


# **Preliminary Report of Findings of the Contaminant Assessment Process for the Congaree Swamp National Monument**

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Patrick Anderson  
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December 1997

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## **Introduction**

Bureaus of the Department of the Interior (DOI) administer and protect habitat and species pursuant to their natural resource management responsibilities. Environmental contaminants pose direct and indirect threats to these resources and may hamper the attainment of management objectives by DOI bureaus. The Biomonitoring of Environmental Status and Trends (BEST) Program of the U.S. Geological Survey (USGS), Biological Resources Division (BRD) developed a systematic, comprehensive process for evaluating whether environmental contaminants threaten habitats or species managed on DOI land units. The contaminant assessment process (CAP) is a retrospective analysis of existing information to assess contaminant threats to a DOI land unit and if warranted, includes field sampling to further evaluate potential threats or establish baseline values.

In 1996, the retrospective analysis portion of CAP was initiated at the Congaree Swamp National Monument (COSW). The purpose of this project was to demonstrate the retrospective analysis to the National Park Service (NPS), to assess how the process addresses NPS information needs and to evaluate the use of National Water Quality Assessment (NAWQA) data for use in contaminant assessments of DOI land units.

The retrospective analysis involves a systematic review of existing documentation and spatial information for the land unit of interest. Areas containing sources or facilities that may contribute contaminants are identified for each transport mechanism (i.e., surface water, groundwater, airborne, and biotic). Contaminant sources and pathways (i.e., streams, rivers, predominate wind directions) are identified. Contaminants of concern and potentially sensitive species are described. Areas of likely contamination within the DOI land unit are defined and ranked. The findings of the retrospective analysis are summarized in a preliminary report.

Information gathered for the CAP is managed using an Internet accessible database. This database is currently a module of the Contaminant Information Management and Analysis System (CIMAS). CIMAS is a spatially oriented data management system developed with joint funding from BEST and the U.S. Fish and Wildlife Service (FWS). In addition to archiving information, the CAP module allows users to access remote contaminant databases maintained by the U.S. Environmental Protection Agency (EPA). Data from the EPA can be spatially displayed with other data layers including land cover, ownership, and major roads. Through this database users can access the following EPA databases:

- Toxic Release Inventory System (TRIS)
- Permit Compliance System (PCS)
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)
- Resource Conservation Recovery Information System (RCRIS)
- Aerometric Information Retrieval System (AIRS)

Additional spatial data layers were added for this project and included 1986 hydrology data for the Congaree River Basin (1:100,000), COSW boundary data (1:50,000), soils (1:24,000), roads (1:2 M), wetlands (1:24,000) and monitoring site locations and results for the USGS National Water Quality Assessment Program (NAWQA) and the South Carolina Department of Health and Environmental Control (SCDHEC). Most data summarized in this report are accessible via the Internet by following the instructions provided in Appendix A. Appendix B contains descriptions of the EPA databases reviewed as part of this assessment.

## **Park Overview**

Established in 1976, COSW is a 22,200 acre, remnant flood plain forest within the Congaree River watershed of central South Carolina. Public Law 94-545, establishing COSW, charges the NPS to "...protect, manage, and administer the National Monument in a way that conserves and protects both its scenery and its natural, geologic, historic, and archaeological resources," and to "protect for the education, inspiration, and enjoyment of present and future generations an outstanding example of a near-virgin southern hardwood forest situated in the Congaree River

CHAPTER 1

The first part of the book discusses the importance of understanding the context of the data. This includes identifying the research objectives, the population being studied, and the variables being measured. It also covers the importance of ensuring the data is reliable and valid.

The second part of the book discusses the different types of data that can be collected. This includes qualitative data, which is non-numerical and often collected through interviews or focus groups, and quantitative data, which is numerical and often collected through surveys or experiments.

The third part of the book discusses the different methods of data collection. This includes primary data collection, where data is collected directly from the source, and secondary data collection, where data is collected from existing sources.

The fourth part of the book discusses the different methods of data analysis. This includes descriptive statistics, which summarize the data, and inferential statistics, which allow us to make conclusions about the population based on the sample data.

The fifth part of the book discusses the importance of reporting the results of the research. This includes writing a clear and concise report, using appropriate statistical tests, and interpreting the results in the context of the research objectives.

CHAPTER 2

The first part of the chapter discusses the importance of understanding the research process. This includes identifying the research problem, formulating a research question, and designing a study that can answer the question.

flood plain in Richland County, South Carolina”. The long-term water resource management goal for COSW is to assess the structure and function of the Congaree River flood plain ecosystem. The water resources of the Congaree Swamp include precipitation, all groundwater discharge, overbank flow from the Congaree River, and the inflow from several tributaries from the north.

### **Primary Surface Waters of Interest**

The Congaree Swamp National Monument lies within the USGS designated hydrologic unit, 3050110-010 (Figure 1). The Congaree River is formed by the confluence of the Saluda and Broad Rivers within the city limits of Columbia, South Carolina. The primary waters of interest for this assessment include the Congaree River, Gills Creek, Mill Creek, Myers Creek, Cedar Creek, Toms Creek, and McKenzie Creek (Figure 2). The assessment focused on these waterways because they are the most likely transport routes for contaminants from known local sources (particularly the Columbia, South Carolina metropolitan area) to COSW. These creeks generally flow in a southern direction and ultimately converge with the Congaree River. Gills and Mill Creeks enter the Congaree prior to the COSW boundary. Myers Creek converges with Cedar Creek and flows through COSW, entering the Congaree River within the boundary of COSW. Toms Creek converges with McKenzie Creek within COSW and flows into the Congaree River. During floods, water flows from the Congaree River towards Cedar Creek. At the southeastern point of COSW (where the Monument ends) most of the discharge from the flood plain is to the Wateree River, entering the Congaree River below the Monument boundary. The northern banks of the Congaree River form a natural levee that is breached by Cedar Creek, Toms Creek, and other smaller order streams and tributaries from old channels. During dry periods (summer and fall), the Congaree River remains within its banks, at which point Cedar Creek, Toms Creek, and the groundwater aquifers, become increasingly more important to the base flow of the Monument. For flood events, surface and groundwater movement and discharge see Knowles et al. (1996).

### **Surrounding Land Use and Cover**

The Congaree River watershed includes two watershed subunits (Cedar/Myers Creek and Toms Creek) that terminate within COSW boundaries. Within the past 50 years, the Congaree River watershed has changed from an agriculture dominated landscape to an increasingly urbanized, industrial, and residential landscape. Although much of the former farmland has reverted to secondary growth forest, the major urban centers of Columbia, Greenville, and Spartanburg continue to expand. Over 9% of the land use is urban and nearly 16% is agriculture. Approximately 72% of the cover is forest (Knowles et al. 1996). The Olympia and Bluff Road areas of the city of Columbia contain heavy industrial development. Only the upper portion of the watershed near Columbia has available water and sewer service capable of handling industrial development within 5 to 10 years, making it a primary area of growth in the watershed. The area around Silver Lake is expected to undergo substantial residential and industrial development. The area south of Cayce, along I-26 and U.S. Highway 321, and the Bluff Road/Shop Road area in Columbia are expected to experience heavy growth. The area along U.S. Highways 176 and 21 should experience moderate growth, primarily industrial.

Land use/cover in the Cedar Creek/Myers Creek watershed is comprised of 5.8% urban and disturbed land, 17.1% agricultural land, and over 78% forested land (Knowles et al. 1996). There is a low to moderate growth potential for this watershed. U.S. Highway 378 and Bluff Road (Highway 48) cross the watershed, as does a rail line. Land use/cover in the Toms Creek watershed is comprised of 1.5% urban land, 10.7% agricultural land, and over 86% forested land. There is low potential for growth in this watershed. The area along Garner’s Ferry Road is the only area of potential growth.

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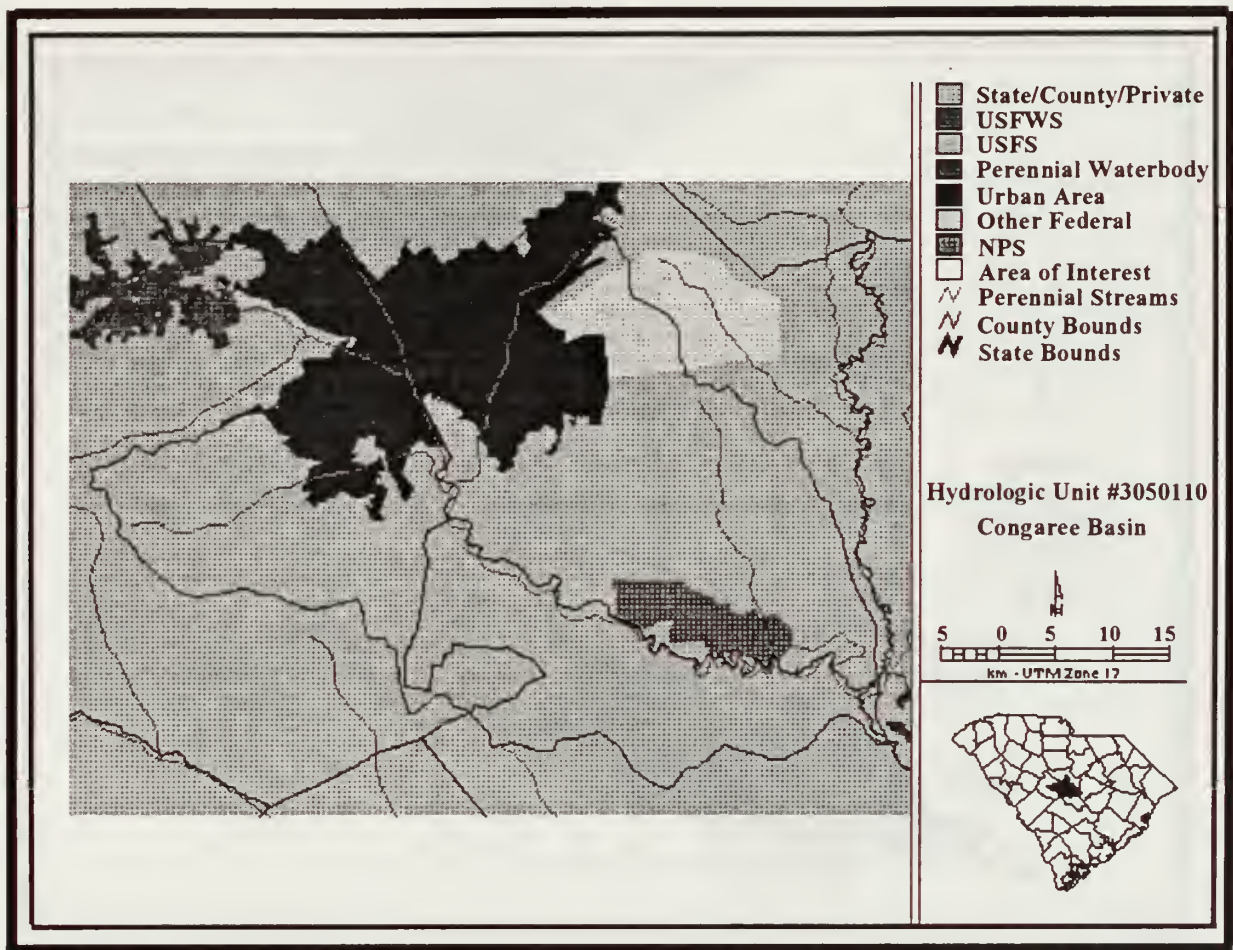
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**Figure 1.** Location of COSW within hydrologic unit.



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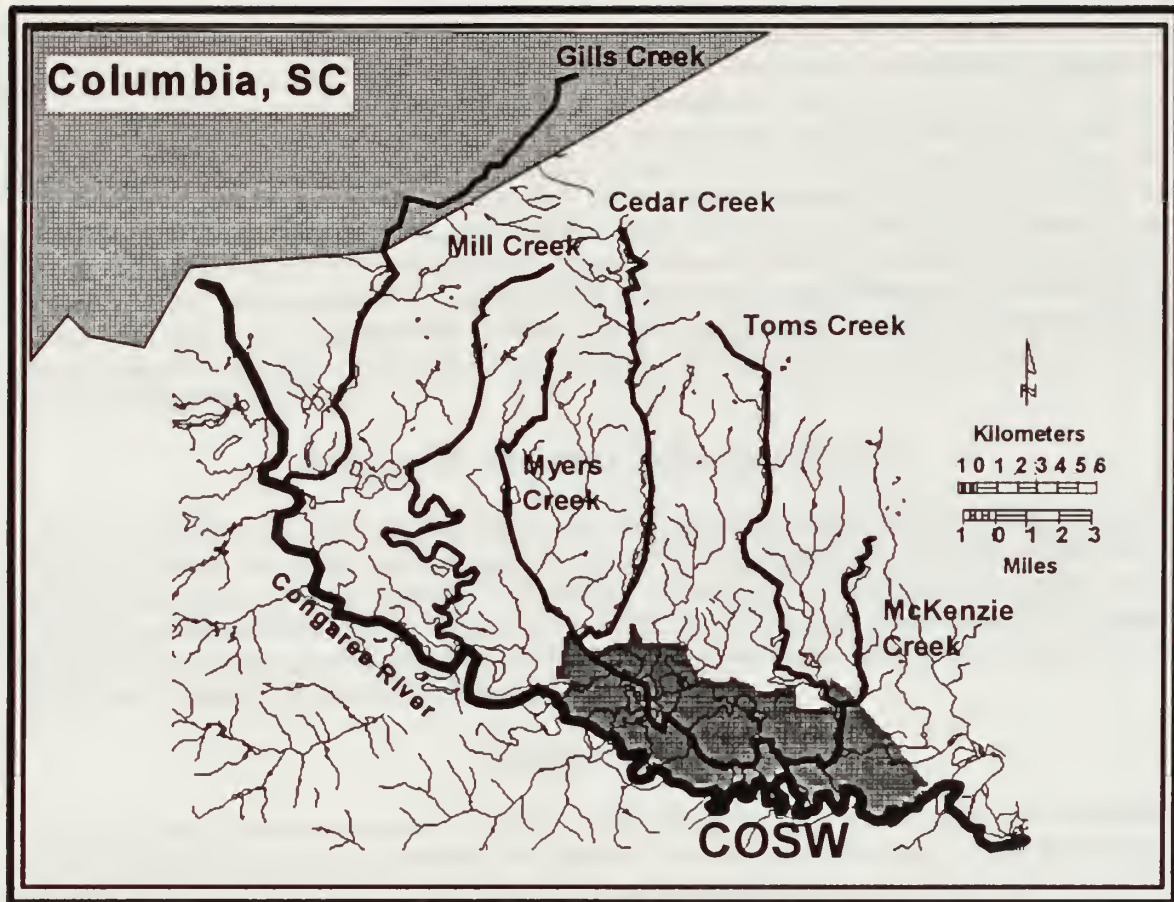


Figure 2. Primary surface waters of interest.



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## Primary Groundwater Pathways of Interest

Two primary aquifers contribute to COSW hydrology: a deep aquifer under a 70 foot confining bed and a shallow aquifer above the confining bed. Shallow groundwater movement is controlled by precipitation, evapotranspiration, and flood events. Shallow groundwater sustains the flow of the Congaree River and streams within COSW (i.e., Cedar Creek, Toms Creek) during low river stages and is recharged during high river stages (Patterson et al. 1985; Knowles et al. 1996). Stream channels that are incised into confined groundwater (due to the impermeability of silty clay soils) receive base flow from the shallow aquifer (Knowles et al. 1996). Unconfined shallow groundwater (areas of sandy and highly permeable sediments) may be expressed as ponds and lakes (Knowles et al. 1996). The deep aquifer contributes some flow to the shallow aquifer but the channel of the Congaree River is probably the predominant discharge location (Knowles et al. 1996). In this assessment, the shallow aquifer is of primary interest because of its hydrologic connection to surface water pathways and groundwater confined in the deep aquifer poses limited exposure risks to biological organisms. Detailed descriptions of groundwater influences at COSW are reported by Birch (1981), Patterson et al. (1985), and Knowles et al. (1996).

## Primary Air Transport Pathways of Concern

The predominant wind direction measured at the Columbia Metropolitan Airport is from north-northwest. Accompanying winds of a lesser frequency and intensity blow from the north and northwest (Figure 3). Given the predominant wind direction and speeds and the distance between the city and the unit, airborne contaminants originating from sources in Columbia are likely to be transported to COSW. Sources southeast of COSW pose limited risks due to the lower speeds and limited frequency of winds from that direction. However, large facilities within 5 km of COSW may contribute airborne contaminants to COSW.

## Biological Resources

Congaree Swamp National Monument contains stands of old-growth and second-growth bottomland hardwoods which are influenced by the frequency, duration, and depth of flood conditions. Differences in elevation within COSW support numerous plant associations. The most common plant association in the Monument is the bottomland hardwood forest dominated by sweetgum (*Liquidambar styraciflua*), sycamore (*Plantanus occidentalis*), mixed hardwoods, deciduous holly (*Ilex decidua*), and ironwood (*Carpinus caroliniana*).

The lowest elevations with wet soils support a plant association of bald cypress (*Taxodium distichum*), water tupelo (*Nyssa aquatica*), planer tree (*Planera aquatica*), Carolina ash (*Fraxinus caroliniana*), and Virginia willow (*Itea virginica*). On drier elevations the loblolly pine (*Pinus taeda*) forest associated with the American holly (*Ilex opaca*) and pawpaw (*Asimina triloba*) are dominant. The loblolly pine/hardwood association is uncommon but exists in the Monument from disruptions of the forest succession.

The U.S. Fish and Wildlife Service lists 15 animal species and 19 plant species for the state of South Carolina as endangered or threatened. Of the birds known to inhabit COSW, the bald eagle (*Haliaeetus leucocephalus*), wood stork (*Mycteria americana*), and the red-cockaded woodpecker (*Picoides borealis*) are of special concern from their status on the federal endangered and threatened species list. None of the 19 plant species are on the COSW plant list; however, suitable habitat may exist on COSW. According to the National Park Fauna Database the provisional species present at COSW include 108 families of vascular plants, 17 fish families, 7 reptile and amphibian families, and 15 mammalian families (Appendix C).

## CHAPTER 10: THE HISTORY OF THE UNITED STATES

The history of the United States is a complex and multifaceted story that spans centuries. It begins with the arrival of Native Americans in the continent, followed by the exploration and settlement by European powers. The United States was founded in 1776, and its early years were marked by a struggle for independence from British rule. The American Revolution (1775-1783) was a pivotal moment in the nation's history, leading to the signing of the Declaration of Independence and the establishment of the new nation. The early years of the United States were characterized by a period of rapid growth and expansion, as the nation's territory expanded westward. This period was also marked by a series of conflicts, including the War of 1812, which solidified the nation's independence and led to a period of national pride and confidence.

## CHAPTER 11: THE AMERICAN WEST

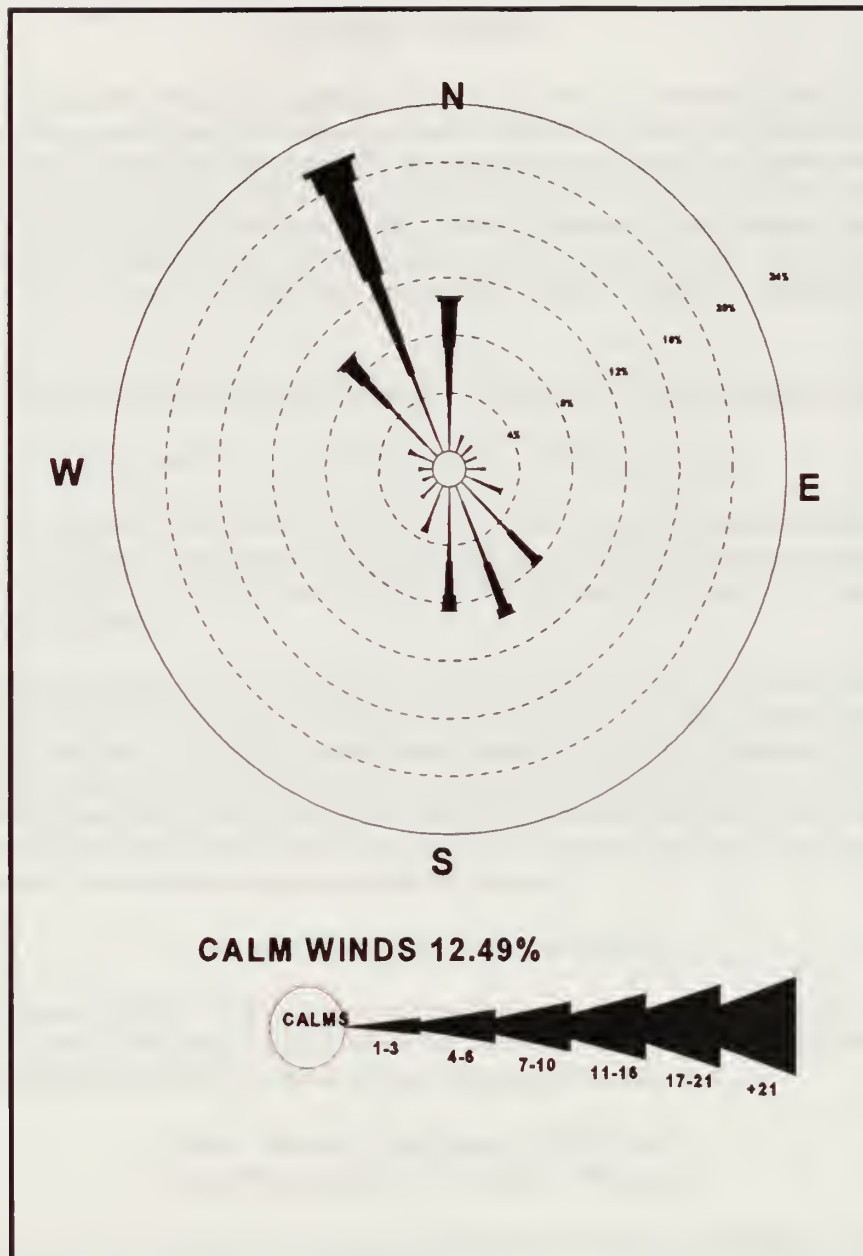
The American West is a region of the United States that is characterized by its vast, open spaces and its rich history. The West was first explored by Spanish and French explorers in the 16th and 17th centuries. It was later settled by American pioneers in the 19th century, who sought new opportunities and a better life. The West was a land of opportunity, but it was also a land of conflict. The American West was a place where different cultures and ways of life collided, leading to a series of conflicts, including the Indian Wars. The West was also a place of great beauty and natural resources, which attracted settlers and explorers alike.

## CHAPTER 12: THE AMERICAN SOUTH

The American South is a region of the United States that is characterized by its warm climate, its rich history, and its unique culture. The South was first explored by Spanish and French explorers in the 16th and 17th centuries. It was later settled by American pioneers in the 19th century, who sought new opportunities and a better life. The South was a land of opportunity, but it was also a land of conflict. The American South was a place where different cultures and ways of life collided, leading to a series of conflicts, including the Indian Wars. The South was also a place of great beauty and natural resources, which attracted settlers and explorers alike.

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**Figure 3.** Wind speed and frequency measured at Columbia Municipal Airport December 31, 1992 – January 1, 1993. Wind frequency bars indicate direction from which wind blows, speed shown in knots.



## **Geology and Soils**

The Monument flood plain consists of alluvial gravel, sand, silt, and clay deposited during the Holocene. This alluvium is underlaid by unconsolidated interbedded sand and clay from the Late Cretaceous, with a base formation underlying the Monument of pre-Cretaceous igneous and metamorphic crystalline rock (Patterson et al. 1985). The predominant soil series within COSW is the Congaree-Tawcaw-Chastain series (Knowles et al. 1996). The Congaree series is characterized by moderately drained to well-drained loamy soils which support loblolly pine and bottomland hardwood tree species. The Tawcaw series, which support bottomland hardwood trees, are characterized as poorly drained silty clays. Poorly drained, silty clay loams subjected to prolonged flooding throughout the year define the Chastain series.

## **Data Collection Efforts and Information Resources for the Congaree Basin**

### *National Water Quality Assessment (NAWQA) Program*

The National Water Quality Assessment (NAWQA) Program is a long-term monitoring effort initiated by the USGS. The program is designed to describe the status and trends of surface and groundwater resources of the United States. Collectively, NAWQA's 60 regional assessments provide water quality information on most of the Nation's large river systems and aquifers.

NAWQA monitoring activities were initiated in the Santee Basin in 1994. The study unit includes three physiographic provinces in North Carolina and South Carolina (Piedmont, Coastal Plain, and Blue Ridge). In addition to the Congaree River watershed, the study unit encompasses coastal drainages in southeastern South Carolina. The COSW is located in the Santee River Basin and coastal drainages watershed subunit of the NAWQA program. Four study sites within the Congaree Swamp were added to the Santee study unit design in 1995 (Figure 4). These sites will be sampled for 3 years (FY96, FY97, and FY98) for water quality. Currently, water quality data is available for these sites from 1996 samples. Ecological assessment activities are on-going.

### *Vegetation Mapping Project at COSW*

A project was initiated at COSW in 1996 to prepare comprehensive vegetation maps for the unit. The work is part of the NPS/BRD Vegetation Mapping Program which involves similar efforts at 250 NPS units. Recent aerial photography was interpreted according to a standard vegetation classification system.

### *South Carolina Department of Health and Environmental Control (SCDHEC) Monitoring*

The SCDHEC monitors water quality at an extensive network of fixed sites throughout the Congaree Basin (Figure 5). In addition to the fixed site network, SCDHEC conducts special studies as needed to evaluate emerging water quality issues of concern. Assessments of water quality data collected by SCDHEC are used by state administrators to determine the condition of the states' aquatic resources and evaluate the effectiveness of existing control measures.



# Introduction

The purpose of this study is to investigate the effects of various factors on the performance of a system. The study is divided into several sections, each focusing on a different aspect of the system's performance. The first section discusses the overall system architecture and the various components that make up the system. The second section focuses on the performance of the system under different conditions, and the third section discusses the results of the study and the implications for future research.

## 1. System Architecture and Components

The system architecture is shown in Figure 1. It consists of a central processing unit (CPU) and a memory unit. The CPU is connected to the memory unit via a bus. The system also includes a network interface and a storage device. The components are connected in a way that allows for efficient data transfer and processing.

The system is designed to handle a large volume of data and to perform complex calculations. It is capable of processing data in real-time and of storing data for future use. The system is also capable of communicating with other systems via a network interface.

## 2. Performance Under Different Conditions

The performance of the system was measured under a variety of conditions. The conditions included different input data sets, different processing times, and different network configurations. The results of the measurements are shown in Table 1.

## 3. Results and Implications

The results of the study show that the system is capable of handling a large volume of data and of performing complex calculations. The system is also capable of communicating with other systems via a network interface. The results of the study have important implications for the design of future systems.

