S.OF MRKR #30)	06B-09	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	AIWW AT MARKER #32	06B-10	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	ALLIGATOR CREEK STATE SHELLFISH GROUND	06B-12	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	CASINO CREEK MIDWAY BETWEEN STATIONS 19 AND 24 (AT SMALL UNNAMED CREEK ON RIGHT, SOUTHBOUND)	06B-16	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	CASINO CREEK AND SKRINE CREEK CONFLUENCE	06B-19	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	DUPREE CREEK 1,000 YARDS UP FROM CLUBHOUSE CREEK	06B-20	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	ALLIGATOR CREEK AND RAMHORN CREEK CONFLUENCE	06B-21	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	RAMHORN CREEK AND MILL CREEK CONFLUENCE	06B-22	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090101	SKRINE CREEK AND CONGAREE BOAT CREEK CONFLUENCE	06B-23	CHARLESTON	SHELLFISH	FC
2019, 2012		SANTEE	030502090101	ALLIGATOR CREEK AT STATE SHELLFISH GROUND (06B-12)	MD-265	CHARLESTON	AL	CU, TURBIDITY
2019		SANTEE	030502090101	CASINO CREEK AT CLOSURE LINE (06B-16)	MD-266	CHARLESTON	AL	CU

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2008	*	SANTEE	030502090101	E FORK OF DEVILS DEN CK HEADWATERS	RT-02016	CHARLESTON	AL	CU
2009	*	SANTEE	030502090201	AWENDAW CREEK AT US 17	MD-250	CHARLESTON	REC	FC
2014		SANTEE	030502090202	GRAHAM CREEK AT MARKER #64	07-02	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502090202	AWENDAW CREEK AT MARKER #57	07-03	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502090202	HARBOR RIVER AT MARKER #48	07-04	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502090202	TIBWIN CREEK AT MARKER #42	07-05	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502090202	DOEHALL CREEK AT CONFLUENCE OF AIWW - NORTH OF MARKER #46	07-09	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502090202	DOEHALL CREEK-THIRD BEND	07-14	CHARLESTON	SHELLFISH	FC
2014		SANTEE	030502090202	SANDY POINT CREEK - 4TH BEND	07-15	CHARLESTON	SHELLFISH	FC
2014, 2010		SANTEE	030502090202	JEREMY CK NEAR BOAT LANDING AT MCCLELLANVILLE TOWN HALL	MD-203	CHARLESTON	AL	DO, TURBIDITY
2010		SANTEE	030502090202	JEREMY CK NEAR BOAT LANDING AT MCCLELLANVILLE TOWN HALL	MD-203	CHARLESTON	REC	FC
2015		SANTEE	030502090202	FIVE FATHOM CREEK AT BULL RIVER (07-06A)	MD-267	CHARLESTON	AL	TURBIDITY
2019, 2012		SANTEE	030502090202	AWENDAW CREEK AT MARKER #57 (07-03)	MD-268	CHARLESTON	AL	CU, TURBIDITY
2012		SANTEE	030502090202	AIWW MIDWAY BETWEEN AWENDAW AND GRAHAM CREEK	MD-793	CHARLESTON	REC	FC
2010		SANTEE	030502090202	TRIBUTARY TO MATHEWS CREEK, 1 M S OF MCLELLANVILLE	RT-01623	CHARLESTON	AL	TURBIDITY
2016		SANTEE	030502090203	AIWW ADJACENT TO WILD DUNES GOLF COURSE STORM DRAINAGE OUTFALL	09A-18	CHARLESTON	SHELLFISH	FC
2016		SANTEE	030502090203	HAMLIN SOUND (08-02)	MD-271	CHARLESTON	AL	NH3N
2016		SANTEE	030502090204	AIWW AT 25TH STREET - ISLE OF PALMS	09A-19	CHARLESTON	SHELLFISH	FC
2016		SANTEE	030502090204	UPPER REACHES OF INLET CREEK	09A-24	CHARLESTON	SHELLFISH	FC
2016		SANTEE	030502090204	UPPER INLET CREEK AT JENNIE CREEK	09A-30	CHARLESTON	SHELLFISH	FC
2016		SANTEE	030502090204	BAY AT END OF UPPER INLET CREEK	09A-31	CHARLESTON	SHELLFISH	FC
2013		SANTEE	030502090204	LOWER HAMLIN CREEK AT SITE OF NEW BRIDGE (09A-29)	MD-272	CHARLESTON	AL	CU
2014		SANTEE	030502090205	GRAHAM CREEK AND BULLS BAY	07-02A	CHARLESTON	SHELLFISH	FC
2017		SAVANNAH	030502060308	LITTLE RIVER @ SC 81	SV-699	MCCORMICK	FISH	HG
2017		SAVANNAH	030601010102	LAKE JOCASSEE TOXAWAY RIVER ARM	CL-018	OCONEE	FISH	HG
2017		SAVANNAH	030601010104	LAKE JOCASSEE @ END OF SEC RD 25	SV-313	OCONEE	FISH	HG
2011		SAVANNAH	030601010202	LITTLE EASTATOE CREEK@ MOCCASIN ROAD (ACROSS BOGGS PROPERTY)	SV-806	PICKENS	REC	FC
2008	*	SAVANNAH	030601010302	BURGESS CK AT S-37-171	RS-02466	OCONEE	REC	FC
2015		SAVANNAH	030601010304	LITTLE RVR AT S-37-24 7.1 MI NE OF WALHALLA	SV-203	OCONEE	REC	FC
2010		SAVANNAH	030601010305	UNNAMED TRIB TO LITTLE CANE CREEK	SV-811	OCONEE	REC	FC
2010		SAVANNAH	030601010305	UNNAMED TRIB TO LITTLE CANE CREEK @ TAYLOR ROAD	SV-812	OCONEE	REC	FC
2013		SAVANNAH	030601010402	NORTH FORK AT US 178 2.9 MI N OF PICKENS	SV-206	PICKENS	AL	BIO
2014		SAVANNAH	030601010405	RICES CREEK AT SR 158	SV-740	PICKENS	AL	BIO
2014		SAVANNAH	030601010406	GOLDEN CREEK AT GOLDEN CRK. RD.	SV-738	PICKENS	AL	BIO

2008 SC List of Impaired Waters by 12-Digit HUC

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2017		SAVANNAH	030601010408	LAKE HARTWELL @ 12 MILE CREEK	SV-107	PICKENS	FISH	PCB
2015		SAVANNAH	030601010502	CONERROSS CK AT SC 59	SV-004	OCONEE	AL	ZN
2009	*	SAVANNAH	030601010503	SNOW CREEK AT S-37-51 4.9 MI SW OF SENECA	RS-05412	OCONEE	REC	FC
2017		SAVANNAH	030601010503	LAKE HARTWELL @ CONERROSS CREEK	SV-799	OCONEE	FISH	PCB
2013		SAVANNAH	030601010601	WOODSIDE BR AT US 123 1.5 MILE OF LIBERTY	SV-241	PICKENS	AL	PH
2016		SAVANNAH	030601010602	EIGHTEENMILE CK AT S-39-93 S OF CENTRAL	SV-135	ANDERSON	AL	PH
2014, 2014, 2014		SAVANNAH	030601010602	LAKE HARTWELL - EIGHTEEN MILE CK ARM AT S-04-1098	SV-268	ANDERSON	AL	DO, TP, TURBIDITY
2013		SAVANNAH	030601010701	CHARLES CREEK AT UNNUMBERED RIDGE ROAD OFF S-04-485	RS-03506	ANDERSON	AL	BIO
2017		SAVANNAH	030601010702	THREE AND TWENTY CREEK AT SR 29	SV-735	ANDERSON	AL	BIO
2014		SAVANNAH	030601010704	LAKE HARTWELL 6 M NNW OF ANDERSON	RL-01020	ANDERSON	AL	PH
2016		SAVANNAH	030601010801	SIXMILE CREEK AT S-39-160	SV-205	PICKENS	REC	FC
2017		SAVANNAH	030601010803	LAKE HARTWELL @ MARTIN CREEK	SV-106	PICKENS	FISH	PCB
2013		SAVANNAH	030601020209	WHETSTONE CREEK, UPSTREAM PORTION NEAR MOUTH	MC-03	OCONEE	AL	BIO
2009	*	SAVANNAH	030601020210	TUGALOO LAKE, FOREBAY EQUIDISTANT FROM SPILLWAY AND SHORELINES	SV-359	OCONEE	AL	PH
2017		SAVANNAH	030601020210	TUGALOO LAKE	SV-599	OCONEE	FISH	HG
2008	*	SAVANNAH	030601020304	UNNAMED TRIB AT BRIDGE ON CO RD S-37-142 (BRIDGE ROAD) 5.8 MI SW OF WESTMINSTER. BRIDGE IS 75 YARDS OFF CO RD S-37-160.	RS-04380	OCONEE	REC	FC
2017		SAVANNAH	030601020403	LAKE YONAH	CL-015	OCONEE	FISH	HG
2021		SAVANNAH	030601020403	LAKE YONAH, 50% BETWEEN CENTER OF SPILLWAY AND OPPOSITE SHORE	SV-358	OCONEE	AL	PH
2009	*	SAVANNAH	030601020502	CHOESTOE CREEK AT S-37-49	SV-108	OCONEE	REC	FC
2008	*	SAVANNAH	030601020502	NORRIS CK AT S-37-435 1 MI S OF WESTMINSTER	SV-301	OCONEE	REC	FC
2013		SAVANNAH	030601020502	TRIBUTARY OF CHOESTOE CRK. AT SR 429	SV-790	OCONEE	AL	BIO
2016		SAVANNAH	030601020505	MUD CREEK AT BRIDGE ON S-37-99 2.9 MI NE OF FAIR PLAY	RS-06170	OCONEE	REC	FC
2011		SAVANNAH	030601020505	BEAVERDAM CREEK AT S-37-66	SV-345	OCONEE	AL	PH
2011		SAVANNAH	030601020505	BEAVERDAM CREEK AT SC 243	SV-364	ANDERSON	REC	FC
2011		SAVANNAH	030601020505	BEAVERDAM CREEK AT SC 243	SV-364	ANDERSON	AL	PH
2017		SAVANNAH	030601020507	CHAUGA RIVER @ TUGALOO R. (TABOR ACCESS)	SV-234	OCONEE	FISH	PCB
2019		SAVANNAH	030601030101	LK HARTWELL, MAIN BODY AT USACE WQ BUOY BTWN MRKRS 11 & 12	SV-340	ANDERSON	AL	CU
2014		SAVANNAH	030601030202	CUPBOARD CK AT S-04-733 AB BREAZEAL ST PLANT & BL BLAIR HILL	SV-139	ANDERSON	AL	DO
2015		SAVANNAH	030601030202	BROADWAY CREEK AT US 76 BTWN ANDERSON & BELTON	SV-141	ANDERSON	AL	TURBIDITY
2015		SAVANNAH	030601030202	BROADWAY CRK. AT SR 48	SV-791	ANDERSON	AL	BIO

2008 SC List of Impaired Waters by 12-Digit HUC

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2020		SAVANNAH	030601030203	ROCKY RVR AT S-04-263 2.7 MI SE ANDERSON AT STP	SV-031	ANDERSON	AL	TURBIDITY
2020		SAVANNAH	030601030203	ROCKY RVR AT S-04-152 BL ROCKY RVR STP	SV-041	ANDERSON	AL	TURBIDITY
2014		SAVANNAH	030601030204	HEN COOP CREEK AT SR 244	SV-044	ANDERSON	AL	BIO
2012		SAVANNAH	030601030205	LK SECESSION, 1 1/4 MI BELOW SC ROUTE 28	SV-331	ANDERSON	AL	PH
2012		SAVANNAH	030601030205	LK SECESSION APPROX 400 YDS ABOVE DAM	SV-332	ABBEVILLE	AL	PH
2009	*	SAVANNAH	030601030401	DEVILS FORK CK AT BUSBY RD OFF S-04-22	RS-02490	ANDERSON	REC	FC
2015		SAVANNAH	030601030402	BIG GENEROSTEE CR. AT SC 187	SV-101	ANDERSON	AL	BIO
2015		SAVANNAH	030601030404	LITTLE GENEROSTEE CREEK AT TINY MCCONNELL RD OFF OF S-04-105 4.1 MI SW OF STARR (CREEK CROSSES ROAD NO BRIDGE)	RS-05414	ANDERSON	REC	FC
2017		SAVANNAH	030601030405	LAKE HARTWELL @ DAM	SV-642	ANDERSON	FISH	PCB
2015		SAVANNAH	030601030502	UNNAMED TRIB TO BAILEY'S CREEK AT S-1-171 4.8 MI NNE OF ABBEVILLE	RS-06190	ABBEVILLE	AL	BIO
2013		SAVANNAH	030601030503	JOHNS CREEK AT SR 159	SV-734	ABBEVILLE	AL	BIO
2013		SAVANNAH	030601030505	DOUBLE BRANCH AT S-01-33	SV-054	ABBEVILLE	AL	BIO
2019		SAVANNAH	030601030508	GILL CR. AT SR 32	SV-644	ABBEVILLE	AL	BIO
2013		SAVANNAH	030601030510	LONG CANE CR. AT SR 33	SV-056	ABBEVILLE	AL	BIO
2014		SAVANNAH	030601030610	CALHOUN CREEK AT SC 28, 1.5 M NW OF ABBEVILLE	RS-01049	ABBEVILLE	AL	DO
2013		SAVANNAH	030601030612	LITTLE RIVER AT S-01-32	SV-348	ABBEVILLE	AL	BIO
2017		SAVANNAH	030601030708	CLARKS HILL RESERVOIR HEADWATERS (SAVANNAH RVR)	CL-040	MCCORMICK	FISH	HG
2017		SAVANNAH	030601030709	CLARKS HILL RESERVOIR IN FOREBAY NEAR DAM	CL-041	MCCORMICK	FISH	HG
2017		SAVANNAH	030601030710	LONG CANE CREEK (LAKE THURMOND)	SV-057	MCCORMICK	FISH	HG
2017		SAVANNAH	030601060201	VAUCLUSE POND	SV-685	AIKEN	FISH	HG
2017		SAVANNAH	030601060202	FLAT ROCK POND	SV-686	AIKEN	FISH	HG
2017		SAVANNAH	030601060203	LANGLEY POND	SV-531	AIKEN	FISH	HG
2010		SAVANNAH	030601060506	UPPER THREE RUNS AT SRP ROAD A	SV-325	AIKEN	REC	FC
2013		SAVANNAH	030601060601	UNNAMED TRIBUTARY TO THE SAVANNAH RIVER AT RIVER BLUFF RD IN THE RAPIDS S/D IN NORTH AUGUSTA.	RS-04544	AIKEN	AL	BIO
2017		SAVANNAH	030601060601	SAVANNAH RIVER @ N. AUGUSTA ST. PARK	SV-800	AIKEN	FISH	HG
2017		SAVANNAH	030601060607	SAVANNAH RIVER @ JACKSON LANDING	SV-691	AIKEN	FISH	HG
2013		SAVANNAH	030601060705	LOWER THREE RUNS CK AT SC 125 11 MI NW OF ALLENDALE	SV-175	ALLENDALE	AL	CU

2008 SC List of Impaired Waters by 12-Digit HUC

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2010		SAVANNAH	030601060801	FOURMILE BRANCH AT SRP ROAD A-7	SV-326	BARNWELL	REC	FC
2010		SAVANNAH	030601060801	FOURMILE BRANCH AT SRP ROAD A-7	SV-326	BARNWELL	AL	PH
2017		SAVANNAH	030601060805	SAVANNAH RIVER @ STEEL CREEK	SV-801	BARNWELL	FISH	HG
2017		SAVANNAH	030601060806	SAVANNAH RIVER @ LITTLE HELL LANDING	SV-690	ALLENDAL	FISH	HG
2015		SAVANNAH	030601060902	BRIAR CRK. AT S-102	SV-745	ALLENDAL	AL	BIO
2017		SAVANNAH	030601060905	SAVANNAH RIVER @ COHEN'S BLUFF	SV-802	ALLENDAL	FISH	HG
2017		SAVANNAH	030601060905	SAVANNAH RIVER @ JOHNSON'S LANDING	SV-803	ALLENDAL	FISH	HG
2013		SAVANNAH	030601070101	HARD LABOR CREEK AT S-24-164 BRIDGE	SV-151	GREENWOOD	AL	BIO
2014		SAVANNAH	030601070102	CHURCH BRANCH AT S-24-375 3.6 MI E OF BRADLEY	RS-06016	GREENWOOD	REC	FC
2013	#	SAVANNAH	030601070106	DOCTORS BRANCH AT S-33-21 6.75 MI E OF MCCORMICK	RS-03342	MCCORMICK	AL	BIO
2015	#	SAVANNAH	030601070106	CUFFYTOWN CREEK AT S-33-138	SV-351	MCCORMICK	AL	BIO
2011		SAVANNAH	030601070108	STEVENS CREEK AT S-33-21	SV-330	MCCORMICK	REC	FC
2011	#	SAVANNAH	030601070207	BEAVERDAM CREEK AT FOREST SERVICE ROAD 621 OFF S-19-68	SV-353	EDGEFIELD	AL	BIO
2011		SAVANNAH	030601070207	BEAVERDAM CREEK AT FOREST SERVICE ROAD 621 OFF S-19-68	SV-353	EDGEFIELD	REC	FC
2008	*	SAVANNAH	030601070208	TURKEY CREEK AT S-33-227/S-19-68	SV-352	EDGEFIELD	REC	FC
2019		SAVANNAH	030601070303	STEVENS CREEK AT S-33-88/S-19-143	SV-354	EDGEFIELD	AL	CU
2011		SAVANNAH	030601070303	STEVENS CREEK AT S-33-88/S-19-143	SV-354	EDGEFIELD	REC	FC
2014		SAVANNAH	030601090301	SAVANNAH RVR OFF B&C LANDING OFF S-27-201	SV-369	JASPER	AL	ZN
2017		SAVANNAH	030601090301	SAVANNAH RIVER @ STOKES BLUFF LANDING	SV-687	HAMPTON	FISH	HG
2017		SAVANNAH	030601090301	SAVANNAH RIVER @ B & C LANDING	SV-804	JASPER	FISH	HG
2014		SAVANNAH	030601090403	CYPRESS CREEK AT S-27-119	SV-356	JASPER	AL	DO
2017		SAVANNAH	030601090403	CYPRESS CREEK AT S-27-119	SV-356	JASPER	REC	FC
2019		SAVANNAH	030601090404	UNNAMED SWAMP AT BRIDGE ON S-27-119 ONE MILE WEST OF TILLMAN	RS-04372	JASPER	AL	ZN
2017		SAVANNAH	030601090405	SAVANNAH RIVER @ BECK'S FERRY	SV-209	JASPER	FISH	HG
2017		SAVANNAH	030601090405	SAVANNAH RIVER @ MILLSTONE LANDING	SV-805	JASPER	FISH	HG
2021		SAVANNAH	030601090406	WRIGHT RIVER 1.9 MI SE OF TURN BRIDGE LANDING	RT-032032	JASPER	AL	TURBIDITY
2010		SAVANNAH	30601090407	SAVANNAH RVR AT US 17 8.9 MI SSW OF HARDEEVILLE (BOAT)	SV-191	JASPER	REC	FC
2015		SAVANNAH	030601090407	SAVANNAH RVR AT US 17 8.9 MI SSW OF HARDEEVILLE (BOAT)	SV-191	JASPER	AL	ZN
2009	*	SAVANNAH	030601100103	GREAT SWAMP AT U.S. 17	MD-129	JASPER	REC	FC
2015		SAVANNAH	030601100103	GREAT SWAMP AT U.S. 17	MD-129	JASPER	AL	ZN
2011		SAVANNAH	030601100201	NEW RVR AT SC 170 9 MI W OF BLUFFTON	MD-118	JASPER	REC	FC
2017		SAVANNAH	030601100201	NEW RVR AT SC 170 9 MI W OF BLUFFTON	MD-118	JASPER	FISH	HG

2008 SC List of Impaired Waters by 12-Digit HUC

TMDL TARGET DATE(S) ++	NOTE	BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE
2019		SAVANNAH	030601100202	RAMSHORN CREEK AT NEW RIVER (19-07)	MD-258	JASPER	AL	NI
2010		SAVANNAH	030601100302	BROAD CREEK AT PALMETTO BAY MARINA CSZ **(COMBINED 20-04E&F)	20-04A	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	CREEK BEHIND LYNN SMITH'S OYSTER PLANT AT BROAD CREEK	20-16	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	BROAD CREEK AT BROAD CREEK MARINA CSZ **(COMBINED 20-17E&F)	20-17B	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	BROAD CREEK AT SHELTER COVE MARINA	20-18	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	BROAD CREEK AT FIRST MAJOR CREEK RIGHT AFTER MARKER #18 (C6-97)	20-24	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	BROAD CREEK AT CONFLUENCE OF CHANNEL LEADING TO OLD OYSTER FACTORY (C2-99)	20-25	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	BROAD CREEK @ SOUTHERN BOUNDARY SOUTH ISLAND WWTP PROHIBITED CLOSURE ZONE	20-28	BEAUFORT	SHELLFISH	FC
2010		SAVANNAH	030601100302	BROAD CREEK @ SOUTHERN BOUNDARY NORTH ISLAND WWTP PROHIBITED CLOSURE ZONE	20-29	BEAUFORT	SHELLFISH	FC

Appendix A:

**Sites Not Included on 2008 303(d) List Due to Standard Attainment,
Identified Pollutant or Listing Error.**

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
BROAD	030501051504	POTTER BR ON RD 30 BL OUTFALL FROM HOUSING PROJ COWPENS	B-191	SPARTANBURG	AL	PH	STANDARD ATTAINED
BROAD	030501060105	TURKEY CK AT SC 9, 14 MI NW OF CHESTER	B-136	CHESTER	AL	BIO	POLLUTANT IDENTIFIED
BROAD	030501060202	DRY FORK AT S-12-304 2 MI SW OF CHESTER	B-074	CHESTER	AL	DO	STANDARD ATTAINED
BROAD	030501060302	BROWNS CK AT S-44-86, 8 MI E OF UNION	B-155	UNION	AL	BIO	POLLUTANT IDENTIFIED
BROAD	030501060707	CRANE CK AT S-40-43 UNDER I-20 - N COLA	B-316	RICHLAND	AL	BIO	POLLUTANT IDENTIFIED
BROAD	030501070303	SOUTH TYGER RVR AT S-42-63	B-005	SPARTANBURG	AL	CU	STANDARD ATTAINED
BROAD	030501080106	ENOREE RVR AT S-30-75	BE-018	LAURENS	AL	BIO	POLLUTANT IDENTIFIED
BROAD	030501080301	BEARDS FORK CK AT US 276 (I-385) 3.7 MI NNE OF CLINTON	B-231	LAURENS	AL	DO	STANDARD ATTAINED
CATAWBA	030501011505	CROWDERS CK AT S-46-564 NE CLOVER	CW-023	YORK	AL	CD	STANDARD ATTAINED
CATAWBA	030501011505	LK WYLIE, CROWDERS CK ARM AT SC 49 AND SC 274	CW-027	YORK	AL	CU	STANDARD ATTAINED
CATAWBA	030501011506	ALLISON CK AT S-46-114	CW-249	YORK	AL	CU	STANDARD ATTAINED
CATAWBA	030501030108	STEELE CK AT S-46-22 N OF FORT MILL	CW-009	YORK	AL	DO	STANDARD ATTAINED
CATAWBA	030501030203	SIXMILE CREEK AT S-29-54	CW-176	LANCASTER	AL	TURBIDITY	STANDARD ATTAINED
CATAWBA	030501030204	TWELVEMILE CK AT S-29-55 0.3 MI NW OF VAN WYCK	CW-083	LANCASTER	AL	TURBIDITY	STANDARD ATTAINED
CATAWBA	030501030304	GILLS CK AT US 521 NNW OF LANCASTER	CW-047	LANCASTER	AL	DO	STANDARD ATTAINED
CATAWBA	030501030401	WILDCAT CK AT S-46-650	CW-006	YORK	AL	TURBIDITY	STANDARD ATTAINED
CATAWBA	030501030401	WILDCAT CK AT S-46-998 9 MI ENE OF MCCONNELLS	CW-096	YORK	AL	TURBIDITY	STANDARD ATTAINED
CATAWBA	030501030402	FISHING CK AT S-46-347 DS YORK WWTP	CW-005	YORK	AL	BIO	POLLUTANT IDENTIFIED
CATAWBA	030501030502	ROCKY CK AT S-12-335 3.5 MI E OF CHESTER	CW-002	CHESTER	AL	CU	STANDARD ATTAINED
CATAWBA	030501030502	GRASSY RUN BR AT SC 72 1.6 MI NE CHESTER	CW-088	CHESTER	AL	DO	STANDARD ATTAINED
CATAWBA	030501030505	CEDAR CK RESERVOIR/ROCKY CK AT S-12-141 SE OF GREAT FALLS	CW-175	CHESTER	AL	DO	STANDARD ATTAINED
CATAWBA	030501030604	CATAWBA RVR AT SC 5 AB BOWATER	CW-041	LANCASTER	AL	CU	STANDARD ATTAINED
CATAWBA	030501040102	LITTLE WATEREE CK AT S-20-41 5 MI E OF WINNSBORO	CW-040	FAIRFIELD	REC	FC	STANDARD ATTAINED

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
CATAWBA	030501040304	WATEREE RVR AT US 1	CW-019	KERSHAW	AL	DO	STANDARD ATTAINED
EDISTO	030502030101	CHINQUAPIN CREEK AT SC 391 5.5 MI S BATESBURG	E-091	AIKEN	AL	PH	STANDARD ATTAINED
EDISTO	030502030103	N FORK EDISTO RVR AT S-02-74	E-084	AIKEN	REC	FC	STANDARD ATTAINED
EDISTO	030502030308	N FORK EDISTO RVR AT POWER LINE CROSSING 2 MI BL E-007	E-007A	ORANGEBURG	REC	FC	STANDARD ATTAINED
EDISTO	030502030308	N FORK EDISTO RVR AT POLICEMANS CAMP 6 MI BL E-007	E-007C	ORANGEBURG	AL	PH	STANDARD ATTAINED
EDISTO	030502050101	GRAMLING CK AT CLVT ON SC 33 2 MI E OF ORANGEBURG	E-022	ORANGEBURG	AL	DO	STANDARD ATTAINED
EDISTO	030502050101	LITTLE BULL CK CK AT SC 33-BL UTICA TOOL CO	E-076	ORANGEBURG	AL	DO	STANDARD ATTAINED
EDISTO	030502050201	CEDAR SWAMP AT CEMENT BRIDGE RD. OFF SR 640	E-596	ORANGEBURG	AL	BIO	STANDARD ATTAINED
EDISTO	030502050302	PROVIDENCE SWP AT E FRONTAGE RD TO I-95 NW OF HOLLY HILL	E-051	ORANGEBURG	AL	PH	STANDARD ATTAINED
EDISTO	030502060203	POLK SWP AT UNIMP RD S-18-180 2 MI S OF ST GEORGE	E-016	DORCHESTER	REC	FC	STANDARD ATTAINED
EDISTO	030502060204	INDIAN FIELDS CRK. AT US 78	E-597	DORCHESTER	AL	BIO	STANDARD ATTAINED
EDISTO	030502060401	TOOGOODOO CREEK MIDWAY BETWEEN STATIONS 4 AND 34	12B-44	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
EDISTO	030502060402	CHURCH CREEK, MOUTH AT MARKER #77	12B-01	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
EDISTO	030502060402	WADMALAW SOUND AT GOSHEN POINT, MARKER #69	12B-02	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
EDISTO	030502060405	DAWHO CREEK, MARKER #110	12B-05	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
EDISTO	030502060405	NORTH EDISTO RIVER CONFLUENCE WITH TOM POINT CREEK	12B-36	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
EDISTO	030502060405	STEAMBOAT CREEK AND RUSSELL CREEK CONFLUENCE	12B-37	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
PEEDEE	030402010501	WESTFIELD CREEK AT US 52	PD-339	CHESTERFIELD	AL	DO	STANDARD ATTAINED
PEEDEE	030402010510	GREAT PEE DEE RVR AT US 15 & 401	PD-015	DARLINGTON	REC	FC	STANDARD ATTAINED
PEEDEE	030402010704	SNAKE BR AT RR AVE IN HARTSVILLE	PD-258	DARLINGTON	AL	PH	STANDARD ATTAINED
PEEDEE	030402010902	GULLEY BR AT S-21-13, TIMROD PARK	PD-065	FLORENCE	AL	BIO	POLLUTANT IDENTIFIED

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
PEEDEE	030402011003	GREAT PEE DEE RIVER @ HWY 301	PD-337	FLORENCE	AL	NI	STANDARD ATTAINED
PEEDEE	030402020103	S BR WILDCAT CK AT S-29-39 2 MI S OF TRADESVILLE	PD-180	LANCASTER	AL	BIO	STANDARD ATTAINED
PEEDEE	030402020203	LITTLE LYNCHES RVR AT US 601 2 MI NE KERSHAW	PD-006	LANCASTER	AL	CU	STANDARD ATTAINED
PEEDEE	030402020602	SINGLETON SWAMP AT S-21-67	PD-314	FLORENCE	AL	PH	STANDARD ATTAINED
PEEDEE	030402040504	LITTLE PEE DEE RVR AT S-17-23	PD-029E	DILLON	REC	FC	STANDARD ATTAINED
PEEDEE	030402040803	WHITE OAK CK AT S-34-31	PD-037	MARION	AL	DO	STANDARD ATTAINED
PEEDEE	030402050104	MCGIRTS CREEK AT COUNTY RD 73, 7.5 M SW OF BISHOPVILLE	RS-01017	LEE	REC	FC	STANDARD ATTAINED
PEEDEE	030402050104	MCGIRTS CREEK AT COUNTY RD 73, 7.5 M SW OF BISHOPVILLE	RS-01017	LEE	AL	TURBIDITY	STANDARD ATTAINED
PEEDEE	030402050303	BRUNSON SWAMP CREEK AT S-43-251 - 1.3 MI W OF SC 120 - 9.25 MI SW SUMTER	RS-03345	SUMTER	AL	BIO	POLLUTANT IDENTIFIED
PEEDEE	030402050406	DEEP CREEK AT S-14-25 AND 1.2 MI NE OF BLOOMVILLE	RS-03347	CLARENDON	AL	BIO	POLLUTANT IDENTIFIED
PEEDEE	030402050906	BLACK RVR AT SC 51 11.6 MI NE OF ANDREWS	PD-170	GEORGETOWN	AL	NI	STANDARD ATTAINED
PEEDEE	030402050906	BLACK RVR AT SC 51 11.6 MI NE OF ANDREWS	PD-170	GEORGETOWN	AL	CU	STANDARD ATTAINED
PEEDEE	030402060703	BUCK CREEK AT SC 905	PD-362	HORRY	AL	DO	STANDARD ATTAINED
PEEDEE	030402060803	CRAB TREE SWAMP AT LONG ST BL OUTFALL OF CONWAY #1 POND	MD-158	HORRY	REC	FC	STANDARD ATTAINED
PEEDEE	030402070106	SAMPIT RVR OPP AMER CYANAMID CHEM CO	MD-073	GEORGETOWN	AL	PH	STANDARD ATTAINED
PEEDEE	030402070208	NOBLE SLOUGH	05-02	GEORGETOWN	SHELLFISH	FC	STANDARD ATTAINED
PEEDEE	030402080402	TOWN CREEK AT SIXTY BASS CREEK	05-08	GEORGETOWN	SHELLFISH	FC	STANDARD ATTAINED
PEEDEE	030402080402	TOWN CREEK AT SOUTHERN REACH OF CLAMBANK CREEK	05-09	GEORGETOWN	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502070508	SANDY RUN CREEK AT US 21	CSTL-585	COLLETON	AL	BIO	STANDARD ATTAINED
SALKEHATCHIE	030502070703	REMICK SWAMP CRK. AT SR 41	CSTL-584	COLLETON	AL	BIO	STANDARD ATTAINED
SALKEHATCHIE	030502070903	HORSESHOE CREEK AT SC 64	CSTL-071	COLLETON	AL	CU	STANDARD ATTAINED
SALKEHATCHIE	030502070903	CHESSEY CREEK AT S.R. 45	CSTL-580	COLLETON	AL	BIO	STANDARD ATTAINED

