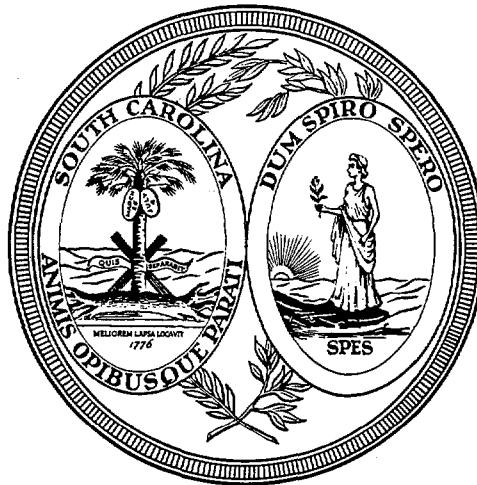


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State of South Carolina Monitoring Strategy for Fiscal Year 1990



Technical Report No. 001-89

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STATE OF SOUTH CAROLINA
MONITORING STRATEGY
FOR
FISCAL YEAR 1990

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I. MONITORING STRATEGY - SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Purpose of This Strategy

The purpose of this strategy is to establish overall goals and objectives for those key elements of the environmental quality monitoring program which are most needed to achieve the goals of the South Carolina Pollution Control Act (PCA), the Clean Water Act (CWA), implement applicable State and Federal regulations, and implement the EPA Environmental Monitoring Policy. Water quality monitoring provides the data needed to regulate sources of water pollution, assess the quality of the State's waters and evaluate the environmental effectiveness of the South Carolina Department of Health and Environmental Control (SCDHEC) water quality programs.

Scope of This Strategy

"Environmental quality monitoring" is defined as the set of activities which provides chemical, physical, geological, biological, and other environmental data required by environmental managers. For the purpose of this strategy, water quality monitoring is limited to those activities involved in the State implementation of the Pollution Control and Clean Water Acts in inland/coastal waters. "Regulatory monitoring" is the collection and analysis of ambient data needed for establishing environmental quality-based permit requirements and for assessing and enforcing compliance with permits. Regulatory monitoring also provides data necessary for addressing environmental quality-based assessments of ambient water related to point source and, to a lesser degree, nonpoint source influences. Regulatory monitoring for assessing and enforcing compliance with permits is included in this strategy.

Statement of Strategy

Major Objectives: This strategy establishes three major objectives for SCDHEC's environmental monitoring program:

1. Advance the Regulatory Monitoring Program:

Regulatory monitoring for establishing and enforcing environmental quality-based permit requirements is the highest priority of this strategy. The goal is to provide comprehensive, reliable data to SCDHEC and EPA for environmental quality management, construction grant and permit decisions. Attention should be given to identifying new problems as well as to controlling known problems.

2. Conduct Sound Assessments:

Environmental quality assessments are defined as the analysis of environmental data to determine the quality of the ambient environment. Assessments may use a number of different kinds of data, e.g., concentrations of pollutants in receiving waters, number of reported fish kills, and the amount of impact detected in natural biological communities. Projections of future conditions may also be done using detected ambient trends and data on expected pollution loads.

3. Evaluate Control Programs:

SCDHEC will utilize its formal program management and reporting systems for guiding SCDHEC environmental quality monitoring activities and for evaluating SCDHEC program performance.

Program evaluation studies use environmental quality assessments to evaluate the effects of pollution control programs on environmental conditions. Program evaluation studies will be performed as needed to evaluate the environmental results of major SCDHEC programs. To the extent feasible, data will be extracted from on-going SCDHEC regulatory monitoring studies.

Additional goals required for the accomplishment of the objectives outlined above include:

Improving Data Quality: Quality assurance/quality control will continue to be a high priority. The goal is that all data used by SCDHEC for decision making will be of known and sufficient quality for the intended uses.

Data Management: The goal is that data systems will be made more useful so that SCDHEC managers will be able to use ambient data and assessments to determine the environmental impacts of decisions. This will be accomplished by cross-linking existing data systems and developing interactive data retrieval and analysis mechanisms usable by line managers and staff.

II. OVERVIEW OF THE SOUTH CAROLINA WATER QUALITY MONITORING PROGRAM

Under the Pollution Control and Clean Water Acts, SCDHEC has been delegated certain water quality monitoring duties. These include regulatory monitoring, water quality assessment and program evaluation as needed to fulfill the requirements of the aforementioned Acts. Within this framework specific responsibilities are as follows:

- A. As first priority, the collection and analysis of data as needed to make water quality management decisions:
 - 1. Identification of waters not fully supporting designated uses and priority waterbodies, i.e., those waters most needing water quality-based controls or other actions to protect the designated use, and preliminary determination of the reason(s) for nonsupport when this occurs. Inclusion of this information in the biennial Section 305(b) Report to Congress. Focus is on toxics as well as conventional pollutants. Simple screening techniques may be appropriate for many situations.
 - 2. Development of needed water quality-based controls for both conventional and toxic pollutants. For toxics, use of both the pollutant-specific and the biomonitoring techniques, as appropriate.
 - 3. As needed to supplement State and Regional regulatory monitoring, writing effluent and ambient data collection requirements into permits for identifying waters in need of controls, developing controls, and assessing the effectiveness of these controls to ensure the use is maintained or restored.
- B. Performance of any additional monitoring needed for the Section 305(b) Report to Congress, including monitoring needed to determine the status of waters not meeting designated uses and the preliminary reason(s) for nonattainment.
- C. Ensuring that needed environmental data are provided to EPA, including appropriate assessment data; appropriate screening data; and all regulatory data, including data needed for approvals of water quality standards and wasteload allocations/total maximum daily loads.
- D. Ensuring that appropriate quality assurance/quality control procedures have been followed for all data used in State decision making and for all data reported to EPA, including data reported by dischargers.

To accomplish these responsibilities, several types of monitoring activities are carried out by SCDHEC's Water Quality Monitoring Section, Facilities Compliance Section, and Bureau of District Services personnel. "Monitoring" is a simple term describing a multifaceted area composed of widely diverse activities. While there are different approaches and philosophies of water quality monitoring, it should always be remembered that monitoring is not an end in itself but is only a tool or mechanism to achieve a particular set of goals and objectives.

The primary goal is the attainment and maintenance of fishable/swimmable waters wherever possible as mandated by the Clean Water Act (CWA).

The philosophy of water quality monitoring in South Carolina has been the recognition that monitoring is basically a service activity for the generation of accurate and timely data needed by program and administrative decision areas. Monitoring is a multifaceted discipline that requires a great deal of attention to each of those "facets" in order for the resulting data to be useful. Beyond this, however, is the necessity to use the monitoring area as a vehicle for a cohesive, interrelated approach to water pollution control via the diverse types of data that are a product of the monitoring system. It is through the monitoring program that sample acquisition, data management/reporting, program needs, committed tasks, and other such Departmental functions all meet. Thus, it is at this natural point of confluence that much opportunity is afforded for integration of sometimes apparently non-related tasks or programs into a step-wise, interrelated approach to the protection of water quality in the State.

South Carolina's monitoring activities can be separated into three broad categories based on the types and intended uses of the data collected. In the following sections, each of these categories is defined, including a brief discussion of how the generated data are used.

1. Monitoring for Water Quality-Based Controls

The development of discharge controls based on receiving water quality is a very high priority. It involves the collection and analysis of effluent and ambient data to develop water quality-based National Pollutant Discharge Elimination System (NPDES) permit limits. This involves the calculation of Total Maximum Daily Loads (TMDL) for specific waterbodies and Wasteload Allocations (WLA) for point source discharges.

SCDHEC uses trend monitoring data and special study data, especially intensive survey data, in developing WLAs and TMDLs. The kinds of data collected for this type of monitoring may include physical and chemical characterization of effluent and receiving waters, stream hydraulics, macroinvertebrate and fish community assessment of the receiving stream, periphyton/phytoplankton sampling, and static and/or flow-through toxicity bioassays of effluents and receiving waters.

These data are used by the Modelling Section in predictive mathematical models to help determine waste treatment levels needed to maintain instream standards. The modelling results are then passed to engineers in the Domestic Wastewater, and Industrial and Agricultural Wastewater Divisions to be used as the basis for setting final NPDES permit limits.

2. Monitoring for NPDES Permit Compliance and Enforcement

The NPDES permit is the principal regulatory tool for controlling the quantity of pollutants discharged to the State's waters and for obtaining data on point-source discharges. Data supplied by the discharger in the form of routine Discharge Monitoring Reports (DMR) and

data collected by SCDHEC personnel from Compliance Sampling Inspections (State CSI and Federal 3560), Federal Operation and Maintenance Evaluations (7500), State Operation and Maintenance Inspections (O&M), Performance Audit Inspections (PAI), Technical and/or Diagnostic Evaluations (TE), and Pretreatment Program Audit and Inspections are reviewed by the Facilities Compliance Section to determine the compliance status of a discharger.

In all instances of effluent noncompliance, enforcement actions are supported by all of the above data supplied by the Facilities Compliance Section and all trend monitoring, special studies, and biological monitoring data supplied by the Water Quality Monitoring Section. The majority of the routine inspections and physicochemical trend monitoring activities are conducted by the Bureau of District Services personnel. Data secured and supplied by these monitoring activities are utilized in the majority of SCDHEC's Environmental Quality Control enforcement activities.

3. Water Quality Assessment

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 assessments provide the data base necessary for making these kind of decisions. Water quality assessments can be broken down into two main types; routine long-term trend monitoring and special intensive surveys.

Long-term trend monitoring is accomplished through the Fixed Monitoring Network which consists of Primary Stations, Secondary Stations, Sediment Stations, Basic Water Monitoring Program Stations, and Biological Monitoring Stations. Data collected by this Network are used in the development of designated use classifications and water quality standards, which are in turn used to establish specific waterbody use classifications. Review of these trend data help determine if existing water quality is adequate to protect existing and designated uses and if appropriate standards have been set. Used in such a manner, trend data provide valuable feedback to the NPDES permit writing section as an indication of necessary discharge restrictions.

The data network also forms the basis of the biennial Report to Congress describing the quality of the State of South Carolina waters, as required by Section 305(b) of the Clean Water Act. For this report, trend monitoring data at all primary stations is used to determine the extent to which State waters meet the goals of the CWA and achieve the State designated use classifications and standards. In this manner, priority waterbodies (those not meeting designated use goals) may be identified for special study. Also, those waterbodies with water quality exceeding designated use classifications and standards, may be identified and upgraded to new use classifications.

Special Intensive Surveys are designed to address and answer special concerns. They are used to assess current conditions, substantiate enforcement decisions, follow-up specific actions, respond to complaints or short-term problems, and collect data for use in the

calculation of TMDLs and WLAs. They are often conducted in conjunction with compliance sampling to document ambient conditions and sources of environmental impact. They are often initiated to investigate apparent problems indicated by the trend monitoring data and to determine the causes of nonsupport of designated uses. The data typically collected during such surveys can be physical and chemical water quality parameters, hydraulic stream characteristics, biological sampling, effluent and compliance sampling, and toxicity testing.

Thus, water quality assessment is a broad term describing a great multitude of monitoring and sampling activities. Water quality assessment data can be used to fulfill a variety of goals; assessment of current conditions, assessment of long-term trends, determination of priority waterbodies, determination of designated use attainment/non-usable attainment areas, and identification of continuing or new problem areas.

By integrating all of these monitoring programs it is possible to identify the sources of pollution and the reasons for nonattainment of designated uses, to completely answer specific issues, determine the efficiency of pollutant abatement programs, and allow administrative overview of program effectiveness.

At this point, some discussion and much emphasis must be directed toward the quality assurance/quality control program. As has been stated previously numerous times, by numerous sources, water quality monitoring programs and subsequently-based decisions are only as good as the quality (accurateness, precision) of the crude data. Suffice it to say here, that an active and effective quality assurance/control program is a major cornerstone of this State's monitoring program and is considered a prime contribution to the success of the program.

In designing studies, SCDHEC incorporates as many facets of these monitoring activities as is necessary to allow a whole waterbody approach to managing water quality. This approach is very efficient, realizing a very complete picture of the water quality in a given waterbody with the minimum man-hours and duplication of effort. This is the result primarily of sound assessment design and effective organization and coordination of resources.

The last major consideration that has been given to developing a successful monitoring program by South Carolina is the identification of the users of data or the sources of data requests. In South Carolina, this group is quite diverse ranging from individual citizens to public interest groups to various local/state/federal agencies. Data users are:

- Departmental program areas (e.g., domestic wastewater engineers)
- Water quality trend/ambient condition analysts
- Wasteload allocation analysts
- Public/private environmental groups
- Public at large

- Other local/state/federal agencies (regulatory & non-regulatory)
- Departmental administrators via program area outputs

While this large group utilizes the data for different reasons, the Department uses and applies the data to the intermediate objectives and goals as previously discussed. This is done to ascertain whether progress is being made toward successful achievement of these goals and to make correct and appropriate decisions regarding maintenance and enhancement of desirable environmental quality in the State.

Implicit in the identification of users of the data, whether in-Department or out-of-Department, is the capacity to communicate the data to interested parties efficiently and accurately. Technical reports are produced for every special study and copies are available to any interested organization or persons. A list of technical reports is available upon request. Additionally, all trend monitoring and special studies data, with the exception of some biological data, are stored in the EPA STORET computer system, and facility inspection data are stored in the EPA Computerized Permit Compliance System. Summaries of trend monitoring and special studies data are available in several formats through the Water Quality Monitoring Section, including the annual Program Plan and this Monitoring Strategy.

Presently underway is the integration of certain program and service areas within the Department via a computer network such that communication between and among such areas will be greatly expedited and enhanced. Concomitant with this intra-Departmental improvement will be likewise enhancement of communication to interested parties outside the Department. Since the computer network will allow more data to be handled more efficiently at a quicker pace, less time and effort will have to be spent by employees in handling the data and more time and effort will be spent on extracting what the data means and communicating that message to users.

In the following sections, each aspect of the SCDHEC monitoring program is presented in detail. Included are descriptions of station locations, sampling frequency, parameter coverage, and quality assurance quality control procedures.

III. FIXED MONITORING NETWORK

The purpose of the fixed monitoring network is to provide a system of stations that are sampled in a way that produces well defined data reflecting physical, chemical and biological conditions of the streams and lakes in South Carolina.

All sampling procedures and analyses are performed in accordance with the State Quality Assurance Management Office (SQAMO) and all procedures follow the Standard Operating and Quality Control Procedures for Ambient Water Quality and Wastewater Facility Monitoring (SCDHEC) and Procedures Manual for Stream and Wastewater Facility Flow Measurement (SCDHEC).

A. Primary Stations

Primary stations are established and sampled in a uniform and logical manner over an extended period of time to provide solid baseline data. By reviewing data and establishing trends in water quality, the primary network aids in identifying stream segments as effluent limited or water quality limited. Intensive water quality surveys, enforcement proceedings or other actions may be based on this trend data. Our present primary network consists of 196 stations sampled once per month, year round.

Stations are grouped according to the regional office responsible for their collection. Stations per region are:

Aiken	34	Florence	31
Charleston	42	Greenville	35
Columbia	29	Lancaster	25

A statewide map of primary stations appears on the following page.

Primary stations and descriptions are listed by region in Appendix A. Criteria for location and establishment of primary stations are:

1. Influent to segment (sub-basin)
2. Effluent to segment
3. Major streams at state lines
4. Confluence of major streams
5. Above a major industrial area
6. Below a major industrial area
7. Water quality limited area
8. Major lake
9. Above major municipal area
10. Below major municipal area
11. Mouth of major tributary
12. Major water use area
13. Above major land use area
14. Below major land use area
15. Above a water intake
16. Sites located in intensive or special water quality surveys
17. Other

Appendix A presents the primary stations and the rationale by which they were established. Twenty-six (26) of these primary stream stations have been designated for inclusion in the U.S. EPA National Basic Water Monitoring Program (BWMP).

Parameter coverage and frequency of analysis for the primary stations are as follows. STORET parameter codes are also given:

Physical Parameters Sampled Monthly

Flow or Stage Measurement	00061 or 00065	Conductivity*,**,***	00402
Temperature***	00010	Total Suspended Solids	**00530
Turbidity	00076	Salinity*,***	00480
Color*	00080	Transparency**,*	00078
		Chlorides*	00940

Microbiological Parameters Sampled Monthly

Fecal Coliform	31616 or 31615
Total Coliform*	31506 or 31505

Chemical Parameters Sampled Monthly

Dissolved Oxygen***	00300	Total Phosphorus	00665
pH	00400	Alkalinity	00410
BOD	00310 or 80082	Total Organic Carbon	**00680
Ammonia	00610		
Nitrate-Nitrite	00630		
Total Kjeldahl Nitrogen	00625		

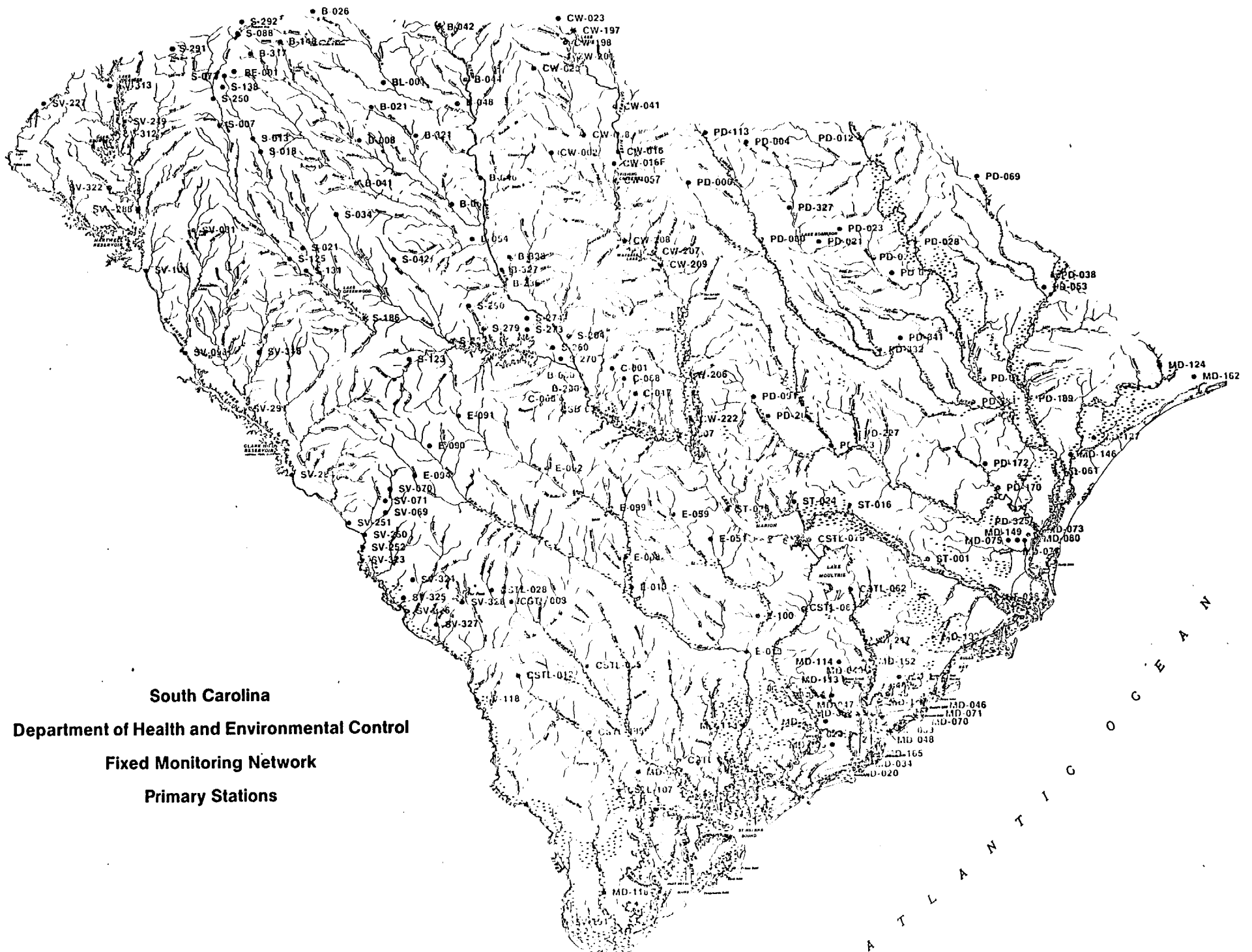
Chemical Parameters Sampled Quarterly

Lead	01051	Manganese	01055
Cadmium	01027	Copper	01042
Chromium	01034	Mercury	71900
Zinc	01092	Phenols*	32730
Nickel	01067	Total Organic Carbon	00680
Iron	01045		

Chemical Parameters Sampled Annually *,**

Pesticide Scan including, but not limited to, the following:

DDT	39300, 39305	Toxaphene	39400
DDD	39310, 39315	Lindane	39782
DDE	39320, 39327	Alpha BHC	39337
Aldrin	39330	Beta BHC	39338
Endrin	39390	Ethion	39398
Dieldrin	39380	Heptachlor	39410
PCB's	39516	Heptachlor Epoxide	39420
Parathion	39540	Malathion	39530



Chemical Parameters Sampled Annually (continued)

Pesticide Scan

Diazinon	39570	Guthion	39580
Phosdrin	39610	Trithion	39786
Acid Extractable Organics	45582	Hardness	00900
Base-Neutral Extractable Organics	45583		
Volatile Organics	84085		

*Selected Stations Only.

**Basic Water Monitoring Program Stations (transparency only where applicable).

***Profiled at one (1) meter intervals at lake and estuary stations collected by boat.

Appendix B includes the primary stations and individual parameters for each.

B. Secondary Stations

Our present secondary network consists of 355 strategically located stations. The network is regionally organized with the following assignments:

Aiken	26	Florence	74
Charleston	43	Greenville	100
Columbia	33	Lancaster	79

Secondary stations and descriptions are listed by region in Appendix A. A statewide map of secondary stations appears on the following page.

Secondary station locations are based on the following criteria:

- Known water quality problem areas; secondary stations act as a check on primary stations where data historically show poor quality. These stations are usually located in relation to smaller discharges throughout the state.
- Potential water quality problem areas; stations in these areas are located in high complaint areas, agricultural and domestic non-point source areas, and areas where data have revealed poor conditions.
- Areas with the same selection criteria as applied to primary stations. In these cases the same problems or potential for problems exist, but with a lesser degree of importance. These areas still require monitoring, but on a less frequent basis.

Appendix A presents the secondary stations and the rationale by which they were established.

Secondary stations are routinely sampled six (6) times per year, once per month May through October. Secondary station sampling may be suspended during intensive or special stream surveys or due to other higher priority samplings.

Parameter coverage and STORET parameter codes are:

Physical Parameters Sampled Monthly May-October

Temperature**	00010	Salinity*,**	00480
Turbidity	00076	Conductivity*,**	00402
Color*	00080		

Chemical Parameters Sampled Monthly May-October

Dissolved Oxygen**	00300	Nitrate-Nitrite	00630
pH	00400	Total Phosphorus	00665
BOD	00310	Phenols*	32730
Total Kjeldahl Nitrogen*	00625	Ammonia*	00610

Microbiological Parameters Sampled Monthly May-October

Fecal Coliform Bacteria	31616 or 31615
Total Coliform Bacteria*	31506 or 31505

Chemical Parameters Sampled Annually

Heavy Metals*		Pesticides*	
Hardness*	00900	Chlorides*	00940

*Selected stations only.

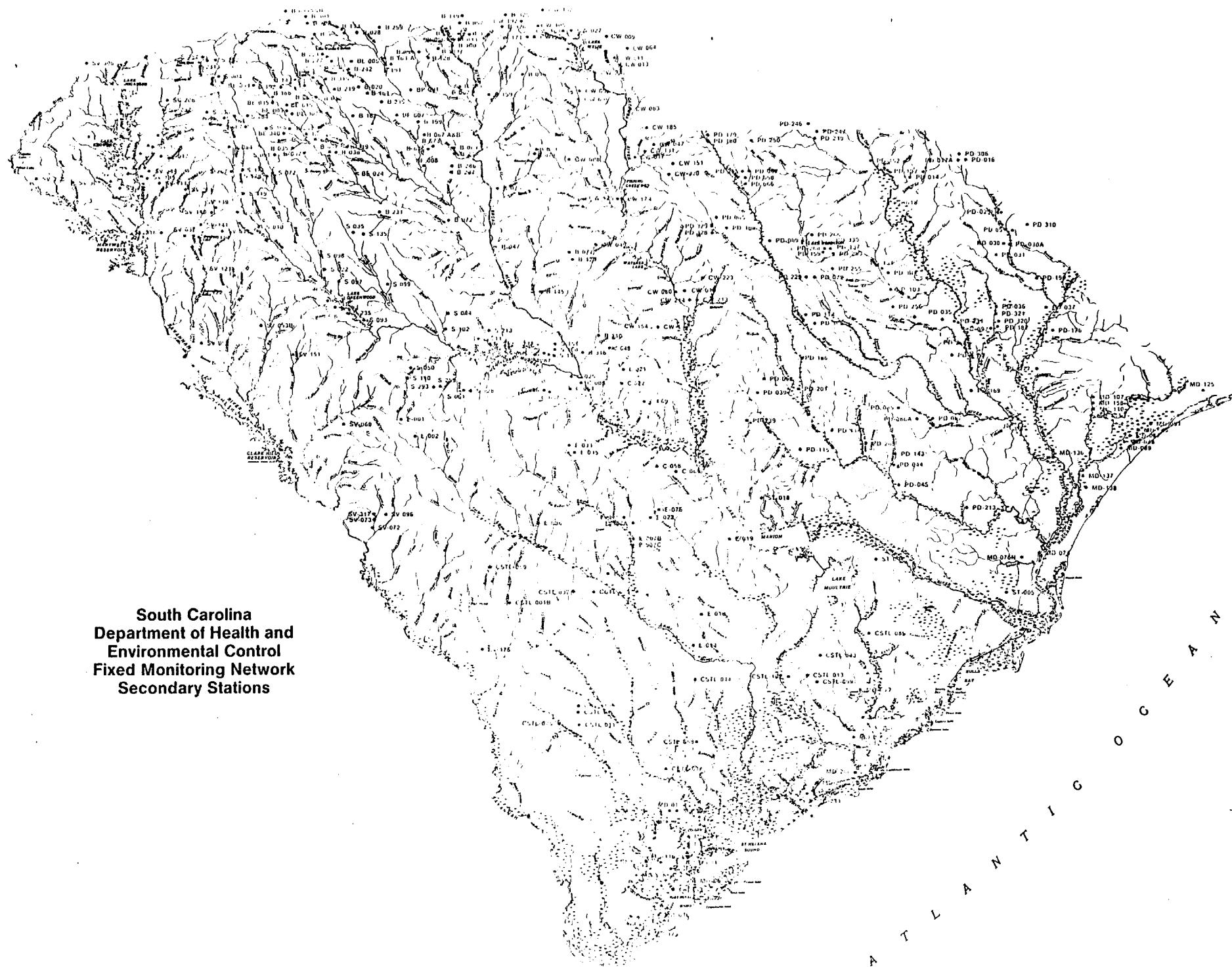
**Profiled at one (1) meter intervals at lake stations collected by boat; profiled at top, mid, and bottom depths at estuary stations collected by boat.

Appendix B includes the secondary stations and individual parameters for each.

C. Sediment Stations

There are 191 selected sediment stations within South Carolina. Sediment stations are sampled for analysis once per year. Primary sediment stations are located at the influent or effluent of a subbasin and areas of environmental sinks. Secondary sediment stations selected for analysis are based on district input stemming from their knowledge of local problem areas. Table 1 lists the sediment stations by district.

**South Carolina
Department of Health and
Environmental Control
Fixed Monitoring Network
Secondary Stations**



Sediment Parameters Sampled Annually

Total Kjeldahl Nitrogen	00627	Chromium	01029
Total Phosphorus	00668	Mercury	71921
Per Cent Volatile Solids	70322	Cadmium	01028
Oil and Grease	00557	Nickel	01068
Lead	01052	Pesticide Scan including, but not limited to:	
Zinc	01093	DDT	39301, 39306
Copper	01043	DDD	39311, 39316
PCB's	39519	DDE	39321, 39328
Acid Extractable Organics*	45582	Aldrin	39333
Base-Neutral Extractable	45583	Endrin	39393
Organics*		Dieldrin	39383
Volatile Organics*	84085	Methoxychlor	39481
		Lindane	39783
		Toxaphene	39403

*Selected stations only, see Table 1 below.

Table 1

Sediment Stations

Columbia

(a) Primary: November	S-204	*B-054	*CW-206
	S-223	*B-236	CW-207
	S-260		CW-208
	S-273	*C-007	CW-209
	S-274		*CW-222
	S-279	*CSB-001L	
	S-280	*CSB-001R	
	S-290		

(b) Secondary: September	B-077	E-035
	B-316	E-101

Aiken

(a) Primary: December	*E-008	*SV-118	S-123	CSTL-012	ST-025
	E-013	SV-250	S-131	CSTL-028	
	E-059	*SV-291			
	E-090	SV-294			
	E-091	SV-318			
	E-092	*SV-323			
	E-094				

(b) Secondary: September	E-007A	SV-072	S-050
	E-076	SV-073	S-093
		SV-096	S-233

Greenville

(a) Primary:	SV-098	S-007	B-008	BE-001
October	*SV-121			
	*SV-122			
	SV-227	*S-018	B-026	*BL-001
	SV-288	S-021	B-041	
		S-073	B-148	
		S-088	B-317	
		*S-125		
		S-250		
		S-296		

(b) Secondary:	SV-015	B-192		
September	*SV-037	B-302		
	SV-107			
	SV-137			
	SV-282			

Lancaster

(a) Primary:	B-042	PD-004	CW-013	CW-152
October	B-044	PD-006	*CW-016	CW-197
	*B-046	PD-080	CW-016F	CW-198
	B-048	PD-113	CW-041	CW-201
	B-051	PD-327	CW-057	CW-226

(b) Secondary:	*B-057	PD-066	CW-018	*CW-225
September	B-086	PD-152	*CW-023	
	B-100		CW-027	
	*B-119		CW-155	
	*B-330		*CW-224	

Charleston

(a) Primary:	CSTL-006	SV-191	*ST-001	MD-007	MD-119
December	CSTL-062		ST-006	MD-026	MD-120
	CSTL-063		ST-016	MD-043	MD-152
	CSTL-079	*E-015		MD-045	MD-195
	*CSTL-098	*E-100		*MD-048	MD-202
	CSTL-107			MD-052	MD-241
	*CSTL-109			MD-115	
				MD-118	

(b) Secondary:	CSTL-010	ST-007	MD-004	MD-209
September	CSTL-013		MD-006	MD-210
	CSTL-085		MD-010	MD-116
			MD-206	

(c) Biological:	*MD-214	*MD-634		
March	*MD-215	*MD-635		
	*MD-216	*MD-636		
	*MD-538	*MD-639		
	*MD-632	*MD-640		
	*MD-633	*MD-655		

Florence

- | | | | | | | |
|-----|-------------|---------|---------|---------|---------|--------|
| (a) | Primary: | *MD-080 | PD-012 | PD-043 | PD-170 | PD-325 |
| | November | MD-124 | *PD-027 | PD-052 | PD-189 | PD-332 |
| | | MD-127 | *PD-028 | *PD-061 | *PD-202 | |
| | | MD-146 | *PD-038 | PD-069 | PD-227 | |
| | | MD-162 | PD-041 | PD-091 | PD-281 | |
| (b) | Secondary: | MD-158 | PD-030A | PD-256 | | |
| | September | | PD-081 | PD-321 | | |
| | | | PD-097 | | | |
| | | | PD-159 | | | |
| (c) | Biological: | *MD-212 | *MD-637 | | | |
| | March | *MD-213 | *MD-638 | | | |

*Stations sampled for sediment organics (see above).

D. Schedule for the Ambient Monitoring Program for FY'88 by Laboratory District

The following is the schedule for collection of samples for primary water stations, primary sediment stations, secondary water stations, and secondary sediment stations for each District Laboratory. The schedule includes the number of each type of sample to be collected, and it also includes the month(s) for collection. Please refer to Section A, B, and C and Appendix C for details relevant to specific parameters for each station.

Lab: Aiken

Primary Surface Stations -- 34

- Quarterly for metals, TOC, and phenols* -- March, June, September and December
- Annually for Pesticide - PCB's and other organics (selected stations) -- April
- Annually for hardness (selected stations) -- to coincide with one of the metals samples

Primary Sediment Stations -- 18

- Collected in December

Secondary Sediment Stations -- 8

- Collected in September

Secondary Surface Stations -- 30

- Collected from May through October

Lab: Columbia

Primary Surface Stations -- 29

- Quarterly for metals, TOC, and phenols* -- February, May, August, and November

*Selected Stations

- Annually for Pesticides - PCB's and other organics (selected stations) -- March
- Annually for hardness (selected stations) -- to coincide with one of the metals samples

Primary Sediment Stations -- 18

- Collected in November

Secondary Sediment Stations -- 4

- Collected in September

Secondary Surface Stations -- 33

- Collected from May through October

Lab: Florence

Primary Surface Stations -- 32

- Quarterly for metals, TOC, and phenols* -- February, May, August, and November
- Annually for Pesticides - PCB's and other organics (selected stations) -- April
- Annually for hardness (selected stations) -- to coincide with one of the metals samples

Primary Sediment Stations -- 22

- Collected in November

Secondary Sediment Stations -- 7

- Collected in September

Secondary Surface Stations -- 74

- Collected from May through October

Lab: Greenville

Primary Surface Stations -- 31

- Quarterly for metals, TOC, and phenols* -- January, April, July, and October
- Annually for Pesticide - PCB's and other organics (selected stations) -- May
- Annually for hardness (selected stations) -- to coincide with one of the metals samples

Primary Sediment Stations -- 20

- Collected in October

Secondary Sediment Stations -- 7

- Collected in September

Secondary Surface Stations -- 100

- Collected from May through October

*Selected Stations

Lab: Lancaster

Primary Surface Stations -- 21

- Quarterly for metals, TOC, and phenols* -- March, June, September, and December
- Annually for Pesticide - PCB's and other organics (selected stations) -- March
- Annually for hardness (selected stations) -- to coincide with one of the metals samples

Primary Sediment Stations -- 20

- Collected in October

Secondary Sediment Stations -- 13

- Collected in September

Secondary Surface Stations -- 77

- Collected from May through October

Lab: Charleston

Primary Surface Stations -- 42

- Quarterly for metals, TOC, and phenols* -- January, April, July, and October
- Annually for Pesticide - PCB's and other organics (selected stations) -- May
- Annually for hardness (selected stations) -- to coincide with one of the metals samples

Primary Sediment Stations -- 27

- Collected in December

Secondary Sediment Stations -- 11

- Collected in September

Secondary Surface Stations -- 42

- Collected from May through October

Lab: Biological Services

Primary Sediment Stations -- 16

- Collected in March

* Selected stations

E. Basic Water Monitoring Program (BWMP)

Twenty-six of the S.C. Department of Health and Environmental Control primary trend monitoring stations have been designated as U.S. EPA National Basic Water Monitoring Program stations. These stations are listed below:

<u>STATION NO.</u>	<u>COUNTY</u>	<u>DISTRICT</u>
B-046	Union	Catawba
B-054	Newberry	Central Midlands
B-236	Fairfield	Central Midlands
BL-001	Spartanburg	Appalachia II
C-007	Richland	Central Midlands
CSB-001 L&R	Richland	Central Midlands
CSTL-109	Hampton	Trident
CSTL-098	Beaufort	Trident
CW-016	Lancaster	Catawba
CW-206	Richland	Central Midlands
E-008	Orangeburg	Lower Savannah
E-015	Dorchester	Trident
E-100	Dorchester	Trident
MD-048 *(MD-214)	Charleston	Trident
MD-080 *(MD-213)	Georgetown	Pee Dee
PD-027	Darlington	Pee Dee
PD-028	Darlington	Pee Dee
PD-038	Marion	Pee Dee
PD-061	Horry	Pee Dee
PD-202	Sumter	Pee Dee
S-125	Laurens	Appalachia II
S-018	Greenville	Appalachia II
ST-001	Berkeley	Trident
SV-118	Allendale	Lower Savannah
SV-323	Aiken	Lower Savannah
SV-291	McCormick	Lower Savannah

*Biological Sampling cannot be conducted at these stations. In parentheses are the Trend Biological Monitoring stations where accompanying biological data are gathered (see Appendix C).