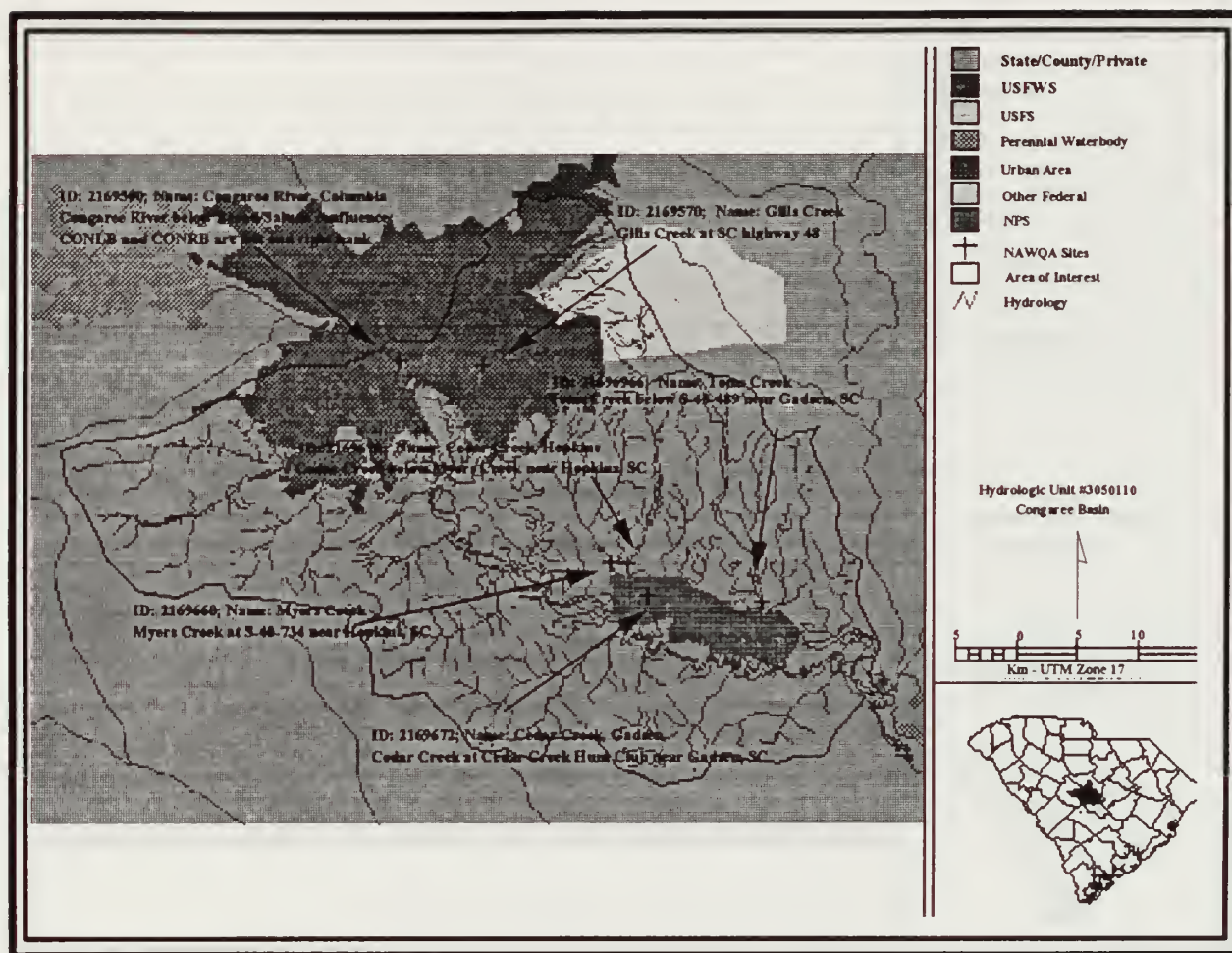
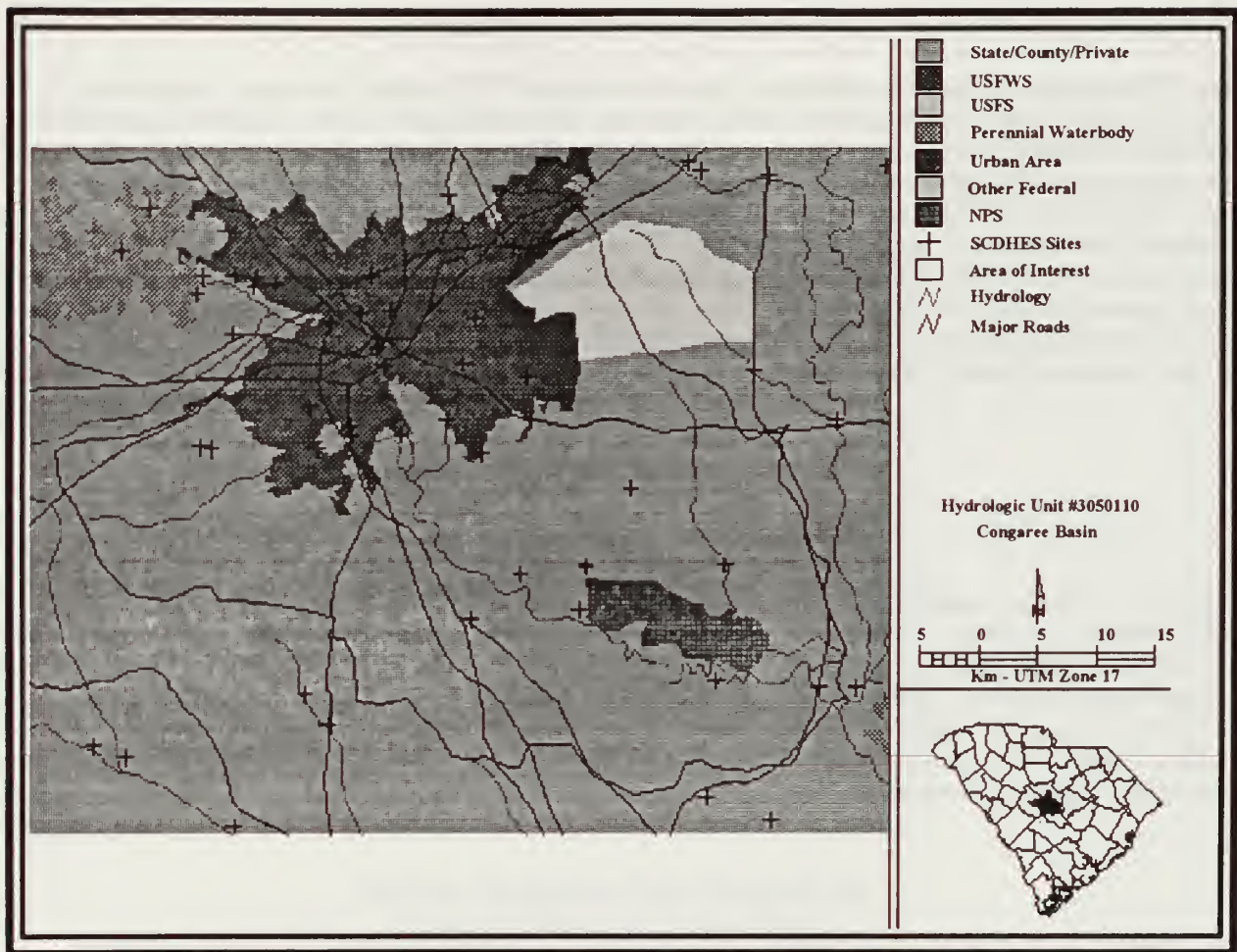


Figure 4. Locations of selected sampling sites for the NAWQA Santee Basin study unit.







**Figure 5.** Locations of selected SCDHEC monitoring sites.



## *COSW Water Resource Management Plan*

A water resource management plan for COSW was prepared under a cooperative agreement between the NPS and the Department of Biology of East Carolina University, Greenville, North Carolina (Knowles et al. 1996). The plan evaluated water resource issues, enumerated potential threats to water sources and quality, recommended management actions that could be taken to protect aquatic assets at COSW, and supported the establishment of future management objectives. The document described the NPS water resource planning process and provided a legal context for water issues at COSW and detailed hydrology of the park and its surrounding watershed. In addition, the document summarized threats to surface and groundwater resources posed by point and nonpoint sources. The document also summarized considerations related to water withdrawals, visitor use, solid waste and hazardous materials management, as well as flood contingency planning considerations. Lastly, the document presented management alternatives for specific issues. This document represents a comprehensive synthesis of existing water related information and its management implications.

### **Overview of Contaminant Sources**

#### *Facilities Releasing Toxic Chemicals*

There are 30 facilities within the lower Congaree Basin that handle or release toxic chemicals to the air or water according to a query of the TRI database. Administrative information for these facilities is provided in Table 1. The majority of facilities are located in the city of Columbia, South Carolina approximately 30 km northwest of COSW (Figure 6). The closest facilities to COSW include Devro-Teepak Inc. (sausage casing manufacturing); Palmetto Products Inc. (glass pressing and blowing); Westinghouse Electric, Nuclear Fuel (industrial inorganic chemical production); and Defender Ind. (polishes and sanitation products). The types of facilities in the basin handling designated toxic chemicals include a variety of manufacturing operations, chemical producers, metal works and fabrication, and chemical and paper producers.

#### *Facilities Discharging Toxic Chemicals and Permitted Effluents to Surface Waters*

Of the 30 facilities reported in the TRI database, five reported chemical releases to surface waters in 1994 (Table 2) and 1995 (Table 3). Three facilities released chemicals directly to the Congaree River while two released chemicals to Goose Branch and Cumbess Creek. Ammonia and ammonia sulfate solution were the two largest reported discharges into the Congaree River. In addition, ethylene glycol, a variety of organic compounds, and acids were released to the Congaree. Metallic compounds are the primary contaminants released to Goose Branch and Cumbess Creek, which ultimately drain into the Congaree River.

In 1994, Devro-Teepak released 48,000 pounds of ammonium sulfate solution to the Congaree River within 5 km of COSW. Carolina Eastman and Westinghouse released a total of 23,600 pounds of ammonia to the Congaree within 30 km of COSW. In 1995 a total of 18,364 pounds of ammonia were discharged to the Congaree by Devro-Teepak and Carolina Eastman. In 1995 Carolina Eastman released 122,000 pounds of nitrate compounds to the Congaree. Carolina Eastman also reported releasing 10,000 and 7,700 pounds of ethylene glycol in 1994 and 1995, respectively, along with a combined total of 12,400 pounds of 2-methoxyethanol between 1994 and 1995.

There are currently 33 facilities within 60-km of COSW that hold National Pollutant Discharge Elimination System (NPDES) permits to discharge effluents (Figure 7). Administrative information for these facilities is provided in Table 4. Two of the 33 facilities (Devro-Teepak and Westinghouse Electric Corporation) are located within 5 km of the COSW and four within 10 km. Industrial and municipal facilities within the lower Congaree watershed discharge into Mill Creek, Toms Creek, Cedar Creek, Congaree Creek, Gills Creek, and Congaree River. All the major dischargers (six) are located 11 to 30 km from COSW, except Westinghouse Electric Corporation (Nuclear Fuels Division) which is within 10 km and discharges into Mill Creek. Of the major dischargers, three are classified as

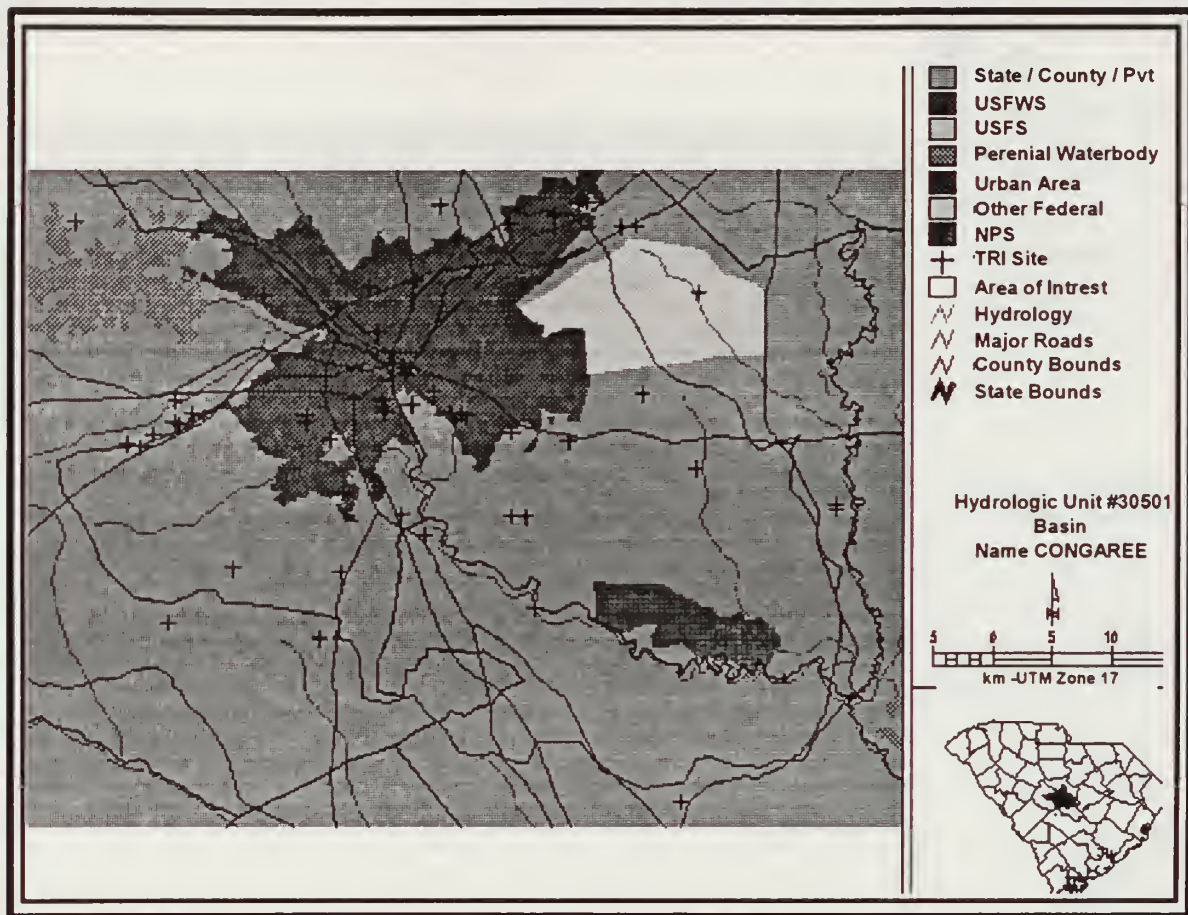
1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text also mentions the need for regular audits and the role of independent auditors in ensuring the reliability of the data.

2. The second part of the document focuses on the implementation of internal controls. It describes various measures that can be taken to minimize the risk of errors and misstatements, such as the separation of duties, the use of standardized procedures, and the establishment of a strong internal control environment. The text also discusses the importance of training and education for all personnel involved in the financial process.

3. The third part of the document addresses the issue of transparency and disclosure. It highlights the need for clear and concise communication of financial information to all stakeholders, including investors, creditors, and the public. The text also discusses the importance of timely and accurate reporting and the role of regulatory bodies in ensuring compliance with disclosure requirements.

4. The fourth part of the document discusses the role of technology in improving financial reporting and internal controls. It mentions the use of automated systems for data collection and processing, the implementation of electronic signatures, and the use of data analytics to identify potential risks and anomalies. The text also discusses the importance of ensuring the security and integrity of the information systems.





**Figure 6** TRI facilities in Congaree Basin. (Note: Designated locations may represent more than one site.)



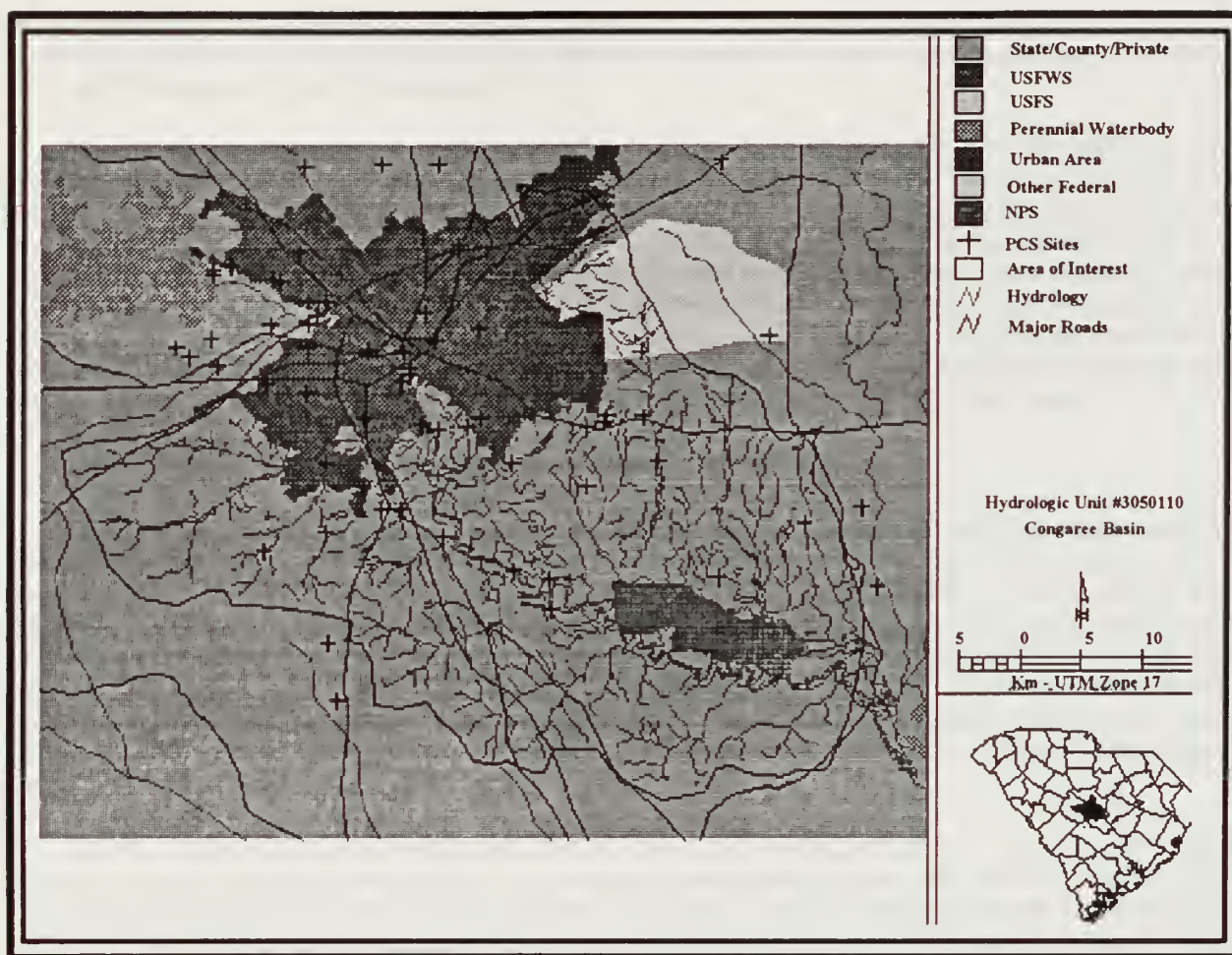


Figure 7. NPDES facilities in Congaree Basin. (Note: Designated locations may represent more than one site.)



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sewage systems (Cayce Waste Water Treatment Facility-WWTF, East Richland County Public Service District/Gill Creek Plant, and City of Columbia Plan/Metro Plant) and three are industrial systems (Carolina Eastman Co., Square D Co., and Westinghouse Electric Corporation).

Daily maximums and weekly and monthly averages of discharged chemical compounds are reported for the entire year during 1996 (Table 5) and for January, February, March, and April during 1997 (Table 6). The three sewage treatment facilities discharged the highest levels of total suspended solids and biological oxygen demand (BOD) and total ammonia nitrogen during 1996 and 1997. The Columbia/metro sewage treatment facility released the largest quantities of total ammonia nitrogen (Mill Creek) with the highest level of over 4,500 pounds per day during January 1997. Westinghouse Electric Corporation (Nuclear Fuels Division) was the only major industrial discharger to release total ammonia nitrogen (Mill Creek). Carolina Eastman Division (cyclic crudes and intermediates manufacturing) discharged primarily aluminum and oil and grease, while Square D Company (relays and industrial controls) reported the only releases of trace elements (cadmium, chromium, copper, lead, nickel and zinc) and cyanide.

### *Facilities Air-releasing Toxic Materials*

The types of facilities reporting air releases of toxic chemicals include metal related industries, a variety of manufacturing operations, and chemical products producers. Seventeen facilities within a 60-km radius of COSW report either fugitive or stack emission of toxic chemicals in 1994 and 1995 (Tables 7 and 8). Devro-Teepak, the closest facility to the park (5 km), reported emissions of ammonia and nitrate compounds. The next closest emitter was the Westinghouse Electric Corporation (within 10 km) that reported releasing ammonia and a variety of acid vapors (hydrogen fluoride, nitric, and sulfuric). Twelve facilities are within 30 km of COSW and report airborne releases of metals (chromium, lead manganese, nickel, vanadium, zinc, cobalt, antimony, manganese, arsenic, and copper); organics (acetaldehyde, butyl acrylate diisocyanates, methanol, methyl ethyl ketone, styrene toluene, trimethyl benzene and xylene isomers); and ammonia and nitrate compounds.

In 1994, Anchor Continental air-released 2,598,205 pounds of toluene; Sunbird Boat Co. air-released 180,190 pounds of styrene; and Kline Iron and Steel Co., along with Consolidated Systems, Inc., released a total of 112,100 pounds of methyl ethyl ketone within 30 km of the park. In addition, Carolina Eastman air-released a combined total of 240,000 pounds of O- and P-xylenes, 48,000 pounds of hydrogen fluoride, 110,000 pounds of hydrochloric acid, 293,400 pounds of bromomethane, 107,000 pounds of acetaldehyde, 7,200 pounds of 2-methoxyethanol, 470,000 pounds of methanol, and 150,000 pounds of ethylene glycol. Westinghouse Electric and Devro-Teepak, Inc., contributed a total of 2,074,000 pounds of airborne ammonia within 10 km of COSW.

In 1995, similar emission patterns continued within 30 km of COSW. Anchor Continental air-released 2,793,488 pounds of toluene and Sunbird Boat Co. air-released 155,700 pounds of styrene. Kline Iron and Steel, Consolidated Systems, Inc., and SMI-Owen Miscellaneous Metals, Inc., released a combined total of 121,970 pounds of methyl ethyl ketone. Carolina Eastman air-released a combined total of 209,000 pounds of O- and P-xylenes; 40,000 pounds of hydrogen fluoride; 91,000 pounds of hydrochloric acid; 378,600 pounds of bromomethane; 11,000 pounds of acetaldehyde; 5,500 pounds of 2-methoxyethanol; 380,000 pounds of methanol; and 193,000 pounds of ethylene glycol. Westinghouse Electric and Devro-Teepak Inc. contributed a total of 2,012,000 pounds of ammonia to the airshed within 10 km of COSW.

### *Facilities Handling Hazardous Materials*

Facilities that generate, transport, store, treat or dispose of hazardous waste are regulated by the 1976 Resource Conservation Recovery Act (RCRA). Table 9 summarizes administrative information for RCRA-regulated facilities that are located within 60 km of COSW. Table 10 contains a list of hazardous waste processors located within 60 km of COSW. The fact that a facility generates, handles, and processes hazardous waste does not necessarily mean that the facility is releasing toxic materials to the environment. Facility information presented in these summaries is intended to help managers assess risks posed by contaminants that may be released accidentally from these operations.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting system in providing reliable financial information.

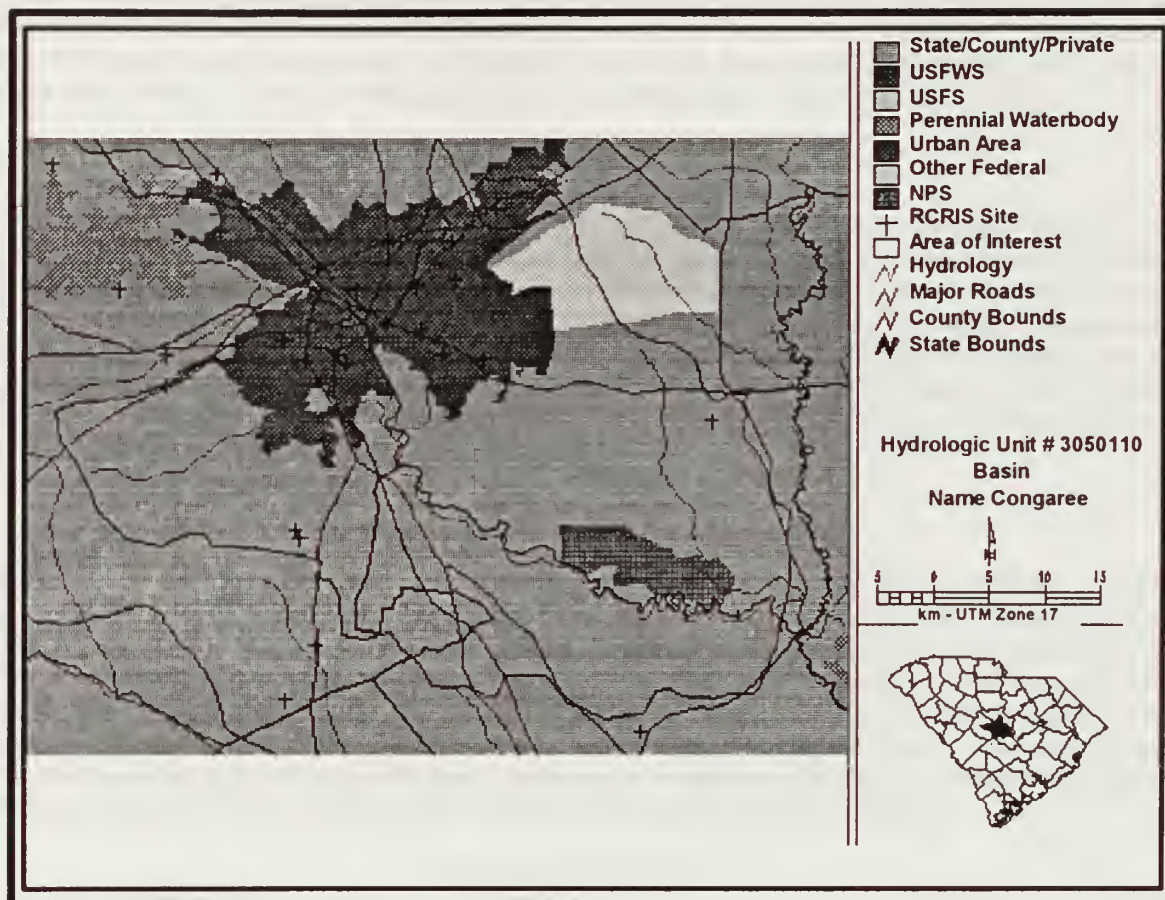
2. The second part of the document describes the various methods used to collect and analyze data, including the use of statistical techniques and the application of mathematical models to predict future trends.

3. The third part of the document focuses on the development of a comprehensive financial statement, which includes a balance sheet, income statement, and cash flow statement, and provides a detailed analysis of the company's financial performance.

4. The fourth part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting system in providing reliable financial information.

5. The fifth part of the document describes the various methods used to collect and analyze data, including the use of statistical techniques and the application of mathematical models to predict future trends.

6. The sixth part of the document focuses on the development of a comprehensive financial statement, which includes a balance sheet, income statement, and cash flow statement, and provides a detailed analysis of the company's financial performance.



**Figure 8.** Locations of RCRA-regulated facilities in Congaree Basin. (Note: Designated locations may represent more than one site.)





Over 350 facilities handling hazardous wastes are located in the Columbia metropolitan area (Figure 8). Cayce accounted for the next highest number of facilities (23), followed by Eastover (9), Lexington (7), Fort Jackson (5) Gaston and Pelion (2 each), and one each in Congaree, Summerville, Spartanburg, Hopkins and Irmo (Table 9). Of the more than 140 large quantity generating facilities, 5 are located within 10 km of COSW (Table 9).

#### *Facilities Air-Releasing Priority Pollutants*

Out of 184 facilities reported from the AIRS query (Table 11), only one (Devro-Teepak) is within 10 km of COSW. One hundred and sixteen sites are located approximately 30-km and the remainder are approximately 60-km from COSW (Figure 9). Only 12 facilities are located south of COSW while the majority are located northwest, which is in the path of the predominant wind direction. There are 111 facilities producing less than 100 tons of emissions per year (considered a minor discharger) and 34 facilities without a defined threshold (Table 12). The majority of the active facilities producing more than 100 tons of emissions are located northwest from COSW/ (Table 13). The predominant emissions reported are particulate matter, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead (pb), volatile organic carbons, THAP, toluene, and styrene.

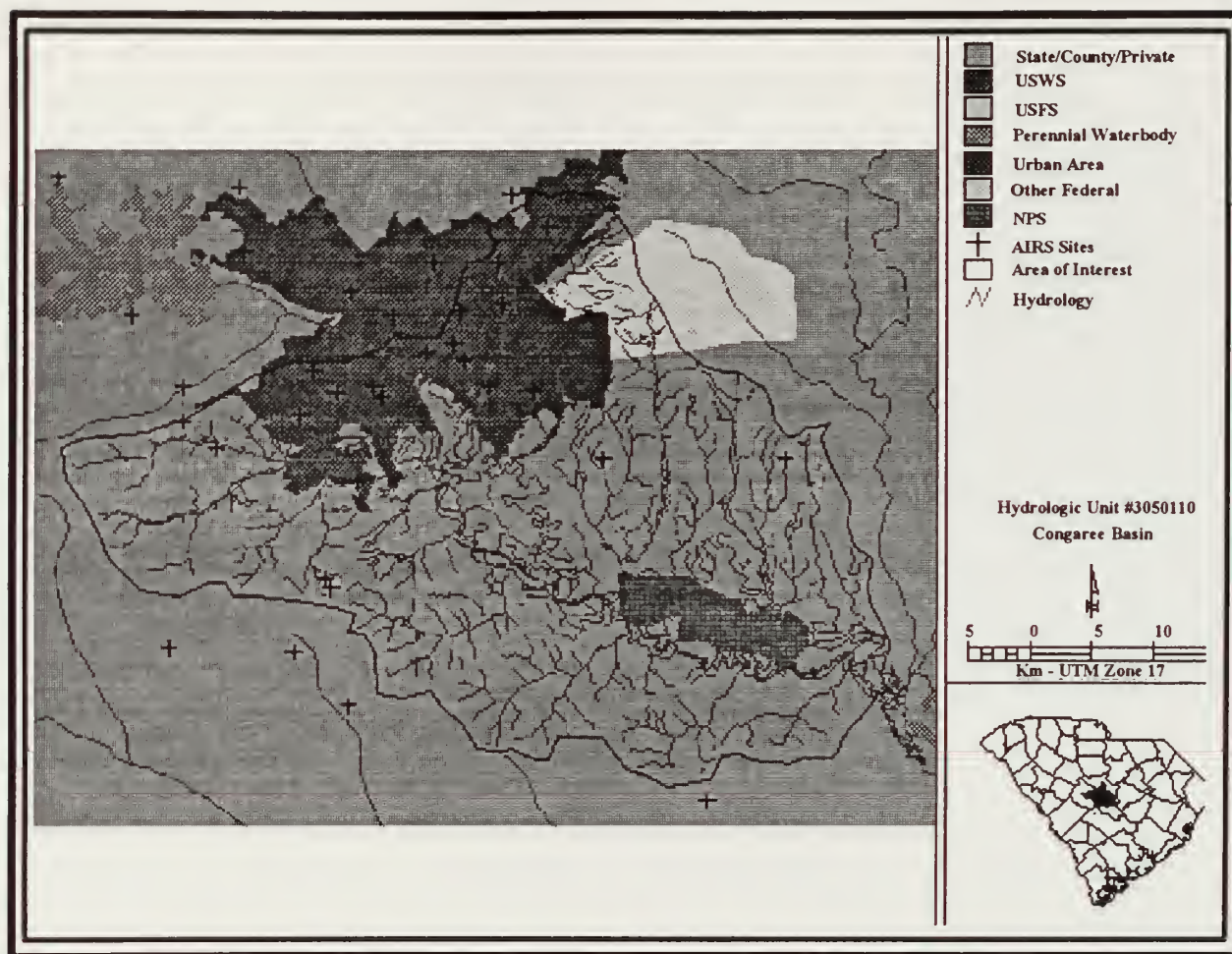
#### *Superfund Sites*

Currently 16 Superfund sites are located within the area of interest (Figure 10), five of which are on the EPAs National Priorities List (NPL; Table 14). Groundwater contamination is reported for seven sites. The nearest NPL site to COSW is an inactive chemical waste manufacturing, storage, recycling and disposal facility operated by South Carolina Recycling and Disposal, Inc. (SCRDI). Contamination is limited to on-site soil and a shallow groundwater aquifer (3,200 feet from Myers Creek). The primary contaminants of the soil and groundwater are volatile organic compounds (toluene, benzene, xylene), polychlorinated biphenyls (PCBs), pesticides, and heavy metals. Remedial activity (currently underway) addresses groundwater contamination (extraction and discharge methods), and excavation and thermal desorption of soil and sediments, but does not address biological fate and effects.