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BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
SALKEHATCHIE	030502071003	ASHEPOO RIVER AT PUBLIC OYSTER GROUND (14-19)	MD-253	COLLETON	AL	CU	STANDARD ATTAINED
SALKEHATCHIE	030502071102	CAMPBELL CREEK AT WHALE BRANCH	14-02	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502071102	LUCY POINT CREEK CSZ AT POLLUTION LINE NORTH EDGE	16A-13B	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502071103	LUCY POINT CREEK CSZ AT POLLUTION LINE SOUTH EDGE	16A-13A	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080302	CYPRESS CREEK AT SC 3	CSTL-582	JASPER	AL	BIO	STANDARD ATTAINED
SALKEHATCHIE	030502080401	SANDERS BR AT S-25-50	CSTL-011	HAMPTON	AL	BIO	STANDARD ATTAINED
SALKEHATCHIE	030502080501	BATTERY CREEK AT FIVE POINTS CREEK	15-10	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080501	BATTERY CREEK 1000 FEET BELOW RABBIT ISLAND	15-19	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080501	BATTERY CREEK - STORM WATER OUTFALL UNDER RR TRACK (C6-97)	15-28	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080501	BATTERY CREEK - TRIBUTARY ON R SIDE BEFORE BATTERY SHORES (C6-97)	15-29	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080503	COWEN CREEK SECOND MIDDLE MARSH	15-18	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080503	CAPERS CR SSG AT PENN COMMUNITY SRVCS RETREAT CTR	15-20	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080601	POCOTALIGO RVR AT US 17 AT POCOTALIGO	MD-007	BEAUFORT	AL	DO	STANDARD ATTAINED
SALKEHATCHIE	030502080605	HABERSHAM CREEK ABOVE STATION #16, FIRST SPLIT	17-16A	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SALKEHATCHIE	030502080606	COLLETON RVR NEAR MOUTH (SHELLFISH STATION 18-5)	MD-245	BEAUFORT	AL	DO	STANDARD ATTAINED
SALKEHATCHIE	030502080607	CHECHESSEE RVR AT SC 170 10.5 MI SW OF BEAUFORT	MD-117	BEAUFORT	AL	DO	STANDARD ATTAINED
SALKEHATCHIE	030502080608	BROAD RVR AT MOUTH OF ARCHER CK ON SW SIDE OF USMC	MD-172	BEAUFORT	AL	DO	STANDARD ATTAINED
SALUDA	030501090204	SOUTH SALUDA RVR AT SC 186	S-299	GREENVILLE	AL	PH	STANDARD ATTAINED
SALUDA	030501090303	BIG BRUSHY CK AT S-04-143	S-301	ANDERSON	AL	DO	STANDARD ATTAINED
SALUDA	030501090307	TRIB TO SALUDA RVR 350 FT BL W PELZER STP ON S-23-53	S-267	ANDERSON	AL	DO	STANDARD ATTAINED
SALUDA	030501090307	MILL CK AT BENT BRIDGE RD, BL CAROLINA PLATING	S-315	GREENVILLE	AL	CU	STANDARD ATTAINED
SALUDA	030501090404	REEDY RVR AT S-23-316 3.5 MI SSW OF MAULDIN	S-323	GREENVILLE	AL	CU	STANDARD ATTAINED
SALUDA	030501090404	REEDY RVR AT S-23-316 3.5 MI SSW OF MAULDIN	S-323	GREENVILLE	AL	ZN	STANDARD ATTAINED

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
SALUDA	030501090501	LAKE RABON, S RABON CK ARM, JUST DS S-30-312	S-312	LAURENS	AL	PH	STANDARD ATTAINED
SALUDA	030501090602	BOYD MILL POND .6 KM W DAM	S-311	LAURENS	AL	TN	STANDARD ATTAINED
SALUDA	030501090602	REEDY R. AT SEC. RD. 68	S-778	GREENVILLE	AL	BIO	STANDARD ATTAINED
SALUDA	030501090701	CORONACA CK AT S-24-100 4 MI NW OF 96	S-092	GREENWOOD	AL	DO	STANDARD ATTAINED
SALUDA	030501090701	CORONACA CK AT S-24-100 4 MI NW OF 96	S-092	GREENWOOD	AL	PH	STANDARD ATTAINED
SALUDA	030501090806	LAKE GREENWOOD - CANE CK ARM AT SC 72 3.1 MI SW CROSS HILL	S-097	LAURENS	AL	DO	STANDARD ATTAINED
SALUDA	030501090806	LAKE GREENWOOD - CANE CK ARM AT SC 72 3.1 MI SW CROSS HILL	S-097	LAURENS	AL	TP	STANDARD ATTAINED
SALUDA	030501090806	LAKE GREENWOOD - CANE CK ARM AT SC 72 3.1 MI SW CROSS HILL	S-097	LAURENS	REC	FC	STANDARD ATTAINED
SALUDA	030501090807	LK GREENWOOD AT US 221 7.6 MI NNW 96	S-131	GREENWOOD	AL	TP	STANDARD ATTAINED
SALUDA	030501090908	LITTLE RVR AT SC 34	S-305	NEWBERRY	AL	PH	STANDARD ATTAINED
SALUDA	030501091003	CLOUDS CK AT S-41-26 4 MI NW BATESBURG	S-255	SALUDA	AL	PH	STANDARD ATTAINED
SALUDA	030501091003	CLOUDS CK AT S-41-26 4 MI NW BATESBURG	S-255	SALUDA	AL	DO	STANDARD ATTAINED
SALUDA	030501091202	SALUDA RIVER AT S.C. ROUTE 39	S-295	SALUDA	AL	CU	STANDARD ATTAINED
SALUDA	030501091206	LAKE MURRAY, BUSH RVR ARM, 4.6 KM US SC 391	S-309	NEWBERRY	AL	PH	STANDARD ATTAINED
SALUDA	030501091207	BLACKS BR, LK MURRAY AT SC 391	S-223	NEWBERRY	AL	PH	STANDARD ATTAINED
SALUDA	030501091302	HOLLANDS LANDING LK MURRAY OFF S-36-26 AT END OF S-36-3	S-211	NEWBERRY	AL	PH	STANDARD ATTAINED
SALUDA	030501091306	LAKE MURRAY AT S-36-15	S-213	LEXINGTON	AL	PH	STANDARD ATTAINED
SALUDA	030501091307	LK MURRAY AT MARKER 63	S-279	LEXINGTON	AL	PH	STANDARD ATTAINED
SALUDA	030501091311	LK MURRAY AT DAM AT SPILLWAY (MARKER 1)	S-204	LEXINGTON	AL	PH	STANDARD ATTAINED
SALUDA	030501091403	SALUDA RVR JUST BELOW LK MURRAY DAM	S-152	LEXINGTON	AL	PH	STANDARD ATTAINED
SALUDA	030501091403	KINLEY CK AT S-32-36 (ST. ANDREWS RD) IN IRMO	S-260	LEXINGTON	AL	DO	STANDARD ATTAINED
SALUDA	030501091403	RAWLS CREEK AT S-32-107	S-287	LEXINGTON	AL	DO	STANDARD ATTAINED
SALUDA	030501100104	LK CAROLINE SPILLWAY AT PLATT SPRINGS RD	C-025	LEXINGTON	AL	PH	STANDARD ATTAINED
SALUDA	030501100201	WINDSOR LK SPILLWAY ON WINDSOR LK BLVD	C-048	RICHLAND	AL	PH	STANDARD ATTAINED

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
SALUDA	030501100203	FOREST LAKE AT DAM	C-068	RICHLAND	REC	FC	STANDARD ATTAINED
SALUDA	030501100304	REEDER POINT BR AT SC 48	C-073	RICHLAND	AL	DO	STANDARD ATTAINED
SALUDA	030501100310	CONGAREE RVR, WEST BOUNDARY OF CONGAREE SWAMP MONUMENT	C-074	RICHLAND	AL	CU	STANDARD ATTAINED
SANTEE	030501110103	LK INSPIRATION - ST MATTHEWS (FRONT OF HEALTH DEPT)	C-058	CALHOUN	AL	DO	STANDARD ATTAINED
SANTEE	030501110103	LK INSPIRATION - ST MATTHEWS (FRONT OF HEALTH DEPT)	C-058	CALHOUN	AL	PH	STANDARD ATTAINED
SANTEE	030501110109	UPPER LAKE MARION @ HEADWATERS OF CHAPEL BRANCH CREEK	SC-014	ORANGEBURG	AL	CHLA	STANDARD ATTAINED
SANTEE	030501110109	STREAM ORIGINATING UPSTRM OF SAFETY KLEEN HAZARDOUS LANDFILL	SC-058	SUMTER	AL	NI	STANDARD ATTAINED
SANTEE	030501110109	STREAM ORIGINATING UPSTRM OF SAFETY KLEEN HAZARDOUS LANDFILL	SC-058	SUMTER	AL	PH	STANDARD ATTAINED
SANTEE	030501120105	REDIVERSION CANAL AT US 52 (SC-037A)	ST-031	BERKELEY	AL	ZN	STANDARD ATTAINED
SANTEE	030501120105	REDIVERSION CANAL AT US 52 (SC-037A)	ST-031	BERKELEY	AL	CU	STANDARD ATTAINED
SANTEE	030501120303	S SANTEE RVR AT US 17	ST-006	CHARLESTON	REC	FC	STANDARD ATTAINED
SANTEE	030501120403	SANTEE BAY AT BEACH CREEK (06A-03)	MD-263	GEORGETOWN	AL	CU	STANDARD ATTAINED
SANTEE	030502010402	WANDO RIVER AT NOWELL CREEK	09B-01	BERKELEY	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010402	WANDO RIVER AT HORLBECK CREEK	09B-02	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010402	NOWELL CREEK, AT CONFLUENCE WITH MARTIN CREEK	09B-16	BERKELEY	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010402	WANDO RIVER MIDWAY BETWEEN STATIONS 3 AND 11(AT OLD DRY DOCK)	09B-17	BERKELEY	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010402	FOSTER CREEK AT CONFLUENCE WITH WANDO RIVER (C4-99)	09B-19	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010402	WANDO RVR AT SC 41	MD-115	BERKELEY	AL	CU	STANDARD ATTAINED
SANTEE	030502010503	WASSAMASSAW SWP AT US 176	CSTL-063	BERKELEY	AL	CU	STANDARD ATTAINED
SANTEE	030502010503	WASSAMASSAW SWP AT US 176	CSTL-063	BERKELEY	REC	FC	STANDARD ATTAINED
SANTEE	030502010505	CYPRESS SWP AT US 78	CSTL-078	DORCHESTER	AL	ZN	STANDARD ATTAINED
SANTEE	030502010505	CYPRESS SWP AT US 78	CSTL-078	DORCHESTER	AL	NI	STANDARD ATTAINED
SANTEE	030502010601	DORCHESTER CK AT SC 165	CSTL-013	DORCHESTER	AL	TURBIDITY	STANDARD ATTAINED
SANTEE	030502010604	ASHLEY RVR AT MAGNOLIA GARDENS	MD-049	CHARLESTON	AL	CU	STANDARD ATTAINED
SANTEE	030502010604	ASHLEY RVR AT MAGNOLIA GARDENS	MD-049	CHARLESTON	AL	NI	STANDARD ATTAINED

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
SANTEE	030502010703	FOSTER CREEK AT CHARLESTON CPW WATER INTAKE	MD-240	BERKELEY	REC	FC	STANDARD ATTAINED
SANTEE	030502010704	BACK RIVER RES IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CSTL-124	BERKELEY	AL	CU	STANDARD ATTAINED
SANTEE	030502010706	GOOSE CREEK RESERVOIR 100 M US OF DAM	ST-032	BERKELEY	AL	PH	STANDARD ATTAINED
SANTEE	030502010707	LIGHTHOUSE CREEK AT CONFLUENCE WITH FOLLY CREEK	10A-13	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010707	SECESSIONVILLE CREEK AT PRIVATE DOCKS	10A-15	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010707	CLARK SOUND AT OCEAN VIEW FLATS	10A-16	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010707	FLUDD'S CREEK AT CLARK SOUND	10A-16A	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010707	LIGHTHOUSE CREEK AND CLARK SOUND CONFLUENCE	10A-33	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010707	SECESSIONVILLE CREEK AT ITS CONFLUENCE WITH CLARK SOUND	10A-34	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502010707	SCHOONER CREEK, RIGHT FORK AT MIDDLE OF DOCKS, ACROSS FROM PARROT POINT DEVELOPMENT	10A-35	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502020202	MOUTH OF ELLIOTT CUT AT EDGE WTR DR (S-10-26 OFF HW 17)	MD-025	CHARLESTON	AL	DO	STANDARD ATTAINED
SANTEE	030502020204	FOLLY CREEK AT CONFLUENCE WITH SECESSIONVILLE CREEK	10A-15A	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090101	DUPREE CREEK AND CLUBHOUSE CREEK, CONFLUENCE	06B-18	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090101	CLUBHOUSE CREEK-1/4 MILE NORTH OF FIVE FATHOM CREEK	07-08	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090202	HARBOR RIVER AT BULLS BAY	07-04A	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090202	FIVE FATHOM CREEK AT MARKER #20	07-06	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090202	FIVE FATHOM CREEK MARKER #26	07-17	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090202	AIWW MARKER #65	07-18	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090202	AIWW AT CONFLUENCE WITH UNNAMED CREEK, 1.5 MILES SOUTHWEST OF GRAHAM CREEK (C4-99)	07-19	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090203	MORGAN CREEK AT NORTHERNMOST CONFLUENCE WITH AIWW - ADJACENT TO MARKER #115	08-01	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090203	DEWEES INLET AT AIWW - NORTH OF MARKER #110	08-03	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090203	GRAY BAY AT CONFLUENCE OF SEVEN REACHES	08-16	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090203	CEDAR CREEK ONE-HALF MILE UP FROM DEWEES INLET	08-18	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090204	SWINTON CREEK UPPER END	09A-03	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090204	CONCH CREEK STATE SHELLFISH GROUND - SULLIVANS ISLAND SIDE	09A-17A	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED

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BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
SANTEE	030502090204	CONCH CREEK AT LOFTON CREEK	09A-20	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090204	SWINTON CREEK UPPER REACHES	09A-25	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090204	AIWW AT CONFLUENCE WITH SULLIVANS ISLAND NARROWS (ACROSS FROM ECOMC DOCK)	09A-34	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090204	CONCH CREEK AT ITS CONFLUENCE WITH AIWW	09A-36	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SANTEE	030502090205	BULLS BAY - 1,000FT FROM CONFLUENCE WITH GRAHAM CREEK (C5-01)	07-20	CHARLESTON	SHELLFISH	FC	STANDARD ATTAINED
SAVANNAH	030601010502	CONERROSS CK AT S-37-13	SV-333	OCONEE	AL	CU	STANDARD ATTAINED
SAVANNAH	030601010503	LAKE HARTWELL AT S-37-184 6.5 MI SSE OF SENECA	SV-236	OCONEE	AL	PH	STANDARD ATTAINED
SAVANNAH	030601010601	EIGHTEENMILE CK AT UNNUMBERED CO RD 2.25 MI SSW OF EASLEY	SV-017	PICKENS	AL	TURBIDITY	STANDARD ATTAINED
SAVANNAH	030601010601	WOODSIDE BR AT US 123 1.5 MI E OF LIBERTY	SV-241	PICKENS	AL	TURBIDITY	STANDARD ATTAINED
SAVANNAH	030601010801	LAKE ISSAQUEENA, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	SV-360	PICKENS	AL	PH	STANDARD ATTAINED
SAVANNAH	030601020403	LAKE YONAH, 50% BETWEEN CENTER OF SPILLWAY AND OPPOSITE SHORE	SV-358	OCONEE	AL	TP	STANDARD ATTAINED
SAVANNAH	030601020505	BEAVERDAM CREEK AT S-37-66	SV-345	OCONEE	AL	BIO	POLLUTANT IDENTIFIED
SAVANNAH	030601030202	BROADWAY CREEK AT US 76 BTWN ANDERSON & BELTON	SV-141	ANDERSON	AL	BIO	POLLUTANT IDENTIFIED
SAVANNAH	030601030207	LAKE RUSSELL, ROCKY RVR ARM BETWEEN MARKERS 48 & 49, DS FELKEL	SV-357	ABBEVILLE	AL	PH	STANDARD ATTAINED
SAVANNAH	030601030507	BIG CURLY TAIL CREEK AT US FOREST RD 509	SV-732	ABBEVILLE	AL	BIO	STANDARD ATTAINED
SAVANNAH	030601030510	LONG CANE CK AT S-33-117 7.0 MI NW MCCORMICK	SV-318	MCCORMICK	AL	BIO	STANDARD ATTAINED
SAVANNAH	030601030602	LITTLE RIVER AT S-01-24	SV-164	ABBEVILLE	AL	DO	STANDARD ATTAINED
SAVANNAH	030601030609	SAWNEY CK AT CO RD 1.5 MI SE OF CALHOUN FALLS	SV-052	ABBEVILLE	AL	DO	STANDARD ATTAINED
SAVANNAH	030601030708	CLARKS HILL RESERVOIR AT US 378 7 MI SW MCCORMICK	SV-291	MCCORMICK	AL	TP	STANDARD ATTAINED
SAVANNAH	030601030709	STEVENS CK RESERVOIR HEADWATERS AT CLARKS HILL DAM BOAT RAMP	SV-294	MCCORMICK	AL	PH	STANDARD ATTAINED

Appendix A: SC Waters Removed from 2006 §303(d) List

BASIN8	HUC	DESCRIPTION	STATION	COUNTY	USE	CAUSE	DELISTING REASON
SAVANNAH	030601060205	HORSE CK AT SC 125 1.5 MI SW CLEARWATER	SV-250	AIKEN	AL	CU	STANDARD ATTAINED
SAVANNAH	030601060607	SAVANNAH RVR OFF JACKSON LANDING OFF END OF S-02-299	SV-366	AIKEN	AL	CU	STANDARD ATTAINED
SAVANNAH	030601070107	ROCKY CRK. AT SR 87	SV-730	MCCORMICK	AL	BIO	STANDARD ATTAINED
SAVANNAH	030601070203	TURKEY CREEK AT SR 100	SV-729	EDGEFIELD	AL	BIO	STANDARD ATTAINED
SAVANNAH	030601070306	CHEVES CREEK AT SR 34	SV-725	EDGEFIELD	AL	BIO	STANDARD ATTAINED
SAVANNAH	030601090401	CYPRESS BRANCH AT US 321	SV-744	JASPER	AL	BIO	STANDARD ATTAINED
SAVANNAH	030601090407	SAVANNAH RVR AT US 17 8.9 MI SSW OF HARDEEVILLE (BOAT)	SV-191	JASPER	AL	CU	STANDARD ATTAINED
SAVANNAH	030601100103	GREAT SWAMP AT U.S. 17	MD-129	JASPER	AL	CU	STANDARD ATTAINED
SAVANNAH	030601100302	BROAD CREEK AT SHARK BANK AND - CSZ SEA PINES WWTP, MARKER #2	20-03	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED
SAVANNAH	030601100304	BROAD CREEK AT CALIBOGUE SOUND - NORTH END OF BUCK ISLAND	20-15A	BEAUFORT	SHELLFISH	FC	STANDARD ATTAINED

Appendix B:

**Impaired Sites Located Within an Approved TMDL Watershed and
Not Included on the 303(d) List During the 2008 Listing Cycle.**

Appendix B: SC Waters Removed from 2006 §303(d) List or Not Listed Due to Approved TMDL

BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE	DHEC TECH_RPT	REASON
BROAD	030501050902	KINGS CREEK AT S-11-209, 3 MI W OF SMYRNA	B-333	CHEROKEE	REC	FC	022-04	DELISTED - WITHIN A TMDL
BROAD	030501051002	LITTLE THICKETTY CREEK AT S-42-307 1.2 MI NE OF COWPENS	RS-04376	SPARTANBURG	REC	FC	022-04	DELISTED - WITHIN A TMDL
BROAD	030501051103	BULLOCK CREEK AT SC 211 8.43 MI WSW OF YORK	RS-05394	YORK	REC	FC	022-04	NOT LISTED - WITHIN A TMDL
BROAD	030501051203	OBED CREEK AT UNNUMBERED CHRISTOPHER ROAD OFF SC 11	RS-03514	SPARTANBURG	REC	FC	022-04	DELISTED - WITHIN A TMDL
BROAD	030501051401	MEADOW CK AT S-42-822	RS-02320	SPARTANBURG	REC	FC	022-04	DELISTED - WITHIN A TMDL
BROAD	030501051501	LAKE BLALOCK 0.1 MI SE BUCK CREEK CHURCH/S-42-189	RL-03345	SPARTANBURG	REC	FC	022-04	DELISTED - WITHIN A TMDL
BROAD	030501060102	TURKEY CREEK AT S-46-41 5.3 MI SW YORK	RS-05562	YORK	REC	FC	028-05	NOT LISTED - WITHIN A TMDL
BROAD	030501060105	KIRK PATRICK BRANCH AT S-12-306 FIRST BRIDGE FROM SC 97 8.3 MI W OF LOWRYS	RS-06163	CHESTER	REC	FC	028-05	NOT LISTED - WITHIN A TMDL
BROAD	030501060303	CLARKS CREEK (TRIBUTARY TO BROAD RIVER) AT FOREST SERVICE RD 305 IN WOODS FERRY PARK 13 MI W OF CHESTER	RS-04543	CHESTER	REC	FC	028-05	DELISTED - WITHIN A TMDL
BROAD	030501060401	MCCLURES CREEK AT SC-215 6.7 MI SE OF CARLISLE	RS-04527	FAIRFIELD	REC	FC	028-05	DELISTED - WITHIN A TMDL
BROAD	030501060405	MUD CREEK AT UNN/UNIMP MOORE BRANCH ROAD OFF SC 219 0.5 MI SE S-36-499	RS-03343	NEWBERRY	REC	FC	028-05	DELISTED - WITHIN A TMDL
BROAD	030501060701	UNN TRIB TO CRIMS CREEK AT S-36-25 (DR BOWERS RD). SAMPLE BEFORE CONFL W/ LARGER CRIMS CREEK	RS-03517	NEWBERRY	REC	FC	028-05	DELISTED - WITHIN A TMDL
BROAD	030501060704	HOLLINSHEAD CREEK AT S-40-80 5. MI N OF IRMO	RS-06003	RICHLAND	REC	FC	028-05	NOT LISTED - WITHIN A TMDL
BROAD	030501070305	BRUSHY CREEK AT BUSHY CREEK RD 10.7 MI SW OF SPARTANBURG	RS-05578	SPARTANBURG	REC	FC	021-04	NOT LISTED - WITHIN A TMDL
BROAD	030501070507	TYGER RVR AT S-44-35 3.5 MI S OF CARLISLE	B-349	UNION	REC	FC	021-04	DELISTED - WITHIN A TMDL
BROAD	030501080101	UNNAMED TRIB TO MOUNTAIN CREEK AT THE END OF EMMA ST OFF OF SEVIER ST OFF OF S-23-167 5 MI NNE OF GREENVILLE	RS-05594	GREENVILLE	REC	FC	016-04	NOT LISTED - WITHIN A TMDL
BROAD	030501080105	DURBIN CREEK AT SC 418	B-097	LAURENS	AL	PH	016-04	DELISTED - IN A TMDL
BROAD	030501080106	ENOREE RVR AT S-30-112	B-040	LAURENS	REC	FC	016-04	DELISTED - WITHIN A TMDL
BROAD	030501080201	BEAVERDAM CREEK AT S-30-399 10 MI N OF LAURENS	RS-05566	LAURENS	REC	FC	016-04	NOT LISTED - WITHIN A TMDL

Appendix B: SC Waters Removed from 2006 §303(d) List or Not Listed Due to Approved TMDL

BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE	DHEC TECH_RPT	REASON
BROAD	030501080302	SOUTH FORK DUNCAN CREEK AT GRAVEL RD	RS-06007	LAURENS	REC	FC	016-04	NOT LISTED - WITHIN A TMDL
BROAD	030501080303	DUNCAN CREEK AT COUNTY RD 26, 4.5 M NE OF CLINTON	RS-01057	LAURENS	REC	FC	016-04	DELISTED - WITHIN A TMDL
CATAWBA	030501011504	BEAVERDAM CREEK AT BRIDGE ON S-46-64 3.2 MI ENE OF CLOVER	RS-06020	YORK	REC	FC	005-02	NOT LISTED - WITHIN A TMDL
CATAWBA	030501011505	SOUTH FORK CROWDERS CK AT S-46-79 4.5 MI NW OF CLOVER	CW-192	YORK	REC	FC	NC TMDL	NOT LISTED - WITHIN A TMDL
CATAWBA	030501011506	ALLISON CK AT S-46-114	CW-249	YORK	REC	FC	007-07	DELISTED - IN A TMDL
CATAWBA	030501030108	STEELE CK AT S-46-22 N OF FORT MILL	CW-009	YORK	REC	FC	010-07	DELISTED - IN A TMDL
CATAWBA	030501030108	STEELE CK AT S-46-270	CW-011	YORK	REC	FC	010-07	DELISTED - IN A TMDL
CATAWBA	030501030108	STEELE CK AT S-46-98	CW-203	YORK	REC	FC	010-07	DELISTED - IN A TMDL
CATAWBA	030501030304	HANNAHS CREEK AT S-29-376 3.4 MI E OF LANCASTER	RS-05403	LANCASTER	REC	FC	07-03	NOT LISTED - WITHIN A TMDL
CATAWBA	030501030305	RUM CK AT S-29-187	CW-232	LANCASTER	REC	FC	07-03	NOT LISTED - WITHIN A TMDL
CATAWBA	030501030503	BEAVERDAM CREEK AT BRIDGE ON S-12-198 3.5 MI NW OF GREAT FALLS	RS-06171	CHESTER	REC	FC	010-01	NOT LISTED - WITHIN A TMDL
CATAWBA	030501040402	SPEARS CK AT SC 12 3.6 MI SE OF ELGIN	CW-155	KERSHAW	REC	FC	013-04	DELISTED - WITHIN A TMDL
EDISTO	030502030101	CHINQUAPIN CREEK AT SC 391 5.5 MI S BATESBURG	E-091	AIKEN	REC	FC	012-07	DELISTED - IN A TMDL
EDISTO	030502030101	HORSE PEN CREEK AT UPSTREAM SIDE OF COUNTY RD 391, 1.5 M S OF BATESBURG	RS-01004	LEXINGTON	REC	FC	012-07	DELISTED - IN A TMDL
EDISTO	030502030106	N FORK EDISTO RVR AT S-02-110	E-102	AIKEN	REC	FC	012-07	DELISTED - IN A TMDL
EDISTO	030502050101	GRAMLING CK AT CLVT ON SC 33 2 MI E OF ORANGEBURG	E-022	ORANGEBURG	REC	FC	015-06	DELISTED - IN A TMDL
EDISTO	030502050101	LITTLE BULL CK CK AT SC 33-BL UTICA TOOL CO	E-076	ORANGEBURG	REC	FC	015-06	DELISTED - IN A TMDL
EDISTO	030502050105	GOODBYS SWAMP AT US 176 6 M SW OF ELLOREE	RS-01036	ORANGEBURG	REC	FC	015-06	DELISTED - WITHIN A TMDL
EDISTO	030502050107	COW CASTLE CK AT S-38-170	E-050	ORANGEBURG	REC	FC	015-06	DELISTED - IN A TMDL
EDISTO	030502050108	FOUR HOLE SWP AT S-38-50 5.2 MI SE OF CAMERON	E-059	ORANGEBURG	REC	FC	015-06	DELISTED - IN A TMDL
EDISTO	030502050108	UNNAMED TRIBUTARY TO FOUR HOLE SWAMP AT CO RD S-38-92 5.5 MI NE OF BOWMAN	RS-04537	ORANGEBURG	REC	FC	015-06	DELISTED - WITHIN A TMDL
EDISTO	030502050301	HORSE RANGE SWAMP AT US 176	E-052	ORANGEBURG	REC	FC	015-06	DELISTED - IN A TMDL
EDISTO	030502050301	HORSE RANGE SWAMP AT S-38-1264	RS-02303	ORANGEBURG	REC	FC	015-06	DELISTED - WITHIN A TMDL
EDISTO	030502050302	PROVIDENCE SWP AT E FRONTAGE RD TO I-95 NW OF HOLLY HILL	E-051	ORANGEBURG	REC	FC	015-06	DELISTED - IN A TMDL

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BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE	DHEC TECH_RPT	REASON
EDISTO	030502060202	GUM BRANCH AT S-18-167 4.9 MI SE OF ST GEORGE	RS-05572	DORCHESTER	REC	FC	008-07	NOT LISTED - WITHIN A TMDL
EDISTO	030502060203	POLK SWAMP AT S-18-19	E-109	DORCHESTER	REC	FC	018-06	DELISTED - IN A TMDL
EDISTO	030502060204	INDIAN FIELD SWAMP AT S-18-19	E-032	DORCHESTER	REC	FC	008-07	DELISTED - IN A TMDL
PEEDEE	030402010403	DEEP CREEK 75 FT UPSTREAM OF SC 9, 5.5 M W OF CHESTERFIELD	RS-01013	CHESTERFIELD	REC	FC	02-04	DELISTED - WITHIN A TMDL
PEEDEE	030402020103	UNNAMED TRIB TO N BRANCH WILDCAT CREEK AT CULVERT ON UNNUMBERED PAVED RD (ROBERT USHER RD) BETWEEN S-29-328 AND S-29-83	RS-06185	LANCASTER	REC	FC	029-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402020105	HILLS CREEK AT S-13-545	PD-366	CHESTERFIELD	REC	FC	029-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402020301	LITTLE FORK CK AT S-13-265 1.5 MI SW JEFFERSON	PD-215	CHESTERFIELD	REC	FC	029-05	DELISTED - WITHIN A TMDL
PEEDEE	030402020305	LYNCHEs RIVER AT SC 265	PD-001	CHESTERFIELD	REC	FC	029-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402020703	BIG SWP AT US 378 & SC 51 0.9 MI W OF SALEM	PD-169	FLORENCE	REC	FC	016-06	DELISTED - IN A TMDL
PEEDEE	030402050105	SCAPE ORE SWAMP AT S-31-108	PD-355	LEE	REC	FC	008-06	DELISTED - IN A TMDL
PEEDEE	030402060907	WACCAMAW RIVER @ BUCKSVILLE	MD-145	HORRY	AL	DO	013-99	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	MAIN CREEK SE SIDE OF THE PROHIBITED AREA NEAR CAPTAIN DICK'S MARINA	04-03A	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	MAIN CREEK ON THE NW SIDE OF THE PROHIBITED AREA NEAR CAPTAIN DICK'S MARINA	04-03B	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	GARDEN CITY CANAL E OF FLAGG CREEK (NEW 01-01-2004)	04-04A	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	PARSONAGE CREEK SW CORNER OF THE VOYAGER VIEW MARINA PROHIBITED ZONE	04-17A	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	MAIN CREEK AT OYSTER COVER	04-23	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	MAIN CREEK AT FLAGG CREEK	04-25	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	OYSTER COVE, SOUTH BRANCH	04-29	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	OYSTER COVE, NORTH BRANCH	04-30	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080310	WOODLAND CREEK, 100 METERS EAST OF MAINLAND	04-31	GEORGETOWN	SHELLFISH	FC	025-05	NOT LISTED - WITHIN A TMDL
PEEDEE	030402080403	MIDWAY INLET	04-15	GEORGETOWN	SHELLFISH	FC	024-05	NOT LISTED - WITHIN A TMDL