Appendix A presents station descriptions.

Parameter coverage and STORET parameter codes are:

Parameters Sampled Monthly

Temperature	00010	Total phosphorus	00665
Turbidity	00076	Ammonia	00610
Alkalinity	00410	Biological oxygen demand	00310
Dissolved oxygen	00300	Total suspended solids	00530
pH	00400	Total organic carbon	00680
Conductivity	00402	Flow ^A	00061
Fecal coliform	31616 or 31615	Salinity ^C	00480
Total Kjeldahl	00625	Transparency ^{B,C}	00078
nitrogen		Nitrate-Nitrite	00630

A = Streams only

B = Lakes and Impoundments only

C = Estuaries only

Parameters Sampled Quarterly

Heavy Metals

Parameters Sampled Annually

Pesticides/PCB's	
Volatile Organics	84085
Base-Neutral Extractable Organics	45583
Acid Extractable Organics	45582
Trace organics and metals in sediment	

(See Section C, includes all Sediment Parameters Sampled Annually)

Parameters Sampled Annually

Representative fish/shellfish tissue analysis (see following Section and Appendix C)

Parameter coverage at each station appears in Appendix B.

F. Biological Monitoring

The biological monitoring network provides information which will allow for the detection and evaluation of changes in the biological stability of aquatic communities. Data collected through this program are also used to detect the presence and/or build-up of potentially hazardous substances in aquatic organisms. The various activities falling under the biological monitoring program are detailed below.

1. Fixed-Station Monitoring - A program of long-term monitoring utilizing 51 fixed biological monitoring stations distributed as follows:

26 EPA Basic Water Monitoring Program (BWMP) Stations

9 Special Status Stations

16 Estuarine Stations

These stations are sampled at least annually for a variety of parameters (Table 2) to the extent that laboratory and manpower resources permit. Station location descriptions are presented in Appendix C while specific parameter coverage and sampling frequency information is listed in the appropriate following subsections. Stations are selected according to the same criteria presented for the BWMP stations in Appendix A as well as according to these additional criteria:

- a. At locations in selected major water bodies potentially subject to inputs of contaminants from areas of concentrated urban, industrial, and/or agricultural use.
 - b. At locations in selected water bodies which are of critical value for sensitive uses such as domestic water supply, recreation, propagation and maintenance of fish and wildlife.
 - c. At locations in selected areas suited to deliver natural, background water quality characteristics on a long-term basis.
 - d. At locations in selected areas where specific water quality impairment has been documented with ameliorative procedures in place to follow the response of the water system to those procedures.
2. Toxic Materials Monitoring - Uptake and concentration by aquatic organisms of toxic and potentially hazardous substances will be studied at trend biological monitoring stations. This program will also be extended to areas of intensive surveys and/or special studies as dictated by the intent of the investigation.
 3. Parameters and Sampling Frequency - Parameters sampled during trend monitoring and intensive surveys are determined by the characteristics of the site being sampled or intent of the sampling activity. The parameters collected and the intended sampling frequency for each type of fixed-station biological monitoring activity is outlined below. Because of constraints on laboratory resources, prioritization of samples may preclude tissue analyses from some of the annual trend network collections. The 51 stations described in Appendix C are sampled yearly. Parameters available for inclusion as well as frequency used in fixed-station biological monitoring are described in Table 2.

Table 2

**Fixed-Station Biological Monitoring Program
Biological Community Coverage and Sampling Frequency**

Parameters	Station Status	Macro-invertebrate	Finfish	Crustacean	Shellfish
Counts	BWMP	1	2		
	Special	1	2		
	Estuarine	3	2		3

Species Ident.	BWMP	1	2		
	Special	1	2		
	Estuarine	3	2		3

Toxic Substances	BWMP		2		
	Special		2		
	Estuarine		2	1	3

1. Each Station sampled once annually between June and August
2. Each station sampled once annually between September and October
3. Each station sampled once annually in March

- a. Macroinvertebrates - Quantitative collections will be made at all riverine and estuarine stations (Table 2). Four Hester-Dendy samplers will be exposed for four weeks at all riverine stations; three 0.01 m² quadrats will be collected at all estuarine stations.
Analyses to be conducted are:
 - (i) Identification to family, genus and/or species
 - (ii) Counts
 - (iii) Size distributions of oysters at estuarine stations
 - (iv) Community structure at estuarine stations
- b. Toxic Materials Monitoring Program - The species and size requirements of individuals used in tissue analyses along with the proposed number of tissue analyses to be conducted are summarized in Tables 3 and 4. A list of organic toxicants and inorganic toxicants tested for in each type of animal, and the sampling frequency are presented in Tables 5 and 6, respectively. The sampling program for each type of animal tissue is detailed in the following subsections.
 - (i) Finfish
 - A. One composite of five whole fish of the same species within a selected weight

class will be collected from each major trophic level (omnivores, piscivores, insectivores) at each trend station (24 BWMP stations and special status stations).

Table 3
Fixed-Station Biological Monitoring Program Species
Requirements and Sample Size Restrictions
for Tissue Analyses

Tissue Group	Sample Type	No. Individ. in Sample	Size/Weight Restrictions	Preparation
Finfish: omnivores	Composite	5	TBD*	Whole fish
piscivores	Composite	5	TBD	Whole fish
insectivores	Composite	5	TBD	Whole fish
estuarine	Composite	5	TBD	Whole fish
Crustaceans (<i>C. sapidus</i>)	Composite	30	>12.7 cm in width	Somatic muscle
Shellfish (<i>C. virginica</i>)	Composite	30	>7.5 cm in height	Whole Shucked

* to be determined

Table 4
Fixed-Station Biological Monitoring Program
Proposed Number of Tissue Analyses by Station Type

Tissue Group	Number of Samples by Station Type				TOTAL
	Riverine	Lacustrine	Estuarine	Off-Shore	
Finfish	75	21	4	1	101
Crustaceans	--	--	16	--	16
Shellfish	--	--	16	--	16
TOTAL	75	21	36	1	133

Table 5

Fixed-Station Biological Monitoring Program
Organic Chemical Parameter Coverage and
Proposed Sampling Frequency for Tissue Analysis

Chemical Group	Parameter	Tissue Type		
		Finfish	Crustaceans	Shellfish
Pesticides/PCBs	Aldrin (ug/kg)*	1	1	1
	B-BHC (ug/kg)	1	1	1
	Chlordane (ug/kg)	1	1	1
	DDD (ug/kg)	1	1	1
	DDE (ug/kg)	1	1	1
	DDT (ug/kg)	1	1	1
	Dieldrin (ug/kg)	1	1	1
	Endrin (ug/kg)	1	1	1
	Heptachlor (ug/kg)	1	1	1
	Heptachlor epoxide (ug/kg)	1	1	1
	Hexachlorobenzene (ug/kg)	1	1	1
	Lindane (ug/kg)	1	1	1
	Methoxychlor (ug/kg)	1	1	1
	Toxaphene (ug/kg)	1	1	1
	Diazinon (mg/kg)	1	1	1
	Ethion (mg/kg)	1	1	1
	Guthion (mg/kg)	1	1	1
	Malathion (mg/kg)	1	1	1
	Methyl parathion (mg/kg)	1	1	1
	Parathion (mg/kg)	1	1	1
	Ronnel (mg/kg)	1	1	1
	a-BHC (mg/kg)	1	1	1
	Mirex (mg/kg)	1	1	1
	PCBs (mg/kg)	1	1	1
Organic Priority Pollutants	Pesticides/PCBs	1	1	1
	Acid extractables	2	1	1
	Base-neutral extractables	2	1	1
	Polynuclear aromatic hydrocarbons	2	1	1

1. analyses conducted annually

2. analyses conducted biannually

* ug/kg = parts per billion; mg/kg = parts per million, wet weight

Table 6

Fixed-Station Biological Monitoring Program
Inorganic Chemical Parameter Coverage and
Proposed Sampling Frequency for Tissue Analysis

Chemical Group	Parameter	Tissue Type		
		Finfish	Crustaceans	Shellfish
Heavy Metals	Cadmium (mg/kg)*	1	1	1
	Chromium (mg/kg)	1	1	1
	Copper (mg/kg)	1	1	1
	Lead (mg/kg)	1	1	1
	Mercury (mg/kg)	1	1	1
	Nickel (mg/kg)	1	1	1
	Zinc (mg/kg)	1	1	1
Inorganic Priority Pollutants	Routine metals	1	1	1
	Beryllium (mg/kg)	2	1	1
	Silver (mg/kg)	2	1	1
	Thallium (mg/kg)	2	1	1

1. analyses conducted annually

2. analyses conducted biannually

* mg/kg = parts per million, wet weight

Analyses will be conducted annually for heavy metals and pesticides/PCBs at all stations and biannually for priority pollutants. Such samples from Lake Marion (3 of the 9 special status stations) will be analyzed annually for all parameters.

B. One composite of five whole flounder within a selected weight class will be collected from Charleston Harbor, Winyah Bay, Port Royal Sound, and St. Helena Sound. Analyses will be conducted annually for heavy metals and pesticides/PCBs and biannually for priority pollutants.

C. One composite of five whole pelagic fish of the same species within a selected weight class will be collected from off-shore. Analyses will be conducted annually for heavy metals and pesticides/PCBs and biannually for priority pollutants.

As appropriate, single or composite fillets of large gamefish may be prepared for analyses from any of these areas in addition to the whole fish samples.

(ii) Shellfish

- A. One composite of thirty adult (≥ 7.5 cm in height) oysters (Crassostrea virginica) will be collected from the mid-intertidal zone at 16 estuarine stations. Analyses will be conducted annually for organic and inorganic priority pollutants.

(iii) Crustaceans

- A. One composite of somatic muscle tissue from thirty legally-harvestable (≥ 12.7 cm in width) blue crabs (Callinectes sapidus) will be collected at 16 estuarine stations. Analyses will be conducted annually for organic and inorganic priority pollutants.

(iv) Sediment

- A. One sample will be collected from the approximate top 3 cm of sediment in the mid-intertidal zone at 16 estuarine stations where shellfish are collected. Analyses will be conducted annually for organic and inorganic priority pollutants.

5. Acute and Chronic Toxicity Assessment Program

The Toxicity Assessment Program predicts the effects of wastewater discharges on aquatic life. Data collected through this program are also used to provide legally defensible data on damage in situations where compliance monitoring indicates violation of permits and/or water quality standards, and to provide information suitable for inclusion in the evaluation of permits issued under the NPDES discharge permit system. To accomplish these objectives the following test procedures may be utilized:

- (a) Laboratory Bioassay - A static bioassay program which can be utilized for both screening and definitive acute and chronic toxicity testing.
- (b) Mobile Bioassay - A mobile unit capable for use in both dynamic and static bioassays. The major emphasis of the unit will be on acute toxicity.
- (c) Instream macroinvertebrate assessments.

Parameters and Sampling Frequency

Selection of wastes and dischargers utilized for toxicity testing will be closely coordinated with NPDES permitting program areas, compliance monitoring personnel, enforcement personnel and district/laboratory personnel. Ten static chronic toxicity tests and 48 static acute toxicity tests will be conducted this year.

G. Shellfish Monitoring

Fixed-Monitoring Network

The state's coastal area is divided into 23 shellfish management areas with a total of 361 monitoring stations. The purpose of this monitoring network is to provide data which accurately reflects the sanitary conditions of coastal shellfish and shellfish growing waters in South Carolina to insure that the health of shellfish consumers is protected.

The shellfish monitoring program provides the data base which is used in conducting a comprehensive evaluation of each shellfish growing area. These evaluations, or sanitary surveys, are conducted every three years with annual updates. The data are collected at strategically located sites and used to classify shellfish waters as to harvesting suitability. The monitoring network also serves to provide sanitary-related data from each shellfish area during the harvesting season to ensure that conditions which existed during the comprehensive evaluation still prevail; that the harvest classification is correct; and, ultimately that shellfish are safe to be consumed by the public once harvested. All shellfish waters receive one of the following harvest classifications:

Approved: Areas where a sanitary survey indicates that the water is not contaminated with fecal material, pathogenic microorganisms, or poisonous and deleterious substances in concentrations dangerous to human health. The fecal coliform MPN median in approved waters does not exceed 14/100 ml and not more than 10 percent of the samples exceed 43/100 ml.

Conditionally Approved: Areas generally of the same quality as approved however, the quality may temporarily vary because of sporadic impacts from non-point and point sources, rainfall, or seasonal activities. Shellfish may be harvested for marketing under conditions specified in a management plan.

Restricted: Areas where a sanitary survey indicates there is a limited degree of pollution which renders the shellfish unsafe for direct marketing. The shellfish may be marketed after relaying or depuration. The median fecal coliform levels in restricted waters are between 14/100 and 88/100 ml with not more than 10 percent of the samples exceeding 260/100 ml.

Prohibited: Areas where a sanitary survey indicates excessive concentrations of pollutants exist or where the potential exists for excessive pollutant concentrations. The median fecal coliform MPN exceeds 88/100 ml in the water or more than 10 percent of the samples exceed 260/100 ml. Shellfish may not be harvested from prohibited areas for human food use. Closed safety zones may be established around potential pollutant sources and are classified as prohibited areas.

All sampling procedures and laboratory analyses are conducted in accordance with the National Shellfish Sanitation Program (NSSP) guidelines. Areas closed to the harvesting of shellfish are posted with signs indicating the potential for serious illness from consuming shellfish harvested within these areas and outlining penalties for harvest violations.

Sampling stations are established at locations representative of variable sanitary water quality within shellfish areas. Many of these locations are positioned at classification boundaries to confirm established harvesting classifications. All 361 stations are sampled at least six times during the shellfish harvesting season (September 15 - May 15) (Table 7). Stations within waters that are classified conditionally approved are sampled monthly. There are also seven stations that are sampled six times during the season either on ebb or flood tide only.

Complete descriptions of station locations are included in Appendix D.

Table 7
Fixed-Station Shellfish Monitoring Program
Physical and Bacteriological Parameter Coverage
and Sampling Frequency

Parameter Group	Parameter	Water	Shellstock
Physical	Tide Stage	*	NA
	Water Temperature	*	NA
	Air Temperature	*	NA
	Wind Direction	*	NA
	Salinity	*	NA

Bacteriological	Fecal Coliform	*	**
	Total Plate Count	NA	**
	<u>E. coli</u>	**	**
	Sample Temperature	*	**
	Sample Type	NA	**
	Species	NA	**

*Sampled at least six times during harvesting season.

**Sampled as appropriate.

IV. INTENSIVE SURVEYS AND SPECIAL WATER QUALITY STUDIES

A. Point Source Wasteload Allocations

Intensive stream surveys are conducted for gathering field data for calibration or verification of water quality mathematical models and for the determination of the quality of the State's waters. It is the goal of the Department to calibrate models with measured field data when issuing point source wasteload allocations requiring advanced treatment. Emphasis and priority will be placed on gathering field data for issuance of wasteload allocations for 201 waste treatment facility projects. Stream surveys will be designed and carried out as described in the Basic Water Monitoring Program.

In addition to intensive stream surveys, time of travel studies to determine stream velocities for water quality model reaches will be conducted. These will be scheduled as needed and as resources allow for streams where data is lacking and complete surveys are not possible or feasible.

Stream surveys are projected for a five-year period and each year revised as needed, prioritized, and then included in the State Program Plan. Of these projected number of scheduled facility surveys each year, the actual number performed for publicly owned facilities will be completed first with the remaining number of industrial and private facility surveys completed afterwards. An effort will be made to complete all municipal surveys prior to permit issuance/reissuance.

Intensive stream surveys will be performed generally during the warmer months of May through October. Winter months are less desirable for intensive water quality surveys that are to be used for model calibration. This is based on the following factors:

1. Biochemical reaction rates and biological populations are lowered by the colder temperatures.
2. Generally, the flow in the streams is higher than normal and much less predictable.
3. Dissolved oxygen concentrations are higher due to higher saturation levels and lower temperatures.
4. For modelling purposes, it is desirable to conduct field studies which result in data closely aligned to the conditions under which water quality predictions are made. For example, predictions are normally based on low stream flows (7Q10).
5. On those occasions where seasonal limits are at issue, studies may be conducted during the winter months.

Study plans for all intensive surveys are submitted to the State Quality Assurance Management Office (SQAMO) for approval prior to sampling. All sampling and field analyses are performed according to Standard Operating and Quality Control Procedures for Ambient Water Quality and Wastewater Facility Monitoring (SCDHEC) and

Procedures Manual for Stream and Wastewater Facility Flow Measurement (SCDHEC).

B. Special Water Quality Studies

Special water quality studies are conducted on an as needed basis to determine cause and effect relationships in water bodies where trend monitoring indicates a deterioration in environmental quality and to provide legally defensible data on damage in situations where compliance monitoring indicates violation of permits and/or water quality standards. Special water quality assessments are often requested for water bodies having high or potentially high public water use values.

Special studies provide immediate and indepth investigations of specific environmental problems and involve practical research which leads to a better understanding of the water quality of the State of South Carolina. Each study is followed by a report which analyzes the data obtained during the study. These reports are available to all interested parties.

An investigation of specific environmental problems usually originates as an official request from other sections of EQC, such as Industrial Wastewater, Enforcement, the Modelling Section, District Services personnel, or Solid and Hazardous Waste. Studies may also be initiated in response to requests by private citizens or special interest groups. Once an official request to carry out a specific task has been received, the special studies group designs, receives approval, and implements the study. The results of such studies are reported primarily to the originator of the study request.

In conducting practical research, the special studies group generally relies on its own staff, as well as the scientific staff of other sections of EQC. The special studies staff designs and implements, or coordinates if other groups are involved, such studies and reports all findings to all interested parties.

Study plans for any special studies are submitted to the State Quality Assurance Management Office (SQAMO) for approval prior to sampling. All sampling and field analyses are performed according to Standard Operating and Quality Control Procedures for Ambient Water Quality and Wastewater Facility Monitoring (SCDHEC) and Procedures Manual for Stream and Wastewater Facility Flow Measurement (SCDHEC).

C. Lake Edgar A. Brown

A special study to document the causative factors contributing to the eutrophic state of Lake Edgar A. Brown, a 100 acre system located within the town limits of Barnwell, South Carolina, was begun in May 1988. The 18 month study is being jointly funded by EPA and SCDHEC under the Clean Lakes Program. Sampling was conducted for one year, with semi-monthly collections during the growing season (April-October) and monthly otherwise. Following interpretation of the study results, a set of restoration alter-

natives will be presented to those parties involved with lake stewardship.

A total of three stations were sampled, two within the lake, and one on Turkey Creek. Turkey Creek does not presently flow into Lake Brown. Flow was diverted in 1968 as part of an effort to control aquatic macrophytes.

Parameters to be analyzed:

Depth	m	
Dissolved oxygen	mg/l	Water column profile
Temperature	°C	Water column profile
pH	SU	Surface and bottom
Specific conductance	umhos/cm	Surface and bottom
Total ammonia	mg/l	Surface and bottom
Nitrate-nitrite	mg/l	Surface and bottom
Total Kjeldahl nitrogen	mg/l	Surface and bottom
Total phosphorus	mg/l	Surface and bottom
Total orthophosphorus	mg/l	Surface and bottom
Dissolved orthophosphorus	mg/l	Surface and bottom
Total alkalinity	mg/l	Surface and bottom
Chlorophyll a	ug/l	Surface
Secchi depth	m	
Photic zone depth	m	
Extinction coefficient		
Phytoplankton enumeration and identification	#/ml	Surface
Fecal coliform	#/100 ml	Surface
Streamflow (Turkey Creek)	ft ³ /sec	

D. Clean Lakes Program

South Carolina DHEC received a federal grant and conducted a lake classification evaluation during 1980-1981 entitled "South Carolina Clean Lakes Classification Survey," Technical Report No. 019-82. A final publication was submitted as part of the federal grant in 1982. This publication has been utilized by SCDHEC in making management decisions related to lakes in South Carolina, to provide information for 305b reports, and to inform the public of the conditions in the lakes studied.

SCDHEC has received a grant from EPA to update the Survey through a reassessment of all lakes during FY 1990, and to complete a report describing the trophic state of these lakes for inclusion in the 305b report. The updated report will include comparisons of data collected from the larger lakes during FY 1980-81, FY 1985, and FY 1990, as well as the data from minor lakes collected during FY 1980-81 and FY 1990. The data will also be used to rank the lakes according to trophic condition.

For ranking purposes, the seventeen (17) major public lakes of South Carolina will be considered in a separate grouping apart from the twenty-five (25) minor lakes addressed by this grant. The seventeen (17) major lakes are listed below:

Lake William C. Bowen
 Clarks Hill Reservoir
 Fishing Creek Reservoir
 Lake Greenwood
 Lake Hartwell
 Lake Jocassee
 Lake Keowee
 Lake Marion
 Monticello Reservoir

Lake Moultrie
 Lake Murray
 Parr Reservoir
 Lake Robinson
 Lake Richard B. Russell
 Lake Secession
 Lake Wateree
 Lake Wylie

The remaining 25 public lakes are:

Adams Mill Pond (Goodale St. Park)
 Ashwood Lake
 Boyd Mill Pond
 Broadway Lake
 Lake Edgar A. Brown
 Lake Cherokee
 Chester State Park Lake
 Lake Conastee
 Lake Craig
 Lake Cunningham
 Eureka Lake
 Goose Creek Reservoir
 Lake Johnson

Langley Pond (Horse Creek Pond)
 Lake Long
 Lake Oliphant
 Prestwood Lake
 Reynolds Pond
 Rock and Cedar Creek Reservoir
 Saluda Lake
 Lake Thicketty
 Vaucluse Pond
 Lake Wallace
 Lake Warren
 Lake Yonah

Parameter coverage will be similar for the sampling of both groups of public lakes. Parameters to be measured and additional information are given below:

Parameter

Dissolved oxygen
 Temperature
 Conductivity
 pH
 Secchi Depth
 Photic Zone Depth
 Chlorophyll a
 Algal Growth Potential
 Total Kjeldahl Nitrogen
 Ammonia
 Nitrate-Nitrite
 Total phosphorus
 Orthophosphorus
 Dissolved orthophosphorus

Profile
 Profile
 Surface and bottom
 Surface

 Surface
 Headwaters and coves only
 Depth-integrated
 Depth-integrated
 Depth-integrated
 Depth-integrated
 Depth-integrated
 Depth-integrated

Quarterly sampling will be completed during FY 1990. During FY 1990-91, collected data will be used to compute two or more trophic state indices. These indices will be used to rank the lakes based on water quality and public use criteria.

V. WASTEWATER DISCHARGE COMPLIANCE MONITORING

All wastewater dischargers to the surface waters of the State of South Carolina must obtain a National Pollutant Discharge Elimination System (NPDES) Permit to discharge. This applies to all public and privately owned wastewater treatment facilities. The NPDES permit sets limits for physical and chemical characteristics of the facility effluent to protect the water quality of the receiving waterbody. A number of publicly owned treatment works (POTWs) have requirements in their NPDES permits to implement an approved pretreatment program, as well.

The purpose of the facility monitoring program is to insure that permitted effluent limitations are met and properly reported to the State, to insure proper operation and maintenance of wastewater treatment facilities, and to insure that the public's concerns and complaints concerning wastewater dischargers are answered effectively. This monitoring function encompasses the review of NPDES permit compliance schedules, review of NPDES self-monitoring data, inspection and evaluation of wastewater treatment facilities, collection and analysis of samples at wastewater treatment facilities, and investigation of complaints concerning wastewater treatment facilities or stream quality throughout the State.

The information gathered by the facility monitoring program is used by the State and EPA to determine permit compliance and to support enforcement actions. Inspection results are also useful in grant reviews and permitting functions. Facility monitoring is often included in water quality assessments as well.

Certain inspections are used to improve permittee performance through improved data quality and the provision of technical assistance. Of course, the facility monitoring program also serves to maintain a regulatory presence in the State.

The following sections detail the various means at our disposal to accomplish these goals.

A. Compliance Schedule Tracking

Schedules of Compliance for permits and administrative orders are maintained in a data file designated as the Permit Compliance System or PCS. This program was originally developed by EPA to track permit compliance and the State has assumed responsibility for maintaining and updating the file's data base. The Enforcement Section receives a PCS Quick Look Report containing scheduled compliance dates on a monthly basis. These dates are compared against actual compliance status. Achieved compliance is noted and noncompliance situations are suspended for further action by the enforcement staff; also, any amendments to compliance dates are input into the system.

B. NPDES Self-Monitoring

All NPDES permittees are required to collect and analyze samples of their own effluent at regular intervals for specific permit parameters. Self-monitoring data is transmitted to the Enforcement Section by the permittee in the form of a Discharge Monitoring Report (DMR).

Enforcement Monitoring Records are utilized to track NPDES self-monitoring information. For NPDES self-monitoring this system is utilized to assure timely submission by dischargers of DMRs and recording of reported values by effluent parameter for each NPDES permit. DMR files are reviewed on a monthly basis to determine appropriate enforcement action required for failing to submit discharge monitoring reports and/or for significant effluent violations. In addition, permittees normally submit reports of noncompliance covering significant effluent violations as they occur. These non-compliance reports, submitted in advance of DMRs, provide DHEC the opportunity to determine if there may be effluent problems requiring immediate investigations. After being logged and reviewed, all DMR's are sent to the Enforcement Section to be placed in PCS and then in the NPDES file for the particular facility to provide a readily available source of effluent data.

C. Federal Compliance Evaluation Inspections - (CEI)

The Compliance Evaluation Inspection (CEI) is a nonsampling inspection designed to verify permittee compliance with applicable permit self-monitoring requirements and compliance schedules. This inspection is based on record reviews and visual observations and evaluations of the treatment facilities, effluents, receiving waters, etc. The CEI is used for both chemical and biological self-monitoring programs.

During FY'89, CEIs will be performed on Publicly Owned Treatment Works (POTWs) only. Inspections of these municipal facilities are assigned the following priorities:

1. Completed PL 92-500 facilities (federally funded)
2. POTWs with Municipal Compliance Plan (MCP) or a Composite Correction Plan (CCP)
3. Major municipals
4. Minor municipals

The Inspection

The inspection is comprised of an evaluation of the physical equipment, laboratory records, discharge monitoring reports, and the operational records of the facility. The results of the inspection are reported on the EPA Form 3560-3. A two or three page narrative report summarizing the findings in each of 8 major areas evaluated

during the inspection is attached to the 3560-3 form. The 8 major areas evaluated are as follows:

- a. Permit Verification - verification of name, address, discharge(s), receiving waters, etc., contained in the permit.
- b. Records and Reports - determination of compliance with recordkeeping and reporting requirements stipulated in the permit.
- c. Facility Site Review - examination of areas on the permittee's premises where pollutants are generated, pumped, conveyed, treated, stored or disposed.
- d. Flow Measurement - installation, calibration and accuracy of flow measurement system is determined.
- e. Compliance Schedules - where applicable.
- f. Self-Monitoring Program - sampling frequency, type(s), parameters monitored, parameter limitations, sampling methodology are examined for compliance with permit.
- g. Operation and Maintenance - a visual inspection of unit processes is conducted.
- h. Sludge Disposal - the permittee's sludge management and disposal methods are evaluated.

Procedure

The accepted procedure for conducting the Compliance Evaluation Inspection is as follows:

- a. The facility evaluator notifies the permittee prior to the CEI by telephone. The permittee is instructed to have available all pertinent records for review.
- b. The evaluator completely fills out the appropriate checklists for each major section evaluated during the inspection.
- c. After completion and review of the inspection report, the completed form 3560-3, narrative report, and checklists are forwarded to the Facilities Compliance Section for review and distribution.

Follow-up

Follow-up evaluations will be made on deficiencies noted in initial Compliance Evaluation Inspections. The follow-up is as follows:

- a. A letter emphasizing the deficiencies noted will be sent

along with the initial report to the owner. This letter will point out problems found during the inspection and request corrections or plans for corrections. This letter requires a response within thirty (30) days. Responses are forwarded to the District and to the Central files when received and reviewed.

- b. A memorandum accompanies a copy of the response in the District requesting the initiation of a follow-up field inspection. The actual follow-up evaluation can be comprised of a routine state operation and maintenance inspection with the emphasis placed on the status of necessary corrective actions to problems noted in the Compliance Evaluation Inspection report.
- c. If corrective action on the initially noted deficiencies has not been taken, the District should follow the Enforcement Procedures for Federal Compliance Evaluation Inspections until compliance is achieved.
- d. In many cases long range plans to solve problems are accepted is reasonable justification of certain deficiencies. In some cases active 201 participation is the most reasonable solution to present problems.

D. State Operation and Maintenance Inspections

These evaluations are designed to insure that wastewater treatment facilities are being properly maintained and operated in accordance with State and Federal regulations, such as NPDES permit schedules and accepted maintenance procedures.

The State Operation and Maintenance Program involves two types of inspections: routine and follow-up inspections. The State O&M inspections are the periodic inspections performed on each wastewater treatment facility in the State. Follow-up inspections are the inspections in which the evaluator returns to the facility to determine if the deficiencies noted in a previous inspection or follow-up letter have been corrected.

The State O & M inspections involve the actual visit to the treatment plant site and visual inspection of the facility. The inspector determines if the facility and the equipment involved are properly maintained and operated. Certain limited physical and chemical tests are run on the effluent to help the evaluator determine the plant's efficiency and effectiveness of operation.

The following parameters are collected:

Effluent

Temperature
pH
Dissolved oxygen
Chlorine residual

The inspection program is not a totally regulatory program. The inspectors provide technical assistance to operators with regard to the proper operation and maintenance of wastewater treatment facilities. The inspection results are discussed with the operator, when possible, to let him know what corrective measures, if any, are needed.

Procedure

The following is the procedure followed for completing a routine facility evaluation:

1. Plan work schedule ahead of visits.
2. Review file (for previous evaluations, inspections, orders, Enforcement action, etc.) and make notes of items which were unsatisfactory on previous visits and carry file or parts needed.
3. Review the permit completely.
4. Inform appropriate person (immediate supervisor) of your planned daily visits.
5. Make every effort possible to contact owner or operator of the facility to be evaluated to inform him of inspection plans. The owner or operator is expected to accompany the evaluator during the evaluation.
6. If you are unable to contact owner or operator, obtain access and permission to evaluate facility.
7. Make appropriate observations and field tests to determine which processes are satisfactory or unsatisfactory. The facility evaluator must make observations and tests as indicated on the evaluation forms. Effluent tests are mandatory.
8. If the facility has records of O&M, check records and make comments.
9. Reports must be completely filled out and signed by person making evaluation. Make appropriate remarks and recommendations. Deficiencies should be listed in remarks section of inspection form.
10. Record name of person you contacted. Have him sign inspection form when possible.

11. Inform the owner or operator of findings and ask him to make any needed corrections.
12. Those facilities found to require a follow-up visit must be scheduled and followed up at the specific time. Plan for follow-up should be stated on inspection form.
13. Dissolved oxygen, temperature and pH should be run on the stream above and below the facility discharge when observations indicate possible problem.
14. If samples are collected for laboratory analysis, coordination should be made with laboratory and results should be included with evaluation report.
15. If facility is not operated by a properly certified operator, this should be indicated on the evaluation report. Appropriate action should be initiated by the District Director to insure action is taken to retain an operator of the appropriate grade.

The inspector's reports are reviewed in the district before the copies are distributed. One copy of the inspection is sent to the facility owner, one copy to the operator, one copy is kept in the district office, and the original is sent to Central Office to be reviewed, logged and sent to the Central Files. With every routine inspection, an update is made to the Carolina File Wastewater Inventory List. Inspection results are entered in PCS.

Suspense files on problem facilities should be maintained in the District Office. The facility evaluators should also keep a list of facilities which need to be sampled for possible enforcement action. Those lists should be forwarded to the regional monitoring supervisor periodically to be scheduled for sampling.

Follow-up inspections are a result of inadequacies being found during a State O&M inspection. If the follow-up inspections show that the inadequacies have not been corrected and the district staff has exhausted its resources in getting the facility in proper operational condition, then all necessary information concerning the facility can be addressed at a meeting at the District level. Enforcement action should follow the enforcement procedures for State O&M Inspections until compliance is achieved.

E. Compliance Sampling Inspections

Compliance sampling inspections are performed to determine if wastewater treatment facilities are operating as permitted and designed, to collect data for comparison with self-monitoring data, and to support enforcement action.

Sampling of facilities are assigned the following priorities:

1. Federal Compliance Sampling Inspections.
2. Enforcement Section or EPA requests.
3. Engineering Division request.
4. District personnel request.
5. Routine sampling.

Federal Compliance Sampling Inspections

Federal Compliance Sampling Inspections are conducted on all major dischargers and specific minor dischargers on an annual basis. The Federal Compliance Sampling Inspection requires that an inspection of the facility be conducted by the EQC district facility evaluator. This inspection is to be made on one of the three (3) days required for effluent sampling. The information gathered during this inspection is reported on the EPA Form 3560-3. A list of the dischargers receiving Federal Compliance Sampling Inspections for each EQC district appears in Appendix E.