#### *Nonpoint Contaminants*

Activities categorized as nonpoint sources include agriculture, silviculture, construction, urban stormwater runoff, hydrologic modification, landfills, mining, and residual wastes. These activities can affect both surface and groundwaters. Nutrients and pesticides may be the primary non-point pollutants associated with agriculture depending on crops, irrigation, and other management practices. Urban areas may be sources of a variety of non-point pollutants including petroleum derivatives, pesticides, and nutrients. The Congaree River is on the 319 list of waters impacted by urban runoff and Cedar Creek is on the 319 list of waters impacted by agricultural activities with elevated levels of fecal coliform and turbidity (SCDHEC 1996). Cedar Creek and Mill Creek are included on the 304(l) list for waters impacted by nontoxic pollutants (SCDHEC 1996). Mill Creek was also on the 319 list from groundwater contamination. Within the past 50 years, the Congaree River watershed has changed from an agriculture-dominated landscape to an increasingly urbanized, industrial, and residential landscape. Although much of the former farmland has reverted to secondary-growth forest, the major urban centers of Columbia, Greenville, and Spartanburg continue to expand.

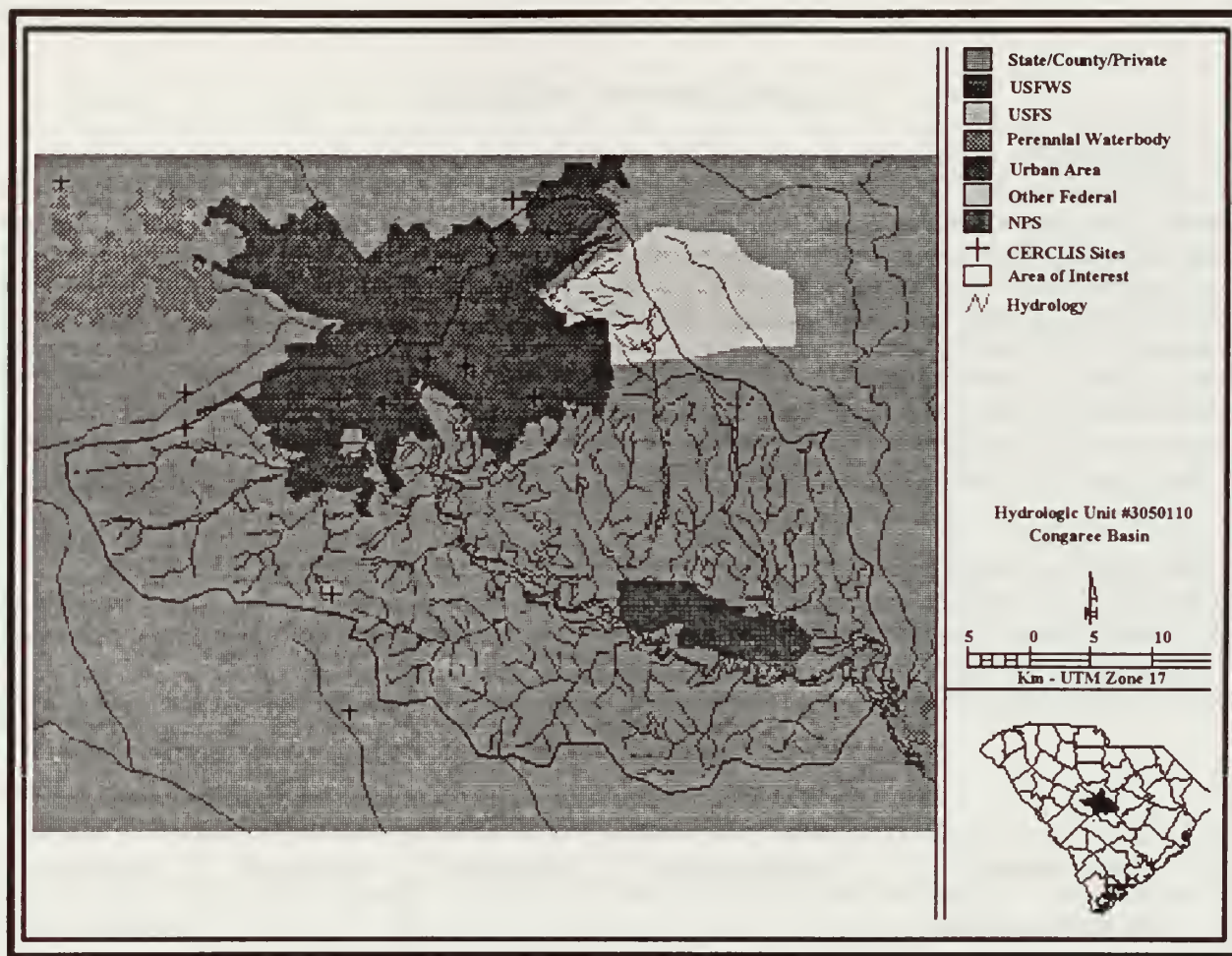




**Figure 9.** Locations of AIRS facilities releasing toxic chemicals and criteria pollutants. (Note: Designated locations may represent more than one site.)







**Figure 10.** Locations of Superfund sites in the Congaree Basin. (Note: Designated locations may represent more than one site.)



## Contaminants of Concern

### *Surface Water Transport Pathways*

This review of on-line information sources revealed 30 TRI industrial facilities and 33 permitted facilities or communities that release contaminants to surface water pathways which could potentially reach COSW. Given the variety of facilities, locations, and nature of releases, a prioritization process was used to focus the analyses of potential ecological effects on the most important sources and their associated contaminants. Considerations used to identify sources and contaminants of concern included proximity to COSW, magnitude of contaminants released, and complexity of discharges. Sources further than 30 km from COSW were not considered. In general, chemical sources and associated effects would be difficult to confirm beyond this distance. Sources within 30 km of COSW releasing large quantities were identified as high priority facilities. Facilities reviewed in this assessment frequently released thousands to millions of pounds of contaminants on a yearly basis. The last factor used to develop a list of priority sources and contaminants was the complexity of the effluent that was released by the facility. Facilities releasing complex mixtures of metals, organics, or combinations of the two may represent unexpected threats as a result of additive toxicity.

The limitations of the assumptions used to identify high priority sources include the following considerations. Proximal sources may release relatively non-toxic, non-persistent contaminants compared to more distant sources. In this case, sources more than 30 km away that release more toxic and persistent contaminants could be ignored. The focus on sources releasing large amounts of contaminants may result in ignoring sources that are releasing small but highly toxic contaminants. Facilities releasing mixtures of contaminants may not represent larger threats than facilities releasing a simpler mix of compounds.

#### Devro Teepak

Proximity	Magnitude	Complexity	Receiving water	Contaminants
+	+	-	Congaree	ammonia and nitrogen containing compounds

According to 1994 and 1995 TRI records, Devro-Teepak released over 100,000 pounds of nitrogen containing compounds (ammonia, nitrate compounds, and ammonia sulfate) into the Congaree River.

#### Carolina Eastman

Proximity	Magnitude	Complexity	Receiving water	Contaminants
+	+	+	Congaree	ammonia, organics, metals

Carolina Eastman discharged a variety of organic, nitrogen-based compounds and metals into the Congaree River. According to 1994 and 1995 TRI records, Carolina Eastman released approximately 16,000 pounds of ammonia; 30 pounds of acetaldehyde; 5 pounds of biphenyl and bromomethane; 300 pounds of 1,4-dioxane; 9,000 pounds of ethylene glycol; 6,400 pounds of 2-methoxyethanol; 70 pounds of methanol; about 70 pounds of cobalt compounds; plus up to 300 pounds manganese compounds to the Congaree River. In addition to TRI releases, Carolina Eastman reported routine discharges of oil, grease, and aluminum (Table 5). It should be noted that about 95% of water discharged from this plant is non-contact cooling water and that annual measurement of a suite of analytes associated with similar industries have been below detection limits (Donna Tomlinson, personal communication, Carolina Eastman).





## Square D

Proximity	Magnitude	Complexity	Receiving water	Contaminants
+	+	+	Goose Branch-Cedar Creek	metals

Square D releases a suite of metals to the Goose Branch of Cedar Creek. While the daily releases are small, the facility is the largest source of metals for Cedar Creek. During 1996, releases of metals (pounds per day) from the facility included: cadmium, ~0.003; chromium, 0.003 to 0.008; copper, 0.004 to 0.02; cyanide, 0.001 to 0.006; lead, 0.0003 to 0.001; nickel, 0.003 to 0.018; and zinc, 0.002 to 0.019 (Table 5). In 1997, the facility reported only discharges of copper.

## *Air Transport Pathways*

A review of on-line information sources revealed that 17 TRI facilities reporting air release of toxic material and 49 facilities classified as major emitters under the Clean Air Act and reported in the AIRS database are located within 60 km of COSW. Nine facilities showed up on both TRI and AIRS data searches identifying these as large emitters and sources of toxic chemicals. A prioritization process was used to focus the analyses of potential ecological effects on the most important air-release sources and their associated contaminants. Since the predominant wind directions in the area indicated that contaminants released from sources as far away as Columbia were likely to reach COSW, proximity of the facilities reviewed was not considered as a prioritization criteria. Considerations used to identify sources and contaminants of concern included magnitude of contaminants released and the relative toxicity of discharged contaminants.

Since this assessment evaluated threats contaminants pose to DOI resources, facilities releasing toxic compounds were given higher priority than those emitting priority pollutants (i.e., particulates, carbon monoxide, mixtures of volatile organic compounds, and nitrogen and sulfur dioxide). Of the 17 facilities releasing toxic compounds, those releasing large quantities of contaminants (i.e., thousands to hundreds of thousands of pounds per year). were identified as the highest priority facilities. The primary limitation of focusing on toxic releases over priority pollutants is that the latter class of compounds contribute no non-attainment of targets set by the Clean Air Act. In addition, the presence of nitrous oxides may contribute to the production of ozone. Acidic deposition may also result from atmospheric transformations involving nitrous oxides.

## Devro-Teepak

Toxics released	Magnitude	Contaminants
+	+	Ammonia

Devro-Teepak released more than 1.5 million pounds of ammonia in both 1995 and 1996.

## Westinghouse

Toxics released	Magnitude	Contaminants
+	+	Ammonia

Westinghouse released more than 230,000 pounds of ammonia in 1994 and over 300,000 pounds of ammonia in 1995.





**Carolina Eastman**

Toxics released	Magnitude	Contaminants
+	+	acids, acetaldehyde, bromomethane ethylene glycol, methanol, xylenes

In 1994 Carolina Eastman reported air combined fugitive and stack releases of more than 100,000 pounds hydrochloric acid; 40,000 pounds hydrogen fluoride; 100,000 pounds acetaldehyde; 290,000 pounds bromomethane; 180,000 pounds of ethylene glycol; 400,000 pounds methanol; and 200,000 pounds mixed xylenes. Similar trends were reported in 1995.

**Anchor Continental**

Toxics released	Magnitude	Contaminants
+	+	toluene, zinc

In 1994 and 1995, Anchor Continental reported combined fugitive and stack releases of over 2.5 million pounds of toluene. In the same years, the facility released over 200 pounds of zinc.

**Kline Iron and Steel Co.**

Toxics released	Magnitude	Contaminants
+	+	methyl ethyl ketone

In 1994 and 1995, Kline Iron and Steel Co. reported fugitive releases of 26,000 pounds of methyl ethyl ketone.

**Consolidated Systems, Inc.**

Toxics released	Magnitude	Contaminants
+	+	methyl ethyl ketone, mixed xylenes

In 1994 and 1995, Consolidated Systems, Inc. reported combined fugitive and stack releases of over 40,000 pounds of methyl ethyl ketone and over 18,000 pounds of mixed xylenes.

**Sunbird Boat Co.**

Toxics released	Magnitude	Contaminants
+	+	styrene

In 1994 and 1995, the Sunbird Boat Co. reported stack releases of over 180,000 and 150,000 pounds of styrene.

Date		Description		Amount	
1900	Jan 1	Balance		100.00	
1900	Jan 15	Received from A. B.		50.00	
1900	Feb 1	Received from C. D.		25.00	
1900	Mar 1	Received from E. F.		75.00	
1900	Apr 1	Received from G. H.		100.00	
1900	May 1	Received from I. J.		150.00	
1900	Jun 1	Received from K. L.		200.00	
1900	Jul 1	Received from M. N.		250.00	
1900	Aug 1	Received from O. P.		300.00	
1900	Sep 1	Received from Q. R.		350.00	
1900	Oct 1	Received from S. T.		400.00	
1900	Nov 1	Received from U. V.		450.00	
1900	Dec 1	Received from W. X.		500.00	
1900	Dec 31	Total		2500.00	
1901	Jan 1	Balance		2500.00	
1901	Jan 15	Received from Y. Z.		100.00	
1901	Feb 1	Received from A. B.		200.00	
1901	Mar 1	Received from C. D.		300.00	
1901	Apr 1	Received from E. F.		400.00	
1901	May 1	Received from G. H.		500.00	
1901	Jun 1	Received from I. J.		600.00	
1901	Jul 1	Received from K. L.		700.00	
1901	Aug 1	Received from M. N.		800.00	
1901	Sep 1	Received from O. P.		900.00	
1901	Oct 1	Received from Q. R.		1000.00	
1901	Nov 1	Received from S. T.		1100.00	
1901	Dec 1	Received from U. V.		1200.00	
1901	Dec 31	Total		12500.00	

## Identification of Potentially Contaminated Areas (PCAs)

A PCA is defined as an area where sampling activities could be conducted to confirm the presence of contaminants or their effects. This assessment supports establishing four PCAs within the COSW boundary including the following locations: the confluence of Myers Creek and Cedar Creek; at or near the point where the Congaree River meets the southwest of COSW; at or below the confluence of Toms Creek and McKenzie Creek; and in the interior of the unit (Figure 10). The first three areas, situated at the intersection between the management boundary and major surface water pathways, represent portals through which waterborne contaminants may be entering COSW. The fourth PCA is proposed as a location for measuring airborne contaminants. Conducting sampling for suspected contaminants at this interior location would provide an indication of the pervasiveness of air transported contaminants.

### *Relation of PCAs to On-going Monitoring Efforts*

Currently, sampling near three of the four proposed PCAs is being conducted by either NAWQA (Figure 11 ) or SCDHEC (Figure 12). NAWQA has established four stations, two of which are located on Cedar Creek, one on Toms Creek, and one on Myers Creek. NAWQA is measuring pesticides, gross organics (organic carbon), major inorganics, nutrients, and standard water quality measurements at the four stations. Available data do not appear to indicate elevated levels of measured parameters at the NAWQA stations. Assessment of fish tissue residues and ecological assessments are planned for these sites.

Five SCDHEC stations are located within or near the COSW boundary (Figure 12). Stations C-074 and C-007H are located on the Congaree River within COSW. Station C-072 is located on Toms Creek, and stations C-069, C-071, and C-075 are located on Cedar Creek. Parameters measured at C-074 during December 1996 include BOD, concentrations of ammonia nitrogen, total organic carbon, fecal coliform, turbidity, alkalinity, and total phosphorus. Majority of measurements were reported as "off-scale low". At stations C-069 and C-075 located on Cedar Creek, SCDHEC measured alkalinity, BOD, fecal coliform, ammonia nitrogen, total phosphorus, dissolved oxygen, turbidity, and physical characteristics. The majority of measurements were reported as off-scale low during 1996. In October 1992, SCDHEC measured BOD, fecal coliform, total phosphorus, and total ammonia nitrogen, as well as trace metals (cadmium, chromium, copper, iron, lead, manganese, mercury, nickel) at station C-071 and reported the majority of analyses to be off-scale low. Trace metals were also measured on Toms Creek station C-072 during August 1992. Stations C-007H, C-071, and C-072 are slated to remain inactive during the 1997 season (State of South Carolina Monitoring Strategy for Fiscal Year 1997. Technical Report No. 005-96. Bureau of Water Pollution Control).

## Potential Ecological Effects of Identified Contaminants

The complex nature of regional air- and water-releases, diversity of exposed plants and animals, in conjunction with the relative scarcity of laboratory studies for most plant/animal/contaminant interactions makes it difficult to achieve reliable ecological effects predictions. The likelihood that a contaminant will cause direct toxicity to an individual organism depends on the exposure concentration, duration of exposure, and toxicity of the contaminant as well as the relative sensitivity of the exposed organism. Predicting the response of individual organisms exposed to mixtures of contaminants is further complicated by the possibility that chemicals in the mixture may act synergistically or antagonistically. Making firm statements about effects of complex mixtures on populations and ecosystems is nearly impossible.

Regardless of the difficulties of interpretation, this analyses has revealed that a host of contaminants is being released in the basin and many of them are likely to reach COSW. Table 15 presents information on the mobility, persistence and toxicity (aquatic and terrestrial) for contaminants identified in this analysis. The information in this table is used in a subsequent ranking step to try to summarize which contaminants and pathways pose the largest risk to biological resources at COSW.





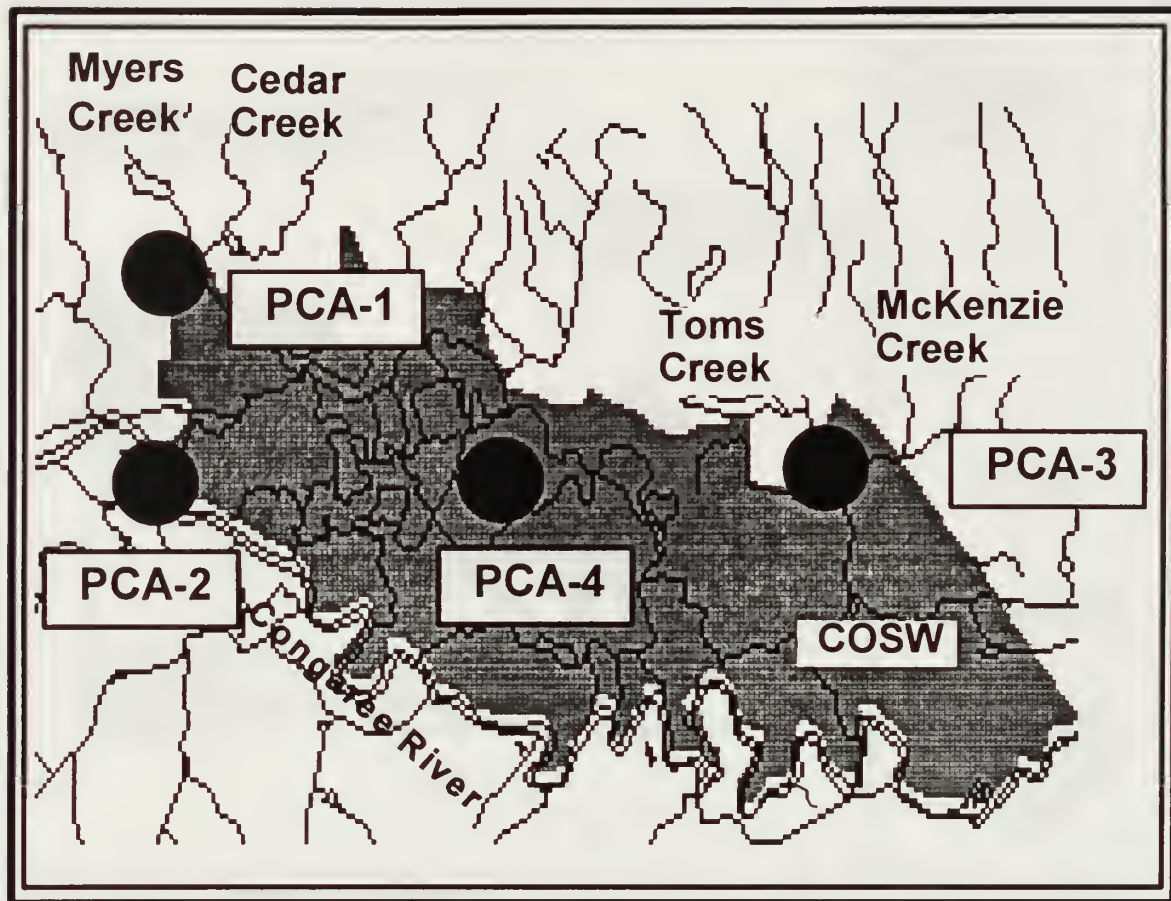
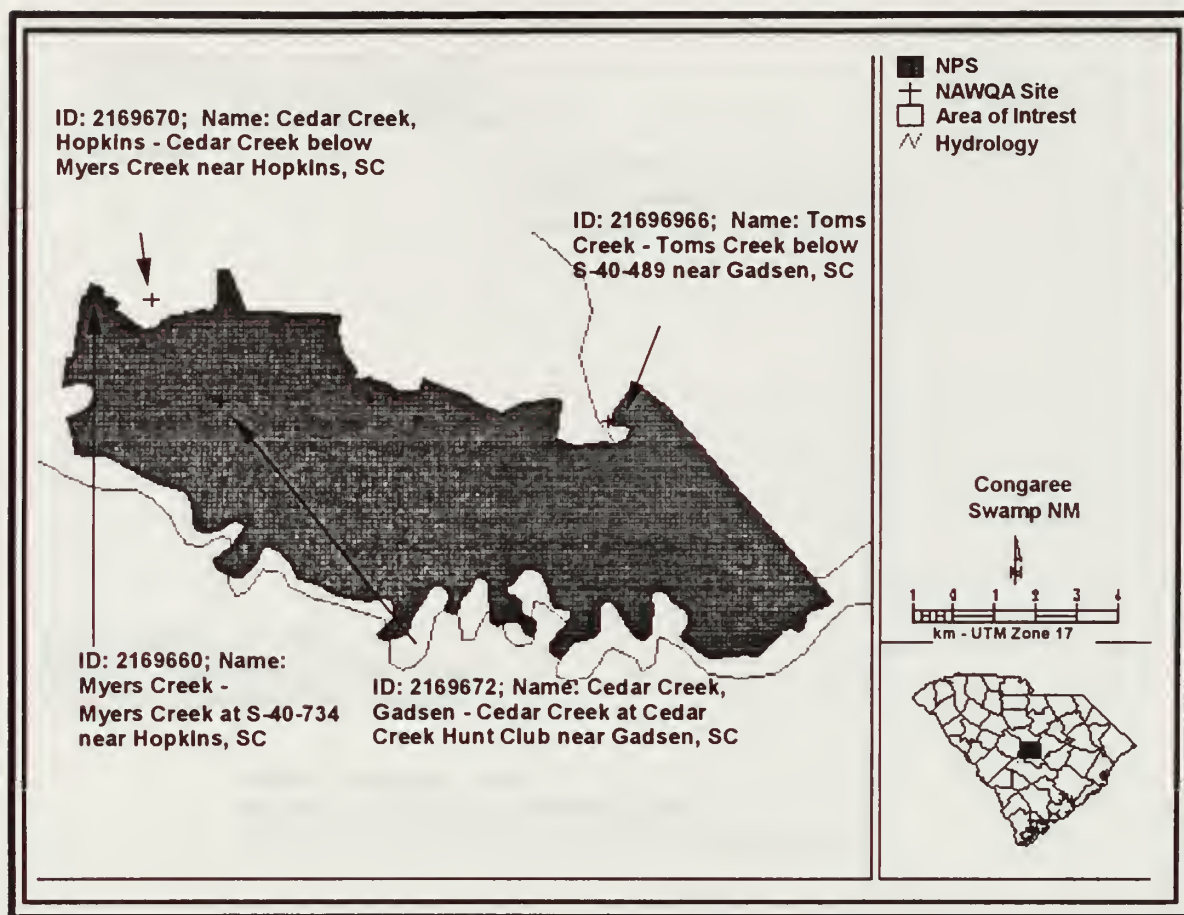


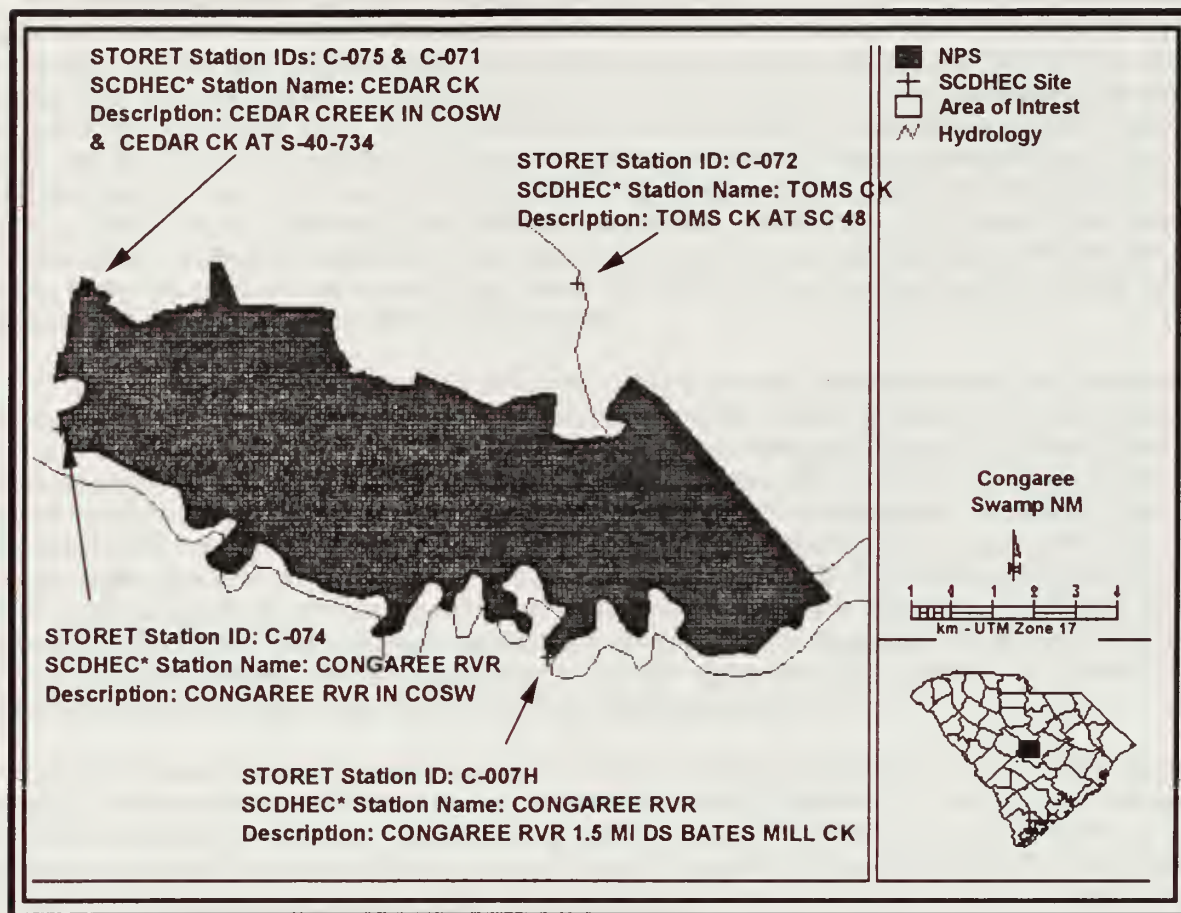
Figure 11. Locations of proposed PCAs within COSW.





**Figure 12.** Locations of NAWQA synoptic sampling sites near COSW.





**Figure 13.** Locations of SCDHEC monitoring sites near COSW.





The information provided in Table 15 summarizes direct effects of single compounds. Other considerations of evaluating contaminant threats include dose-dependent effects and contaminant interactions. For example, depending on concentration, nitrogen compounds such as ammonia, ammonium, nitrogen oxides, and nitric acid can serve as plant nutrients. Plants with different growth patterns can exhibit different effects as a result of increased atmospheric nitrogen uptake (Wolfenden et al. 1992). Plant species which are capable of rapid uptake of these compounds, particularly from the air, can benefit even from acute episodes of exposure. These are generally annual or rapidly colonizing species. Plants with lower assimilation and growth rates (usually perennials) can benefit from increased nitrogen when it occurs at moderate or low levels over an extended period of time. In the cases of both acute and chronic exposure, sufficiently increased nitrogen uptake can result in an acid/base imbalance within the leaf tissue leading to reduced metabolic activity and other damage. The impact of this damage depends on a plant species' individual ability to counter the excess acidity or alkalinity.

An important example of contaminant interactions is the role of aromatic hydrocarbons and other constituents in the formation of deleterious by-products. Because ozone results from photochemical reactions between hydrocarbons (particularly aromatic compounds like toluene) and nitrogen oxides rather than as a result of being emitted from industrial processes, it was not directly considered in this assessment. However, given the large quantities of contributing constituents in the area, some mention of the potential effects of ozone on plants is warranted. Ozone has a damaging impact on most plants, particularly affecting stomatal processes. Plants with a high growth rate, which therefore require a high rate of assimilation of atmospheric CO<sub>2</sub> are generally affected more than slow growing plants. However, plants adapted to environments where stomatal control is required to reduce water loss can be severely impacted if ozone or other contaminant levels are high or prolonged enough to damage this control. While the impact varies from species to species, laboratory experiments have shown reduction of photosynthetic rate in most plants by the presence of sulfur dioxide, ozone, fluoride, and heavy metals (Smith 1992).

Less direct impacts of ozone to trees have also been shown. Average annual growth rates of southern pine from Virginia to Florida have declined by 30 to 50% over the past three decades (Sheffield et al. 1985). While many factors, including stand aging and changes in surrounding land use, have contributed to this effect, increases in air contaminants, particularly oxidants (including ozone), are strongly suspected. This is supported by the study in the San Bernadino National Forest in California where growth reduction and even mortality of ponderosa pines followed a gradient of ozone concentration (Miller 1989).

Given the summary of chemical characteristics in Table 15, the next step in a screening level risk assessment is to rank the likelihood that the chemicals will cause harm to biological resources at COSW. This ranking must take into account not only the relative toxicity of the priority contaminants but the potential that they are reaching COSW, which depends on the proximity of sources, their persistence, and the magnitude of release. Table 16 estimates the risk posed by the contaminants associated with high priority sources identified in the Congaree Basin. The contaminants are arranged by the primary transport pathways through which they are likely to reach COSW.

Characteristics for each chemical is rated as high, moderate, or low. The ratings for mobility, persistence, and toxicity were derived from Table 15. Releases of more than 100,000 pounds per year were rated as high. Releases greater than 10,000 but less than 100,000 pounds per year were rated as moderate, and releases of less than 1,000 pounds per year were rated as low. High ratings were assigned a value of 3, moderate ratings a value of 2, and low ratings a value of 1. The final risk value for each of the identified contaminants was derived by multiplying across each table row. This approach provided a relative numeric score for each contaminant based on the influence of the characteristics described (mobility, persistence toxicity, and magnitude of release).