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BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE	DHEC TECH_RPT	REASON
SALKEHATCHIE	030502080502	FACTORY CK 0.7 MI E WHITE HALL LANDING	RT-032039	BEAUFORT	AL	DO	014-06	NOT LISTED - WITHIN A TMDL
SALUDA	030501090301	SALUDA LAKE 0.9 MI SE SC 183 IN SMALL ARM	RL-03349	PICKENS	REC	FC	023-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501090301	SALUDA LAKE, .5 MI US OF LANDING	S-314	GREENVILLE	REC	FC	023-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501090305	GROVE CK AT S-23-52	RS-02462	GREENVILLE	REC	FC	023-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501090307	SALUDA RVR AT S-04-178 3.2 MI SE WILLIAMSTON	S-119	ANDERSON	REC	FC	023-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501090802	BROAD MOUTH CREEK AT BRIDGE ON CO RD S-04-265 (ROCKY FORD ROAD) 3.5 MI NNW OF HONEA PATH	RS-04364	ANDERSON	REC	FC	016-05	NOT LISTED - WITHIN A TMDL
SALUDA	030501090903	BEAVERDAM CREEK AT S-30-341 7 MI S OF LAURENS	RS-05400	LAURENS	REC	FC	017-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501090907	MUDLICK CREEK AT UNNAMED DIRT ROAD BETWEEN SC 56 AND S-36-65 9 MI NW OF SILVERSTREET	RS-04526	NEWBERRY	REC	FC	017-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501091003	WEST CREEK AT S-41-105 12.4 MI ESE OF SALUDA	RS-05398	SALUDA	REC	FC	027-05	NOT LISTED - WITHIN A TMDL
SALUDA	030501091303	HOLLOW CREEK@ DOG LEG ROAD	S-976	LEXINGTON	REC	FC	027-05	NOT LISTED - WITHIN A TMDL
SALUDA	030501091303	HOLLOW CREEK@ DERRICK HOLLOW ROAD	S-977	LEXINGTON	REC	FC	027-05	NOT LISTED - WITHIN A TMDL
SALUDA	030501091402	TWELVEMILE CK AT S-32-106	RS-02457	LEXINGTON	REC	FC	011-04	NOT LISTED - WITHIN A TMDL
SALUDA	030501100104	CONGAREE CK AT S-32-66	C-070	LEXINGTON	REC	FC	010-04	DELISTED - WITHIN A TMDL
SANTEE	030501110101	WARLEY CREEK AT CO RD S-09-287 3.4 MI NW OF LONE STAR	RS-04389	CALHOUN	REC	FC	023-05	NOT LISTED - WITHIN A TMDL
SANTEE	030501110103	LYONS CREEK AT SC 6	ST-533	CALHOUN	REC	FC	023-05	NOT LISTED - WITHIN A TMDL
SANTEE	030501110104	HALFWAY SWP CK AT SC 33 (SC-007)	C-015	CALHOUN	REC	FC	023-05	NOT LISTED - WITHIN A TMDL
SANTEE	030501110104	HALFWAY SWAMP CREEK AT SR 157	ST-534	CALHOUN	REC	FC	023-05	NOT LISTED - WITHIN A TMDL
SANTEE	030502010601	SAWMILL BRANCH S-18-706 IN SUMMERVILLE	RS-05563	DORCHESTER	REC	FC	04-03	NOT LISTED - WITHIN A TMDL
SANTEE	030502010604	ASHLEY RV 1.8 MI NW RUNNYMEDE PLANTATION	RT-032046	CHARLESTON	AL	DO	08-03	NOT LISTED - WITHIN A TMDL

Appendix B: SC Waters Removed from 2006 §303(d) List or Not Listed Due to Approved TMDL

BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE	DHEC TECH_RPT	REASON
SANTEE	030502010605	ASHLEY RVR AT SALRR BRDG	MD-052	CHARLESTON	AL	DO	08-03	NOT LISTED - WITHIN A TMDL
SANTEE	030502010701	PIER IN WEST BRANCH COOPER RVR AT END OF RICE MILL RD IN PIMLICO	CSTL-085	BERKELEY	AL	DO	006-02	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010305	LITTLE CANE CREEK@ NELLIE ROAD	SV-807	OCONEE	REC	FC	017-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010305	LITTLE CANE CREEK@ AUSTIN EDWARDS ROAD	SV-808	OCONEE	REC	FC	017-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010305	LITTLE CANE CREEK@ OCONEE BELLE LANE (ACROSS ORR PROPERTY)	SV-809	OCONEE	REC	FC	017-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010305	LITTLE CANE CREEK@ PICKENS HIGHWAY	SV-810	OCONEE	REC	FC	017-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010305	LITTLE CANE CREEK NEAR HWY 11	SV-813	OCONEE	REC	FC	017-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010407	TWELVE MILE CK AT S-39-137	SV-362	PICKENS	REC	FC	09-03	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010502	COLONELS FORK CK AT S-37-91	RS-02304	OCONEE	REC	FC	006-01	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601010701	CHARLES CREEK AT UNNUMBERED RIDGE ROAD OFF S-04-485	RS-03506	ANDERSON	REC	FC	026-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601030203	BETSY CK AT S-04-259 BL FIBERGLAS OUTFALL	SV-037	ANDERSON	REC	FC	012-04	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601030203	ROCKY RIVER AT S-04-244	SV-346	ANDERSON	REC	FC	012-04	DELISTED - WITHIN A TMDL
SAVANNAH	030601030502	UNNAMED TRIB TO BAILEY'S CREEK AT S-1-171 4.8 MI NNE OF ABBEVILLE	RS-06190	ABBEVILLE	REC	FC	026-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601030504	UNNAMED TRIB TO JOHNSON CREEK AT S-01-352 AT SECOND BRIDGE FROM SC 201 6.8 MI W OF DUE WEST	RS-05586	ABBEVILLE	REC	FC	026-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601030608	REEDY BRANCH AT WOODEN BRIDGE ON UNIMPROVED GRAVEL ROAD (WATSON HILL ROAD) ABOUT 1 MILE EAST OF CO RD S-24-112. 5 MI SW OF PROMISED LAND	RS-04542	GREENWOOD	REC	FC	026-05	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601060203	HORSE CK AT S-02-104 0.6 MI SW GRANITEVILLE	SV-071	AIKEN	REC	FC	007-06	NOT LISTED - WITHIN A TMDL
SAVANNAH	030601060601	UNNAMED TRIBUTARY TO THE SAVANNAH RIVER AT RIVER BLUFF RD IN THE RAPIDS S/D IN NORTH AUGUSTA.	RS-04544	AIKEN	REC	FC	009-07	DELISTED - IN A TMDL

Appendix C:

2008 Waters of Concern: Sites will be targeted for additional review through the 2010 303(d) listing cycle. These locations have the potential to be listed as impaired waters at that time.

Appendix C: 2008 SC Waters of Concern

BASIN	HUC	LOCATION	STATION	COUNTY	USE	CONCERN
PEEDEE	030402080306	WAC-005-3RD AVE N	WAC-005	HORRY	REC	ENTERO
PEEDEE	030402080306	WAC-009-47TH AVE S	WAC-009	HORRY	REC	ENTERO
PEEDEE	030402080306	WAC-010-BRIARCLIFF CABANA	WAC-010	HORRY	REC	ENTERO
PEEDEE	030402080306	WAC-011-2M N OF WYNDHAM HOTEL	WAC-011	HORRY	REC	ENTERO
PEEDEE	030402080307	WAC-012-LANDS END RESORT ARCADIA	WAC-012	HORRY	REC	ENTERO
PEEDEE	030402080307	WAC-013-WYNDAM HOTEL ARCADIA	WAC-013	HORRY	REC	ENTERO
PEEDEE	030402080307	WAC-014-SANDS OCEAN CLUB ARCADIA	WAC-014	HORRY	REC	ENTERO
PEEDEE	030402080308	WAC-019-34TH AVE NORTH MB	WAC-019	HORRY	REC	ENTERO
PEEDEE	030402080308	WAC-021-8TH AVE NORTH MB	WAC-021	HORRY	REC	ENTERO
PEEDEE	030402080308	WAC-024-23RD AVE SOUTH MB	WAC-024	HORRY	REC	ENTERO
PEEDEE	030402080308	WAC-026-NASH DRIVE MB	WAC-026	HORRY	REC	ENTERO
PEEDEE	030402080309	WAC-027-MYRTLE BEACH STATE PARK	WAC-027	HORRY	REC	ENTERO
PEEDEE	030402080309	WAC-030-16TH AVE N	WAC-030	HORRY	REC	ENTERO
PEEDEE	030402080309	WAC-031-11TH AVE N SURFSIDE	WAC-031	HORRY	REC	ENTERO
PEEDEE	030402080309	WAC-032-3RD AVE N SURFSIDE	WAC-032	HORRY	REC	ENTERO
PEEDEE	030402080309	WAC-033-3RD AVE S SURFSIDE	WAC-033	HORRY	REC	ENTERO
PEEDEE	030402080309	WAC-035-13TH AVE S SURFSIDE	WAC-035	HORRY	REC	ENTERO
PEEDEE	030402080314	WAC-016-77TH AVE NORTH MB	WAC-016	HORRY	REC	ENTERO
PEEDEE	030402080314	WAC-017-64TH AVE NORTH MB	WAC-017	HORRY	REC	ENTERO
PEEDEE	030402080314	WAC-018-50TH AVE NORTH MB	WAC-018	HORRY	REC	ENTERO
PEEDEE	030402080316	WAC-029-OCEAN LAKES CG	WAC-029	HORRY	REC	ENTERO
PEEDEE	030402080317	WAC-037-AZALEA AVE GC	WAC-037	HORRY	REC	ENTERO
SAVANNAH	030601100302	LC-113 TRIANGLE ROAD OFF LANDEND DRIVE	LC-113	BEAUFORT	REC	ENTERO

Appendix D:

Data Solicitation

South Carolina's 2008 Integrated Report is currently under development. This report will include the **2008 303(d) list** of impaired waters. DHEC solicits and considers all existing and readily available water quality data, including non-DHEC data in development of the **2008 303(d) list**. Therefore, DHEC is actively soliciting for all of the relevant water quality data from academic institutions, other state, federal agencies and regulated investor-owned public utilities serving South Carolina. Data should be submitted no later than September 1, 2007 for consideration in the 2008 303(d) listing cycle. Data submitted after that time will be considered for the 2010 listing cycle. Note that 2008 303(d) listing cycle will consider relevant data from the 2002-2006 time-frame (five-year period).

More on 303(d) List of impaired waters:

South Carolina develops a 303(d) list every two years. DHEC solicits and considers all existing and readily available water quality data, including non-DHEC data, in developing South Carolina's 303(d) list. All Non-DHEC Data are accepted for consideration at any time during the listing cycle; however, only data submitted before September 1 of each odd-numbered year will be considered for the following year's 303(d) list. To be considered for the any 303(d) list, data must be representative of current water quality conditions and comparable to state water quality criteria. Any organization submitting data should use laboratories certified by the DHEC Office of Environmental Laboratory Certification for the test methods of record.

Persons wishing to collect water quality data for DHEC use are encouraged to contact the DHEC Office of Quality Assurance and submit a Quality Assurance Project Plan (QAPP) for approval prior to initiating sampling. For the Department to use any non-DHEC data in development of the 303(d) list, submittal of non-DHEC data should be accompanied with an approved QAPP.

Additional information regarding DHEC QAPP development can be found at the following link:
<http://www.scdhec.net/environment/envserv/qapp.htm>.

If you have data that you would like DHEC to consider in developing South Carolina's 303(d) list, please e-mail Mihir Mehta at mehtam@dhec.sc.gov or Matt Carswell at carsweme@dhec.sc.gov

Appendix E:

Public Notice

Availability-South Carolina's Draft 303(d) List of Impaired Waters

The South Carolina Department of Health and Environmental Control (SCDHEC) is updating its list of impaired waterbodies requiring TMDLs pursuant to Section 303(d) of the Federal Clean Water Act. The list includes waterbodies not meeting the State's water quality standards after application of existing required controls for point and nonpoint sources of pollution. A draft list is available for review and comment. A copy of the draft list and methodology may be viewed at the SCDHEC Bureau of Water website at <http://www.scdhec.gov/water/>. Click on "Public Notices." Copies of the draft list can also be obtained by contacting Matt Carswell Bureau of Water, SCDHEC, 2600 Bull Street, Columbia, South Carolina 29201 or, by email: carsweme@dhec.sc.gov. Please submit written comments to the attention of Matt Carswell. To be considered, written comments on the draft list must be received by 5:00 PM on Monday, March 10, 2008.

Appendix F: Determination of Attainment of Classified Uses

General Considerations

Physical, chemical and biological data were evaluated, as described below, to determine if water quality met the water quality criteria established to protect the State classified uses defined in Regulation 61-68, Water Classifications and Standards. Some waters may exhibit characteristics outside the appropriate criteria due to natural conditions. Such natural conditions do not constitute a violation of the water quality criteria. To determine the appropriate classified uses and water quality criteria for specific waterbodies and locations, refer to Regulation 61-69, Classified Waters, in conjunction with Regulation 61-68.

At the majority of the SCDHEC's monitoring stations, water samples for analysis are collected as surface grab samples once per month, quarter, or year, depending on the parameter. Grab samples collected at a depth of 0.3 meters are considered a surface measurement. At most stations sampled by boat, dissolved oxygen and temperature are sampled as a water column profile, with measurements being made at either a depth of 0.3 meters below the water surface and at one-meter intervals to the bottom or at 0.3 meters, bottom and mid-depth. At stations sampled from bridges, these parameters are measured only at a depth of 0.3 meters. For the purpose of assessment, only surface samples are used in Standards comparisons and trend assessments. All water and sediment samples are collected and analyzed according to standard procedures (SCDHEC, Procedures and Quality Control Manual for Chemistry Laboratories--Analytical Services, Laboratory Procedures Manual for Environmental Microbiology--Analytical Services, and Environmental Quality Control Environmental Investigations Standard Operating Procedures and Quality Assurance Manual).

Results from water quality samples can be compared to State Standards and USEPA criteria, with some restrictions due to time of collection and sampling frequency. For certain parameters, the monthly sampling frequency employed in the ambient monitoring network is insufficient for strict interpretation of the Standards. The USEPA does not define the sampling method or frequency other than indicating that it should be "representative". The grab sample method is considered to be representative for the purpose of indicating excursions relative to criteria, within certain considerations. A single grab sample is more representative of a one-hour average than a four-day average, more representative of a one-day average than a one-month average, and so on; thus, when inferences are drawn from grab samples relative to criteria, sampling frequency and the intent of the criteria must be weighed. When the sampling method or frequency does not agree with the intent of the particular standard, any conclusion about water quality should be considered as only an indication of conditions, not as a proven circumstance. Regardless of the number of samples, no monitoring site will be listed as partially or not supporting for any pollutant based a single water chemistry sample result because of the possibility of an anomalous event.

Macroinvertebrate community structure is analyzed routinely at selected stations as a means of detecting adverse biological impacts on the aquatic fauna of the state's waters due to water quality conditions which may not be readily detectable in the water column chemistry.

The statewide assessment is based on the last complete five years of available data (2002 - 2006). Following is a description of how this assessment is used to determine use support:

Aquatic Life Use Support - One important goal of the Clean Water Act and State Standards is to maintain the quality of surface waters to provide for the survival and propagation of a balanced indigenous aquatic community of fauna and flora. The degree to which aquatic life is protected (Aquatic Life Use Support)

is assessed by comparing important water quality characteristics and the concentrations of potentially toxic pollutants with numeric criteria.

Support of aquatic life uses is determined based on the percentage of numeric criteria excursions and, where data are available, the composition and functional integrity of the biological community. A number of waterbodies have been given waterbody-specific criteria for pH and dissolved oxygen, which reflect natural conditions. To determine the appropriate numeric criteria and classified uses for specific waterbodies and locations, please refer to Regulation 61-68, Water Classifications and Standards and Regulation 61-69, Classified Waters.

For DO and pH, if 10 percent or less of the samples contravene the appropriate criterion, then the criterion is said to be fully supported. A percentage of criterion excursions greater than 10 and less than or equal to 25 is considered partial support of the criterion, unless excursions are due to natural conditions. A percentage greater than 25 is considered to represent nonsupport of the criterion, unless excursions are due to natural conditions.

For toxicants (heavy metals, priority pollutants, chlorine, ammonia), for any individual pollutant, if the appropriate acute aquatic life criterion is exceeded more than once in five years, representing more than 10 percent of the samples collected, the criterion is not supported. If the acute aquatic life criterion is exceeded more than once, but in less than or equal to 10 percent of the samples, the criterion is partially supported.

The USEPA criteria to protect aquatic life for most toxicants are specified as a four-day average and a one-hour average, and have been adopted as state criteria. Because samples are collected as grab samples, and because of sampling frequency, comparisons to chronic toxicity criteria (four-day average concentration) are considered inappropriate; therefore, only the acute criterion (one-hour average) for the protection of aquatic life is used in the water quality assessment.

For heavy metals, the total recoverable metals criteria are adjusted to account for solids partitioning following the approach set forth in the "Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria" October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water, available from the Water Resource center, USEPA, 401 M St., SW, mail code RC4100, Washington, DC 20460; and 40CFR'131.36(b)(1). Under this approach a default TSS value of 1 mg/L is used. Where the metals criteria are hardness based, a default value of 25 mg/L is used for waters where hardness is 25 mg/l or less.

For turbidity in all waters, and for waters with numeric total phosphorus, total nitrogen, and chlorophyll-a criteria, if the appropriate criterion is exceeded in more than 25 percent of the samples, the criterion is not supported. If the criterion is exceeded in less than 25 percent of the samples, then the criterion is fully supported.

If the conclusion for any single parameter is that the criterion is not supported, then it is concluded that aquatic life uses are not supported in the water body. If no criterion is not supported, but the conclusion for at least one parameter is that the criterion is only partially supported, then it is concluded that aquatic life uses are partially supported. Regardless of the number of samples, no monitoring site will be listed as partially or not supporting for any pollutant based on a single water chemistry sample result because of the possibility of an anomalous event.

For aquatic life uses, the goal of the Standards is the protection of a balanced indigenous aquatic community. Therefore, biological data are the ultimate deciding factor, regardless of chemical

conditions. If biological data showed a healthy, balanced community, the use is considered supported even if chemical parameters do not meet the applicable criteria.

Macroinvertebrate Data Interpretation - Macroinvertebrate community assessment data are used to directly determine Aquatic Life Use Support and to support determinations based on water chemistry data. Macroinvertebrate community data may also be used to evaluate potential impacts from the presence of sediment contaminants. Aquatic and semi-aquatic macroinvertebrates are identified to the lowest practical taxonomic level depending on the condition and maturity of specimens collected.

The EPT Index and the North Carolina Biotic Index (BI) are the main indices used in analyzing macroinvertebrate data. To a lesser extent Taxa Richness and sometimes total abundances may be used to help interpret data. The EPT Index or the Ephemeroptera (mayflies) - Plecoptera (stoneflies) - Trichoptera (caddisflies) Index is the total taxa richness of these three generally pollution-sensitive orders. EPT values are compared with least impacted regional sites. The biotic index for a sample is the average pollution tolerance of all organisms collected, based on assigned taxonomic tolerance values.

Taxa richness is the number of distinct taxa collected and is the simplest measure of diversity. High taxa richness is generally associated with high water quality. Increasing levels of pollution progressively eliminate the more sensitive taxa, resulting in lower taxa richness. Total abundance is the enumeration of all macroinvertebrates collected at a sampling location. When gross differences in abundance occur between stations this metric may be considered as a potential indicator.

Recreational Use Support - The degree to which the swimmable goal of the Clean Water Act is attained (Recreational Use Support) is based on the frequency of fecal coliform bacteria excursions.

For fecal coliform bacteria, an excursion is an occurrence of a bacteria concentration greater than 400/100 ml for all Classes. Comparisons to the bacteria geometric mean criterion are not considered appropriate based on sampling frequency and the intent of the criterion.

If 10 percent or less of the samples are greater than 400/100 ml then recreational uses are said to be fully supported. A percentage of criteria excursions between 10-25 is considered partial support of recreational uses, and greater than 25% is considered to represent nonsupport of recreational uses.

Fish/Shellfish Consumption Use Support - Fish/shellfish consumption use support is determined by the occurrence of advisories or bans on consumption or harvesting for a waterbody. For the support of fish consumption uses, an advisory restricting fish consumption or conditionally approved or restricted shellfish harvesting status indicates partial use support, an advisory against eating any fish or prohibition of shellfish harvesting indicates nonsupport of uses.

Appendix G: Responsiveness Summary South Carolina 2008 303(d) List

Comments were received from the following:

City of Myrtle Beach
Coastal Carolina University
Savannah River Site
Savannah Riverkeeper
South Carolina Department of Natural Resources
Western Carolina Regional Sewer Authority

Comments from Coastal Carolina University

Comment 1:

“These data [fecal coliform bacteria data from Site MD-158] are all from 2003. This site is now only sampled once every five years. The state's criteria for FC listing is that more than 10% of the samples contravene the WQS of 400 CFU/100 mL. As you can see, exactly 10% of the samples contravened the WQS and one was exactly at the standard. This does not seem like a robust - reason for delisting given the site's long term history on the list for FC and the fact that the sites immediately up and downstream are still to be listed for FC. The target date for TMDL completion for these sites is 2009. I'm unclear as to how a TMDL is going to be developed without including the mid-stream site. Finally, in the proposed 2008 list, this site is getting relisted for DO.”

Response 1:

In accordance with 2008 §303(d) EPA-approved methodology, site MD-158 will be removed or delisted from the 2008 §303(d) List based on *no more than* 10% allowable exceedences of the 400 cfu/100 ml water quality standard for fecal coliform bacteria and no more than a single violation documented in the data from 2002-2006.

Comment 2:

“Therefore we are asking that this site [Site MD-158] not be delisted for fecal coliforms at this time and that the sampling site be returned to a permanently active status, so that sampling is not restricted to just the intensive Basin sampling year.”

Response 2:

South Carolina Department of Health and Environmental Control (SCDHEC or the Department) has a comprehensive statewide water quality monitoring strategy that has been approved by the EPA. In accordance with this strategy, the Department maintains a fixed network of integrator sites which are monitored monthly every year; random sites, which are monitored monthly for one year only; and basin sites, which are monitored monthly in a recurrence interval every five years.

Site MD-158 is currently an active Pee Dee Basin monitoring site. The site was monitored in 2003 and currently being monitored in 2008. The Department acknowledges Coastal Carolina's request for reestablishment of the site MD-158 “on a permanently active status”. The Department is amenable to meet with the commentor and discuss the benefits of monitoring this ambient monitoring site once per month, every year.

Comments From South Carolina Department of Natural Resources

Comment 1:

METHODOLOGY FOR DELISTING WATERBODIES FROM THE 2006 §303(d) LIST

“There are typographical errors in the first sentence of paragraph one and second sentence of paragraph three. The second reference to the §303(d) list in each of the above sentences currently refers to the 2006 §303(d) list, and it seems it should refer to the 2008 §303(d) list.”

Response 1:

References to sites delisted or removed from the 2006 §303(d) list are accurate in the Section titled “METHODOLOGY FOR DELISTING WATERBODIES FROM THE 2006 §303(d) LIST”. Sites delisted from the 2006 §303(d) list were not included on the 2008 §303(d) list.

Comment 2:

“Regarding criterion #2 for delisting waterbodies from the 2006 §303(d) list, DNR does not agree development and approval of a TMDL for a particular waterbody, in and of itself, constitutes “good cause” for delisting an impaired waterbody. Notwithstanding the intent of §303(d) to target specific waterbodies for TMDL development, DNR submits those waterbodies continuing to violate State water quality standards, and/or fail to meet classified uses, should remain on the §303(d) list, even after the development of applicable TMDLs. Retaining these waterbodies on the §303(d) list would help ensure proposed activities near impaired water bodies receive sufficient evaluation of impacts to natural resources”

Response 2:

Based on the Federal and State regulations and the assessment methodology developed and approved in conjunction with EPA Region 4, the following are the three ways demonstrate ‘good cause’ to delist a site/impairment from a §303(d) list:

- SC water quality standard has been attained.
- A TMDL has been developed and approved. Please note that a developed and approved TMDL may not mean that the site/station has attained SC water quality standards.
- A listing error has been identified.

Sites with approved TMDLs for the pollutant of concern were not included on the 2008 §303(d) list; however, a comprehensive list of all sites covered under an approved TMDL for the pollutant of concern and the corresponding attainment status is available. A link to the electronic version of the approved TMDL list will be included on the Department website in the near future. All sites not meeting water quality standards for the pollutant of concern, whether covered under an approved TMDL, receive consideration where proposed activities have a potential to impact the waterbody in question. Sites where TMDLs are developed will continue to be monitored, where applicable, based on the EPA-approved *State of South Carolina Water Quality Monitoring Strategy*.

Comment 3:

“DNR submits the concept of biological criteria is an important aspect of water quality monitoring and assessment. Further DNR recommends analytical methods include an evaluation of aquatic life support *for all trophic groups*, and should not necessarily be limited to macroinvertebrate community assessment.”

Response 3:

While there is considerable debate in the literature and among aquatic biologists as to the precise collection methods and analytical procedures used to assess water quality using benthic macroinvertebrate communities, the Department’s macroinvertebrate program is well established and well thought of by the USEPA and other states agencies. It is congruent with North Carolina Department of Natural Resource’s program that is cited often in the literature. By the phrase “for all trophic groups” the Department assumes the reviewer meant “multiple assemblages” (there are many trophic groups such as predators, herbivores, etc. among aquatic macroinvertebrates). Further it is assumed that in the phrase “all trophic groups” the reviewer meant “multiple” and not to necessarily include aquatic mammals, reptiles, amphibians, and aquatic birds, the collection of which would be problematic and unrealistic. For a variety of reasons well articulated in the literature if a single assemblage is used by an Agency it tends to be aquatic macroinvertebrates. In the first National Wadable Stream Survey developed by the USEPA aquatic macroinvertebrates were chosen as the single assemblage used as the end point to evaluate aquatic health for the entire Nation. That said, it is acknowledged that a multi-assemblage approach could be used to assess aquatic life use. The Department recently hired a phycologist who will be working closely with EPA Region 4 to develop a Benthic Algal Index of Biotic Integrity. This will place South Carolina in the majority of states using a multi-assemblage approach and add to its already very strong bioassessment program.

Comment 4:

“DNR disagrees that the “degree of public interest and support” is a defensible criterion for assigning priorities to waterbodies for TMDL development in those cases where aquatic life use is impaired. DNR does agree this is an appropriate criterion to consider for assigning priorities to waterbodies where recreational use, fish consumption, or shellfish harvesting uses are impaired. DNR is concerned a lack of public support for protecting small or obscure (but ecologically important) waterbodies, where aquatic life uses are not supported, could result in the exclusion of these waterbodies from consideration for TMDL development. This would appear to be inconsistent with the SCDHEC goal of protecting water quality “*to provide for the survival and propagation of a balanced indigenous aquatic community of flora and fauna.*” The development and use of the “public support” criterion should be explained in greater detail to provide assurance it is being applied appropriately.”

Response 4:

The Department is required to develop TMDLs for all waterbodies included on the §303(d) List; however, TMDL projects must be prioritized to adequately manage limited resources. The Department believes that degree of public interest and support is an appropriate criterion when prioritizing a waterbody for TMDL development over the next two years. As the approved §303(d) assessment methodology indicates, there are also a number of other considerations (criteria) that are equally important and used in conjunction for prioritization of TMDL projects statewide.

The Department reserves the right to revise all target dates for TMDL development, based on the severity of pollution, designated use, the availability of additional site-specific information, or

other factors the Department deems appropriate for scheduling TMDL development. If the water quality standard demonstrates attainment for the pollutant of concern subsequent to initial listing, a TMDL will not be necessary.

‘Degree of public interest and support’ in the context of developing TMDL priorities might include a consideration for immediate public interest and concern with restoring the designated use (i.e. where there are cultural, economic implications) and/or where known stakeholders are currently in place and prepared to implement load reductions prescribed in the TMDL (once approved).

Comment 5:

“The federally endangered mussel species Carolina heelsplitter (*Lasmigona decorate*) is documented to occur in Bull Run Creek (Chester County) and in Flat Creek (Lancaster County), and therefore DNR recommends Bull Run and Flat creeks should be included in the State Monitoring Strategy for water quality and biological monitoring.”

Response 5:

There is currently an ambient monitoring site located on Flat Creek at S-29-123. The presence of federally endangered species is not the only criterion for establishing monitoring locations in the referenced waterbodies. The Department acknowledges this request and will consider the benefits of including additional ambient monitoring sites in these waterbodies.

Comments from the City of Myrtle Beach

Comment 1:

“The City [of Myrtle Beach] respectfully requests that SCDHEC officials consult city personnel throughout the TMDL development phase, especially now that the city has acquired a stronger local regulatory role under the Municipal Separate Storm Sewer System (MS4) general permit. The city encourages SCDHEC to consider the following measures during the future TMDL development phase:

- Form a local communication network with stakeholders, individuals who live or have land management responsibilities within the watershed.
- Conduct a detailed scientific study of the sources of the impairments using genetic fingerprinting or bacteria source tracking to allow stakeholders to target *controllable* sources.
- Provide guidance on potential funding sources (local, private, state, and federal) to support the TMDL implementation plan.
- Provide an implementation plan that includes a list of agreed upon actions to instruct responsible parties on how to limit or eliminate impairment-loading activities.
- Instruct city personnel on how the city is to consider stormwater discharges from new development or development projects capable of impacting an impaired waterbody.”

Response 1:

The Department will notify local stakeholders upon commencement of either fecal coliform or enterococci TMDLs in the grand Strand area. All TMDLs currently under development statewide can be viewed at the following link:
<http://www.scdhec.gov/environment/water/tmdl/tmdlsud.htm>.

As a component of TMDL development, a detailed source characterization will be conducted that will identify all probable sources of pollutant contamination in the watershed of interest. Genetic

fingerprinting or other source identification methods have been conducted at significant cost and methods are still under development; therefore, until EPA-supported approaches are available, there is no commitment that these methods will be used in future bacterial TMDL development statewide.

Implementation of the Wasteload Allocation portion the TMDL (point sources) will be accomplished through regulatory measures such as current or future NPDES permits (*such as construction, industrial, or MS4 Phase II stormwater permits*). When funds are available, the Department offers interested parties (stakeholders) §319 grant opportunities to implement the load allocation (non-regulated, non-point source) component of the TMDL.

The Department is committed to involvement and a public participation process that is inclusive of all stakeholders. The Department acknowledges stakeholder partnerships are vital during TMDL development, implementation, and improving water quality in South Carolina.

Comments from Savannah Riverkeeper

Comment 1:

In the Savannah River basin South Carolina has 59% more listings in spite of a smaller overall watershed. It has been my experience that the larger number of listings is not because the South Carolina portion of the Savannah watershed is more polluted but because South Carolina is better at assessing the problems than is Georgia.

Response 1:

The Department has an extensive ambient monitoring network statewide. In the Savannah River Basin, data from approximately 271 sites were assessed during the 2008 303(d) listing cycle.

Comment 2:

“The one major problem I have with the 2008 303(d) list is the delisting process. Completion of a TMDL should not be sufficient for delisting. Only return to water quality standards should qualify a water body for delisting.”

Response 2:

Based on the Federal and State regulations and the assessment methodology developed and approved in conjunction with EPA Region 4, the following are the three ways demonstrate ‘good cause’ to delist a site/impairment from a §303(d) list:

- SC water quality standard has been attained.
- A TMDL has been developed and approved. Please note that a developed and approved TMDL may not mean that the site/station has attained SC water quality standards.
- A listing error has been identified.

Sites with approved TMDLs for the pollutant of concern were not included on the 2008 §303(d) list; however, a comprehensive list of all sites covered under an approved TMDL for the pollutant of concern and the corresponding attainment status is available by request. A link to the electronic version of the approved TMDL list will be included on the the Department website in

the near future. All sites not meeting water quality standards for the pollutant of concern, whether covered under an approved TMDL, receive consideration where proposed activities have a potential to impact the waterbody in question. Sites where TMDLS are developed will continue to be monitored, where applicable, based on the EPA-approved *State of South Carolina Water Quality Monitoring Strategy*.

Comments from Savannah River Site (SRS)

Comment 1:

“The methodology used by South Carolina Department of Health and Environmental Control (SCDHEC) to determine whether or not a waterbody is impaired and included on the 303(d) list is very important to the regulated community. TMDLs must eventually be completed for all impaired waters. These TMDLs have a direct impact on NPDES permit limits that the regulated community must meet. In some cases, these permit limits are so low that millions of dollars must be spent in order for a permittee to comply. This being the case, Washington Savannah River Company (WSRC) believes it is critical that DHEC follow the provisions of the Administrative Procedures Act and allow the regulated community to comment on the methodology by promulgating it within SCDHEC regulations.”

Response 1:

The Federal Clean Water Act (CWA) §303(d) and §305(b), in accordance with 40 CFR Part 130, require all states and U.S. territories to provide an assessment of the quality of their waters on April 1st of every even-numbered year (biennially). SCDHEC has submitted a §303(d) list of impaired waters and §305(b) water quality report for all assessed waters to EPA Region 4 for approval every even-numbered year since initially required by the EPA.

During each listing cycle, the public has been invited to comment on the EPA-approved assessment methodology and the §303(d) list. The public was provided opportunity to comment on the EPA-approved assessment methodology during the advertised public comment period for the 2008 §303(d) list.

§303(d) of the Clean Water Act also establishes the principle of the total maximum daily load (TMDL) as a means of reducing water pollution in impaired waters. In 2005, R. 61-110 was promulgated through the South Carolina State Legislature. This regulation outlines the administrative process for public notice, notice of proposed decision and the appeal process for all TMDLs. In effect, the regulation describes the public participation process during TMDL development and finalization.