A detailed inspection of the facility's records, regular operation and maintenance, flow measurement devices, sampling procedures, laboratory, and other permit conditions for compliance verification is conducted by the district facility evaluator. If any deficiencies are found which can be corrected with little or no expense to the responsible facility officials, a notice of deficiency is issued to the facility official. This official is allowed ten (10) working days to respond to the deficiencies noted. If at the end of ten days no response has been acknowledged, the facility evaluator should so state in his report for possible enforcement action. Effluent sampling is included in the Federal Compliance Sampling Inspection. Procedures for sampling the effluent are the same as discussed below for routine State Compliance Sampling Inspections.

After the sampling and inspection has been completed, the laboratory results are mailed to the Analytical Services Division. The 3560 form, checklists, and narrative report are mailed to the Facilities Compliance Section. All data should be completed and mailed to Columbia within two weeks of completion of sampling.

Requested Sampling Inspections

Upon receiving a request for compliance sampling, a review of historical data and the NPDES permit regulations for the facility is conducted to determine if previous sampling data will be sufficient. If additional sampling is needed, a request, including all parameters desired is sent to the District Office responsible for sampling that facility. This is coordinated by personnel in the Central Office Facilities Compliance Section. A written request for the sampling is then made to the District monitoring supervisor. Sampling and reporting procedures are the same as for routine State Compliance Sampling Inspections. (see below)

Routine State Compliance Sampling Inspections

Routine state compliance sampling inspections are set up by the District monitoring supervisor. A schedule of facilities to be sampled is sent to the Facilities Compliance Section. It is a requirement that a monthly schedule of expected facility sampling be sent to the Central Office.

All routine state compliance sampling inspections require two days of sample collections. The set-up of flow recorders and automatic samplers is accomplished on an initial sampling day. The samples are

collected from the automatic sampler on two consecutive days of the sampling period and taken to the District laboratory for analyses. Samples are collected according to the NPDES permit requirements and SCDHEC's Standard Operating and Quality Control Procedures for Ambient Water Quality and Wastewater Facility Monitoring (SCDHEC) and Procedures Manual for Stream and Wastewater Facility Flow Measurement (SCDHEC).

After completion of the sample analyses the laboratory data sheets are sent to the Analytical Services Division which forwards them to the Facilities Compliance Section to be verified, reviewed and logged in. The data then goes to the Data Systems Management Section for processing and keypunching.

After keypunching, the data is edited and a compliance monitoring report is generated. The data is compared with the NPDES permit limits to determine if any permit violations occurred. A formal report is then compiled by Facilities Compliance Section personnel and sent to the responsible facility official. Copies are transmitted to the Central Office files, the District, and EPA (majors). A written response to the agency for any significant permit violation is usually requested.

Follow-up inspections are conducted on deficiencies noted in the CSI as outlined under the CEI section.

F. Performance Audit Inspections

The Performance Audit Inspection (PAI) is used to evaluate a permittee's self-monitoring program. The purpose of the inspection is not only to determine the quality of self-monitoring but also to assess the reliability of the data reported by the permittee. A field evaluation is conducted which includes an evaluation of flow measurement, sampling, records, and operation and maintenance. Facilities Compliance Section personnel perform this part of the PAI. A laboratory evaluation is also conducted which includes a review of analytical methods and procedures, sample handling and preservation, quality assurance, and records. The EQC Laboratory Certification Section performs this part of the PAI.

The State routinely performs twelve (12) PAIs annually. Others may be performed as necessary. EPA also conducts a number of PAIs in the State each year.

G. Technical and/or Diagnostic Evaluations

The technical and/or diagnostic evaluation focuses primarily on wastewater treatment facilities that are not in compliance with their permit requirements. The purpose of the evaluation can be to either evaluate causes of non-compliance in support of enforcement actions or to assist those facilities without self-diagnostic capability. The evaluation identifies major plant deficiencies in operation, design, and/or construction. Other aspects of the permit program such as the permittee's self-monitoring program can be included in the technical evaluation if deemed necessary.

EQC conducts a minimum of twelve (12) technical and/or diagnostic evaluations annually.

H. Pretreatment Program Audit and/or Inspection

The pretreatment program audit and/or inspection is conducted annually on those publicly owned treatment works (POTWs) that are required by regulation to have an approved pretreatment program. The purpose of the audit and/or inspection is to determine whether the program is being adequately implemented by the POTW. The audit would include a review of the following items:

1. POTW treatment facility background information.
2. POTW pretreatment program background information.
3. Evaluation of POTW pretreatment program changes.
4. Legal authority evaluation.
5. Application of pretreatment standards.
6. Compliance Monitoring and Enforcement - POTW personnel.
7. Compliance Monitoring and Enforcement - industrial user file review.
8. Data management and public participation.
9. Program resources review.

EQC conducts either a pretreatment program audit or pretreatment compliance inspection at least annually on each POTW required to have a pretreatment program.

The pretreatment program audits are conducted at each POTW facility whose permit expires in the forthcoming year. The pretreatment compliance inspections are performed on all other POTW's in the same year.

Industrial user inspections and tours of the facilities are included in the audit procedures. A report of the findings is forwarded to the POTW for corrective actions where appropriate.

The pretreatment program audits and/or inspections are being conducted by personnel of the Facilities Compliance Section, Central Office.

VI. QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

It is the policy of Environmental Quality Control (EQC) that necessary quality assurance (QA) activities be conducted within the State of South Carolina to demonstrate that all environmental data generated, processed, or used will be scientifically valid, defensible, and of known and acceptable precision and accuracy. It is also the policy of EQC that all reported data will include documented precision and accuracy and be complete, representative, and comparable. The quality of all data generated shall meet or exceed all EQC and EPA program requirements.

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 Environmental Quality Control 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 and Facilities Compliance Section have developed and instituted SQAMO approved field study procedures and documentation, and data review in addition to participating in the laboratory certification program and routine EPA operating overview. Some specifics of these Sections' QA/QC activities include:

1. Submission of all study plans to SQAMO for review and approval prior to implementation.
2. Use of bound field logbooks by all monitoring and facility evaluation personnel. In these logbooks are recorded all of the routine daily meter calibration results, remarks and notes relating to all activities, and values for all field measured parameters as well as time, date, station location, and collector identification information associated with all sampling activities. This logbook format provides a legally admissible document for any court supervised compliance/enforcement proceedings.
3. Regular reviews and updates of SCDHEC's Standard Operating and Quality Control Procedures for Ambient Water Quality and Wastewater Facility Monitoring (SOP), Procedures Manual for Stream and Wastewater Facility Flow Measurement, and Standard Operating and Quality Assurance Procedures for Biological Services. These documents describe 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.

4. At least twice yearly all field personnel are accompanied on sample collection activities by the 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.
5. Approximately every other year the EPA conducts on-site routine overviews of SCDHEC's QA/QC procedures.
6. Water Quality Monitoring Section personnel participate in the laboratory certification program by assisting in the laboratory reviews conducted every three years (see subsequent section for a discussion of this program).
7. Data checking and editing is performed on data by the quality assurance officer after data punching but before final submission to the EPA STORET system. The STORET system performs additional data checks, and any errors reported are rechecked by the QA officer.

VII. EMERGENCY RESPONSE

The Emergency Response Section, now part of the Bureau of Solid and Hazardous Waste Management, was established to respond to and coordinate emergency activities for all Office of Environmental Quality Control emergencies. The Emergency Response Section has the responsibility for emergencies related to water, air, drinking water, solid waste, wastewater, etc.

A. Spill Response Team

Data collected during a spill investigation is for the dual purposes of establishing the spiller, if unknown, and as a means of measuring the actual or potential environmental damage caused by the spill. In this manner, the Department meets its directives of Section 48-1-50, Subparagraph 21 of the South Carolina Code of Laws which directs the Department to "establish the cause, extent, and origin of damages from waste including damages to the fish, waterfowl, and other aquatic animals and public property which result from the discharge of waste to the waters of the State."

To encourage industry and transportation to minimize or eliminate spills, a State Contingency Plan for oil and hazardous materials has been developed. This plan was approved by the Department of Health and Environmental Control Board. Copies have been distributed to the following:

Fire Departments

Law Enforcement

Civil Defense Agencies

S.C. Highway Department

S.C. Highway Patrol

Industrial Section Sector

Oil Jobbers

Miscellaneous

Engineering Firms and
Interested Citizens

Other Governmental Agencies

This contingency plan is reviewed and updated every three (3) years, or more frequently if needed. We anticipate that the updated contingency plan will be reissued by late spring of 1990.

A twenty-four hour telephone number has been established to facilitate spill reporting. The number is 253-6488. Between 8:30 A.M. and 5:00 P.M. this number is manned by personnel in Emergency

Response, after 5:00 P.M., an answering service intercepts all calls, then contacts the person who is on call to respond to the spill. Many spills are reported through this number and greater emphasis will be placed on the reporting of all spills.

A spill response team has been established in each of the State's twelve districts. This has enhanced response time and provides for better local coordination through on-scene coordinators (OSC). Additional training sessions will be held in each of the twelve districts during FY'89. Each district office has at least one copy of a procedures manual and two reference manuals involving spills of oil and hazardous materials.

The Emergency Response Section utilizes a computer system known as OHMTADS (Oil and Hazardous Material Technical Assistance Data System). This system is designed as a source of information and technical assistance which can be utilized during a serious spill situation. The information obtained can be relayed from the Central Office to the OSC in the field. A portable OHMTADS terminal telephone coupler apparatus is available for use at the scene of a spill. Access to Hazardline is also available as a source of additional information not available through OHMTADS.

To encourage the development of a local contingency plan and mutual assistance groups, meetings have taken place with local governmental agencies (such as civil defense) and industries to develop spill cooperatives and response assistance groups.

To coordinate response activities with other governmental agencies we work very closely with the Environmental Protection Agency, the United States Coast Guard, South Carolina Department of Highway and Public Transportation, South Carolina Water Resources Commission, the Emergency Preparedness Division of the South Carolina Adjutant General's Office, and South Carolina Wildlife and Marine Resources in the reporting and cleaning up of spills. This cooperation is necessary to provide for efficient, coordinated and effective action in minimizing damage from oil and hazardous substances. In addition, information is coordinated through other Department of Health and Environmental Control bureaus such as air, wastewater, water hygiene and special environmental programs. Spill data is also utilized by other Bureaus within the Department for enforcement actions, by concerned citizens for information collection, and frequently reviewed by attorneys during case preparation.

B. Spill Prevention Control and Countermeasures (SPCC)

To prevent the discharge of oil from non-transportation related onshore and offshore facilities into or upon the navigable waters of the United States we will randomly investigate facilities to determine if SPCC plans have been prepared and if key personnel are aware of and understand the plan. These investigations will be conducted both singularly and collectively with E.P.A. Region IV personnel on all non-transportation related onshore and offshore facilities, which due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of 40 CFR.

The regulation is very specific for the preparation and implementation of Spill Prevention Control and Countermeasure Plans. For existing facilities, either onshore or offshore, the preparation date was July 10, 1974, and the implementation date was January 11, 1975. Anyone who has more than one tank above the ground whose aggregate capacities are greater than 1,320 gallons, or any single tank whose capacity is greater than 660 gallons, must have a SPCC plan fully implemented. For tanks that are buried and whose capacities or aggregate capacities are greater than 42,000 gallons, the identical requirements exist. Tanks with lesser volumes, either above the ground or buried, are exempt from this requirement. A fully implemented plan is one which sets forth in detail how a spill can be prevented, how a spill will be handled once it occurs, and the emergency procedures to be followed. The plan must be in accordance with good engineering practices and certified by a registered professional engineer. The plan must be kept at the facility to which it pertains if the facility is manned for eight (8) hours a day, or at the nearest field office if subject facility is not manned. Plans must be updated every three years. A certain amount of effort will be devoted to the reinspection of some facilities.

C. Fish Kill Program

Fish kill data is collected for the purpose of assisting in the determination of the cause of the kill. Data collected is used to help establish such trends as mismanagement of pesticide/herbicide application, pollution sources (both point and non-point) and natural phenomena resulting in environmental stress. The fish kill data is available for use by other bureau's in assessing any environmentally sensitive areas, by interested citizens, and fellow agencies such as the South Carolina Department of Wildlife and Marine Resources.

Fish mortalities result from a variety of causes, some of natural origin and some man-induced. It is recognized that speed is all-important in the initial phases of an investigation. Therefore, a twenty-four hour telephone number has been established for the report of fish kills. The number is 253-6488. Between 8:30 a.m. and 5:00 p.m. this number is manned by personnel of the Emergency Response Section. After 5:00 p.m., the answering service intercepts all calls, and then contacts the person from the Emergency Response Section who is on call.

All fish kills should be reported initially to the Emergency Response Section via the 24-hour telephone number. The report should come to this number even if the district office is first notified of the kill. The Emergency Response Section will assist in co-ordinating and dispatching field investigators to the site of the fish kill.

Once a kill is reported, a team of specially trained individuals is dispatched to the site. Since there is always the possibility of legal liability associated with a kill, a carefully developed field procedure is available for immediate activation.

When a kill report is received, maps of the area to be investigated are consulted to determine the best access points, and to locate known industrial, municipal, and other potential sources of pollution.

A fish kill response team has been established in each of the State's twelve DHEC districts. This has enhanced our response time and provided for better local co-ordination through district personnel. We have assembled a standard fish kill kit. Sixty complete fish kill kits have been distributed among the Central and twelve district offices. Each kit consists of the following: ice chest, specimen containers, bacteriological, biological, and chemical samples containers and preservatives. In conjunction with the above, an updated procedure manual has been distributed to each District Office as well as the South Carolina Wildlife and Marine Resources. Fish kill training seminars have been conducted to broaden the knowledge of the investigators and the scope of the investigations.

Whenever public waters are involved, DHEC investigators should contact an official of the S.C. Wildlife and Marine Resources Division to co-ordinate fish kill investigations between the two departments. The fisheries' biologist should be contacted if possible. If he is not available, a member of the law enforcement division should be called. It should be noted that the Wildlife Division is restricted to freshwater fish kills, and the Marine Resources Division restricts itself to the investigation of fish kills in saline waters. Marine Resources Division is located in Charleston, South Carolina.

The extent of investigation of a given fish kill lies in the extent of the kill, the numbers and kinds of fish involved, and the resources available for the investigation. Following a decision to investigate, the investigation should continue until a cause is determined, or until all known potential causes have been eliminated as being implicated in the kill.

Analytical Services Division laboratories analyze all of the samples collected on fish kill investigations except for biological samples. They are alerted and given an estimate of the number and kinds of samples, and date of arrival.

If the cause of a kill can be determined to be man induced, a report is submitted to the Division of Water Quality Assessment and Enforcement of the Department of Health and Environmental Control for enforcement action. If the cause of a kill cannot be determined after investigation of all possible sources, then the Department of Health and Environmental Control will inform these possible sources that a kill has occurred and that the Department of Health and Environmental Control will ask them to investigate further and determine if a spill may have occurred accidentally which could have caused the kill.

D. Technical Assistance

With the promulgation of the hazardous material regulations, there is a definite need for additional training. Training is needed in the following areas: chemical identification, personnel protection during

spill investigations, spill investigations, reporting techniques and data collection.

We are currently developing an in-house training course to encompass the areas of operation/maintenance of hazardous atmosphere monitoring equipment, response safety, and containment/cleanup techniques. Each District response person will receive at a minimum one safety and response technique training course. Central Office personnel receive a respiratory safety training course annually.

Training for the Emergency Response Program is developed from both in-house and EPA sponsored training courses.

VIII. COMPLAINT INVESTIGATIONS

A. Purpose

The main purpose for the investigation of complaints is to determine if a pollution or health hazard exists and to correct problems found. Another reason is to serve the public and to make the public aware of action taken by this agency.

B. Strategy

Because monitoring personnel are located in 12 District offices around the state, we are normally able to provide prompt response, follow-ups, and documentation of all complaints referred by the public or through a member of the legislature. This activity is scheduled in such a manner that provides minimal disruption of the normal work schedule. State law provides that where a facility inspection is required, results of the inspection must be reduced to writing with a copy furnished to the complainant and the party being investigated. Correction of the problem is made voluntarily in most cases, but necessary enforcement can be taken under the Pollution Control Act by the Enforcement and NPDES Administration Division.

C. Complaint Investigation Policy

Whenever possible, complaints should be filed with the district office having jurisdiction over the complainants location (see Table 9).

Telephone complaints received in the central office will be documented and referred to the appropriate District Director by telephone or radio. Central Office personnel will listen to the complaint, obtain the complainant's name and phone number, and advise him that the proper person will contact him by phone as soon as possible. It will then be the responsibility of the District Director to obtain the necessary information from the complainant and follow through with the investigation without delay.

Complaint letters received in the Central Office will be acknowledged by a letter from this office and referred to the District Director for response. District Directors are advised that any and all assistance possible from this office will be furnished on request, but complaint investigation and proper documentation in our files is the specific responsibility of the District Director. We recognize the necessity for latitude and the exercise of professional judgement on the part of the District Director in complaint procedure and documentation. Again, with the express understanding that the handling of complaints is the responsibility of the District Director, the following is offered relative to proper documentation:

1. A memorandum to the file, (handwritten if necessary) covering complaint specifics and disposition, is considered to be the absolute minimum (copy to wastewater files). The standard

Table 8

Office of Environmental Quality Control EQC District
Directory

<u>APPALACHIA I</u> (Anderson, Oconee Counties)	Environmental Quality Control Office 220 McGee Road Anderson, S.C. 29621	260-5569
<u>APPALACHIA II</u> (Greenville, Pickens Counties)	Environmental Quality Control Office 301 University Ridge, Suite 5800 Greenville, S.C. 29601	242-9850
<u>APPALACHIA III</u> (Spartanburg, Cherokee, Union Counties)	Environmental Quality Control Office 151 E. Wood Street Spartanburg, S.C. 29303	596-3800
<u>CATAWBA</u> (Lancaster, Chester, York Counties)	Environmental Quality Control Office 1001 W. Grace Street Lancaster, S.C. 29720	285-7461
Mailing Address:	PO Box 100, Fort Lawn, SC 29714	
<u>CENTRAL MIDLANDS</u> (Richland, Lexington, Newberry, Fairfield Counties)	Environmental Quality Control Office Building No. 5, P.O. Box 156 State Park, S.C. 29147	737-7015
<u>LOW COUNTRY</u> (Beaufort, Jasper, Colleton, Hampton Counties)	Environmental Quality Control Office 149 Ribaut Square Beaufort, S.C. 29902	524-9760
<u>LOWER SAVANNAH</u> (Aiken, Orangeburg, Barnwell, Bamberg, Allendale, Calhoun Counties)	Environmental Quality Control Office 117 Marion Street, NE Aiken, S.C. 29801	648-9561
<u>PEE DEE</u> (Florence, Dillon, Marion, Darling- ton, Chesterfield, Marlboro Co.'s)	Environmental Quality Control Office 3204 Industry Boulevard--Route 11 Florence, S.C. 29501	662-3522
<u>TRIDENT</u> (Charleston, Berkeley, Dorchester Counties)	Environmental Quality Control Office 1000 Air Park Road Charleston Heights, S.C. 29418	554-5533
<u>UPPER SAVANNAH</u> (Greenwood, Abbeville, Laurens, Saluda, Edgefield, McCormick Co's.)	Environmental Quality Control Office P-129 One Park Avenue Greenwood, S.C. 29646	223-0333
<u>WACCAMAW</u> (Horry, Georgetown, Williamsburg Counties)	Environmental Quality Control Office 1705 Oak Street Myrtle Beach, S.C. 29577	448-1902
<u>WATEREE</u> (Sumter, Kershaw, Lee, Clarendon Counties)	Environmental Quality Control Office 105 N. Magnolia Street Sumter, S.C. 29151	778-6548
Mailing Address:	P.O. Box 1628	778-1531

complaint investigation form should be used wherever practical since it will provide file documentation.

2. A facility owner has not been legally notified of an unsatisfactory situation unless he has been notified in writing. If, in the judgement of the District Director, the matter investigated may result in administrative or court action by this agency, the owner is to be properly notified with a copy to our files. In instances where a magistrate's warrant to enter and inspect is issued, we have no choice but to reduce the results of such inspection to writing with a copy to the owner.
3. Many complaints, by their nature, necessitate a letter to the complainant covering results of the investigation and corrective measures taken. It is understood that copies of such letters will be sent to wastewater files (or appropriate program file).
4. In order that copies of letters and other documentation may be properly filed, it is requested that they be forwarded to the attention of Enforcement Section, Bureau of Wastewater and Stream Quality Control.
5. Poor or incomplete documentation will very effectively prevent the Department from taking proper enforcement action.
6. Use of the complaint investigation form is highly recommended.

IX. DRINKING WATER SUPPLIES MONITORING PROGRAM

The monitoring program for drinking water supplies is divided into the following analytical groups:

- A. Microbiological
- B. Inorganic Chemicals
- C. Organic Chemicals

A. <u>MICROBIOLOGICAL</u>		Projected Samples Per Year
1.	Routine Sampling	13,000
a.	Repeat Samples	1,300
2.	Town Surveys	3,400
3.	Sanitary Surveys	500
4.	Non-Routine Sampling	5,000
5.	Private Well Samples	6,000
B. <u>INORGANIC CHEMICAL</u>		
1.	Routine Sampling (Public Complete Analysis Group)	
a.	Surface Water	85
b.	Groundwater (Community)	545
c.	Groundwater (non-transient non-community)	125
d.	Repeat Sampling	75
2.	Routine Sampling (Nitrate Analysis)	
a.	Groundwater (non-community)	310
b.	Repeat Sampling	30
3.	Controlled Fluoridation Program (Fluoride Analysis)	1,500
a.	Repeat Sampling	100
4.	Corrosion Monitoring (Metals Analysis)	400
5.	Sanitary Survey (Public Complete Analysis Group)	200
6.	Non-routine, Investigative Samples	1,400
7.	Private Well Sampling (Private Routine Analysis Group)	3,754
C. <u>ORGANIC CHEMICAL</u>		
1.	Surface Water Supplies - Routine	85
a.	Repeat Samples	8
2.	Non-Routine Samples	550
3.	Private Well Samples	1,580

	<u>Projected Samples Per Year</u>
4. Sanitary Surveys	150
5. Trihalomethane Monitoring	
a. Greater than 10,000 population	140
b. Less than 10,000 population	94
6. Volatile Organic Compound Monitoring (including 51 unregulated compounds)	3,094

X. GROUND-WATER PROTECTION

The Ground-Water Protection Division has the responsibility to develop a program to control and prevent the pollution of ground water in South Carolina. Technical and policy making assistance is provided to the Bureau of Drinking Water Protection, Bureau of Water Pollution Control, other State and Federal agencies, and the general public.

A. Permit Issuance

The responsibility for issuing permits for land disposal of wastes is assigned to the Bureau of Solid and Hazardous Waste Management and the Bureau of Water Pollution Control. However, prior to issuance of a permit, the Ground-Water Protection Division is called in to technically review the plans and specifications and make a site investigation relative to the potential effects on ground-water quality at the site. An assessment of the geohydrological characteristics of the site is made by test drilling and recommendations are provided for issuance or denial of the permit, for conditions of the permit, and for ground-water quality monitoring.

The objectives of the ground-water monitoring program are:

- a) To obtain data for the purpose of determining baseline conditions of ground-water quality at the site.
- b) To maintain a monitoring tracking system to ensure permit compliance.
- c) To provide data for the early detection of ground-water pollution or contamination, particularly in ground-water recharge areas and in areas of significant ground-water use.
- d) To identify existing and/or potential ground-water pollution sources and to maintain surveillance of these sources, in terms of their impact on ground-water quality.
- e) To provide a statewide data base upon which management and policy decisions can be made concerning the surface and subsurface disposal of wastes and the protection of ground-water resources.

B. Enforcement

When a ground-water contamination problem is discovered, either from monitoring of a permitted site or from unregulated activities, the Division of Drinking Water Quality and Enforcement and/or the permitting program(s) pursue enforcement action. The purpose is to stop further pollution of ground water and to assess the severity and extent of the problem. The responsibility for the investigation is usually placed on the owner of the facility but occasionally, either because the owner is uncooperative or unknown, the study is performed by the Ground-Water Protection Division. Recommendations are made to the appropriate enforcement section(s) throughout all phases of the enforcement action until a suitable solution to the problem is reached.

C. Water Supply

The Water Supply Construction Division has the authority of permitting the construction or modification of public water supply systems in the state. Technical assistance is provided to the Water Supply Construction Division by the Ground-Water Protection Division by reviewing public water-well specifications to ensure proper well-construction standards are being met. Ground-water conditions as indicated by the monitoring program are considered in the review of the specifications and the proposed well location. Technical assistance is provided to individual well owners upon request. The Water Supply Construction Division private well program handles routine water-quality problems but when there are hydrogeological aspects, both related to quality and quantity, the Ground-Water Protection Division provides assistance to the well owner.

Certification of well drillers through the Board of Certification of Environmental Systems Operators has been implemented. In addition, amendments to the State Safe Drinking Water Act authorizes regulation of the construction, maintenance, operation, and abandonment of wells by standards to be established by an Advisory Committee to the Board. The standards were implemented on June 28, 1985.

D. 106 Program

The Ground-Water Protection Division has been given the responsibility for development of the ground-water portions of the 106 water-quality management planning effort. Current projects being developed under 106 are as follows:

- a) Continual evaluation of the implemented comprehensive ground-water protection strategy for South Carolina with attendant public participation and awareness programs;
- b) Assessment of ground-water recharge for aquifer systems in South Carolina;
- c) Development and implementation of ground-water quality standards systems for South Carolina.

- d) Development of an ambient ground-water quality monitoring network statewide.
- e) Develop and maintain a ground water contamination site inventory.

E. Underground Injection Control Program

The Ground-Water Protection Division activities required under primacy of the Underground Injection Control Program include:

- a) Designation of underground sources of drinking water;
- b) Development and maintenance of an inventory of injection wells;
- c) Implementation of permitting for Class II, III, and IV A injection wells;
- d) Surveillance and investigation of injection facilities;
- e) Provision for training activities to support the U.I.C. program;
- f) Development and maintenance of data management system;
- g) Provision for public participation and the dissemination of information regarding ground-water protection.

F. Underground Storage Tank Program

The Ground-Water Protection Division is responsible for the implementation of the Underground Storage Tank Control Regulations. Regulated activities include:

- a) Notification of existing underground storage tanks for development of a tank inventory;
- b) Permitting of new underground storage tank systems;
- c) Surveillance and investigation of all underground storage tank facilities;
- d) Overseeing all phases of leak assessments and remediations from underground tanks.
- e) Underground storage tank training opportunities;
- f) Development and implementation of automated data management system;
- g) Provision for public participation and dissemination of information concerning underground storage tanks.
- h) Administering the Federal UST Trust Fund Cooperative Agreement to address leaking UST's with no responsible party.

- i) Development and implementation of programs as mandated by State SUPERB Act.

XI. SOLID AND HAZARDOUS WASTE FACILITY MONITORING PROGRAM

It has been recognized nationally that hazardous waste land disposal facilities are the known or potential sources of harmful contamination to the nation's ground-water supplies. Many such facilities have been determined to have inadequate ground-water monitoring systems to detect such contamination. In South Carolina, there are thirty-two hazardous waste land disposal facilities regulated under the South Carolina Hazardous Waste Management Regulations. These facilities are required to monitor groundwater in the upper most aquifer and if contamination is detected, to conduct further comprehensive assessments. Additionally, pursuant to the federal 1984 Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act, solid waste management units located at these and an additional 50 or so facilities will be evaluated to determine if release of hazardous constituents have occurred. Ultimately, contamination from hazardous and solid waste management units must be remediated through corrective action programs.

Consistent with Federal mandates, SCDHEC through its Bureau of Solid and Hazardous Waste Management conducts periodic inspections and evaluations of these groundwater monitoring systems. As a part of these oversight activities, ground-water samples are taken and analyzed. This ground-water information is utilized by Department staff in determining the adequacy of these monitoring systems. Furthermore, such data is invaluable in determining the reliability of results provided by the regulated community.

A. Solid Waste Facilities

Ground-Water Monitoring

Ground-water monitoring wells are located after approval from the Hydrogeology Division. An effort is made to determine the direction of flow of the ground water. One (1) well is then located hydraulically upgradient and at least two (2) wells are located hydraulically downgradient. Circumstances at the site may dictate additional wells (e.g., extremely large sites, complex geology).

To establish background conditions, wells are sampled quarterly for one (1) year. After background is established, monitoring may be reduced to semi-annual and annual monitoring. Changes in water quality would serve as an indicator that ground water may be impacted by the waste disposal activities. In addition to SCDHEC sampling, solid waste facilities submit all data that they collect.

Analyses normally required of owners for sanitary landfill wells are:

To Establish Background Conditions (quarterly for 1 year)

pH	Barium	Endrin
Specific conductance	Cadmium	Lindane
Total organic carbon	Chromium	Methoxychlor
Chlorides	Lead	Toxaphene
Fluoride	Mercury	2,4-D
Sulfates	Selenium	2,4,5-TP Silvex
Nitrates	Silver	Water Level
Arsenic		

After Background Conditions are Established

<u>Semi-Annually</u>	<u>Annually</u>
pH	Chlorides
Specific conductance	Sulfates
Total Organic Carbon	Nitrates
Water Level	

When laboratory results show significant values in excess of allowable drinking water standard criteria for water quality, a determination will be made on the necessity of a leachate collection and treatment system to prevent ground water contamination. Other remedial measures may be considered (e.g., clay or impervious cover to restrict the flow of surface water through the waste).

B. Hazardous Waste Land Disposal Facilities

Ground-Water Monitoring

EPA's Technical Enforcement Guidance Document is the primary guidance under which ground-water is monitored. A ground-water monitoring system must be capable of immediately detecting a release of hazardous waste or constituents into the uppermost aquifer and hydraulically interconnected aquifers. At least one (1) well must be located hydraulically upgradient from the waste management area. At least three (3) wells must be located hydraulically downgradient at the limit of the waste management area.

To establish background concentrations, wells are sampled quarterly for one (1) year. After background is established, monitoring may be reduced to semi-annual and annual monitoring with the Department's concurrence. Changes in water quality would serve as an indicator that ground water may be impacted by the disposal activity. Data is required by regulation to be submitted to SCDHEC by facilities, and SCDHEC conducts periodic monitoring (Ref. SW-846).

Analysis normally required for interim status hazardous waste land disposal facilities are:

To Establish Background Conditions (quarterly for 1 year)

Arsenic	Silver	Chloride
Barium	Endrin	Iron
Cadmium	Lindane	Manganese
Chromium	Methoxychlor	Phenols
Fluoride	Toxaphene	Sodium
Lead	2,4-D	Sulfate
Mercury	2,4,5-TP Silvex	pH
Nitrate	Radium	Specific Conductance
Selenium	Gross Alpha	Total Organic Carbon
	Gross Beta	Total Organic Halogen
	Turbidity	Water Level
	Coliform Bacteria	

After Background Conditions are Established

Semi-Annually

Annually

pH	Chloride
Specific Conductance	Iron
Total Organic Carbon	Manganese
Total Organic Halogen	Phenols
Water Level	Sodium
	Sulfate

If contamination is determined to exist, more comprehensive assessments and corrective actions may be required under the regulations.

XII. LABORATORY SUPPORT

A. Laboratory Services

The Analytical Services Division provides laboratory services to the following programs: Water Pollution Control, Drinking Water Protection, Ground-Water Protection, Recreational Waters, Shellfish, Solid and Hazardous Waste Management, District Services, Biological Monitoring, and Emergency Response Services. The analytical services offered include bacteriological, chemical, and physical analyses. The types of samples analyzed include water, wastewater, leachate, soil, sediment, chemical wastes, fish, and shellfish.

The organizational structure encompasses five sections and five regional laboratories. The Central Laboratory Sections include Sample Management, Metals Analysis, Automated Analysis, Organic Analysis, and Environmental Microbiology. The five regional laboratories are located in Aiken, North Charleston, Florence, Greenville, and Lancaster.

The Regional Laboratories initiate all stream and wastewater analysis and the Central Laboratories provide support analyses, i.e., metal, nutrient, toxic extraction procedures, and organic analyses. Drinking Water is essentially a Central Laboratory program with support from the Regional Laboratories.

The Division Director coordinates the internal quality assurance program.

B. Analytical Services Quality Assurance Program

A quality assurance program is essential to produce valid data and to provide a means to systematically demonstrate its validity. The quality assurance program encompasses every aspect of the laboratory analysis from container preparation through the actual data release from the Analytical Services Division Laboratory to the Environmental Quality Control (EQC) Programs.

The Analytical Services Division has developed two quality control manuals which detail the day-to-day operation of the quality assurance program: (1) Procedures and Quality Control Manual for Chemistry Laboratories--Analytical Services Division; and (2) Laboratory Procedures Manual for Environmental Microbiology--Analytical Services Division. The elements of quality control addressed in the manuals include organization and sample chain of custody; personnel training; quality control of laboratory services, equipment, reagents, solvents, and glassware; methodology; and analytical performance control.

The overall laboratory quality assurance program which includes the previously discussed elements requires a minimum of 15% 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. EPA reference samples are also analyzed as noted in the manuals. In addition, the

Analytical Services Division participates in the annual EPA Water Supply and Water Pollution Performance Audit Sample Programs. 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.

The laboratory analyses are conducted according to the List of Approved Test Procedures in the Federal Register, Volume 49, No. 209, October 26, 1984, and in the Federal Register, Volume 51, No. 125, June 30, 1986. The Analytical Services Division quality control manuals include a section on methodology designed to reduce variations in applied techniques among the six laboratories where methods permit analyst interpretation, and thus provide a more uniform approach which will increase the reproducibility of results reported from the laboratory system.