## Conclusions

Owing to its proximity to a major metropolitan area, its position in the Congaree watershed, and predominant wind directions, COSW is transected by surface water and air contaminant transport pathways. A coarse risk assessment indicates that metals are the primary concern in water transported to COSW by Myers and Cedar Creeks. Cobalt and ammonia appear to be the primary contaminants of concern entering COSW via the Congaree River. No major sources were identified along Tom's Creek or McKenzie Creek. Predominant airborne contaminants are ammonia, toluene and xylene. In addition to these airborne toxics, ozone may be of concern.

Four PCAs were identified, three at the intersection of major surface water transport pathways and one interior location dedicated to assessing the presence of airborne contaminants. The three surface water PCAs are near existing monitoring sites maintained by NAWQA and SCDHEC.

The effectiveness of on-going monitoring at these sites could be enhanced if metals were analyzed at the NAWQA suites and selected organics in sediments were measured at both the SCDHEC and NAWQA sites. To ensure sensitivity to unknown contaminants, inclusion of toxicity tests is recommended.

Despite the variety and density of industrial facilities discharging toxics into basin surface water pathways, the coarse risk assessment applied in this project does not reveal any dramatic waterborne contaminant threats. Air pathways appear to pose a greater risk of transporting toxics to COSW from the local metropolitan area. Based on this assessment, it appears that on-going monitoring of surface water pathways will provide a margin of safety to detect emerging contaminant issues. Given the proximity of COSW to a multitude of sources air-releasing both toxics and priority pollutants, investment in an on-going air quality monitoring program at COSW seems prudent.





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#### **Water Resources Division (WRD)**

#### **National Water Quality Assessment Program (NAWQA)**

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**Table 1. TRI facilities located within the Congaree watershed.**

SITE NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	STATUS	PLANT DESCRIPTION
DEVRO-TEEPAK INC.SANDY RUN	29160TPKNCSTARR	STAR RTE. BOX 159	SWANSEA	SC	29160	WEST	5	OPERATING	MANUFACTURING INDUSTRIES,NEC
PALMETTO PRODS. INC.	29290PLMTT1720P	1720 PINEVIEW DR.	COLUMBIA	SC	29290	NORTHWEST	10	OPERATING	PRESSED AND BLOWN GLASS, NEC
WESTINGHOUSE ELECTRIC CORP. NUC. FUEL	29259WSTNGPOBOX	5801 BLUFF RD.	COLUMBIA	SC	29205	NORTHWEST	10	OPERATING	INDUSTRIAL INORGANIC CHEMICALS, NEC
DEFENDER IND. INC.	29044DFNDRSCHIG	S.C. HWY. 1162	EASTOVER	SC	29044	NORTH	10	OPERATING	POLISHES AND SANITATION GOODS
OWEN ELECTRIC STEEL CO. OF SC	29003WNLCT310NE	310 NEW STATE RD.	CAYCE	SC	29033	NORTHWEST	30	OPERATING	BLAST FURNACES AND STEEL MILLS
ROSE-TALBERT PAINT CO.	29171RSTLB901FR	901 FRANK ST.	CAYCE	SC	29171	NORTHWEST	30	OPERATING	PAINTS AND ALLIED PRODUCTS
SMI-OWEN MISCELLANEOUS METALS,INC.	29171WVNSMC2804T	2804 TAYLOR RD.	CAYCE	SC	29033	NORTHWEST	30	OPERATING	MISCELLANEOUS METALWORK
ANCHOR CONTINENTAL	29202SNCHRC2000S	2000 S. BELTLINE BLVD	COLUMBIA	SC	29205	NORTHWEST	30	OPERATING	PAPER, COATED AND LAMINATED, NEC
CARDINAL COS. L.P.	29201CRDNL2010S	2010 S. BELTLINE BLVD.	COLUMBIA	SC	29201	NORTHWEST	30	OPERATING	INDUSTRIAL ORGANIC CHEMICALS, NEC
CAROLINA EASTMAN DIV	29202CRNLNSUSHIG	INTERSECTION I-26 & HWY 21 S	COLUMBIA	SC	29169	WEST	30	OPERATING	PLASTICS MATERIALS AND RESINS
CONSOLIDATED SYS. INC.	29202CNSLD650RO	650 ROSEWOOD DR.	COLUMBIA	SC	29202	NORTHWEST	30	OPERATING	METAL COATING AND ALLIED SERVICES
KLINE IRON & STEEL CO. INC.	29202KLNRN1225H	1225 HUGER ST.	COLUMBIA	SC	29202	NORTHWEST	30	OPERATING	FABRICATED STRUCTURAL METAL
LINDAU CHEMICALS INC.	29201LNDCH750GR	750 GRANBY LN	COLUMBIA	SC	29201	WEST	30	OPERATING	INDUSTRIAL ORGANIC CHEMICALS, NEC
MICALLINE PRODS INC.	29290MCLLN1717P	1717 PINEVIEW RD.	COLUMBIA	SC	29290	NORTHWEST	30	OPERATING	NOT PROVIDED
OWEN STEEL CO. INC.	29202WVNSTL801BL	801 BLOSSOM ST.	COLUMBIA	SC	29201	NORTHWEST	30	OPERATING	FABRICATED STRUCTURAL METAL
OWEN STEEL CO. INC.	29202WVNSTL825GR	825 GREENE ST.	COLUMBIA	SC	29201	NORTHWEST	30	OPERATING	FABRICATED STRUCTURAL METAL
OWEN STEEL CO. INC.	29202WVNSTL2405S	2405 S. BELTLINE BLVD	COLUMBIA	SC	29201	NORTHWEST	30	OPERATING	FABRICATED STRUCTURAL METAL
SQUARE D CO.	29209SQDRDC8821G	8821 GARNERS FERRY RD.	COLUMBIA	SC	29209	NORTHWEST	30	OPERATING	SWITCHGEAR AND SWITCHBOARD APPARAT.
SUNBIRD BOAT CO. INC.	29201SNBRD1501S	1501 SHOP RD.	COLUMBIA	SC	29201	NORTHWEST	30	OPERATING	BOATBUILDING AND REPAIRING
SUNBIRD BOAT CO.	29201SNBRD2348S	2348 SHOP RD.	COLUMBIA	SC	29201	NORTHWEST	30	OPERATING	BOATBUILDING AND REPAIRING
UNITED BRAKE SYS. INC.	29201INTDBR1280B	1280 BLUFF RD.	COLUMBIA	SC	29201	WEST	30	OPERATING	MOTOR VEHICLE PARTS AND ACCESSORIES
GOLD KISTEED MILL	29053GLDKSHWY32	WOOD TRAIL DR.	GASTON	SC	29053	WEST	30	OPERATING	PREPARED FEEDS, NEC
JOHN H. HARLAND CO PLANT #11	29169JHHRH3430P	3430 PLATT SPRINGS RD.	WEST COLUMBIA	SC	29169	WEST	30	OPERATING	COMMERCIAL PRINTING, LITHOGRAPHIC
KLINE IRON & STEEL CO. INC.	29169KLNRN841W1	841 WILLIAMS ST.	WEST COLUMBIA	SC	29169	NORTHWEST	30	OPERATING	FABRICATED STRUCTURAL METAL
PEPSI-COLA CO W. COLUMBIA PLANT	29169PPSCL1964O	1964 OLD DUNBAR RD.	WEST COLUMBIA	SC	29172	WEST	30	OPERATING	BOTTLED AND CANNED SOFT DRINKS
TAMPER CORP.	29171TMPRC2401E	2401 EDMUND RD. BOX 20	WEST COLUMBIA	SC	29171	WEST	30	OPERATING	RAILROAD EQUIPMENT
U.S. SILICA CO.	29171SSLCCPOBOX	P.O. BOX 2084	CAYCE-WEST COLUMBIA	SC	29171	WEST	60	OPERATING	MINERALS, GROUND OR TREATED
CAROLINA CERAMICS INC.	29223CRLNC9931T	9931 TWO NOTCH RD.	COLUMBIA	SC	29223	NORTHWEST	60	OPERATING	BRICK AND STRUCTURAL CLAY TILE
COLWOOD CO. INC.	29224CLWDC208FL	208 FLINTLAKE RD.	COLUMBIA	SC	29224	NORTHWEST	60	OPERATING	WOOD PRESERVING
COOPER POWER TOOLS	29072CPRPW670IN	670 INDUSTRIAL DR.	LEXINGTON	SC	29072	WEST	60	OPERATING	POWER-DRIVEN HANDTOOLS

<sup>a</sup>Direction from the center of Congaree Swamp National Monument.

<sup>b</sup>Approximate distance (km) from Congaree Swamp National Monument.





**Table 2.** TRI-reported releases for 1994 from facilities located within the Congaree watershed.

SITE NAME	FACILITY ID	CHEMICAL/COMPOUNDS	RECEIVING WATER	RELEASE AMOUNT <sup>a</sup>
DEVRO-TEEPACK INC.SANDY RUN	29160TPKNCSTARR	AMMONIUM SULFATE SOLUTION	CONGAREE RIVER	48000
CAROLINA EASTMAN DIV.	29202CRLNSUSHIG	ACETALDEHYDE	CONGAREE RIVER	22
		AMMONIA	CONGAREE RIVER	16000
		BIPHENYL	CONGAREE RIVER	2
		BROMOMETHANE	CONGAREE RIVER	3
		1,4-DIOXANE	CONGAREE RIVER	370
		ETHYLENE GLYCOL	CONGAREE RIVER	10000
		METHANOL	CONGAREE RIVER	74
		2-METHOXYETHANOL	CONGAREE RIVER	6400
		PHOSPHORIC ACID	CONGAREE RIVER	NR
		SULFURIC ACID	CONGAREE RIVER	NR
		O-XYLENE	CONGAREE RIVER	NR
		P-XYLENE	CONGAREE RIVER	NR
		COBALT COMPOUNDS	CONGAREE RIVER	81
		MANGANESE COMPOUNDS	CONGAREE RIVER	18
SQUARE D CO	29209SQRDC8821G	SULFURIC ACID	GOOSE BRANCH	NR
		COPPER	GOOSE BRANCH	NR
		CHROMIUM	GOOSE BRANCH	NR
COLWOOD CO. INC.	29224CLWDC208FL	ARSENIC COMPOUNDS	CUMBESS CREEK	NR
		CHROMIUM COMPOUNDS	CUMBESS CREEK	NR
		COPPER COMPOUNDS	CUMBESS CREEK	NR
WESTINGHOUSE ELECTRIC CORP. NUC. FUEL	29250WSTNGPOBOX	AMMONIA	CONGAREE RIVER	7600
		HYDROGEN FLUORIDE	CONGAREE RIVER	NR
		NITRIC ACID	CONGAREE RIVER	NR
		SUFURIC ACID	CONGAREE RIVER	NR

<sup>a</sup>Releases are reported in pounds. NR = no releases reported for this year but has been reported at least once between 1987 and 1995.



**Table 3. TRI-reported releases for 1995 from facilities located within the Congaree watershed.**

SITE NAME	FACILITY ID	CHEMICAL/ COMPOUNDS	RECEIVING WATER	RELEASE AMOUNT <sup>a</sup>
DEVRO-TEEPAK INC. SANDY RUN	29160TPKNCSTARR	AMMONIA	CONGAREE RIVER	1364
		NITRATE COMPOUNDS	CONGAREE RIVER	122000
CAROLINA EASTMAN DIV.	29202CRLNSUSHIG	ACETALDEHYDE	CONGAREE RIVER	17
		AMMONIA	CONGAREE RIVER	17000
		BIPHENYL	CONGAREE RIVER	1
		BROMOMETHANE	CONGAREE RIVER	3
		1,4-DIOXANE	CONGAREE RIVER	250
		ETHYLENE GLYCOL	CONGAREE RIVER	7700
		METHANOL	CONGAREE RIVER	60
		2-METHOXYETHANOL	CONGAREE RIVER	6000
		PHOSPHORIC ACID	CONGAREE RIVER	NR
		SULFURIC ACID	CONGAREE RIVER	NR
		O-XYLENE	CONGAREE RIVER	NR
		P-XYLENE	CONGAREE RIVER	NR
		ANTIMONY COMPOUNDS	CONGAREE RIVER	NR
		COBALT COMPOUNDS	CONGAREE RIVER	93
SQUARE D CO	29209SQRDC8821G	MANGANESE COMPOUNDS	CONGAREE RIVER	290
		COPPER	GOOSE BRANCH	NR
COLWOOD CO. INC.	29224CLWDC208FL	CHROMIUM	GOOSE BRANCH	NR
		ARSENIC COMPOUNDS	CUMBESS CREEK	NR
		CHROMIUM COMPOUNDS	CUMBESS CREEK	NR
		COPPER COMPOUNDS	CUMBESS CREEK	NR
WESTINGHOUSE ELECTRIC CORP. NUC. FUEL	29250WSTNGPOBOX	AMMONIA	CONGAREE RIVER	810
		NITRIC ACID	CONGAREE RIVER	NR
		HYDROGEN FLUORIDE	CONGAREE RIVER	NR

<sup>a</sup>Releases are reported in pounds. NR =no releases reported for this year but has been reported at least once between 1987 and 1995.





**Table 4. NPDES facilities reporting discharges within the Congaree watershed.**

FACILITY NAME	NPDES ID	ADDRESS	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	RECEIVING WATER	PLANT STATUS	DISCHARGE STATUS	PLANT DESCRIPTION
DEVRO-TEEPACK INC./CORIA DIV	SC0033367	OFF HIGHWAY 176	WEST	5	MILL CREEK	ACTIVE	MINOR	SAUSAGES AND OTHER PREPARED MEATS
RICH DIST JGADSDEN ELEMENTARY	SC0031526	RICH DIST I-201 PARK ST	NORTH	5	TOMS CREEK	ACTIVE	MINOR	ELEMENTARY AND SECONDARY SCHOOLS
RICH DIST J HOPKINS JR. HIGH	SC0031500	RICH DIST I-201 PARK ST	NORTHWEST	10	CEDAR CREEK	ACTIVE	MINOR	ELEMENTARY AND SECONDARY SCHOOLS
SC AIR NATIONAL GUARD/MCINTIRE	SC0000701	MCINTIRE ANG BASE/HWY 76-378	NORTHWEST	10	CEDAR CREEK	ACTIVE	MAJOR	NATIONAL SECURITY
EASTOVER/PLANT # 2	SC0041432	TOWN OF EASTOVER-PO BOX 36	NORTHEAST	10	CONGAREE RIVER	ACTIVE	MINOR	SEWERAGE SYSTEMS
WESTINGHOUSE ELEC/COLUMBIA	SC0001848	DRAWER R	WEST	10	MILL CREEK	ACTIVE	MAJOR	SPECIAL INDUSTRY MACHINERY, NEC
PINEY GROVE UTI/ FRANKLIN PARK	SC0031399	PINEY GROVE UTIL -1500 LADY ST	NORTHWEST	30	CEDAR CREEK	ACTIVE	MINOR	DWELLING OPERATORS, EXCEPT APARTMENTS
RICH DIST J HOPKINS ELEMENTARY	SC0031496	RICH DIST I-201 PARK ST	NORTHWEST	30	CEDAR CREEK	ACTIVE	MINOR	ELEMENTARY AND SECONDARY SCHOOLS
CEDAR CREEK MHP WWTF	SC0032018	CEDAR CRK MHP-RT I BOX C-7	NORTHWEST	30	CEDAR CREEK	ACTIVE	MINOR	MOBILE HOME SITE OPERATORS
US ARMY/FORT JACKSON	SC0003786	BLDG 2562, ESSAYONS ROAD	NORTHWEST	30	CEDAR CREEK	ACTIVE	MINOR	NATIONAL SECURITY
SQUARE D COMPANY	SC0004286	8821 GARNERS FERRY ROAD	NORTHWEST	30	CEDAR CREEK	ACTIVE	MAJOR	RELAYS AND INDUSTRIAL CONTROLS
BELLMEADE S/D WWTF	SC0030988	MIDLANDS UTIL-PO BOX 887	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	DWELLING OPERATORS, EXCEPT APARTMENTS
CWS/GLENN VILLAGE II SD	SC0030651	CARO WTR SERV-PO DWR 4509	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	DWELLING OPERATORS, EXCEPT APARTMENTS
PINEY GROVE UTIL/LLOYDWOOD SD	SC0031402	1500 LADY ST	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	DWELLING OPERATORS, EXCEPT APARTMENTS
CREEKSIDE MHP	SC0031143	3118 DUDLEY RD-BOX 20	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	MOBILE HOME SITE OPERATORS
PARKWOOD MHP	SC0030473	PARKWOOD ASSOC-P O. BOX 61140	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	MOBILE HOME SITE OPERATORS
BROOKFOREST MOBILE HOME PARK	SC0031178	BROOKFOREST MH-80 HILLMARK DR	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	MOBILE HOME SITE OPERATORS
LEXINGTON CO/EDMUND LANDFILL	SC0045110	498 LANDFILL LANE	WEST	30	CONGAREE CREEK	ACTIVE	MINOR	REFUSE SYSTEMS
CAYCE WWTF	SC0024147	CITY OF CAYCE-PO BOX 2004	NORTHWEST	30	CONGAREE CREEK	ACTIVE	MAJOR	SEWERAGE SYSTEMS
FURON CO/HELICOFLEX SITE	SC0046418	COLUMBIA INDUSTRIAL PARK	NORTHWEST	30	GILLS CREEK	ACTIVE	MINOR	GASKETS, PACKING AND SEALING DEVICES
TENNECO DIRECT SVC STAT 168-38	SC0043770	4741 FOREST DRIVE	NORTHWEST	30	GILLS CREEK	ACTIVE	MINOR	GASOLINE SERVICE STATIONS
AMPHENOL CORPORATION	SC0046264	40-60 DELAWARE AVENUE	NORTHWEST	30	GILLS CREEK	ACTIVE	MINOR	INDUSTRIAL ORGANIC CHEMICALS, NEC
EAST RICH CO PSD/GILLS CREEK	SC0038865	704 ROSS RD-PO BOX 23069	NORTHWEST	30	GILLS CREEK	ACTIVE	MAJOR	SEWERAGE SYSTEMS
CAROLINA EASTMAN DIVISION	SC0001333	INTERSTATE 26 AND HWY 21 S	WEST	30	MILL CREEK	ACTIVE	MAJOR	CYCLIC CRUDES AND INTERMEDIATES
SCE&G/COLUMBIA HYDRO	SC0002062	301 GERVAIS STREET	NORTHWEST	30	MILL CREEK	ACTIVE	MINOR	ELECTRIC SERVICES
SCE&G/COIT GAS TURBINE	SC0044814	HEYWARD STREET	NORTHWEST	30	MILL CREEK	ACTIVE	MINOR	ELECTRIC SERVICES
EMRO MARKETING/FACILITY #289	SC0045128	2100 GERVAIS STREET	NORTHWEST	30	MILL CREEK	ACTIVE	MINOR	GASOLINE SERVICE STATIONS
MARTIN MARIETTA/CAYCE QUARRY	SC0001058	2125 STATE STREET	NORTHWEST	30	MILL CREEK	ACTIVE	MINOR	GROUND OR TREATED
SC DEPT AGRIC/METROLOGY LAB	SC0041386	PO BOX 11280	NORTHWEST	30	MILL CREEK	ACTIVE	MINOR	HEAVY CONSTRUCTION, NEC
SILVER LAKE MHP	SC0031321	2083 FISH HATCHERY RD	WEST	30	MILL CREEK	ACTIVE	MINOR	MOBILE HOME SITE OPERATORS
ROLLING MEADOWS MHP	SC0033685	KAHN CONSTR. CO-PO BOX 1608	WEST	30	MILL CREEK	ACTIVE	MINOR	MOBILE HOME SITE OPERATORS
COLUMBIA/METRO PLANT	SC0020940	CITY OF COLUMBIA-PO BOX 147	NORTHWEST	30	MILL CREEK	ACTIVE	MAJOR	SEWERAGE SYSTEMS
SUN MACHINERY COMPANY	SC0046221	P O BOX 789	WEST	60	CONGAREE CREEK	ACTIVE	MINOR	GENERAL AUTOMOTIVE REPAIR SHOPS

<sup>a</sup>Direction from the center of Congaree Swamp National Monument.

<sup>b</sup>Approximate distance (km) from the Congaree Swamp National Monument.



Table 5. NPDES-reported discharges and permit levels during 1996 for facilities located within the Congaree watershed.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
CAROLINA EASTMAN DIVISION - SC0001333	FEBRUARY	ALUMINUM, TOTAL (AS AL)	2.00		429	858
		BOD, 5-DAY (20 DEG. C)	260.000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	75.360			X
		OIL AND GREASE	13.000		123	185
		SOLIDS, TOTAL SUSPENDED	193.000		529	1720
	APRIL	ALUMINUM, TOTAL (AS AL)	6.000		429	858
		BOD, 5-DAY (20 DEG. C)	54.000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	77.200			X
		OIL AND GREASE	10.000		123	185
		SOLIDS, TOTAL SUSPENDED	313.000		529	1720
	JUNE <sup>c</sup>	1,1,1-TRICHLORO-ETHANE	0.200		0.26	0.66
		1,1,2-TRICHLORO-ETHANE	0.200		0.26	0.66
		1,1-DICHLOROETHANE	0.020		0.27	0.72
		1,1-DICHLOROETHYLENE	0.020		0.20	0.31
		1,2,4-TRICHLORO- BENZENE	0.080		0.83	1.72
		1,2-DICHLOROBENZENE	0.020		0.94	2.00
		1,2-DICHLOROETHANE	0.020		0.83	2.59
		1,2-DICHLOROPROPANE	0.020		1.88	2.82
		1,2-TRANS-DICHLORO- ETHYLENE	0.020		0.26	0.66
		1,3-DICHLOROBENZENE	0.030		0.38	0.54
		1,3-DICHLOROPROPENE, TOTAL WEIGHT	0.020		0.36	0.54
		1,4-DICHLOROBENZENE	0.020		0.18	0.34
		2,4-DICHLOROPHENOL	0.120		0.48	1.37
		2,4-DIMETHYLPHENOL	0.090		0.22	0.44
		2,4-DINITROPHENOL	0.040		0.87	1.51
		2,4-DINITROTOLUENE	0.050		1.39	3.50
		2,6-DINITROTOLUENE	0.050		3.13	7.86
		2-CHLOROPHENOL	0.100		0.38	1.20
		2-NITROPHENOL	0.040		0.50	0.85
		3,4-BENZOFUORAN- THENE	0.130		0.28	0.75
		4,6-DINITRO-O-CRESOL	0.140		0.96	3.40
		4-NITROPHENOL	0.040		0.88	1.52
		ACENAPHTHENE	0.080		0.27	0.72
		ACENAPHTHYLENE	0.090		0.27	0.72
		ACRYLONITRILE	0.020		1.18	2.97
		ALUMINUM, TOTAL (AS AL)	11.000		429	858
		ANTHRACENE	0.070		0.27	0.72
		BENZENE	0.020		0.45	1.67
		BENZO(A)ANTHRACENE	0.190		0.27	0.72
		BENZO(A)PYRENE	0.100		0.28	0.75
		BENZO(K)FLUORANTHENE	0.090		0.27	0.72
		BIS (2-ETHYLHEXYL) PHTHALATE	0.120		1.26	3.42
		BOD, 5-DAY (20 DEG. C)	59.000		333	888



Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
						NO LIMIT
		CARBON TETRACHLORIDE	0.020	0.22	0.22	0.47
		CHLOROBENZENE	0.020	0.18	0.18	0.34
		CHLOROETHANE, TOTAL WEIGHT	0.200	1.28	1.28	3.29
		CHLOROFORM	0.020	0.26	0.26	0.56
		CHRYSENE	0.120	0.27	0.27	0.72
		DI-N-BUTYL PHTHALATE	0.110	0.33	0.33	0.70
		DIETHYL PHTHALATE	0.080	0.99	0.99	2.49
		DIMETHYL PHTHALATE	0.030	0.23	0.23	0.58
		ETHYLBENZENE	0.020	0.39	0.39	1.32
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	69,050			X
		FLUORANTHENE	0.090	0.31	0.31	0.83
		FLUORENE	0.080	0.27	0.27	0.72
		HEXACHLOROBENZENE	0.100	0.18	0.18	0.34
		HEXACHLOROBUTADIENE	0.040	0.25	0.25	0.60
		HEXACHLOROETHANE	0.050	0.26	0.26	0.66
		METHYL CHLORIDE	0.020	1.05	1.05	2.33
		METHYLENE CHLORIDE	0.020	0.49	0.49	1.09
		NAPHTHALENE	0.090	0.27	0.27	0.72
		NITROBENZENE	0.050	0.33	0.33	0.83
		OIL AND GREASE	30,000	123	123	185
		PHENANTHRENE	0.070	0.27	0.27	0.72
		PHENOL, SINGLE COMPOUND	0.030	0.18	0.18	0.32
		PYRENE	0.100	0.31	0.31	0.82
		SOLIDS, TOTAL SUSPENDED	174,000	529	529	1720
		TETRACHLOROETHYLENE	0.020	0.27	0.27	0.69
		TOLUENE	0.020	0.32	0.32	0.98
		TRICHLOROETHYLENE	0.020	0.26	0.26	0.66
		VINYL CHLORIDE	0.020	1.28	1.28	3.29
		ALUMINUM, TOTAL (AS AL)	11,000	429	429	858
		BOD, 5-DAY (20 DEG. C)	68,000	333	333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	62,230			X
	NOVEMBER	OIL AND GREASE	14,000	123	123	185
		SOLIDS, TOTAL SUSPENDED	48,000	529	529	1720
		ALUMINUM, TOTAL (AS AL)	4,000	429	429	858
		BOD, 5-DAY (20 DEG. C)	29,000	333	333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	69,540			X
	SEPTEMBER	OIL AND GREASE	23,000	123	123	185
		SOLIDS, TOTAL SUSPENDED	106,000	529	529	1720
		ALUMINUM, TOTAL (AS AL)	8,000	429	429	858
		BOD, 5-DAY (20 DEG. C)	28,000	333	333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	67,390			X
	AUGUST	OIL AND GREASE	15,000	123	123	185
		SOLIDS, TOTAL SUSPENDED	67,000	529	529	1720





Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX NO LIMIT
CAYCE WWTF -- SC0024147	DECEMBER	ALUMINUM, TOTAL (AS AL)	3,000		429	858
		BOD, 5-DAY (20 DEG C)	54,000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	62,070			X
		OIL AND GREASE	16,400		123	185
		SOLIDS, TOTAL SUSPENDED	118,000		529	1720
	JANUARY	ALUMINUM, TOTAL (AS AL)	9,000		429	858
		BOD, 5-DAY (20 DEG C)	122,000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	70,890			X
		OIL AND GREASE	16,000		123	185
		SOLIDS, TOTAL SUSPENDED	762,000		529	1720
	JULY	ALUMINUM, TOTAL (AS AL)	2,000		429	858
		BOD, 5-DAY (20 DEG C)	29,000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	70,500			X
		OIL AND GREASE	31,000		123	185
		SOLIDS, TOTAL SUSPENDED	216,000		529	1720
	MARCH	ALUMINUM, TOTAL (AS AL)	3,000		429	858
		BOD, 5-DAY (20 DEG C)	90,000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	75,870			X
		OIL AND GREASE	9,000		123	185
		SOLIDS, TOTAL SUSPENDED	205,000		529	1720
	MAY	ALUMINUM, TOTAL (AS AL)	10,000		429	858
		BOD, 5-DAY (20 DEG C)	31,000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	74,010			X
		OIL AND GREASE	47,000		123	185
		SOLIDS, TOTAL SUSPENDED	33,000		529	1720
	OCTOBER	ALUMINUM, TOTAL (AS AL)	7,000		429	858
		BOD, 5-DAY (20 DEG C)	33,000		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	68,840			X
		OIL AND GREASE	41,000		123	185
		SOLIDS, TOTAL SUSPENDED	109,000		529	1720
	FEBRUARY	BOD, 5-DAY (20 DEG C)	296,000	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	5,000	8	8	
		NITROGEN, AMMONIA TOTAL (AS N)	7,400			X
		SOLIDS, TOTAL SUSPENDED	447,000	3002	2002	
		BOD, 5-DAY (20 DEG C)	219,000	3002	2002	
	APRIL	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	5,100	8	8	
		NITROGEN, AMMONIA TOTAL (AS N)	7,600			X
		SOLIDS, TOTAL SUSPENDED	402,000	3002	2002	
		BOD, 5-DAY (20 DEG C)	202,000	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	3,800	8	8	
	JUNE	SOLIDS, TOTAL SUSPENDED	623,000	3002	2002	
		BOD, 5-DAY (20 DEG C)	131,000	3002	2002	
	NOVEMBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		SOLIDS, TOTAL SUSPENDED				



Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
COLUMBIA/METRO PLANT – SC00209-40	SEPTEMBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	3 660	8	8	
		SOLIDS, TOTAL SUSPENDED	347 000	3002	2002	
		BOD, 5-DAY (20 DEG C)	146 000	3002	2002	
	AUGUST	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	3 800	8	8	
		NITROGEN, AMMONIA TOTAL (AS N)	1 940			X
		SOLIDS, TOTAL SUSPENDED	418 000	3002	2002	
	DECEMBER	BOD, 5-DAY (20 DEG C)	161 000	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	4 200	8	8	
		NITROGEN, AMMONIA TOTAL (AS N)	2 150			X
	JANUARY	SOLIDS, TOTAL SUSPENDED	434 000	3002	2002	
		BOD, 5-DAY (20 DEG C)	138 000	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	3 830	8	8	
JULY	SOLIDS, TOTAL SUSPENDED	342 000	3002	2002		
	BOD, 5-DAY (20 DEG C)	215 000	3002	2002		
	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	4 700	8	8	X	
MARCH	NITROGEN, AMMONIA TOTAL (AS N)	23 000				
	SOLIDS, TOTAL SUSPENDED	399 000	3002	2002		
	BOD, 5-DAY (20 DEG C)	188 000	3002	2002		
MAY	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	3 600	8	8		
	NITROGEN, AMMONIA TOTAL (AS N)	5 090			X	
	SOLIDS, TOTAL SUSPENDED	762 000	3002	2002		
OCTOBER	BOD, 5-DAY (20 DEG C)	461 000	3002	2002		
	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8 800	8	8		
	NITROGEN, AMMONIA TOTAL (AS N)	134 000			X	
FEBRUARY	SOLIDS, TOTAL SUSPENDED	855 000	3002	2002		
	BOD, 5-DAY (20 DEG C)	150 000	3002	2002		
	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	4 500	8	8		
APRIL	NITROGEN, AMMONIA TOTAL (AS N)	1 190			X	
	SOLIDS, TOTAL SUSPENDED	427 000	3002	2002		
	BOD, 5-DAY (20 DEG C)	145 000	3002	2002		
JUNE	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	3 950	8	8		
	NITROGEN, AMMONIA TOTAL (AS N)	5 680			X	
	SOLIDS, TOTAL SUSPENDED	284 000	3002	2002		
	BOD, 5-DAY (20 DEG C)	3457 000	15000	10000		
	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	36 540	40	40		
	SOLIDS, TOTAL SUSPENDED	4515 000	15000	10000		
	BOD, 5-DAY (20 DEG C)	3643 000	15000	10000		
	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	37 480	40	40		
	SOLIDS, TOTAL SUSPENDED	2925 000	15000	10000		
	NITROGEN, AMMONIA TOTAL (AS N)	3466 000	15000	10000		
	SOLIDS, TOTAL SUSPENDED	3229 000	15000	10000		
	BOD, 5-DAY (20 DEG C)	30 110	40	40		
	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	1395 000			X	
	NITROGEN, AMMONIA TOTAL (AS N)	2080 000	15000	10000		
	SOLIDS, TOTAL SUSPENDED					





Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
EAST RICH CO PSD/GILLS CREEK -- SC0038865	NOVEMBER	BOD, 5-DAY (20 DEG C)	2960.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	27 920	40		
		NITROGEN, AMMONIA TOTAL (AS N)	3141.000			X
	SEPTEMBER	SOLIDS, TOTAL SUSPENDED	1267.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	2478.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	31.030	40		
	AUGUST	NITROGEN, AMMONIA TOTAL (AS N)	2184.000			X
		SOLIDS, TOTAL SUSPENDED	1342.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	2733.000	15000	10000	
	DECEMBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	31.390	40		
		NITROGEN, AMMONIA TOTAL (AS N)	1749.000			X
		SOLIDS, TOTAL SUSPENDED	1932.000	15000	10000	
	JANUARY	BOD, 5-DAY (20 DEG C)	3754.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	28.840	40		
		NITROGEN, AMMONIA TOTAL (AS N)	3038.000			X
	JULY	SOLIDS, TOTAL SUSPENDED	1769.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	4568.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	32.800	40		
	MARCH	SOLIDS, TOTAL SUSPENDED	3787.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	2648.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	29.910	40		
	MAY	NITROGEN, AMMONIA TOTAL (AS N)	1685.000			X
		SOLIDS, TOTAL SUSPENDED	1752.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	3884.000	15000	10000	
	OCTOBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	41.190	40		
		NITROGEN, AMMONIA TOTAL (AS N)	1915.000			X
		SOLIDS, TOTAL SUSPENDED	5075.000	15000	10000	
	FEBRUARY	BOD, 5-DAY (20 DEG C)	3043.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	33.330	40		
		NITROGEN, AMMONIA TOTAL (AS N)	1620.000			X
	APRIL	SOLIDS, TOTAL SUSPENDED	2626.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	2655.000	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	31.210	40		
	JUNE	NITROGEN, AMMONIA TOTAL (AS N)	2615.000			X
		SOLIDS, TOTAL SUSPENDED	2000.000	15000	10000	
		BOD, 5-DAY (20 DEG C)	1384.000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	9.490			
		SOLIDS, TOTAL SUSPENDED	1544.000	3934	2623	10.5
		BOD, 5-DAY (20 DEG C)	1254.000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	9.650			
		NITROGEN, AMMONIA TOTAL (AS N)	627.000			
		SOLIDS, TOTAL SUSPENDED	1248.000	3934	2623	10.5
		BOD, 5-DAY (20 DEG C)	1120.000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	7.990			
						10.5



Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
						NO LIMIT
NOVEMBER		NITROGEN, AMMONIA TOTAL (AS N)	721,000			
		SOLIDS, TOTAL SUSPENDED	1025,000	3934	2623	X
		BOD, 5-DAY (20 DEG. C) (MGD)	1645,000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	7,870		10.5	
SEPTEMBER		SOLIDS, TOTAL SUSPENDED	2333,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	903,000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8,090		10.5	
		NITROGEN, AMMONIA TOTAL (AS N)	517,000			X
AUGUST		SOLIDS, TOTAL SUSPENDED	624,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	1104,000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	7,920		10.5	
		NITROGEN, AMMONIA TOTAL	342,000			X
DECEMBER		SOLIDS, TOTAL SUSPENDED	698,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	2273,000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8,010		10.5	
		SOLIDS, TOTAL SUSPENDED	2743,000	3934	2623	
JANUARY		BOD, 5-DAY (20 DEG. C)	2218,000	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8,340		10.5	
		SOLIDS, TOTAL SUSPENDED	1816,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	1135,000	3934	2623	
JULY		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	7,520		10.5	
		NITROGEN, AMMONIA TOTAL (AS N)	499,000			X
		SOLIDS, TOTAL SUSPENDED	1029,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	2595,000	3934	2623	
MARCH		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	12,310		10.5	
		NITROGEN, AMMONIA TOTAL (AS N)	471,500			X
		SOLIDS, TOTAL SUSPENDED	2377,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	1598,000	3934	2623	
MAY		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8,160		10.5	
		NITROGEN, AMMONIA TOTAL (AS N)	760,000			X
		SOLIDS, TOTAL SUSPENDED	1189,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	1214,000	3934	2623	
OCTOBER		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8,830		10.5	
		NITROGEN, AMMONIA TOTAL (AS N)	256,000			X
		SOLIDS, TOTAL SUSPENDED	1956,000	3934	2623	
		BOD, 5-DAY (20 DEG. C)	10,600		10	
FEBRUARY		CADMIUM, TOTAL (AS CD)	0.0030		0.005	0.011
		CHROMIUM, TOTAL (AS CR)	0.0060		0.015	0.030
		COPPER, TOTAL (AS CU)	0.0210		0.018	0.036
		CYANIDE, TOTAL (AS CN)	0.0060		0.006	0.04
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0110			X
		LEAD, TOTAL (AS PB)	0.0003		0.008	0.008
		NICKEL, TOTAL (AS NI)	0.0050		0.08	0.23
		SOLIDS, TOTAL SUSPENDED	0.8000		5	10

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Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
						NO LIMIT
APRIL		ZINC, TOTAL (AS ZN)	0.0040	0.015	0.030	
		BOD, 5-DAY (20 DEG C)	10.2000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0080	0.015	0.030	
		COPPER, TOTAL (AS CU)	0.0110	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0130			X
		LEAD, TOTAL (AS PB)	0.0003	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0040	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	1.1000	5	10	
JUNE		ZINC, TOTAL (AS ZN)	0.0020	0.015	0.30	
		BOD, 5-DAY (20 DEG C)	20.4000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0030	0.015	0.030	
		COPPER, TOTAL (AS CU)	0.0090	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0140			X
		LEAD, TOTAL (AS PB)	0.0006	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0090	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	2.8000	5	10	
NOVEMBER		ZINC, TOTAL (AS ZN)	0.0030	0.015	0.030	
		BOD, 5-DAY (20 DEG C)	10.1000	5	10	
		COPPER, TOTAL (AS CU)	0.0040	0.018	0.036	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0100			X
		SOLIDS, TOTAL SUSPENDED	1.1000	5	10	
		ZINC, TOTAL (AS ZN)	0.0040	0.015	0.30	
		BOD, 5-DAY (20 DEG C)	20.7000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0040	0.015	0.030	
		COPPER, TOTAL (AS CU)	0.0110	0.018	0.036	
SEPTEMBER		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0200			X
		LEAD, TOTAL (AS PB)	0.0003	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0030	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	1.2000	5	10	
		ZINC, TOTAL (AS ZN)	0.0040	0.015	0.030	
		BOD, 5-DAY (20 DEG C)	10.2000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0030	0.015	0.030	
		COPPER, TOTAL (AS CU)	0.0160	0.018	0.036	
AUGUST		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0150			X
		LEAD, TOTAL (AS PB)	0.0003	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0030	0.08	0.23	
		ZINC, TOTAL (AS ZN)	0.0040	0.015	0.030	
		BOD, 5-DAY (20 DEG C)	10.2000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0040	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0030	0.015	0.030	
		COPPER, TOTAL (AS CU)	0.0160	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	





Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
						NO LIMIT
DECEMBER		SOLIDS, TOTAL SUSPENDED	0.6000	5	10	
		ZINC, TOTAL (AS ZN)	0.0090	0.015	0.30	
		BOD, 5-DAY (20 DEG C)	10.2000	5	10	
		COPPER, TOTAL (AS CU)	0.0060	0.018	0.036	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0090			X
		SOLIDS, TOTAL SUSPENDED	0.5000	5	10	
		ZINC, TOTAL (AS ZN)	0.0020	0.015	0.030	
		BOD, 5-DAY (20 DEG C)	10.9000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0040	0.015	0.030	
JANUARY		COPPER, TOTAL (AS CU)	0.0140	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0060	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0113			X
		LEAD, TOTAL (AS PB)	0.0010	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0180	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	0.0080	5	10	
		ZINC, TOTAL (AS ZN)	0.0020	0.015	0.30	
		BOD, 5-DAY (20 DEG C)	10.3000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0030	0.015	0.030	
JULY		COPPER, TOTAL (AS CU)	0.0080	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0140			X
		LEAD, TOTAL (AS PB)	0.0008	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0030	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	0.7000	5	10	
		ZINC, TOTAL (AS ZN)	0.0050	0.015	0.030	
		BOD, 5-DAY (20 DEG C)	0.6000	5	10	
		CADMIUM, TOTAL (AS CD)	0.0030	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0080	0.015	0.030	
MARCH		COPPER, TOTAL (AS CU)	0.0080	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0030	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0190			X
		LEAD, TOTAL (AS PB)	0.0006	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0050	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	0.8000	5	10	
		ZINC, TOTAL (AS ZN)	0.0050	0.015	0.30	
		BOD, 5-DAY (20 DEG C)	10.1000	5	10	
		CADMIUM, TOTAL (AS CD)				
		CHROMIUM, TOTAL (AS CR)				
MAY		COPPER, TOTAL (AS CU)				
		CYANIDE, TOTAL (AS CN)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		LEAD, TOTAL (AS PB)				
		NICKEL, TOTAL (AS NI)				
		SOLIDS, TOTAL SUSPENDED				
		ZINC, TOTAL (AS ZN)				
		BOD, 5-DAY (20 DEG C)				
		CADMIUM, TOTAL (AS CD)				
		CHROMIUM, TOTAL (AS CR)				



Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
WESTINGHOUSE ELEC/COLUMBIA -- SC0001848	OCTOBER	CADMIUM, TOTAL (AS CD)	0.0040	0.005	0.011	
		CHROMIUM, TOTAL (AS CR)	0.0040	0.015	0.030	
		COPPER, TOTAL (AS CU)	0.0070	0.018	0.036	
		CYANIDE, TOTAL (AS CN)	0.0010	0.006	0.04	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0130			X
		LEAD, TOTAL (AS PB)	0.0004	0.004	0.008	
		NICKEL, TOTAL (AS NI)	0.0050	0.08	0.23	
		SOLIDS, TOTAL SUSPENDED	0.8000	5	10	
		ZINC, TOTAL (AS ZN)	0.0040	0.015	0.030	
		BOD, 5-DAY (20 DEG. C)	10.5000	5	10	
		COPPER, TOTAL (AS CU)	0.0110	0.018	0.036	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.0130			X
		SOLIDS, TOTAL SUSPENDED	0.7000	5	10	
		ZINC, TOTAL (AS ZN)	0.0190	0.015	0.30	
		BOD, 5-DAY (20 DEG. C)	12.900	25	50	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.145			X
	FEBRUARY	FLUORIDE, TOTAL (AS FL)	20.600	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	38.900	60	120	
		SOLIDS, TOTAL SUSPENDED	12.600	32	64	
		BOD, 5-DAY (20 DEG. C)	18.000	25	50	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.152			X
		FLUORIDE, TOTAL (AS FL)	9.900	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	29.800	60	120	
		SOLIDS, TOTAL SUSPENDED	30.200	32	64	
		BOD, 5-DAY (20 DEG. C)	36.000	25	50	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.170			X
		FLUORIDE, TOTAL (AS FL)	11.400	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	10.400	60	120	
		SOLIDS, TOTAL SUSPENDED	17.100	32	64	
		BOD, 5-DAY (20 DEG. C)	24.800	25	50	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.178			X
		FLUORIDE, TOTAL (AS FL)	13.300	40	80	
	APRIL	NITROGEN, AMMONIA TOTAL (AS N)	38.100	60	120	
		SOLIDS, TOTAL SUSPENDED	12.400	32	64	
		BOD, 5-DAY (20 DEG. C)	31.200	25	50	
	JUNE	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
	NOVEMBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
	SEPTEMBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)				
		FLUORIDE, TOTAL (AS FL)				
		NITROGEN, AMMONIA TOTAL (AS N)				
		SOLIDS, TOTAL SUSPENDED				
		BOD, 5-DAY (20 DEG. C)				





Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
						NO LIMIT
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.234			X
		FLUORIDE, TOTAL (AS FL)	19,500	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	35,700	60	120	
		SOLIDS, TOTAL SUSPENDED	32,900	32	64	
	AUGUST	BOD, 5-DAY (20 DEG. C)	40,700	25	50	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.180			X
		FLUORIDE, TOTAL (AS FL)	14,700	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	48,400	60	120	
		SOLIDS, TOTAL SUSPENDED	10,800	32	64	
		BOD, 5-DAY (20 DEG. C)	22,000	25	50	
	DECEMBER	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.247			X
		FLUORIDE, TOTAL (AS FL)	10,600	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	61,900	60	120	
		SOLIDS, TOTAL SUSPENDED	13,900	32	64	
		BOD, 5-DAY (20 DEG. C)	25,800	25	50	
	JANUARY	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.227			X
		FLUORIDE, TOTAL (AS FL)	13,300	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	89,600	60	120	
		SOLIDS, TOTAL SUSPENDED	138,500	32	64	
		BOD, 5-DAY (20 DEG. C)	35,400	25	50	
	JULY	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.181			X
		FLUORIDE, TOTAL (AS FL)	15,700	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	16,900	60	120	
		SOLIDS, TOTAL SUSPENDED	17,700	32	64	
		BOD, 5-DAY (20 DEG. C)	34,000	25	50	
	MARCH	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.172			X
		FLUORIDE, TOTAL (AS AL)	12,600	40	80	
		NITROGEN, AMMONIA TOTAL (AS N)	40,600	60	120	
		SOLIDS, TOTAL SUSPENDED	41,200	32	64	
		BOD, 5-DAY (20 DEG. C)	18,600	25	50	
	MAY	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.199			X
		FLUORIDE, TOTAL (AS F)	15,200	40	80	



Table 5. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX NO LIMIT
		NITROGEN, AMMONIA TOTAL (AS N)	33,100	60		120
		SOLIDS, TOTAL SUSPENDED	24,700	32		64
		BOD, 5-DAY (20 DEG. C)	21,200	25		50
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.187			X
		FLUORIDE, TOTAL (AS F)	18,700	40		80
		NITROGEN, AMMONIA TOTAL (AS N)	52,000	60		120
		SOLIDS, TOTAL SUSPENDED	23,800	32		64

<sup>a</sup>Maximum quantity reported for period (month) in pounds per day for all parameters except flow which is million gallons per day (MGD).

<sup>b</sup>Largest quantity NPDES discharge permit limit of all discharge pipes (pounds per day for all parameters except flow which is million gallons per day).

<sup>c</sup>These amounts considered to be off-scale low and are non detectable below the amount given.



**Table 6. NPDES-reported discharges and permit levels during 1997 (January - April) for facilities located within the Congaree watershed.**

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
CAROLINA EASTMAN DIVISION -- SC0001333	JANUARY	ALUMINUM, TOTAL	19.00		429	858
		BOD, 5-DAY (20 DEG. C)	152.00		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	62.64			X
		OIL AND GREASE	15.00		123	123
	FEBRUARY	SOLIDS, TOTAL SUSPENDED	99.00		529	529
		ALUMINUM, TOTAL	4.00		429	858
		BOD, 5-DAY (20 DEG. C)	68.00		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	62.82			X
	MARCH	OIL AND GREASE	27.00		123	123
		SOLIDS, TOTAL SUSPENDED	348.00		529	529
		ALUMINUM, TOTAL	4.00		429	858
		BOD, 5-DAY (20 DEG. C)	34.00		333	888
	APRIL	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	87.64			X
		OIL AND GREASE	11.00		123	123
		SOLIDS, TOTAL SUSPENDED	98.00		529	529
		ALUMINUM, TOTAL	6.00		429	858
CAYCE WWTF -- SC0024147	JANUARY	BOD, 5-DAY (20 DEG. C)	153.00		333	888
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	88.24			X
		OIL AND GREASE	15.00		123	123
		SOLIDS, TOTAL SUSPENDED	134.00		529	529
	FEBRUARY	BOD, 5-DAY (20 DEG. C)	217.00	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	4.70	8	8	
		SOLIDS, TOTAL SUSPENDED	392.00	3002	2002	
		BOD, 5-DAY (20 DEG. C)	303.00	3002	2002	
	MARCH	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	5.00	8	8	
		SOLIDS, TOTAL SUSPENDED	507.00	3002	2002	
		BOD, 5-DAY (20 DEG. C)	196.00	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	4.06	8	8	
	APRIL	NITROGEN, AMMONIA TOTAL (AS N)	4.30			X
		SOLIDS, TOTAL SUSPENDED	383.00	3002	2002	
		BOD, 5-DAY (20 DEG. C)	336.00	3002	2002	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	4.00	8	8	
COLUMBIA/METRO PLANT -- SC0020940	FEBRUARY	NITROGEN, AMMONIA TOTAL (AS N)	19.90			X
		SOLIDS, TOTAL SUSPENDED	538.00	3002	2002	
		BOD, 5-DAY (20 DEG. C)	4381.00	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	40.96	40	40	
	APRIL	NITROGEN, AMMONIA TOTAL (AS N)	4530.00			X
		SOLIDS, TOTAL SUSPENDED	2746.00	15000	10000	
		BOD, 5-DAY (20 DEG. C)	4234.00	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	33.46	40	40	





Table 6. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX NO LIMIT
EAST RICH CO PSD/GILLS CREEK - SC0038865	JANUARY	NITROGEN, AMMONIA TOTAL (AS N)	3454.00			x
		SOLIDS, TOTAL SUSPENDED	3809.00	15000	10000	
		BOD, 5-DAY (20 DEG. C)	2980.00	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	34.05	40	40	
	MARCH	NITROGEN, AMMONIA TOTAL (AS N)	4548.00			x
		SOLIDS, TOTAL SUSPENDED	2422.00	15000	10000	
		BOD, 5-DAY (20 DEG. C)	2853.00	15000	10000	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	36.12	40	40	
	FEBRUARY	NITROGEN, AMMONIA TOTAL (AS N)	4088.00			x
		SOLIDS, TOTAL SUSPENDED	2404.00	15000	10000	
		BOD, 5-DAY (20 DEG. C)	1892.00	3934	2623	
		SOLIDS, TOTAL SUSPENDED	1348.00	3934	2623	
SQUARE D COMPANY - SC0004286	APRIL	BOD, 5-DAY (20 DEG. C)	1763.00	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	8.92	10.5	10.5	
		NITROGEN, AMMONIA TOTAL	65.00			X
		SOLIDS, TOTAL SUSPENDED	1569.00	3934	2623	
	JANUARY	BOD, 5-DAY (20 DEG. C)	2226.00	3934	2623	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	9.22	10.5	10.5	
		SOLIDS, TOTAL SUSPENDED	2350.00	3934	2623	
		BOD, 5-DAY (20 DEG. C)	903.00	3934	2623	
	MARCH	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	9.40	10.5	10.5	
		NITROGEN, AMMONIA TOTAL	469.00			X
		SOLIDS, TOTAL SUSPENDED	640.00	3934	2623	
		BOD, 5-DAY (20 DEG. C)	1.100	2.75	5.5	
SQUARE D COMPANY - SC0004286	JANUARY	COPPER, TOTAL (AS CU)	0.009	0.018	0.036	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.015			X
		SOLIDS, TOTAL SUSPENDED	1.400	2.75	5.5	
		ZINC, TOTAL (AS ZN)	0.008	0.015	0.03	
	FEBRUARY	BOD, 5-DAY (20 DEG. C)	1.100	2.75	5.5	
		COPPER, TOTAL (AS CU)	0.016	0.018	0.036	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.023			X
		SOLIDS, TOTAL SUSPENDED	3.000	2.75	5.5	
	MARCH	ZINC, TOTAL (AS ZN)	0.003	0.015	0.03	
		BOD, 5-DAY (20 DEG. C)	0.900	2.75	5.5	
		COPPER, TOTAL (AS CU)	0.013	0.018	0.03	
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.017			X
APRIL		SOLIDS, TOTAL SUSPENDED	0.600	2.75	5.5	
		ZINC, TOTAL (AS ZN)	0.005	0.015	0.03	
		BOD, 5-DAY (20 DEG. C)	1.200	2.75	5.5	



Table 6. Continued.

FACILITY NAME AND NPDES ID	REPORT PERIOD	DISCHARGED CHEMICALS/COMPOUNDS	AMOUNT <sup>a</sup>	PERMIT LEVELS <sup>b</sup>		
				WEEKLY AVG	MONTHLY AVG	DAILY MAX
WESTINGHOUSE ELEC/COLUMBIA -- SC0001348	JANUARY	COPPER, TOTAL (AS CU)	0.015		0.018	0.03
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.012			X
		SOLIDS, TOTAL SUSPENDED	1.100		2.75	5.5
		ZINC, TOTAL (AS ZN)	0.006		0.015	0.03
		BOD, 5-DAY (20 DEG C)	40.700		25	50
	FEBRUARY	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.234			X
		FLUORIDE, TOTAL (AS FL)	11.900		50	100
		NITROGEN, AMMONIA TOTAL (AS N)	48.900		25	50
		SOLIDS, TOTAL SUSPENDED	27.200		32	64
		BOD, 5-DAY (20 DEG C)	18.600		25	50
	MARCH	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.176			X
		FLUORIDE, TOTAL (AS FL)	12.600		25	50
		NITROGEN, AMMONIA TOTAL (AS N)	48.400		50	100
		SOLIDS, TOTAL SUSPENDED	14.900		32	64
		BOD, 5-DAY (20 DEG C)	20.900		25	50
	APRIL	FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.165			X
		FLUORIDE, TOTAL (AS FL)	13.500		25	50
		NITROGEN, AMMONIA TOTAL (AS N)	44.800		50	100
		SOLIDS, TOTAL SUSPENDED	15.900		32	64
		BOD, 5-DAY (20 DEG C)	19.100		25	50
		FLOW, IN CONDUIT OR THRU TREATMENT PLANT (MGD)	0.220			X
		FLUORIDE, TOTAL (AS FL)	10.900		25	50
		NITROGEN, AMMONIA TOTAL (AS N)	29.400		50	100
		SOLIDS, TOTAL SUSPENDED	18.000		32	64

<sup>a</sup>Maximum quantity reported for period (month) in pounds per day for all parameters except flow which is million gallons per day (MGD).<sup>b</sup>Largest quantity NPDES discharge permit limit of all discharge pipes [pounds per day for all parameters except flow which is million gallons per day (MGD)].





**Table 7. 1994 TRI-reported air releases for facilities located within the Congaree watershed.**

SITE NAME	FACILITY CODE	CHEMICALS/COMPOUNDS	MEDIA	RELEASE AMOUNT <sup>a</sup>
OWEN ELECTRIC STEEL CO. OF SC	29033WNLCT310NE	CADMIUM COMPOUNDS	STACK	NR
		CADMIUM COMPOUNDS	FUGITIVE	NR
		CHROMIUM COMPOUNDS	FUGITIVE	NR
		CHROMIUM COMPOUNDS	STACK	NR
		LEAD COMPOUNDS	FUGITIVE	NR
		LEAD COMPOUNDS	STACK	NR
		MANGANESE COMPOUNDS	FUGITIVE	NR
		MANGANESE COMPOUNDS	STACK	NR
		NICKEL COMPOUNDS	FUGITIVE	NR
		NICKEL COMPOUNDS	STACK	NR
		VANADIUM (FUME OR DUST)	FUGITIVE	NR
		VANADIUM (FUME OR DUST)	STACK	NR
		ZINC COMPOUNDS	FUGITIVE	NR
COOPER POWER TOOLS	29072CPRPW670IN	ZINC COMPOUNDS	STACK	1441
		METHANOL	FUGITIVE	NR
DEVRO-TEEPAK INC.SANDY RUN	29160TPKNCSTARR	METHANOL	STACK	1600
		AMMONIA	FUGITIVE	1500000
		AMMONIA	STACK	340000
		AMMONIUM SULFATE (SOLUTION)	FUGITIVE	NR
		AMMONIUM SULFATE (SOLUTION)	STACK	NR
		HYDROCHLORIC ACID	FUGITIVE	NR
		HYDROCHLORIC ACID	STACK	NR
		SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
		CHLORINE	FUGITIVE	1
KLINE IRON & STEEL CO. INC.	29169KLNRN841WI	CHLORINE	STACK	NR
		METHYL ETHYL KETONE	FUGITIVE	45000
ROSE-TALBERT PAINT CO.	29171RSTLB901FR	METHYL ETHYL KETONE	STACK	NR
		ETHYLENE GLYCOL	FUGITIVE	NR
CARDINAL COS. L.P.	29201CRDNL2010S	ETHYLENE GLYCOL	STACK	NR
		MALEIC ANHYDRIDE	FUGITIVE	NR
		MALEIC ANHYDRIDE	STACK	NR
		HYDROCHLORIC ACID	FUGITIVE	NR
LINDAU CHEMICALS INC.	29201LNDCH750GR	HYDROCHLORIC ACID	STACK	NR
		1,3-BUTADIENE	FUGITIVE	NR
		1,3-BUTADIENE	STACK	6100
		BUTYL ACRYLATE	FUGITIVE	NR
		BUTYL ACRYLATE	STACK	NR
		BENZYL CHLORIDE	FUGITIVE	NR
		BENZYL CHLORIDE	STACK	NR
		MALEIC ANHYDRIDE	FUGITIVE	NR
		MALEIC ANHYDRIDE	STACK	NR
		METHANOL	FUGITIVE	NR
		METHANOL	STACK	9100
		PHTHALIC ANHYDRIDE	FUGITIVE	NR
		PHTHALIC ANHYDRIDE	STACK	NR
		STYRENE	FUGITIVE	NR
		STYRENE	STACK	NR
		CUMENE	FUGITIVE	NR
		CUMENE	STACK	NR
		1,2,4-TRIMETHYLBENZENE	FUGITIVE	NR
		1,2,4-TRIMETHYLBENZENE	STACK	NR
		XYLENE (MIXED ISOMERS)	FUGITIVE	NR
		XYLENE (MIXED ISOMERS)	STACK	NR
		METHYL METHACRYLATE	FUGITIVE	NR
		METHYL METHACRYLATE	STACK	NR



Table 7. Continued.

SITE NAME	FACILITY CODE	CHEMICALS/COMPOUNDS	MEDIA	RELEASE AMOUNT <sup>a</sup>
SUNBIRD BOAT CO	29201SNBRD2348S	STYRENE	FUGITIVE	NR
		STYRENE	STACK	180190
		METHYLENEBIS(PHENYLISOCYANATE)	FUGITIVE	NR
		METHYLENEBIS(PHENYLISOCYANATE)	STACK	NR
CONSOLIDATED SYS. INC.	29202CNSLD650RO	PHOSPHORIC ACID	FUGITIVE	240
		PHOSPHORIC ACID	STACK	NR
		METHYL ETHYL KETONE	FUGITIVE	1100
		METHYL ETHYL KETONE	STACK	40000
		XYLENE (MIXED ISOMERS)	FUGITIVE	1150
		XYLENE (MIXED ISOMERS)	STACK	17800
		NITRIC ACID	FUGITIVE	250
		NITRIC ACID	STACK	NR
		N-BUTYL ALCOHOL	FUGITIVE	320
		N-BUTYL ALCOHOL	STACK	3350
		1,2,4-TRIMETHYLBENZENE	FUGITIVE	220
		1,2,4-TRIMETHYLBENZENE	STACK	2300
		SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
		CERTAIN GLYCOL ETHERS	FUGITIVE	800
		CERTAIN GLYCOL ETHERS	STACK	20000
		CHROMIUM	FUGITIVE	200
		CHROMIUM	STACK	NR
CAROLINA EASTMAN DIV.	29202CRLNSUSHIG	ACETALDEHYDE	FUGITIVE	39000
		ACETALDEHYDE	STACK	68000
		AMMONIA	FUGITIVE	57
		AMMONIA	STACK	NR
		BIPHENYL	FUGITIVE	1300
		BIPHENYL	STACK	NR
		BROMOMETHANE	FUGITIVE	3400
		BROMOMETHANE	STACK	290000
		1,4-DIOXANE	FUGITIVE	2200
		1,4-DIOXANE	STACK	NR
		ETHYLENE GLYCOL	FUGITIVE	150000
		ETHYLENE GLYCOL	STACK	32000
		HYDROCHLORIC ACID	FUGITIVE	NR
		HYDROCHLORIC ACID	STACK	110000
		HYDROGEN FLUORIDE	FUGITIVE	NR
		HYDROGEN FLUORIDE	STACK	48000
		METHANOL	FUGITIVE	200000
		METHANOL	STACK	270000
		2-METHOXYETHANOL	FUGITIVE	4700
		2-METHOXYETHANOL	STACK	2500
		PHOSPHORIC ACID	FUGITIVE	1
		PHOSPHORIC ACID	STACK	NR
		SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
		O-XYLENE	FUGITIVE	84000
		O-XYLENE	STACK	15000
		P-XYLENE	FUGITIVE	82000
		P-XYLENE	STACK	59000
		ANTIMONY COMPOUNDS	FUGITIVE	NR
		ANTIMONY COMPOUNDS	STACK	110
		COBALT COMPOUNDS	FUGITIVE	NR
		COBALT COMPOUNDS	STACK	250
		MANGANESE COMPOUNDS	FUGITIVE	NR
		MANGANESE COMPOUNDS	STACK	21



Table 7. Continued.