The Department understands the implications on the regulated community for implementation of TMDL WLAs through NPDES permits. The Department will continue to involve all interested parties and affected stakeholders throughout the TMDL development and implementation process. However, a request that the Department promulgate the §303(d) List “within SCDHEC regulations” would have the effect of adding a great deal of additional time to the process. The Administrative Procedures Act (APA) lays out steps that State Agencies must follow when promulgating regulations. Aside from the requirements for agency board review and publication in the South Carolina State Register, the APA requires regulations to be approved by the South Carolina General Assembly. The latter process alone takes about six months on average and sometimes longer. In addition, the General Assembly is only in session from January to June so the Department would have to coordinate submittal of the §303d List to correspond with that time-frame. Since the §303(d) List is required by the CWA to be compiled by April 1 of every even-numbered year, the requirement for APA approval would most certainly prohibit the Department from achieving this goal.

Comment 2:

“Therefore, based on the methodology for aquatic life the 303(d) list and based on the statement on page three of the draft 303(d) list... waterbodies with standards excursions attributable solely to natural conditions are not included on South Carolina's 303(d) list', Fourmile Branch [Site SV-326] should be removed from the list for pH because it is a result of naturally occurring phenomenon.”

“SRS recommends that Fourmile Branch be removed from this list for fecal coliform, because no realistic impairment is evident and it is the result of a naturally occurring phenomenon.”

“This creek [Lower Three Runs (LTR); Site SV-175] is located in its entirety on SRS. There are no NPDES outfalls that discharge into Par Pond, a reservoir on the headwaters of L TR, or that discharge below the reservoir into the creek. Therefore, the copper must be naturally occurring. Based on the statement on page three of the draft 303(d) list' . . . waterbodies with standards excursions attributable solely to natural conditions are not included on South Carolina's 303(d) list.' Therefore, LTR should be removed from the list.”

“With regard to the draft 2008 303(d) List for Upper Three Runs (UTR) at SRP Road A [Site-SV-325], the creek is listed for fecal coliform. The fecal coliform that occur here have to be a naturally occurring phenomenon...Thus the fecal coliform results have to be from a collection or laboratory error or from fecal material from wildlife in the vicinity of the stream. SRS recommends that UTR be removed from this list for fecal coliform, because no realistic impairment is evident and it is the result of a naturally occurring phenomenon.”

Response 2:

The Department acknowledges that each of the referenced impairments may be due, in part, to a ‘natural conditions’ in the blackwater system; however, a comprehensive source assessment will be conducted by the Department upstream of SV-326, SV-175, and SV-325 during TMDL development. At that time, it will be determined if documented exceedences of the water quality stand are due exclusively to a natural phenomenon.

Comments from Western Carolina Regional Sewer Authority**Comment 1:**

“WCRSA has, for years, routinely collected and analyzed water samples at the same location as DHEC's Station S-013. WCRSA collects these samples twice each week which are analyzed by their DHEC certified environmental laboratory (lab certification number 23558). The data collected by WCRSA clearly does not support the inclusion of the Reedy River at station S-013 for copper impairment on the 303(d) list.

By way of background, WCRSA submitted this data to DHEC in February of 2007, prior to the September 1, 2007, deadline. We have enclosed herein a copy of the data submitted, along with an email confirming DHEC's receipt of the information. The enclosed spreadsheet reflects each data point from which WCRSA collected and analyzed water, as well as DHEC's STORET data. The information clearly shows that, from a total of over 200 qualified samples, only two of DHEC's quarterly samples exceeded the water qualify standard for Copper. Both of these samples were taken in 2004.”

Response 1:

The Department acknowledges that the referenced data was received on February 26, 2007, in advance of the September 1, 2007 deadline for consideration in development of the 2008. The referenced data set was submitted without a copy of the DHEC-approved QAPP, as requested in the advertised solicitation; however, all data was reviewed and considered for 2008 §303(d) list development. In accordance with 2008 §303(d) EPA-approved methodology, site S-013 was included on the 2008 §303(d) list because acute and chronic copper criteria were exceeded *more than once in the five-year assessment period*. While WCRSA ambient data did not indicate violations of the standard during the 2004-2006 time-frame, DHEC ambient data demonstrate contraventions of the standard twice in 2004.

The Department encourages WCRSA and all interested parties to continue and submit water quality data with a copy of the DHEC-approved QAPP for consideration in future listing cycles.

Error in Methodology:

The following sentence was edited in the approved 2008 §303(d) assessment methodology, Appendix F. The sentence was changed from 1998-2002 in order to reflect the relevant time-frame for this data assessment:

“The statewide assessment is based on the last complete five years of available data (2002 - 2006).”

Errors in Listing:

The Following sites/pollutants were listed in error and removed from the draft 2008 §303(d) List after public notice because the locations are covered under approved TMDLs that were finalized before 2006. Because the sites were *not* included on the 2006 §303(d) List and were *not* delisted for the 2008 §303(d) listing cycle, the referenced locations were *not* included in Appendix B of this document.

BASIN	HUC	LOCATION	STATION	COUNTY	USE	CAUSE	TMDL Technical Document
BROAD	030501060708	BROAD RVR AT US 176 (BROAD RIVER RD) IN COLUMBIA	B-337	RICHLAND	REC	FC	028-05
CATAWBA	030501030204	TWELVEMILE CK AT S-29-55 0.3 MI NW OF VAN WYCK	CW-083	LANCASTER	REC	FC	031-05
CATAWBA	030501030603	WAXHAW CK AT S-29-29	CW-145	LANCASTER	REC	FC	031-05
PEEDEE	030402040803	WHITE OAK CK AT S-34-31	PD-037	MARION	REC	FC	029-05
PEEDEE	030402020305	LYNCHES RVR AT S-13-42	PD-066	CHESTERFIELD	REC	FC	029-05
SALKEHATCHIE	030502080404	COOSAWHATCHIE RVR AT S-25-27 2.5 MI SW CUMMINGS	CSTL-109	HAMPTON	AL	DO	007-98
SALUDA	030501091305	CAMPING CK S-36-202 BLW GA PACIFIC	S-290	NEWBERRY	REC	FC	027-05
SALUDA	030501090802	BROAD MOUTH CK AT S-01-111	S-304	ABBEVILLE	REC	FC	016-05
SALUDA	030501091003	CLOUDS CK AT US 378	S-324	SALUDA	REC	FC	027-05
SAVANNAH	030601010702	THREE & TWENTY CREEK AT S-04-280	SV-111	ANDERSON	REC	FC	026-05
SAVANNAH	030601030613	LITTLE RIVER AT S-33-19	SV-192	MCCORMICK	REC	FC	026-05
SAVANNAH	030601010602	LAKE HARTWELL - EIGHTEEN MILE CK ARM AT S-04-1098	SV-268	ANDERSON	REC	FC	026-05
SAVANNAH	030601030401	BIG GENEROSTEE CK AT CO RD 104	SV-316	ANDERSON	REC	FC	009-04
SAVANNAH	030601020505	BEAVERDAM CREEK AT S-37-66	SV-345	OCONEE	REC	FC	015-99

State of South Carolina
Integrated Report for 2008
Part II: *Section 305(b) Assessment and Reporting*

March 31, 2008



PREFACE

The South Carolina Department of Health and Environmental Control (SCDHEC) prepared this report as a requirement of Section 305(b) of Public Law 100-4, last reauthorized and commonly known as The Clean Water Act (CWA) of 1987, and as a public information document. The report presents a general assessment of water quality conditions and water pollution control programs in South Carolina. SCDHEC has published Watershed Water Quality Management Assessments (WWQA), that contain information pertaining to the specific watersheds and give a more complete picture of the waters referenced in this document. While the title page states that this is an integrated report, Section 303(d) of the CWA requirements are submitted separately as a companion document.

The determinations of surface water quality were based on data collected by SCDHEC at ambient water quality monitoring stations, point source permit required monitoring and evaluation of nonpoint source (NPS) data. Other information in this report was obtained from SCDHEC programs associated with water quality monitoring and water pollution control.

TABLE OF CONTENTS

PREFACE	i
TABLE OF CONTENTS	ii
LIST OF TABLES	iii
LIST OF FIGURES	iv
EXECUTIVE SUMMARY	5
BACKGROUND	7
1. Resource Overview	7
2. Total Waters	7
3. Water Pollution Control Program	8
A. Watershed Approach	8
B. Water Quality Standards and Classifications	9
Surface Water Classes - Freshwaters	11
Surface Water Classes - Saltwaters	12
Groundwater Classes	12
Reclassifications and Site-Specific Criteria	13
C. Point Source Program - Municipal Facilities	14
Loan Program	14
Pretreatment and Toxicity Program	14
Stormwater Controls	15
Land Application of Treated Waste	15
Strategies to Improve the Municipal Permitting Program	16
D. Point Source Program - Industrial and Agricultural Facilities	16
Industrial Facilities	16
Agricultural Facilities	16
Toxics Controls	17
Land Application of Treated Wastewater	17
Stormwater Permits	17
E. Permit Compliance and Enforcement	18
F. Nonpoint Source Program	19
G. Wasteload Allocations and Total Maximum Daily Loads	21
H. Special State Concerns and Recommendations	22
SURFACE WATER ASSESSMENT	28
1. Surface Water Monitoring Program	28
A. Purpose and Design	28
B. Networks and Programs	28
C. Laboratory Analytical Support	29
D. Quality Assurance	29
E. Data Storage, Management and Interpretation	31
2. Assessment Methodology	31
A. Probability-Based §305(b) Assessment Approach	31
Rivers and Streams	32
Lakes and Reservoirs	33
Estuaries	33
B. Determination of Attainment of Classified Uses	34

<i>General Considerations</i>	34
<i>Aquatic Life Use Support</i>	35
<i>Macroinvertebrate Data Interpretation</i>	36
<i>Recreational Use Support</i>	36
3. Rivers and Streams Water Quality Assessment	37
<i>A. Summary Statistics</i>	37
4. Lakes Water Quality Assessment	39
<i>A. Summary Statistics</i>	39
<i>B. Section 314 Reporting</i>	41
Background	41
Trophic Status	41
Control Methods	49
Restoration Efforts	49
Acid Effects on Lakes	50
Toxic Effects on Lakes	50
5. Estuary and Coastal Assessment	50
<i>A. Summary Statistics</i>	50
6. Wetlands Assessment	52
<i>A. Summary Statistics</i>	52
<i>B. Extent of Wetlands Resources</i>	53
<i>C. Integrity of Wetlands Resources</i>	53
Section 404 Permit Program	53
Section 401 Water Quality Certification	54
Water Quality Certification, Nationwide Permits (NWP)	55
<i>D. Development of Water Quality Standards for Wetlands</i>	56
<i>E. Additional Protection Activities</i>	56
7. Public Health - Aquatic Life Concerns	57
<i>A. Sizes of Water Affected by Toxicants</i>	57
<i>B. Public Health: Aquatic Life Impacts</i>	57
Pollution Caused Fish Kills/Abnormalities	57
Fish Consumption Advisories	58
Shellfish Restrictions/Closures	58
Restrictions on Bathing Areas	60
Ocean Water Quality Monitoring	61
<i>C. Public Health: Drinking Water</i>	69
Restrictions in Surface Drinking Water Supplies and Incidents of	
Waterborne Diseases	69
GROUNDWATER ASSESSMENT	69
1. Overview of Groundwater Contamination Sources	70
2. Overview of Groundwater Protection Programs	80
3. Summary of Groundwater Quality	82
4. Summary of Groundwater/Surface Water Interactions	84
References	85

LIST OF TABLES

1. Atlas	7
2. Freshwater Classifications and Descriptions	11
3. Saltwater Classifications and Descriptions.....	12
4. Groundwater Classifications and Descriptions.....	12
5. Summary of Supported Classified Uses for South Carolina.....	13
6. Rivers and Streams Use Support Summary (Miles)	38
7. Summary of Fully Supporting and Impaired Rivers and Streams (Not including Fish Consumption Use)	38
8. Total Sizes of Rivers and Streams Impaired by Various Cause Categories (Miles)	39
9. Lake Use Support Summary (Acres)	40
10. Summary of Fully Supporting and Impaired Lakes (Not including Fish Consumption Use)	40
11. Total Sizes of Lakes Impaired by Various Cause Categories (Acres).....	41
12. Condition of Significant South Carolina Lakes	42
13. Estuaries Use Support Summary (Square Miles)	51
14. Summary of Fully Supporting and Impaired Estuaries (Not including Fish/Shellfish Consumption Use).....	51
15. Total Sizes of Estuaries Impaired by Various Cause Categories (Square Miles).....	52
16. Extent of Wetlands, by Type	52
17. Total Size Affected by Toxicants	57
18. Summary of Shellfish Harvesting Status in South Carolina Shellfish Waters	60
19. Areas of Bathing Restrictions	61
20. Areas Affected by Beach Advisories.....	62
21. Major Sources of Groundwater Contamination.....	71
22. Groundwater Contamination Summary	74
23. Groundwater Contamination Summary (above fall line).....	76
24. Groundwater Contamination Summary (2)	77
25. Groundwater Contamination Summary (below fall line)	79
26. Summary of State Groundwater Protection Programs.....	80
27. Aquifer Monitoring Data	83
28. Aquifer Monitoring Data (2).....	84

LIST OF FIGURES

1. South Carolina Watershed Water Quality Management Basins	8
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EXECUTIVE SUMMARY

The Clean Water Act (CWA) states "it is the national goal that wherever attainable, an interim goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water shall be achieved by July 1, 1983."

The State of South Carolina has promulgated S.C. Regulation 61-68, *Water Classifications and Standards* and S.C. Regulation 61-69, *Classified Waters* that establish specific standards and general rules to protect and maintain these uses and designate classified uses for each waterbody. It is the intent and purpose of the regulations that waters that meet standards shall be maintained and waters that do not meet standards shall be improved.

The statewide Probability-Based, or random sampling, component of the ambient monitoring program is designed to make statewide estimates of water quality. The data derived from those monitoring activities is used to develop the stream, lake/reservoir, and estuarine summary information presented in this report. A probability-based monitoring design is a type of a survey design in that the population of interest is sampled in a fashion that allows statements to be made about the whole population based on a subsample. The advantage of the probability-based sampling design is that statistically valid statements about water quality can be made about large areas based on a relatively small subsample.

Based on the modified USEPA National Hydrography Dataset (NHD) and the results of probability site selection validation, South Carolina has an estimated 21,782 miles of freshwater rivers and streams representing the stream sampling design frame, and 318,033 acres of lake and reservoir representing the lake/reservoir sampling design frame. Based on a hydrographic GIS cover developed jointly by SCDHEC and the South Carolina Department of Natural Resources and the results of probability site selection validation, South Carolina has an estimated 267 combined square miles of tide creek and open water habitat representing the estuarine sampling design frame.

Quality assured water quality data collected as part of the probability network from 2002 through 2006 provided the database for this assessment. Evaluation of these data determines if water quality in rivers, lakes, and estuaries is suitable to support State classified uses. The tables on the following page include the level of use support for the waters of South Carolina and the cause of nonattainment affecting the largest size in each waterbody type for aquatic life and primary contact recreation uses.

Aquatic Life Use Support

Waterbody Type	Fully Supported	Partially Supported	Not Supported	Predominant Cause
Rivers	67%	21%	12%	Macroinvertebrate Community
Lakes	89%	4%	6%	pH
Estuaries	85%	4%	12%	Turbidity

Recreational Use Support

Waterbody Type	Fully Supported	Partially Supported	Not Supported	Predominant Cause
Rivers	42%	19%	39%	Fecal Coliform
Lakes	>99%	<1%	0%	Fecal Coliform
Estuaries	>99%	<1%	<1%	Fecal Coliform

BACKGROUND

1. Resource Overview

The following table gives a representation of state population and geographical information.

Table 1. Atlas

Topic	Value
State Population	4,321,429
State Surface Area (square miles)	30,203
Total miles of rivers and streams	29,794
- Border Miles	408
- Border Rivers: Chattooga, Tugaloo, Savannah, Catawba	
- Border Lakes: Hartwell, Thurmond, Russell, Wylie	
Number of lakes/reservoirs/ponds	
- 10 - 1000 acres (total acreage of 60,335)	1,598
- >1000 acres (total acreage of 461,402)	19
Estuarine waters (square miles)	401
Total miles of Ocean Coast	190
Freshwater wetlands (acreage)	4,146,510
Tidal wetlands (acreage)	512,490

2. Total Waters

The United States Environmental Protection Agency (USEPA) has developed a system to determine estimates of total river miles and total lake acres for the states to use in reporting for §305(b) reports.

This system is based on the Digital Line Graph (DLG) database and the USEPA National Hydrography Dataset (NHD), that are in turn based on the United States Geological Survey (USGS) 1:100,000 scale topographic maps. The original DLG database was missing several lakes of relatively recent construction as well as a significant number of streams. Many of these missing features have been added by SCDHEC, with the cooperation and oversight of the USEPA. This revised system was utilized in this §305(b) report to estimate the sizes of the different use support categories and cause sizes for the Rivers and Streams, and Lakes summary statistics. Other base maps were used to estimate sizes for the Clean Lakes Program, Estuaries, and Shellfish Restrictions/Closures. These alternative databases are identified in the appropriate sections.

3. Water Pollution Control Program

A. Watershed Approach

SCDHEC conducts water quality assessment and protection on a watershed basis in order to promote a coordinated approach to river basin development and water quality maintenance or improvement, to better address congressional and legislative mandates, to better utilize current resources, and to better inform the public and regulated community of existing and future water quality issues. Watershed water quality management recognizes the interdependence of water quality and all the activities that occur in the associated drainage basin including: monitoring, assessment, problem identification and prioritization, water quality modeling, planning, permitting, and other activities. In the Watershed Water Quality Assessments (WWQA), these activities are integrated by basin leading to watershed management plans and implementation strategies and serve to appropriately refocus water quality protection efforts.

Watershed water quality management planning and strategy development provides SCDHEC with the tools and information necessary for program implementation. The planning process and the resulting strategy provide a structured and predictable schedule for carrying out program elements to ensure the protection of the State's water resources. While an important aspect of the program is water quality problem identification and problem solving, the emphasis of the program is on problem prevention.

SCDHEC has divided the state into eight major drainage basins along USGS hydrologic units (Figure 1), encompassing approximately 280 Natural Resources Conservation Service (NRCS) watersheds. These watersheds serve as the hydrologic boundaries that guide SCDHEC water quality activities. The majority of water quality activities in these watersheds are based on a five-year rotation.

For most activities the Savannah and Salkehatchie basins are addressed in the same year, as are the Saluda and Edisto basins, and the Catawba and Santee basins. Five years are required to assess all basins in the State, and National Pollutant Discharge Elimination System (NPDES) permits have a five-year lifespan. Each year SCDHEC revises the assessment for the targeted basin(s). Planning on a watershed basis is consistent with basic ecological principles of watershed management. It allows the coordination of implementation activities so that all actual and potential impacts on water quality can be evaluated. Both point source and nonpoint source impacts can be evaluated when making water quality protection decisions. Problem areas in a particular drainage basin can be

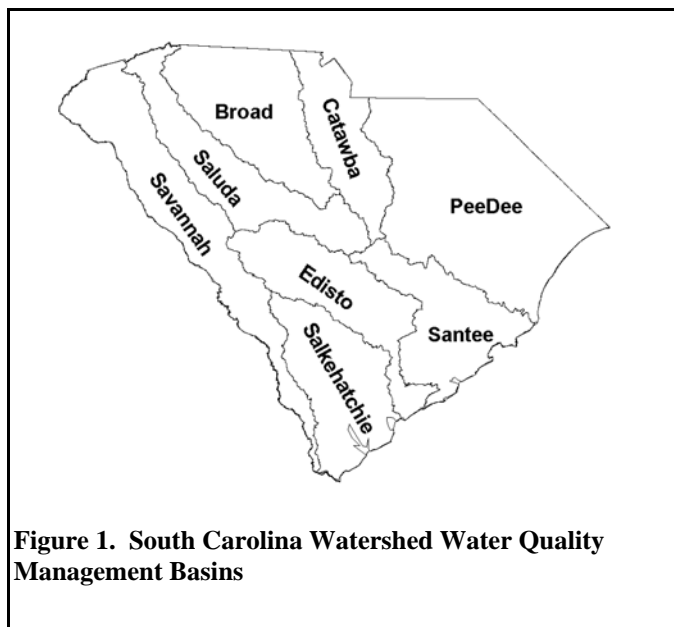


Figure 1. South Carolina Watershed Water Quality Management Basins

identified and existing and potential contributors can be examined. Subsequently, waste assimilative capacities can be determined and allocated in a more equitable fashion.

Proposed permit issuances within a watershed are consolidated and presented to the public in groups rather than one at a time. By issuing all the NPDES permits during the same period, SCDHEC will be able to realize a resource savings and the public will realize an information advantage since all of the permitting activity for a specific area will occur in a specified period of time when public notices and public meetings and hearings will be conducted.

The watershed management process also focuses resources. Limited resources require targeting work efforts in order to maximize useful results. Focusing on specific basins each year allows SCDHEC to coordinate staff activities to make efficient use of available resources. While the statewide ambient monitoring network is maintained, the monitoring strategy has been revised so the regional monitoring staff concentrate on the targeted basin(s). The monitoring activities support the development of wasteload allocations and total maximum daily loads (TMDLs). Developing wasteload allocations and TMDLs on a watershed basis allows for an equitable assessment of all actual and potential impacts on the water quality from both point sources and nonpoint sources. Focusing decision making efforts in a single watershed will highlight the need to examine water quality standards and use designation for the appropriate waterbodies. An examination of the water quality and use designations may point to the need for site specific standards or stream classification changes.

In preparing the eight watershed assessments and in updating and revising each one on a five-year rotation, SCDHEC will be able to respond more efficiently, and in a timely manner, to federal requirements. More importantly, SCDHEC will be better able to utilize available resources, coordinate water quality improvement efforts, and protect water quality in South Carolina. These watershed assessments serve as a starting point to fulfill a number of EPA reporting requirements. EPA requires various reporting activities under §303(d), §305(b), §314, and §319 of the Clean Water Act (CWA).

B. Water Quality Standards and Classifications

S.C. Regulations 61-68, *Water Classifications and Standards* and S.C. Regulation 61-69, *Classified Waters* were promulgated by SCDHEC pursuant to the South Carolina Pollution Control Act (48-1-10, *et seq.*, S.C. Code of Laws, 1976).

The water quality standards regulation contains provisions that provide for the protection and maintenance of the existing and classified uses of the waters of the State. The water quality standards include general rules and specific water quality criteria, both narrative and numeric, to protect those classified and existing uses as well as antidegradation rules to protect the public health and welfare and maintain and enhance water quality.

The water quality standards also serve as the basis for decisions in the other water quality program areas. NPDES permit limitations for waste discharges are determined according to the classification and standards of the receiving water. The standards and classifications also affect the control of toxic substances, thermal discharges, stormwater discharges, dredge and fill activities, and other

water related activities. SCDHEC implements the antidegradation rules through its regulatory programs.

S.C. Regulation 61-69 alphabetically lists the waterbodies in South Carolina that have been specifically classified by name, gives the classification, describes the boundaries of the use classification, the county of location, and any applicable site-specific standards.

Revisions to water quality standards and any reclassification of waters of the State require a public hearing process, approval by the Board of SCDHEC, approval by the General Assembly, and publication in the State Register. S.C. Regulation 61-68 was last amended on June 25, 2004 and R. 61-69 was last amended June 23, 2006. Proposed amendments to R. 61-68 are awaiting approval by the General Assembly and will be adopted upon EPA approval.

Surface Water Classes - Freshwaters

Table 2. Freshwater Classifications and Descriptions

Freshwaters	Description
Outstanding National Resource Waters	Exceptional national recreational and/or ecological resource.
Outstanding Resource Waters	Exceptional recreational and/or ecological resource and suitable for drinking water source with minimal treatment.
Trout Waters - (3 types) Natural Put, Grow and Take	Suitable for supporting reproducing and/or stocked trout populations and cold water indigenous aquatic community and the survival and propagation of aquatic life. Primary and secondary recreational contact including fishing and as drinking water source. Suitable for industrial and agricultural uses.
Put and Take	(See Freshwater Description)
Freshwater	Suitable for the survival and propagation of aquatic life; fishing and primary and secondary recreational contact and as drinking water source. Suitable also for industrial and agricultural uses.

Surface Water Classes - Saltwaters

Table 3. Saltwater Classifications and Descriptions

Saltwaters	Description
Outstanding National Resource Waters	Exceptional national recreational and/or ecological resource.
Outstanding Resource Waters	Exceptional recreational and/or ecological resource.
Shellfish Harvesting Waters	Suitable for survival and propagation of aquatic life; primary and secondary contact recreation. Suitable for harvesting of shellfish, crabbing, and fishing for market purposes and/or for human consumption.
Class SA	Suitable for survival and propagation of aquatic life; primary and secondary contact recreation; crabbing and fishing for market purposes and/or human consumption.
Class SB	Suitable for survival and propagation of aquatic life; primary and secondary contact recreation; crabbing and fishing for market purposes and/or human consumption.

Groundwater Classes

Table 4. Groundwater Classifications and Descriptions

Groundwater Type	Description
Class GA	Vulnerable to contamination due to hydrological characteristics.
Class GB	Suitable as an underground source of drinking water. All groundwaters of the State unless otherwise classified.
Class GC	Not suitable for underground drinking water source.

The following table summarizes the uses of each of the surface water classifications. No degradation of existing uses is permitted regardless of classification and no degradation of natural

conditions is allowed in Outstanding Resource Waters or Outstanding National Resource Waters.

Table 5. Summary of Supported Classified Uses for South Carolina

Uses	Description
Fish and wildlife	All classes
Domestic water supply	All freshwater classes
Primary contact recreation	All classes
Secondary contact recreation	All classes
Industrial	All freshwater classes
Agriculture	All freshwater classes
Navigation	All classes

Reclassifications and Site-Specific Criteria

SCDHEC is presently reclassifying several waterbodies to recognize their best and/or existing uses. Most reclassifications are initiated after receiving a written request from an individual, special interest group, or organization. SCDHEC also proposes waters for reclassification where existing water quality is better than required to protect the classified uses or if there is an existing use not recognized by the present classification. Also added to the classification system is the designation of No Discharge Zones (NDZs). NDZs relate specifically to the discharge of treated waste from Marine Sanitation Devices (MSDs) and are authorized pursuant to §312 of the Federal Clean Water Act. Waters of the State designated as NDZ prohibit any discharge from MSDs into these waters and require that the MSDs be pumped out at an appropriate facility. SCDHEC has designated seven waterbodies as NDZs and is currently considering designating other coastal waters as NDZs. In 2006 SCDHEC completed reclassifying several waterbodies within the boundary of the Congaree National Park to Outstanding Resource Waters (ORWs) and a portion of Cedar Creek which is contained within the boundary of the park to an Outstanding National Resource Water (ONRW). Cedar Creek is the State's first ONRW.

Water reclassifications, NDZ designations, and site-specific criteria are amendments to state regulation and, as such, are not effective until approved by the South Carolina General Assembly and published in the State Register.

C. Point Source Program - Municipal Facilities

The EPA has delegated the authority to SCDHEC for administering the National Pollutant Discharge Elimination System (NPDES) Program within the State. As a functional part of this NPDES program, all municipal and private domestic wastewater treatment works that discharge to surface water in South Carolina are monitored by the Bureau of Water (BOW). Permit effluent limits of each surface water discharge are derived using water quality models and other tools.

Loan Program

Beginning with fiscal year 1989, the state established a State Revolving Loan Fund (SRF) program, with EPA providing annual capitalization grants to seed the SRF program. This program is a low-interest, revolving loan program established pursuant to Public Law (P.L. 100-4), Water Quality Act of 1987. The State, in accordance with EPA requirements, has established a project priority rating system. The State's priority list ranks each wastewater treatment project need as well as other projects based on water quality and sludge disposal needs.

Projects receiving SRF loans since fiscal year 1989 have totaled over \$587,402,714.00 through June 30, 2007.

The result of the newly constructed or upgraded treatment works using these funding sources has been improved wastewater treatment resulting in favorable water quality benefits. This construction has eliminated poorly treated effluent from many streams and provided improvements to facility capacity. The improvement of water quality has been seen by routine monthly discharge monitoring reports (DMRs) submitted by each treatment plant owner to SCDHEC. As an overall result, the SRF helps to improve and maintain water quality.

Pretreatment and Toxicity Program

The implementation of SCDHEC pretreatment program continues. The State approves implementation pretreatment programs for Publicly Owned Treatment Works (POTWs). The pretreatment programs are typically updated upon permit renewal or when the facility expands the discharge. An assessment of program requirements is conducted to insure that the latest pretreatment regulation requirements are in place. There has been a direct benefit to in-stream water quality demonstrated from many, if not all, of the implemented pretreatment programs. With the implementation of approved programs many industries previously discharging untreated wastewater to a POTW must pretreat their discharges. This has resulted in a significant reduction in the amounts of materials (contaminants) that POTWs are now receiving from the industries. This allows the POTW to adequately treat all wastewater prior to discharging to a State stream, resulting in the ability to better maintain the existing stream water quality standards.

Since FY 89 appropriate majors, significant minors (minors with pretreatment programs) and selected other permits have been issued or reissued with effluent toxicity monitoring requirements to be performed as appropriate based on the information related to the discharge characteristics. Depending on the in-stream waste concentration and presence or absence of a diffuser, there can be either an acute test, chronic test, or both required. The toxicity testing typically will be multi

concentration tests that will allow an assessment of the potential toxicity of the effluent at varying concentrations.

Stormwater Controls

South Carolina has no known combined stormwater/sanitary sewer discharges associated with POTWs. Combined sewers are usually prohibited by local ordinance to preclude overloading treatment systems with stormwater. Stormwater runoff control on POTW sites is mandatory in some areas of the State.

SCDHEC is implementing a state stormwater permitting program policy in support of EPA guidelines of requirements required by the 1987 amendments to the Clean Water Act. See the Section on Stormwater Permits under "D. Point Source Program - Industrial and Agricultural Facilities."

Land Application of Treated Waste

SCDHEC issues State discharge permits to facilities that discharge directly to land as spray irrigation. This involves the application of, at least, secondary-treated wastewater to land surfaces with the applied effluent being further treated as it percolates through the plant-soil matrix. A portion of the applied effluent percolates to groundwater, some is absorbed by vegetation, and some evaporates to the atmosphere.

The primary objectives of this program are:

- (a) Treatment and disposal of applied wastewater without exceeding ground-water quality standards as specified in S.C. Regulation 61-68 *Water Classifications and Standards*.
- (b) Economic return from use of treated effluent, water and nutrients, to produce marketable crops.
- (c) Water conservation by replacing potable water with treated effluent.
- (d) Preservation of open space through vegetation.

As a permit requirement, a program for monitoring the quality of groundwater is typically established and implemented. Proper placement of ground-water monitoring wells will provide a check on the effectiveness of the wastewater renovation and will serve as an early warning system for ground-water quality protection for nearby ground-water users. The direction of groundwater flow determines the placement of ground-water monitoring wells.

Strategies to Improve the Municipal Permitting Program

SCDHEC regional personnel inspect the operation and maintenance programs of POTWs on a routine basis. Deficiencies noted during inspections are conveyed to the POTW and may require SCDHEC to take formal enforcement action. Operational advice is provided on a limited basis by SCDHEC staff. The South Carolina Environmental Training Center at Sumter Area Technical College also provides training for treatment plant operators.

SCDHEC has developed sludge management regulations and guidance for permittees. All NPDES permits issued or reissued have sludge disposal requirements. The permit typically requires the sludge generator to monitor the content of its sludge and to dispose of it in an environmentally acceptable manner. The permit authorizes specific methods (e.g., land application, land filling, etc.) and procedures to be fully implemented.

D. Point Source Program - Industrial and Agricultural Facilities

Industrial Facilities

SCDHEC reviews NPDES permit applications for new and existing facilities and determines whether treatment must be technology-based or based on water quality standards. The more stringent of these derived numbers are used as the applicable permit limits. Effluent guidelines, where promulgated by EPA, are used to determine technology-based limits. If EPA effluent guidelines have not been developed, best professional judgment of technology-based limits is used. Water quality limits are developed using computerized water quality modeling procedures, which result in wasteload allocations for constituents affecting in-stream oxygen levels. South Carolina water quality standards and/or biological monitoring are used to determine limits for potentially toxic constituents. Where appropriate, permit limits are developed using a combination of water quality limitations for specific constituents, whole effluent toxicity limits, and in-stream biological monitoring to insure no adverse impacts from industrial point source dischargers.

Agricultural Facilities

Unregulated wastewater discharges from agricultural animal facilities or fruit and vegetable processing facilities may affect water quality. Additionally, South Carolina does not allow surface water discharges from these facilities under any circumstances. To ensure these wastes do not enter the waters of the State, SCDHEC requires that both solid and liquid agricultural wastes from these facilities be collected, treated, and disposed in an environmentally acceptable manner. This is accomplished through a State permitting and inspection program requiring recycling or land application of agricultural wastes. Land application of wastes to viable crops at agronomic rates eliminates direct surface water discharges of agricultural wastes and is effective in insuring water quality. South Carolina's state agricultural program is and will continue to be more stringent than the federal NPDES program for animal facilities.