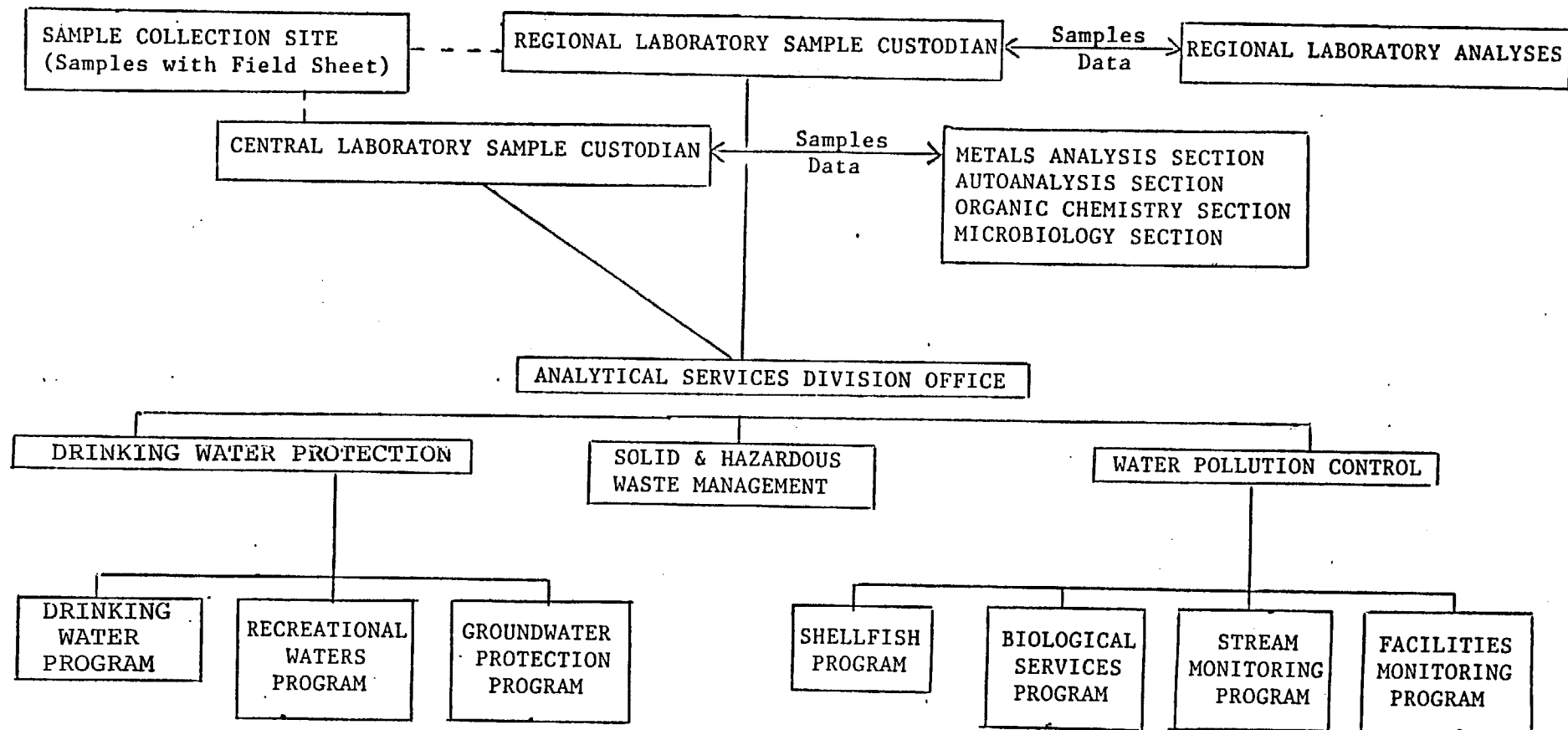
The proper containers must be selected for sampling as well as the proper preservation and an adequate volume collected. The reader should refer to the next section entitled "Sample Containers and Preservation."

A detailed discussion of sample chain of custody and the management of data flow is included in the manuals. The reader should refer to the flow chart, Table 10, entitled "Sample Chain of Custody and Data Flow."

C. Sample Containers and Preservation

Control of the quality of laboratory analyses begins with the sample collection. The validity of analytical results obtained depends upon a representative sample of the source from which it was collected. The concentration of each constituent in a sample at the time of collection must be maintained until all analyses have been completed. Constituent concentrations may be altered after collection through contamination of the container, reactions between sample components and the container walls, and through naturally occurring reactions within the sample itself. This section contains the methodology employed by the Laboratories to control those factors which can affect sample validity. The actual sample collection procedures are not included in this manual; the reader may wish to refer to the manual entitled Standard Operating and Quality Control Procedures for Ambient Stream and Wastewater Facility Monitoring (SCDHEC).

Glass, polyethylene, and polypropylene bottles are used as sample containers. The sample container is cleaned and labeled for the parameter for which it is used. The containers used for the various parameters have been chosen for their chemical resistance to the chemical parameter of interest and the required preservatives. Random substitution of containers may not be made.



ANALYTICAL SERVICES DIVISION

SAMPLE CHAIN OF CUSTODY AND DATA FLOW

TABLE 9

Special cleaning procedures are employed for the various containers. Each parameter or parameter group involves different interfering compounds and contaminants which must be removed from the container walls. Containers required for Parameters analyzed by the Organic and Inorganic Chemistry Laboratories are maintained by those laboratories. Clean containers for organic and inorganic parameters are shipped to the Regional Laboratories by the Sample and Data Management Center in Columbia. Containers required for parameters analyzed by the Regional Laboratories are maintained by those laboratories and cleaned according to special procedures.

Based upon the available sample preservation research data and the desire to parallel United States Environmental Protection Agency laboratory procedures, the Analytical Services Laboratories add preservatives to all drinking water, ground water, stream water, and wastewater program samples collected for chemical analyses upon receiving them into the laboratory with the following exceptions:

- (1) If the samples cannot be transported to the laboratory before the end of the working day which is normally 5:00 p.m., the samples must be preserved in the field.
- (2) All water samples for cyanide, phenol, and sulfide analyses must be preserved at the site immediately after collection.

The district offices are responsible for requesting the preservatives in order to maintain an ample quantity. Each dispenser is labeled in bold letters to assist the collector to choose the proper preservative for the container; i.e., METALS, MERCURY, NUTRIENTS, TOC, etc. Because the concentration levels cannot be maintained at the level collected indefinitely, maximum holding times have been set for each parameter. Analyses must be completed during the time limits set for valid results. Required containers, preservatives, and holding times for each parameter and procedures used for preserving cyanide, phenol, and sulfide samples at the collection site are listed in the Procedures and Quality Control Manual for Chemistry Laboratories - Analytical Services Division, and Standard Operating and Quality Control Procedures for Ambient Water Quality and Wastewater Facility Monitoring - Stream and Facility Monitoring Section. The regional or central laboratory chemists are responsible for providing containers, preservation materials, and preservation technique instructions to sample collectors for samples for cyanide, phenol, and sulfide analyses.

D. Laboratory Evaluation Program

The laboratory certification program is authorized by Regulation 61-81 entitled "State Environmental Laboratory Certification Program" which became effective January 1, 1981. The regulation applies to all laboratories which generate data for compliance with state environmental regulations.

The two main components of the certification program are (1) an on-site evaluation of the laboratory in regard to facilities, equipment, methodology, records keeping, and quality control and

(2) the analysis of performance audit samples. A detailed report of the evaluation revealing all deficiencies found is written and returned to the laboratory with a letter stating that all deficiencies are to be corrected and certification obtained within 90 days. If certification is not obtained at the end of 90 days, Environmental Quality Control will not accept data from that laboratory. Audit samples must be analyzed satisfactorily prior to certification. These samples must be analyzed annually for each parameter for which certification is desired. The unsatisfactory analysis of two consecutive audit samples for any parameter will result in decertification.

Evaluation of wastewater laboratories are now being scheduled based on date of last inspection and alphabetically for those which have not received an initial evaluation. These evaluations will include drinking water and wastewater laboratories with limited work in the disciplines of solid and hazardous waste, groundwater monitoring, air, and biological assessments. It should also be noted that some laboratories will require two or more people to perform the evaluation and many laboratories will require follow-up evaluations. Complete evaluations are planned at three year intervals. The laboratory certification staff assist with performance audit evaluations. Technical review of laboratory design and equipment specifications is conducted for the Construction Grants Program.

XIII. DATA HANDLING

Data for samples that are analyzed in the District Laboratories are reported on the appropriate data sheets and released by the sample custodian. These data sheets are sent to the Analytical Services Division in Columbia each Friday where they, along with data sheets generated in the Central Laboratory, are sent to the appropriate program areas. All stream and facility data is distributed by Section managers to the appropriate section member.

- A. Ambient Stream Monitoring - Most ambient stream and sediment samples are collected by District personnel. The data is sent to the Water Quality Monitoring Section manager through the Analytical Services Division. The data are reviewed by the Water Quality Monitoring Section and are sent to Data Systems Management for key-punching. The keypunched data are edited and then stored in EPA's computerized data base (STORET) of water quality data. Data sheets are kept on file in the Water Quality Monitoring Section.
- B. Special Study Data - Generally special studies are initiated in the Central Office through requests from other Divisions or Districts. Samples are usually collected with the cooperation of the District within which the study area lies. Samples and data are handled as for ambient monitoring.
- C. Compliance Sampling - Compliance sampling data are sent to the Facilities Compliance Section manager through the Analytical Services Division. After review by the Facilities Compliance Section, the data is sent to Data Systems Management for key-punching. Key-punched data is edited and a compliance monitoring report is generated. A determination of compliance is made by the Facilities Compliance Section. If the facility is not in compliance, a letter of noncompliance is sent to the owner. Copies of the data are sent to the District Lab and the Central files. Copies of the report are sent to the permittee, District, Central files, and EPA (majors). Inspections are tracked by EPA's computerized Permit Compliance System (PCS).
- D. NPDES Compliance and Self-Monitoring - NPDES compliance reports and self-monitoring data are monitored for accuracy and a determination of compliance made by the Enforcement Section. If the facility shows a trend of noncompliance, a Notice of Violation is sent to the owner.
- E. Federal Operation and Maintenance Inspections - The inspection reports are completed by the Facility Evaluator and sent to the Facilities Compliance Section. After review and logging, copies are sent to the facility owner, the District, EPA Region IV, and the Facilities Compliance Section files. A letter is also sent to the owner with a response requested if problems are noted. Inspections are tracked by EPA's computerized PCS.
- F. State Operation and Maintenance Inspections - Routine State 0 & M inspections are completed by the Facility evaluator and reviewed by the District Director. Copies of the report are distributed to the facility owner, the facility operator, and the district files, with

the original being sent to the Facilities Compliance Section. The original is later placed in the Central files. Information from the inspection is updated in the computerized Carolina File. Inspections are tracked by the EPA's computerized PCS.

- G. Fish Kill - Samples are sent to the Analytical Services Division for analysis. The data is sent to the Emergency Response Section and collated with the fish kill report. A copy of the fish kill investigation report and data is sent to the owner (if the kill occurred in a private pond), the person who reported the kill, the District Director of the area where the kill occurred, South Carolina Wildlife and Marine Resources if they helped with investigation or expressed interest in the kill, the Enforcement Section of DHEC, and DHEC's central files. A permanent numerical record is kept by the Emergency Response Section.
- H. Oil and Hazardous Materials - Normally, samples are not collected on spill investigations. However, whenever the spiller cannot readily be identified, the samples are collected and they follow the procedure as alluded to in the "fish kill" procedure.

For hazardous materials investigations, samples are usually collected upstream and downstream of the spill site, along with samples of the spilled material. These samples are then returned to the Sample and Data Control Center of Analytical Services Division and logged in for analysis. Upon completion, data is entered on the appropriate data sheet and forwarded to the Emergency Response Section to be collated with the spill report. Copies of the hazardous materials report and data are sent to the spiller if requested, the Environmental Protection Agency if appropriate, the Central file of the Department of Health and Environmental Control, and to the appropriate Enforcement Section of the South Carolina Department of Health and Environmental Control.

A permanent numerical record is kept in the Central files area.

- I. Biological Monitoring- After samples are collected, data sheets are kept on file in the Water Quality Monitoring Section until sample analysis is completed. Upon completion of analysis, any physical or chemical data are placed in STORET. Data sheets describing biological data are kept on file in the Water Quality Monitoring Section.

XIV. APPENDICES

APPENDIX A

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

PRIMARY AND SECONDARY STREAM STATION DESCRIPTIONS
LISTED BY LABORATORY DISTRICT

APPENDIX A

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

PRIMARY AND SECONDARY STREAM STATION DESCRIPTIONS LISTED BY REGION

STREAM STATIONS FOR AIKEN - PRIMARY LOWER SAVANNAH DISTRICT

Station	Description	Criteria	Basin
CSTL-003	SALKEHATCHIE RVR AT SC 278 2.5 MI S BARNWELL	6	0924
CSTL-012	COOSAWHATCHIE RVR AT S-03-22 1.5 MI SW ALLENDALE	1	0932
CSTL-028	SALKEHATCHIE RVR AT SC 64 2 MI W OF BARNWELL	1,5	0924
E-008	N FORK EDISTO RVR AT S-38-39 WSW OF ROWESVILLE	2,16	0914
E-013	EDISTO RVR AT US 78 W OF BRANCHVILLE	1,2,4	0908
E-051	PROVIDENCE SWP AT E FRONTAGE RD TO I-95 7 MI NW OF HOLLY HILL	7,14	0912
E-059	4 HOLE SWP AT S-38-50 5.2 MI SE OF CAMERON	1,7	0912
E-090	S FORK EDISTO RVR AT US 1 12 MI NE AIKEN	1	0918
E-091	N FORK EDISTO RVR AT SC 391 5.5 MI S BATESBURG	1	0916
E-092	N FORK EDISTO RVR AT SC 3 5.5 MI NW NORTH	1,2	0914
E-094	SHAW CREEK AT S-02-26 4.2 MI NE AIKEN	12,15	0918
E-099	N FORK EDISTO RVR AT S-38-74 NW ORANGEBURG	7,9	0914
S-123	LITTLE SALUDA RVR AT S-41-39 5.2 MI NE SALUDA	7,10	0840
S-131	LK GREENWOOD AT US 221 7.6 MI NNW 96	8,15	0844
S-186	SALUDA RVR AT SC 34 6.5 MI ESE OF 96	1	0842
S-295	SALUDA RIVER AT S.C. ROUTE 39	10	0842
ST-025	LK MARION AT MID BRDG ON I-95 AT SANTEE	8	0804
SV-069	SAND RVR AT OLD US 1 1.2 MI SE WARRENVILLE	10	1306
SV-071	HORSE CK AT S-02-104 0.6 MI SW GRANITEVILLE	6	1306
SV-118	SAVANNAH RVR AT US 301 12.5 MI SW ALLENDALE	2,3,16	1304
SV-250	HORSE CK AT SC 125 1.5 MI SW CLEARWATER	6	1306
SV-251	SAVANNAH RVR AT US 1 1.5 MI SW N. AUGUSTA	6,12	1306
SV-252	SAVANNAH RVR AT SC 28 1.6 MI NNW OF BEACH ISLAND	1,3	1304
SV-291	CLARKS HILL RESERVOIR AT US 378 7 MI SW MCCORMICK	8,16	1308
SV-294	CLARKS HILL RESERVOIR AT DAM AT US 221 1.5 MI SW CLARKS HILL	1	1306
SV-318	LONG CANE CK AT S-33-117 7.0 MI NW MCCORMICK	10,17	1308
SV-323	SAVANNAH RVR AT LOCK AND DAM	1,3,16	1304
SV-324	TIMS BR AT SRP ROAD C	17	1304
SV-325	UPPER THREE RUNS CK AT SRP ROAD A	17	1304
SV-326	FOUR MILE CK AT SRP ROAD A-7	17	1304

Station Selection Criteria

- | | |
|-------------------------------------|-------------------------------------|
| 1 = Influent to segment (sub-basin) | 9 = Above major municipal area |
| 2 = Effluent to segment | 10 = Below major municipal area |
| 3 = Major streams at state lines | 11 = Mouth of major tributary |
| 4 = Confluence of major streams | 12 = Major water use area |
| 5 = Above a major industrial area | 13 = Above major land use area |
| 6 = Below a major industrial area | 14 = Below major land use area |
| 7 = Water Quality limited area | 15 = Above a water intake |
| 8 = Major lake | 16 = Basic Water Monitoring Program |
| | 17 = Other |

STREAM STATIONS FOR AIKEN - PRIMARY
Lower Savannah District (continued)

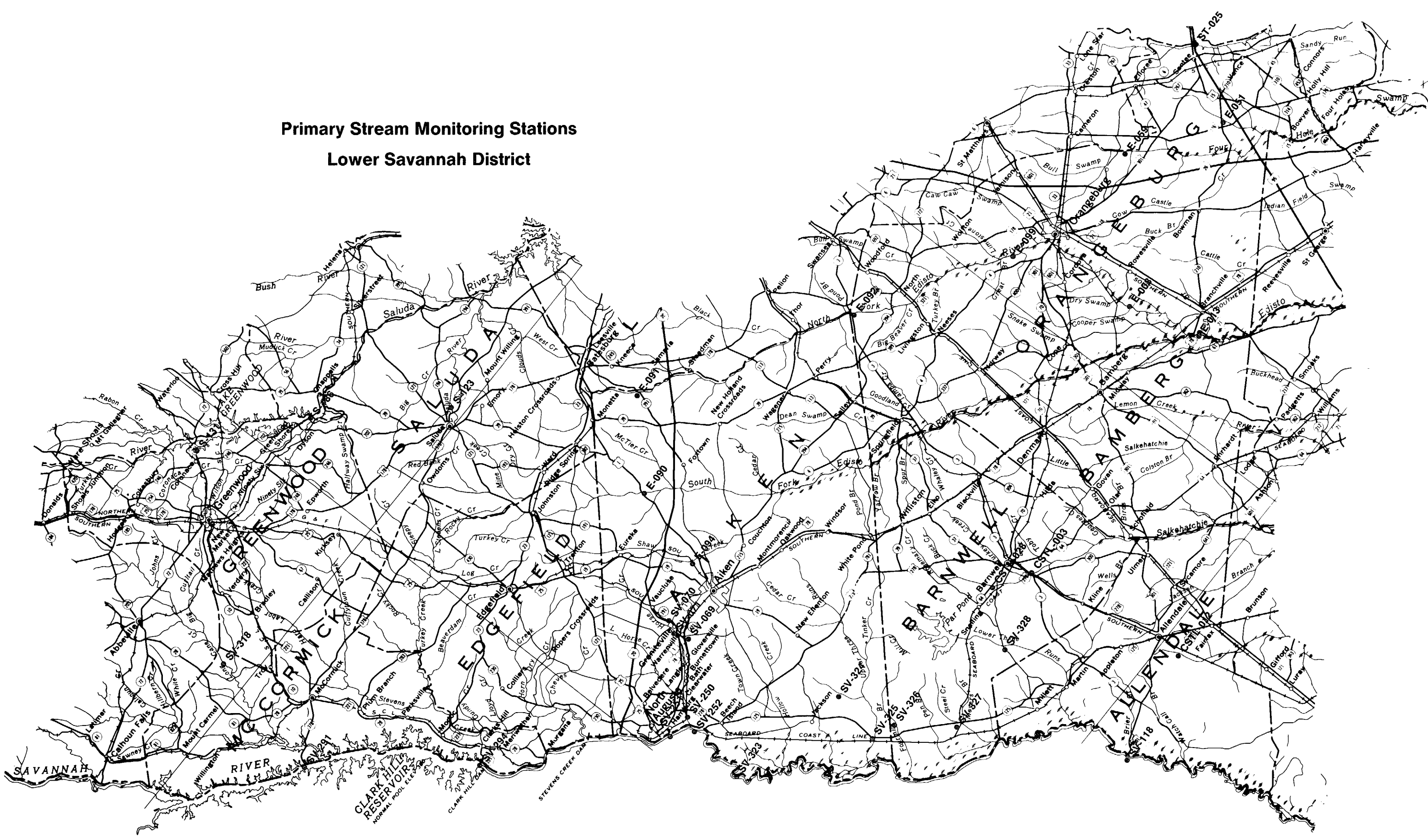
Station	Description	Criteria	Basin
SV-327	STEEL CK AT SRP ROAD A	17	1304
SV-328	LOWER THREE RUNS CK AT S-06-20 7.5 MI SW BARNWELL	17	1304
SV-329	HORSE CREEK AT ASCAUGA LAKE ROAD (S-02-33) IN GRANITEVILLE	5	1306
SV-330	STEVENS CREEK AT S-33-21	10	1306

Station Selection Criteria

- | | |
|-------------------------------------|-------------------------------------|
| 1 = Influent to segment (sub-basin) | 9 = Above major municipal area |
| 2 = Effluent to segment | 10 = Below major municipal area |
| 3 = Major streams at state lines | 11 = Mouth of major tributary |
| 4 = Confluence of major streams | 12 = Major water use area |
| 5 = Above a major industrial area | 13 = Above major land use area |
| 6 = Below a major industrial area | 14 = Below major land use area |
| 7 = Water Quality limited area | 15 = Above a water intake |
| 8 = Major lake | 16 = Basic Water Monitoring Program |
| | 17 = Other |

Primary Stream Monitoring Stations
Lower Savannah District

This map illustrates the primary stream monitoring stations in the Lower Savannah District. It shows a complex network of roads, rivers, and streams. Key locations marked include Savannah, Waynesboro, and various smaller towns. The map is titled "Primary Stream Monitoring Stations" and "Lower Savannah District".



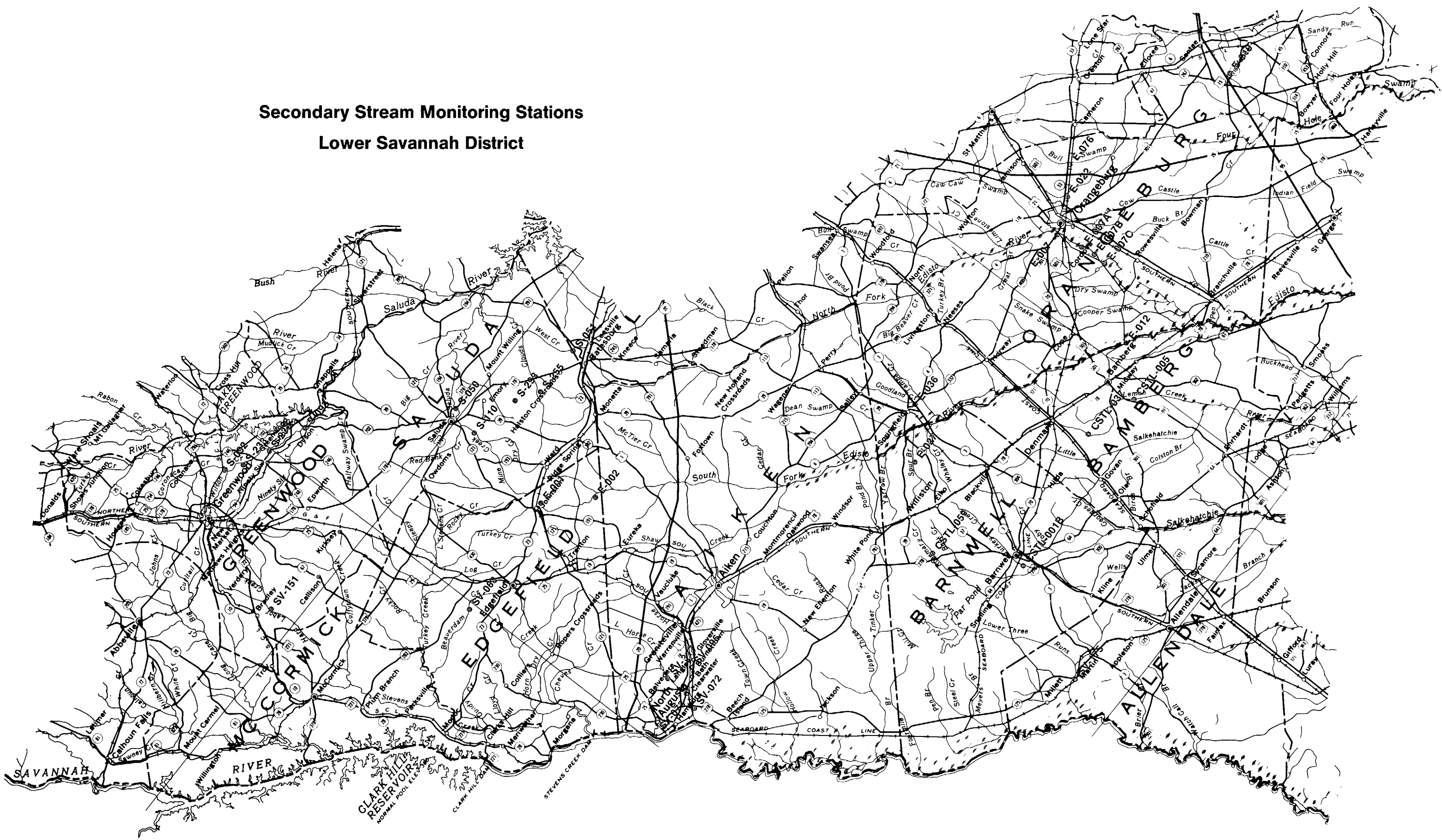
STREAM STATIONS FOR AIKEN - SECONDARY
LOWER SAVANNAH DISTRICT

Station	Description	Criteria	Basin
CSTL-001B	TURKEY CK 1 MI BL MILLIKEN BARNWELL OUTFALL AT CLINTON ST.	6	0924
CSTL-005	LEMON CK ON S-05-77	7	0924
CSTL-037	GRAPEVINE CK ON S-05-32 SW OF BAMBERG	10	0924
E-001	FIRST BR AT BRDG ADJACENT TO WTR PLT AT JOHNSON AT S-19-41	9	0918
E-002	S FORK EDISTO RVR AT S-19-57 BL JOHNSTON SWR OUTFALL	10	0918
E-007	N FORK EDISTO RVR AT US 601 AT ORANGEBURG	5	0914
E-007A	N FORK EDISTO RVR AT POWER LINE CROSSING 2 MI BL E-007	6	0914
E-007B	N FORK EDISTO RVR 4 MI BL E-007 AT A CABIN	6	0914
E-007C	N FORK EDISTO RVR AT POLICEMANS CAMP 6 MI BL E-007	10	0914
E-012	SOUTH EDISTO RIVER AT SC 39 BRIDGE	2,11	0918
E-019	HOME BR AT S-38-68 1.2 MI SW OF HOLLY HILL	7	0912
E-022	GRAMLING CK AT CLVT ON SC 33 2 MI E OF ORANGEBURG	10	0912
E-036	GOOD LAND CK AT SC 4 2.1 MI E OF SPRINGFIELD	10	0918
E-076	TRIB TO GRAMLING CK AT SC 33-BL UTICA TOOL CO	6	0912
S-050	LITTLE SALUDA RVR AT US 378 E SALUDA	6,10	0840
S-092	CORONACA CK AT S-24-100 4 MI NW OF 96	7	0842
S-093	WILSON CK AT SC 702 5.2 MI ESE OF 96	7	0842
S-233	WILSON CK AT S-24-101	10	0842
S-235	WILSON CK AT S-24-124	7	0842
S-255	CLOUDS CK AT S-41-26 4 MI NW BATESBURG	7	0840
SV-068	BEAVERDAM CK AT S-19-35 3.8 MI NW OF EDGEFIELD	10	1306
SV-072	HORSE CK AT S-02-145	4	1306
SV-073	LITTLE HORSE CK AT SC 421 BL EFF OF CLEARWTR FIN	6	1306
SV-096	EFF FROM HORSE CK POND AT DAM ON S-02-254	5	1306
SV-151	HARD LABOR CREEK AT S-24-164 BRIDGE	10	1306
SV-175	LOWER 3 RUNS CK AT SC 125 11 MI NW OF ALLENDALE	6	1304

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| | 17 = Other |

Secondary Stream Monitoring Stations
Lower Savannah District



STATIONS FOR CHARLESTON - PRIMARY
TRIDENT DISTRICT

Station	Description	Criteria	Basin
CSTL-006	SALKEHATCHIE RVR AT 601 9 MI NE HAMPTON	1,2	0922
CSTL-062	TAIL RACE CANAL AT US 52 & 17A BELOW LAKE MOULTRIE	1	0820
CSTL-063	WASSAMASSAW SWP AT US 176	1	0818
CSTL-079	DIVERSION CANAL AT SC 45 12.6 MI W OF ST STEPHENS	1,2	0822
CSTL-098	COMBAHEE RVR AT US 17 10 MI ESE YEMASSEE	1,2,16	0920
CSTL-107	COOSAWHATCHIE RVR AT US 17 AT COOSAWHATCHIE	2	0930
CSTL-109	COOSAWHATCHIE RVR AT S-25-27 2.5 MI SW CUMMINGS	2,16	0932
E-015	EDISTO RVR AT SC 61 AT GIVHANS FERRY ST PK	1,16	0906
E-100	4 HOLE SWP AT US 78 E OF DORCHESTER	2,16	0912
MD-007	POCOTALIGO RVR AT US 17 AT POCOTALIGO	1	0926
MD-020	MOUTH OF WAPPOO CK BTWN CHANNEL MARKERS 3 & 4	7	0814
MD-026	STONO RVR AT SC 700	2	0814
MD-034	RT BK OF ASHLEY RVR BTWN MOUTH OF WAPPOO CK & DILLS CK	7	0814
MD-043	COOPER RVR AT CHANNEL MARKER 72 NEAR USN AMMO DEPOT	1	0810
MD-044	COOPER RVR BL MOUTH OF GOOSE CK AT CHANNEL BUOY 60	6	0810
MD-045	COOPER RVR AB MOUTH OF SHIPYD CK AT CHANNEL BUOY 49	2	0810
MD-046	COOPER RVR UNDER GRACE MEMORIAL BRDG	7	0814
MD-047	TOWN CK (W SIDE OF DRUM ISL) UNDER GRACE MEMORIAL BRDG	7	0814
MD-048	S CHANNEL CHAS HBR OFF FT JOHNSON QUAR STA BELL BUOY 28	7,16	0814
MD-049	ASHLEY RVR AT MAGNOLIA GARDENS	6,10	0818
MD-052	ASHLEY RVR AT SALRR BRDG	2	0818
MD-069	INTRACOASTAL WATERWAY AT SC 703 E MT PLEASANT	17	0806
MD-070	ABANDONED BRDG OVER THE COVE END OF PITT ST MT PLEASANT	7	0814
MD-071	SHEM CK AT BRDG ON US 17	7	0814
MD-113	GOOSE CK RES AT CHTN WTR INTAKE	12	0810
MD-114	GOOSE CK AT S-10-52 N CHTN	10	0810
MD-115	WANDO RVR AT SC 41	1	0808
MD-118	NEW RVR AT SC 170 9 MI W OF BLUFFTON	2	0928
MD-119	EDISTO RVR AT US 17 12.5 MI NW RAVENEL	1,2	0906
MD-120	DAWHOO RVR AT SC 174 9 MI N OF EDISTO BCH SP	1	0902
MD-152	COOPER RVR AT S-08-503 6.2 MI ESE OF GOOSE CK	2	0820
MD-165	CHAS HBR AT FT JOHNSON PIER AT MARINE SCI LAB	7	0814
MD-195	BOHICKETT CR AT SC 700 1 MI SW OF CEDAR SPRINGS	9,10	0902
MD-198	WANDO RVR BTWN RATHALL & HOBCEW CKS	2	0808

Station Selection Criteria

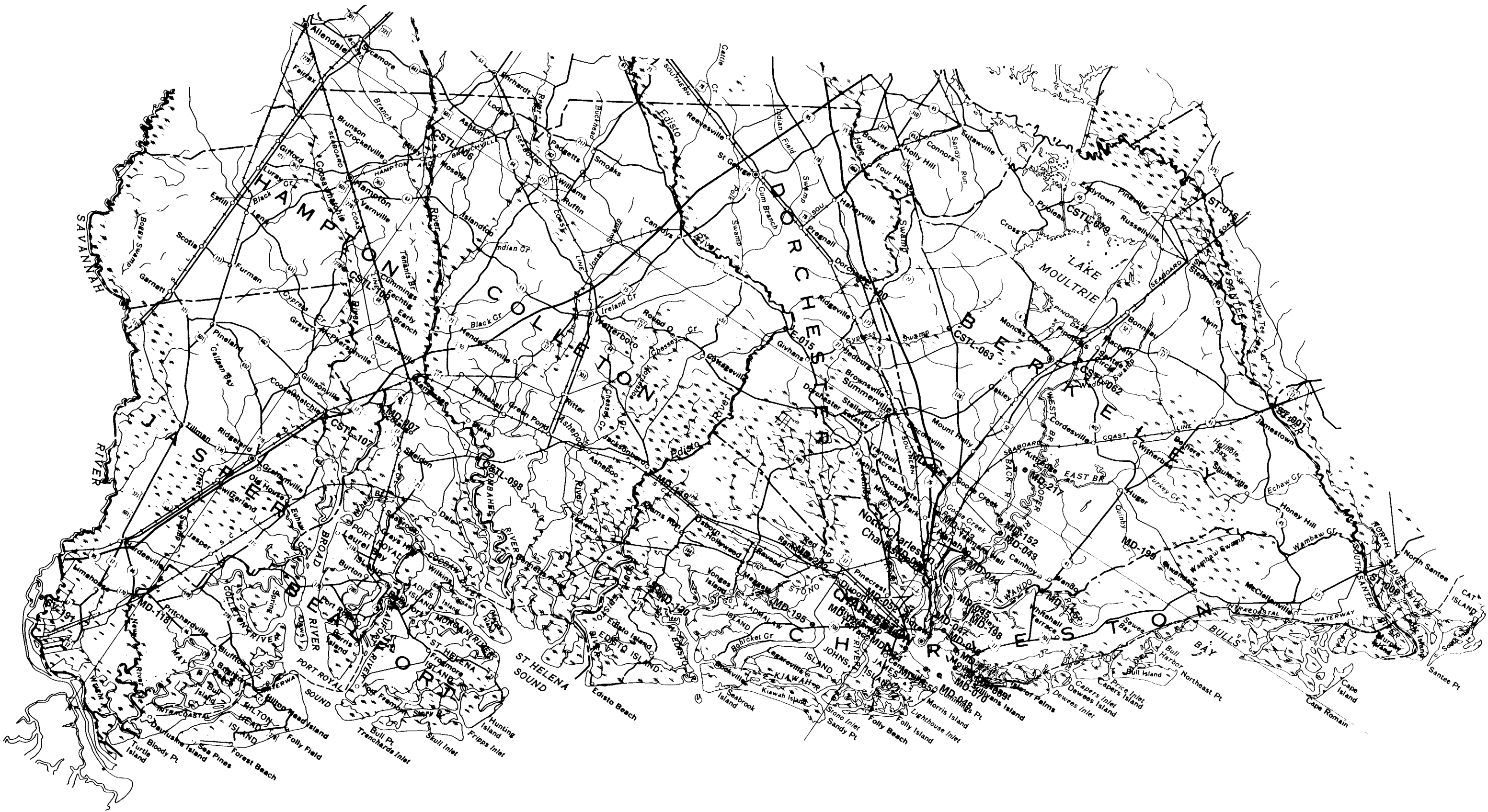
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STATIONS FOR CHARLESTON - PRIMARY
TRIDENT DISTRICT

Station	Description	Criteria	Basin
MD-202	STONO RVR AT S-10-20 2 MI UPSTRM OF CLEMSON EXP STA	1	0814
MD-217	DURHAM CK AT S-08-9 BRIDGE	12,15	0820
MD-240	FOSTER CREEK AT CHARLESTON CPW WATER INTAKE	15	0820
MD-241	MECHAW CK AT SC ROUTE 45	17	0802
ST-001	SANTEE RVR AT SC 41/US 17A NE OF JAMESTOWN	5,16	0802
ST-006	S SANTEE RVR AT US 17	2	0802
ST-016	SANTEE RVR AT US 52 6.5 MI NNW OF ST STEPHENS	1	0802
SV-191	SAVANNAH RVR AT US 17 8.9 MI SSW OF HARDEEVILLE	2,3	1302