SITE NAME	FACILITY CODE	CHEMICALS/COMPOUNDS	MEDIA	RELEASE AMOUNT <sup>a</sup>
KLINE IRON & STEEL CO. INC.	29202KLNRN1225H	METHYL ETHYL KETONE	FUGITIVE	26000
		METHYL ETHYL KETONE	STACK	NR
ANCHOR CONTINENTAL	29205NCHRC2000S	TOLUENE	FUGITIVE	77946
		TOLUENE	STACK	2520259
		ZINC COMPOUNDS	FUGITIVE	289
		ZINC COMPOUNDS	STACK	NR
		TOLUENE-2,4-DIISOCYANATE	FUGITIVE	NR
		TOLUENE-2,4-DIISOCYANATE	STACK	NR
		TOLUENE-2,6-DIISOCYANATE	FUGITIVE	NR
		TOLUENE-2,6-DIISOCYANATE	STACK	NR
		METHYLENEBIS(PHENYLISOCYANATE)	FUGITIVE	NR
		METHYLENEBIS(PHENYLISOCYANATE)	STACK	NR
SQUARE D CO.	29209SQRDC8821G	SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
		COPPER	FUGITIVE	NR
		COPPER	STACK	NR
		CHROMIUM	FUGITIVE	NR
		CHROMIUM	STACK	NR
CAROLINA CERAMICS INC.	29223CRLNC9931T	CHROMIUM	FUGITIVE	NR
		CHROMIUM	STACK	NR
		MANGANESE	FUGITIVE	NR
		MANGANESE	STACK	NR
COLWOOD CO. INC.	29224CLWDC208FL	ARSENIC COMPOUNDS	FUGITIVE	NR
		ARSENIC COMPOUNDS	STACK	NR
		CHROMIUM COMPOUNDS	FUGITIVE	NR
		CHROMIUM COMPOUNDS	STACK	NR
		COPPER COMPOUNDS	FUGITIVE	NR
		COPPER COMPOUNDS	STACK	NR
WESTINGHOUSE ELECTRIC CORP. NUC. FUEL	29250WSTNGPOBOX	AMMONIA	FUGITIVE	34000
		AMMONIA	STACK	200000
		HYDROGEN FLUORIDE	FUGITIVE	NR
		HYDROGEN FLUORIDE	STACK	NR
		NITRIC ACID	FUGITIVE	NR
		NITRIC ACID	STACK	1500
		SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
MICALLINE PRODS. INC.	29290MCLLN1717P	STYRENE	FUGITIVE	2683
		STYRENE	STACK	NR

<sup>a</sup>Releases are reported in pounds. NR = no releases reported for this year but has been reported at least once between 1987 and 1995.





**Table 8. 1995 TRI-reported air releases for facilities located within the Congaree watershed.**

SITE NAME	FACILITY CODE	CHEMICALS/COMPOUNDS	MEDIA	RELEASE AMOUNT <sup>a</sup>
OWEN ELECTRIC STEEL CO. OF SC	29033WNLCT310NE	CHROMIUM COMPOUNDS	FUGITIVE	NR
		CHROMIUM COMPOUNDS	STACK	NR
		LEAD COMPOUNDS	FUGITIVE	NR
		LEAD COMPOUNDS	STACK	NR
		MANGANESE COMPOUNDS	FUGITIVE	NR
		MANGANESE COMPOUNDS	STACK	NR
		NICKEL COMPOUNDS	FUGITIVE	NR
		NICKEL COMPOUNDS	STACK	NR
		VANADIUM (FUME OR DUST)	FUGITIVE	NR
		VANADIUM (FUME OR DUST)	STACK	NR
COOPER POWER TOOLS	29072CPRPW670IN	ZINC COMPOUNDS	FUGITIVE	NR
		ZINC COMPOUNDS	STACK	1231
DEVRO-TEEPAK INC.SANDY RUN	29160TPKNCSTARR	METHANOL	FUGITIVE	0
		METHANOL	STACK	1800
		AMMONIA	FUGITIVE	1390000
		AMMONIA	STACK	308000
		NITRATE COMPOUNDS	FUGITIVE	NR
KLINE IRON & STEEL CO. INC.	29169KLNRN841WI	NITRATE COMPOUNDS	STACK	NR
		METHYL ETHYL KETONE	FUGITIVE	47000
		METHYL ETHYL KETONE	STACK	NR
		XYLENE (MIXED ISOMERS)	FUGITIVE	24000
ROSE-TALBERT PAINT CO.	29171RSTLB901FR	XYLENE (MIXED ISOMERS)	STACK	NR
		ETHYLENE GLYCOL	FUGITIVE	NR
SMI-OWEN MISCELLANEOUS METALS INC.	29171WNMSC2804T	ETHYLENE GLYCOL	STACK	NR
		METHYL ETHYL KETONE	FUGITIVE	10870
		METHYL ETHYL KETONE	STACK	NR
		CHROMIUM COMPOUNDS	FUGITIVE	NR
		CHROMIUM COMPOUNDS	STACK	NR
		MANGANESE COMPOUNDS	FUGITIVE	NR
		MANGANESE COMPOUNDS	STACK	NR
		NICKEL COMPOUNDS	FUGITIVE	NR
		NICKEL COMPOUNDS	STACK	NR
		ZINC COMPOUNDS	FUGITIVE	NR
CARDINAL COS. L.P.	2920ICRDNL2010S	ZINC COMPOUNDS	STACK	NR
		MALEIC ANHYDRIDE	FUGITIVE	NR
LINDAU CHEMICALS INC.	2920ILNDCH750GR	MALEIC ANHYDRIDE	STACK	NR
		1,3-BUTADIENE	FUGITIVE	NR
		1,3-BUTADIENE	STACK	6000
		BUTYL ACRYLATE	FUGITIVE	NR
		BUTYL ACRYLATE	STACK	NR
		MALEIC ANHYDRIDE	FUGITIVE	NR
		MALEIC ANHYDRIDE	STACK	NR
		METHANOL	FUGITIVE	NR
		METHANOL	STACK	11000
		PHTHALIC ANHYDRIDE	FUGITIVE	NR
		PHTHALIC ANHYDRIDE	STACK	NR
		STYRENE	FUGITIVE	NR
		STYRENE	STACK	NR
		1,2,4-TRIMETHYLBENZENE	FUGITIVE	NR
		1,2,4-TRIMETHYLBENZENE	STACK	NR
		TRIETHYLAMINE	FUGITIVE	NR
		TRIETHYLAMINE	STACK	NR



Table 8. Continued.

SITE NAME	FACILITY CODE	CHEMICALS/COMPOUNDS	MEDIA	RELEASE AMOUNT <sup>a</sup>
SUNBIRD BOAT CO.	29201SNBRD2348S	STYRENE	FUGITIVE	NR
		STYRENE	STACK	155700
		DIISOCYANATES	FUGITIVE	NR
		DIISOCYANATES	STACK	NR
CONSOLIDATED SYS. INC.	29202CNSLD650RO	PHOSPHORIC ACID	FUGITIVE	240
		PHOSPHORIC ACID	STACK	NR
		METHYL ETHYL KETONE	FUGITIVE	1100
		METHYL ETHYL KETONE	STACK	40000
		XYLENE (MIXED ISOMERS)	FUGITIVE	1150
		XYLENE (MIXED ISOMERS)	STACK	17800
		NITRIC ACID	FUGITIVE	250
		NITRIC ACID	STACK	NR
		N-BUTYL ALCOHOL	FUGITIVE	320
		N-BUTYL ALCOHOL	STACK	3350
		1,2,4-TRIMETHYLBENZENE	FUGITIVE	220
		1,2,4-TRIMETHYLBENZENE	STACK	2300
		SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
		CERTAIN GLYCOL ETHERS	FUGITIVE	800
		CERTAIN GLYCOL ETHERS	STACK	20000
		CHROMIUM	FUGITIVE	200
		CHROMIUM	STACK	NR
CAROLINA EASTMAN DIV.	29202CRLNSUSHIG	ACETALDEHYDE	FUGITIVE	58000
		ACETALDEHYDE	STACK	73000
		AMMONIA	FUGITIVE	54
		AMMONIA	STACK	NR
		BIPHENYL	FUGITIVE	1500
		BIPHENYL	STACK	NR
		BROMOMETHANE	FUGITIVE	8600
		BROMOMETHANE	STACK	370000
		1,4-DIOXANE	FUGITIVE	2100
		1,4-DIOXANE	STACK	NR
		ETHYLENE GLYCOL	FUGITIVE	160000
		ETHYLENE GLYCOL	STACK	33000
		HYDROCHLORIC ACID	FUGITIVE	NR
		HYDROCHLORIC ACID	STACK	91000
		HYDROGEN FLUORIDE	FUGITIVE	NR
		HYDROGEN FLUORIDE	STACK	40000
		METHANOL	FUGITIVE	160000
		METHANOL	STACK	220000
		2-METHOXYETHANOL	FUGITIVE	5500
		2-METHOXYETHANOL	STACK	NR
		PHOSPHORIC ACID	FUGITIVE	2
		PHOSPHORIC ACID	STACK	NR
		SULFURIC ACID	FUGITIVE	NR
		SULFURIC ACID	STACK	NR
		O-XYLENE	FUGITIVE	51000
		O-XYLENE	STACK	11000
		P-XYLENE	FUGITIVE	84000
		P-XYLENE	STACK	63000
		ANTIMONY COMPOUNDS	FUGITIVE	42
		ANTIMONY COMPOUNDS	STACK	240
		COBALT COMPOUNDS	FUGITIVE	NR
		COBALT COMPOUNDS	STACK	95
		MANGANESE COMPOUNDS	FUGITIVE	NR
		MANGANESE COMPOUNDS	STACK	18



Table 8. Continued.

SITE NAME	FACILITY CODE	CHEMICALS/COMPOUNDS	MEDIA	RELEASE AMOUNT <sup>a</sup>
KLINE IRON & STEEL CO. INC.	29202KLNRN1225H	METHYL ETHYL KETONE	FUGITIVE	23000
		METHYL ETHYL KETONE	STACK	NR
		XYLENE (MIXED ISOMERS)	FUGITIVE	12000
		XYLENE (MIXED ISOMERS)	STACK	NR
ANCHOR CONTINENTAL	29205NCHRC2000S	TOLUENE	FUGITIVE	279349
		TOLUENE	STACK	2514139
		DIISOCYANATES	FUGITIVE	NR
		DIISOCYANATES	STACK	NR
		TOLUENE DIISOCYANATE	FUGITIVE	NR
		TOLUENE DIISOCYANATE	STACK	NR
		ZINC COMPOUNDS	FUGITIVE	237
		ZINC COMPOUNDS	STACK	NR
SQUARE D CO.	29209SQRDC8821G	COPPER	FUGITIVE	NR
		COPPER	STACK	NR
		CHROMIUM	FUGITIVE	NR
		CHROMIUM	STACK	NR
COLWOOD CO. INC.	29224CLWDC208FL	ARSENIC COMPOUNDS	FUGITIVE	NR
		ARSENIC COMPOUNDS	STACK	NR
		CHROMIUM COMPOUNDS	FUGITIVE	NR
		CHROMIUM COMPOUNDS	STACK	NR
		COPPER COMPOUNDS	FUGITIVE	NR
		COPPER COMPOUNDS	STACK	NR
WESTINGHOUSE ELECTRIC CORP. NUC. FUEL	29250WSTNGPOBOX	AMMONIA	FUGITIVE	34000
		AMMONIA	STACK	280000
		NITRIC ACID	FUGITIVE	NR
		NITRIC ACID	STACK	1500
		HYDROGEN FLUORIDE	FUGITIVE	NR
		HYDROGEN FLUORIDE	STACK	NR
MICALLINE PRODS. INC.	29290MCLLN1717P	STYRENE	FUGITIVE	2692
		STYRENE	STACK	NR

<sup>a</sup>Releases are reported in pounds. NR = no releases reported for this year but has been reported at least once between 1987 and 1995.





**Table 9. RCRIS facilities within the Congaree watershed.**

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
FOOD SERVICE SUPPLIES INC	SCD987597101	COLUMBIA INDUSTRIAL PARK	COLUMBIA	SC	29290	NORTHWEST	10	SMALL
HELIOCOFLEX CO. COMPONENTS DIV.	SCD083421982	2770 THE BLVD.	COLUMBIA	SC	29290	NORTHWEST	10	LARGE
JAMES H CARR & ASSOCIATES	SCD987597176	919 TRUE ST	COLUMBIA	SC	29290	NORTHWEST	10	SMALL
ROBERTSON & PENN INC.	SCD161579081	FORT JACKSON BUILDING 1561	COLUMBIA	SC	29290	NORTHWEST	10	LARGE
LOWER RICHLAND SCHOOL BUS SHOP	SCD982171951	SUMTER HIGHWAY #378 & #76	HOPKINS	SC	29061	NORTHWEST	10	SMALL
AMOCO OIL SS#60370	SCD987585056	2285 CHARLESTON HIGHWAY	CAYCE	SC	29205	NORTHWEST	30	SMALL
AMOCO OIL SS#501	SCD987585098	SC #302 & 1-26	CAYCE	SC	29033	NORTHWEST	30	SMALL
BLANCHARD MACHINERY CO	SCD127188415	3149 CHARLESTON HWY	CAYCE	SC	29033	NORTHWEST	30	SMALL
BLANCHARD MACHINERY CO	SCD048942908	3151 CHARLESTON HWY	CAYCE	SC	29033	NORTHWEST	30	SMALL
BOB JOHNSONS BODY SHOP INC	SCD982135469	1746 AIRPORT BLVD.	CAYCE	SC	29033	NORTHWEST	30	SMALL
CAR SPA LTD	SC0000029884	2311 CHARLESTON HWY	CAYCE	SC	29033	NORTHWEST	30	SMALL
DEMPSEY'S AUTO	SCD987581584	150 GARDNER DRIVE	CAYCE	SC	29033	NORTHWEST	30	SMALL
FAIRMONT TAMPER	SCD987587144	2401 EDMUND RD	CAYCE	SC	291710020	NORTHWEST	30	SMALL
FAST FARE SC-627	SCD987573292	2494 CHARLESTON HWY	CAYCE	SC	29033	NORTHWEST	30	SMALL
GARDNER ENTERPRISES DBA GARDNER	SCD036074524	ONE GARDNER DRIVE	CAYCE	SC	29033	NORTHWEST	30	SMALL
GENERAL ELECTRIC COMPANY	SCD987583648	1215 KNOX ABBOTT DRIVE	CAYCE	SC	29033	NORTHWEST	30	SMALL
LB SMITHY INC.	SCD982078065	2303 EDMUND HWY.	CAYCE	SC	29033	NORTHWEST	30	LARGE
LOVE CHEVROLET CO INC	SCD002283430	1255 KNOX ABBOTT DR	CAYCE	SC	29033	NORTHWEST	30	LARGE
MARTIN MARRIETTA AGGREGATES CAYCE QUARRY	SCD052944626	STATE & OAK STREETS AT SEABOAR	CAYCE	SC	29033	NORTHWEST	30	SMALL
OWEN ELECTRIC STEEL CO OF SC	SCD003353760	310 NEW STATE RD	CAYCE	SC	29171	NORTHWEST	30	LARGE
OWEN MISCELLANEOUS METALS INC	SCD980803373	2804 TAYLOR RD	CAYCE	SC	29033	NORTHWEST	30	LARGE
RECO INDUSTRIES, INC.	SCD987572187	1701 FRANK STREET	CAYCE	SC	29033	NORTHWEST	30	LARGE
SLOAN CONSTRUCTION CO., INC.	SCD987580966	600 TAYLOR STREET	CAYCE	SC	29033	NORTHWEST	30	SMALL
SOUTHEASTERN CONCRETE PRODUCTS.	SCD982123697	917 FRANK STREET	CAYCE	SC	29033	NORTHWEST	30	SMALL
W.C. MFG & SPECIALTY CO., INC.	SCD982136301	2028 CHARLESTON HWY.	CAYCE	SC	29033	NORTHWEST	30	SMALL
50 MINIT KLEEN RITE	SCD069313450	2303 TAYLOR STREET	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
ABBOTT'S AUTO SERVICE CENTER	SCD987584463	1201 PERCIVAL ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
ACTA FAX BUS MACHINES	SCD036104990	2205 TWO NOTCH ROAD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
ALLEN UNIVERSITY	SCD048368898	1530 HARDEN STREET	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
ALPINE ROAD AMOCO	SC0000468579	8404 TWO NOTCH RD	COLUMBIA	SC	29233	NORTHWEST	30	SMALL
AMBAC INTERNATIONAL CORP	SCD055274666	1-77 & KILLIAN RD	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
AMERADA HESS STATION 40382	SC0000733626	7527 GARNERS FERRY RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
AMERADA HESS STATION 40245	SCD987592029	7351 TWO NOTCH RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
AMERADA HESS STATION 40261	SC0000630368	10148 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
AMOCO OIL SS#899	SCD987584935	436 BLOSSOM STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
AMOCO OIL SS#482	SCD987585080	2900 ROSEWOOD DRIVE	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
AMOCO OIL SS#494	SCD987584927	4601 DEVINE STREET	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
AMOCO OIL SS#6345	SCD987585015	7415 GARNERS FERRY ROAD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
ANCHOR CONTINENTAL INC	SCD003344843	2000 S BELTLINE BLVD	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
ARATEX SERVICES INC.	SCD065052052	919 AIRPORT BLVD	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
ARNOLDS CLEANERS	SCD987572237	2601 N MAIN STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
ARNOLDS DRY CLEANERS	SCD045668027	1749 DECKER BLVD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL



Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
ARNOLDS PROFESSIONAL GARMENT CARE	SCD981751209	1601 LEESBURG ROAD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
ASHLAND CHEMICAL COMPANY	SCD062700463	916 ROSEWOOD DRIVE	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
ASHLAND CHEMICAL CO	SCD980839823	729 MAUNCEY DR	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
ATLANTIC SOFT DRINK CO	SCD059614255	6925 N MAIN ST	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
BENDIX CORP ELECTRICAL COMPONENTS DIV	SCD058183138	U S #1 NORTH	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
BENEDICT COLLEGE	SCD982165599	1600 HARDEN ST	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
BILL Y COOK GARAGE & BODY SHOP	SCD982163230	1520 LEASIDE DRIVE	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
BONITA CONTRACTING COMPANY INC	SCD987597325	645 ROSEWOOD DR	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
BRINSONS CLEANERS	SC0000328872	2801 TWO NOTCH RD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
BRINSONS CLEANERS	SCD987566494	9221 N TWO NOTCH	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
BROWNING-FERRIS INDUSTRIES	SCD126418946	4425 BLUFF ROAD	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
BROWNING FERRIS INDUSTRIES	SCD091249466	4425 BLUFF ROAD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
BURNETT'S CLEANERS INC	SCD981750391	7045 PARKLANE RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
BURNETT'S CLEANERS INC	SCD981750805	10118 TWO-NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
BURNETT'S CLEANERS INC #3	SCD982098519	1718 BROAD RIVER RD	COLUMBIA	SC	29010	NORTHWEST	30	SMALL
BURNETTES ONE HOUR CLEANERS	SCD981756190	6320 GARNERS FERRY RD	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
BURNETTES CLEANERS INC	SCD043386762	623 BELTLINE BLVD	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
CAPITOL CITY DODGE	SCD981866957	3821 W BELTLINE BLVD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
CARBBITS, INC	SCD981868318	751 CLEMSON ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
CARDINAL CHEM CO	SCD003339447	2010 S BELTLINE BLVD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
CARLL AUTOMOTIVE	SCD050881283	6828 TWO NOTCH ROAD	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
CAROLINA INTERNATIONAL TRUCKS	SCD981854599	1619 BLUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
CAROLINA INDUSTRIAL PROD INC	SCD980844245	3125 BLUFF RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
CAROLINA COMMERCIAL HEAT TREATING INC	SCD980839294	2850 THE BLVD	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
CARRIAGE CLEANERS	SCD981754336	9221 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
CARTER-MIOT ENGINEERING CO., INC.	SCD982139180	1854 SHOP ROAD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
CHEROKEE TRUCK CENTER	SCD981749120	2424 BLUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
CHEROKEE TRUCK CENTER INC	SCD018227355	2424 BCUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
CITY OF COLUMBIA CCI	SCD980709612	1515 GIST ST	COLUMBIA	SC	29221	NORTHWEST	30	LARGE
CITY GARAGE & BODY SHOP	SCD982159832	520 GERVAIS ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
CITY OF COLUMBIA WASTE WTR PLT	SC0000057232	1200 SIMON TREE LANE	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
CLARKE CHECKS INC.	SCD055278741	1414 OLD DAIRY ROAD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
CLASSIC CLEANERS	SCD987567674	2900 A LEESBURG ROAD	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
COIT GAS TURBINE	SCD987570835	300 HEYWARD STREET	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
COLONIAL WOODWORKS, INC.	SCD987573466	1102 HUGER STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
COLONIAL CLEANERS	SCD981926173	9765 TWO NOTCH RD	COLUMBIA	SC	28233	NORTHWEST	30	LARGE
COLONIAL CLEANERS	SCD981753023	6829 TWO NOTCH ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
COLUMBIA HYDRO	SCD982077265	301 GERVAIS STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
COLUMBIA COLLISION CENTER	SCD982125940	1340 ROSEWOOD DR	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
COLUMBIA COCA-COLA	SCD987574100	2830 MAIN STREET	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
COL WOOD COMPANY INC	SCD003352937	FLINTLAKE ROAD	COLUMBIA	SC	29294	NORTHWEST	30	LARGE
CONSOLIDATED METAL PRODUCTS	SCD047555453	650 ROSEWOOD DR	COLUMBIA	SC	29202	NORTHWEST	30	LARGE





Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
CONTAINER CORP OF CAROLINA	SC000006874	1701 PINEVIEW DR	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
COOPER POWER TOOLS	SCD044940161	10138 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
CROWN CENTRAL SC-015	SCD987573003	3800 DEVINE ST	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
CROWN CENTRAL SC-006	SCD987573011	2300 BEL TLINE BLVD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
CROWN CENTRAL SC-005	SCD987573029	4805 GARNER FERRY RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
CSX TRANSPORTATION	SCD982077521	900 SENATE ST.	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
CUMMINS ATLANTIC INC	SCD149906372	1233 BLUFF RD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
DAVES TRANSMISSION INC	SC0000194050	2200 SUMTER ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
DAVIS PAINT AND BODY SHOP INC	SCD982121139	1627 TREMAIN STREET	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
DAVIS PLATING	SCD003511243	302 HORSESHOE CIRCLE	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
DAVIS & ROGERS	SCD097634489	2825 COMMERCE DR	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
DEFENDER SERVICES	SCD003343217	9031 GARNERS FERRY RD	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
DENT'S AUTOMOTIVE INC.	SCD982123465	110 THORNWELL COURT	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
DEVEAUX PAINT AND BODY SHOP	SCD131458903	3650 BLUFF ROAD	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
DIAMANT BOART AMERICA	SCD053336194	10250 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	LARGE
DICK DYER YUGO	SCD981748213	6618 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	LARGE
DICK DYER VOLVO	SCD982102816	TWO NOTCH RD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
DICK SMITH NISSAN	SCD036122208	4030 BELTLINE BLVD	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
DICK DYER TOYOTA	SCD982159774	3215 TWO NOTCH RD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
DONAHUES AUTO SERVICE INC	SCD036111060	1617 TWO NOTCH ROAD	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
DYER DICK TOYOTA	SCD048370944	3215 TWO NOTCH RD	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
E CAROLINA FORD TRUCK CENTER	SCD981752827	1450 BLUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
EASTERN CONTRACTORS INC	SCD003506276	6928 CHEVAL ST	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
EASTSIDE PAINT AND BODY SHOP	SCD981480098	829 BOLTON ST	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
EBERT SPORTSWEAR	SCD043977636	PO BOX 21747	COLUMBIA	SC	29221	NORTHWEST	30	SMALL
ECONO AUTO PAINTING OF SOUTH CAROLINA	SCD982116758	2412 DECKER RD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
ED ROBINSON LAUNDRY & CLEANERS	SCD036120723	2551 FORREST DRIVE	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
ELGINS PAINT AND BODY SHOP INC	SCD982111312	1220 LAURENS STREET	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
ENVIRONMENTAL WASTE TECHNOLOGIES INC	SCD980838155	5516 LAKESHORE DR SUITE 605	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
ESTES EXPRESS LINES	SC0000193516	1112 KEY RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
EXXON CO. USA #40380	SCD987577822	8200 TWO NOTCH ROAD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
F/N MFG CO INC	SCD991279399	797 CLEMSON RD	COLUMBIA	SC	29223	NORTHWEST	30	LARGE
FAIRFIELD TRACTORS	SCD987596541	503 S ASSEMBLY ST	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
FAST FARE SC-640	SCD987572989	423 BITTERNUT RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
FAST FARE SC-639	SCD987573037	163 RABON RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
FAST FARE	SCD987573078	10110 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
FAST FARE SC-637	SCD987573045	8901 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
FAST FARE SC-636	SCD987573052	2920 ALPINE RD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
FAST FARE SC-622	SCD987573276	830 ASSEMBLY STREET	COLUMBIA	SC	28201	NORTHWEST	30	SMALL
FAST FARE SC-638	SCD987573326	7300 HUNT CLUB RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
FAST FARE SC-635	SCD987573060	2409 PERCIVAL RD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
FAST FARE SC-642	SCD987573102	2215 DECKER BLVD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL





Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
FISHER SERVICE COMPANY	SCD982159717	757 CLEMSON ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
FLEXIBLE FLYER TRANSIT CO INC	SCD037406691	2010 S BEL TLINE BLVD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
FN MANUFACTURING INC. FNM#2	SCD987581816	750 CLEMSON ROAD RICHLAND CNTY INDUSTRIAL PK	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
GAINES W HARRISON & SONS INC	SCD981867427	724 PULASKI STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
GENERAL TRACTOR	SCD987584281	1918 BLUFF ROAD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
GENERAL TIRE SERVICE	SCD981868268	1801 GERVAIS STREET	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
GIBBES VW MAZDA	SCD981854532	1020 BLOSSOM STREET	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
GILLESPIE CLEANERS	SCD045636784	5213 TREHOLM ROAD	COLUMBIA	SC	29206	NORTHWEST	30	LARGE
GOODYEAR SERVICE CENTER	SCD981478878	2428 DECKER BLVD	COLUMBIA	SC	29206	NORTHWEST	30	LARGE
GOODYEAR AUTO SERVICE CENTER	SCD127945244	1400 GERVAIS STREET	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
GOODYEAR SERVICE CENTER	SCD981746506	2428 DECKER BLVD	COLUMBIA	SC	29206	NORTHWEST	30	LARGE
GOODYEAR TIRE & RUBER CO	SCD981478936	4327 FT JACKSON BLVD	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
GOODYEAR AUTO SERV CTR	SCD981754567	3336 DEVINE ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
GREGORY POOLE EQUIPMENT COMPANY	SCD982082885	1340-C OLD DAIRY RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
GREGORY POOLE EQUIPMENT CO	SCR000004192	1049 2ND AVE	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
GULF OIL CO US	SCD000645721	1400 ELMORE ST	COLUMBIA	SC	29230	NORTHWEST	30	LARGE
HAMPTON PONTIAC JAGUAR INC	SCD036113983	2000 MAIN STREET	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
HANCOCK BUICK	SCD036114031	1750 LAUREL STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
HANCOCK MOTOR CO	SC0000080812	3905 WEST BELTLINE BLVD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
HENRY MOSS-204830021	SCD987573649	5901 MONTICELLO RD.	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
HOOBOOD ELECTRIC CO INC	SCD047555487	HWY 215	COLUMBIA	SC	29230	NORTHWEST	30	LARGE
HYATT KEN AMC JEEP RENALT	SCD119168334	3010 TWO NOTCH RD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
JIM MOORE CADILLAC BODY SHOP	SCD987580586	2241 SUMTER STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
JIM MOORE CADILLAC INC	SCD036117992	2222 MAIN ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
JIMMY RIVERS PAINT & BODY SHOP	SCD982173379	1620 CARLISLE STREET	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
JOHN HARRIS PAINT & BODY SHOP	SCD982159592	847 SOUTH STADIUM ROAD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
JOHN HARRIS PAINT & BODY SHOP	SCD987595386	1215 CALHOUN ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
JOHNSON CONTROLS INC.	SCD987570884	10109 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	LARGE
K-MART #4319	SCD982135451	7325 TWO NOTCH RD.	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
K-MART #4043	SCD982135394	4400 FORT JACKSON BLVD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
KLINE IRON & STEEL CO INC	SCD982168049	1225 HUGER ST	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
L-J INC	SCD003792827	CHEVAL ST	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
LABORATORY CORP OF AMERICA	SCD987597234	201 ARBOR LAKE DR	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
LEND LEASE FACILITY	SCD981760044	1615 BLUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
LEXINGTON DRY CLEANERS	SC0000193938	7228 PARKLANE RD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
LEXINGTON DRY CLEANERS	SCD981752140	2336 DECKER BLVD	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
LEXINGTON DRY CLEANERS	SC0000328856	6041 GARNERS FERRY RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
LINDAU CHEMICALS INC	SCD044942670	731 ROSEWOOD DR	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
LITTON INDUSTRIES HEWITT ROBINS DIV	SCD054247051	US HWY 1 NORTH	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
LOREN'S PAINT & BODY SHOP	SCD982126674	10227 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
LYNHAVEN CAREER CENTER	SCD982097917	3560 LYNHAVEN DRIVE	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
M CRAIG COMPANY INC	SCD982084048	910 WASHINGTON STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL



Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
M LOWENSTEIN CORP GRANBY PLT	SCD981475833	400 HEYWARD STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
M CRAIG COMPANY INC	SC0000110452	1124 PINEVIEW DR	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
MAACO AUTO PAINTING INC	SCD981031644	3808 LUCIUS RD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
MAC KOHN PRINTING	SCD987594363	1601 KEY RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
MASTER CLEANERS	SCD036117117	1908 BLOSSOM STREET	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
MCDANIELS ACURA	SCD987566650	6409 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
MCQUIK'S #9661	SCD987577848	7452 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
MICALLINE PRODUCTS, INC.	SCD003368149	1717 PINEVIEW ROAD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
MODERN TECHNOLOGY INC.	SCD982122301	KEY ST.	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
MOORE-HUDSON OLDSMOBILE-GMC INC	SCD099884058	7201 SUMMITER HWY	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
MOTORCYCLE SALES SERVICE	SCD036118131	3620 RIVER DRIVE	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
NAPA AUTO PARTS	SCD987571528	1500 MILLWOOD AVE.	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
NAPA AUTO PARTS	SCD987571510	1908 ROSEWOOD DR.	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
NEW CITY TRANSMISSION	SCR000002790	5602 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
NEWSOME CHEVY WORLD INC	SCD007919368	4013 W BELTLINE BLVD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
NORFOLK SOUTHERN RAILWAY CO	SCD987591757	1101 LINCOLN ST	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
NORFOLK SOUTHERN RAILWAY CO.	SCD987584646	1940 SHOP ROAD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
ORKIN EXTERMINATING CO. INC.	SCD982122368	8109 GARNERS FERRY ROAD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
OTASCO #360	SCD981478795	4123 WEST BELTLINE BLVD	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
OUTDOOR EAST	SCD987596608	2001 HARPER ST	COLUMBIA	SC	29240	NORTHWEST	30	SMALL
OWEN STEEL CO INC	SCD003350626	801 BLOSSOM STREET	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
OWEN STEEL CO INC	SCD980848774	825 GREENE ST	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
OWENS STEEL COMPANY INC	SCD980803431	SOUTH BELTLINE BLVD	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
PALMETTO WHOLESALE COMPANY	SCD982145351	850 ROSEWOOD DR.	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
PAPER STOCK DEALER	SCR000002733	GREEN ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
PARTS PLUS INC	SCR000001164	825 GARLAND AVE	COLUMBIA	SC	29250	NORTHWEST	30	SMALL
PENSKE TRUCK LEASING CO., L.P.	SCD982159659	1700 BLUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
PET DAIRY	SCD006327829	1101 BLUFF ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
PETERBILT OF COLUMBIA	SCD987572062	1700 BLUFF RD.	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
PHILLIPS AUTO TECH	SCD987581436	3137 TWO NOTCH ROAD	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
PIEDMONT PRODUCTS INC	SCD980600662	640 PINEVIEW RD EXTENSION	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
PLASTI LINE INC	SCD987574118	1351 KEY RD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
PLASTI LINE INC	SCD981931892	1829 SHOP ROAD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
POLYMER EQUIPMENT CLEANING INC	SCD980840110	OLD LEESBURG RD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
PREMIER PAINT & BODY SHOP, INC.	SCD987570785	2109 SUMPTER STREET	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
PULLIAM MOTOR CO	SCD007919483	2800 TWO-NOTCH RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
PULLIAM TRUCK CENTER	SCD133708875	1450 BLUFF ROAD	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
RAY'S TRANSMISSIONS	SCR000000042	8130 GARNERS FERRY RD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
RESEARCH & MATERIALS LAB SC HWY DEPT	SCD980844542	1406 SHOP RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
RICHARD'S CARRIAGE CLEANERS	SCD987571171	2601 TWO NOTCH RD.	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
RICHARDS FINE CLEANERS	SCD982100927	2524 FORREST DRIVE	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
RICHLAND SCHOOL DIST 1	SCR0000002758	220 WAYNE ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL





Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
RISDON ENTERPRISES INC/Q-MIST CORP	SCD980709679	124 RISDON WAY	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
ROADWAY EXPRESS COLUMBIA	SCR000004747	1308 PINEVIEW DR	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
ROAENBLUM CLEANERS INC	SCD981760168	5319 FOREST DRIVE	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
ROBBINS & MEYERS INC	SCD078062965	U S HWY 1 NORTH	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
ROCHE BIOMEDICAL LABORATORIES	SCD982147076	1919 HAMPTON STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
ROSEWOOD RADIATOR SERVICE	SCD982079600	2742 ROSEWOOD DR.	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
ROSEWOOD CLEANERS	SCD981931728	2610 ROSEWOOD DRIVE	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
RUAN TRUCK LEASING	SCD981932692	2332 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
RYDER TRUCK RENTAL	SCD987595725	1421 BLUFF RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
RYDER TRUCK RENTAL	SCD987597572	945 IDLEWILD BLVD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
S & Y INC	SCD114409311	444 GADSDEN STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
S&Y INC.	SCD987581725	444 GADSDEN STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SALEM LEASING CORP	SCD980847412	401 WILLIAMS ST	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SC DEPT OF HEALTH & ENVIRON CONTROL	SCD980803449	8231 PARKLANE RD	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
SC FORESTRY COMM CENTRAL SHOP	SCD982098238	5500 BROAD RIVER RD	COLUMBIA	SC	29221	NORTHWEST	30	SMALL
SC DEPT OF MENTAL HEALTH	SCD043980093	2414 BULL ST.	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SCARNG OMS 10	SCD981025372	1225 BLUFF RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SCDOT EQUIPMENT DEPOT	SCD987569555	1500 SHOP RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SCE&G FLEET MAINT	SCD981750813	1409 HUGER STREET	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SCE&G SHAKESPEARE FLEET MAINT	SCD982106817	6011 SHAKESPEARE RD	COLUMBIA	SC	29233	NORTHWEST	30	SMALL
SCE&G INVESTMENT RECOVERY	SCD987571874	11 POE ST	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SCHOONY'S CLEANERS	SCD055069389	3010 ROSEWOOD DRIVE	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
SERVICE PRINTING	SCD987572245	1425 SHOP RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SHAKE SPEARE FISHING TACKLE DIV	SCD006009344	6111 SHAKESPEARE RD	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
SHAKESPEARE CO/MONOFILAMENT DIV	SCD091317735	6111 SHAKESPEARE RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
SHEALEY-SON AUTO SERVICE	SCD987583101	209 FERRELL DRIVE	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
SHEALY'S INC	SCD036121838	1340 BLUFF RD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SHERWIN WILLIAMS CO	SCD078071214	2013 GREEN ST	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
SHERWIN WILLIAMS CO.	SCD982147217	2529 FOREST DRIVE	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
SHERWIN WILLIAMS CO	SCD000826651	1221 BAKERSFIELD RD	COLUMBIA	SC	29221	NORTHWEST	30	LARGE
SILVER HANGER	SCD982100109	2901 DEVINE ST	COLUMBIA	SC	29205	NORTHWEST	30	SMALL
SLOAN CONSTRUCTION CO INC - KOPPERS	SCD003369295	GRANBY LANE	COLUMBIA	SC	29202	NORTHWEST	30	LARGE
SOUTH CAROLINA STATE MUSEUM	SCD982083156	301 GERUAIS STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SOUTH CAROLINA RECYC & DISP	SCD000622787	BLUFF RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
SOUTH CAROLINA RECYC & DISP	SCD000622803	DREYFUS & ASSEMBLY STS	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SOUTHERN BELL IRMOSCHWH	SCD980838999	WESTERN LANE @ 1-26	COLUMBIA	SC	29221	NORTHWEST	30	LARGE
SOUTHERN BELL CLMASCHQ	SCD980837900	120 CORPORATE LANE	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
SOUTHERN BELL TELE & TELG CO	SCD980798490	700 COLLEGE ST	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SOUTHERN BELL CLMASCSN	SCD980837843	1710 SENATE ST	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SPRING VALLEY AUTO BODY	SCD982136145	108 BURKMASTER DR.	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SPRINGS INDUSTRIES INC COLA PLT	SCD981475775	600 HE YWARD STREET	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
SQUARE D CO	SCD058753351	SUMTER HWY	COLUMBIA	SC	29202	NORTHWEST	30	LARGE





Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
STATE RECORD NEWSPAPER CO.	SCD987570918	1401 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
STATE RECORD CO. INC.	SCD987570868	1401 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
STATE RECORD SHOP	SCD003507142	1103 GEORGE ROGERS BLVD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
STATE RECORD CO. INC.	SCD987570819	1401 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SUDEDETHS INC	SCD982159352	1512 HEIDT ST	COLUMBIA	SC	29204	NORTHWEST	30	SMALL
SUNBIRD BOAT CO INC	SCD987567138	2348 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SUNBIRD BOAT CO INC	SCD981926934	1501 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SUNSHINE CLEANERS	SCD981750870	425 ASSEMBLY STREET	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
SUSSEX MOTORS	SCR000003376	8370 OLD PERCIVAL RD	COLUMBIA	SC	292234017	NORTHWEST	30	SMALL
TARMAC CAROLINAS INC.	SCD982123358	545 GEORGIA STREET	COLUMBIA	SC	29250	NORTHWEST	30	SMALL
THE PEP BOYS MANNY MOE & JACK	SCD987584307	2455 DECKER BLVD #152	COLUMBIA	SC	29206	NORTHWEST	30	SMALL
THERMAL ENGINEERING CORP	SCD003346251	COLA INDUSTRIAL PARK BLUFF RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
TRANE CAROLINA PLAINS	SCD982150823	7354 GARNERS FERRY RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
TRANSPO ELECTRIC CO	SCD080767585	1054 SHOP RD	COLUMBIA	SC	29202	NORTHWEST	30	SMALL
TRIPPS FINE CLEANERS	SCD981930589	819 HARDEN ST	COLUMBIA	SC	29205	NORTHWEST	30	LARGE
TRIPPS FINE CLEANERS	SCD981750938	3301 FOREST DRIVE	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
UNIVERSITY OF SOUTH CAROLINA	SCD041387846	741 GREEN ST.	COLUMBIA	SC	29208	NORTHWEST	30	LARGE
US 175 CLEANERS	SCR000004754	7358A TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	SMALL
US ARMY RESERVE FACILITY COLUMBIA	SC9210400009	1500 BLUFF RD	COLUMBIA	SC	292014912	NORTHWEST	30	SMALL
US POLLUTION CONTROL INC	SCD981015191	401 WILLIAMS	COLUMBIA	SC	29201	NORTHWEST	30	LARGE
USC SCHOOL OF MEDICINE	SCD987597200	6439 GARNERS FERRY RD	COLUMBIA	SC	29208	NORTHWEST	30	LARGE
USS AGRI-CHEMICALS	SCD044942878	BROADRIVER RD, PO BOX 21099	COLUMBIA	SC	29221	NORTHWEST	30	SMALL
VECTRA TECH INC MAINTENANCE FAC	SC0000094532	1700 LONGWOOD RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
VERSCH LOCK MFG CO INC	SCD003507977	6825 PENNINGTON RD	COLUMBIA	SC	29209	NORTHWEST	30	SMALL
WATKINS AUTOMOTIVE REPAIR	SCD981023450	1614 WESTMINSTER DR	COLUMBIA	SC	29204	NORTHWEST	30	LARGE
WESTERN ELECTRIC CO INC	SCD059613232	126 NW BALLENTINE/WHITEROCK	COLUMBIA	SC	29221	NORTHWEST	30	LARGE
WESTINGHOUSE ELECTRIC CO	SCD047559331	BLUFF RD (HWY 48)	COLUMBIA	SC	29209	NORTHWEST	30	LARGE
WESTINGHOUSE AIR BRAKE	SCD982116204	1330 OLD DAIRY DRIVE	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
WIBD VETERANS HOSPITAL	SC4360090001	GARNERS FERRY ROAD	COLUMBIA	SC	29201	NORTHWEST	30	SMALL
YORK TAPE AND LABEL CORPORATION	SCD049124183	2008 ALPINE RD	COLUMBIA	SC	29206	NORTHWEST	30	LARGE
DANIEL CONSTRUCTION CO	SCD980798904	HWY 601 (UNION CAMP CORP)	EASTOVER	SC	29044	NORTH	30	LARGE
EAST COAST STEEL INC	SCD069317014	2051 CONGAREE RD HWY 769	EASTOVER	SC	29044	NORTH	30	LARGE
FLOORDANIEL CONSTRUCTION	SCD987570678	UNION CAMP PLANT HWY 601	EASTOVER	SC	29044	NORTH	30	LARGE
OWEN JOIST CORP EASTOVER SHOP	SC0000193623	2059 CONGAREE RD HWY 769	EASTOVER	SC	29044	NORTH	30	LARGE
SCARNG ARMY AVIATION SUPPORT FACILITY	SC4572825160	MCENTIRE ANG BASE	EASTOVER	SC	29044	NORTH	30	SMALL
SCARNG LEESBURG UTES	SC1211800015	5391 LEESBURG RD	EASTOVER	SC	290449139	NORTH	30	LARGE
SCE & G WATEREE STATION	SCD982096638	US HWY 601 & SC HWY 48	EASTOVER	SC	29044	NORTH	30	LARGE
SPECIALTY MINERALS INC	SCD987596293	HWY 601 AT UNION CAMP CORP	EASTOVER	SC	29044	NORTH	30	SMALL
UNION CAMP CORP EASTOVER MILL	SCD980709133	4001 MCCORDS FERRY RD	EASTOVER	SC	29044	NORTH	30	LARGE
OKLAHOMA INSTALLATION CO	SCD987596327	2121 BEL TLIN RD	FOREST ACRES	SC	29204	NORTHWEST	30	SMALL
CROWN CONTRACT SERVICE	SC0000056598	BLDG 1558 EWELL RD	FORT JACKSON	SC	29207	NORTHWEST	30	SMALL
USATC & FORT JACKSON	SC3210020449	BLDG 1916 OFF EWELL RD	FORT JACKSON	SC	29207	NORTHWEST	30	SMALL



Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
US ARMY ECS 124 G	SC52100900010	BUILDING 1701	FT JACKSON	SC	292076070	NORTHWEST	30	SMALL
US ARMY RESERVE ECS 124G	SC0000110015	BLDG 1701 LEE & WASHINGTON	FT JACKSON	SC	292076070	NORTHWEST	30	SMALL
USN DEFENSE REUTILIZATION MARKETING	SC22100900005	BLDG 1902	FT JACKSON	SC	29207	NORTHWEST	30	SMALL
GASTON COPPER RECYCLING	SCD0001368075	700 SOUTHBOUND RD	GASTON	SC	29053	WEST	30	LARGE
LANIER CONSTRUCTION CO INC	SCD047610688	7462 HIGHWAY	GASTON	SC	29053	WEST	30	LARGE
FAST FARE SC-619	SCD987573243	2884 EMMANUEL CHURCH RD	LEXINGTON	SC	29169	NORTHWEST	30	SMALL
CONCEPT UNLIMITED INC	SCD982121089	861 JAMES DUNBAR ROAD	PELION	SC	29053	WEST	30	LARGE
FAST FARE SC-626	SCD987573284	709 MAIN ST	SOUTH CONGAREE	SC	29169	NORTHWEST	30	SMALL
SC DEPT OF HWYS & PUBLIC TRANSPORT	SCD982113995	RT 78 1/2 MI EAST OF	ST GEORGE	SC	29477	NORTHWEST	30	LARGE
ONE HOUR MARTINIZING	SCD982110868	1225 DORCHESTER RD	SUMMERVILLE	SC	29483	NORTHWEST	30	SMALL
CAROLINA RIVET	SCD106248388	105 COLUMBIA AVE	W COLUMBIA	SC	29169	NORTHWEST	30	SMALL
COLITE INDUSTRIES INC	SCD0003339850	229 PARSON ST	W COLUMBIA	SC	29171	NORTHWEST	30	LARGE
WALKER TRANSMISSION	SCD987581618	2312 CHARLESTON HWY.	W COLUMBIA	SC	29169	NORTHWEST	30	SMALL
WINGARDS TOWING SERVICE	SCD987581527	810 SUNSET BLVD.	W COLUMBIA	SC	29169	NORTHWEST	30	SMALL
A & P ELECTRIC CO.	SCD987577897	923 SUNSET BLVD.	W. COLUMBIA	SC	29169	NORTHWEST	30	LARGE
BODY EXPERTS, INC.	SCD987573904	3-C TROTTER ROAD	W. COLUMBIA	SC	29169	NORTHWEST	30	SMALL
NEWCO TECHNOLOGY, INC.	SCD987572195	3243 SUNSET BLVD	W. COLUMBIA	SC	29169	NORTHWEST	30	SMALL
OTIS D BOBB-204830005	SCD987573789	2530 SUNSET BLVD.	W. COLUMBIA	SC	29169	NORTHWEST	30	SMALL
OTIS D. BOBB	SCD987573797	2200 EDMUND ROAD	W. COLUMBIA	SC	29169	NORTHWEST	30	SMALL
PETROLEUM ANALYSIS LABORATORIES	SCD982140857	3174 CHARLESTON HIGHWAY	W. COLUMBIA	SC	29169	NORTHWEST	30	SMALL
SUNSET CLEANERS	SCD982101651	2253 SUNDET BLVD.	W. COLUMBIA	SC	29169	NORTHWEST	30	SMALL
SC ELEC & GAS/WATEREE STA	SCD000825786	US HWY 601	WATEREE	SC	29044	NORTH	30	LARGE
AMERADA HESS STATION 40375	SCR000001016	401 PLATTS SPRINGS RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
ANOTHER BODY SHOP	SC0000327668	1818 LONG ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
AT & T GLOBAL INFORMATION SOLUTIONS	SCD056817869	3325 PLATT SPRINGS RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
AT&T WEST COLUMBIA	SC0000327577	720 CHRIS DR	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
ATLANTIC PACKAGING COMPANY	SCD987566759	1964 OLD DUNBAR ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
BB&S ELECTRICAL INC	SCD980600290	345 ROSE DR	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
BECKNELLS WESTSIDE CLEANERS	SCD099883514	607 MEETING STREET	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
BFG INDUSTRIES INC.	SCD987583804	1057 COLITE DRIVE	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
BOSE CORP	SCR000000497	2500 LEAPHART RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
BROWN BOVERI ELECTRIC INC	SCD026844597	167 OVERLAND DR	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
BURNETTES CLEANERS	SCD982100067	2250 SUNSET BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
CAPITOL CITY MFG	SCD987591328	1651 HOLLAND ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
CAROLINA CHEMICALS INC	SCD0003339991	306 MIAMI ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
CAROLINA CV DRIVE AXLE	SCR000003699	2060A OLD DUNBAR RD	WEST COLUMBIA	SC	29172	WEST	30	SMALL
CHEROKEE KENWORTH INC	SCD987591682	707 CHEROKEE LANE	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
CMC FABRICATORS	SCR000002683	1540 PINE RIDGE DR	WEST COLUMBIA	SC	29172	WEST	30	LARGE
COLONIAL CLEANERS	SCD981750904	103 N 12TH STREET	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
COLUMBIA VOC REHAB CENTER	SCD982092942	1330 BOSTON AVENUE	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
COLUMBIA CHEMICAL COATINGS INC	SCD000616102	1872 OLD DUNBAR RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
CROWN CENTRAL SC-014	SCD987573201	200 KNOX ABBOTT DRIVE	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL





Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
CSX TRANSPORTATION WEST COLA	SCR000000380	3450 CHARLESTON HWY	WEST COLUMBIA	SC	29172	WEST	30	SMALL
DELTA AIR LINES COLUMBIA	SCD119492908	COLUMBIA METROPOLITAN AIRPORT	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
DIGGLE EQUIPMENT CO INC	SCD039283825	1872 OLD DUNBAR ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
EAGLE AVIATION INC	SCD0057554909	COLUMBIA METRO AIRPORT	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
ELECTRIC MTR & RPR	SCD987595824	125 HUCKABEE RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
ENR INC	SCD006061121	3792 PLATT SPRINGS RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
FAST FARE SC-620	SCD987573250	209 WATTLING ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
FAST FARE SC-628	SCD987573151	HWY 321 DIXIANA	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
FAST FARE SC-616	SCD987573219	3937 LEAPHART RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
FAST FARE SC-621	SCD987573268	4325 MINERAL SPRINGS RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
FAST FARE SC-623	SCD987573128	3862 OLD CHARLESTON HWY	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
GLASCO INDUSTRIES INC	SCD003509106	820 B AVENUE	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
HARLAND JOHN H CO	SCD101890218	3430 PLATT SPRINGS RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
HIGHWAY MATERIALS INC	SCD981029044	3176 CHARLESTON HWY	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
HWT INC.	SCD987570926	3839 HWY 321 S	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
KENAN TRANSPORT CO	SCD980600639	HWY 1 SOUTH	WEST COLUMBIA	SC	29171	NORTHWEST	30	SMALL
KINGSTON METAL SOUTH CORP	SCD157504663	3401 PLATT SPRINGS ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
KLINE IRON & STEEL CO INC	SCD982167983	841 WILLIAMS ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
L D WALKER TRANSMISSION	SCR000003962	667 MAIN ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
LEXINGTON MEDICAL CENTER	SCR0000000430	2720 SUNSET BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
MIDLANDS TECHNICAL COLLEGE	SCD981924228	1260 LEXINGTON DR	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
MITCHELL DIST & CO	SCD043386572	3901 CHARLESTON HWY	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
NEWLOOK BODY WORKS INC	SCR000003855	1365A LAKE DOGWOOD DR	WEST COLUMBIA	SC	29170	WEST	30	SMALL
OAKWOOD PRODUCTS INC	SCD987587870	1741 OLD DUNBAR RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
ONE HOUR MARTINIZING	SCD981864846	1621 AIRPORT BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
PALMETTO WOOD PRESERVING	SCD003362217	DIXIANA RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
PENNSYLVANIA GLASS SAND CORP	SCD981754310	HWY 302 SOUTH-COLUMBIA PLANT	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
POOLE GREGORY EQUIP CO	SCD981864960	3149 CHARLESTON HWY	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
PRESTIGE AUTO BODY PAINT	SCD981750979	105 DREHER ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
PURULATOR COURIER CORP	SCD088641170	153 CORPORATE BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
RECCO INC	SCD052072774	3940 PLANILL SPRINGS RD	WEST COLUMBIA	SC	29171	NORTHWEST	30	LARGE
RELIABLE TRANSMISSION	SCD981750730	2418 PLATT SPRINGS ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
RHEEM MANUFACTURING COMPANY	SCD990704983	1100 MEMORIAL DRIVE	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
RICK HENDRICK HONDA CARS INC	SCD037405297	1650 AIRPORT BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
RISH AUTO SERVICE	SCD987585205	1117 LEAPHART STREET	WEST COLUMBIA	SC	29171	NORTHWEST	30	SMALL
SC AERONAUTICS COMMISSION	SCD987591872	2553 AIRPORT BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
SC DEPT OF TRANSPORTATION	SCD987598042	1033 SOX ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
SHERWIN WILLIAMS CO	SCD030106447	1209 D AVE	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
SKIPS ONE HOUR CLEANERS	SCD981748031	1312 SUNSET BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
SOUTHEASTERN FREIGHT LINES	SCD981752074	4025 SUNSET BLVD HWY 378	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
SOUTHERN PLASTICS	SCD987596137	2121 OLD DUNBAR RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
TCM MANUFACTURING USA INC.	SCD084706761	107 MCQUEEN STREET	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL





Table 9. Continued.

FACILITY NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	GENERATOR <sup>c</sup>
THE COLITE SIGN GROUP INC	SCD987581204	229 PARSON ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
TOM LORLEY'S BODY SHOP	SCD981750920	900 WILLIAMS STREET	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
TOYOTA CENTER INC	SCD059620781	1640 AIRPORT BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
U-HAUL	SCD987585353	400 ORCHARD ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
UNITED PARCEL SERVICE	SCD980847677	1782 OLD DUNBAR RD	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
VAN LOTT INC	SCD003366093	3464 SUNSET BLVD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
WENTWORTH PRINTING CORP.	SCD982133357	802 CHRIS DR.	WEST COLUMBIA	SC	29169	NORTHWEST	30	LARGE
WENTWORTH PRINTING CORP	SCR000003566	101 N 12 ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
WHALEYS EQUIPMENT CO	SCD987593373	3935 HWY 321 S	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
WIL LOU GRAY OPPORTUNITY SCHOOL	SCD987579216	WEST CAMPUS ROAD	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
WILLIAMS DETRIOT DIESEL	SCD093883502	US-1 AND I-26	WEST COLUMBIA	SC	29169	NORTHWEST	30	SMALL
YELLOW FREIGHT SYSTEM INC	SCR000003970	1972 OLD DUNBAR RD	WEST COLUMBIA	SC	29172	WEST	30	LARGE
CSX TRANSPORTATION (CAYCE)	SCD982151185	500 TAYLOR	CAYCE	SC	32202	WEST	60	SMALL
ROSES QUALITY PAINTS INC	SCD065047854	901 FRANK ST	CAYCE	SC	19171	WEST	60	LARGE
SLOAN CONSTRUCTION CO INC - KOPPERS	SCD980311377	NEW STATE ST	CAYCE	SC	29602	WEST	60	LARGE
CHAR-LEES SERVICE STATION	SCD000825216	I-26 & HIGHWAY 176	IRMO	SC	29603	WEST	60	LARGE
BRYANS CLEANERS LEXINGTON	SCR000000091	5504 SUNSET BLVD	LEXINGTON	SC	29073	WEST	60	SMALL
CAROLINA STEEL & WIRE CORP	SCD062691290	I-20 & RT 6	LEXINGTON	SC	29073	WEST	60	SMALL
FRANKS QUALITY SERVICE	SCR000003244	1784 TWO NOTCH RD	LEXINGTON	SC	29073	WEST	60	SMALL
MICHELIN TIRE CORP	SCD055830095	2420 TWO NOTCH RD	LEXINGTON	SC	29702	WEST	60	LARGE
NU WAY INDUSTRIAL SERVICES	SCD987598331	1741 CALKS FERRY RD	LEXINGTON	SC	29073	WEST	60	SMALL
SCOTT AUTOMOTIVE	SCD987593365	1745 S LAKE DR	LEXINGTON	SC	29073	WEST	60	SMALL
UNIROYAL CHEMICAL	SCR000000794	1409 FAIRVIEW RD	PELION	SC	29103	WEST	60	SMALL
DOVE CLEANERS	SCD981922347	1400 BOILING SPRINGS	SPARTANBURG	SC	29303	WEST	60	SMALL

<sup>a</sup>Distance from the center of Congaree Swamp National Monument.<sup>b</sup>Approximate distance (km) from Congaree Swamp National Monument.<sup>c</sup>Large quantity generators produce more than 1,000 kg of hazardous waste during any calendar month and more than 100 kg or less of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill of acutely hazardous waste during any calendar month. Small quantity generators produce less than the criteria for a large quantity generators.