Toxics Controls

Toxic pollutants are generally defined as substances which by themselves or in combination with other chemicals are harmful to animal life or human health. They include some of the metals, pesticides, and other synthetic organic pollutants that have the potential to contaminate water, fish tissue, and bottom sediments. Each NPDES permit application is reviewed for potential toxic pollutants. These pollutants are evaluated for aquatic life and human health concerns. If determined to be potentially toxic, a limitation is placed in the NPDES permit for that specific pollutant using South Carolina water quality standards. SCDHEC has EPA-approved standards for specific pollutants. Whole effluent toxicity testing is placed in many NPDES permits; those tests being for acute and/or chronic monitoring as appropriate. In-stream biological assessments are also being utilized in some cases (i.e., to evaluate stormwater runoff).

Land Application of Treated Wastewater

The process utilized for industrial and agricultural facilities is the same as that for municipal facilities. However, limitations for the spray effluent are not permitted as secondary limits, but are based on site-specific requirements.

Stormwater Permits- Industrial

SCDHEC regulates storm water discharges associated with industrial activities. The State has issued two general NPDES permits for activities associated with industry. These permits are the Construction Activity NPDES Permit and the Associated with Industrial Activity, except construction, NPDES Permit.

The general permits require permittee's to develop and implement Storm Water Pollution Prevention Plans (SWPPPs) that will minimize pollutants in their storm water discharges. Some industrial activities, except construction, must monitor on either an annual or semiannual basis while all industrial activities, except construction, are required to update their SWPPP's on an annual basis. Industrial construction activities are required to conduct inspections weekly and after every rainfall event of 1 inch or greater.

Where appropriate, individual NPDES permits will be issued in accordance with EPA's tiered permitting strategy. Water quality monitoring will help identify the industrial activities that must receive individual permits instead of general permits. In the watershed approach, the individual permits will be tailored to address the water quality concerns of the storm water discharges from industrial activity.

Stormwater Permits – Construction

In addition to regulating storm water discharges associated with industrial activities, SCDHEC is charged with regulation storm water discharges originating from construction sites. This is done through the NPDES General Permit for Storm Water Discharges from Large and Small Construction Sites (SCR100000).

The newest version of the General Permit was issued in February of 2006 and is anticipated to

become effective in the spring of 2006. The new permit includes additional inspection and reporting requirements. Storm Water Pollution Prevention Plans (SWPPPs) are to be prepared and submitted to the Department for review. Plans are to be updated and must reflect the activities, from initial clearing to final stabilization, that are to take place on the construction site. Plans must also reflect any controls necessary to keep the site in compliance with existing TMDLs or other water quality concerns.

Stormwater Permits- MS4

SCDHEC also regulates Municipal Separate Storm Sewer Systems (MS4s) in the overall storm water program. There were only two medium-sized MS4s in SC (both counties) that fell under the Phase I Storm Water NPDES program and both of these permits have been issued. With the promulgation of the Phase II Storm Water NPDES Permit regulations, there is an additional MS4 (a city) in South Carolina. SCDHEC has received an application for this MS4 and is presently reviewing the application to determine how to permit the MS4. Either an individual NPDES permit will be issued for this MS4 or the applicant will be made a co-permittee of the applicable county's existing MS4 permit. These permits help insure water quality protection within the boundaries of the affected municipal governments. There are over 70 small MS4s in South Carolina. Most of those have received coverage under the Small MS4 General Permit, however there are a few entities that have appealed their coverage. All of these programs are working on practices to improve water quality on a local basis.

E. Permit Compliance and Enforcement

Compliance tracking is a complex activity that involves various program elements and activities within the Bureau of Water. Regulatory functions require ongoing monitoring of all permits, inspection activities, and investigatory work. A computer based tracking system, the Environmental Facility Information System (EFIS), is maintained for the storage, retrieval, and management of permit compliance information for individual permits, including all effluent limits and compliance schedule data, facility operation and maintenance and pretreatment status. The availability of this information and ability to manage the data electronically enhances the Bureau information base providing greater program management capabilities.

All data necessary for issuing permits and tracking the compliance of those individual permits is maintained on the Bureau's network. Staff have access to information on permitting status, compliance monitoring, enforcement status, etc.

The EFIS Network is designed to interface with EPA's Permit Compliance System (PCS). Updated compliance data is batched to PCS weekly. The Bureau is continuing its efforts to improve its utilization of the computer generated EPA Quarterly Noncompliance Report (QNCR).

Enforcement activities are performed in order to identify and appropriately respond to facilities in permit noncompliance and other entities found to be in violation of state statutes and regulations. Data accessibility through the Bureau's networking system, as well as organizational changes, have greatly enhanced enforcement staff capabilities for efficient case development and management. Improvements in entry of limits and data will further improve tracking and enforcement efficiency.

An emphasis on enforcement activity will continue in accordance with implementation of the Bureau's Watershed Water Quality Management Program. Appropriate and timely enforcement responses in conjunction with the activities of other program areas are expected to contribute significantly to accomplishment of this program's goals through the development of TMDLs.

Enforcement staff will become more involved in the referral of cases for criminal investigation and providing assistance to criminal investigators. A greater emphasis has been placed upon pursuing prosecution of violators under the criminal statutes and the support and assistance of enforcement staff in this process will continue to be invaluable; however, criminal and administrative investigations must be conducted separately.

It is recognized that aggressive enforcement activity encourages compliance. In this regard, enforcement staff are committed to secure for South Carolina the benefits from these activities to protect our water resources through implementation of appropriate enforcement strategies. The development and continued improvement of automated tools and methodology to accomplish this is considered to be vital to this function and will be given priority.

F. Nonpoint Source Program

Nonpoint Source (NPS) water pollution generally comes from diffuse, numerous sources. Runoff occurring after a rain event may transport sediment from plowed fields, construction sites, or logging operations, pesticides and fertilizers from farms and lawns, motor oil and grease deposited on roads and parking lots, or bacteria containing waste from agricultural animal facilities or malfunctioning septic systems. The rain moves the pollutants across the land to the nearest water body or storm drain where they may impact the water quality in creeks, rivers, lakes, estuaries and wetlands. Nonpoint source pollution may also impact groundwaters when it is allowed to seep or percolate into aquifers. The adverse effects of NPS pollution include physical destruction of aquatic habitat, fish die-offs, interference with or elimination of recreational uses of a water body (particularly lakes), closure of shellfish beds, reduced water supply or taste and odor problems in drinking water, potential human health problems due to bacteria and toxic chemicals in NPS runoff, and increased potential for flooding because water bodies become choked with sediment.

The *South Carolina Nonpoint Source Management Program, 1999 Update* outlines the state's strategic plan for addressing statewide water quality impairments attributable to nonpoint source pollution discharges. To accomplish this strategy, 17 long-term goals for reducing or preventing NPS pollution are enumerated. Throughout the document, five-year action strategies are described that lead to attainment of the long-term goals, and annual milestones leading to attainment of the action strategies are further described. The Program is two-pronged; focusing on reducing NPS impacts in priority watersheds, and implementing activities statewide in order to prevent NPS pollution. Components include both regulatory and voluntary approaches.

To facilitate success in achieving water quality improvements, South Carolina's NPS program focuses federal Clean Water Act §319 funding and state resources on impaired §303(d) listed waterbodies in priority watersheds through the implementation of approved NPS Total Maximum Daily Loads (TMDLs). The State's Coastal Nonpoint Pollution Control Program under federal

Coastal Zone Management legislation is also implemented.

Nine categories of NPS pollution that impact South Carolina's waters are identified and described: agriculture, forestry, urban areas, marinas and recreational boating, mining, hydrologic modification, wetlands disturbance, land disposal/groundwater impacts, and atmospheric deposition. Technology based controls, or management measures, are employed to address these categorical impacts. The program describes specific management measures for each category as well as implementation schedules. South Carolina has the legal authority to implement all of the necessary management measures.

SCDHEC is responsible for program implementation, but is dependent upon the cooperation of all levels of government, private sector stakeholders, and especially the citizens of the State in order to realize positive results. Many organizations have expertise that can be beneficial to the NPS pollution management program. For example, trade and environmental organizations have program delivery mechanisms that reach persons capable of implementing NPS controls, e.g., farmers, contractors, mine operators, and homeowners. These partnership roles are described in the program.

A system of evaluation/monitoring techniques is a necessary component of the NPS Management Program, in order to evaluate its progress and success. Evaluation will show whether the program is attaining the state's overall water quality vision, stated long-term goals, and five-year action strategies. In South Carolina, several monitoring and tracking efforts are described that address available information on improvements in water quality, implementation milestones, and available information on reductions in NPS pollution. Evaluation techniques include water quality monitoring, level of participation in management measure implementation, and stakeholder feedback.

This *South Carolina NPS Management Program Update* fulfills the requirements of both Section 319 of the Clean Water Act Amendments of 1987, and Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990. It comprehensively describes a framework for agency coordination and cooperation and serves to implement a strategy for employing effective management measures and programs to control NPS pollution statewide for the next five years.

It incorporates nine key elements that are iterated in Environmental Protection Agency NPS guidance. Through the use of a framework that addresses these key elements, South Carolina will continue to have an effective NPS program that is designed to achieve and maintain beneficial uses of water. The USEPA has also designated South Carolina as an "Enhanced Benefits" State.

South Carolina receives funding in excess of \$3 million annually for implementation of projects to reduce or eliminate NPS pollution through section 319 of the Clean Water Act. Some of these projects are statewide or regional in scope and include activities such as water quality monitoring, NPS outreach and education, and best management practice (BMP) compliance. Other projects are watershed based, aimed at remediation of NPS related problems from the State's §303(d) list. The current focus for §319 funding is the development and implementation of total maximum daily loads (TMDLs). Since FY 2003, one-half of the state's allocation has been used for this purpose.

G. Wasteload Allocations and Total Maximum Daily Loads

A total maximum daily load (TMDL) is the maximum load of a pollutant that can be assimilated by a waterbody without contravening water quality standards. Section 303(d) of the Clean Water Act requires that TMDLs be developed for waters that are determined to be impaired, that is, not meeting applicable water quality standards. A TMDL is made up of a wasteload allocation (WLA) that is the portion of the assimilative capacity allocated to point sources, a load allocation (LA) that is the portion of the assimilative capacity allocated to nonpoint sources, plus a margin of safety. A TMDL can be developed for an individual pollutant, such as bacteria, or for a category of pollutants, such as oxygen demanding substances. In addition to developing WLAs in conjunction with TMDLs for waters on the State's 303(d) list of impaired waters, SCDHEC also develops WLAs as part of the routine review required for new discharges or for permit reissuance for existing discharges.

Various techniques, ranging from simple mathematical models to complex computer based models, are used by SCDHEC to determine the ability of a waterbody to assimilate various pollutants. TMDLs and WLAs developed using these techniques allow use of the assimilative capacity of a waterbody while ensuring that a level of water quality to protect existing and classified uses is maintained. WLAs are now developed as part of the basin review process as well as in response to proposals for new and expanded projects throughout the State. WLAs for oxygen demanding substances (carbonaceous and nitrogenous oxygen demand), ammonia toxicity and total residual chlorine are determined by the Water Quality Modeling Section. WLAs for metals, organic pollutants, and most toxicants are determined by the individual permitting sections.

Wasteload allocations fall into one of two categories. In instances when the assimilative capacity of a waterbody exceeds the existing or proposed pollutant loading, the waterbody is said to be effluent limited and a TMDL is not required. Effluent limitations for discharges to such waters are determined by the minimum standards required for the type of discharge involved. In instances where the permitted loading is equal to or a proposed loading is greater than the assimilative capacity, the stream is said to be water quality limited. The limits on the discharges to such waters are determined by the water quality of the receiving stream, rather than the minimum standards. TMDLs are not required for water quality limited streams that meet applicable standards. In cases where the water body is meeting standards but a previously permitted or proposed loading would cause the waterbody to be impaired, the new wasteload allocation is a maximum allowable loading. In multiple discharge situations, the load must be divided or allocated among the discharges.

To date, TMDLs have been developed for fecal coliform bacteria, phosphorus, pH, and oxygen demanding substances for many waterbodies. Development of additional TMDLs is currently underway. Wasteload allocations have been developed for numerous waterbodies for ammonia and oxygen demanding substances. While not TMDLs, these WLAs in many cases constitute the maximum allowable loading to the waterbody. Wasteload allocations for metals and other toxicants, that in many cases can be considered the maximum available loading to the stream, are now developed on a routine basis. TMDLs WLAs for phosphorus have been developed for several streams including Eighteen Mile Creek, Reedy River, Bush River and Catawba River. There are also efforts underway for development of nutrient TMDLs for the Reedy River, Catawba River and a tributary of Lake Marion. Development of new TMDLs is expected to play an increasingly important part in the overall wasteload allocation process as SCDHEC continues

implementation of the basin planning and permitting strategy with emphasis on restoring the State's impaired waters.

H. Special State Concerns and Recommendations

The Bureau of Water continues to implement the operational plan initiated in 2001. These efforts implement portions of the Agency's 2005 – 2010 strategic plan. Elements of the operational plan embrace the Bureau's mission and the Agency's values, and vision.

DHEC Values

Customer service
Teamwork
Use of applied scientific knowledge
Cultural competence
Excellence in government
Local solutions to local problems
Our Employees

DHEC Vision

Healthy people living in healthy communities

Bureau of Water Mission

The Bureau of Water is working to ensure high quality drinkable, fishable and swimmable waters throughout South Carolina.

Bureau of Water Goals

These eight goals of will ensure that our mission is accomplished while embracing the DHEC values and vision. Each goal is supported by indicators, outcomes, outputs and inputs specified in the operational plan.

Goal 1: Protect Surface and Ground Water Quality.

Goal 2: Adequately Assess Water Quality.

Goal 3: Reduce and Eliminate Water Pollution.

Goal 4: Protect and Restore Aquatic Habitat.

Goal 5: Provide Safe Drinking Water.

Goal 6: Protect Public Health and Safety.

Goal 7: Expand the Public's Knowledge about Water Issues.

Goal 8: Plan Effectively for Growth.

SCDHEC's Bureau of Water continues implementation of a Watershed Water Quality Management Program that is designed to maximize the use of resources, equalize workloads on an annual basis, and develop strategies for water quality maintenance or improvement on a priority basis. Since the implementation of our Watershed Water Quality Management Program, we have reduced the backlog of expired permits and significantly reduced the review time for permit applications. Completion of several complex TMDLs has helped reduce the backlog. The Watershed Water Quality Management Program also has allowed us to better utilize water quality monitoring resources to evaluate water quality in the State as well as wasteload modeling resources for permit limits development.

Our current or future activities will be focused on implementing the following recommendations and strategies. They are presented according to the goal they will help us attain.

Protect Surface and Ground Water Quality

- * The Department completed a triennial review in January 2008. These regulation amendments are presently awaiting legislative approval. Major revisions include adoption of current federal criteria, addition of assessment methodology for enterococci bacteria, removal of language prohibiting mixing zones in source water protection areas, addition of a footnote to allow the use of the biotic ligand model to determine site specific fresh water copper limits, revision of the arsenic standard as allowed by EPA guidance and removal of the non-priority pollutants iron and manganese.
- * The SCDHEC will continue an assertive process to evaluate and to properly classify SCDHEC waters. In 2006, we completed reclassifying waters within the Congaree National Park to be classified as Outstanding National Resource Waters.
- * The SCDHEC continues its point source permitting policy of issuing water quality based NPDES permits.

Adequately Assess Water Quality

- * Water quality monitoring efforts must be continually revised and expanded to address the additional potential impacts of increasing population and development. We have completed our fifth year of monitoring waters at statistically selected stations for lakes and rivers and use these data for our overall statements about water quality in this report. There remains the need for increased analytical capabilities to measure the presence of chemicals at very low concentrations. A greater emphasis on biological integrity is also a recognized need. We participated in the national wadeable streams monitoring effort and are assisting in data evaluation. The SCDHEC must continue to seek resources to develop and implement more extensive biological monitoring and assessment. Recognizing that EPA may be moving away from STORET, we are exploring other ways to house our monitoring data.

Reduce and Eliminate Water Pollution

- * Improving water quality of impaired waters continues to be a SCDHEC priority. The SCDHEC must develop Total Maximum Daily Loads (TMDLs) for all waters listed on the 303(d) list of impaired waters. The SCDHEC is using State appropriations and some of the Federal Section 319 funds to assist with TMDL development. With the goal to improve as many waters as possible so that water quality standards are consistently met, we are using Section 319 funds to implement controls for water quality improvement in impaired waters (TMDL Implementation for nonpoint source reductions). More than 320 TMDLs have been approved, 20 are currently under development, and 74 TMDLs are currently being implemented through Section 319 funds.
- * Regulations dealing with Phase II of the National Pollutant Discharge Elimination System (NPDES) storm water permit program have been finalized. The general permit for small MS4s became effective on March 1, 2006. All small MS4s, except for a few, have been granted coverage. The remaining programs have appealed their coverage under the general permit. The general permit for construction activities became effective on September 1, 2006. The general permit for industrial activities expires in August of 2008. SCDHEC is working on the reissuance of this permit. Additional positions have been added to assist with permitting and compliance. These positions will be located in our Regional offices and will work with the MS4s and on issuing coverage under the construction general permit. As always, additional inspectors would make this program more effective.

Protect and Restore Aquatic Habitat

- * The SCDHEC will more aggressively integrate the Shellfish Sanitation Program into its ongoing efforts to maintain and enhance water quality by focusing corrective actions on impaired shellfish harvesting waters.
- * The SCDHEC will continue to protect wetlands as waters of the State through its water programs including 401 water quality certification, NPDES permitting, and State stormwater permitting. The SCDHEC is using storm water permitting programs in conjunction with the SC Pollution Control Act to attempt protect isolated wetlands since a Supreme Court decision removed them from regulatory jurisdiction of the Corps of Engineers. We have not been successful in amending water quality certification regulations to provide for protection of isolated wetlands; however, a new statute to protect isolated wetlands was introduced by the Legislature in 2006.

Provide Safe Drinking Water

- * Source Water Protection and Wellhead Protection Programs continue to receive priority to insure drinking water uses of surface and ground waters are given the highest levels of protection. The SCDHEC has completed all source water protection reports for existing sources. Source water protection reports are developed for new sources as they are permitted.

Protect Public Health and Safety

- * The Agency continues to maintain a robust fish tissue-monitoring program. The outreach and education programs have been expanded and include public service announcements and health advisory signs at boat landings.
- * Ocean water quality monitoring with appropriate advisories to the public continues with federal funding under the BEACH Act. In Horry County, the SCDHEC has developed a rainfall model to assist in advisory postings.

Expand the Public's Knowledge about Water Issues

- * The SCDHEC publishes environmental quality data in its annual report, *Healthy People Living in Healthy Communities*, to inform and educate the general public, State legislature, and State congressional delegation as to the status of our progress to date and important issues. This effort to increase the general awareness of the citizens of the State to the mission, programs, and achievements of the SCDHEC and to help them better understand environmental issues should be expanded through other activities that facilitate interaction between citizens and SCDHEC representatives.
- * The Bureau of Water has a stable Outreach program to provide education in

connection with nonpoint source pollution and drinking water issues. The mission of the bureau Outreach program is to support the goal of high quality drinkable, fishable, and swimmable waters through the development, implementation and evaluation of quality and timely Outreach programs, resources and services. These programs and services include communication strategies consultation, grant awards for youth environmental projects, resource development and implementation, and targeted outreach activities addressing current water issues.

- * The Bureau of Water has an excellent Internet web site to facilitate information exchange and to provide public participation in the regulatory process. We continue to provide speakers to address issues of interest to the public and have participated in developing an education curriculum for primary and secondary schools.
- * In addition to public education on water quality issues, we also recognize the need to provide public forums for participation in water quality management planning and TMDL development.
- * The SCDHEC continues to expand and upgrade its computer and electronic capabilities, including implementation of the new STORET database system. We are also using a LIMS (Laboratory Information Management System) to input data from the lab into STORET. There are numerous areas where electronic management and processing of data and tracking systems would relieve valuable manpower for other activities and allow a more effective use of available resources. The SCDHEC is anticipating the move to the ICIS data system.

Plan Effectively for Growth

- * The Governors of South Carolina and Georgia, through Executive Orders, established committees specifically for the purpose of protecting shared water resources. They are currently engaged in discussions on two issues that could significantly affect growth in both states: saltwater intrusion into the upper Floridan aquifer and development and implementation of a Total Maximum Daily Load for the Savannah River.
- * Legislation in both South Carolina and North Carolina established joint river basin advisory commissions for the Catawba/Wateree River and the Yadkin/Pee Dee River. Members have been named for the Catawba/Wateree Commission and they have met several times. Issues of concern are ensuring adequate quantity for downstream uses and increased pollutant loadings into the Catawba River.
- * Legislation to allow the SCDHEC to regulate water withdrawals has been introduced. Governor's Water Law Review Committee recommended in its 2004 Report that this legislation is needed for South Carolina to be able to negotiate with neighboring states on water quantity issues.

- * Waccamaw and Low Country regions of the State have been designated capacity use areas for groundwater for many years. The Trident area was designated in 2002, the Pee Dee area was designated in early 2004 and Hampton County was designated in 2008.

SURFACE WATER ASSESSMENT

1. Surface Water Monitoring Program

A. Purpose and Design

State administrators need to assess the quality of the aquatic environment so that they can make decisions concerning water program priorities and provide reports to the public on the state of the environment, important trends over time, and accomplishments. They also need to evaluate the effectiveness of control measures. Water quality monitoring data provide information necessary to meet these needs.

The SCDHEC operates and collects data from a statewide network of ambient monitoring sites. The ambient monitoring network is directed toward determining long-term water quality trends, assessing attainment of water quality standards, identifying locations in need of additional attention, and providing background data for planning and evaluating stream classifications and standards. The ambient monitoring network, as a program, involves sampling a wide range of physical and chemical parameters and analyzing them for the presence or effects of contaminants and comparing them to criteria to determine use support.

There are several major components to SCDHEC's ambient water quality monitoring activities, including ongoing fixed-location monitoring, cyclic watershed monitoring, and statewide probability-based monitoring, each designed to provide data for water quality assessment of major water resource types at different spatial and temporal scales. For a detailed discussion of each of these components, please see the most recent version of the State of South Carolina Monitoring Strategy at <http://www.scdhec.net/environment/water/docs/strategy.pdf>.

B. Networks and Programs

The statewide Probability-Based, or random sampling, component of the ambient monitoring program is designed to make statewide estimates of water quality. The data derived from those monitoring activities is used to develop the stream, lake/reservoir, and estuarine summary information presented in this report. A probability-based monitoring design is a type of a survey design in that the population of interest is sampled in a fashion that allows statements to be made about the whole population based on a subsample, and produces an estimate of the accuracy of the assessment results. The advantage of the probability-based sampling design is that statistically valid statements about water quality can be made about large areas based on a relatively small subsample.

Separate monitoring schemes have been developed for stream, lake/reservoir, and estuarine resources. Site selection is done in association with the U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory (NHEERL), Corvallis, Oregon. Random Sites are sampled once a month for one year, and a new statewide set of probability-based random sites is selected for each waterbody type every year.

Please refer to the State of South Carolina Monitoring Strategy for details of parameters sampled at <http://www.scdhec.net/environment/water/docs/strategy.pdf>.

Although statements about resource conditions can theoretically be made based on data from a single year, the compilation of data from multiple years increases the confidence and accuracy of statements about water quality. An additional advantage of the probability-based approach is that it presents the opportunity for previously unsampled locations to be selected for data collection.

C. Laboratory Analytical Support

The Analytical and Radiological Environmental Services Division (ARESD) provides laboratory services to the Bureaus of Water and Land and Waste Management. The analytical services offered include bacteriological, chemical, and physical analyses. The types of samples analyzed include water, wastewater, leachate, soil, sediment, chemical waste, fish, and shellfish.

The organizational structure encompasses five sections and seven regional laboratories. The Central Laboratory Sections include Sample Characterization/ Automated Analysis/ Data Management, Metals Analysis, Organic Analysis, and Environmental Microbiology located in the Hayne Building in Columbia. The Radiological Environmental Monitoring Section is located in the Sims/Aycock Building in Columbia. The seven regional laboratories are located in Aiken, Beaufort, North Charleston, Florence, Greenville, Lancaster, and Myrtle Beach.

The Regional Laboratories, except for Beaufort and Myrtle Beach, initiate all stream and wastewater analysis. The Central Laboratories provide support analyses, i.e., metal, nutrient, toxic extraction procedures, and organic analyses. The Beaufort and Myrtle Beach Regional Laboratories analyze microbiological samples only. The Central Laboratory also acts as the Regional Laboratory for the Central Midlands District, performing the same functions as the other Regional Laboratories. Drinking Water Chemical Analysis is essentially a Central Laboratory program with support from the Regional Laboratories. All regional laboratories perform microbiological analyses for the Drinking Water Program.

D. Quality Assurance

SCDHEC's Quality System is the means by which the Department implements the quality management process. The Quality System encompasses a variety of technical and administrative elements which are outlined in the SCDHEC Quality Assurance Management Plan, 2003. This plan describes how programs within Environmental Quality Control (EQC) will plan, implement, and assess the quality of environmental work to be performed as part of the various programs' functions within the Agency.

The Deputy Commissioner for Environmental Quality Control has the overall responsibility for the development, implementation, and continued operation of EQC's QA Program. To insure that EQC's QA policy is uniformly applied to the generating and processing of all environmental data, a State Quality Assurance Management Office (SQAMO) has been established.

This office is responsible for the Quality Assurance Program. Environmentally-related measurement activities conducted by or for EQC shall be done only with the approval of the State Quality Assurance Management Office (SQAMO) after assuring that adequate quality assurance guidelines

and procedures have been incorporated. This includes study-planning, sample collection, preservation and analysis, data handling, and use of physical, chemical, biological, and other data related to the effects, sources, transport and control of pollution, as well as personnel review and training.

To accomplish these goals the Water Quality Monitoring Section, Aquatic Biology Section, and Pollution Source Compliance Section have developed and instituted SQAMO approved field study procedures and documentation, data review, and routine EPA operating overview. These procedures are documented in SCDHEC's Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (SOP) (2006). This document describes in detail the field sampling procedures, meter calibration and maintenance procedures, sample chain-of-custody documentation, sample preservation, holding times and recommended sample containers specifications, data sheet examples, and data submission requirements.

At least once yearly all field personnel are accompanied on sample collection activities by the appropriate program quality assurance officer for evaluation of adherence to standard operating procedures (SOP) for QA/QC. These evaluations each year are for water quality monitoring SOP review and for facility compliance sampling SOP review. Approximately every other year the EPA conducts on-site routine overviews of SCDHEC's QA/QC procedures.

The Division Director and the Quality Assurance Officer for EQC Laboratories coordinate the internal quality assurance program. The laboratory quality assurance program encompasses every aspect of the laboratory analysis from container preparation through the actual data release from the Analytical Services Laboratory to the Environmental Quality Control (EQC) Programs.

Analytical Services has developed two quality control manuals that detail the day-to-day operation of the quality assurance program: (1) Procedures and Quality Control Manual for Chemistry Laboratories--Analytical Services; and (2) Laboratory Procedures Manual for Environmental Microbiology-- Analytical Services. The elements of quality control addressed in the manuals include organization and sample chain of custody; personnel training; quality control of laboratory services, scope and application, equipment and supplies, reagents, standards, methodology, preservation and storage, calibration, performance criteria and quality assurance, and waste management.

The overall laboratory quality assurance program, which includes the previously discussed elements, requires a minimum of 25% of allocated resources. The frequency for analysis of replicates and spike recovery samples is noted in the manuals and is in compliance with U.S. EPA guidelines. Acceptance criteria for each QC check is stated. Performance samples are also analyzed as noted in the manuals. The Environmental Microbiology Laboratories perform replicate analyses, positive test controls, media control tests, equipment control tests, etc., as required by EPA Laboratory Certification and Evaluation guidelines. In addition, Analytical Services and the seven regional laboratories participate in annual Water Supply and Water Pollution Proficiency Testing Programs. All regional personnel who collect samples that require field testing participate in either the yearly Water Supply or Water Pollution Proficiency Testing Program, whatever is appropriate.

The laboratory analyses are conducted according to the List of Approved Test Procedures in the

Federal Register, Volume 49, No. 209, October 26, 1984; Federal Register, Volume 59, No. 20, January 31, 1994; and Federal Register, Volume 67, No. 205, October 23, 2002. The Analytical Services quality control manuals include a section on methodology designed to reduce variations in applied techniques among the State laboratories where methods permit analyst interpretation, and thus provide a more uniform approach that will increase the reproducibility of results reported from the laboratory system. Analytical SOPs are identified by number and date of revision. Each SOP includes the approved method reference.

SOPs includes instrument calibration and maintenance procedures as well as corrective actions for any deficiencies or problems encountered.

E. Data Storage, Management and Interpretation

Routine ambient stream and sediment samples are collected by Regional Office personnel with some analyses conducted in the Regional Laboratories and others by the Central Laboratory. Data for samples that are analyzed in the Regional Laboratories are reported on the appropriate data sheets and released by the sample custodian for the region. These data sheets are sent to the Analytical and Radiological Environmental Services Division in Columbia where they are sent to the appropriate program areas (see Figure 5). All Ambient Surface Water Physical & Chemical Monitoring data are distributed by the Water Pollution Control Division to the Data Administration Section where the data are reviewed, edited and stored into the LIMS/SIMS Process database. Then the Water Quality Monitoring Section performs a 10 percent review of all data to ensure quality assurance of the data. The data are stored on at least an annual basis in the EPA's STORET distributed water quality database. Data sheets are kept on file in the Water Quality Monitoring Section.

After biological samples are collected, data sheets are kept on file in the Aquatic Biology Section until sample analysis is completed. Macro invertebrate and habitat data are entered into an in-house relational database program. Phytoplankton data are stored in a separate in-house database. Fish tissue results are entered into an Excel database and hard copies are filed and kept on site. Data sheets describing biological data are kept on file in the Aquatic Biology Section.

2. Assessment Methodology

A. Probability-Based §305(b) Assessment Approach

The initial selection of prospective probability-based, or random, monitoring site locations is conducted by the U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory (NHEERL), Corvallis, Oregon. Independently for each waterbody type, rivers and streams, lakes and reservoirs, and estuarine habitat, a statewide grid system and computer selection program is used to randomly select a particular grid to achieve a statewide spatial distribution of sites, and then a specific location within a selected grid is chosen according to the specifics of each waterbody design as described below.

The basic starting dataset for stream and lake site selection is the USEPA National Hydrography Dataset (NHD) coverage at a scale of 1:100,000, which is based on the U.S. Geological Survey (USGS) Digital Line Graph map base. Because of stream density inconsistencies in NHD some

missing stream reaches in part of the state were added by digitization for a more consistent statewide representation. Similarly some important reservoirs that are missing in NHD were also added.

Estuarine sites selection uses a hydrographic GIS cover developed jointly by SCDHEC and the South Carolina Department of Natural Resources from the National Wetlands Inventory (NWI) digital files at a scale of 1:24,000.

Rivers and Streams

Streams of different sizes may be more or less sensitive to different types of environmental perturbations. Because of this, three stream sizes have been specifically targeted to ensure they are represented in the selected random sites. Approximately 30 total randomly selected stream sites are sampled each year. Each site is sampled monthly for one year.

1. First Order streams, or headwater streams, are targeted because these represent streams with the least dilution capacity and therefore are most immediately impacted by adjacent land use activities and associated runoff. These streams may also serve as spawning areas for fish and refuge areas for young from larger aquatic predators.
2. Second Order streams, are also streams with relatively small dilution capacity and represent important habitat for reproduction and survival of aquatic life. They may also reflect the direct impacts of major land use activities.
3. Third Order and larger streams, that include the major rivers of the State. In general these streams have greater dilution capacity and are less affected by small scale land use perturbations and may be heavily utilized for contact recreation.

These different sizes do not occur in equal proportions in the state, therefore an unequal weighting procedure is used in the site selection process to guarantee inclusion of approximately equal numbers of sites in all three stream sizes. These differential weights are based on the relative proportions of these three size classes in the streams of the state and are used in the assessment to adjust the contribution of each stream site to the statewide resource size.

Lakes and Reservoirs

Eligible lakes/reservoirs are restricted to “significant lakes,” defined as those freshwater lakes/reservoirs with at least 40 acres surface area that offer public access. The size of significant lakes/reservoirs varies immensely; therefore two size classes of lakes/reservoirs have been specifically targeted to ensure that the smaller lakes/reservoirs are represented in the selected random sites. Approximately 30 total randomly selected lake and reservoir sites are sampled each year. Each site is sampled monthly for one year.