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Primary Stream Monitoring Stations
Trident District

STREAM STATIONS FOR CHARLESTON - SECONDARY
TRIDENT DISTRICT

Station	Description	Criteria	Basin
CSTL-007	COMBAHEE SWP BL YEMASSEE SEWAGE OUTFALL	10	0922
CSTL-010	SANDERS BR AT SC 278	9	0932
CSTL-011	SANDERS BR AT S-25-50	10	0932
CSTL-013	SAWMILL BR AT SC 165	9,10	0818
CSTL-043	SAWMILL BR AT SC 78 E OF SUMMERVILLE	9,10	0818
CSTL-044	IRELAND CK AT S-29-116 5 1/2 MI N OF WALTERBORO	9	0906
CSTL-068	ASHEPOO RVR AT SC 303 10 MI SSW OF WALTERBORO	17	0906
CSTL-069	ASHEPOO RVR AT US 17 3.4 MI ESE OF GREEN POND	4	0906
CSTL-075	BLACK CK AT CO RD 41 5 MI SW OF HAMPTON	7	0932
CSTL-085	PIER IN COOPER RVR AT END OF RICE MILL RD IN PIMLICO	10	0820
CSTL-099	EAGLE CK AT SC 642 5 MI SSE OF SUMMERVILLE	10	0818
CSTL-102	ASHLEY RVR AT SC 165 4.8 MI SSW OF SUMMERVILLE	6,10	0818
CSTL-108	SANDERS BRANCH AT SC RD 363	6	0932
E-014	EDISTO RVR AT US 15 S OF ST GEORGE	10	0908
E-016	POLK SWP AT UNIMP RD S-18-180 2 MI S OF ST GEORGE	10	0908
MD-001	BEAUFORT RVR AB BEAUFORT AT CHANNEL MARKER 231	6	0920
MD-002	BEAUFORT RVR AT DRAWBRDG ON US 21	6,10	0926
MD-003	BEAUFORT RIR BL BEAUFORT AT CHANNEL MARKER 244	6,10	0926
MD-004	BEAUFORT RVR AT JCT WITH BATTERY CK NR MARKER 42	6,10	0926
MD-005	BEAUFORT RVR BL OUTFALL OF PARRIS ISL MB AT BUOY 29	17	0926
MD-006	PORT ROYAL BTWN BUOY 25 & 24 W OF BAY PT ISLAND	2	0926
MD-010	WHALE BR AT US 21	5	0920
MD-013	MOUTH OF SKULL CK BTWN CHANNEL MARKERS 3 & 4 NEAR REDBO	17	0926
MD-016	MOUTH OF MAY RVR 1.0 MI W OF CHANNEL MARKER 29	4	0926
MD-025	ELLIOT CUT AT EDGE WTR DR (S-10-26 OFF HW 17)	11	0814
MD-039	GOOSE CK AT S-08-136 BRIDGE	10	0810
MD-116	BROAD RVR AT SC 170 7.5 MI SW OF BEAUFORT	17	0926
MD-117	CHECHESSEE RVR AT SC 170 10.5 MI SW OF BEAUFORT	17	0926
MD-128	BEES CK AT SC 462 5.9 MI NE OF RIDGELAND	17	0926
MD-135	ASHLEY RVR AT SC 7 (N BRDG)	17	0818
MD-172	BROAD RVR AT MOUTH OF ARCHER CK ON SW SIDE OF USMC	17	0926
MD-175	CALIBOGUE SD AT MOUTH OF COOPER RVR NR RED BUOY 32	3,4	0926

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STREAM STATIONS FOR CHARLESTON - SECONDARY
TRIDENT DISTRICT

Station	Description	Criteria	Basin
MD-176	COLLETON RVR AT COLLETON NECK-AT JCT WITH CHECHESSEE RV	17	0926
MD-194	WHALE BR AT JCT WITH CAMPBELL'S CK-3/4 MI W OF MD-010	6	0920
MD-206	STONO RIVER AT ABBAPOOLA CREEK	12,14	0814
MD-207	KIAWAH RIVER MOUTH AT STONO RIVER	12,14	0814
MD-208	STONO RIVER MOUTH AT BUOY 10 OFF SANDY PT	12,14	0814
MD-209	BOHICKET CK AT FICKLING CK	12,14	0902
MD-210	BOHICKET CK MOUTH AT N EDISTO RVR	12,14	0902
MD-211	N EDISTO RVR MOUTH BTWN KIAWAH ISLAND & BOTANY BAY ISL	12,14	0902
MD-242	ASHLEY RIVER, BETWEEN LEEDS AVENUE BOAT RAMP AND MOUTH OF CHURCH CK.	10	0818
ST-005	N SANTEE RVR AT US 17	2	0802
ST-007	WALKER SW AT US 52 2.5 MI S ST STEPHENS	17	0820

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STREAM STATIONS FOR COLUMBIA - PRIMARY
CENTRALS MIDLANDS DISTRICT

Station	Description	Criteria	Basin
B-054	ENOREE RVR AT S-36-45 3.5 MI AB JCT WITH BROAD RVR	2,11,16	0860
B-080	BROAD RIVER DIVERSION CANAL AT COLA WATER PLANT	1,2,15	0850
B-236	BROAD RVR AT SC 213 2.5 MI SW OF JENKINSVILLE	1,16	0850
B-280	SMITH BR AT N MAIN ST IN COLA	7,10	0850
B-327	MONTICELLO LK-LOWER IMPOUNDMENT BETWEEN LARGE ISLANDS	12	0852
B-328	MONTICELLO LK-UPPER IMPOUNDMENT AT BUOY IN MIDDLE OF LAKE	12	0852
C-001	GILLS CK AT BRDG ON US 76 (GARNERS FERRY ROAD)	7	0824
C-007	CONGAREE RVR AT US 601	1,2,6,10,16	0824
C-008	CONGAREE CK AT US 21 AT CAYCE WATER INTAKE	12,15	0824
C-017	GILLS CK AT SC 48 (BLUFF ROAD)	6,10	0824
C-068	FOREST LAKE AT DAM	15	0824
CSB-001L	CONGAREE RVR AT BLOSSOM ST (SALUDA RIVER)	1,4,10,16	0824
CSB-001R	CONGAREE RVR AT BLOSSOM ST (BROAD RIVER)	1,4,10,16	0824
CW-206	WATEREE RVR AT US 76 & 378	1,2,5,6,16	0826
CW-207	LK WATEREE AT END OF S-20-291	8	0830
CW-208	LK WATEREE AT S-20-101 11 MI ENE WINNSBORO	8	0830
CW-209	LK WATEREE AT SMALL ISLAND 2.3 MI N OF DAM	8	0830
CW-222	WATEREE RIVER 1.6 MI US CONFLUENCE WITH CONGAREE	2,6	0826
S-042	BUSH RIVER AT SC 560 S OF JOANNA	6,10	0842
S-204	LK MURRAY AT DAM AT SPILLWAY (MARKER 1)	8	0838
S-223	BLACKSGATE BR LK MURRAY AT SC 391	1,8	0838
S-260	KINLEY CK AT S-32-36 (ST. ANDREWS RD.) IN IRMO	10	0838
S-270	SALUDA RVR AT I-20	2	0838
S-273	LK MURRAY AT MARKER 166	8	0838
S-274	LK MURRAY AT MARKER 143	8	0838
S-279	LK MURRAY AT MARKER 63	8	0838
S-280	LK MURRAY AT MARKER 102	8	0838
S-290	CAMPING CK S-36-202 BLW GA PACIFIC	6	0838
S-294	TWELVE MILE CREEK AT U.S. ROUTE 378	17	0838

Station Selection Criteria

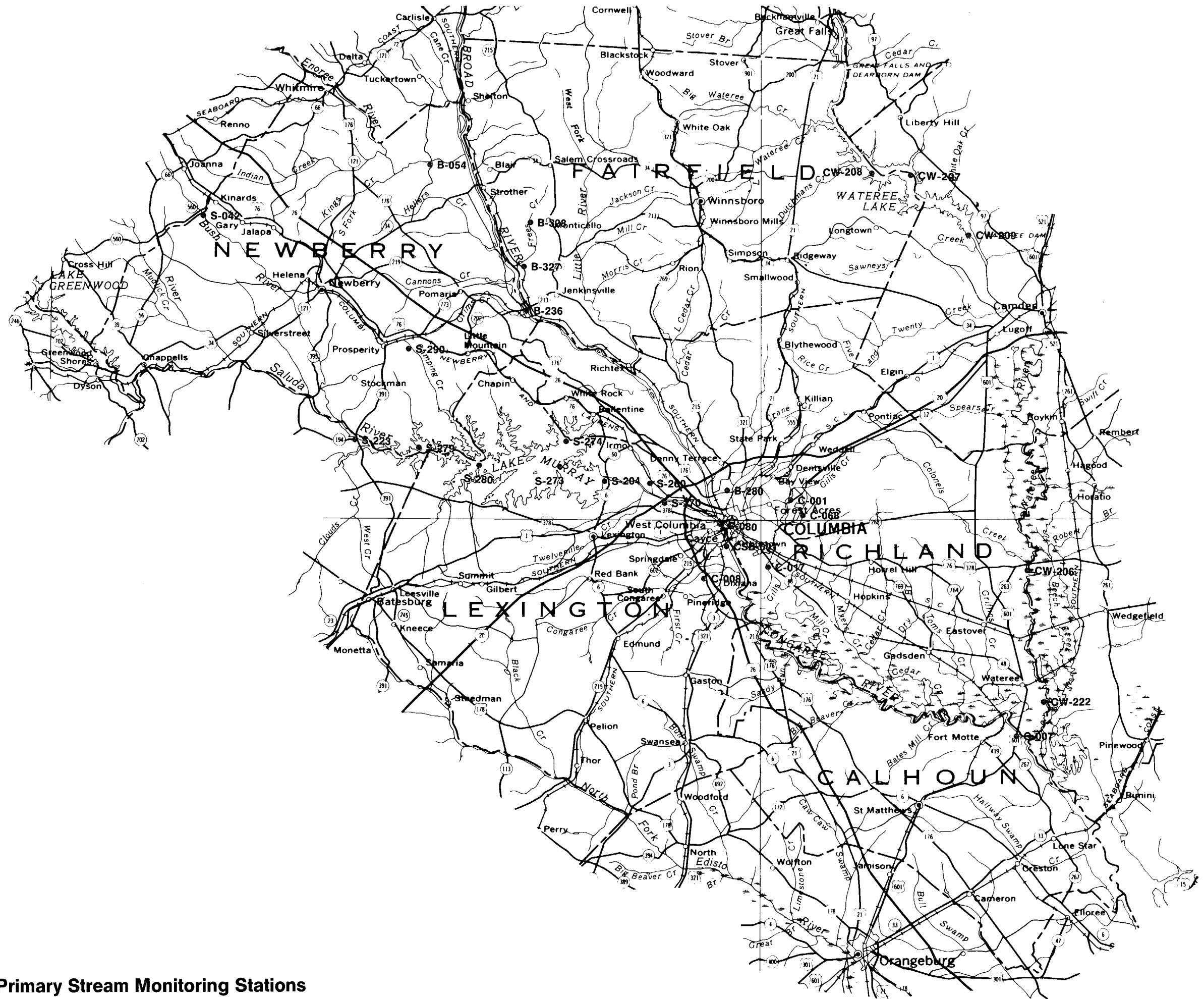
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STREAM STATIONS FOR COLUMBIA - SECONDARY
CENTRAL MIDLANDS DISTRICT

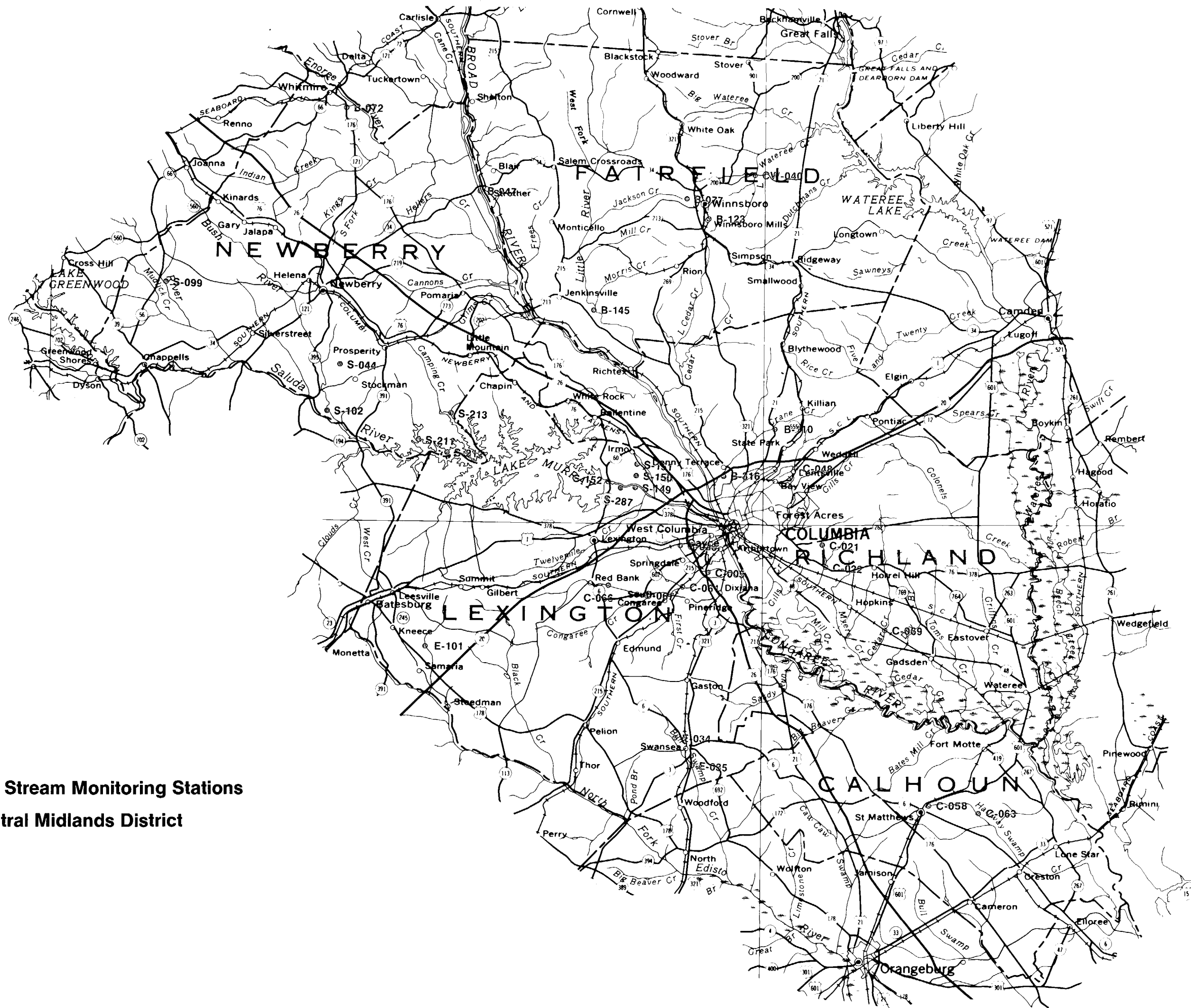
Station	Description	Criteria	Basin
B-047	BROAD RVR AT SC 34 14 MI NE OF NEWBERRY	6	0852
B-072	DUNCAN CK AT US 176 1.5 MI SE OF WHITMIRE	6	0860
B-077	WINNSBORO BR BELOW PLANT OUTFALL	10	0850
B-110	LK ELIZABETH AT SPILLWAY ON US 21	7,8	0850
B-123	WINNSBORO BR AT US 321-AB WINNSBORO MILLS OUTFALL	5	0850
B-145	LITTLE RVR AT S-20-60 3.1 MI SW OF JENKINSVILLE	17	0850
B-316	CRANE CK AT S-40-43 UNDER I-20 - N COLA	7	0850
C-005	SIX MI CK ON US 21 S OF CAYCE	10	0824
C-021	MILL CK AT SC 262	9	0824
C-022	MILL CK AT US 76 AT PINWOOD LK 8 MI SE OF COLA	9	0824
C-025	LK CAROLINE SPILLWAY AT PLATT SPRINGS RD	10	0824
C-048	WINDSOR LK SPILLWAY ON WINDSOR LK BLVD	7	0824
C-058	LK INSPIRATION - ST MATTHEWS (FRONT OF HEALTH DEPT)	9	0804
C-061	SAVANNAH BR AT S-32-72 1.7 MI NNW OF S CONGAREE	9,17	0824
C-063	HALFWAY SWP CK AT S-09-43 3 MI E OF ST MATTHEWS	10	0804
C-066	RED BANK CK AT S-32-244	9	0824
C-067	RED BANK CK AT SANDY SPRINGS RD BTWN S-32-104 & SC 602	10	0824
C-069	CEDAR CREEK AT S-40-66	14	0824
CW-040	LITTLE WATEREE CK AT S-20-41 5 MI E OF WINNSBORO	10	0830
E-034	BULL SWP CK AT CLVT ON UNIMP RD 1.1 MI NW OF SWANSEA	9	0914
E-035	BULL SWP CK AT US 321 0.9 MI S OF SWANSEA	10	0914
E-101	LIGHTWOOD KNOT CREEK OFF LEXINGTON CO. RD 77 AT CITY OF BATESBURG WATER INTAKE	10,15	0916
S-044	SCOTT CK AT SC 34 SW OF NEWBERRY	9	0842
S-099	LITTLE RVR AT S-36-22 8.3 MI NW SILVERSTREET	11	0842
S-102	BUSH RVR AT S-36-41 8.5 MI S OF NEWBERRY	11	0842
S-149	SALUDA RVR AT MEPCO ELECT. PLANT WATER INTAKE 2.8 MI SSE IRMO	15	0838
S-150	LORICK BR AT PT UPSTRM OF JCT WITH SALUDA RVR	10	0838
S-151	LORICK BR AT S-32-107 2 MI SSE IRMO	10	0838
S-152	SALUDA RVR JUST BELOW LK MURRAY DAM	8	0838
S-211	HOLLANDS LANDING LK MURRAY OFF S-36-26 AT END OF S-36-3	8	0838
S-212	MACEDONIA LANDING LK MURRAY AT END OF S-36-26 MACEDONIA	8	0838
S-213	ADAMS CAMP BR ON CO RD S-36-15 OFF S-36-26	8	0838
S-287	RAWLS CREEK AT S-32-107	10,14	0838

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Primary Stream Monitoring Stations
Central Midlands District



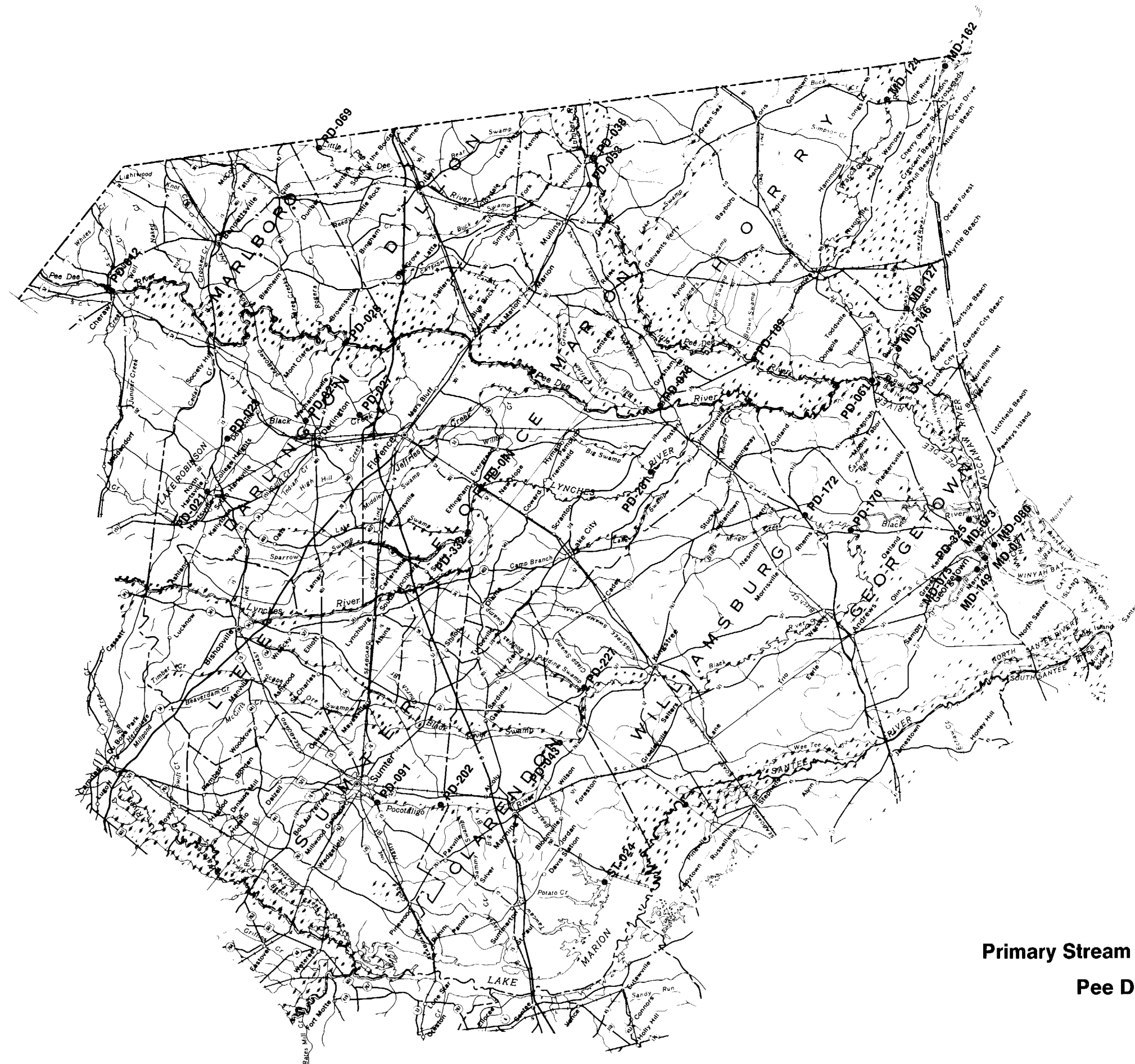
Secondary Stream Monitoring Stations
Central Midlands District

STREAM STATIONS FOR FLORENCE - PRIMARY
PEE DEE DISTRICT

Station	Description	Criteria	Basin
MD-073	SAMPIT RVR OPP AMER CYANAMID CHEM CO	6	0702
MD-075	SAMPIT RVR BTWN MOUTHS OF PORTS CK & PENNY ROYAL CK	5	0702
MD-077	SAMPIT RVR AT US 17	5,6	0702
MD-080	WINYAH BAY AT JCT OF PEE DEE & WACCAMAW AT MARKER 92	2,4,16	0702
MD-124	WACCAMAW RVR AT SC 9 7.0 MI W OF CHERRY GROVE	1	0716
MD-127	INTRACOASTAL WTRWAY AT SC 544 7.5 MI SW OF MYRTLE BEACH	2,10	0715
MD-146	WACCAMAW RVR & ICWW 1 MI BL JCT-AT BUCKSPORT LANDING	2,4	0716
MD-149	WHITES CK 100 YDS UPSTRM OF JCT WITH SAMPIT RVR	10	0702
MD-162	LITTLE RVR AT S END OF ISL DUE E OF TOWN (IN RVR)	1	0715
PD-012	PEE DEE RVR AT US 1 NE CHERAW	1	0726
PD-021	BLACK CK AT S-16-18 1 MI NNE HARTSVILLE	5	0725
PD-023	BLACK CK AT S-16-13 5.5 MI NE HARTSVILLE	6	0725
PD-025	BLACK CK AT S-16-133 2.25 MI NE OF DARLINGTON	6	0725
PD-027	BLACK CK AT S-16-35 5.5 MI SE DARLINGTON	6,10,16	0725
PD-028	PEE DEE RVR AT SC 34 11 MI NE DARLINGTON	2,16	0726
PD-038	LUMBER RVR AT US 76 AT NICHOLS	2,16	0722
PD-041	LYNCHES RVR AT US 52 NEAR EFFINGHAM	1	0728
PD-043	POCOTALIGO RVR AT S-14-50 9.5 MI NE MANNING	2	0714
PD-052	LITTLE PEE DEE AT S-34-60	2	0720
PD-061	PEE DEE RVR AT US 701 2.75 MI NE YAUHANNAH	1,16	0702
PD-069	LITTLE PEE DEE RVR AT SC 57 11.5 MI NW DILLON	1	0720
PD-076	GREAT PEE DEE RVR AT US 378	6,17	0724
PD-091	POCOTALIGO RVR AT US 15 3.5 MI S SUMTER	1,9	0714
PD-170	BLACK RVR AT SC 51 11.6 MI NE OF ANDREWS	1	0706
PD-189	LITTLE PEE DEE RVR AT US 378 12 MI W CONWAY	2	0718
PD-202	POCOTALIGO RVR AT S-43-32 9 MI SSE OF SUMTER	6,7,10,16	0714
PD-227	BLACK RVR AT S-45-35 8.6 MI NW OF KINGSTREE	1,2	0712
PD-281	LYNCHES RVR AT S-21-49 5 MI NW JOHNSONVILLE	2,9	0728
PD-325	BLACK RVR AT S-22-489 4 MI NE GEORGETOWN	2	0706
PD-332	SPARROW SWAMP AT S-21-55 NR JOHNSONS CROSSROADS	2,14	0730
ST-024	LK MARION AT END OF S-14-64 AT CAMP BOB COOPER	8	0804

Station Selection Criteria

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**Primary Stream Monitoring Stations
Pee Dee District**

STREAM STATIONS FOR FLORENCE - SECONDARY
PEE DEE DISTRICT

Station	Description	Criteria	Basin
MD-074	SAMPIT RVR AT CHANNEL MARKER #30	4	0702
MD-076N	TURKEY CK S-22-42 SW OF GEORGETOWN	6	0702
MD-085	INTRACOASTAL WTRWAY AT PT 3 MI N OF BRDG ON US 501	10	0715
MD-087	INTRACOASTAL WTRWAY JUST N OF BRDG ON US 501	9,10	0715
MD-088	INTRACOASTAL WTRWAY 1 MI S OF BRDG ON US 501	9,10	0715
MD-089	INTRACOASTAL WTRWY 2 MI S OF BRDG ON US 501	9,10	0715
MD-091	INTRACOASTAL WTRWY 4 MI N OF BRDG ON US 501	9,10	0715
MD-107	KINGSTON LK NR PUMP STA ON LAKESIDE DR CONWAY	10	0716
MD-110	WACCAMAW RVR AT US 501 BY PASS AROUND CONWAY	17	0716
MD-111	WACCAMAW RVR AT COX'S FERRY ON CO RD 110	10	0716
MD-125	INTRACOASTAL WTRWY (LITTLE RVR) ON SC 9 (US 17)	9	0715
MD-136	WACCAMAW RVR 1/4 MI UPSTRM OF JCT WITH INTRA- COASTAL WTRWY	4	0716
MD-137	WACCAMAW RVR NR MOUTH OF BULL CK AT CHANNEL MARKER 50	9	0702
MD-138	WACCAMAW RVR AT CHANNEL MARKER 57	10	0702
MD-158	CRABTREE CK AT LONG ST BL OUTFALL OF CONWAY #1 POND	10	0716
PD-014	CROOKED CR AT S-35-43	10	0726
PD-015	PEE DEE RVR AT US 15	6	0726
PD-016	PANTHER CK AT S-35-27	10	0720
PD-017A	MCCLAUREN'S MILL POND SC 381	10	0720
PD-029E	LITTLE PEE DEE RVR AT S-17-23	5	0720
PD-030	MAPLE SWP AT SC 57	10	0720
PD-030A	LITTLE PEE DEE RVR BELOW JCT WITH MAPLE SWP	10	0720
PD-031	BUCK SWP AT S-17-33	10	0720
PD-035	JEFFERIES CK AT SC 327 AT CLAUSSEN	10	0724
PD-036	CATFISH CK AT US 76	9	0724
PD-037	BROWN SWP AT S-34-31	10	0718
PD-039	GREEN SWP AT S-43-33	9	0714
PD-042	LITTLE PEE DEE RIVER AT US 501	10	0718
PD-044	BLACK RVR AT US 52 AT KINGSTREE	5,9	0710
PD-045	BLACK RVR AT SC 377 AT BRYAN'S CROSS ROADS	6	0710
PD-055	LITTLE PEE DEE RVR AT SC 9	5,6	0720
PD-072	SPARROW SWP AT S-16-697 2.5 MI E OF LAMAR	10	0730
PD-081	PRESTWOOD LK AT US 15	8	0725
PD-085	LYNCHES LK AT US 378	9	0728

Station Selection Criteria

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| 7 = Water Quality limited area | 15 = Above a water intake |
| 8 = Major lake | 16 = Basic Water Monitoring Program |
| | 17 = Other |

STREAM STATIONS FOR FLORENCE - SECONDARY
PEE DEE DISTRICT

Station	Description	Criteria	Basin
PD-086A	LYNCHES LK ON SC 341	10	0728
PD-087	LYNCHES LK AT SC 341 2.6 MI W OF JOHNSONVILLE	9	0728
PD-097	CATFISH CANAL AT S-34-38 IN MARION	7	0724
PD-098	TURKEY CK AT LIBERTY ST IN SUMTER ABOVE SANTEE PRI	5,9	0714
PD-103	HIGH HILL CK AT US 52 ON CO LINE	9	0725
PD-106	LYNCHES RVR ON I-20 4 OR 5 MI BELOW BISHOPVILLE SEPTIC	10	0730
PD-107	CROOKED CK AT SC 9 IN BENNETTSVILLE	9	0726
PD-112	COUSAR BR 1/4 MI BELOW BISHOPVILLE FINISHING CO	6	0730
PD-115	POCOTALIGO RVR AT 3RD BRDG N OF MANNING ON US 301	7	0714
PD-116	BLACK RVR AT S-14-40 E OF MANNING	17	0712
PD-137	SNAKE BR AT WOODMILL ST-HARTSVILLE	6	0725
PD-141	60" TILE DISCHARGING TO DITCH ACROSS RD AT DARLINGTON STP	10	0725
PD-143	KINGSTREE SWP CANAL AT S-45-44 2.1 MI NNE KINGSTREE	6	0710
PD-159	BLACK CK AT S-16-23 4.7 MI NW OF HARTSVILLE	6	0725
PD-168	BIG SWP AT S-21-360 1.1 MI W OF PAMPLICO	9	0728
PD-169	BIG SWP AT US 378 & SC 51 0.9 MI W OF SALEM	7	0728
PD-172	BLACK MINGO CK AT SC 41 14 MI NE OF ANDREWS	2,14	0708
PD-176	LAKE SWP AT S-26-99 5.9 MI NW OF AYNOR	17	0718
PD-177	CHINNERS MILL BR AT S-26-24 1.9 MI SSE AYNOR	10	0718
PD-186	BLACK RVR AT US 76 1.5 MI NE OF MAYESVILLE	9	0712
PD-187	SMITH SWP AT US 501 1.9 MI SSE OF MARION	10	0724
PD-190	MAIDEN DOWN SWP AT SC 41 3.5 MI N OF MULLINS	6,10	0720
PD-201	ROCKY BLUFF SWP AT S-43-41 8.1 MI E OF SUMTER	10	0712
PD-203	PUDDING SWP AT SC 527 8.1 MI NW OF KINGSTREE	10,11	0712
PD-229	NEWMAN SWP AT S-16-449 0.9 MI NE OF LAMAR	9	0730
PD-230	MIDDLE SWP AT SC 51 3.5 MI SSE OF FLORENCE	10	0724
PD-231	JEFFRIES CK AT UN# RD 3.3 MI ESE OF CLAUSSEN	17	0724
PD-236	PEE DEE RVR 2.5 MI DWNSTREM FROM MOUTH OF JEFFRIES CK	6,10	0724
PD-239	NASTY BR AT S-43-251 7.5 MI SW OF SUMTER	6	0714
PD-255	JEFFRIES CK AT SC 340 6.8 MI SSW OF DARLINGTON	5	0724
PD-256	JEFFRIES CK AT S-21-112 4.8 MI W OF FLORENCE	6	0724
PD-258	SNAKE BR AT RR AVE IN HARTSVILLE	6	0725
PD-268	SONOVESTA CLUB HARTSVILLE OFF DOCK OF PRESTWOOD LK	8	0725
PD-306	PANTHER CK AT US 15 OUTSIDE MCCOLL	9	0720
PD-310	BEAVERDAM CK AT S-17-30 8 MI E OF DILLON	17	0722
PD-319	LYNCHES RIVER AT SC 403	17	0730
PD-320	SMITH SWP AT S-34-19 1 MI E OF MARION	9	0724
PD-321	CATFISH CANAL AT MARION BYPASS 2 MI SW OF MARION	10	0724
PD-330	BLACK CK AT HWY 15 BYPASS	10	0725
ST-018	TAWCAW CK AT S-14-127 3.2 MI S OF SUMMERTON	10	0804