1. Major Lakes/Reservoirs greater than 850 acres surface area.
2. Minor Lakes/Reservoirs greater than 40 acres surface area, but less than or equal to 850 acres.

These different sizes do not occur in equal proportions in the state, therefore an unequal weighting procedure is used in the site selection process to guarantee inclusion of approximately equal numbers of sites in both sizes. These differential weights are based on the relative proportions of these two size classes in the lakes and reservoirs of the state and are used in the assessment to adjust the contribution of each lake site to the statewide resource size.

Estuaries

The coastal estuarine probability-based monitoring scheme has been developed jointly by SCDHEC, Bureau of Water, and the South Carolina Department of Natural Resources (SCDNR), Marine Resources Research Institute (MRRI). This effort has been dubbed the South Carolina Estuarine and Coastal Assessment Program (SCECAP) and sampling of the probability-based coastal estuarine sites is a cooperative venture between SCDHEC and SCDNR-MRRI. To ensure inclusion of a variety of estuarine ecosystems and habitats, the coastal estuaries have been divided into two discrete categories (strata) based on a common GIS cover developed and utilized by both agencies.

1. Tidal Creeks, identified as less than 100 meters wide on the GIS cover, serve as nursery areas for important marine species and are most immediately affected by upland land use activities and associated runoff.
2. Open Water areas, identified as greater than 100 meters wide on the GIS cover, represent larger estuarine rivers and sounds.

Within these waterbody types there are two distinct types of monitoring sites based on sampling frequency, Core Sites and Supplemental Sites. Core Sites are sampled monthly for one year by SCDHEC for water column physical and chemical parameters and are used for §305(b) reporting purposes.

The Supplemental Sites are sampled one time by SCDNR-MRRI and SCDHEC and are used in conjunction with one time samples collected at the Core Sites in the SCECAP reports and USEPA National Coastal Assessment.

Each year there will be approximately 15 Core Tidal Creek sites and 15 Core Open Water sites. Differential weights are based on the relative proportions of these two size classes in the estuarine areas of the state and are used in the assessment to adjust the contribution of each estuary site to the statewide resource size.

B. Determination of Attainment of Classified Uses

General Considerations

Physical, chemical and biological data were evaluated, as described below, to determine if water quality met the water quality criteria established to protect the State classified uses defined in S.C. Regulation 61-68, *Water Classifications and Standards*. Some waters may exhibit characteristics outside the appropriate criteria due to natural conditions. Such natural conditions do not constitute a violation of the water quality criteria. To determine the appropriate classified uses and water quality criteria for specific waterbodies and locations, refer to S.C. Regulation 61-69, *Classified Waters*, in conjunction with S.C. Regulation 61-68.

Water samples for analysis are collected as surface grab samples once per month, quarter, or year, depending on the parameter. Grab samples collected at a depth of 0.3 meters are considered to be a surface measurement. At most stations sampled by boat, dissolved oxygen and temperature are sampled as a water column profile, with measurements being made at either a depth of 0.3 meters below the water surface and at one-meter intervals to the bottom or at 0.3 meters, bottom and mid-depth. At stations sampled from bridges, these parameters are measured only at a depth of 0.3 meters. For the purpose of assessment, only surface samples are used in standards comparisons. Because of the inability to target individual high or low flow events on a statewide basis these data are considered to represent typical physical conditions and chemical concentrations in the waterbodies sampled. All samples are collected and analyzed according to standard procedures (SCDHEC 2006).

Results from water quality samples can be compared to State and USEPA criteria, with some restrictions due to time of collection and sampling frequency. For certain parameters, the monthly sampling frequency employed is insufficient for strict interpretation of the standards. The grab sample method is considered to be representative for the purpose of indicating excursions relative to criteria, within certain considerations. A single grab sample is more representative of a one-hour average than a four-day average, more representative of a one-day average than a one-month average, and so on; thus, when inferences are drawn from grab samples relative to criteria, sampling frequency and the intent of the criteria must be weighed. When the sampling method or frequency does not agree with the intent of the particular standard, any conclusion about water quality should be considered as only an indication of conditions, not as a proven circumstance.

Macroinvertebrate community structure is analyzed routinely at selected stream stations as a means of detecting adverse biological impacts on the aquatic fauna of the state's waters due to water quality conditions that may not be readily detectable in the water column chemistry.

The following statewide assessment information is based on the available quality assured physical,

chemical and biological water quality data collected through the probability-based monitoring design from 2002-2006.

Aquatic Life Use Support - One important goal of the Clean Water Act, the South Carolina Pollution Control Act, and the State Water Quality Classifications and Standards is to maintain the quality of surface waters to provide for the survival and propagation of a balanced indigenous aquatic community of fauna and flora. The degree that aquatic life is protected (Aquatic Life Use Support) is assessed by comparing important water quality characteristics and the concentrations of potentially toxic pollutants with numeric criteria.

Support of aquatic life uses is determined based on the percentage of numeric criteria excursions and, where data are available, the composition and functional integrity of the biological community. The term excursion is used to describe a measured pollutant concentration that is outside of the acceptable range as defined by the appropriate criterion. Some waters may exhibit characteristics outside the appropriate criteria due to natural conditions. Such natural conditions do not constitute a violation of the water quality criteria. A number of waterbodies have been given waterbody-specific criteria for pH and dissolved oxygen, to reflect natural conditions. To determine the appropriate numeric criteria and classified uses for specific waterbodies and locations, please refer to S.C. Regulation 61-68, *Water Classifications and Standards* and S.C. Regulation 61-69, *Classified Waters*.

If the appropriate criterion for dissolved oxygen and pH are contravened in 10 percent or less of the samples, the criterion is said to be fully supported. If the percentage of criterion excursions is greater than 10 percent, but less than or equal to 25 percent, the criterion is partially supported, unless excursions are due to natural conditions. If there are more than 25 percent excursions, the criterion is not supported, unless excursions are due to natural conditions. The decision that criteria excursions are due to natural conditions is determined by consensus and/or the professional judgment of SCDHEC staff with specific local knowledge.

If the appropriate acute or chronic aquatic life criterion for any individual toxicant (heavy metals, priority pollutants, ammonia) is exceeded more than once, representing more than 10 percent of the samples collected, the criterion is not supported. If the acute or chronic aquatic life criterion is exceeded more than once, but in less than or equal to 10 percent of the samples, the criterion is partially supported.

The total recoverable metals criteria for heavy metals are adjusted to account for solids partitioning following the approach set forth in the Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria, October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water, available from the Water Resource center, USEPA, 401 M St., SW, mail code RC4100, Washington, DC 20460; and 40CFR131.36(b)(1). Under this approach, a default TSS value of 1 mg/L is used. Where the metals criteria are hardness based, a default value of 25 mg/L is used for waters where hardness is 25 mg/l or less.

For ammonia, the calculation of the appropriate criterion value requires the values of several associated field parameters measured concurrent with the ammonia sample collection. Where direct measurements of any of the parameters are lacking the ammonia value will not be used to determine

compliance with the standards.

For turbidity in all waters, and for waters with numeric total phosphorus, total nitrogen, and chlorophyll-a criteria, if the appropriate criterion is exceeded in more than 25 percent of the samples, the criterion is not supported. If the criterion is exceeded in more than 10 but less than 25 percent, sites are evaluated on a case-by-case basis to determine if local conditions indicate that classified uses are impaired. Among the characteristics considered are: hydrology and morphometry of the waterbody, existing and projected trophic state, characteristics of pollutant loadings and ongoing pollutant control mechanisms. If the criterion is exceeded in less than 10 percent of the samples, then the criterion is fully supported.

If the conclusion for any single parameter is that the criterion is “not supported”, then it is concluded that aquatic life uses are not supported in the waterbody, at that monitoring location. If there are no criteria that are “not supported”, but the conclusion for at least one parameter criterion is “partially supported”, then it is concluded that aquatic life uses are partially supported. Regardless of the number of samples, no monitoring site will be listed as partially or not supporting for any pollutant based a single water chemistry sample result because of the possibility of an anomalous event.

For aquatic life uses, the goal of the standards is the protection of a balanced indigenous aquatic community. Therefore, biological data are the ultimate deciding factor, regardless of chemical conditions. If biological data shows a healthy, balanced community, the use is considered supported even if chemical parameters do not meet the applicable criteria.

Macroinvertebrate Data Interpretation - Macroinvertebrate community assessment data are used to directly determine Aquatic Life Use Support and to support determinations based on water chemistry data. Macroinvertebrate community data may also be used to evaluate potential impacts from the presence of sediment contaminants. Aquatic and semi-aquatic macroinvertebrates are identified to the lowest practical taxonomic level depending on the condition and maturity of specimens collected.

The EPT Index and the North Carolina Biotic Index (BI) are the main indices used in analyzing macroinvertebrate data. To a lesser extent, taxa richness and sometimes total abundances may be used to help interpret data. The EPT Index or the Ephemeroptera (mayflies) - Plecoptera (stoneflies) - Trichoptera (caddisflies) Index is the total taxa richness of these three generally pollution-sensitive orders. EPT values are compared with least impacted regional sites. The Biotic Index for a sample is the average pollution tolerance of all organisms collected, based on assigned taxonomic tolerance values.

Taxa richness is the number of distinct taxa collected and is the simplest measure of diversity. High taxa richness is generally associated with high water quality. Increasing levels of pollution progressively eliminate the more sensitive taxa, resulting in lower taxa richness. Total abundance is the enumeration of all macroinvertebrates collected at a sampling location. When gross differences in abundance occur between stations, this metric may be considered as a potential indicator.

Recreational Use Support - The degree to that the swimmable goal of the Clean Water Act is attained (Recreational Use Support) is based on the frequency of fecal coliform bacteria excursions.

For fecal coliform bacteria, an excursion is an occurrence of a bacteria concentration greater than 400/100 ml for all surface water classes. Comparisons to the bacteria geometric mean standard are not considered appropriate based on sampling frequency and the intent of the standard.

If 10 percent or less of the samples are greater than 400/100 ml then recreational uses are said to be fully supported. A percentage of criteria excursions greater than 10 and less than or equal to 25 is considered partial support of recreational uses, and greater than 25 percent is considered to represent nonsupport of recreational uses.

3. Rivers and Streams Water Quality Assessment

The U.S. Environmental Protection Agency has developed a system to determine estimates of total river miles and total lake acres for the states to use in reporting for §305(b) reports. The estimates are based on the Digital Line Graph (DLG) database and the National Hydrography Dataset (NHD), that are in turn based on the U.S. Geological Survey 1:100,000 scale hydrologic maps. The original DLG database was missing a significant number of South Carolina streams. Many of these missing features have been added by SCDHEC, with the cooperation and oversight of the USEPA.

A. Summary Statistics

Based on the modified USEPA National Hydrography Dataset (NHD) and the results of probability site selection validation, South Carolina has an estimated 21,782 miles of freshwater rivers and streams representing the stream sampling design frame previously described. Because of the inability to reach some selected locations, the 147 probability-based monitoring sites sampled from 2002-2006 represent 12,594 total stream miles.

A summary of classified use support statewide based on these data, along with causes for partial or nonattainment, is presented below. The Lower and Upper 95 Percent Confidence Intervals for the probability-based estimates signify that it is 95% certain that the true mileage is between the upper and lower confidence limits.

Table 6. Rivers and Streams Use Support Summary (Miles)

Indicator	Category	Probability-Based Estimated Percent of Total Resource	Probability-Based Estimated Miles of Total Resource	Lower 95 Percent Confidence Interval (Miles)	Upper 95 Percent Confidence Interval (Miles)
Aquatic Life Use	Fully Supporting	67.2%	8,443	7197	9689
	Partially Supporting	20.7%	2,594	1,600	3,588
	Not Supporting	12.1%	1,517	905	2,128
Recreational Use	Fully Supporting	42.2%	5,295	4,191	6,400
	Partially Supporting	18.7%	2,347	1,488	3,207
	Not Supporting	39.1%	4,911	3,836	5,985

**Table 7. Summary of Fully Supporting and Impaired Rivers and Streams
(Not including Fish Consumption Use)**

Category	Probability-Based Estimated Percent of Total Resource	Probability-Based Estimated Miles of Total Resource	Lower 95 Percent Confidence Interval (Miles)	Upper 95 Percent Confidence Interval (Miles)
Fully Supporting All Assessed Uses	31.7%	3,976	3,012	4,941
Impaired for One or More Use	66.3%	8,577	NA	NA

**Table 8. Total Sizes of Rivers and Streams Impaired by
Various Cause Categories (Miles)**

Cause Category	Probability- Based Estimated Miles of Total Resource	Lower 95 Percent Confidence Interval (Miles)	Upper 95 Percent Confidence Interval (Miles)
Macroinvertebrate Community	2,822	1,799	3,846
Turbidity	81	0	222
Dissolved Oxygen	917	439	1,395
pH	472	50	894
Chromium	55	0	150
Copper	444	106	781
Nickel	55	0	150
Zinc	565	153	978
Fecal Coliform Bacteria	7,258	6,106	8,411

4. Lakes Water Quality Assessment

A. Summary Statistics

Based on the modified USEPA National Hydrography Dataset (NHD) and the results of probability site selection validation, South Carolina has an estimated 318,033 acres of lake and reservoir representing the lake/reservoir sampling design frame previously described. Because of the inability to reach some selected locations, the 144 probability-based monitoring sites sampled from 2002-2006 represent 309,063 total acres. A summary of classified use support statewide based on these data, along with causes for partial or nonattainment, is presented below. The Lower and Upper 95 Percent Confidence Intervals for the probability-based estimates signify that it is 95% certain that the true acreage is between the upper and lower confidence limits.

Table 9. Lake Use Support Summary (Acres)

Indicator	Category	Probability-Based Estimated Percent of Total Resource	Probability-Based Estimated Acres of Total Resource	Lower 95 Percent Confidence Interval (Acres)	Upper 95 Percent Confidence Interval (Acres)
Aquatic Life Use	Fully Supporting	89.1%	275,388	251,007	299,769
	Partially Supporting	4.4%	13,601	2,988	24,214
	Not Supporting	6.5%	20,073	6,810	33,337
Recreational Use	Fully Supporting	99.9%	308,869	286,252	331,485
	Partially Supporting	0.1%	194	0	428

**Table 10. Summary of Fully Supporting and Impaired Lakes
(Not including Fish Consumption Use)**

Category	Probability-Based Estimated Percent of Total Resource	Probability-Based Estimated Acres of Total Resource	Lower 95 Percent Confidence Interval (Acres)	Upper 95 Percent Confidence Interval (Acres)
Fully Supporting All Assessed Uses	89.0%	275,194	250,806	299,582
Impaired for One or More Use	11%	33,868	NA	NA

Table 11. Total Sizes of Lakes Impaired by Various Cause Categories (Acres)

Cause Category	Probability-Based Estimated Acres of Total Resource	Lower 95 Percent Confidence Interval (Acres)	Upper 95 Percent Confidence Interval (Acres)
Turbidity	582	230	934
Dissolved Oxygen	291	134	448
pH	22,668	9,151	36,186
Total Phosphorus	19,589	6,327	32,850
Total Nitrogen	194	0	431
Chlorophyll- <i>a</i>	388	72	704
Copper	194	0	428
Zinc	291	134	448
Fecal Coliform Bacteria	194	0	428

B. Section 314 Reporting

Section 314(a) of the Clean Water Act of 1987 directs each State to prepare or establish: (1) an identification and classification according to trophic condition of publicly-owned freshwater lakes within such State; (2) procedures, processes, and methods to control sources of pollution of such lakes; (3) methods and procedures, in conjunction with appropriate Federal agencies, to restore the quality of such lakes; (4) a list and description of lakes for that uses are known to be impaired; and (5) an assessment of the status and trends of water quality in lakes. Further, States are required to submit a biennial assessment of lake trophic condition as part of their §305(b) report.

Background

Monthly sampling is conducted each year in lakes throughout the state as part of SCDHEC's ambient water quality monitoring activities, including ongoing fixed-location monitoring, cyclic watershed monitoring, and statewide probability-based monitoring.

Trophic Status

In 2001, South Carolina adopted numeric nutrient criteria for lakes by ecoregion and beginning FY 2002, trophic condition assessment was based upon the criteria for Total Phosphorus (TP), Total Nitrogen (TN) and Chlorophyll *a* (CHL-A). Table 13 lists those lake sites that were identified as not meeting one or more of these numeric criteria as part of the current §303(d) assessment reported in *Part I: Listing of Impaired Waters* of this Integrated Report. The second part of the same table lists all other sites that were assessed and found to meet the numeric criteria.

Table 12. Condition of Significant South Carolina Lakes

Lake Sites Not Attaining Numeric Nutrient Criteria		
PIEDMONT		
STATION ID(S)	Location	Parameters
RL-05403	BOYD MILL POND 0.5 MI NW OF BRIDGE OVER REEDY RIVER ON SC 252	TP
RL-02452	CEDAR CK RES 0.15 MI SE OF S TIP PICKETT ISLAND	TP
RL-02319	CEDAR CK RES FROM W OF BIG ISL 7 MI BELOW ROCKY CK CONFL	TP
CW-033	CEDAR CK RESERVOIR 100 M N OF DAM	TP
CW-174	CEDAR CK RESERVOIR AT UNIMP RD AB JCT WITH ROCKY CK	TN, TP
CW-175	CEDAR CK RESERVOIR/ROCKY CK AT S-12-141 SE OF GREAT FALLS	TP
RL-05391	CEDAR CREEK RESERVOIR 0.42 MI NNW OF S-29-405 ON LANCASTER CHESTER COUNTY LINE	TP
RL-04379	CEDAR CREEK RESERVOIR 1.25 MI ESE OF GREAT FALLS NW OF HILL ISLAND	TP
RL-03353	CEDAR CREEK RESERVOIR 1.9 MI SE OF GREAT FALLS AND E OF BIG ISLAND	TP
RL-04375	CEDAR CREEK RESERVOIR 2.2 MI SE OF GREAT FALLS SE OF BOWDEN ISLAND	TP
RL-05416	CEDAR CREEK RESERVOIR DEBUTARY CREEK BRANCH 0.4 MI E OF DEBUTARY CREEK AND S-20-268	TP
RL-06431	CEDAR CREEK RESEVOIR 1.6 MI SE OF GREAT FALLS E OF BIG ISLAND	TP
RL-06468	CHESTER SATE PARK LAKE 2.5 MI SW OF CHESTER	CHL-A
CW-016F	FISHING CK RES 2 MI BL CANE CREEK	TN, TP
CW-057	FISHING CK RES 75 FT AB DAM NR GREAT FALLS	TP
RL-03351	GREAT FALLS RESERVOIR 0.3 MI NE OF DAM AND W OF BIG ISLAND	TP
RL-03332	GREAT FALLS RESERVOIR 0.9 MI NE OF GREAT FALLS	TN, TP
RL-05414	GREAT FALLS RESERVOIR 1 MI EAST OF JUNCTION OF SC 99 AND US 21	TP
RL-03458	GREAT FALLS RESERVOIR 1 MI NE OF GREAT FALLS	TP
RL-06429	GREAT FALLS RESERVOIR 1.2 MI SE OF GREAT FALLS W OF BIG ISLAND	TP
RL-06438	LAKE AT CHESTER STATE PARK 0.8 MI SE OF ENTRANCE	CHL-A
S-308	LAKE GREENWOOD, REEDY RVR ARM, 150 YDS US RABON CK	TP
SV-268	LAKE HARTWELL - EIGHTEEN MILE CK ARM AT S-04-1098	TP
CL-035	LAKE JOHNSON AT SPILLWAY AT S-42-359	TP, CHL-A
S-309	LAKE MURRAY, BUSH RVR ARM, 4.6 KM US SC 391	TP, CHL-A
S-222	LAKE MURRAY, LITTLE SALUDA ARM AT SC 391	TP
CL-021	LAKE OLIPHANT, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES	CHL-A
RL-02314	LAKE WATEREE 1.0 MI SW FROM MOUTH OF BEAVER CK	TP
RL-03336	LAKE WATEREE NEARSHORE ALONG S-28-802 OPP COLONEL CK CONFL	TP

CW-207	LK WATEREE AT END OF S-20-291	TP
CW-208	LK WATEREE AT S-20-101 11 MI ENE WINNSBORO	TP, CHL-A
CW-209	LK WATEREE AT SMALL ISLAND 2.3 MI N OF DAM	TP
CW-231	LK WATEREE HEADWATERS APPROX 50 YDS DS CONFL CEDAR CK	TP
B-346	PARR RESERVOIR 4.8 KM N OF DAM, UPSTREAM MONTICELLO RESERVOIR	TP
SOUTHEASTERN PLAINS		
STATION ID(S)	Location	Parameters
CL-077	LAKE ASHWOOD, FOREBAY MOVED TO CATWALK NEAR DAM	TN, CHL-A
CL-064	LAKE EDGAR BROWN IN FOREBAY NEAR DAM	TP, CHL-A
RL-04388	LAKE MARION 0.5 MI NE OF CALHOUN LANDING (USE SC-044)	TP
C-058	LK INSPIRATION - ST MATTHEWS (FRONT OF HEALTH DEPT)	TN, TP
RL-02308	LK MARION @ CHANNEL MARKER 69; USE SANTEE COOPER SC-016	TP
ST-025	LK MARION AT OLD US 301/15 BRDG AT SANTEE (SC-015)	TP
SC-040	MID LAKE MARION @ CHANNEL MARKER 79	TP
SC-017	MID LAKE MARION @ TAW CAW CREEK EMBAYMENT	TP
SC-014	UPPER LAKE MARION @ HEADWATERS OF CHAPEL BRANCH CREEK	TP
SC-038	UPPER LAKE MARION @ THE MOUTH OF HALFWAY SWAMP CREEK	TP
SC-039	UPPER LAKE MARION 2.0 KM BELOW RIMINI RAILROAD TRESTLE	TP
SC-010	UPPER LAKE MARION AT CHANNEL MARKER 150	TP
SC-005	UPPER LAKE MARION NEAR PACK'S LANDING	TP
RL-05412	GOOSE CREEK RESERVOIR 0.55 MI W OF DAM	TP
RL-03340	GOOSE CREEK RESERVOIR 1.0 MI NW OF SPILLWAY NEAR W SHORELINE	TP, CHL-A
RL-06434	GOOSE CREEK RESERVOIR 2 MI N OF SPILLWAY	TP
RL-04390	GOOSE CREEK RESERVOIR 2.8 MI NW OF SPILLWAY NEAR OTRANTO	TP
MIDDLE ATLANTIC COASTAL PLAIN		
STATION ID(S)	Location	Parameters
ST-033	GOOSE CK RESERVOIR AT 2ND POWERLINES US OF BOAT RAMP	TP, CHL-A
ST-032	GOOSE CREEK RESERVOIR 100 M US OF DAM	TP, CHL-A
RL-03331	LAKE WARREN 0.2 MI W OF SPILLWAY NE CORNER OF LAKE CLOSER TO LAKE WARREN ST PARK SHORELINE	TN,TP,CHL-A
Lake Sites Attaining Numeric Nutrient Criteria		
BLUE RIDGE		
STATION ID(S)	Location	
RL-06430	LAKE JOCASSEE 1 MI SSE OF DOUBLE SPRINGS MOUNTAIN	
RL-04380	LAKE KEOWEE, EASTATOE CREEK ARM 0.5 MI N OF KEOWEE/TOXAWAY STATE PARK	
RL-04376	LAKE YONAH 0.65 MI NNE OF SPILLWAY	
SV-358	LAKE YONAH, 50% BETWEEN CENTER OF SPILLWAY AND OPPOSITE SHORE	

SV-336	LK JOCASSEE AT CONFLUENCE OF THOMPSON AND WHITEWATER RVRS
SV-335	LK JOCASSEE AT TOXAWAY, HORSE PASTURE, & LAUREL FORK CONFLUENCE
CL-019	LK JOCASSEE IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
SV-337	LK JOCASSEE OUTSIDE COFFER DAM AT BAD CK PROJECT
SV-334	LK JOCASSEE, MAIN BODY
S-292	NORTH SALUDA RESERVOIR AT WATER INTAKE
S-291	TABLE ROCK RESERVOIR AT WATER INTAKE
SV-359	TUGALOO LAKE, FOREBAY EQUIDISTANT FROM SPILLWAY AND SHORELINES
PIEDMONT	
STATION ID(S)	Location
B-099B	AT DAM LK LANIER IN GREENVILLE CO
S-223	BLACKS BR, LK MURRAY AT SC 391
RL-03355	BROADWAY LAKE 0.5 NW OF SPILLWAY NEARSHORE OPPOSITE END OF S-04-152
RL-06421	BROADWAY LAKE 1 MI SW OF JUNCTION OF US HWY 178 AND US HWY 76
SV-321	BROADWAY LAKE FOREBAY, 50% BETWEEN SPILLWAY AND OPPOSITE LAND
SV-319	BROADWAY LAKE, BROADWAY CK ARM UPSTREAM OF PUBLIC ACCESS
SV-258	BROADWAY LAKE, NEALS CK ARM 50% BETWEEN BANKS AT GOLF COURSE
RL-06443	CEDAR CREEK RESEVOIR 2.3 MI SE OF GREAT FALLS S OF PICKET ISLAND
CL-023	CHESTER STATE PARK LAKE 100 M EAST OF SPILLWAY
RL-05407	CLARKS HILL RESERVOIR 0.3 MI S OF BOAT RAMP AT THE END OF S-33-366
RL-05463	CLARKS HILL RESERVOIR 0.67 MI NW OF US 378
RL-05405	CLARKS HILL RESERVOIR 1.25 MI S OF THE END OF S-33-337
RL-06423	CLARKS HILL RESERVOIR 6.9 MI SSE OF MCCORMICK
SV-291	CLARKS HILL RESERVOIR AT US 378 7 MI SW MCCORMICK
RL-04385	CLARKS HILL RESERVOIR COVE 0.5 MI SW OF HAMILTON BRANCH STATE PARK
CL-040	CLARKS HILL RESERVOIR HEADWATERS (SAVANNAH RVR)
CL-041	CLARKS HILL RESERVOIR IN FOREBAY NEAR DAM
RL-03357	CLARKS HILL RESV NW HICKORY KNOB ST PARK OPP PATTERSON CK
B-735	DUNCAN CREEK RESERVOIR 6B IN FOREBAY NEAR DAM
B-110	ELIZABETH LAKE AT SPILLWAY ON US 21
S-211	HOLLANDS LANDING LK MURRAY OFF S-36-26 AT END OF S-36-3
RL-05413	JOHN D. LONG LAKE 0.2 MI NW OF DAM
RL-03345	LAKE BLALOCK 0.1 MI SE BUCK CREEK CHURCH/S-42-189
RL-04363	LAKE BLALOCK 0.3 MI UPLAKE OF US 221
RL-04389	LAKE BLALOCK 0.6 MI UPLAKE OF US 221

RL-06447	LAKE BLALOCK 0.8 MI SE OF BRIDGE US 221 OVER LAKE
RL-04367	LAKE BLALOCK 0.9 MI UPLAKE OF US 221
RL-02323	LAKE BLALOCK AT S-42-43
RL-04461	LAKE BLALOCK AT US 221
B-347	LAKE BLALOCK IN FOREBAY NEAR DAM
B-339	LAKE BOWEN 0.3 MI W OF SC 9
B-340	LAKE BOWEN NEAR HEADWATERS, 0.4 KM W OF S-42-37
RL-02455	LAKE BROADWAY 0.2 MI NW OF ALLEN PARK
B-343	LAKE CHEROKEE IN FOREBAY NEAR DAM
RL-05399	LAKE COOLEY 2.5 MI N OF WELLFORD
B-348	LAKE COOLEY IN FOREBAY NEAR DAM
CL-033	LAKE CRAIG 45 M NORTHWEST OF DAM
B-341	LAKE CUNNINGHAM IN FOREBAY NEAR DAM
S-097	LAKE GREENWOOD - CANE CK ARM AT SC 72 3.1 MI SW CROSS HILL
RL-02311	LAKE GREENWOOD 1.0 MI NW OF SEABOARD RR CROSSING
RL-04387	LAKE GREENWOOD 2.2 MI NW OF LAKE GREENWOOD STATE PARK
S-303	LAKE GREENWOOD 200 FT US OF DAM
S-024	LAKE GREENWOOD, HEADWATERS, JUST US S-30-33
S-307	LAKE GREENWOOD, RABON CK ARM, .8 KM N RD S-30-307
RL-05417	LAKE HARTWELL 0.3 MI SOUTH OF SC 24 BRIDGE OVER SENECA RIVER ARM
RL-03333	LAKE HARTWELL 3.9 MI NW OF SADLERS CREEK ST PARK
RL-05392	LAKE HARTWELL 5.96 MI SSW OF PENDELTON
RL-06444	LAKE HARTWELL 8.9 MI WSW OF WESTMINISTER
SV-236	LAKE HARTWELL AT S-37-184 6.5 MI SSE OF SENECA
RL-04371	LAKE HARTWELL COVE 0.75 MI SE OF SADLERS CREEK STATE PARK
SV-249	LAKE HARTWELL HEADWATERS, SENECA RVR ARM AT SC 183 3.8 MI WSW SIX MILE
SV-363	LAKE HARTWELL OFF GLENN FORD LANDING US BEAVERDAM CK COVE
RL-04378	LAKE HARTWELL, SENECA RVR ARM 0.8 MI WNW OF CLEMSON LOOKOUT TOWER
RL-06432	LAKE ISSAQUEENA 0.1 MI N OF SPILLWAY
SV-360	LAKE ISSAQUEENA, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
RL-02327	LAKE J. ROBINSON 0.4 MI S OF S-23-113
RL-02453	LAKE J. ROBINSON 0.7 MI S OF S-23-113
RL-05395	LAKE J. ROBINSON 0.77 MI NNW OF BRIDGE OVER BEAVERDAM CREEK ON S-23-92
RL-06445	LAKE J. ROBINSON 0.92 MI S BRIDGE S-23-113 OVER LAKE
RL-04365	LAKE J. ROBINSON 1 MI NNW OF DAM
RL-06449	LAKE J. ROBINSON 1.7 MI NNE BRIDGE S-23-113 OVER LAKE
RL-04361	LAKE J. ROBINSON 2.3 MI NNW OF DAM
RL-02321	LAKE J. ROBINSON 6.3 MI NNW OF GREER
RL-03343	LAKE J. ROBINSON IN COVE 0.5 MI SW OF S-23-113 CROSSING

CL-100	LAKE J. ROBINSON, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
B-344	LAKE JOHN D. LONG IN FOREBAY NEAR DAM
RL-05466	LAKE KEOWEE 0.25 MI NWN OF S-37-340 AND S-37-588
RL-03354	LAKE KEOWEE 1.6 MI NW OF SC 188 & 0.7 MI SE OF S-37-175
RL-05394	LAKE KEOWEE 5.06 MI NNW OF SECEA
RL-02304	LAKE KEOWEE 7.0 MI E OF WALHALLA
RL-05418	LAKE MURRAY 0.38 MI SSE OF S-32-1322
RL-06442	LAKE MURRAY 0.65 MI NW JUNCTION OF S-32-109 AN S-32-38
RL-05420	LAKE MURRAY 0.7 MI NNW OF LAKE MURRAY SHORES
RL-03338	LAKE MURRAY 0.8 MI S OF COUNTS ISLAND & 0.75 MI NW OF LUNCH ISLAND
RL-06440	LAKE MURRAY 0.95 MI NE OF END S-32-1239
RL-05410	LAKE MURRAY AT END OF SHULL ISLAND AT THE END OF S-32-115
S-213	LAKE MURRAY AT S-36-15
RL-03334	LAKE MURRAY COVE 1.3 MI W OF BALLENTINE
RL-04372	LAKE MURRAY HOLLOW/HORSE CREEKS ARM 1.75 MI NNE OF US 378 CROSSING
RL-02316	LAKE MURRAY SW OF JAKES MARINA
S-310	LAKE MURRAY, SALUDA RVR ARM, US BUSH RVR, 3.8 KM US SC 391
S-798	LAKE OOLENOY AT DRAIN NEAR SPILLWAY AT SC 11
RL-02307	LAKE OOLENOY SAMPLED FROM S SIDE OF SC 11 BRIDGE
RL-03359	LAKE RABON 0.6 MI SE S-30-312
S-296	LAKE RABON 300 FT US OF DAM
RL-02305	LAKE RABON NEAR BOAT LANDING ON UNN CNTY RD OFF S-30-54
RL-02303	LAKE RABON NEAR NE SHORE AND BELOW US 76
S-313	LAKE RABON, N RABON CK ARM, 2.5 MI US DAM
RL-05411	LAKE RABON, N RABON CK ARM, 2.8 MI UPSTREAM FROM DAM
S-312	LAKE RABON, S RABON CK ARM, AT S-30-312
SV-100	LAKE RUSSELL AT SC 181 6.5 MI SW STARR
SV-098	LAKE RUSSELL AT SC 72 3.1 MI SW CALHOUN FALLS
SV-357	LAKE RUSSELL, ROCKY RVR ARM BETWEEN MARKERS 48 & 49, DS FELKEL
RL-02309	LAKE STROM THURMOND NEAR HAMILTON BRANCH ST PK
B-342	LAKE THICKETTY IN FOREBAY NEAR DAM
RL-02301	LAKE THICKETTY NEAR SE SHORE APPROX 1.0 MI FROM MACEDONIA
RL-03341	LAKE WHELCHER 2.7 MI NE OF GAFFNEY LAUNCH FROM GAFFNEY PUBLIC WORKS BOAT LANDING
RL-06435	LAKE WHELCHER 3 MI NE OF GAFFNEY
RL-03339	LAKE WYLIE 0.1 MI W OF TEGA CAY SAMPLE CLOSER TO TEGA CAY SIDE
RL-06433	LAKE WYLIE 0.5 MI W OF TEGA CAY SAMPLE CLOSER TO TEGA CAY SIDE
CW-197	LAKE WYLIE AB MILL CK ARM AT END OF S-46-557
CW-230	LAKE WYLIE AT DAM, UNDER POWERLINES