Secondary Stream Monitoring Stations
Pee Dee District

STREAM STATIONS FOR GREENVILLE - PRIMARY
APPALACHIA II DISTRICT

Station	Description	Criteria	Basin
B-008	TYGER RVR AT S-42-50 E. WOODRUFF	2,4	0866
B-021	FAIRFOREST CK AT SC 56	1,6,10	0864
B-026	N PACOLET RVR AT S-42-956 6.5 MI E LANDRUM	1	0868
B-041	ENOREE RVR AT SC 49 SE OF WOODRUFF	2	0862
B-148	MIDDLE TYGER RVR AT SC 14 2 MI SSW GOWANSVILLE	1	0866
B-317	S TYGER RVR AT SC 253 BL TIGERVILLE	1	0866
B-321	TRIB TO FAIRFOREST CK 200 FT BL S-42-65	6	0864
BE-001	TRIB TO ENOREE AT UNNUM RD W US 25 N TRAVELERS REST	1	0862
BL-001	LAWSONS FORK CK AT S-42-108	6,10	0868
S-007	SALUDA RVR AT SC 81 SW OF GREENVILLE	1	0847
S-013	REEDY RVR AT S-23-30 3.9 MI SE GREENVILLE	6,7,10	0846
S-018	REEDY RVR AT S-23-448 1.75 MI SE CONESTEE	6,7,10	0846
S-021	REEDY RVR AT S-23-06 E WARE SHOALS	2	0846
S-034	LITTLE RVR AT US 76 BUS IN LAURENS ABOVE STP	6,9	0842
S-073	REEDY RVR AT UN# RD OFF US 276 .75 MI E TRAVELERS REST	1	0846
S-088	N SALUDA RVR AT S-23-42 5.2 MI NNW TIGERVILLE	1,12	0848
S-125	SALUDA RVR AT US 25 BYPASS 1.5 MI ESE WARE SHOALS	2,16	0844
S-138	REEDY RVR AT FOOTHILLS RD OFF US 25 1.9 MI SW TRVLS REST	6	0846
S-250	SALUDA RVR AT FARRS BRDG ON SC 183 7 MI NE EASLEY	2	0848
S-291	TABLE ROCK RESERVOIR AT WATER INTAKE	15	0848
S-292	NORTH SALUDA RESERVOIR AT WATER INTAKE	15	0848
S-296	LAKE RABON 300 FT US OF DAM	8	0844
SV-031	ROCKY RVR AT S-04-263 2.7 MI SE ANDERSON AT STP	10	0131
SV-098	LAKE RICHARD B. RUSSELL AT SC 72 3.1 MI SW CALHOUN FALLS	8,15	1308
SV-100	SAVANNAH RVR AT SC 181 6.5 MI SW STARR	1,3	1310
SV-121	LK SECESSION AT HWY 184	8	1310
SV-122	DAM AT LK SECESSION	8	1310
SV-227	N FORK CHATTOOGA RVR AT SC 28 3.5 MI NW MT REST	1,3	1312
SV-230	BIG EASTATOE CREEK AT S-39-143	17	1314
SV-249	SENECA RVR AT SC 183 3.8 MI WSW SIX MILE	8	1312
SV-288	HARTWELL RESERVOIR AT SC 24 9.7 MI WNW OF ANDERSON	8	1312
SV-311	LK KEOWEE AT SC 188 - CANE CK ARM 3.5 MI NW SENECA	8	1314
SV-312	LK KEOWEE AT SC 188 - CROOKED CK ARM 4.5 MI N SENECA	8	1314
SV-313	LK JOCASSEE AT LANDING AT S-37-25 5.0 MI NE SALEM	8	1312
SV-322	HARTWELL RES AT S-37-54 (CONEROSS CK ARM)	8,10	1312

Station Selection Criteria

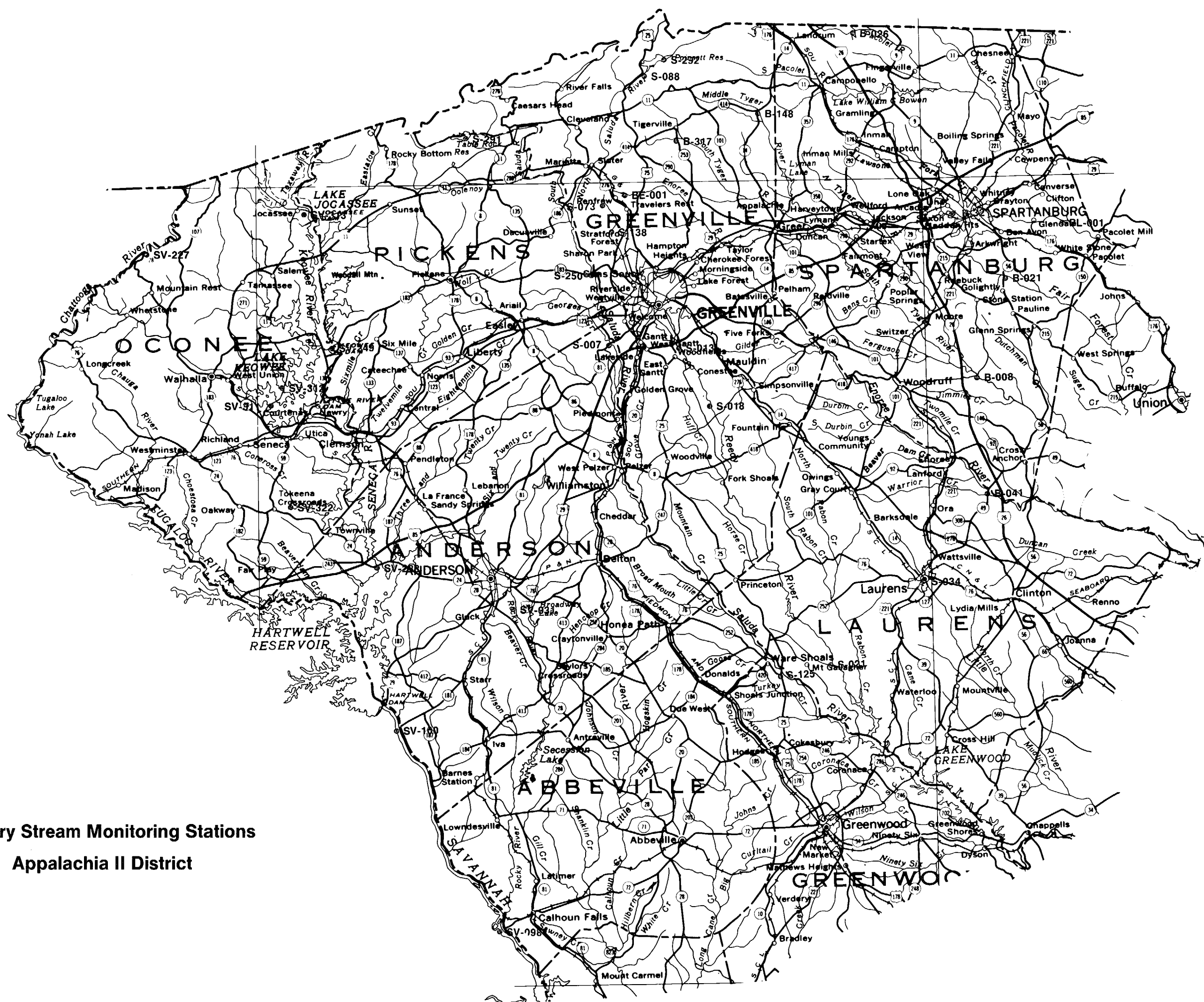
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STREAM STATIONS FOR GREENVILLE - SECONDARY
APPALACHIA II DISTRICT

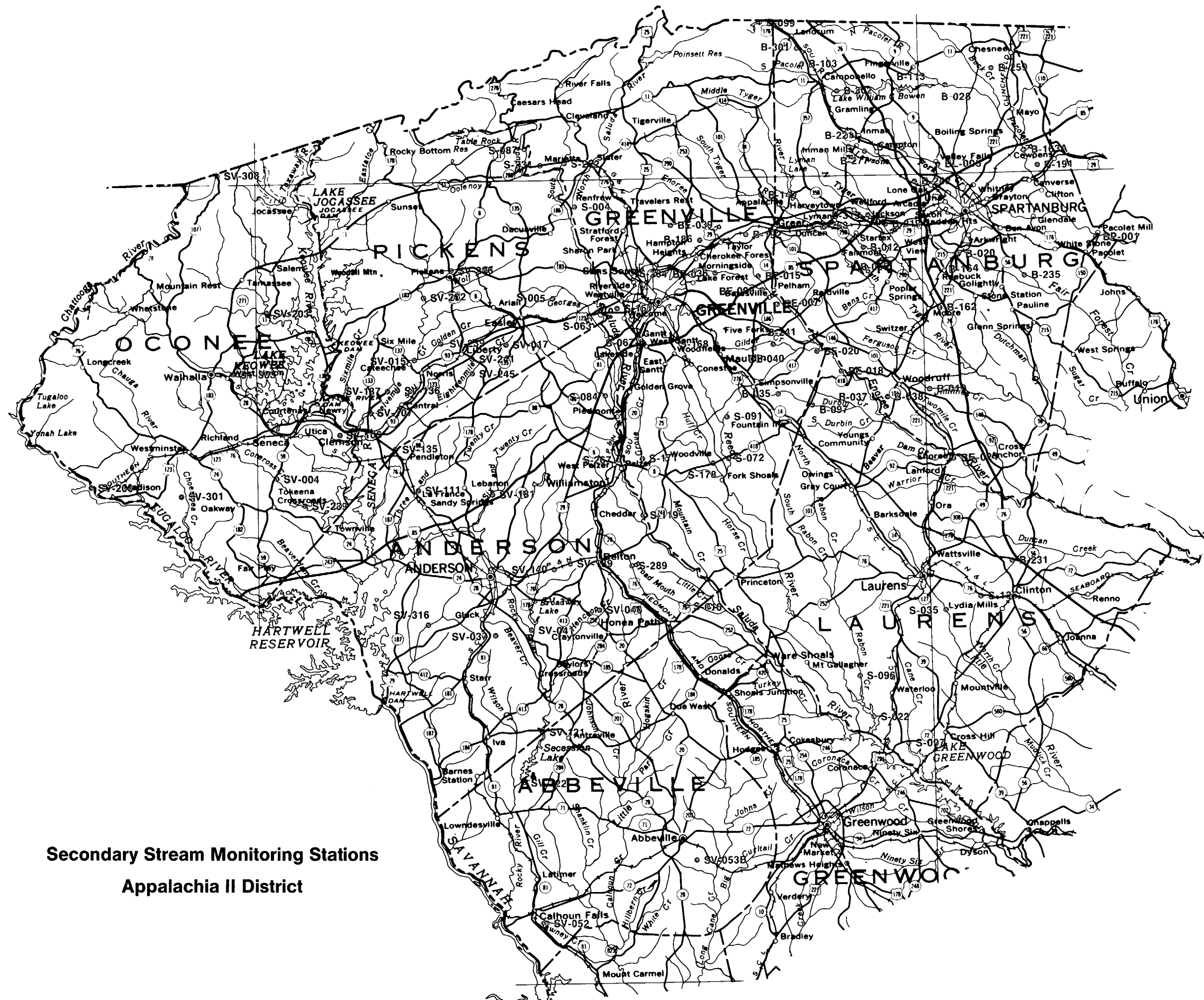
Station	Description	Criteria	Basin
B-005	SOUTH TYGER RVR AT S-42-63	10	0866
B-012	MIDDLE TYGER RVR AT S-42-63	6	0866
B-019	JIMMIES CK AT S-42-201 2 MI E OF WOODRUFF	10	0866
B-020	FAIRFOREST CK AT US 221 S OF SPARTANBURG	6	0864
B-028	PACOLET RVR AT S-42-55 BL JCT OF N & S PACOLET R	4	0868
B-035	BIG DURBIN CK ON S-42-160 3 MI E OF SIMPSONVILLE	10	0862
B-037	ENOREE RVR AT S-42-118 SW OF WOODRUFF	7	0862
B-038	MILL CK AT S-42-118 1 1/4 MI SW WOODRUFF	10	0862
B-097	DURBIN CREEK AT SC 418	10	0862
B-099A	ON # 1 INLET LK LANIER IN GREENVILLE CO	8	0868
B-099B	AT DAM LK LANIER IN GREENVILLE CO	8	0868
B-103	SPIVEY CK AT S-42-208 2.5 MI SSE OF LANDRUM	10	0868
B-113	RT BK OF DAM AT BOWEN LK ON RD S-42-213 NE OF INMAN	8	0868
B-149	S TYGER RVR AT SC 14 2.9 MI NNW OF GREER	8,12	0866
B-162	TYGER RVR AT US 221 7.6 MI NNE OF WOODRUFF	4	0866
B-163A	PACOLET RVR AT BRDG ON S-42-757 2.9 MI NW OF COWPENS	6,10	0868
B-164	FAIRFOREST CK AT S-42-651 3.5 MI SSE OF SPARTANBURG	6,10	0864
B-186	MOUNTAIN CK AT S-23-335	6	0862
B-191	POTTER BR ON RD 30 BL OUTFALL FROM HOUSING PROJ COWPENS	10	0868
B-192	PRINCESS CREEK AT COUNTY ROAD 540	6	0862
B-219	N TYGER RVR AT US 29 7.2 MI W OF SPARTANBURG	5	0866
B-221	LAWSONS FK CK AT S-42-40 BL INMAN MILL EFF	6	0868
B-231	BEARDS CK AT US 276 3.7 MI NNE OF CLINTON	6,10	0860
B-235	KELSEY CK AT S-42-321	6	0864
B-241	GILDERS CK AT S-23-142 2.75 MI ENE OF MAULDIN	10	0862
B-242	TRIB TO FAIRFOREST CK 50 FT AB S-42-65 4 MI NW OF SPARTANBURG	6	0862
B-259	LITTLE BUCK CK AT UN# CO RD 2.3 MI SW OF CHESNEE	6,10	0868
B-263	S TYGER RVR AT SC 290 3.7 MI E OF GREER	10	0866
B-277	LAWSONS FORK CK AT S-42-218 2.7 MI SSE OF INMAN	5,10	0868
B-278	LAWSONS FORK CK AT UN# RD BL MILLIKEN CHEM	6	0868

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Primary Stream Monitoring Stations
Appalachia II District



Secondary Stream Monitoring Stations
Appalachia II District

STREAM STATIONS FOR GREENVILLE - SECONDARY
APPALACHIA II DISTRICT

Station	Description	Criteria	Basin
B-301	PAGE CK AT S-42-1258 1.7 MI SE LANDRUM	10	0868
B-302	HEADWTR OF BOWEN LK AT S-42-866 1 MI SE CAMPOBELLO	6,8	0868
B-315	TRIB TO N TYGER RVR AT UN# RD BL JACKSON #2 EFF	6	0866
BE-007	ROCKY CK AT BRDG IN BATESVILLE 1 MI AB JCT WITH ENOREE	6,10	0862
BE-009	BRUSHY CK AT S-23-164	10,11	0862
BE-015	ENOREE RVR AT CO RD 164	6,10	0862
BE-018	ENOREE RVR AT SC 75	6,10	0862
BE-020	HORSE PEN CK AT BRDG 1/4 MI AB JCT WITH ENOREE RVR ON RD 143	10	0862
BE-024	ENOREE RVR AT US 221	10	0862
BE-035	BRUSHY CK AT HOWELL RD (UN#) APPROX 5 MI NE OF GREENVILLE	7	0862
BE-039	BEAVERDAM CK AT RD 1967	10	0862
BE-040	GILDER CK AT SC 14-AB GILDER CK PT	6,10	0862
BL-005	LAWSON'S FORK CK AT S-42-79 AT VALLEY FALLS	6	0868
BP-001	PACOLET RVR AB DAM AT PACOLET MILLS	6,10	0868
S-004	N SALUDA RVR AT BRDG AB JCT WITH SALUDA RVR E OF SC 186	14	0847
S-005	BR OF GEORGES CK AT S-39-192, 2.6 MI NE EASLEY	10	0847
S-010	BROAD MOUTH CK AT US 76	10	0847
S-022	REEDY FORK OF LK GREENWOOD AT S-30-29	8	0844
S-035	LITTLE RVR AT S-30-37 SE OF LAURENS	6,10	0842
S-063	GEORGES CK AT US 123A - EASLEY	6,10	0847
S-067	BRUSHY CK ON GREEN ST EXT BL DUNEAN MILL ON SC 20	6	0846
S-072	REEDY RVR ON HWY 418 AT FORK SHOALS	7	0846
S-084	BRUSHY CK AT S-04-52 8.3 MI N WILLIAMSTON	10	0847
S-087	SOUTH SALUDA RIVER AT CO RD 101	14,17	0848
S-091	ROCK CK AT S-23-453 3.5 MI SW OF SIMPSONVILLE	10	0846
S-096	RABON CK AT S-30-54 8.8 MI NW CROSS HILL	14,17	0844
S-097	CANE CK AT SC 72 3.1 MI SW CROSS HILL	8,14	0844
S-119	SALUDA RVR AT S-04-178 3.2 MI SE WILLIAMSTON	10	0847
S-135	NORTH CK AT JCT WITH US 76 2.8 MI W OF CLINTON	7	0842
S-161	TRIB TO SALUDA RVR ON DURHAM ST BL CAROLINA PLATING	6	0847
S-168	LAUREL CK AT US 276 BELOW FIBER IND	6	0846
S-171	GROVE CK AT UN# RD BELOW J P STEVENS ESTES PLANT	6	0847
S-178	HUFF CK AT SC 418 1.6 MI NW FORK SHOALS	6	0846
S-231	SPAIN CK AT SC 288 BELOW GAYLEY MILLS	6	0848
S-252	MIDDLE SALUDA RVR AT SC 288 2.3 MI WSW SLATER	11,14	0848
S-264	LANGSTON CK AT SC 253	6	0846
S-267	TRIB TO SALUDA RVR 350 FT BL W PELZER STP ON S-23-53	10	0847
S-289	BROAD MOUTH CK AT S-04-267 - BL BELTONS MARSHALL PLANT	10	0847
SV-004	CONEROSS CK AT SC 59	10	1312

STREAM STATIONS FOR GREENVILLE - SECONDARY
APPALACHIA II DISTRICT

Station	Description	Criteria	Basin
SV-015	TWELVE MI CK AT S-39-51 N OF NORRIS	15	1312
SV-017	18 MI CK AT UNNUMBERED CO RD 2.25 MI SSW OF EASLEY	10	1312
SV-037	BETSY CK AT S-04-259 BL FIBERGLAS OUTFALL	6	1310
SV-041	ROCKY RVR AT S-04-152 BL ROCKY RVR STP	10	1310
SV-043	CHEROKEE CK AT S-04-318 4 MI S OF BELTON	10	1310
SV-052	SAWNEY CK AT CO RD 1.5 MI SE OF CALHOUN FALLS	10	1308
SV-053B	BLUE HILL CK ON S MAIN ST ABBEVILLE	6	1308
SV-106	MARTIN CK AT S-37-65 N OF CLEMSON	8,10	1312
SV-107	TWELVE MI CK AT SC 133	6,8	1312
SV-111	THREE & TWENTY CREEK AT CO RD 280	6	1312
SV-135	18 MI CK AT S-39-93 SW OF CENTRAL	6,10	1312
SV-136	FIRST CK AFTER LEAVING CENTRAL AT CLVT ON MAW BRDG RD	10	1312
SV-137	12 MI CK AT S-39-337	6	1312
SV-139	CUPBOARD CK AB BREAZEALE ST PLANT & BL BLAIR HILL AT S-04-733	6	1310
SV-140	CUPBOARD CK AT S-04-209 BL EFF FROM BELTON 2 PLANT	6,10	1310
SV-141	BROADWAY CK AT US 76 BTWN ANDERSON & BELTON	14	1310
SV-181	6 & 20 CK AT S-41-29 8.2 MI SE OF PENDLETON	14	1312
SV-200	TUGALOO RVR AT US 123 7.0 MI SW OF WESTMINSTER	3,8	1312
SV-203	LITTLE RVR AT S-37-24 7.1 MI NE OF WALHALLA	17	1314
SV-206	N FORK 12 MI CK AT US 178 2.9 MI N OF PICKENS	9	1312
SV-236	H'WELL RESERVOIR AT S-37-184 6.5 MI SSE OF SENECA	8	1312
SV-239	GOLDEN CK AT S-37-222 1.2 MI NW OF LIBERTY	10	1312
SV-241	WOODSIDE BR AT US 123 1.5 MI E OF LIBERTY	10	1312
SV-245	18 MI CK AT S-39-27 3.3 MI S OF LIBERTY	6,10	1312
SV-282	12 MI CK AT S-39-273 2.8 MI SSW OF PICKENS	6,10	1312
SV-301	NORRIS CK AT S-37-435 1 MI S OF WESTMINSTER	10	1312
SV-303	LK KEOWEE AT HEADWTR AT END OF S-37-202 1.5 MI SE OF W UNION	10	1314
SV-308	E FK OF CHATTOOGA RVR AT SC 107 2 MI S OF ST LINE	3	1312
SV-316	BIG GENEROSTEE CK AT CO RD 104	10	1310

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| 8 = Major lake | 16 = Basic Water Monitoring Program |
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STREAM STATIONS FOR LANCASTER - PRIMARY
CATAWBA DISTRICT

Station	Description	Criteria	Basin
B-042	BROAD RVR AT SC 18 4 MI NE GAFFNEY	1	0856
B-044	BROAD RVR AT SC 211 12 MI SE OF GAFFNEY	2	0856
B-046	BROAD RVR AT SC 72/215/121 3 MI E OF CARLISLE	2,16	0854
B-048	PACOLET RVR AT SC 105 6 MI AB JCT WITH BROAD RVR	2,11	0868
B-051	TYGER RVR AT SC 72 5.5 MI SW OF CARLISLE	2	0864
CW-002	ROCKY CK AT S-12-335 3.5 MI E OF CHESTER	6,10	0832
CW-008	FISHING CK AT SC 223 NE RICHBURG	7	0832
CW-013	SUGAR CK AT SC 160 E OF FORT MILL	7	0836
CW-016	CATAWBA RVR AT SC 9 AT FT LAWN	2,16	0834
CW-016F	FISHING CK RES 2 MI BL CANE CREEK	5,8	0832
CW-023	CROWDERS CK AT S-46-564 NE CLOVER	7	0836
CW-029	FISHING CK AT SC 49 NE YORK	1,5,6	0832
CW-041	CATAWBA RVR AT SC 5 AB BOWATER	1,2,5	0836
CW-057	FISHING CK RES 75 FT AB DAM NR GREAT FALLS	5,8	0832
CW-152	CROWDERS CK AT US 321 0.5 MI N OF NC ST LINE	6	0836
CW-176	SIX MILE CREEK AT S-29-54	17	0836
CW-197	LAKE WYLIE AB MILL CK ARM AT END OF S-46-557	1,8	0836
CW-198	LAKE WYLIE AT CROWDERS CK ARM	8	0836
CW-201	LY WYLIE N LAKEWOODS S/D AT EBENEZER ACCESS	8	0836
CW-226	MCALPINE CREEK AT US 521, NC	10	0836
PD-004	BLACK CK AT S-13-43 1 MI NE NICEY GROVE	1	0725
PD-006	LITTLE LYNCHES RVR AT US 601 2 MI NE KERSHAW	1	0732
PD-080	LYNCHES RVR AT S-28-15 4.5 MI SE BETHUNE	1,4	0730
PD-113	LYNCHES RVR AT SC 9 W OF PAGELAND	1	0734
PD-327	LK ROBINSON AT S-13-346 5 MI E MCBEE	7	0725

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STREAM STATIONS FOR LANCASTER - SECONDARY
CATAWBA DISTRICT

Station	Description	Criteria	Basin
B-056	CHEROKEE CK AT US 29 3 MI E OF GAFFNEY	10	0856
B-057	BUFFALO CK AT SC 5 1 MI W OF BLACKSBURG	5	0856
B-059	IRENE (BEAVERDAM) CK AT S-21-307 2.5 MI W OF GAFFNEY	10	0856
B-062	THICKETTY CK AT SC 211 2 MI AB JCT WITH BROAD RVR	10,11	0856
B-064	MENG CK AT SC 49 2.5 MI E OF UNION	10	0854
B-067A	TOSCH'S CK AT US 176 2 MI SW OF UNION	10	0864
B-067B	TOSCH CK AT RD TO SEWAGE PT OFF HWY S-42-92 SW OF UNION	9	0864
B-074	DRY FORK CK AT S-12-304 2 MI SW OF CHESTER	10	0854
B-075	SANDY RVR AT SC 215 2.5 MI AB JCT WITH BROAD RVR	17	0854
B-086	ROSS BR TO TURKEY CK AT SC 49 SW OF YORK	10	0854
B-088	CANOE CK AT S-11-245 1/2 MI W OF BLACKSBURG	10	0856
B-095	THICKETTY CREEK AT S-11-165	6	0856
B-100	FURNACE CK AT S-11-50 6 MI E OF GAFFNEY	10	0856
B-119	BUFFALO CREEK AT S-11-213, 2.2 MI NNW OF BLACKSBURG	15	0856
B-128	LIMESTONE MILL CK AT RD CONNECTING US 29 & SC 1	10	0856
B-133	THICKETTY CK AT SC 18 8.3 MI S OF GAFFNEY	10	0856
B-159	BULLOCKS CK AT SC 97 4.8 MI S OF HICKORY GROVE	17	0856
B-199	MITCHEL CK AT CO RD 233 2.3 MI SSW OF JONESVILLE	10	0864
B-211	PEOPLES CK AT UNIMPROVED RD 2.3 MI E OF GAFFNEY	9	0856
B-243	TRIB TO BROWNS CK AT CLVT ON CO RD 384 3 MI E OF UNION	17	0856
B-286	TINKER CK AT RD TO STP 1.3 MI SSE OF UNION	9	0864
B-287	TINKER CK AT UN# CO RD 1.7 MI SSE OF UNION	10	0864
B-323	DOOLITTLE CK AT S-11-100 1.25 MI SE OF BLACKSBURG	10	0856
B-325	CK INTO CRAWFORD LK ON UN# RD NEAR SC 161 & 705-KINGS MT	9	0856
B-326	LONG BR CK ON SC 216 BL KINGS MTN PK REC AREA	10	0856
B-330	GUYON MOORE CREEK AT S-46-223	6	0856
BF-007	FAIRFOREST CK ON CO RD 12 SW OF JONESVILLE	6	0864
BF-008	FAIRFOREST CK AT CO RD 16 SW OF UNION	6,10	0864
CW-006	WILDCAT CK AT S-46-650	10	0832
CW-009	STEEL CK AT S-46-22 N OF FORT MILL	7	0836
CW-011	STEEL CK AT S-46-270	10	0836

Station Selection Criteria

- | | |
|-------------------------------------|-------------------------------------|
| 1 = Influent to segment (sub-basin) | 9 = Above major municipal area |
| 2 = Effluent to segment | 10 = Below major municipal area |
| 3 = Major streams at state lines | 11 = Mouth of major tributary |
| 4 = Confluence of major streams | 12 = Major water use area |
| 5 = Above a major industrial area | 13 = Above major land use area |
| 6 = Below a major industrial area | 14 = Below major land use area |
| 7 = Water Quality limited area | 15 = Above a water intake |
| 8 = Major lake | 16 = Basic Water Monitoring Program |
| | 17 = Other |

STREAM STATIONS FOR LANCASTER - SECONDARY
CATAWBA DISTRICT

Station	Description	Criteria	Basin
CW-017	CANE CK AT S-29-50	6,7	0834
CW-019	WATEREE RVR AT US 1	10	0828
CW-027	LK WYLIE AT SC 49 AND SC 274	8	0836
CW-036	SUGAR CREEK AT S-46-36	6,10	0836
CW-047	GILLS CK AT US 521 NNW OF LANCASTER	7	0834
CW-064	MCALPINE CK AT S-29-64	10	0836
CW-080	25 MI CK AT S-28-05 3.7 MI W OF CAMDEN	10	0828
CW-083	12 MI CK AT S-29-55 0.3 MI NW OF VAN WYCK	6	0836
CW-088	GRASSY RUN BR AT SC 72 1.6 MI NE CHESTER	9	0832
CW-096	WILDCAT CK AT S-46-998 9 MI ENE OF MCCONNELLS	10	0832
CW-105	BROWN CK AT UNIMP RD 1.2 MI N OF CLOVER BL PLT	10	0836
CW-131	BEAR CK AT S-29-292 1.6 MI W OF LANCASTER	7	0834
CW-134	CALABASH BR AT S-46-414 2.5 MI SE OF CLOVER	10	0836
CW-151	BEAR CK AT S-29-362 3.5 MI SE OF LANCASTER	5	0834
CW-153	BEAVER DAM CK AT S-46-152 8 MI E OF CLOVER	6	0836
CW-154	KELLY CK AT S-28-367 2.9 MI SE OF ELGIN	5	0826
CW-155	SPEARS CK AT SC 12 3.6 MI SE OF ELGIN	6	0826
CW-171	ALLISON CK AT US 321 3.1 MI S OF CLOVER	6,10	0836
CW-174	CATAWBA RVR AT UNIMP RD AB JCT WITH ROCKY CK	6	0832
CW-175	ROCKY CK AT S-12-141 SE OF GREAT FALLS	12	0832
CW-185	CANE CK AT SC 200 5 MI NNE OF LANCASTER	7	0834
CW-192	CROWDERS CK AT S-46-79 4.5 MI NW OF CLOVER	7	0836
CW-200	LK WYLIE AT SC 274 9 MI NE OF YORK	8	0836
CW-212	TOOLS FORK CK AT S-46-195 7 MI NW OF ROCK HILL	7	0832
CW-213	BIG PINE TREE CK AT I-20	6	0828
CW-214	WATEREE RVR AT I-20	6	0828
CW-221	UNNAMED TRIB TO CATAWBA RVR AT HWY 161 0.4 MI W OF I-77	10	0836
CW-223	LITTLE PINE TREE CREEK AT S-28-132	15	0828
CW-224	FISHING CREEK AT S-46-163	6	0832
CW-225	FISHING CREEK AT S-46-503	5	0832
CW-227	NEELY'S CREEK AT 2-46-997	10	0832
PD-005	TODD'S BR AT S-29-564 1.5 MI NE OF KERSHAW	6	0732
PD-009	LYNCHES RVR AT US 1	6	0734
PD-066	LYNCHES RVR AT S-28-42	17	0734
PD-067	FORK CK AT SC 151	6	0734
PD-068	FORK CK AT UN# RD 1.5 MI SW JEFFERSON	6	0734
PD-152	THOMPSON CK AT US 1 2.2 MI SW OF CHERAW	6	0726
PD-179	N BR WILDCAT CK AT S-29-39 1 MI S OF TRADESVILLE	7	0734
PD-180	S BR WILDCAT CK AT S-29-39 2 MI S OF TRADESVILLE	7	0734
PD-215	LITTLE FORK CK AT S-13-265 1.5 MI SW JEFFERSON	10	0734
PD-246	THOMPSON CK AT S-13-243 0.8 MI NE OF CHESTERFIELD	17	0726
PD-247	THOMPSON CK AT SC 9 1.5 MI ESE OF CHESTERFIELD	10	0726
PD-250	TRIB TO BIG BLACK CK AT S-13-54 SE PAGELAND	10	0725
PD-333	HILLS CREEK AT S-13-105	6	0734
PD-334	MINE BRANCH AT S-29-188	6	0732
PD-335	LITTLE LYNCHES CREEK AT S-29-95	10	0732
PD-328	TRIB TO HANGING ROCK CK OFF S-29-84 1.6 MI S OF KERSHAW	10	0732
PD-329	TRIB TO HANGING ROCK CK AT S-29-13 ABOVE KERSHAW PT	9	0732

APPENDIX B

PRIMARY AND SECONDARY STATIONS LISTED BY REGION
SHOWING INDIVIDUAL PARAMETER COVERAGE

Sample Stations: Aiken

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
CSTL-001B	M	M	M				M					M		M		M									M			
CSTL-003	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
CSTL-005	M	M	M				M					M		M		M									M			
CSTL-012	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
CSTL-028	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
CSTL-037	M	M	M				M					M		M		M									M			
E-001	M	M	M				M					M		M		M									M			
E-002	M	M	M				M					M		M		M									M			
E-007	M	M	M				M					M		M		M									M			
E-007A	M	M	M				M					M		M		M									M		A	
E-007B	M	M	M				M					M		M		M									M			
E-007C	M	M	M				M					M		M		M									M			
E-008	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
E-012	M	M	M				M					M		M		M									M			
E-013	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and
Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical
oxygen demand

Sample Stations: Aiken

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
E-019	M	M	M				M					M		M		M									M			
E-022	M	M	M				M					M		M		M									M			
E-036	M	M	M				M					M		M		M									M			
E-051	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M		
E-059	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A	
E-076	M	M	M				M					M		M		M									M		A	
E-090	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M	A	
E-091	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A	
E-092	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M	A	
E-094	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A	
E-099	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M		
S-050	M	M	M				M					M	M	M	M	M									M		A	
S-092	M	M	M				M					M		M		M									M			
S-093	M	M	M				M					M		M		M						A			M		A	
S-123	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and
Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical
oxygen demand

Sample Stations: Aiken

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
S-131	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	
S-186	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
S-233	M	M	M				M				A	M		M		M					A				M		A	
S-235	M	M	M				M					M		M		M									M			
S-255	M	M	M				M					M		M		M									M			
S-295	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M			
ST-025	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	
SV-068	M	M	M				M					M		M		M									M			
SV-069	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
SV-071	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
SV-072	M	M	M				M				A	M		M		M									M		A	
SV-073	M	M	M				M				A	M		M		M									M		A	
SV-096	M	M	M				M				A	M		M		M									M		A	
SV-118	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
SV-151	M	M	M				M					M		M		M									M			

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

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Sed = sediment (routine)

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Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Aiken

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*		
SV-175	M	M	M				M				A	M		M	M										M				
SV-250	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A				M	M	A	
SV-251	M	M	M				M			M	A	M	M	M	M	M	Q			Q	Q					M	M		
SV-252	M	M	M				M			M	A	M	M	M	M	M	Q			Q	Q	A				M	M		
SV-291	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A			M	M	A	A
SV-294	M	M	M				M			M	A	M	M	M	M	M	Q			Q	Q					M	M	A	
SV-318	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A				M	M	A	
SV-323	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A			M	M	A	A
SV-324	M	M	M		M		M			M	A	M	M	M	M	M	Q				Q	A	A			M	M		
SV-325	M	M	M		M		M			M	A	M	M	M	M	M	Q				Q	A	A			M	M		
SV-326	M	M	M		M		M			M	A	M	M	M	M	M	Q				Q	A	A			M	M		
SV-327	M	M	M		M		M			M	A	M	M	M	M	M	Q				Q	A	A			M	M		
SV-328	M	M	M		M		M			M	A	M	M	M	M	M	Q				Q	A	A			M	M		
SV-329	M	M	M				M			M	A	M	M	M	M	M	Q				Q					M	M		
SV-330	M	M	M				M			M	A	M	M	M	M	M	Q				Q					M	M		

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = Total Coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Charleston

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
CSTL-006	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M	A	
CSTL-007	M	M	M				M					M		M		M								M			
CSTL-010	M	M	M				M				A	M		M		M				Q	A			M		A	
CSTL-011	M	M	M				M					M		M		M				Q				M			
CSTL-013	M	M	M				M				A	M		M		M					A			M		A	
CSTL-043	M	M	M				M					M		M		M								M			
CSTL-044	M	M	M				M					M		M		M								M			
CSTL-062	M	M	M				M			M	A	M	M	M	M	Q					Q			M	M	A	
CSTL-063	M	M	M				M			M	A	M	M	M	M	Q	M				Q			M	M	A	
CSTL-068	M	M	M				M					M		M		M								M			
CSTL-069	M	M	M				M					M		M		M								M			
CSTL-075	M	M	M				M					M				M								M			
CSTL-079	M	M	M				M			M	A	M	M	M	M	Q					Q			M	M	A	
CSTL-085	M	M	M				M				A	M		M		M					A			M		A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Charleston