CW-198	LAKE WYLIE OUTSIDE MOUTH OF CROWDERS CK ARM
CW-245	LAKE WYLIE, CROWDERS CK ARM AT FIRST POWERLINES US OF MAIN POOL
B-737	LAKE YORK IN KINGS MOUNTAIN STATE PARK
CL-039	LITTLE RIVER ARM OF CLARKS HILL RESERVOIR
S-131	LK GREENWOOD AT US 221 7.6 MI NNW 96
RL-02330	LK HARTWELL 0.4 MI SE OF OCONEE/ANDERSON CO LINE 5.0 M W OF SANDY SPRINGS
RL-03352	LK HARTWELL 0.9 MI NE ANDERSON/OCONEE/HART CO, GA JUNCTION
RL-02315	LK HARTWELL 12.0 NW OF ANDERSON 2.0 MI N OF SADLERS CK ST PK
RL-03459	LK HARTWELL TUGALOO RVR ARM APPROXIMATELY 1.2 MI S OF JCT S-04-890 & S-04-23
SV-340	LK HARTWELL, MAIN BODY AT USACE WQ BUOY BTWN MRKRS 11 & 12
SV-288	LK HARTWELL, SENECA RVR ARM AT USACE BUOY BTWN MRKRS S-28A & S-29
SV-339	LK HARTWELL, SENECA RVR ARM AT USACE BUOY BTWN S-14 AND S-15
SV-338	LK KEOWEE ABOVE SC ROUTE 130 AND DAM
SV-311	LK KEOWEE AT SC 188 - CANE CK ARM 3.5 MI NW SENECA
SV-312	LK KEOWEE AT SC 188 - CROOKED CK ARM 4.5 MI N SENECA
SV-361	LK KEOWEE IN FOREBAY OF LITTLE RIVER DAM
S-204	LK MURRAY AT DAM AT SPILLWAY (MARKER 1)
S-280	LK MURRAY AT MARKER 102
S-274	LK MURRAY AT MARKER 143
S-273	LK MURRAY AT MARKER 166
S-279	LK MURRAY AT MARKER 63
CL-083	LK MURRAY IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
SV-332	LK SECESSION APPROX 400 YDS ABOVE DAM
SV-331	LK SECESSION, 1 1/4 MI BELOW SC ROUTE 28
CL-089	LK WATEREE IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
CW-200	LK WYLIE AT SC 274 9 MI NE OF YORK
CW-201	LK WYLIE N LAKEWOODS S/D AT EBENEZER ACCESS
S-212	MACEDONIA LANDING LK MURRAY AT END OF S-36-26 MACEDONIA
SV-106	MARTIN CK ARM OF LAKE HARTWELL AT S-37-65 N OF CLEMSON
RL-04370	MONTICELLO LAKE 1.7 MI NW OF MONTICELLO
RL-04374	MONTICELLO LAKE 3.5 MI N OF JENKINSVILLE
B-327	MONTICELLO LK-LOWER IMPOUNDMENT BETWEEN LARGE ISLANDS
B-328	MONTICELLO LK-UPPER IMPOUNDMENT AT BUOY IN MIDDLE OF LAKE
B-099A	ON # 1 INLET LK LANIER IN GREENVILLE CO
B-345	PARR RESERVOIR IN FOREBAY NEAR DAM
S-022	REEDY FORK OF LK GREENWOOD AT S-30-29

RL-06439	RICHARD B. RUSSELL LAKE 0.2 MI S OF BRIDGE SC HWY 71
RL-05409	RICHARD B. RUSSELL LAKE 3.85 MI WSW OF END OF S-1-169
RL-06441	RICHARD B. RUSSELL LAKE 5.8 MI WSW OF IVA
RL-05401	SALUDA LAKE 0.13 MI NE OF DAM
RL-06427	SALUDA LAKE 0.7 MI N OF DAM
RL-03349	SALUDA LAKE 0.9 MI SE SC 183 IN SMALL ARM
S-250	SALUDA LAKE AT FARRS BRDG ON SC 183 7 MI NE EASLEY
S-314	SALUDA LAKE, .5 MI US OF LANDING
B-113	SPARTANBURG RESERVOIR #1 ON S-42-213 NE OF INMAN
SV-294	STEVENS CK RESERVOIR HEADWATERS AT CLARKS HILL DAM BOAT RAMP
SV-200	TUGALOO RVR ARM OF LAKE HARTWELL AT US 123
SOUTHEASTERN PLAINS	
STATION ID(S)	Location
CL-078	ADAMS MILLPOND, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
RL-06448	EUREKA LAKE 4.2 MI SW OF CHERAW
RL-06436	EUREKA LAKE 5 MI SW OF CHERAW
RL-03346	EUREKA LAKE IN CHERAW STATE PARK APPROX MID-LAKE
SV-686	FLAT ROCK POND IN FOREBAY NEAR DAM
C-068	FOREST LAKE AT DAM
SV-722	GRANITEVILLE POND #2 IN FOREBAY NEAR DAM
CL-088	JUNIPER LAKE, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
RL-06437	LAKE BROWN 0.3 MI NNE OF BRIDGE S-6-488
RL-03360	LAKE MARION 0.4 MI W OF DAM
RL-04382	LAKE MARION 1 MI DOWNLAKE OF I-95 BRIDGE IN OLD RIVER CHANNEL
RL-01011	LAKE MARION 1.10 M SSE OF SANTEE NAT. WILDLIFE REFUGE AND 1MI S OF EAGLE POINT (SC-035)
RL-05406	LAKE MARION 3.25 MI S OF LOG JAM LANDING
RL-05402	LAKE MARION 3.5 MI NNW OF BRIDGE OVER DIVERSION CANAL ON SC 45
RL-04384	LAKE MARION 3.8 MI W OF EADYTOWN
RL-03358	LAKE MARION 4.0 MI SE OF I-95
RL-05464	LAKE MARION 4.97 MI SE OF I-95 BRIDGE OVER LAKE
RL-04386	LAKE MARION EUTAW CREEK ARM NEAR CATHEAD BOAT RAMP
CL-042	LAKE MARION FOREBAY, SPILLWAY MARKER 44 (SC-022)
RL-02310	LAKE MARION NEAR SANTEE NATL WILDLIFE REFUGE
RL-04368	LAKE WALLACE 0.4 MI NNE OF FISHING PIER
RL-05398	LAKE WALLACE EAST SHORE NEAR PICNIC AREA
RL-02324	LAKE WALLACE S OF S-35-47
CL-086	LAKE WALLACE, FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
RL-03335	LANGLEY POND 0.05 MI OFF NW END OF DAM AND SHORELINE
RL-04373	LANGLEY POND 0.85 MI UPLAKE (NE) OF SPILLWAY
CL-069	LANGLEY POND IN FOREBAY NEAR DAM
RL-02317	LANGLEY POND NEAR NW SHORE AND 0.6 MI NE OF SPWY

RL-02306	LK MARION @ JACK'S CK EMBAYMENT; USE SANTEE COOPER SC-012
ST-036	LK MARION, WYBOO CREEK ARM DS OF CLUBHOUSE BR (SC-023A)
PD-327	LK ROBINSON AT S-13-346 5 MI E MCBEE BY BOAT
CL-094	LK ROBINSON IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES FROM PRIVATE ACCESS
SC-019	LOWER LAKE MARION @ POTATO CREEK FLOODED EMBAYMENT
SC-021	LOWER LAKE MARION, 1.5 KM NE OF ROCK'S POND CAMPGROUND
SC-042	MID LAKE MARION @ NORTH END OF I-95 / U.S. 301 BRIDGES
SC-036	MID LAKE MARION @ THE MOUTH OF TAW CAW CREEK
SC-041	MID LAKE MARION 3.2 KM NORTH OF CHANNEL MARKER 79
CL-067	VAUCLUSE POND IN FOREBAY NEAR DAM
C-048	WINDSOR LK SPILLWAY ON WINDSOR LK BLVD
MIDDLE ATLANTIC COASTAL PLAIN	
STATION ID(S)	Location
CSTL-124	BACK RIVER RES IN FOREBAY EQUIDISTANT FROM DAM AND SHORELINES
RL-04362	LAKE MOULTRIE 2.2 MI SE OF CROSS
RL-04364	LAKE MOULTRIE 3.3 MI NW OF BONNEAU BEACH
RL-05400	LAKE MOULTRIE 3.7 MI WNW OF BONNEAU
RL-04462	LAKE MOULTRIE 4.2 MI SW OF RUSSELLVILLE
RL-03348	LAKE MOULTRIE 5.25 MI NNW OF PINOPOLIS
RL-05396	LAKE MOULTRIE 6.25 MI WNW OF BONNEAU
ST-037	LAKE MOULTRIE AT CHANNEL MARKER 17 (SC-030)
RL-02322	LAKE MOULTRIE NE 3.0 MI FM BONNEAU BEACH
RL-02454	LAKE MOULTRIE SW IN OPEN WATER
RL-02328	LAKE MOULTRIE SW NEAR DUCK PD AND APPROX 2.0 E OF CROSS
CL-062	LAKE WARREN IN FOREBAY NEAR DAM
CSTL-075	LAKE WARREN, BLACK CK ARM, AT S-25-41 5 MI SW OF HAMPTON
SC-031	NORTH QUADRANT OF LAKE MOULTRIE @ MOUTH OF REDIVERSION CANAL
SC-028	NW QUADRANT OF LAKE MOULTRIE NEAR ANGEL'S LANDING COVE
SC-032	SE QUADRANT OF LAKE MOULTRIE @ CHANNEL MARKER 2
SC-046	SE QUADRANT OF LAKE MOULTRIE AT PINOPOLIS EMBAYMENT
SC-027	SW QUADRANT OF LAKE MOULTRIE 1.2 KM EAST OF SHORELINE

Control Methods

NPDES permits and nonpoint source control programs, that were previously described in the Municipal and Industrial permitting sections, are designed to protect lake water quality. South Carolina's water classifications and criteria are applicable to lakes.

Restoration Efforts

Plans to restore and/or protect lake quality are integrated with the watershed water quality management approach and other watershed pollution control plans.

Acid Effects on Lakes

SCDHEC measures pH as part of its routine monitoring program at all lake sites and includes any lakes with a pH less than the appropriate State standard in more than 10% of samples in the current §303(d) assessment reported in *Part I: Listing of Impaired Waters* of this Integrated Report.

State water quality criteria specify, with few exceptions, a pH of at least 6.0 SU to protect classified and existing uses. EPA's Eastern Lake Survey reported high acid neutralizing capacity in Southern Blue Ridge region lakes, including those in northwestern South Carolina.

Toxic Effects on Lakes

As part of the State's probability-based monitoring all lake sites are monitored for metals and/or ammonia. In the Summary Statistics for this section, Table 10 lists causes for partial or non-support of lake classified uses, and Table 18 lists the total size affected by toxicants. The section on Public Health: Aquatic Life Impacts contains a discussion of fish consumption advisories issued in South Carolina.

5. Estuary and Coastal Assessment

A. Summary Statistics

Based on a hydrographic GIS cover developed jointly by SCDHEC and the South Carolina Department of Natural Resources and the results of probability site selection validation, South Carolina has an estimated 267 combined square miles of tide creek and open water habitat representing the estuarine sampling design frame previously described. Because of the inability to reach some selected locations, the 150 probability-based monitoring sites sampled from 2002-2006 represent 260 total square miles.

A summary of classified use support statewide based on these data, along with causes for partial or nonattainment, is presented below. The Lower and Upper 95 Percent Confidence Intervals for the probability-based estimates signify that it is 95% certain that the true mileage is between the upper and lower confidence limits.

Table 13. Estuaries Use Support Summary (Square Miles)

Indicator	Category	Probability-Based Estimated Percent of Total Resource	Probability-Based Estimated Square Miles of Total Resource	Lower 95 Percent Confidence Interval (Square Miles)	Upper 95 Percent Confidence Interval (Square Miles)
Aquatic Life Use	Fully Supporting	84.7%	220	204	236
	Partially Supporting	3.5%	9	0	18
	Not Supporting	11.8%	31	17	44
Recreational Use	Fully Supporting	99.4%	258	257	259
	Partially Supporting	0.5%	1	0	2
	Not Supporting	0.2%	0	0	1

**Table 14. Summary of Fully Supporting and Impaired Estuaries
(Not including Fish/Shellfish Consumption Use)**

Category	Probability-Based Estimated Percent of Total Resource	Probability-Based Estimated Square Miles of Total Resource	Lower 95 Percent Confidence Interval (Square Miles)	Upper 95 Percent Confidence Interval (Square Miles)
Fully Supporting All Assessed Uses	84.4%	219	203	235
Impaired for One or More Use	15.6%	41	NA	NA

Table 15. Total Sizes of Estuaries Impaired by Various Cause Categories (Square Miles)

Cause Category	Probability-Based Estimated Square Miles of Total Resource	Lower 95 Percent Confidence Interval (Square Miles)	Upper 95 Percent Confidence Interval (Square Miles)
Turbidity	15.1	5.8	24.3
Dissolved Oxygen	13.8	3.5	24.1
Nickel	3.1	0.0	8.1
Copper	13.8	3.5	24.2
Zinc	0.4	0.0	1.1
Fecal Coliform Bacteria	1.6	0.3	2.9

6. Wetlands Assessment

A. Summary Statistics

Table 16. Extent of Wetlands, by Type

Wetland Type	Historical Extent in Acreage	1980's Reported Acreage	1994 Reported Acreage	Most Recent Acreage
Saturated Bottomland Forest	6,414,000	4,659,000	1,804,884	1,804,884
Nonforested Wetlands/Marsh			485,314	485,314

SCDHEC maintains a number of GIS land use coverages that include wetland acreages. SCDHEC and S.C. Department of Natural Resources (SCDNR) have derived land use/land cover data from SPOT satellite imagery from December 1988 to March 1990.

The National Land Cover Dataset or NLCD (SCDHEC GIS coverage last edited March 16, 2003) includes 15 classes (2 wetland classes) and was compiled from Landsat 5 Thematic Mapper satellite imagery with a spatial resolution of 30 meters and supplemented by a host of ancillary data. The NLCD was produced as a cooperative effort between the U.S. Geological Survey (USGS) and the U.S. Environmental Protection Agency (US EPA) to produce a consistent, land cover data layer for the coterminous U.S. using early 1990s (1991-1993) Landsat Thematic Mapper data purchased by the Multi-Resolution Land Characteristics (MRLC Consortium. The MRLC Consortium is a partnership of federal agencies that produce or use land cover data. Partners include the USGS (National Mapping, Biological Resources, and Water Resources Divisions), U.S. EPA, the U.S. Forest Service, and the National Oceanic and Atmospheric Administration.

Multi-Resolution Land Characteristics (MRLC) Consortium Home:
<http://www.mrlc.gov/index.asp>

National Land Cover Dataset Home:
<http://landcover.usgs.gov/natl/landcover.asp>

The SC-GAP project mapped the State's natural and man-made vegetation to two classifications, a general 27-class (8 wetland classes) habitat map that was used in modeling vertebrate distributions, and a more detailed 54-class map (at least 21 wetland classes) in accordance with the National GAP guidelines of mapping to the alliance level where possible. The initial data used in developing the map was remotely sensed satellite data from the Multi-Resolution Land Characteristics (MRLC) Consortium. Ancillary data included detailed soil surveys, National Wetlands Inventory surveys, and elevation maps to improve this classification and develop the 54-class land cover. This was aggregated into the habitat map for use in producing vertebrate distributions. From: "A Gap Analysis of South Carolina, 2001 Final Report"

A detailed National Wetlands Inventory mapping is current, but not yet complete for the State.

B. Extent of Wetlands Resources

A tracking system called Environmental Facilities Information System or EFIS has been adopted agency-wide. The Water Quality Certification, Standards, and Wetlands Programs Section has developed a module into which all Section 10 and Section 404/401 projects are entered. This module includes information on project location (latitude/longitude, basin, and watershed unit), purpose, types of impacts, acreage of wetland and non-wetland impacts, compensation requirements and location (latitude/longitude, basin, and watershed unit) and remediation requirements. Information regarding projects from the years of 1983 to the present has been entered into this tracking system. We are currently working to get this system operational and the data verified. Once this data has been verified, statistics on the location and types of wetland impacts in South Carolina will be available. Currently, maps of compensatory mitigation sites (1990 to present) are being digitized and entered into GIS for future analyses.

C. Integrity of Wetlands Resources

There is no specific legislation authorizing a statewide wetlands protection program. The primary mechanisms for wetlands protection in the state are federal and state regulatory programs for the discharge of dredged or fill material into waters of the state and for activities in the critical areas of the coastal zone.

Section 404 Permit Program - Section 404 of the Clean Water Act requires a permit for the discharge of dredged or fill material into navigable waters, including wetlands, throughout the United States. Certain activities, such as normal agriculture, silviculture and ranching activities, are exempt from such permit requirements. The United States Army Corps of Engineers (ACE) administers the Section 404 permitting program, but the EPA exercises final authority. The Agency can prohibit the use of a disposal area if the discharge will have an adverse impact on municipal water supplies, shellfish beds, fishing areas, wildlife, or recreational areas. No permit can be issued

without a Section 401 Certification from SCDHEC's Division of Water Quality, and in coastal areas, a determination of consistency with the Coastal Zone Management Program (CZM) from SCDHEC's Office of Ocean and Coastal Resource Management (OCRM) is required. Other state and federal natural resource agencies, such as DNR, U. S. Fish and Wildlife Service, and National Marine Fisheries Service, provide input to decisions of the federal permitting agency and the state certifying agencies on proposed activities.

Section 404 permit authority can be delegated to states but South Carolina has elected not to assume that authority. In 1986, SCDHEC completed a study to determine the feasibility of assuming the Section 404 program. The study concluded that although SCDHEC had the legal authority and the technical expertise, it was not advisable to assume that authority because of the limited area of the jurisdiction involved. Perhaps more importantly, there would be no new funding from EPA to support assumption.

Section 401 Water Quality Certification - Section 401 of the Clean Water Act requires any applicant for a federal permit or license involved in an activity that may result in a discharge to navigable waters to receive certification from the state that the discharge will not cause violations of the state's water quality standards. Consequently, 401 Certification is required for all activities requiring a Section 404 permit from the ACE. This mechanism provides a State position on wetlands alterations.

The Division of Water Quality evaluated 691 projects that required a §401 Water Quality Certification in FYs 2006 through 2007. SCDHEC routinely requires compensation for wetland impacts at greater than a one to one basis. This compensation may be in the form of preservation, lineation, enhancement, or restoration and may not strictly meet the State and Federal "no net loss" goals.

SCDHEC administers certification programs using as guidance the South Carolina Pollution Control Act. S. C. Regulation 61-101, *Water Quality Certification*, guides the administration and technical review for the §401 Certification Program that determines if the standards of S. C. Regulation 61-68 will be met.

The S. C. Pollution Control Act provides authority for regulation of wetlands since it defines waters of the State as:

"lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State and all other bodies of surface or underground water, natural or artificial, public or private, inland or coastal, fresh or salt, that are wholly or partially within or bordering the State or within its jurisdiction."

This definition does not specifically list wetlands, but wetlands are included through the generic use of the word "marshes" as well as within the broad inclusion of the phrase "all other bodies of surface or underground water." Therefore, all water pollution control programs administered by SCDHEC apply to activities in wetlands.

During review of applications for §401 Certification, SCDHEC, with authority from S.C. Regulation 61-101, evaluates whether or not there are feasible alternatives to the activity that reduce adverse consequences on water quality and classified water uses, if the activity is water dependent, and the intended purpose of the activity. Certification is denied if the activity will adversely affect existing or designated uses. Certification is granted if water quality standards, that includes protection of existing uses, will not be violated. The federal permit cannot be issued if certification is denied.

Water Quality Certification, Nationwide Permits (NWP) - SCDHEC sent a Notice of Proposed Decision for the 2007 NWPs on April 25, 2007 to the ACOE. SCDHEC proposed to deny NWPs: 16, 17, 21, 34, 46, 49, and 50. In regard to NWP 17, SCDHEC currently reviews all applications for FERC licenses. The following NWPs were proposed for issuance with conditions: 3-7, 12-15, 18, 19, 20, 22, 23, 25, 27, 29, 30, 31, 32, 33, and 36-45, 47, and 48. The most shared condition states that proposed impacts will not exceed 0.10 ac or 300 linear feet. The ACOE proposed to replace NWP 26 with several “activity specific” NWPs and NWP 26 was placed on reserve. To take advantage of a NWP permit, the applicant must submit a wetlands delineation and, in some cases, a pre-construction notification to the ACOE.

Wetlands losses can cause significant adverse, but avoidable, cumulative environmental impacts. Wetlands losses may lead to increased costs to the public for flood control and drinking water treatment. Moreover, wetlands are especially important in providing storm water filtration to maintain surface and ground water quality. Protection of wetlands is imperative if South Carolina is to achieve the goals of the Clean Water Act to restore and maintain the chemical, physical, and biological integrity of its waters.

D. Development of Water Quality Standards for Wetlands

S.C. Regulation 61-68 provides that waters not classified by name assume the classification of the waterbody to that they are adjacent. Wetlands contiguous to a stream or lake assume the classification of the waterbody to that they are contiguous. The standards allow variation from specific numeric standards if those variations are due to natural conditions. SCDHEC is continuing to evaluate the development of water quality classifications and standards specifically applicable to wetlands.

With funding from the EPA, SCDHEC developed classifications and standards for wetlands. The intent was that the system would augment the State's existing water quality classifications and standards to ensure greater protection of the State's wetlands through Clean Water Act programs.

Before proceeding with regulation development for the proposed classifications and standards for wetlands, there is the need to gain general agreement regarding wetlands protection policy and mechanisms in the State. Consensus-building among Federal, State, and local regulators with developers, farmers, forestry industry, and environmental groups would ensure acceptance of a clearly defined South Carolina wetlands protection policy. In 1993, SCDHEC received additional funding from EPA to further determine wetlands protection mechanisms and encourage consensus-building through education.

E. Additional Protection Activities

SCDHEC also uses antidegradation rules in S.C. Regulation 61-68 to evaluate applications for Water Quality Certification. The basic tenet of antidegradation is:

"existing uses and the level of water quality necessary to protect existing uses in all segments of a water body must be maintained"

Strict application of this water quality standard is impossible if there is to be any fill in wetlands. Therefore, the federal government determined that some fill in wetlands may be allowed pursuant to Section 404 of the Clean Water Act. S.C. Regulation 61-68 provided for this by adding a provision that states,

"Discharge of fill into waters of the State is not allowed unless the activity is consistent with Department regulations and will result in enhancement of classified uses with no significant degradation to the aquatic ecosystem or water quality".

Fill may only be allowed if it does not cause or contribute to significant degradation of the aquatic environment that can be determined by whether or not the activity will cause adverse effects on:

1. Human health or welfare;
2. Life stages of aquatic life or wildlife dependent upon the aquatic ecosystem;
3. Ecosystem diversity, productivity, and stability;
4. Recreational, aesthetic, and economic values.

7. Public Health - Aquatic Life Concerns

A. Sizes of Water Affected by Toxicants

Toxic pollutants in South Carolina's surface waters were assessed for this report through the evaluation of data collected through the statewide probability-based ambient monitoring program.

Table 17. Total Size Affected by Toxicants

Waterbody Type	Size Monitored for Toxicants	Probability-Based Estimate of Total Resource	Lower 95 Percent Confidence Interval	Upper 95 Percent Confidence Interval
Rivers (miles)	12,594	1,119	NA	NA
Lakes (acres)	309,063	485	NA	NA
Estuaries (square miles)	260	17.3	NA	NA

B. Public Health: Aquatic Life Impacts

Pollution Caused Fish Kills/Abnormalities

During 2006 there were a total of 77 fish kill investigations conducted by SCDHEC and 71 investigations in 2007. Dissolved oxygen depletion, weather conditions, and other natural causes accounted for approximately 57 % of all fish kills in 2006 and 63% in 2007. In 2007 nearly 65% of the kills occurred in privately owned ponds or lagoons, 13% the kills could not be determined and approximately 24% of the fish kills investigated in 2007 were from unnatural causes. Unnatural causes ranged from fish being cough and dumped back into lakes and streams to the runoff of pesticides and pollution.

Most investigations were conducted a day or more after the initial occurrence of the fish kill. Late reporting of fish kills to SCDHEC investigators hinders accurate determination of the cause of the fish kills.

The *Pfiesteria* program continues to be an important program in South Carolina with the coastal regional offices maintaining trained personnel to investigate *Pfiesteria* related incidents. For the 2006 and 2007 FY's, no fish kills could be linked directly to *Pfiesteria*. *Pfiesteria piscicida*, the only known form to kill fish, has not been detected in South Carolina waters.

There are no waters in the State that routinely experience fish kills or fish abnormalities due to toxics. When fish kills do occur that can be attributed to other than natural causes, enforcement action is taken. The action usually takes the form of an administrative order and includes penalties commensurate with the violation. Schedules for corrective actions are included in the order along with appropriate assessment of monetary damage of the fish killed. As of May 31, 2001, SCDHEC required that its entire staff use its Field Manual for Investigation of Fish Kills. SC DHEC's

Computer system, EFIS (Environmental Facility Information System) acts as the official fish kill report.

Fish Consumption Advisories

The SCDHEC uses a risk-based approach to evaluate contaminant concentrations in fish tissue and to issue consumption advisories in affected waterbodies. This approach contrasts the average daily exposure dose to the reference dose (RfD). Using these relationships, fish tissue data are interpreted by determining the consumption rates that would not be likely to pose a health threat to adult males and nonpregnant adult females. An acceptable RfD for developmental neurotoxicity has not been determined and scientific studies suggest that exposure before birth may have adverse effects on the developing fetus. For these reasons infants, pregnant women, nursing mothers, and children are advised to avoid consumption of fish from any waterbody where an advisory has been issued.

Fish consumption advisories are updated annually in April. For background information and the most current advisories, please visit the Bureau of Water homepage at <http://www.scdhec.gov/fish> or call SCDHEC's Division of Health Hazard Evaluation, toll-free, at (888) 849-7241.

Shellfish Restrictions/Closures

The goal of SCDHEC's Shellfish Sanitation Program (SSP) is to ensure that mollusk and shellfish and areas from which they are harvested meet the health and environmental quality standards provided by federal and state regulations, laws, and guidelines. Additionally, SCDHEC promotes and encourages coastal quality management programs consistent with protected uses established through the S.C. Regulation 61-68, *Water Classifications and Standards*. SSP management policy is primarily determined by S.C. Regulation 61-47, *Shellfish*, as well as other State legislation. The National Shellfish Sanitation Program (NSSP) Model Ordinance, developed through participation in the Interstate Shellfish Sanitation Conference (ISSC) and endorsed by all shellfish producing states and the United States Food and Drug Administration (USFDA), is used as primary guidance for shellfish regulation development.

Sanitary surveys are conducted by SCDHEC to assess the quality of the coastal waters. These surveys result in shellfish harvesting classifications described as follows:

Approved: Growing areas shall be classified Approved when the sanitary survey concludes that fecal material, pathogenic microorganisms, and poisonous or deleterious substances are not present in concentrations that would render shellfish unsafe for human consumption. Approved area classification shall be determined upon a sanitary survey that includes water samples collected from stations in the designated area adjacent to actual or potential sources of pollution. For waters sampled under adverse pollution conditions, the median fecal coliform Most Probable Number (MPN) or the geometric mean MPN shall not exceed fourteen per one hundred milliliters, nor shall more than ten percent of the samples exceed a fecal coliform MPN of forty-three per one hundred milliliters (per five tube decimal dilution). For waters sampled under a systematic random sampling plan, the geometric mean fecal coliform Most Probable Number (MPN) shall not exceed fourteen per one hundred

milliliters, nor shall the estimated ninetieth percentile exceed an MPN of forty-three (per five tube decimal dilution). Computation of the estimated ninetieth percentile shall be obtained using National Shellfish Sanitation Guidelines.

Conditionally

Approved: Growing areas may be classified Conditionally Approved when they are subject to temporary conditions of actual or potential pollution. When such events are predictable as in the malfunction of wastewater treatment facilities, non-point source pollution from rainfall runoff, discharge of a major river, potential discharges from dock or harbor facilities that may affect water quality, a management plan describing conditions under that harvesting will be allowed shall be adopted by the Department, prior to classifying an area as Conditionally Approved. Where appropriate, the management plan for each Conditionally Approved area shall include performance standards for sources of controllable pollution, e.g., wastewater treatment and collection systems, evaluation of each source of pollution, and means of rapidly closing and subsequent reopening areas to shellfish harvesting. Memorandums of agreements shall be a part of these management plans where appropriate.

Restricted: Growing areas shall be classified Restricted when sanitary survey data show a limited degree of pollution or the presence of deleterious or poisonous substances to a degree that may cause the water quality to fluctuate unpredictably or at such a frequency that a Conditionally Approved area classification is not feasible. Shellfish may be harvested from areas classified as Restricted only for the purposes of relaying or depuration and only by special permit issued by the Department and under Department supervision. For Restricted areas to be utilized as a source of shellstock for depuration, or as source water for depuration, the fecal coliform geometric mean MPN of restricted waters sampled under adverse pollution conditions shall not exceed eighty-eight per one hundred milliliters nor shall more than ten percent of the samples exceed a MPN of two hundred and sixty per one hundred milliliters for a five tube decimal dilution test. For waters sampled under a systematic random sampling plan, the fecal coliform geometric mean MPN shall not exceed eighty-eight per one hundred milliliters nor shall the estimated ninetieth percentile exceed an MPN of two hundred and sixty (five tube decimal dilution). Computation of the estimated ninetieth percentile shall be obtained using National Shellfish Sanitation Guidelines.

Prohibited: Growing areas shall be classified Prohibited if there is no current sanitary survey or if the sanitary survey or monitoring data show unsafe levels of fecal material, pathogenic microorganisms, or poisonous or deleterious substances in the growing area or indicate that such substances could potentially reach quantities that could render shellfish unfit or unsafe for human consumption.

As a matter of SCDHEC policy, prohibited areas are established adjacent to all point source and/or marinas as a precaution to protect public health. These prohibited areas are not necessarily an indication of lesser water quality or that standards are not being met; rather, they are areas that have the potential for variable water quality.

South Carolina currently (February 1, 2008) has approximately 571,717 estuarine/riverine surface acres classified for the harvest of molluscan shellfish. Of this total, Approved accounts for 68.1% of total acreage, Conditionally Approved - 1.8%, Restricted - 17.8%, and Prohibited - 12.3%.

**Table 18. Summary of Shellfish Harvesting Status
in South Carolina Shellfish Waters**

Harvesting Status	Acreage	Percent
Approved	393,335	68.1%
Conditionally Approved	10,427	1.8%
Restricted	102,815	17.8%
Prohibited	71,139	12.3%
Total Assessed	577,717	100.0%

Restrictions on Bathing Areas

There are currently fifty-eight (58) Natural Public Swimming Areas permitted for operation by SCDHEC. These areas are tested for Fecal Coliform (FC) bacteria prior to obtaining a yearly operating permit and are tested twice per month during the swimming season. The following swimming areas exceeded acceptable fecal coliform levels as specified in S.C. Regulation 61-50, *Natural Public Swimming Area*. Areas exceeding the specified parameters are closed until satisfactory sample results are collected. These are all fresh waters. Saltwater areas are addressed in the Ocean Water Quality Monitoring section.