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
CSTL-098	M	M	M	M	M	M	M			M	A	M	M	M	M	M	M				Q	A	A	M	M	M	A	A
CSTL-099	M	M	M				M					M		M		M									M			
CSTL-102	M	M	M				M					M		M		M									M			
CSTL-107	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q			M	M	M	A	
CSTL-108	M	M	M				M					M				M				Q					M			
CSTL-109	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
E-014	M	M	M				M					M		M		M									M			
E-015	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	
E-016	M	M	M				M					M		M		M									M			
E-100	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	
MD-001	M	M	M	M	M		M					M		M		M									M			
MD-002	M	M	M	M	M		M					M		M		M									M			
MD-003	M	M	M	M	M		M					M		M		M									M			
MD-004	M	M	M	M	M		M				A	M		M		M					A			M	M		A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Charleston

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
MD-005	M	M	M	M	M		M					M		M		M							M	M			
MD-006	M	M	M	M	M		M					M		M		M							M	M		A	
MD-007	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q			M	M	M	A	
MD-010	M	M	M	M	M		M					M		M		M					A		M	M		A	
MD-013	M	M	M	M	M		M					M		M		M							M	M			
MD-016	M	M	M	M	M		M					M		M		M							M	M			
MD-020	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M		
MD-025	M	M	M	M	M		M					M		M		M							M	M			
MD-026	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q			M	M	M	A	
MD-034	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M		
MD-039	M	M	M	M	M		M					M		M		M									M		
MD-043	M	M	M	M	M		M	M		M	A	M	M	M	M	M	Q			Q					M		A
MD-044	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M		
MD-045	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M		A

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Charleston

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
MD-046	M	M	M	M	M		M			M	A	M	M	M	M	M	Q	M		Q					M			
MD-047	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M			
MD-048	M	M	M	M	M	M	M		M	M	A	M	M	M	M	M	M			Q	A	A			M		A	A
MD-049	M	M	M	M	M		M			M	A	M	M	M	M	M	Q	M		Q					M	M		
MD-052	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M		A	
MD-069	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q				M	M			
MD-070	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M			
MD-071	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M	M		
MD-113	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M	M		
MD-114	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M	M		
MD-115	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M	M	A	
MD-116	M	M	M	M	M		M					M		M		M						A		M	M		A	
MD-117	M	M	M	M	M		M					M		M		M								M	M			
MD-118	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q					M	M	A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

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BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Charleston

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
MD-119	M	M	M	M	M		M		M	A	M	M	M	M	M	M	Q	M		Q			M	M	M	A	
MD-120	M	M	M	M	M		M		M	A	M	M	M	M	M	M	Q			Q			M	M	M	A	
MD-128	M	M	M	M	M		M				M		M		M									M			
MD-135	M	M	M	M	M		M				M		M		M									M			
MD-152	M	M	M	M	M		M	M		M	A	M	M	M	M	M	Q			Q				M		A	
MD-165	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q				M			
MD-172	M	M	M	M	M		M					M		M		M							M	M			
MD-175	M	M	M	M	M		M					M		M		M							M	M			
MD-176	M	M	M	M	M		M					M		M		M							M	M			
MD-194	M	M	M	M	M		M					M		M		M							M	M			
MD-195	M	M	M	M	M		M			M	A	M	M	M	M	M	Q	M			Q			M	M	M	A
MD-198	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q				M			
MD-202	M	M	M	M	M		M			M	A	M	M	M	M	M	Q			Q			M	M	M	A	
MD-206	M	M	M	M	M		M					M		M		M					A		M	M		A	

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Condt = conductivity

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Sample Stations: Charleston

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
MD-207	M	M	M	M	M		M					M		M		M								M	M			
MD-208	M	M	M	M	M		M					M		M		M								M	M			
MD-209	M	M	M	M	M		M					M		M		M								M	M		A	
MD-210	M	M	M	M	M		M					M		M		M					A			M	M		A	
MD-211	M	M	M	M	M		M					M		M		M								M	M			
MD-217	M	M	M	M	M		M			M	A	M	M	M	M	M	Q	M			Q				M			
MD-240	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q	A	A		M			
MD-241	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q			M	M	M	A	
MD-242	M	M	M	M	M		M					M		M		M								M	M			
ST-001	M	M	M		M	M	M			M	A	M	M	M	M	M	M	M			Q	A	A		M		A	A
ST-005	M	M	M	M	M		M					M		M		M								M	M			
ST-006	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q				M	M	A	
ST-007	M	M	M				M				A	M		M		M				Q	A				M		A	
ST-016	M	M	M				M		M	M	A	M	M	M	M	M	Q				Q				M	M	A	
SV-191	M	M	M				M			M	A	M	M	M	M	M	Q	M		Q	Q	A			M	M	A	

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Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

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BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Columbia

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
B-047	M	M	M				M					M		M		M									M			
B-054	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
B-072	M	M	M				M					M		M		M									M			
B-077	M	M	M				M				A	M		M		M					A				M		A	
B-080	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
B-110	M	M	M				M					M		M		M									M			
B-123	M	M	M				M					M		M		M									M			
B-145	M	M	M				M					M		M		M									M			
B-236	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
B-280	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
B-316	M	M	M				M				A	M		M		M					A				M		A	
B-327	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M			
B-328	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M			
C-001	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
C-005	M	M	M				M					M		M		M									M			

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

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Salt = salinity

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Other = other organics

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Sample Stations: Columbia

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
C-007	M	M	M		M	M	M			M	A	M	M	M	M	M					Q	A	A		M	M	A	A
C-008	M	M	M				M			M	A	M	M	M	M	Q					Q				M	M		
C-017	M	M	M				M			M	A	M	M	M	M	Q					Q				M	M		
C-021	M	M	M				M					M		M	M										M			
C-022	M	M	M				M					M		M	M										M			
C-025	M	M	M				M					M		M	M										M			
C-048	M	M	M				M					M		M	M										M			
C-058	M	M	M				M					M		M	M										M			
C-061	M	M	M				M					M		M	M										M			
C-063	M	M	M				M					M		M	M										M			
C-066	M	M	M				M					M		M	M										M			
C-067	M	M	M				M					M		M	M										M			
C-068	M	M	M				M	M		M	A	M	M	M	M	Q					Q	A	A	M	M			
C-069	M	M	M				M					M		M	M										M			

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*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
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NH₃ NH₄ = ammonia
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Sample Stations: Columbia

Station No.	Temp	DO	pH	Salt	Cond	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
CSB-001L	M	M	M		M	M	M			M	A	M	M	M	M	M				Q	A	A		M	M	A	A
CSB-001R	M	M	M		M	M	M			M	A	M	M	M	M	M				Q	A	A		M	M	A	
CW-040	M	M	M				M				A	M		M		M								M			
CW-206	M	M	M		M	M	M			M	A	M	M	M	M	M				Q	A	A		M	M	A	
CW-207	M	M	M				M		M	M	A	M	M	M	M	Q				Q	A			M		A	
CW-208	M	M	M				M		M	M	A	M	M	M	M	Q				Q				M		A	
CW-209	M	M	M				M		M	M	A	M	M	M	M	Q				Q				M		A	
CW-222	M	M	M		M	M	M	M		M	A	M	M	M	M	M		M		M	A	A		M		A	
E-034	M	M	M				M					M		M		M								M			
E-035	M	M	M				M				A	M		M		M				A				M		A	
E-101	M	M	M				M				A	M		M		M				A	A			M		A	
S-042	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M		
S-044	M	M	M				M					M		M		M								M			
S-099	M	M	M				M					M		M		M								M			
S-102	M	M	M				M					M		M		M								M			

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*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

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Phen = phenols

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Sample Stations: Columbia

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
S-149	M	M	M				M					M		M		M									M		
S-150	M	M	M				M					M		M		M									M		
S-151	M	M	M				M					M		M		M									M		
S-152	M	M	M				M					M		M		M									M		
S-204	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M		A
S-211	M	M	M				M					M		M		M									M		
S-212	M	M	M				M					M		M		M									M		
S-213	M	M	M				M					M		M		M									M		
S-223	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A
S-260	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
S-270	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
S-273	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A
S-274	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A
S-279	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M		A
S-280	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A

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Sample Stations: Columbia

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
S-287	M	M	M				M					M		M		M									M			
S-290	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M		A	
S-294	M	M	M			M	M			M	A	M	M	M	M	M	Q				Q				M	M		

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Sample Stations: Florence

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
MD-073	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q				M			
MD-074	M	M	M	M	M		M					M		M		M									M			
MD-075	M	M	M	M	M		M			M	A	M	M	M	M	M	Q	M			Q				M			
MD-076N	M	M	M	M	M		M					M		M		M									M			
MD-077	M	M	M	M	M		M			-	A	M	M	M	M	M	Q				Q				M			
MD-080	M	M	M	M	M	M	M		M	M	A	M	M	M	M	M	M				Q	A	A		M		A	A
MD-085	M	M	M	M	M		M					M		M		M									M			
MD-087	M	M	M	M	M		M					M		M		M									M			
MD-088	M	M	M	M	M		M					M		M		M									M			
MD-089	M	M	M	M	M		M					M		M		M									M			
MD-091	M	M	M	M	M		M					M		M		M									M			
MD-107	M	M	M	M	M		M					M		M		M									M			
MD-110	M	M	M	M	M		M					M		M		M									M			
MD-111	M	M	M	M	M		M					M		M		M									M			
MD-124	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	

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Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
MD-125	M	M	M	M	M		M					M		M		M								M	M			
MD-127	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q			M	M		A	
MD-136	M	M	M	M	M		M					M		M		M									M			
MD-137	M	M	M	M	M		M					M		M		M									M			
MD-138	M	M	M	M	M		M					M		M		M									M			
MD-146	M	M	M	M	M		M			M	A	M	M	M	M	M	Q	M			Q				M		A	
MD-149	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q				M			
MD-158	M	M	M	M	M		M				A	M		M		M					A				M		A	
MD-162	M	M	M	M	M		M			M	A	M	M	M	M	M	Q				Q			M	M	M	A	
PD-012	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	
PD-014	M	M	M				M					M		M		M									M			
PD-015	M	M	M				M				A	M		M		M					A				M			
PD-016	M	M	M				M					M		M		M									M			
PD-017A	M	M	M				M					M		M		M									M			
PD-021	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Florence

Station No.	Temp	DO	pH	Salt	Cond	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
PD-023	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
PD-025	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
PD-027	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
PD-028	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
PD-029E	M	M	M				M					M		M		M									M			
PD-030	M	M	M				M					M		M		M									M			
PD-030A	M	M	M				M				A	M		M		M					A				M		A	
PD-031	M	M	M				M					M		M		M									M			
PD-035	M	M	M				M					M		M		M									M			
PD-036	M	M	M				M					M		M		M									M			
PD-037	M	M	M				M					M		M		M									M			
PD-038	M	M	M		M	M	M			M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
PD-039	M	M	M				M					M		M		M									M			
PD-041	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
PD-042	M	M	M				M	M		M	A	M		M		M					A				M			

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TSS = total suspended solids

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Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Cond = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

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Alk = alkalinity

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BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Florence

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
PD-043	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
PD-044	M	M	M				M					M		M		M									M			
PD-045	M	M	M				M					M		M		M									M			
PD-052	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
PD-055	M	M	M				M					M		M		M									M			
PD-061	M	M	M		M	M	M			M	A	M	M	M	M	M	M	M			Q	A	A		M	M	A	A
PD-069	M	M	M				M			M	M	M	M	M	M	M	Q				Q				M	M	A	
PD-072	M	M	M				M					M		M		M									M			
PD-076	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
PD-081	M	M	M				M					M		M		M									M		A	
PD-085	M	M	M				M					M		M		M									M			
PD-086A	M	M	M				M					M		M		M									M			
PD-087	M	M	M				M					M		M		M									M			
PD-091	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
PD-097	M	M	M				M				A	M		M		M					A				M		A	

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Volatile Organics

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oxygen demand

Sample Stations: Florence

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
PD-098	M	M	M				M					M		M		M									M		
PD-103	M	M	M				M					M		M		M									M		
PD-106	M	M	M				M					M		M		M									M		
PD-107	M	M	M				M					M		M		M									M		
PD-112	M	M	M				M					M		M		M									M		
PD-115	M	M	M				M					M		M		M									M		
PD-116	M	M	M				M					M		M		M									M		
PD-137	M	M	M				M					M		M		M									M		
PD-141	M	M	M				M					M		M		M									M		
PD-143	M	M	M				M					M		M		M									M		
PD-159	M	M	M				M					M		M		M									M		A
PD-168	M	M	M				M					M		M		M									M		
PD-169	M	M	M				M					M		M		M									M		
PD-170	M	M	M				M			M	A	M	M	M	M	M	Q	M		Q					M	M	A
PD-172	M	M	M				M					M		M		M									M		

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TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
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pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
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Sed = sediment (routine)
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Fecal Coli = fecal coliform
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Sample Stations: Florence

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
PD-176	M	M	M				M					M		M		M									M		
PD-177	M	M	M				M					M		M		M									M		
PD-186	M	M	M				M					M		M		M									M		
PD-187	M	M	M				M					M		M		M									M		
PD-189	M	M	M				M			M	A	M	M	M	M	M	Q	M	Q	Q					M	M	A
PD-190	M	M	M				M					M		M		M									M		
PD-201	M	M	M				M					M		M		M									M		
PD-202	M	M	M		M	M	M			M	A	M	M	M	M	M	M			Q	A	A			M	M	A
PD-203	M	M	M				M					M		M		M									M		
PD-227	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M	A
PD-229	M	M	M				M					M		M		M									M		
PD-230	M	M	M				M					M		M		M									M		
PD-231	M	M	M				M					M		M		M									M		
PD-236	M	M	M				M					M		M		M									M		
PD-239	M	M	M				M					M		M		M									M		

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*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
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Alk = alkalinity
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NH₃ NH₄ = ammonia
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Sample Stations: Florence

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
PD-255	M	M	M				M					M		M		M									M		
PD-256	M	M	M				M				A	M		M		M					A				M		A
PD-258	M	M	M				M					M		M		M									M		
PD-268	M	M	M				M	M				M		M		M									M		
PD-281	M	M	M				M	M		M	A	M	M	M	M	M	Q			Q					M	M	A
PD-306	M	M	M				M					M		M		M									M		
PD-310	M	M	M				M					M		M		M									M		
PD-319	M	M	M				M					M		M		M									M		
PD-320	M	M	M				M					M		M		M									M		
PD-321	M	M	M				M				A	M		M		M					A				M		A
PD-325	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
PD-330	M	M	M				M	M				M		M		M									M		
PD-332	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M	A
ST-018	M	M	M				M					M		M		M									M		
ST-024	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	

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Temp = temperature

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Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
B-005	M	M	M				M					M		M		M									M			
B-008	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
B-012	M	M	M				M					M		M		M									M			
B-019	M	M	M				M					M		M		M									M			
B-020	M	M	M				M					M		M		M									M			
B-021	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
B-026	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	
B-028	M	M	M				M					M		M		M									M			
B-035	M	M	M				M					M		M		M									M			
B-037	M	M	M				M					M		M		M									M			
B-038	M	M	M				M					M		M		M									M			
B-041	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
B-097	M	M	M				M					M		M		M									M			
B-099A	M	M	M				M					M		M		M									M			
B-099B	M	M	M				M					M		M		M									M			

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Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
B-103	M	M	M				M					M		M		M									M		
B-113	M	M	M				M					M		M		M									M		
B-148	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
B-149	M	M	M				M					M		M		M									M		
B-162	M	M	M				M					M		M		M									M		
B-163A	M	M	M				M					M		M		M				M					M		
B-164	M	M	M				M					M		M		M				M					M		
B-186	M	M	M				M					M		M		M									M		
B-191	M	M	M				M					M		M		M									M		
B-192	M	M	M				M				A	M		M		M					A				M		A
B-219	M	M	M				M					M		M		M									M		
B-221	M	M	M				M					M		M		M									M		
B-231	M	M	M				M					M		M		M									M		
B-235	M	M	M				M					M		M		M									M		
B-241	M	M	M				M					M		M		M									M		

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Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
B-242	M	M	M				M					M		M		M									M		
B-259	M	M	M				M					M		M		M									M		
B-263	M	M	M				M					M		M		M									M		
B-277	M	M	M				M					M		M		M									M		
B-278	M	M	M				M					M		M		M									M		
B-301	M	M	M				M					M		M		M									M		
B-302	M	M	M				M					M		M		M									M		A
B-315	M	M	M				M					M		M		M									M		
B-317	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
B-321	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
BE-001	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
BE-007	M	M	M				M					M		M		M									M		
BE-009	M	M	M				M					M		M		M									M		
BE-015	M	M	M				M					M		M		M									M		
BE-018	M	M	M				M					M		M		M									M		

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Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
BE-020	M	M	M				M					M		M		M									M		
BE-024	M	M	M				M					M		M		M									M		
BE-035	M	M	M				M					M		M		M									M		
BE-039	M	M	M				M					M		M		M									M		
BE-040	M	M	M				M					M		M		M									M		
BL-001	M	M	M		M	M	M			M	A	M	M	M	M	M	M			Q	A	A			M	M	A
BL-005	M	M	M				M					M		M		M									M		
BP-001	M	M	M				M					M		M		M									M		
S-004	M	M	M				M					M		M		M									M		
S-005	M	M	M				M					M		M		M									M		
S-007	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M	A
S-010	M	M	M				M					M		M		M									M		
S-013	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
S-018	M	M	M		M	M	M			M	A	M	M	M	M	M	M			Q	A	A			M	M	A
S-021	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M	A

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Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
S-022	M	M	M				M					M		M		M									M		
S-034	M	M	M				M			M	A	M	M	M	M	Q			Q						M	M	
S-035	M	M	M				M					M		M		M									M		
S-063	M	M	M				M					M		M		M									M		
S-067	M	M	M				M					M		M		M									M		
S-072	M	M	M				M					M		M		M									M		
S-073	M	M	M				M			M	A	M	M	M	M	Q			Q						M	M	A
S-084	M	M	M				M					M		M		M									M		
S-087	M	M	M				M					M		M		M									M		
S-088	M	M	M				M			M	A	M	M	M	M	Q			Q						M	M	A
S-091	M	M	M				M					M		M		M									M		
S-096	M	M	M				M					M		M		M									M		
S-097	M	M	M				M					M		M		M									M		
S-119	M	M	M				M					M		M		M									M		
S-125	M	M	M		M	M	M			M	A	M	M	M	M	M				Q	A	A			M	M	A

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
S-135	M	M	M				M					M		M		M									M			
S-138	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
S-161	M	M	M				M				A	M		M		M					A				M			
S-168	M	M	M				M					M		M		M									M			
S-171	M	M	M				M					M		M		M									M			
S-178	M	M	M				M					M		M		M									M			
S-231	M	M	M				M					M		M		M									M			
S-250	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M	A	
S-252	M	M	M				M					M		M		M									M			
S-264	M	M	M				M				A	M		M		M					A				M			
S-267	M	M	M				M					M		M		M									M			
S-289	M	M	M				M					M		M		M									M			
S-291	M	M	M				M		M	M	A	M	M	M	M	M	Q				Q	A	A	M	M			
S-292	M	M	M				M		M	M	A	M	M	M	M	M	Q				Q	A	A	M	M			
S-296	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M			

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and
Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical
oxygen demand

Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Cond	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
SV-004	M	M	M				M					M		M		M									M			
SV-015	M	M	M				M					M		M		M						Q			M		A	
SV-017	M	M	M				M					M		M		M									M			
SV-031	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
SV-037	M	M	M				M				A	M		M		M					A		A		M		A	A
SV-041	M	M	M				M					M		M		M									M			
SV-043	M	M	M				M					M		M		M									M			
SV-052	M	M	M				M					M		M		M									M			
SV-053B	M	M	M				M					M		M		M									M			
SV-098	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	
SV-100	M	M	M				M			M	A	M	M	M	M	M	Q				Q				M	M		
SV-106	M	M	M				M					M		M		M									M			
SV-107	M	M	M				M					M		M		M						Q			M		A	
SV-111	M	M	M				M					M		M		M									M			

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*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Cond = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
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Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
SV-121	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A	A**		M		A	A
SV-122	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A	A**		M		A	A
SV-135	M	M	M				M					M		M		M									M			
SV-136	M	M	M				M					M		M		M									M			
SV-137	M	M	M				M					M		M		M									M		A	
SV-139	M	M	M				M					M		M		M									M			
SV-140	M	M	M				M					M		M		M									M			
SV-141	M	M	M				M					M		M		M									M			
SV-181	M	M	M				M					M		M		M									M			
SV-200	M	M	M				M				A	M		M		M					A				M			
SV-203	M	M	M				M					M		M		M									M			
SV-206	M	M	M				M					M		M		M									M			
SV-227	M	M	M				M			M	A	M	M	M	M	M	Q				Q	A			M	M	A	
SV-230	M	M	M			M	M			M	A	M	M	M	M	M	Q				Q	A			M			

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

**organics listed above plus dioxolane isomers.

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Greenville

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
SV-236	M	M	M				M					M		M		M									M		
SV-239	M	M	M				M					M		M		M									M		
SV-241	M	M	M				M					M		M		M									M		
SV-245	M	M	M				M					M		M		M									M		
SV-249	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
SV-282	M	M	M				M					M		M		M					A				M		A
SV-288	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
SV-301	M	M	M				M					M		M		M									M		
SV-303	M	M	M				M					M		M		M									M		
SV-308	M	M	M				M					M		M		M									M		
SV-311	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
SV-312	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
SV-313	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	
SV-316	M	M	M				M					M		M		M									M		
SV-322	M	M	M				M			M	M	A	M	M	M	M	Q			Q					M		

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
B-042	M	M	M				M			M	A	M	M	M	M	Q				Q	A			M	M	A	
B-044	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M	A	
B-046	M	M	M		M	M	M			M	A	M	M	M	M	M				Q	A	A		M	M	A	A
B-048	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M	A	
B-051	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M	A	
B-056	M	M	M				M					M		M		M								M			
B-057	M	M	M		M	M	M	M		M	A	M	M	M	M	Q	Q	Q	Q	M	Q	Q		M		A	A
B-059	M	M	M				M					M		M		M								M			
B-062	M	M	M				M					M		M		M								M			
B-064	M	M	M				M					M		M		M								M			
B-067A	M	M	M				M					M		M		M								M			
B-067B	M	M	M				M					M		M		M								M			
B-074	M	M	M				M					M		M		M								M			
B-075	M	M	M				M					M		M		M								M			
B-086	M	M	M				M				A	M		M		M					A			M		A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
B-088	M	M	M				M					M		M		M									M			
B-095	M	M	M				M					M		M		M									M			
B-100	M	M	M				M				A	M		M		M					A				M		A	
B-119	M	M	M		M	M	M	M		M	A	M	M	M	M	M	Q	Q	Q		M	Q	Q		M		A	A
B-128	M	M	M				M					M		M		M									M			
B-133	M	M	M				M					M		M		M									M			
B-159	M	M	M				M					M		M		M									M			
B-199	M	M	M				M					M		M		M									M			
B-211	M	M	M				M					M		M		M									M			
B-243	M	M	M				M					M		M		M									M			
B-286	M	M	M				M					M		M		M									M			
B-287	M	M	M				M					M		M		M									M			
B-323	M	M	M				M					M		M		M									M			
B-325	M	M	M				M					M		M		M									M			
B-326	M	M	M				M					M		M		M									M			

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
B-330	M	M	M				M					M		M		M									M		A	
BF-007	M	M	M				M					M		M		M									M			
BF-008	M	M	M				M					M		M		M									M			
CW-002	M	M	M				M			M	A	M	M	M	M	M	Q		Q	Q	A				M	M		
CW-006	M	M	M				M					M		M		M									M			
CW-008	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M	M		
CW-009	M	M	M				M					M		M		M									M			
CW-011	M	M	M				M					M		M		M									M			
CW-013	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M		A	
CW-016	M	M	M		M	M	M	M		M	A	M	M	M	M	M	M				Q	A	A		M	M	A	A
CW-016F	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A	
CW-017	M	M	M				M					M		M		M									M			
CW-019	M	M	M				M				A	M		M		M					A				M		A	
CW-023	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A	A
CW-027	M	M	M				M				A	M		M		M					A				M		A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

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TSS = total suspended solids

Phen = phenols

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Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

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Metals = heavy metals

Fecal Coli = fecal coliform

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BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*	
CW-029	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M		
CW-036	M	M	M				M					M		M		M									M			
CW-041	M	M	M				M	M		M	A	M	M	M	M	M	Q			Q					M	M	A	
CW-047	M	M	M				M					M		M		M									M			
CW-057	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A	
CW-064	M	M	M				M					M		M		M									M			
CW-080	M	M	M				M					M		M		M									M			
CW-083	M	M	M			M	M					M		M		M									M			
CW-088	M	M	M				M					M		M		M									M			
CW-096	M	M	M				M					M		M		M						A	A		M			
CW-105	M	M	M				M					M		M		M									M			
CW-131	M	M	M				M					M		M		M									M			
CW-134	M	M	M				M					M		M		M									M			
CW-151	M	M	M				M					M		M		M									M			
CW-152	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M		A	

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

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Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
CW-153	M	M	M				M					M		M		M									M		
CW-154	M	M	M				M					M		M		M									M		
CW-155	M	M	M				M				A	M		M		M				A					M		A
CW-171	M	M	M				M					M		M		M									M		
CW-174	M	M	M				M					M		M		M									M		
CW-175	M	M	M				M					M		M		M									M		
CW-176	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		
CW-185	M	M	M				M					M		M		M									M		
CW-192	M	M	M				M					M		M		M									M		
CW-197	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M		A
CW-198	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A
CW-200	M	M	M				M					M		M		M									M		
CW-201	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M		A
CW-212	M	M	M				M					M		M		M									M		

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and
Volatile Organics

Temp = temperature
DO = dissolved oxygen
TSS = total suspended solids
Phen = phenols
Pest = pesticides and PCBs
Flow = flow or stage meas.
TKN = total Kjeldhal nitrogen

Salt = salinity
Condt = conductivity
Hard = hardness
Turb = turbidity
Other = other organics
Cl = chlorides
pH = pH

Trans = transparency
Alk = alkalinity
TP = total phosphorus
TOC = total organic carbon
NH₃ NH₄ = ammonia
NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)
Sed Org = sediment organics
Metals = heavy metals
Fecal Coli = fecal coliform
Total Coli = total coliform
BOD₅ = 5-day biochemical
oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
CW-213	M	M	M				M					M		M		M									M		
CW-214	M	M	M				M					M		M		M									M		
CW-221	M	M	M				M					M		M		M									M		
CW-223	M	M	M				M					M		M		M								M	M		
CW-224	M	M	M				M					M		M		M									M		A
CW-225	M	M	M				M					M		M		M									M		A
CW-226	M	M	M				M			M	A	M	M	M	M	M	Q			Q	A				M		A
CW-227	M	M	M				M					M		M		M									M		
PD-004	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
PD-005	M	M	M				M					M		M		M									M		
PD-006	M	M	M				M			M	A	M	M	M	M	M	Q			Q					M	M	A
PD-009	M	M	M				M					M		M		M									M		
PD-066	M	M	M				M				A	M		M		M				A					M		A
PD-067	M	M	M				M					M		M		M									M		
PD-068	M	M	M				M					M		M		M									M		

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

Sample Stations: Lancaster

Station No.	Temp	DO	pH	Salt	Condt	TSS	Turb	Color	Trans	Alkl	Hard	BOD ₅	NH ₃ NH ₄	NO ₂ NO ₃	TKN	TP	TOC	Cl	Phen	Metals	Pest PCBs	Other Org*	Total Coli	Fecal Coli	Flow	Sed	Sed Org*
PD-080	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M	A	
PD-113	M	M	M				M			M	A	M	M	M	M	Q				Q	A			M	M	A	
PD-152	M	M	M				M				A	M		M		M				A				M		A	
PD-179	M	M	M				M					M		M		M								M			
PD-180	M	M	M				M					M		M		M								M			
PD-215	M	M	M				M					M		M		M								M			
PD-246	M	M	M				M					M		M		M								M			
PD-247	M	M	M				M					M		M		M								M			
PD-250	M	M	M				M					M		M		M								M			
PD-327	M	M	M				M			M	A	M	M	M	M	Q				Q				M	M	A	
PD-328	M	M	M				M					M		M		M								M			
PD-329	M	M	M				M					M		M		M								M			
PD-333	M	M	M				M					M		M		M								M			
PD-334**	M	M	M				M				A	M		M		M				Q				M			
PD-335	M	M	M				M					M		M		M								M			

M = monthly, Q = quarterly, A = annually

*Base-Neutral and Acid Extractable, and Volatile Organics

**Monthly for cyanide at this station

Temp = temperature

DO = dissolved oxygen

TSS = total suspended solids

Phen = phenols

Pest = pesticides and PCBs

Flow = flow or stage meas.

TKN = total Kjeldhal nitrogen

Salt = salinity

Condt = conductivity

Hard = hardness

Turb = turbidity

Other = other organics

Cl = chlorides

pH = pH

Trans = transparency

Alk = alkalinity

TP = total phosphorus

TOC = total organic carbon

NH₃ NH₄ = ammonia

NO₂ NO₃ = nitrate-nitrite

Sed = sediment (routine)

Sed Org = sediment organics

Metals = heavy metals

Fecal Coli = fecal coliform

Total Coli = total coliform

BOD₅ = 5-day biochemical oxygen demand

APPENDIX C

TREND BIOLOGICAL MONITORING PROGRAM
STATION DESCRIPTIONS

Fixed-Station Biological Network (70 Stations)

Station Number	Station Status	Description	County
B-046	BWMP*	Broad River at Union Co. Road 389	Union/Chester
B-054	BWMP	Enoree River at Newberry County Road 45	Newberry
B-236	BWMP	Broad River 2 km downstream of SC Hwy 213	Fairfield/Richland
BL-001	BWMP	Lawson's Fork Creek at Spartanburg County Road 108	Spartanburg
C-007	BWMP	Congaree River at US Hwy 601	Richland/Calhoun
CSB-001	BWMP	Congaree River 5 km downstream from US Hwy 176	Richland/Lexington
CSTL-098	BWMP	Combahee River 1 km upstream from US Hwy 17	Colleton/Beaufort
CSTL-109	BWMP	Coosawhatchie River at Hampton County Road 27	Hampton
CW-016	BWMP	Catawba River at SC Hwy 9	Chester/Lancaster
CW-206	BWMP	Wateree River at US Hwy 76 and 378	Richland/Sumter
E-008	BWMP	North Fork Edisto River at Orangeburg County Road 39	Orangeburg
E-015	BWMP	Edisto River at SC Hwy 61	Dorchester/Colleton
E-100	BWMP	Four Holes Swamp at US Hwy 78	Dorchester
MD-048	BWMP	Collected as estuarine station MD-214	Charleston
MD-080	BWMP	Collected as estuarine station MD-213	Georgetown
PD-027	BWMP	Black Creek at Darlington County Road 35	Darlington
PD-028	BWMP	Pee Dee River at SC Hwy 34	Darlington/Marlboro
PD-038	BWMP	Lumber River at US Hwy 76	Marion/Horry
PD-061	BWMP	Pee Dee River at US Hwy 701	Horry/Georgetown

* Basic Water Monitoring Program

Station Number	Station Status	Description	County
D-202	BWMP	Pocotaligo River at SW Bridge of Sumter County Road 32	Sumter
S-018	BWMP	Reedy River at Greenville County Road 448	Greenville
S-125	BWMP	Saluda River at US Hwy 25 by-pass	Laurens
ST-001	BWMP	Santee River at US Hwy 17A	Berkeley
SV-118	BWMP	Savannah River at US Hwy. 301	Allendale
SV-291	BWMP	Clarks Hill Reservoir in Savannah River channel at US Hwy 378 (fish tissue only)	Aiken
SV-323	BWMP	Savannah River 2 km downstream from dam at New Savannah Bluff Lock and Dam	Aiken
CW-214	Special	Wateree River at I-26	Kershaw
CW-222	Special	Wateree River upstream from Little River confluence	Richland
MD-900	Special	Off-shore coastal waters; for pelagic finfish tissue analyses only.	Coastal
ST-507	Special	Lake Marion around Billy Elliott landing immediately downlake of GSX hazardous waste disposal site	Sumter
ST-518	Special	Lake Marion in Otter Flats at northwestern end of lake, uplake from the GSX hazardous waste disposal site	Sumter
ST-519	Special	Lake Marion near the Rimini trestle, downlake from the GSX hazardous waste disposal site	Sumter
ST-030	Special	Lake Marion near Wilson Dam around Wyboo and Potato Creeks	Sumter
SV-531	Special	Langley Pond	Aiken
SV-532	Special	Lake Hartwell near confluence of Seneca River and Eighteen Mile Creek	Pickens

Station Number	Station Status	Description	County
MD-212	Estuarine	Murrells Inlet-100 m south of Marker 23, west bank at mouth of small creek	Georgetown
MD-213	Estuarine	Winyah Bay-off South Island across from lighthouse	Georgetown
MD-214	Estuarine	Charleston Harbor-off north point of Shute's Folly Island	Charleston
MD-215	Estuarine	Broad River-1.5 km south of Archers Creek	Beaufort
MD-216	Estuarine	South Edisto River off northeast shore of Raccoon Island - 500 m southeast of Marker 157	Charleston
MD-538	Estuarine	Campbell Creek - east bank at confluence with Whale Branch	Beaufort
MD-632	Estuarine	May River-south bank 1 km east of Bull Creek	Beaufort
MD-633	Estuarine	Trenchards Inlet - Phillips Island 1.5 km south of mouth of Station Creek	Beaufort
MD-634	Estuarine	St. Helena Sound/Coosaw River-Morgan Island at mouth of Parrot Creek	Beaufort
MD-635	Estuarine	Stono River - Snake Island at confluence of Stono and Kiawah Rivers	Charleston
MD-636	Estuarine	Wando River - south bank 1 km SW of SC Hwy 41 below power line	Charleston
MD-637	Estuarine	North Inlet - east bank of Old Man Creek across from mouth of Bly Creek	Georgetown
MD-638	Estuarine	Little River Inlet - Goat Is. at mouth of Horse Ford Creek	Horry
MD-639	Estuarine	South Santee River - south bank across from southern tip of Drum Island	Charleston
MD-640	Estuarine	Bulls Bay - at mouth of Long Creek, across from Morants Point	Charleston

Station Number	Station Status	Description	County
MD-655	Estuarine	Savannah River - off Oyster Bed Island across from Coast Guard Station	Jasper

APPENDIX D

SHELLFISH STATION DESCRIPTIONS LISTED BY AREA

AREA 1

Station #1	Little River Jetty
Station #2	Mouth of Dunn Sound Creek
Station #3	AIWW - Marker 9
Station #4	Mouth of Calabash Creek at AIWW
Station #5	Big Bend up Dunn Sound
Station #6	Bridge to Waties Island
Station #7	Hog Inlet
Station #8	AIWW - Marker 116
Station #9	AIWW - Marker 6
Station #10	AIWW at U. S. Highway 17
Station #11	Dock - Bird Island, North Carolina
Station #12	Clayton Creek at Little River Inlet
Station #13	Boat Landing - Bonaparte Landing, North Carolina
Station #14	Palmetto Shores Marina Entrance
Station #15	Ocean Drive Outfall and AIWW
Station #16	50 yards north of Ocean Drive Outfall
Station #17	42nd Avenue - Cherry Grove
Station #17A	53rd Avenue Bridge on Canal
Station #18	Dunn Sound at Hog Inlet
Station #19	53rd Avenue at Main Creek
Total	20

AREA 2

Station #1 White Point Swash

Station #2 Singleton Swash

Station #3 Canepatch Swash

Total 3

AREA 3

Station #1	Withers Swash
Station #2	Pebble Beach - Midway Swash
<u>Total</u>	2

AREA 4

Station #1	Main Creek at Atlantic Avenue Bridge
Station #1A	Main Creek at Stanley Drive
Station #2	Main Creek at Mickey Spillane's Home
Station #3	Main Creek at Captain Dick's Marina
Station #4	Main Creek at Marlin Quay Marina
Station #5	Murrells Inlet - Range Marker
Station #6	Allston Creek at Weston Flat
Station #7	Allston Creek POG - Hughes Landing
Station #8	Parsonnage Creek at Nance's Dock
Station #8A	Shell Landing at Huntington Beach State Park
Station #9	Clubhouse Creek at Litchfield Boulevard Bridge
Station #10	Shell Avenue and Pawley's Island Creek
Station #11	North Causeway Bridge at Pawley's Island Creek
Station #12	South Causeway Bridge at Pawley's Island
Station #13	Pawley's Inlet
Station #14	Dock - End of Sportsman Boulevard
Station #15	Midway Inlet
Station #16	Parsonnage Creek at Chicken Farm Ditch
Station #17	Parsonnage Creek at Inlet Port Basin
Station #18	North Boundary of Clambank Flats POG
Station #19	Clubhouse Creek - First bend south of Salt Marsh Cove
Station #21	South Pawley's Island Boat Landing
Station #22	Huntington State Park Pond Outfall
Station #23	Main Creek at Oyster Cove
Station #24	Oaks Creek at First Curve
Total	25

AREA 5

Station #1	Jones Creek at Nancy Creek
Station #2	Noble Slough
Station #3	North Inlet
Station #4	Town Creek at Debidue Creek
Station #5	Oyster Bay near Cut-off Creek
Station #6	No Man's Friend Creek and Mud Bay
Station #7	Jones Creek and Mud Bay
Station #8	Town Creek at Sixty Bass Creek
Station #9	Town Creek at Southern Entrance to Clambank Creek
Station #10	Jones Creek at Duck Creek
Station #11	Town Creek at Bread and Butter Creek
Station #12	Confluence of Old Man Creek and Sea Creek Bay
Station #13	Debidue Creek at Marina
Station #14	Mid Channel Island - Bly Creek
Station #15	Debidue Creek and Cooks Creek
Station #16	Debidue Creek and Bass Hole Bay
Station #20	Winyah Bay Main Channel - Buoy 19A, Range A E
Station #21	Winyah Bay - Buoy 17, Range E
Station #24	Winyah Bay Main Channel - Coast Guard Dock, Range C
Station #25	Western Channel - Tip of Western Channel Island
Total	20

AREA 6A

Station #1	South Santee River at Alligator Creek
Station #2	South Santee Inlet
Station #3	North Santee River at Crow Island and Cane Island
Station #4	North Santee Inlet
Station #5	North Santee River and Mosquito Creek
Station #11	AIWW at Mimim Creek

Total	6
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AREA 6B

Station #6	Alligator Creek and Ocean Inlet
Station #7	Alligator Creek at Marker 26
Station #8	Casino Creek at Marker 29
Station #9	Dupree Creek at Marker 30
Station #10	AIWW at Marker 32
Station #12	Alligator Creek State Shellfish Ground
Station #13	Alligator Creek nearest South Santee River between Markers 24 and 25
Station #14	Horsehead Creek at confluence with Cape Romain Harbor
Station #15	Casino Creek at Cape Romain Harbor
Station #16	Closer Line on Casino Creek
Station #17	Congaree Creek at Tower Creek
Station #18	Confluence of Dupree Creek and Clubhouse Creek

Total	12
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AREA 7

Station #1	Venning Creek - First creek on left past Marker 64 Southbound
Station #1A	Venning Creek - Bulls Bay
Station #2	Graham Creek at Marker 64
Station #2A	Graham Creek and Bulls Bay
Station #3	Awendaw Creek at Marker 57
Station #4	Harbor River at Marker 48
Station #4A	Harbor River - Bulls Bay
Station #5	Tibwin Creek at Marker 42
Station #6	Five Fathom Creek at Marker 20
Station #6A	Five Fathom Creek at Bull River
Station #7	Jeremy Creek - Opposite fire tower
Station #8	Clubhouse Creek - 1/4 mile north of Five Fathom Creek
Station #8A	Oyster Bay at Muddy Bay
Station #9	Doehall Creek - 100 yards north of Marker 46
Station #11	Five Fathom Creek at Marker 11
Station #12	Confluence of Raccoon Creek and Romain River
Station #13	Romain River at confluence of S Creek

Total 17

AREA 8

Station #1	Morgan Creek at northernmost confluence with AIWW
Station #2	Hamlin Sound
Station #3	Dewees Inlet at AIWW - Marker 10
Station #4	Bull Yard Sound - Marker 104
Station #5	Whiteside Creek - Marker 96
Station #6	Mark Bay - Marker 90
Station #7	Price's Inlet
Station #8	AIWW - Marker 82
Station #9	Moore's Landing
Station #10	1000 feet north of Isle of Palms STP outfall in AIWW
Station #11	Isle of Palms STP Outfall at 41st Street
Station #12	Morgan Creek at 41st Street Marina
Station #13	Sewee Bay POG - Sewee Bay at Hickory Bay
Station #14	Dewees Island - 1/4 mile up Horsebend Creek
Station #15	Dewees Island - Mouth of Watermelon Creek

Total 15

AREA 9A

Station #1	Hamlin Creek at AIWW
Station #2	Upper end of Hamlin Creek at POG
Station #3	Upper end of Swinton Creek
Station #5	Shortcut - Swinton Creek
Station #6	Inlet Creek and Gentide Creek
Station #7	Inlet Creek and AIWW
Station #8	Breech Inlet
Station #9	Ben Sawyer Bridge
Station #10	Marker 126 - AIWW at the Cove STP Outfall
Station #11	End of 10th Street at Hamlin Creek
Station #12	Swinton Creek and Hamlin Creek
Station #14	Swinton Creek at AIWW
Station #15	AIWW between Inlet and Swinton Creeks
Station #17	Conch Creek State Shellfish Ground - Mt. Pleasant side
Station #17A	Conch Creek State Shellfish Ground - Sullivan's Island side
Station #18	AIWW adjacent to Wild Dunes Golf Course storm drainage outfall
Station #19	AIWW at 25th Street - Isle of Palms

Total 17

AREA 9B

Station #1	Wando River at Neuell Creek
Station #2	Wando River at Horlbeck Creek
Station #3	Wando River at S.C. Highway 41 Bridge
Station #4	Wando River at Deep Creek
Station #5	Wando River opposite Big Paradise Island
Station #6	Wando River at Paradise Boat Landing
Station #7	Boone Hall Creek opposite County Recreation Area
Station #8	Wando River - Buoy 23
Station #9	Deep Creek - 1 mile from confluence with Wando River
Station #10	Alston Creek STP Outfall
Station #11	Wando River at Guerin Creek
Station #12	Guerin Creek at Old House Creek
Total	12

AREA 10A

Station #1	Overhead Power Cable - Folly Creek
Station #2	Folly Creek Bridge
Station #3	Bowen Island Dock in Folly Creek
Station #4	Backman Creek at Folly Creek
Station #5	King Flats and Folly Creek
Station #6	Opposite Little Island in Folly Creek
Station #7	South boundary of CSZ - Folly Marina
Station #8	Folly River Bridge
Station #9	Last dock north in Folly River
Station #11	Lighthouse Creek and Folly Creek at Rat Island Creek
Station #13	First creek on left in Folly Creek - North of Pollution Line
Station #14	Lighthouse Creek at Pollution Line
Station #15	Secessionville Creek at Private Docks
Station #15A	Folly Creek at Secessionville Pollution Line
Station #16	Clark Sound at Ocean View Flats
Station #16A	Fludd's Creek - Clark Sound
Station #18	Mouth of Schooner Creek
Station #18A	Charleston Harbor at Schooner Creek
Station #19	Just inside Clark Sound from Schooner Creek
Station #20	Backman's Commercial Dock in Backman Creek
Station #22	Folly River State Shellfish Ground - opposite Folly Island
Station #23	Lighthouse Creek SSG - Mouth of First Sister Creek
Station #24	Cole Creek State Shellfish Ground
Station #25	Folly Marina

Total 24

AREA 10B

Station #1	Mouth of Charleston Harbor at Buoy 25
Station #2	200 yards east of mouth of Ft. Johnson Boat Basin
Station #2A	Off the end of James Island Yacht Club Dock
Station #3	Mouth of James Island Creek
Station #4	Ashley River at Buoy 2 - Red Nun Buoy
Station #5	Off the tip of The Battery at White Danger Marker
Station #6	Center of channel off Charleston Yacht Club
Station #7	Off old pier pilings at Castle Pinckney Ruins
Station #8	Center of Charleston Harbor at Buoy 3 - Green Can Buoy
Station #9	Mouth of Shem Creek at Marker 16 - Red
Station #10	Mt. Pleasant channel at Marker 18 - Red
Station #11	AIWW at tip of Sullivan's Island Marker 127 - Green

Total	12
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AREA 11

Station #1	Elliott Cut at Stono River
Station #2	Stono Bridge at S.C. Highway 700
Station #3	Windmill - between Markers 10 and 11 in Stono River
Station #5	Mouth of Abbapoola Creek
Station #6	Up Abbapoola Creek at first large bend
Station #7	Green Creek at Stono River
Station #8	Mouth of Kiawah River
Station #10	Kiawah River at Kiawah Island Boat Landing
Station #11	AIWW - Marker 21A
Station #12	SCL Railroad - Marker 27
Station #15	Stono River - Marker 63
Station #16	Stono River - Marker 54
Station #17	Log Bridge Creek - Marker 51
Station #18	Rantowles Creek at Stono River
Station #19	Middle of Stono Inlet
Station #20	Ashley River at Wappoo Cut
Station #21	On the flats - South Kiawah River
Station #22	Kiawah River POG - Mingo Point
Station #23	Captain Sam's Creek and Kiawah River
Station #24	Captain Sam's Creek at south tip of Long Island
Station #26	Coburg Dairy on Wappoo Creek
Station #27	Stono River at Mouth of creek near Marker 25

Total 22

AREA 12

Station #1	Mouth of Church Creek - Marker 77
Station #2	Goshen Point - Marker 69
Station #3	Yonges Island Creek - Marker 90
Station #4	Toogoodoo Creek - Marker 106
Station #5	Dawho Creek - Marker 110
Station #6	Steamboat Creek - Marker 2
Station #7	Westbank Creek at North Edisto River, opposite Leadenwah Creek
Station #8	Leadenwah Creek at North Edisto River
Station #9	Adams Creek at Bohicket Creek
Station #10	Rockville Boat Landing
Station #11	Adams Creek between Botany Bay Marina and Shrimp Dock
Station #12	Leadenwah Creek 1 mile from confluence of North Edisto River
Station #13	Bohicket Creek at Fickling Creek
Station #14	S.C. Highway 700 bridge over Bohicket Creek
Station #20	Bohicket Creek opposite Hoopstick Island at Pollution Line
Station #21	Opposite old dam behind Rast House Restaurant
Station #22	Opposite Boy Scout Camp
Station #29	Raven Point Creek at Pollution Line
Station #31	Bohicket Marina
Station #32	Privateer Creek up 1/2 mile at fork
Station #33	Confluence of Ocella Creek and South Creek
Station #34	Toogoodoo Creek SSG at last creek before fork
Station #35	Public Boat Ramp - Lower Toogoodoo Creek
Station #36	Confluence of Tom Point Creek and North Edisto River

Total 24

AREA 13

Station #1	Up Big Bay Creek at the mound
Station #2	Mouth of Big Bay Creek
Station #3	Mouth of St. Pierre Creek
Station #4	St. Pierre Creek at Peters Point
Station #5	Fishing Creek at Sandy Creek
Station #6	Confluence of Shingle Creek and Bailey Creek
Station #7	Store Creek opposite house with docks on right
Station #8	Edisto River at Ashepoo River
Station #9	Fishing Creek at Oyster Plant
Station #10	Fishing Creek at Pollution Line
Station #12	Headwaters of Fishing Creek past Oyster Plant

Total 11

AREA 14

Station #2	Campbell Creek at Whale Branch
Station #4	Bull River Inlet and Coosaw River
Station #5	Combahee River Inlet and Coosaw River
Station #8	Ashepoo River at St. Helena Sound - Black Can Buoy
Station #9	St. Helena Sound at Morgan Back Creek
Station #10	Parrot Creek and Coosaw River - Marker 1
Station #11	Sam's Point and Coosaw River
Station #12A	Confluence of Coosaw and Whale Branch
Station #13	Halfmoon Creek at Whale Branch
Station #14	Huspah Creek at railroad trestle
Station #16A	2000 feet southeast of mouth of Fish Creek
Station #17	Confluence of Wimbee Creek and South Wimbee Creek
Station #18	Huspah Creek at Bull Point - Whale Branch POG
Station #19	Ashepoo River POG

Total 14

AREA 15

Station #1	Brickyard Point at Range Marker
Station #1A	McCaulley's Creek at Pawkie Island
Station #2	Mulligan Creek at Brickyard Creek
Station #3	Albergottie Creek at Beaufort River
Station #4	Broomfield Creek at Beaufort River
Station #10	Battery Creek at Five Points Creek
Station #14	Parris Island STP Outfall
Station #15	Ballast Creek at Beaufort River
Station #16	Station Creek at Beaufort River
Station #17	Cat Island Creek at Cowan Creek
Station #18	Second Middle Marsh in Cowan Creek
Station #19	Battery Creek 1000 feet below Rabbit Island
Station #20	Capers Creek SSG at Penn Community Services Retreat Center
Station #21	Unnamed creek at discharge of BC High and Cherry Hill High
Station #23	Distant Island State Shellfish Ground

Total	15
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AREA 16

Station #2	Trenchard's Inlet at mouth of Station Creek
Station #3	Club Bridge Creek at Harbor River Sound
Station #4	Story River at Fripp Island
Station #5	Old House Creek at Fripp Inlet
Station #6	Harbor River at Marker A-13
Station #6F	Unnamed creek - Fripp Canal at Old House Creek
Station #8	Morgan River at Village Creek
Station #9	Edding Creek at Morgan River
Station #11	Jenkins Creek at Morgan River
Station #13	Lucy Point Creek at Rocky Springs Creek
Station #13A	South edge of Lucy Point Creek CSZ at Pollution Line
Station #13B	North edge of Lucy Point Creek CSZ at Pollution Line
Station #14	Doe Creek behind Coastal Seafood - Behind Dataw Island
Station #17	Station Creek State Shellfish Ground - Beaufort County Landing
Station #18	Edding Creek at Shrimp Dock

Total 15

AREA 17

Station #1	Broad River at S.A.L. Railroad Bridge
Station #2	Boyd Creek at Broad River
Station #3	Broad River at Whale Branch
Station #4E	Laurel Bay CSZ - Ebb Tide at South Pollution Line
Station #4F	Laurel Bay CSZ - Flood Tide at North Pollution Line
Station #7	Mouth of Chechessee Creek at Chechessee River
Station #8	Chechessee River Bridge
Station #9	Mouth of Euhaw Creek at Hazzard Creek
Station #10A	Archers Creek 1000 feet west of bridge
Station #12A	Ballast Creek near Page Field Road Causeway
Station #13	Broad River at creek below Ballast Creek
Station #14	Broad River at Parris Island Spit
Station #16	Broad River at Corn Island - Mouth of creek
Station #17	Hazzard Creek at Chechessee River
Station #18	Hazzard Creek at Chelsea Plantation Clubhouse
Station #19	Drainage canal at Hazzard Creek - U.S. Highway 278
Station #19A	Drainage ditch by Hickory Hill Landfill
Station #21	Confluence of Middle Creek and Whale Branch

Total 18

AREA 18

Station #1	Okatee River at Camp St. Mary's dock
Station #2	Okatee River behind Bailey's Oyster Plant
Station #3	Chechessee Creek at Okatee River
Station #4	Callawassie Creek at Colleton River - Mouth of creek
Station #5	Victoria Bluff - Colleton River at tree line
Station #6	Sawmill Creek at Colleton River
Station #7	Okatee River at Indigo Plantation
Station #8	Okatee River at dock without house

Total	8
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AREA 19

Station #1	May River south of Palmetto Bluff - Marker 8
Station #2	Unnamed creek at Jack Crow Island in Cooper River
Station #2A	Cooper River at New River
Station #3	Ramshorn Creek at Cooper River
Station #4	Cooper River at Marker 41 - Daufuskie Island
Station #5	Bloody Point at Mungen Creek
Station #6	Wright River - Marker 43
Station #7	Ramshorn Creek at New River
Station #8	First creek on left up New River - Pollution Line
Station #9	Bull Creek and Cooper River
Station #11	Bull Creek at Savage Creek
Station #12	Bull Creek and May River
Station #16	May River behind Bluffton Oyster Co-op
Station #17E	Cooper River Marina at edge of CSZ - Ebb Tide
Station #17F	Cooper River Marina at edge of CSZ - Flood Tide
Station #18	May River below Drainage Canals - Markers 22 and 23
Station #19	May River below Drainage Canals - Marker 20
Station #20	1.5 miles up Wright River from Fields Cut
Station #21	2.5 miles up New River from Station 19-02A

Total	19
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AREA 20

Station #1	Braddock Point - South end of Hilton Head Island
Station #2	Calibogue Sound - Marker 32
Station #3	Shark Bank and Broad Creek - Marker 2 - CSZ Sea Pines STP
Station #4E	Broad Creek at Palmetto Bay Marina CSZ - Ebb Tide
Station #4F	Broad Creek at Palmetto Bay Marina CSZ - Flood Tide
Station #5	May River at Calibogue Sound
Station #6	Jarvis Creek at Calibogue Sound
Station #7	Buckingham Landing at bridge
Station #9	Mackey's Creek and Chechessee River
Station #10	Skull Creek at Small Creek from Mariner's Cove
Station #11	Skull Creek - Marker 19
Station #12	Skull Creek behind Hilton Head Seafood Company
Station #13	Skull Creek and Port Royal Sound
Station #14E	500 feet north of Barnard Cove and Braddock Creek - Ebb Tide
Station #14F	500 feet south of Barnard Cove and Braddock Creek - Flood Tide
Station #15A	Broad Creek at Calibogue Sound - North end of Buck Island
Station #16	Creek behind Lynn Smith's Oyster Plant at Broad Creek
Station #16B	Canal from Palmetto Dunes at U.S. Highway 278 NE
Station #16C	Canal at headwaters of Broad Creek off Matthews Drive
Station #17A	Canal entering Broad Creek between Long Cove and Wexford Plantation
Station #17E	Broad Creek at Broad Creek Marina CSZ - Ebb Tide
Station #17F	Broad Creek at Broad Creek Marina CSZ - Flood Tide
Station #18	Shelter Cove Marina
Station #18A	Canal from Palmetto Dunes at U.S. Highway 278 SW
Station #19E	Broad Creek at Harbor Town Marina CSZ - Ebb Tide
Station #19F	Broad Creek at Harbor Town Marina CSZ - Flood Tide
Station #20E	Moss Creek Marina CSZ - Ebb Tide

AREA 20 (continued)

Station #20F	Moss Creek Marina CSZ - Flood Tide
Station #21	Fish Haul Creek at Port Royal Sound
Station #22	Old House Creek at Calibogue Sound

Total	30
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APPENDIX E

LIST OF FACILITIES REQUIRING FEDERAL COMPLIANCE SAMPLING INSPECTIONS
BY EQC DISTRICT

County Codes

01	Abbeville
03	Aiken
05	Allendale
07	Anderson
09	Bamberg
11	Barnwell
13	Beaufort
15	Berkeley
17	Calhoun
19	Charleston
21	Cherokee
23	Chester
25	Chesterfield
27	Clarendon
29	Colleton
31	Darlington
33	Dillon
35	Dorchester
37	Edgefield
39	Fairfield
41	Florence
43	Georgetown
45	Greenville
47	Greenwood
49	Hampton
51	Horry
53	Jasper
55	Kershaw
57	Lancaster
59	Laurens
61	Lee
63	Lexington
65	McCormick
67	Marion
69	Marlboro
71	Newberry
73	Oconee
75	Orangeburg
77	Pickens
79	Richland
81	Saluda
83	Spartanburg
85	Sumter
87	Union
89	Williamsburg
91	York

CSI Inspections for Appalachia I (A1) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date
SC0000281	Badische Corporation/Anderson	07	Feb	
00400	Owens-Corning Fiberglas	07	Feb	
00426	Blair Mills Inc.	07	Dec	
00477	Milliken & Co./Pendleton Finish	07	Oct	
00485	Mount Vernon Mill/LaFrance Division	07	Apr	
00515	Duke Power/Oconee Nuclear Station	73	Mar	
00591	J.P. Stevens/Clemson Plant	73	Dec	
01082	Ingersoll Rand/Torrington Plant	07	Jul	
02291	Duke Power/Lee Steam Station	07	May	
26701	Michelin Tire/Sandy Springs	07	Apr	
23744	Anderson/Rocky River Plant	07	Jan	
23752	Anderson/Generostee Creek Plt	07	Jan	
23906	WCRSA/Piedmont Plant	07	May	
25976	Williamston/South Plant	07	Jun	
33553	Oconee County Sewer Comm./Coneross Crk	73	Mar	
35700	Pendleton - Clemson Regional Sewer	07	Oct	
39853	Easley/Middle Branch	07	Sep	

Total 17

CSI Inspections for Appalachia II (A2) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000141	Cornell-Dubilier Marketing Inc	77	Apr	
00264	Greenwood Mills/Liberty Plant #1	77	Apr	
00302	BASF Corp./Fibers Division	77	Aug	
01155	Platt Saco Lowell/Easley Plant	77	Nov	
01791	Hoechst Celanese Corporation	45	Mar	
03191	Milliken & Co./Gayley Mill	45	Jan	
20010	Clemson/Main Plant	77	Sep	
23035	Easley/Golden Creek Lagoon	77	Jul	
23043	Easley/Georges Creek Lagoon	77	Jul	
23922	WCRSA/Travelers Rest-East Lagoon	45	Jan	
24261	WCRSA/Lower Reedy River Plant	45	Jun	
24309	WCRSA/Taylors Area Plant	45	Feb	
24317	WCRSA/Grove Creek Plant	45	Jun	
33804	WCRSA/Wade Hampton Plant	45	Nov	
37451	WCRSA/Parker Plant	45	Oct	
37460	WCRSA/Lakeside Plant	45	Oct	
40525	WCRSA/Gilder Creek	45	Sep	
41211	WCRSA/Mauldin Road (New)	45	Feb	

Total 18

CSI Inspections for Appalachia III (A3) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0001368	Cone Mills/Carlisle Plant	87	Dec	
01503	Reeves Brothers/Vulcan Urethane	83	Jul	
02321	ABCO Industries Inc	83	Feb	
02429	Spartan Mills/Montgomery Mill	83	Dec	
02453	Spartan Mills/Startex Mill	83	May	
02461	Spartanburg Steel Products Co.	83	Aug	
02798	Hoechst Fibers Inc.	83	Apr	
03051	Milliken & Co./Lockhart Mill	87	Dec	
03107	Phillips Fibers Corp.	83	Aug	
03182	Milliken & Co./Magnolia Finish	21	Mar	
03581	Milliken & Co./Milliken Chem	83	Mar	
20427	SSSD/Lawson Fork Plant	83	Jan	
20435	SSSD/Fairforest Plant	83	Jan	
20478	Gaffney/Peoples Creek	21	Sep	
20508	Gaffney/Providence Creek	21	Sep	
20737	Woodruff/Dildine Creek	83	Nov	
20761	Greer/Maple Creek Plant	83	Oct	
20770	Greer/South Tyger River Plant	83	Oct	
21172	Union/Toschs Creek Plant	87	Oct	
21199	Union/Meng Creek Plant	87	Oct	
21300	Lyman/Town of	83	May	
21601	Inman/City of	83	Jun	
23540	Milliken & Co./New Prospect Plant	83	Sep	
24414	Inman Mills Water District	83	Jun	
25763	Chesnee/Main Plant	83	Sep	

Appalachia III (continued)

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0026042	Blacksburg/Canoe Creek	21	May	
31551	Gaffney/Thicketty Creek	21	Sep	
33855	Groce Laboratories	83	Jul	
35734	Riverdale Mills Water District (New)	83	Dec	
35947	Spring City Knitting Company	21	Mar	
36145	DNS Electronic Materials Inc.	83	Dec	
37826	Speciality Ind. Prod. Inc.	83	Nov	
40517	Thermal Oxid Corp./GSX	83	Feb	
			Total	33

CSI Inspections for Catawba (CT) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0001015	Bowater Inc./Carolina Corporation	91	May	
01783	Hoechst Celanese/Celriver Plant	91	Jun	
03255	Springs Mills/Grace Finishing	57	Feb	
04278	Duke Power/Catawba Nuclear Station	91	Apr	
20303	Clover/Calabash Creek Plant	91	Feb	
20371	Fort Mill/Harris & Jackson Street	91	Jan	
20443	Rock Hill/Manchester Creek	91	Oct	
21211	Great Falls/Town of	23	Aug	
22080	Lancaster/Town of	57	Jul	
35360	R-M Industries, Inc.	91	Apr	
36056	Chester/Rocky Creek Plant	23	Jul	
36081	Chester/Sandy River Plant	23	Jul	
38156	York/Fishing Creek Plant (New)	91	Jan	

Total 13

CSI Inspections for Central Midlands (CM) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0001333	Carolina Eastman Company	17	Oct	
01848	Westinghouse Electric/Columbia Plant	79	May	
02038	SCE&G/Wateree Station	79	Oct	
02046	SCE&G/McMeekin Station	63	Oct	
02402	J.B. Martin Company	63	Sep	
03425	Mepco-Electra, Inc.	63	Jul	
03557	Allied Corp./Allied-Signal Inc	63	Jul	
04286	Square D Company	79	Apr	
20125	Winnsboro/Jackson Creek	39	Aug	
20940	Columbia/Metro Plant	79	Aug	
22390	Whitmire/Town of	71	Apr	
22900	Ridgeway/Town of	39	Nov	
24147	Cayce/Main Plant	63	Nov	
24465	Batesburg/Town of	63	Jan	
24490	Newberry/Bush River	71	Sep	
29483	Alpine Utilities	63	Jan	
30856	SCE&G/Summer Nuclear	39	Feb	
33367	Teepak, Inc.	17	Mar	
34541	AT&T Nassau Metals Corporation	63	Oct	
34762	Lindau Chemicals, Inc.	79	Feb	
38121	Union Camp Corporation	79	Apr	
38865	East Richland Co. PSD (New)	79	Nov	
40631	Chapin/Town of	63	Dec	
40860	Newberry Co. Plant #1/Bush river	71	Mar	
41661	Richland Co./Nicholas Creek	79	Jun	

Total 25

CSI Inspections for Low Country (LC) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000825	US Marines/Beaufort Air Station	13	Aug	
00914	Lobeco Products, Inc.	13	Feb	
01830	Westinghouse Electric/Hampton Plant	49	Dec	
02020	SCE&G/Canadys Station	29	Apr	
02135	J.P. Stevens Industrial/Walterboro Plant	29	Mar	
02577	U.S. Marine Corp./Island Depot	13	Feb	
21016	Beaufort/City of	13	Aug	
21318	Hampton/Town of	49	Dec	
24121	Sea Pines PSD	13	May	
25399	Estill/Town of	49	July	
25950	Yemassee/Town of	49	Nov	
34584	Hardeeville/Church Road	53	Jul	
40436	Walterboro/City of	29	Mar	

Total 13

CSI Inspections for Lower Savannah (LS) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000175	U.S. Department of Energy/Savannah River	11	Nov	
00221	Whitlock Combing Co.	05	Jan	
00574	SCE&G/Urguart Steam Station	03	Feb	
00582	Kimberly-Clark Corporation	03	Jul	
01147	Georgia Pacific/Holly Hill Lumber	75	Apr	
01163	Greenwood Mills/Liner Plant #17	75	May	
01180	Ethyl Corp./Orangeburg Plant	75	Mar	
03093	Milliken & Co./Barnwell Mill	11	Jan	
03531	Greenwood Mills/Edisto Plant	75	May	
03999	Shuron Inc	11	Sep	
24457	Aiken Co. PSA/Horse Creek	03	Feb	
24481	Orangeburg/New Facility	75	Aug	
25143	Barnwell/City of	11	Jul	
26417	Blackville/Town of	11	Feb	
39918	Allendale/Town of	05	May	
40215	Denmark/City of	09	Apr	
ND0063061	Williston/Town of	11	Sep	

Total 19

CSI Inspections for Pee Dee (PD) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000876	Stone Container Corp./Florence	41	May	
01473	L-Tec Company	41	Jan	
01805	Mohasco Ind/Dixiana Mill	33	Aug	
01872	AVM of S.C.	67	Feb	
02151	Delta Mills Inc/Delta Plt. 2 & 3	69	Jul	
02500	Dixie Yarns Inc/Caro Knit Plt.	25	Nov	
02704	Galey & Lord Inc/Society Hill	31	Sep	
02917	DuPont/Florence Plant	41	Dec	
02925	Carolina PWR/HB Robinson SS	31	Jan	
03042	Sonoco Products/Hartsville #11	31	Nov	
04162	Fiber Industries Inc	31	Apr	
20249	Cheraw/Town of	25	Oct	
20257	Marion/South Main Street Plant	67	Nov	
21580	Hartsville/City of	31	Oct	
21776	Dillon/Little Pee Dee River Plant	33	Aug	
22128	Florence/Main Plant	41	Sep	
24767	Jefferson/Town of	25	Nov	
25178	Bennettsville/Town of	69	May	
25232	Chesterfield/Thompson Creek	25	Dec	
25356	Timmons ville/Town of	41	Apr	
25933	Johnsonville/East Plant	41	Jan	
29408	Mullins/White Oak Creek Plant	67	Nov	
38164	Lake City/Lake Swamp Plant	41	Jul	
39624	Darlington/WWTF-Black Creek	31	Feb	
			Total	24

CSI Inspections for Trident (TD) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000990	Plusa Inc	15	Apr	
01091	SC Public Service/Jeffries Steam	15	May	
01759	Westvaco Corp./Charleston Mill	19	Nov	
02011	SCE&G/Hagood Station	19	Sep	
03115	Ga Pacific/Russellville Plant	15	May	
03441	Mobay Chemical/Bushy Park Plant	15	Feb	
03883	SCE&G/Williams Station	15	Feb	
26506	DuPont/Cooper River Plant	15	Jan	
28584	Amoco Chemical Co./Cooper River	15	Apr	
38555	Showa Denko, Inc.	35	Oct	
21041	Hanahan/Town of	15	Nov	
21229	Charleston/Plum Island Plant	19	Jan	
21296	Mt. Pleasant/Main Plant	19	Aug	
21598	Moncks Corner/Town of	15	Jul	
24783	NCSD/Felix C. Davis WWTP	19	Sep	
25844	St. George/Town of	35	Oct	
26051	St. Andrews PSD/Savage Road Plant	19	Jan	
26069	St. Andrews PSD/Pierpont Plant	19	Jan	
37541	Summerville/Ox Pond (New)	35	Jun	
38032	DCW&SA/Lower Berkeley WTP	15	Dec	
38822	Dorchester PW/Lower Dorchester	35	Jun	
39764	BCW&SA/Central Berkeley WTP	15	Jul	

Total 22

CSI Inspections for Upper Savannah (US) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000299	Fieldcrest Cannon/Rocky River	01	Sep	
00353	Milliken & Company/Abbeville Mill	01	Feb	
00396	Milliken & Company/McCormick Mill	65	Apr	
20214	Ware Shoals/Dairy Street Plant	47	Nov	
20702	Laurens/Town of	59	Mar	
21709	Greenwood/Wilson Creek Plant	47	Aug	
22268	Ridge Spring/South Lagoon 1	81	Mar	
22381	Saluda/Town of	81	Jan	
22403	Due West/Town of	01	Nov	
22870	Greenwood/West Alexander Plant	47	Mar	
25330	ECW&SA/Brooks Avenue Plant	37	Oct	
25691	ECW&SA/Johnston #1	37	Jul	
25721	Calhoun Falls/Town of	01	May	
36048	Ninety-six/Town of	47	Dec	
37974	Laurens Co. WRC/Clinton-Joanna	59	Aug	
40002	WCRSA/Durbin Creek	59	Dec	
40614	Abbeville/Long Cane Creek	01	Oct	

Total 17

CSI Inspections for Waccamaw (WM) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000868	International Paper Company	43	Oct	
01104	SC Public Service/Grainger Steam	51	Feb	
01431	Georgetown Steel Corporation	43	Jun	
02780	Wolverine Brass Works Conway	51	Nov	
22471	SC Public Service/Winyah Steam Station	43	Mar	
21733	Conway Oxidation Pond #3	51	Jan	
22152	N. Myrtle Beach/Ocean Drive Plant	51	Jul	
22161	N. Myrtle Beach/Crescent Beach	51	Jul	
25135	Andrews/Town of	43	Mar	
25348	Loris/Town of	51	Dec	
35971	Kingstree/New Plant	89	Sep	
37753	GSW&SA/Schwartz Plant	51	Aug	
39039	Myrtle Beach/Main Plant (New)	51	May	
39900	GSW&SA/Central Wetlands Plant	51	Apr	
40029	Georgetown/City of	43	Oct	

Total 15

CSI Inspections for Wateree (WR) District

FY 1990

NPDES #	Facility Name	County #	Month Planned	Date Inspected
SC0000795	Campbell Soup Company	85	Jul	
01341	Veratec Inc/Bethune Plant	55	Sep	
01490	Reeves Bros/Bishopville Finish	61	May	
02518	Hermitage Industries	55	Nov	
02585	DuPont/May Plant	55	Dec	
02682	Hardwick Chemical Company	55	Mar	
20419	Manning/Town of	27	Feb	
21032	Camden/City of	55	Aug	
24554	Crescent/Div. Cooper Industries	85	Jun	
27707	Sumter/Pocataligo River Plant	85	Mar	
35378	Bishopville/Town of	61	Oct	
39870	Kershaw Co/Lugoff Plant	55	Apr	

Total - 12