Table 19. Areas of Bathing Restrictions

Natural Area	Frequency
Lanølev Pond Park	one time 07/09/07
The Outing Club	one time 06/04/07
Pleasant Ridge County Park	recurrent 07/05/06, 08/04/07
Bethel Christian Camp	one time 07/16/07

Ocean Water Quality Monitoring

Ocean water quality is currently monitored at a total of 129 sample sites along the South Carolina coast. Sampling frequency is based on beach Tier level. Tier 1 beaches are high use, high risk beaches. Tier 2 beaches are lower use and/or lower risk beaches. Tier 1 beaches are sampled weekly May 15 through October 15. Tier 2 beaches are sampled twice per month May 15 through October 15. Advisories are issued based on EPA guidelines of 104 Enterococci per 100 ml or greater from two consecutive samples taken within 24 hours. Advisories are issued following a single sampling event if the Enterococcus level exceeds 500 colonies per 100 ml. Precautionary advisories are issued without sampling data based on historical knowledge of the effects of rainfall on specific areas. Advisories are retracted when Enterococcus counts return to below 104 colonies per 100 ml.

The following is a summary of the advisory data for years 2006 and 2007. Data is listed by station number. The stations begin in North Myrtle with WAC-001 and end at Hilton Head with LC-111. Not all stations had an advisory. When an advisory is issued it covers 400 total feet of beach – two hundred feet on either side of the sampling site. For ease of reading the advisory summary, here is a table of SC beaches with their station numbers.

City of North Myrtle Beach	WAC-001-008
Horry County – White Point Swash	WAC-009
Town of Briarcliffe Acres	WAC-009A-010
Horry County – Arcadia	WAC-011-015
City of Myrtle Beach	WAC-016-025
Horry County – Springmaid Beach	WAC-026
Horry County – State Park and Campgrounds	WAC-027-029
Town of Surfside Beach	WAC-030-035
Horry County – Garden City Beach	WAC-036-037
Georgetown County – Garden City Beach	WAC-038
Georgetown County – Huntington Beach State Park	WAC-039-040
Georgetown County – Litchfield Beach	WAC-041-043A
Town of Pawley's Island	WAC-044A-046
Georgetown County – Debordieu Beach	WAC-047-048
Isle of Palms	TRI-050-056

Sullivans Island	TRI-057-059
Folly Beach	TRI-060-067
Kiawah Island	TRI-068-072
Seabrook Island	TRI-073-074
Edisto Island	LC-075-082
Harbor Island	LC-083-085A
Hunting Island State Park	LC-086-091
Fripp Island	LC-092-096
Hilton Head Island	LC-098-111

Table 20. Areas Affected by Beach Advisories

Area Affected	Station	Days Posted	Month/Year
City of North Myrtle Beach	WAC-009	5	May 2006
City of North Myrtle Beach	WAC-004	4	June 2006
City of North Myrtle Beach	WAC-005	4	June 2006
City of North Myrtle Beach	WAC-005	2	July 2006
City of North Myrtle Beach	WAC-004	1	August 2006
City of North Myrtle Beach	WAC-005	1	August 2006
City of North Myrtle Beach	WAC-001	1	September 2006
City of North Myrtle Beach	WAC-002	1	September 2006
City of North Myrtle Beach	WAC-003	1	September 2006
City of North Myrtle Beach	WAC-004	1	September 2006
City of North Myrtle Beach	WAC-005	1	September 2006
City of North Myrtle Beach	WAC-005A	1	September 2006
City of North Myrtle Beach	WAC-006	3	September 2006
City of North Myrtle Beach	WAC-007	1	September 2006
City of North Myrtle Beach	WAC-008	1	September 2006
City of North Myrtle Beach	WAC-008	1	June 2007
City of North Myrtle Beach	WAC-005	1	June 2007
City of North Myrtle Beach	WAC-004	1	August 2007
White Point Swash	WAC-009	1	September 2006

Area Affected	Station	Days Posted	Month/Year
White Point Swash	WAC-009	1	June 2007
Town of Briarcliffe Acres	WAC-009A	5	May 2006
Town of Briarcliffe Acres	WAC-009A	13	June 2006
Town of Briarcliffe Acres	WAC-009A	7	July 2006
Town of Briarcliffe Acres	WAC-009A	9	August 2006
Town of Briarcliffe Acres	WAC-009A	12	September 2006
Town of Briarcliffe Acres	WAC-010	10	June 2006
Town of Briarcliffe Acres	WAC-010	6	July 2006
Town of Briarcliffe Acres	WAC-010	7	August 2006
Town of Briarcliffe Acres	WAC-010	9	September 2006
Town of Briarcliffe Acres	WAC-010	6	October 2006
Town of Briarcliffe Acres	WAC-009A	1	May 2007
Town of Briarcliffe Acres	WAC-009A	10	June 2007
Town of Briarcliffe Acres	WAC-009A	9	July 2007
Town of Briarcliffe Acres	WAC-009A	6	August 2007
Town of Briarcliffe Acres	WAC-009A	3	August/Sept 2007
Town of Briarcliffe Acres	WAC-009A	2	September 2007
Town of Briarcliffe Acres	WAC-009A	1	October 2007
Arcadia Beach	WAC-015	8	May 2006
Arcadia Beach	WAC-011	11	June 2006
Arcadia Beach	WAC-015	5	July 2006
Arcadia Beach	WAC-015	4	August 2006
Arcadia Beach	WAC-012	1	September 2006
Arcadia Beach	WAC-014	3	September 2006
Arcadia Beach	WAC-015	9	September 2006

Area Affected	Station	Days Posted	Month/Year
Arcadia Beach	WAC-015	2	October 2006
Arcadia Beach	WAC-015	1	May 2007
Arcadia Beach	WAC-011	1	June 2007
Arcadia Beach	WAC-012	1	June 2007
Arcadia Beach	WAC-013	1	June 2007
Arcadia Beach	WAC-014	1	June 2007
Arcadia Beach	WAC-015	5	June 2007
Arcadia Beach	WAC-015	6	July 2007
Arcadia Beach	WAC-014	1	August 2007
Arcadia Beach	WAC-015	4	August 2007
Arcadia Beach	WAC-015	3	Aug / Sept 2007
Arcadia Beach	WAC-015	4	September 2007
Arcadia Beach	WAC-015	1	October 2007
City of Myrtle Beach	WAC-015A	2	June 2007
City of Myrtle Beach	WAC-016	2	May 2006
City of Myrtle Beach	WAC-016	1	July 2006
City of Myrtle Beach	WAC-016	2	September 2006
City of Myrtle Beach	WAC-016A	2	May 2006
City of Myrtle Beach	WAC-016A	9	June 2006
City of Myrtle Beach	WAC-016A	7	July 2006
City of Myrtle Beach	WAC-016A	4	August 2006
City of Myrtle Beach	WAC-016A	7	September 2006
City of Myrtle Beach	WAC-016A	4	October 2006
City of Myrtle Beach	WAC-017	1	July 2006
City of Myrtle Beach	WAC-017	1	August 2006

Area Affected	Station	Days Posted	Month/Year
City of Myrtle Beach	WAC-017	1	September 2006
City of Myrtle Beach	WAC-017A	1	May 2006
City of Myrtle Beach	WAC-017A	1	August 2006
City of Myrtle Beach	WAC-018	1	May 2006
City of Myrtle Beach	WAC-018	1	August 2006
City of Myrtle Beach	WAC-019	1	May 2006
City of Myrtle Beach	WAC-019	1	September 2006
City of Myrtle Beach	WAC-020	1	May 2006
City of Myrtle Beach	WAC-020	14	June 2006
City of Myrtle Beach	WAC-020	7	July 2006
City of Myrtle Beach	WAC-020	8	August 2006
City of Myrtle Beach	WAC-020	3	September 2006
City of Myrtle Beach	WAC-020	3	October 2006
City of Myrtle Beach	WAC-021	1	May 2006
City of Myrtle Beach	WAC-021	4	June 2006
City of Myrtle Beach	WAC-021	7	July 2006
City of Myrtle Beach	WAC-021	2	August 2006
City of Myrtle Beach	WAC-021	3	September 2006
City of Myrtle Beach	WAC-022A	9	May 2006
City of Myrtle Beach	WAC-022A	17	June 2006
City of Myrtle Beach	WAC-022A	9	July 2006
City of Myrtle Beach	WAC-022A	7	August 2006
City of Myrtle Beach	WAC-022A	7	September 2006
City of Myrtle Beach	WAC-022A	3	October 2006
City of Myrtle Beach	WAC-024	1	August 2006
City of Myrtle Beach	WAC-025A	7	May 2006

Area Affected	Station	Days Posted	Month/Year
City of Myrtle Beach	WAC-025A	14	June 2006
City of Myrtle Beach	WAC-025A	7	July 2006
City of Myrtle Beach	WAC-025A	9	August 2006
City of Myrtle Beach	WAC-025A	7	September 2006
City of Myrtle Beach	WAC-025A	3	Octobre 2006
Springmaid Beach	WAC-026	1	October 2006
Springmaid Beach	WAC-026	1	September 2007
Horry County State Park	WAC-027	1	September 2006
Horry County State Park	WAC-027	1	July 2007
Pirateland Beaver Dam Cr	WAC-028	7	July 2006
Pirateland Beaver Dam Cr	WAC-028	10	August 2006
Pirateland Beaver Dam Cr	WAC-028	10	September 2006
Pirateland Beaver Dam Cr	WAC-028	4	October 2006
Pirateland Beaver Dam Cr	WAC-028	5	June 2007
Pirateland Beaver Dam Cr	WAC-028	7	July 2007
Ocean Lakes CG	WAC-029	8	May 2006
Ocean Lakes CG	WAC-029	11	June 2006
Ocean Lakes CG	WAC-029	9	July 2006
Ocean Lakes CG	WAC-029	8	August 2006
Ocean Lakes CG	WAC-029	8	September 2006
Ocean Lakes CG	WAC-029	2	June 2007
Ocean Lakes CG	WAC-029	2	July 2007
Ocean Lakes CG	WAC-029A	8	May 2006
Ocean Lakes CG	WAC-029A	13	June 2006
Ocean Lakes CG	WAC-029A	7	July 2006
Ocean Lakes CG	WAC-029A	4	August 2006

Area Affected	Station	Days Posted	Month/Year
Ocean Lakes CG	WAC-029A	6	September 2006
Ocean Lakes CG	WAC-029A	3	October 2006
Ocean Lakes CG	WAC-029A	4	June 2007
Town of Surfside Beach	WAC-030	3	May 2006
Town of Surfside Beach	WAC-030	12	June 2006
Town of Surfside Beach	WAC-030	7	July 2006
Town of Surfside Beach	WAC-030	5	August 2006
Town of Surfside Beach	WAC-030	8	September 2006
Town of Surfside Beach	WAC-030	3	October 2006
Town of Surfside Beach	WAC-030	1	May 2007
Town of Surfside Beach	WAC-030	3	June 2007
Town of Surfside Beach	WAC-031	7	May 2006
Town of Surfside Beach	WAC-031	11	June 2006
Town of Surfside Beach	WAC-031	7	July 2006
Town of Surfside Beach	WAC-031	4	August 2006
Town of Surfside Beach	WAC-031	7	September 2006
Town of Surfside Beach	WAC-031	3	October 2006
Town of Surfside Beach	WAC-031	1	May 2007
Town of Surfside Beach	WAC-031	3	June 2007
Town of Surfside Beach	WAC-031A	8	May 2006
Town of Surfside Beach	WAC-031A	12	June 2006
Town of Surfside Beach	WAC-031A	7	July 2006
Town of Surfside Beach	WAC-031A	5	August 2006
Town of Surfside Beach	WAC-031A	8	September 2006
Town of Surfside Beach	WAC-031A	3	October 2006
Town of Surfside Beach	WAC-031A	1	May 2007

Area Affected	Station	Days Posted	Month/Year
Town of Surfside Beach	WAC-031A	3	June 2007
Town of Surfside Beach	WAC-031A	5	July 2007
Town of Surfside Beach	WAC-031A	1	August 2007
Town of Surfside Beach	WAC-031A	3	September 2007
Town of Surfside Beach	WAC-032	6	June 2006
Town of Surfside Beach	WAC-032	2	August 2006
Town of Surfside Beach	WAC-032	2	September 2006
Town of Surfside Beach	WAC-032	1	October 2006
Town of Surfside Beach	WAC-032	1	June 2007
Town of Surfside Beach	WAC-032	1	July 2007
Town of Surfside Beach	WAC-033	5	May 2006
Town of Surfside Beach	WAC-033	5	June 2006
Town of Surfside Beach	WAC-033	5	July 2006
Town of Surfside Beach	WAC-033	4	August 2006
Town of Surfside Beach	WAC-033	7	September 2006
Town of Surfside Beach	WAC-033	3	October 2006
Town of Surfside Beach	WAC-033	1	May 2007
Town of Surfside Beach	WAC-033	2	June 2007
Town of Surfside Beach	WAC-033	2	August 2007
Town of Surfside Beach	WAC-034	1	October 2006
Town of Surfside Beach	WAC-034	1	August 2007
Town of Surfside Beach	WAC-035	7	May 2006
Town of Surfside Beach	WAC-035	10	June 2006
Town of Surfside Beach	WAC-035	3	July 2006
Town of Surfside Beach	WAC-035	1	August 2006
Town of Surfside Beach	WAC-035	5	September 2006

Area Affected	Station	Days Posted	Month/Year
Town of Surfside Beach	WAC-035	3	October 2006
Town of Surfside Beach	WAC-035	1	May 2007
Town of Surfside Beach	WAC-035	3	June 2007
Town of Surfside Beach	WAC-035	3	August 2007
Sullivans Island	TRI-057	2	June 2007
Folly Beach	TRI-063a	1	July 2007
Fripp Island	LC-093	1	September/2006
Harbor Island	LC-085A	3	Sept/Oct 2007
Hilton Head Island	LC-099	1	September 2006
Hilton Head Island	LC-106	2	October 2006
Hilton Head Island	LC-108	1	September 2006
Hilton Head Island	LC-108	2	October 2006
Hilton Head Island	LC-109	1	September 2006
Hilton Head Island	LC-109	2	August 2007

C. Public Health: Drinking Water

Restrictions in Surface Drinking Water Supplies and Incidents of Waterborne Diseases

There were ten (10) Notices of Violation (NOV) issued to four (4) systems during the period of July 2005 - June 2006 for Treatment Technique and Monitoring and Reporting violations under the Stage 1 Disinfectants/Disinfection Byproducts and Surface Water Treatment Rules. The State reported four (4) exceedances of the Maximum Contaminant Level (MCL) for one (1) system for Trihalomethanes (THMs) and no exceedances of the MCL for Haloacetic Acids (HAAs). The state reported no incidences of waterborne disease during the same period.

GROUNDWATER ASSESSMENT

Groundwater is the source of drinking water for more than 40 percent of the population of the State. This resource is also used by agricultural, industrial, and commercial interests. The policy of the State of South Carolina, with respect to groundwater protection, is founded on the belief that there is a direct connection between land use and groundwater quality, and that at least some activities of

man will always impact groundwater, regardless of the regulatory safeguards employed. Because it is an expensive and technologically complex task to restore contaminated groundwater to its original pristine state within a reasonable time frame, a justifiable goal of any groundwater protection strategy is to protect the present and future uses of the resource.

SCDHEC maintains a primary long term objective for groundwater protection. As expressed in the S.C. Regulation 61-68, *Water Classifications and Standards*.

"It is the goal of the Department to maintain or restore groundwater quality so it is suitable as a drinking water source without any treatment. Recognizing the technical and economic difficulty in restoring groundwater quality, the Department will emphasize a preventive approach in protecting groundwater."

This goal fulfills the Core Adequacy Criteria #1 of Strategic Activity 1 in the implementation of the Comprehensive State Groundwater Protection Program (CSGWPP).

The groundwater quality data are to be presented in a series of tables and it is recognized that all states do not have all the information requested at this time. Therefore this year's report serves as a template by that future monitoring and reporting can be designed. The data presented were assembled from existing reports: the state wide ambient groundwater quality monitoring network, the groundwater contamination inventory that is updated annually, the volatile organic compound (VOC) monitoring program for public supply wells, and reports from domestic well owners.

1. Overview of Groundwater Contamination Sources

The major sources of contamination impacting groundwater are presented in Table 21. Underground storage tank (UST) releases account for 3728 of the 4459 total instances. The additional nine sources indicated were the next most numerous instances. Another factor indicated was human health and/or environmental risk for those sources for petroleum products and hazardous waste. The size of the population at risk was also indicated for USTs given the large number of releases. The next column on Table 21 indicates the contaminants associated with the highest priority sources. Petroleum compounds, halogenated solvents, metals and nitrates are the contaminants most frequently detected.

Table 21. Major Sources of Groundwater Contamination

Contaminant Source	Ten Highest-Priority Sources (T)	Factors Considered in Selecting a Contaminant Source	Contaminants
<i>Agricultural Activities</i>			
Agricultural chemical facilities			
Animal feedlots			

Contaminant Source	Ten Highest-Priority Sources (T)	Factors Considered in Selecting a Contaminant Source	Contaminants
Drainage wells			
Fertilizer applications			
Irrigation practices			
Pesticide applications			
<i>Storage and Treatment Activities</i>			
Land application	T	D	E
Material stockpiles			
Storage tanks (above ground)	T	D,A	D
Storage tanks (underground)	T	D,A,B	D
Surface impoundments	T	D	C,E
Waste piles			
Waste tailing			
<i>Disposal Activities</i>			
Deep injection wells			
Landfills	T	D	C,D,H
Septic systems			
Shallow injection wells			
<i>Other</i>			
Hazardous waste generators	T	D,A	C,H
Hazardous waste sites	T	D,A	C,H
Industrial facilities	T	D	C,E
Material transfer operations			
Mining and mine drainage	T	A,C	A,M Acid mine

Contaminant Source	Ten Highest-Priority Sources (T)	Factors Considered in Selecting a Contaminant Source	Contaminants
			drainage
Pipeline and sewer lines			
Salt storage and road salting			
Salt water intrusion			
Spills	T	D	D
Transportation of materials			
Urban runoff			
Other sources (please specify)			
Other sources (please specify)			

1. Check (☐) up to 10 contaminant sources identified as highest priority in your State.
2. Specify the factor(s) used to select each of the contaminant sources. Denote the following factors by their corresponding letter (A through G) and list in order of importance. Describe any additional or special factors that are important within your State in the accompanying narrative.
 - A. Human health and/or environmental risk (toxicity)
 - B. Size of the population at risk
 - C. Location of the sources relative to drinking water sources
 - D. Number and/or size of contaminant sources
 - E. Hydrogeologic sensitivity
 - F. State findings, other findings
 - G. Other criteria (please add or describe in the narrative)
3. List the contaminants/classes of contaminants considered to be associated with each of the sources that was checked. Contaminants/contaminant classes should be selected based on data indicating that certain chemicals may be originating from an identified source. Denote contaminants/classes of contaminants by their corresponding letter (A through M).
 - A. Inorganic pesticides
 - B. Organic pesticides
 - C. Halogenated solvents
 - D. Petroleum compounds
 - H. Metals
 - I. Radionuclides
 - J. Bacteria
 - K. Protozoa

E. Nitrate
F. Fluoride
G. Salinity/brine

L. Viruses
M. Other (please add or describe in the narrative)

Tables 22, 23, 24 and 25 were designed to report the stress that contaminated sites place on individual aquifers or hydrogeologic settings. The report on each identified aquifer is further subdivided by type of source based on program area, contaminants present, and degree of remediation accomplished thus far. South Carolina's major drinking water aquifers are in the subsurface of the Coastal Plain. The sources and contaminants indicated in Table 21 are generally present in the near surface, shallowest aquifers. At this point, contamination data is gathered on a site by site basis, rather than by aquifer. Thus, portions of these tables can be completed for the Piedmont saprolite/bedrock and the Coastal Plain water table aquifers only. The number of confirmed groundwater contamination cases that have been identified in the Coastal Plain are 2891 and 1568 has been confirmed in the Piedmont. This number was obtained by counting the sites county by county.

Table 22. Groundwater Contamination Summary

Aquifer Description: Above Fall Line
 Aquifer Setting: Saprolite/Bedrock Aquifer
 Data Reporting Period: Ending July 2003

Source Type	Present in reporting area	Number of sites in area	Number of sites that are listed and/or have confirmed releases	Number with confirmed ground water contamination	Contaminants
NPL	YES		14	14	A,B,C,H,M(P CBs)
CERCLIS (non-NPL)	YES		34	34	A,B,C,D,E,H, M(PCBs)
DOD/DOE	YES		3	3	D
LUST	YES		1167	1167	A,B,C,D
RCRA Corrective Action	YES		30	30	C,D,H
Underground Injection	NO	0	0	0	
State Sites	YES		38	38	A,B,C,D,E H,
Nonpoint Sources	YES		2	2	E
Other (specify)	YES		110	110	C,D,E,H
Totals			1398	1398	

NPL - National Priority List

CERCLIS (non-NPL) - Comprehensive Environmental Response, Compensation, and Liability Information System

DOE - Department of Energy

DOD - Department of Defense

LUST - Leaking Underground Storage Tanks

RCRA - Resource Conservation and Recovery Act

List of Contaminants:

- | | |
|-------------------------|----------------------------------------------------|
| A. Inorganic pesticides | H. Metals |
| B. Organic pesticides | I. Radionuclides |
| C. Halogenated solvents | J. Bacteria |
| D. Petroleum compounds | K. Protozoa |
| E. Nitrate | L. Viruses |
| F. Flouride | M. Other (please add or describe in the narrative) |
| G. Salinity/brine | |

Table 23. Groundwater Contamination Summary (above fall line)

Source Type	Number of Site Investigations (optional)	Number of sites that have been stabilized or have had the source removed (optional)	Number of sites with corrective action plans (optional)	Number of sites with active remediation (optional)	Number of sites with cleanup completed (optional)
NPL					
CERCLIS (non-NPL)					
DOD/DOE					
LUST					
RCRA Corrective Action					
Underground Injection					
State Sites					
Nonpoint Sources					
Other (specify)					

NPL - National Priority List

CERCLIS (non-NPL) - Comprehensive Environmental Response, Compensation, and Liability Information System

DOE - Department of Energy

DOD - Department of Defense

LUST - Leaking Underground Storage Tanks

RCRA - Resource Conservation and Recovery Act

Table 24. Groundwater Contamination Summary (2)

Aquifer Description: Below Fall Line

Aquifer Setting: Coastal Plain

Data Reporting Period: Ending July 2001

Source Type	Present in reporting area	Number of sites in area	Number of sites that are listed and/or have confirmed releases	Number with confirmed ground water contamination	Contaminants
NPL	YES		22	22	A,B,C,D,H
CERCLIS (non-NPL)	YES		61	61	A,B,C,D,H
DOD/DOE	YES		16	16	A,B,C,D,H,I
LUST	YES		2238	2238	A,B,C,D
RCRA Corrective Action	YES		23	23	A,B,C,D,E,H
Underground Injection	NO	0	0	0	
State Sites	YES		24	24	C,D,A,B,D,E
Nonpoint Sources	YES		16	16	E
Other (specify)	YES		138	138	C,D,E,H
Totals			2538	2538	

NPL - National Priority List

CERCLIS (non-NPL) - Comprehensive Environmental Response, Compensation, and Liability Information System

DOE - Department of Energy

DOD - Department of Defense

LUST - Leaking Underground Storage Tanks

RCRA - Resource Conservation and Recovery Act

List of Contaminants:

- | | |
|-------------------------|----------------------------------------------------|
| A. Inorganic pesticides | H. Metals |
| B. Organic pesticides | I. Radionuclides |
| C. Halogenated solvents | J. Bacteria |
| D. Petroleum compounds | K. Protozoa |
| E. Nitrate | L. Viruses |
| F. Flouride | M. Other (please add or describe in the narrative) |
| G. Salinity/brine | |

Table 25. Groundwater Contamination Summary (below fall line)

Source Type	Number of Site Investigations (optional)	Number of sites that have been stabilized or have had the source removed (optional)	Number of sites with corrective action plans (optional)	Number of sites with active remediation (optional)	Number of sites with cleanup completed (optional)
NPL					
CERCLIS (non-NPL)					
DOD/DOE					
LUST					
RCRA Corrective Action					
Underground Injection					
State Sites					
Nonpoint Sources					
Other (specify)					

NPL - National Priority List

CERCLIS (non-NPL) - Comprehensive Environmental Response, Compensation, and Liability Information System

DOE - Department of Energy

DOD - Department of Defense

LUST - Leaking Underground Storage Tanks

RCRA - Resource Conservation and Recovery Act

Each source type is listed in each area with the exception of underground injection as waste or contaminant injection, that is not permitted in this state. The "state" sites are state Superfund sites. The "Nonpoint Source" category contains spray irrigation sites only at this time. Pesticide and nitrate monitoring data is gathered by Clemson University, Department of Fertilizer and Pesticide

Control. The "other" category includes spills and leaks; pits, ponds and lagoons; landfills; unpermitted disposal; aboveground storage tanks; and septic tanks/tile fields. The "number of sites in the area" is left blank because any number of facilities can be potential sources and that data is not tracked at this time. The number of sites that have confirmed groundwater contamination are listed along with the contaminants (using the contaminant classes from Table 21). The remediation status represented by Tables 23 and 25 is not fully completed because that information is not recorded in that format in all program areas.

2. Overview of Groundwater Protection Programs

The state's groundwater protection programs are summarized and characterized in Table 26. The Groundwater Working Group, that is comprised of SCDHEC's groundwater program managers, was formed to provide consistency across the programs.

Table 26. Summary of State Groundwater Protection Programs

Programs or Activities	Check (Y)	Implementation Status	Responsible State Agency
Active SARA Title III Program	Y	Fully Established	SCDHEC/BL&WM/Em ergency Response
Ambient groundwater monitoring system	Y	Fully Established	SCDHEC/BOW/GWM
Aquifer vulnerability assessment	Y	Under Development	SCDHEC/BOW/GWM
Aquifer mapping	Y	Continuing Efforts	DNR- SCDHEC/BOW/GWM
Aquifer characterization	Y	Continuing Efforts	DNR- SCDHEC/BOW/GWM
Comprehensive data management system	Y	Under Development	DNR-SCDHEC
EPA-endorsed Core Comprehensive State Groundwater Protection Program (CSGWPP)	Y	Under Development	SCDHEC/BOW/GWM
Groundwater discharge permits	Y	Fully Established	SCDHEC/BOW
Groundwater Best Management Practices	Y	Under Development	SCDHEC/BOW/IAWD
Groundwater legislation	Y	Continuing Efforts	SCDHEC-DNR

Programs or Activities	Check (Y)	Implementation Status	Responsible State Agency
Groundwater classification	Y	Fully Established	SCDHEC/BOW
Groundwater quality standards	Y	Under Revision	SCDHEC
Interagency coordination for groundwater protection initiatives	Y	Under Development	SCDHEC-DNR-Clemson Univ.
Nonpoint source controls	Y	Under Development	SCDHEC/BOW
Pesticide State Management Plan	Y	Under Development	SCDHEC/BOW/GWM-Clemson Univ.
Pollution Prevention Program	Y	Fully Established	SCDHEC/BL&WM
Resource Conservation and Recovery Act (RCRA) Primacy	Y	Fully Established	SCDHEC/BL&WM
State Superfund	Y	Fully Established	SCDHEC/BL&WM/CE RCLA
State RCRA Program incorporating more stringent requirements than RCRA primacy		Not Applicable	
State septic system requirements	Y	Fully Established	SCDHEC/ENV. HEALTH
Underground storage tank installation requirements	Y	Fully Established	SCDHEC/BL&WM/US T Program
Underground Storage Tank Remediation Fund	Y	Fully Established	SCDHEC/BL&WM/US T Program
Underground Storage Tank Permit Program	Y	Fully Established	SCDHEC/BL&WM/US T Program
Underground Injection Control Program	Y	Fully Established	SCDHEC/BOW/GWM
Vulnerability assessment for drinking water/wellhead protection	Y	Fully Established	SCDHEC/BOW/GWM
Well abandonment regulations	Y	Fully Established	SCDHEC/BOW

Programs or Activities	Check (Y)	Implementation Status	Responsible State Agency
Wellhead Protection Program (EPA-approved)	Y	Fully Established	SCDHEC/BOW/GWM
Well installation regulations	Y	Fully Established	SCDHEC/BOW

Implementation of the Comprehensive State Ground-Water Protection Program (CSGWPP) is the major initiative undertaken since the last §305(b) report. The draft Core CSGWPP was completed and submitted to the Region IV EPA, Groundwater 106 Program, comments from EPA have been received. The Source Water Assessment and Protection Plan was approved to EPA Region IV. The Groundwater Contamination Inventory and the Ambient Groundwater Quality Monitoring Report were also completed last quarter.

3. Summary of Groundwater Quality

Aquifer Monitoring Data are presented in Tables 27 and 28. The state's ambient quality monitoring network is designed to develop a baseline for groundwater quality for each of the aquifers within the state. The wells were selected in areas to avoid known or potential contamination in order to test the assumption that variability in water chemistry reflects differences in geologic framework and/or spatial setting. In addition, neither VOCs nor SOCs are included in the analytical parameters. Accordingly, no data from the ambient monitoring network is included in Tables 27 and 28.

Table 27. Aquifer Monitoring Data

Aquifer Description_____

Aquifer Setting _____

County(ies) (optional)

Longitude/Latitude (optional)

Data Reporting Period

			Number of Wells			
Monitoring Data Type	Total No. of Wells Used in the Assessment	Parameter Groups	No detections of Parameters above MDLs of background levels		No detections of parameters above MDLs or background levels and nitrate concentrations range from background levels to less than or equal to 5 mg/l.	
			ND	Number of Wells in Sensitive or Vulnerable Areas (optional)	ND/Nitrate . 5 mg/l	Number of wells in sensitive or vulnerable areas (optional)
Ambient Monitoring Network (optional)		VOC				
		SOC				
		NO3				
		Other				
Raw Water Quality Data from Public Water Supply Wells		VOC				
		SOC				
		NO3				
		Other				
Finished Water Quality Data from Public Water Supply Wells		VOC	149		2	
		SOC	11		4	
		NO3	38		8	
		Other				

Table 28. Aquifer Monitoring Data (2)

Aquifer Description_____

County(ies) (optional)

Aquifer Setting _____

Longitude/Latitude (optional)

Data Reporting Period

Number of Wells				
Parameters are detected at concentrations exceeding the MDL but are less than or equal to the MCLs and/or nitrate ranges from greater than 5 to less than or equal to 10 mg/l	Parameters are detected at concentrations exceeding the MCLs	Removed from Service	Special Treatment	Background parameters exceed MCLs
Finished Water Quality Data from Public Water Supply Wells	VOC			
	SOC			
	NO3			
	Other			

4. Summary of Groundwater/Surface Water Interactions

The Drinking Water Program reports that no Public Water Supply well is under the influence of surface water. Although there are anecdotal reports of groundwater in wells being heavily pumped showing signs of influence by surface water, no instance of groundwater being impacted by surface water has been confirmed.

As groundwater serves to recharge most of the streams in South Carolina, instances where contaminated groundwater impacts surface water are more prevalent. In the Groundwater Contamination Inventory 132 cases of contaminated groundwater discharging from the surficial aquifer to surface water have been noted. A table was not included in this report because contaminant concentration levels in both the aquifer and surface water are not available. It is surmised that, due to dilution, levels in the surface water are very low or not detectable in most cases.

References

- South Carolina Department of Health and Environmental Control. 1998. Laboratory Procedures Manual for Environmental Microbiology. Bureau of Environmental Services, Columbia, S.C.
- South Carolina Department of Health and Environmental Control. 2005. Procedures and Quality Control Manual for Chemistry Laboratories. Bureau of Environmental Services, Columbia, S.C.
- South Carolina Department of Health and Environmental Control. 2006. Environmental Investigations Standard Operating Procedures and Quality Assurance Manual. Office of Environmental Quality Control. Columbia, SC.
- South Carolina Department of Health and Environmental Control. 2004. Water Classifications and Standards (Regulation 61-68) and Classified Waters (Regulation 61-69) for the State of South Carolina. Office of Environmental Quality Control, Columbia, S.C.
- South Carolina Department of Health and Environmental Control. 2005. State of South Carolina Monitoring Strategy for Calendar Year 2005. Technical Report 003-05. Bureau of Water Pollution Control, Columbia, S.C.
- United States Environmental Protection Agency. 1992. National Toxics Rule, December 22, 1992. Federal Register Reference 57FR60848.