**Table 10.** RCRA-regulated hazardous waste processing facilities located within the Congaree watershed.

FACILITY NAME	FACILITY ID	WASTE ACTIVITY
ASHLAND CHEMICAL COMPANY	SCD062700463	CONTAINER
ASHLAND CHEMICAL CO	SCD980839823	CONTAINER
ASHLAND CHEMICAL CO	SCD980839823	TANK STORAGE
COLUMBIA CHEMICAL COATINGS INC	SCD000616102	CONTAINER
GASTON COPPER RECYCLING	SCD001368075	CONTAINER
GASTON COPPER RECYCLING	SCD001368075	SURFACE TREATMENT
GASTON COPPER RECYCLING	SCD001368075	TANK STORAGE
GASTON COPPER RECYCLING	SCD001368075	WASTE PILE
OWEN ELECTRIC STEEL CO OF SOUTH CAROLINA	SCD003353760	WASTE PILE
USATC & FORT JACKSON	SC3210020449	CONTAINER
USATC & FORT JACKSON	SC3210020449	INCINERATOR
USATC & FORT JACKSON	SC3210020449	OTHER
USATC & FORT JACKSON	SC3210020449	TANK STORAGE



**Table 11. Clean Air Act-regulated facilities located within 60 km of COSW.**

FACILITY NAME	AIRS ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>
DEVRO-TEEPAK	SC0036137	OFF HWY 176	SWANSEA	SC	29160	WEST	10
FAIRFIELD CHEMICAL	SC0823595	257 HIRAM ALLEN RD	BLYTHEWOOD	SC	29016	NORTHWEST	30
JENKINS BROS	SC0036152	NORTH CLUB ROAD	BLYTHEWOOD	SC	29016	NORTHWEST	30
KINGS LABORATORY	SC0036165	424 BLYTHEWOOD RD	BLYTHEWOOD	SC	29016	NORTHWEST	30
CAMERON GIN & SEED	SC0034644	MAIN ST	CAMERON	SC	29030	SOUTH	30
ROYSTER CO	SC0849900	SC HWY 33, EAST CAMERON	CAMERON	SC	29030	SOUTH	30
WESTVACO:CAMERON	SC0034627	HWY 33	CAMERON	SC	29030	SOUTH	30
MARTIN MAR:CAYCE QRY	SC0035929	1801 CHARLESTON HWY	CAYCE	SC	29033	NORTHWEST	30
OWEN ELECTRIC STEEL	SC0036126	310 NEW STATE RD	CAYCE	SC	29033	NORTHWEST	30
US SILICA	SC0035927	HIGHWAY 302 SOUTH	CAYCE	SC	29171	NORTHWEST	30
DUKE POWER:BUZZARD	SC0036009	HWY 34W	CHAPPELLE	SC	29037	WEST	30
FOSTER-DIXIANA SAND	VA0024381	5360 BAINBRIDGE BLVD	CHESAPEAKE	VA	29250	NORTHWEST	30
AMERICAN ITALIAN PASTA CO	SC0931603	PINE VIEW RD	COLUMBIA	SC	29209	NORTHWEST	30
AMPHENOL CORP	SC0036151	HWY 1 NORTH	COLUMBIA	SC	29201	NORTHWEST	30
ANCHOR CONTINENTAL	SC0036133	2000 S BELTLINE BLVD	COLUMBIA	SC	29205	NORTHWEST	30
ARATEX SERVICES	SC0917659	919 AIRPORT BLVD	COLUMBIA	SC	29200	NORTHWEST	30
ASHLAND CHEM:COLA	SC0036144	729 MAUNEY DRIVE	COLUMBIA	SC	29201	NORTHWEST	30
BRYAN,RL:COLA	SC0849702	301 GREYSTONE BLVD	COLUMBIA	SC	29210	NORTHWEST	30
CARBBITS	SC0938369	751 CLEMSON ROAD	COLUMBIA	SC	29229	NORTHWEST	30
CARDINAL COMPANIES	SC0036134	2010 S BELTLINE BLVD	COLUMBIA	SC	29201	NORTHWEST	30
CAROLINA CONCRTE PIPE	SC0036119	1060 SHOP ROAD	COLUMBIA	SC	29202	NORTHWEST	30
CAROLINA EASTMAN CO	SC0035930	I-26 & HWY 21-S	COLUMBIA	SC	29169	NORTHWEST	30
CAROLINA CERAMICS	SC0036120	9931 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30
COLUMBIA STEEL-CLOSED	SC0036135	1148 SHOP ROAD	COLUMBIA	SC	29205	NORTHWEST	30
COLUMBIA SEWAGE PLNT	SC0036131	SIMON TREE LANE	COLUMBIA	SC	29209	NORTHWEST	30
CONSOLIDATED SYSTEMS	SC0036140	649 ROSEWOOD DR	COLUMBIA	SC	29201	NORTHWEST	30
COOPER:COLUMBIA	SC0848419	PO BOX 23187	COLUMBIA	SC	29224	NORTHWEST	30
DIAMANT BOART	SC0036161	10250 TWO NOTCH RD	COLUMBIA	SC	29202	NORTHWEST	30
DUNBAR FUNERAL HOME	SC0848619	1527 GERVAIS ST	COLUMBIA	SC	29202	NORTHWEST	30
FABRIQUE NATIONALE	SC0036150	797 CLEMSON RD	COLUMBIA	SC	29202	NORTHWEST	30
FINLAY HOUSE	SC0036147	2100 BLOSSOM ST	COLUMBIA	SC	29205	NORTHWEST	30
GIANT FOOD:DECKER	SC0036156	1735 DECKER BLVD	COLUMBIA	SC	29206	NORTHWEST	30
GIANT FOOD:N MAIN	SC0036155	6325 N MAIN ST	COLUMBIA	SC	29203	NORTHWEST	30
GREAT SOUTH SERVICES	SC0036163	BOSWELL RD	COLUMBIA	SC	29203	NORTHWEST	30
HARDAWAY:PLANT # 1	SC0848778	2001 TAYLOR ST	COLUMBIA	SC	29240	NORTHWEST	30
HARDAWAY:PLANT # 2	SC0898234	423 RABON RD	COLUMBIA	SC	29240	NORTHWEST	30
HARDAWAY:#5-CLOSED	SC0036157	2001 TAYLOR ST	COLUMBIA	SC	29240	NORTHWEST	30
HEWITT ROBINS-CLOSED	SC0784251	10145 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30
HEWITT ROBINS	SC0914244	10145 TWO NOTCH ROAD	COLUMBIA	SC	29204	NORTHWEST	30
HOLOPACK INT	SC0938364	1 TECHNOLOGY DR	COLUMBIA	SC	29203	NORTHWEST	30
HOMELITE	SC0938367	I-20 & STATE RD 53	COLUMBIA	SC	29224	NORTHWEST	30
IBP CAROLINA	SC0938366	1970 BLUFF RD	COLUMBIA	SC	29209	NORTHWEST	30
JOHNSON CONTROLS	SC0784252	10109 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30
KLINE IRON&STL:COLA	SC0036138	1225 HUGER STREET	COLUMBIA	SC	29202	NORTHWEST	30
LINDAU CHEMICALS	SC0770283	750 GRANBY LANE	COLUMBIA	SC	29201	NORTHWEST	30
LITTLE TIKES	SC0036160	10700 FARROW RD	COLUMBIA	SC	29211	NORTHWEST	30
LONE STAR-PONTIAC QR	SC0036130	PONTIAC SAND PLANT	COLUMBIA	SC	29201	NORTHWEST	30
M CRAIG & COMPANY	SC0849300	1124 PINEVIEW DRIVE	COLUMBIA	SC	29209	NORTHWEST	30
MARTIN MAR:COLA QRRY	SC0036118	MONTICELLO RD	COLUMBIA	SC	29203	NORTHWEST	30
NEIL PARTS REBUILDER	SC0036169	214 WAYNE STREET	COLUMBIA	SC	29205	NORTHWEST	30
OWEN STEEL:BLOSSOM	SC0036142	801 BLOSSOM ST	COLUMBIA	SC	29202	NORTHWEST	30
PEPSI-COLA SOUTH,INC	SC0917619	6925 NORTH MAIN STREET	COLUMBIA	SC	29202	NORTHWEST	30
PROVIDENCE HOSPITAL	SC0849735	2345 FORREST DR	COLUMBIA	SC	29204	NORTHWEST	30
RICHLAND MEM HOSP	SC0036158	3301 HARDEN ST EXT	COLUMBIA	SC	29201	NORTHWEST	30
RICHLND CNTY ADM CTR	SC0777032	2020 HAMPTON ST	COLUMBIA	SC	29202	NORTHWEST	30
RICHTEX CORP:PLNT 4	SC0036122	BRICK YARD ROAD	COLUMBIA	SC	29203	NORTHWEST	30
RICHTEX CORP: PLNT 2	SC0036123	BRICK YARD ROAD	COLUMBIA	SC	29203	NORTHWEST	30
RICHTEX CORP: PLNT 3	SC0036121	BRICK YARD ROAD	COLUMBIA	SC	29203	NORTHWEST	30
RIVERBANKS PARK-CLOSED	SC0849848	500 WILDIE PKWY	COLUMBIA	SC	29210	NORTHWEST	30





Table 11. Continued.

FACILITY NAME	AIRS ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>
SC DHEC: HAYNE BLDG	SC0848595	8231 PARKLANE RD	COLUMBIA	SC	29201	NORTHWEST	30
SC DC: COLUMBIA #4	SC0849840	4322 BROAD RIVER	COLUMBIA	SC	29210	NORTHWEST	30
SC DMH:FARROW RD	SC0036159	FARROW RD	COLUMBIA	SC	29201	NORTHWEST	30
SC DEPT OF DISABILTS	SC0849866	FARROW RD	COLUMBIA	SC	29240	NORTHWEST	30
SC CRIMINAL JUS ACAD	SC0849754	5410 BROAD RIVER RD	COLUMBIA	SC	29210	NORTHWEST	30
SC STATE FARMERS MKT	SC0849907	BLUFF RD	COLUMBIA	SC	29201	NORTHWEST	30
SC DC: COLUMBIA #1	SC0849758	502 BECKMAN	COLUMBIA	SC	29210	NORTHWEST	30
SC DHEC:BULL-CLOSED	SC0777062	2600 BULL ST	COLUMBIA	SC	29201	NORTHWEST	30
SC DC: COLUMBIA #2	SC0849762	4322 BROAD RIVER	COLUMBIA	SC	29210	NORTHWEST	30
SC DC: COLUMBIA #3	SC0849832	4322 BROAD RIVER RD	COLUMBIA	SC	29210	NORTHWEST	30
SC DMH:BULL ST	SC0036153	2100 BULL ST	COLUMBIA	SC	29201	NORTHWEST	30
SCE&G:COIT	SC0913470	300 HEYWARD ST	COLUMBIA	SC	29200	NORTHWEST	30
SCETV	SC0849919	1101 GEO. ROGERS BLVD	COLUMBIA	SC	29201	NORTHWEST	30
SHAKESPEARE:COLUMBIA	SC0036136	6111 SHAKESPEARE RD	COLUMBIA	SC	29223	NORTHWEST	30
SHIVES FUNERAL HOME	SC0849923	5202 COLONIAL DR.	COLUMBIA	SC	292036042	NORTHWEST	30
SLED	SC0849929	4400 BROAD RIVER RD	COLUMBIA	SC	29221	NORTHWEST	30
SOUTHERN ARCHITCTR	SC0850040	7402 FAIRFIELD RD	COLUMBIA	SC	29203	NORTHWEST	30
SPRINGS IND:OLYMPIA	SC0891388	600 HEYWARD ST	COLUMBIA	SC	29202	NORTHWEST	30
SQUARE D COMPANY	SC0034639	8821 GARNERS FERRY RD	COLUMBIA	SC	29160	NORTHWEST	30
STANDARD WAREH-CLOSD	SC0850197	COLUMBIA	COLUMBIA	SC	29201	NORTHWEST	30
STATE PRINTING CO	SC0850206	1210 KEY RD	COLUMBIA	SC	29202	NORTHWEST	30
STATE NEWSPAPERS	SC0036139	1401 SHOP RD	COLUMBIA	SC	29201	NORTHWEST	30
SUNBIRD BOAT #2	SC0850219	2348 SHOP ROAD	COLUMBIA	SC	29201	NORTHWEST	30
SUNBIRD BOAT	SC0777718	2348 SHOP RD	COLUMBIA	SC	29201	NORTHWEST	30
TARMAC:DRYFUS QUARRY	SC0036129	ROUTE 1, BOX 137	COLUMBIA	SC	29203	NORTHWEST	30
TARMAC:COLUMBIA	SC0036125	545 GEORGIA STREET	COLUMBIA	SC	29205	NORTHWEST	30
TREZEVANT FUNERAL	SC0918437	5716 KOON RD	COLUMBIA	SC	29203	NORTHWEST	30
UNICON:KEY RD	SC0036166	1400 KEY RD	COLUMBIA SC	SC	29202	NORTHWEST	30
UNICON:MILL FIELD RD	SC0036148	9624 MILL FIELD RD	COLUMBIA	SC	29204	NORTHWEST	30
UNITED BRAKE SYSTEMS	SC0036171	1238 BLUFF RD	COLUMBIA	SC	29201	NORTHWEST	30
USC:ENERGY FAC	SC0938365	743 GREENE ST	COLUMBIA	SC	29201	NORTHWEST	30
VA HOSPITAL:COLUMBIA	SC0036132	GARNERS FERRY ROAD	COLUMBIA	SC	29201	NORTHWEST	30
VISTA BAKERY	SC0851275	1720 PINEVIEW RD	COLUMBIA	SC	29209	NORTHWEST	30
WESTINGHOUSE ELECTRC	SC0851804	5801 BLUFF RD	COLUMBIA	SC	29250	NORTHWEST	30
WIKOFF COLOR:COLA	SC0784257	2651 SOUTH SHOP RD	COLUMBIA	SC	29209	NORTHWEST	30
YORK TAPE & LABEL-CLOSED	SC0784258	2401 ALPINE RD	COLUMBIA	SC	29223	NORTHWEST	30
EAST COAST STEEL	SC0036141	HIGHWAY 769, BOX 367	CONGAREE	SC	29044	NORTHWEST	30
MCENTIRE ANG BASE	SC0849319	US 378 & CROSSING CREEK	EASTOVER	SC	29044	NORTHWEST	30
UNION CAMP:EASTOVER	SC0036145	HWY 601 NEAR HWY 764	EASTOVER	SC	29044	NORTH	30
ARROWHEAD PLASTICS SOUTH	SC0938368	115 SPEARS CREEK CHURCH LANE	ELGIN	SC	29045	NORTHWEST	30
CLEMSON LIVESTOCK	SC0036146	US #1N AT CLEMSON ROAD	ELGIN	SC	29045	NORTHWEST	30
CROWN CONTRACT SERV	SC0854782	EWELL & FOSTER ROADS	FORT JACKSON,SC	SC	29207	NORTHWEST	30
US ARMY: FT JACKSON	SC0036128	FORT JACKSON	FT JACKSON	SC	29207	NORTHWEST	30
GASTON COPPER RECYCL	SC0035936	HWY 321 S	GASTON	SC	29053	WEST	30
ZEUS IND PROD:GASTON	SC0924837	ROUTE 2 BOX 234 E	GASTON	SC	29053	SOUTH	30
HARDAWAY:PLANT #10	SC0036162	301 WEST LAKE DR	IRMO	SC	29063	NORTHWEST	30
PONTIAC FOODS	SC0036154	813 BOOKMAN RD	PONTIAC	SC	29223	NORTHWEST	30
NATIONAL WELDERS SUP	SC0034648	1-26 NEAR HWY S-9-86	SANDY RUN	SC	29053	SOUTH	30
CALHOUN GIN CO	SC0034649	HWY 601 N	ST MATTHEWS	SC	29135	SOUTH	30
FARMERS GIN-CLOSED	SC0034651	OFF HWY 6	ST MATTHEWS	SC	29135	SOUTH	30
GOLD KIST:ST MATTHEW	SC0034646	HWY 601	ST MATTHEWS	SC	29135	SOUTH	30
MIDDLING COTTON COMPANY	SC0034654	HWY 6	ST MATTHEWS	SC	29135	SOUTH	30
WORTHNGTN CUSTM PLAS	SC0851996	130 WORTHINGTON DR	ST MATTHEWS	SC	29135	SOUTH	30
APG LIME CORP	SC0917607	HWY 601 N	ST. MATTHEWS	SC	29135	SOUTH	30
MISSISSIPPI LIME	SC0910121	ST. MATTHEWS	ST. MATTHEWS	SC	29201	SOUTH	30
SC DHEC: FARROW RD	SC0849909	8500 FARROW RD BLDG #103	STATE PARK	SC	29147	NORTHWEST	30
SCE&G:WATEREE	SC0036124	HWY 48 @ US 601	WATEREE	SC	29044	NORTH	30
BATESBURG, TOWN OF	SC0847945	PO BOX 429	BATESBURG	SC	2906060429	WEST	60
HARDAWAY:PLANT # 9	SC0885022	CAROLINA AVE	BATESBURG	SC	29006	WEST	60
HERMITAGE:BATESBURG	SC0035926	200 E CHURCH ST	BATESBURG	SC	29006	WEST	60
UNION SWITCH&SIGNAL	SC0850298	645 RUSSELL ST	BATESBURG	SC	29006	WEST	60



**Table 11. Continued.**

FACILITY NAME	AIRS ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>
ALEXANDER MILL SERV	SC0847600	301 NEW STATE RD	CAYCE	SC	29033	WEST	60
BORAL BRICKS:LEXNGTN	SC0035928	KNOX ABBOTT DRIVE	CAYCE	SC	29033	WEST	60
OWEN JOIST CORP	SC0035943	100 FOSTER ST, BOX 3	CAYCE	SC	29033	WEST	60
ROSE TALBERT PAINT	SC0917571	P O BOX 2658	CAYCE	SC	29033	WEST	60
S EASTERN CONCRETE	SC0850025	917 FRINK ST	CAYCE	SC	29033	WEST	60
STEPHENSON CONCRETE CO	SC0848343	PO BOX 176 US 76 S	CHAPIN	SC	29036	WEST	60
UNICON:CHAPIN	SC0035950	HWY 19	CHAPIN	SC	29036	WEST	60
WEISZ GRAPHICS	SC0929986	300 EAST BOUNDARY RD	CHAPIN	SC	29036	WEST	60
ROPER HOSPITAL	SC0034868	316 CALHOUN STREET	CHARLESTON	SC	29402	WEST	60
MANSURE, E L	SC0848636	HWY 76, CLINTON IND PARK	CLINTON	SC	29325	WEST	60
ALLIED-SIGNAL:FIBERS	SC0035931	4401 ST ANDREWS RD	COLUMBIA	SC	29210	NORTHWEST	60
CONCEPT UNLIMITED	SC0848406	RT 3 BOX 109	GASTON	SC	29053	WEST	60
GOLD KIST:GASTON	SC0035951	HWY 321	GASTON	SC	29053	WEST	60
LEXINGTON TIRE PRCR	SC0823830	HWY 321	GASTON	SC	29053	WEST	60
SOUTHEASTERN-CLOSED	SC0850034	HWY 321 SOUTH	GASTON	SC	29053	WEST	60
PHILLIPS COMPONENTS	SC0035954	6071 ST ANDREWS RD	IRMO	SC	29210	NORTHWEST	60
S EASTERN-CLOSED	SC0850030	MCMEEKIN STATION	IRMO	SC	29212	WEST	60
COLUMBIA FARM:LEESV	SC0035939	125 N LEE ST	LEESVILLE	SC	29070	WEST	60
HUTTO LUMBER, INC.	SC0919736	HWY 1	LEESVILLE	SC	29070	WEST	60
MARTIN, JB	SC0906110	321 SOUTHEAST AVE	LEESVILLE	SC	29070	WEST	60
TWIN CITY LUMBER	SC0035934	PO BOX 280	LEESVILLE	SC	29070	WEST	60
A&L SERVICES - CLOSD	SC0847232	105 HOWARD ST	LEXINGTON	SC	29072	WEST	60
ANACONDA ERICKSON	SC0035946	814 ALLIS CHALMRS RD	LEXINGTON	SC	29072	WEST	60
CAROLINA STEEL&WIRE	SC0035949	BOX 817	LEXINGTON	SC	29072	WEST	60
CAUGHMAN HARMON	SC0035948	503 N LAKE DRIVE	LEXINGTON	SC	29072	WEST	60
COOPER:LEXINGTON	SC0035952	666 INDUSTRIAL DRIVE	LEXINGTON	SC	29072	WEST	60
CORLEY & SONS SAWMIL	SC0848424	PO BOX 862	LEXINGTON	SC	29072	WEST	60
GLASSMASTER.MONO DIV	SC0035938	1-20 AND HWY 6	LEXINGTON	SC	29071	WEST	60
HARDAWAY:PLANT # 8	SC0890196	585 CALKS FERRY RD	LEXINGTON	SC	29240	WEST	60
HOOVER TRUSSES	SC0093533	1120 OLD 2NOTCH RD	LEXINGTON	SC	29072	WEST	60
LANIER CONST #2	SC0035957	TWO NOTCH RD	LEXINGTON	SC	29072	WEST	60
LEXNGTN SHERIFF DEPT	SC0849270	GIBSON COURT	LEXINGTON	SC	29071	WEST	60
MICHELIN:LEXINGTON	SC0035945	2420 TWO NOTCH RD	LEXINGTON	SC	29072	WEST	60
MIDLND PET CREMATORY	SC0924170	HWY 378	LEXINGTON	SC	29071	WEST	60
PIRELLI CABLE CO:LEXNGTN	SC0849693	700 INDUSTRIAL DR	LEXINGTON	SC	29072	WEST	60
RIEGEL TEXT-CLOSED	SC0035924	711 EAST MAIN STREET	LEXINGTON	SC	29072	WEST	60
SAFETY-KLEEN CORP	SC0035942	130-A FRONTAGE RD	LEXINGTON	SC	29073	WEST	60
SBP TECH - CLOSED	SC0849752	HWY 302	LEXINGTON	SC	29160	WEST	60
SCE&G:MCMEEKIN	SC0035925	RT 6 AT L MURRAY DAM	LEXINGTON	SC	29072	WEST	60
SEA HUNT BOAT	SC0940621	5535 ROSEBANK COURT	LEXINGTON	SC	29072	WEST	60
TECHNOGRPHCS DECOTON	SC0035944	541 INDUSTRIAL RD	LEXINGTON	SC	29072	WEST	60
TIN PRODUCTS	SC0920752	1000 BONHOMME RICHARD DR	LEXINGTON	SC	29071	WEST	60
UNICON:INDUSTRIAL RD	SC0035958	INDUSTRIAL RD	LEXINGTON	SC	29072	WEST	60
UNIROYAL-CLOSED	SC0850306	1-26 & OLD DUNBAR RD	LEXINGTON	SC	29072	WEST	60
FIBERTECH CORP	SC0848669	250 S DEPOT ST	PENDLETON	SC	29072	WEST	60
EAGLE AVIATION, INC	SC0848621	HWY 302	SPRINGDALE	SC	29169	WEST	60
CULLER-HOLSTEIN GIN	SC0848547	SWANSEA	SWANSEA	SC	29160	WEST	60
ITT RAYONIER:SWANSEA	SC0035932	SWANSE WOODYARD	SWANSEA	SC	29160	WEST	60
SOUTHERN SLAG AGGREG	SC0035956	OFF HWY321 ON HWY102	SWANSEA	SC	29160	WEST	60
SWANSEA LUMBER CO.	SC0035933	PO DRAWER 8	SWANSEA	SC	29160	WEST	60
SMI STEEL SOUTHRN PST	SC0940622	PINE RIDGE RD	W COLUMBIA	SC	29169	WEST	60
CAROLINA CHEM-CLOSED	SC0035947	306 MIAMI STREET	WEST COLUMBIA	SC	29169	WEST	60
COLUMBIA SILICA SAND	SC0035940	5275 EDMUND HWY	WEST COLUMBIA	SC	29170	WEST	60
FOGLES FOOD CITY	SC0035935	1212 D AVE	WEST COLUMBIA	SC	29169	WEST	60
FOSTERDIXIANA:QUARRY	SC0035941	3308 CHARLESTON HWY	WEST COLUMBIA	SC	29211	WEST	60
GENERATOR SYSTMS 2(C	SC0035953	2805 AUGUSTA RD	WEST COLUMBIA	SC	29169	WEST	60
HARDAWAY:PLANT # 4	SC0922096	1760 DOUBLE BRANCH ROAD	WEST COLUMBIA	SC	292404128	WEST	60



**Table 11. Continued.**

FACILITY NAME	AIRS ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>
KINGSTON METAL SOUTH	SC0849087	3401 PLATT SPRINGS RD	WEST COLUMBIA	SC	29169	WEST	60
KLINE IRON&STL CAYCE	SC0906750	841 WILLIAMS ST	WEST COLUMBIA	SC	29169	WEST	60
LEXINGTON MED CENTER	SC0035955	HWY 378@I-26, 2720 SUNSET BLVD	WEST COLUMBIA	SC	29169	WEST	60
QUIKRETE-CAROLINA	SC0849645	1553 PINEVIEW DR	WEST COLUMBIA	SC	29169	WEST	60
SC EPISCOPAL HOME	SC0849868	7TH ST	WEST COLUMBIA	SC	29169	WEST	60
TCM MFG	SC0849912	107 MCQUEEN ST	WEST COLUMBIA	SC	29172	WEST	60
W COLUMBIA, CITY OF	SC0851793	730 OLD CHEROKEE RD	WEST COLUMBIA	SC	297174044	WEST	60

<sup>a</sup>Direction from the center of Congaree Swamp National Monument.

<sup>b</sup>Approximate distance (km) from Congaree Swamp National Monument.





**Table 12.** Clean Air Act-regulated “minor” air discharging facilities located within 60 km of COSW.

FACILITY NAME	AIRS ID	EMISSIONS	STANDARD INDUSTRY CLASSIFICATION	STATUS
FOSTER-DIXIANA SAND	VA0024381	EMISSIONS < 100 TONS/YR	ABRASIVE PRODUCTS	ACTIVE
BATESBURG, TOWN OF	SC0847945	EMISSIONS < 100 TONS/YR	ADMINISTRATION OF SOCIAL AND	ACTIVE
SC DHEC:BULL	SC0777062	EMISSIONS < 100 TONS/YR	ADMINISTRATION OF PUBLIC HEALTH PROGRAMS	CLOSED
UNIROYAL	SC0850306	EMISSIONS < 100 TONS/YR	AIRCRAFT PARTS AND EQUIPMENT, NEC	CLOSED
FINLAY HOUSE	SC0036147	EMISSIONS < 100 TONS/YR	APARTMENT BUILDING OPERATORS	ACTIVE
SEA HUNT BOAT	SC0940621	EMISSIONS < 100 TONS/YR	BOATBUILDING AND REPAIRING	ACTIVE
SUNBIRD BOAT #2	SC0850219	EMISSIONS < 100 TONS/YR	BOATBUILDING AND REPAIRING	ACTIVE
PEPSI-COLA SOUTH,INC	SC0917619	EMISSIONS < 100 TONS/YR	BOTTLED AND CANNED SOFT DRINKS	ACTIVE
VISTA BAKERY	SC0851275	EMISSIONS < 100 TONS/YR	BREAD, CAKE, AND RELATED PRODUCTS	ACTIVE
CAROLINA CERAMICS	SC0036120	EMISSIONS < 100 TONS/YR	BRICK AND STRUCTURAL CLAY TILE	ACTIVE
HERMITAGE:BATESBURG	SC0035926	EMISSIONS < 100 TONS/YR	BROADWOVEN FABRIC MILLS, COTTON	ACTIVE
MARTIN, JB	SC0906110	EMISSIONS < 100 TONS/YR	BROADWOVEN FABRIC MILLS, MANMADE	ACTIVE
ASHLAND CHEM:COLA	SC0036144	EMISSIONS < 100 TONS/YR	CHEMICALS AND ALLIED PRODUCTS, NEC	ACTIVE
TECHNOGRPHCS DECOTON	SC0035944	EMISSIONS < 100 TONS/YR	COMMERCIAL PRINTING, GRAVURE	ACTIVE
WEISZ GRAPHICS	SC0929986	EMISSIONS < 100 TONS/YR	COMMERCIAL PRINTING, NEC	ACTIVE
A&L SERVICES	SC0847232	EMISSIONS < 100 TONS/YR	CONCRETE BLOCK AND BRICK	CLOSED
S EASTERN CONCRETE	SC0850025	EMISSIONS < 100 TONS/YR	CONCRETE BLOCK AND BRICK	ACTIVE
HEWITT ROBINS	SC0784251	EMISSIONS < 100 TONS/YR	CONSTRUCTION MACHINERY	CLOSED
SOUTHEASTERN	SC0850034	EMISSIONS < 100 TONS/YR	CONSTRUCTION MATERIALS, NEC	CLOSED
SC DC: COLUMBIA #4	SC0849840	EMISSIONS < 100 TONS/YR	CORRECTIONAL INSTITUTIONS	ACTIVE
SC DC: COLUMBIA #1	SC0849758	EMISSIONS < 100 TONS/YR	CORRECTIONAL INSTITUTIONS	ACTIVE
SC DC: COLUMBIA #2	SC0849762	EMISSIONS < 100 TONS/YR	CORRECTIONAL INSTITUTIONS	ACTIVE
SC DC: COLUMBIA #3	SC0849832	EMISSIONS < 100 TONS/YR	CORRECTIONAL INSTITUTIONS	ACTIVE
CALHOUN GIN CO	SC0034649	EMISSIONS < 100 TONS/YR	COTTON GINNING	ACTIVE
AMPHENOL CORP	SC0036151	EMISSIONS < 100 TONS/YR	CURRENT-CARRYING WIRING DEVICES	ACTIVE
PHILLIPS COMPONENTS	SC0035954	EMISSIONS < 100 TONS/YR	ELECTRONIC CAPACITORS	ACTIVE
EAST COAST STEEL	SC0036141	EMISSIONS < 100 TONS/YR	FABRICATED STRUCTURAL METAL	ACTIVE
OWEN STEEL:BLOSSOM	SC0036142	EMISSIONS < 100 TONS/YR	FABRICATED STRUCTURAL METAL	ACTIVE
OWEN JOIST CORP	SC0035943	EMISSIONS < 100 TONS/YR	FABRICATED STRUCTURAL METAL	ACTIVE
ROYSTER CO	SC0849900	EMISSIONS < 100 TONS/YR	FARM-PRODUCT RAW MATERIALS, NEC	ACTIVE
DUNBAR FUNERAL HOME	SC0848619	EMISSIONS < 100 TONS/YR	FUNERAL SERVICE AND CREMATORIES	ACTIVE
SHIVES FUNERAL HOME	SC0849923	EMISSIONS < 100 TONS/YR	FUNERAL SERVICE AND CREMATORIES	ACTIVE
LITTLE TIKES	SC0036160	EMISSIONS < 100 TONS/YR	GAMES, TOYS, AND CHILDREN'S VEHICLES	ACTIVE
PROVIDENCE HOSPITAL	SC0849735	EMISSIONS < 100 TONS/YR	GENERAL MEDICAL AND SURGICAL HOSPITALS	ACTIVE
RICHLND CNTY ADM CTR	SC0777032	EMISSIONS < 100 TONS/YR	GENERAL MEDICAL AND SURGICAL HOSPITALS	ACTIVE
W COLUMBIA, CITY OF	SC0851793	EMISSIONS < 100 TONS/YR	GENERAL GOVERNMENT, NEC	ACTIVE
FOGLES FOOD CITY	SC0035935	EMISSIONS < 100 TONS/YR	GROCERY STORES	ACTIVE
RIVERBANKS PARK	SC0849848	EMISSIONS < 100 TONS/YR	HOUSEHOLD FURNISHINGS, NEC	CLOSED
KINGS LABORATORY	SC0036165	EMISSIONS < 100 TONS/YR	INDUSTRIAL ORGANIC CHEMICALS, NEC	ACTIVE
LINDAU CHEMICALS	SC0770283	EMISSIONS < 100 TONS/YR	INDUSTRIAL ORGANIC CHEMICALS, NEC	ACTIVE
NATIONAL WELDERS SUP	SC0034648	EMISSIONS < 100 TONS/YR	INDUSTRIAL GASES	ACTIVE
TIN PRODUCTS	SC0920752	EMISSIONS < 100 TONS/YR	INDUSTRIAL INORGANIC CHEMICALS, NEC	ACTIVE
WESTINGHOUSE ELECTRC	SC0851804	EMISSIONS < 100 TONS/YR	INDUSTRIAL INORGANIC CHEMICALS, NEC	ACTIVE
TWIN CITY LUMBER	SC0035934	EMISSIONS < 100 TONS/YR	LOGGING	ACTIVE
WESTVACO:CAMERON	SC0034627	EMISSIONS < 100 TONS/YR	LOGGING	ACTIVE
CARBBITS	SC0938369	EMISSIONS < 100 TONS/YR	MACHINE TOOL ACCESSORIES	ACTIVE
COLUMBIA FARM:LEESV	SC0035939	EMISSIONS < 100 TONS/YR	MEAT PACKING PLANTS	ACTIVE
SC DHEC: HAYNE BLDG.	SC0848595	EMISSIONS < 100 TONS/YR	MEDICAL LABORATORIES	ACTIVE
SC DMH:FARROW RD	SC0036159	EMISSIONS < 100 TONS/YR	MEDICAL LABORATORIES	ACTIVE
FAIRFIELD CHEMICAL	SC0823595	EMISSIONS < 100 TONS/YR	MEDICINALS AND BOTANICALS	ACTIVE
ARROWHEAD PLASTICS SOUTH	SC0938368	EMISSIONS < 100 TONS/YR	METAL COATING AND ALLIED SERVICES	ACTIVE
ZEUS IND PROD:GASTON	SC0924837	EMISSIONS < 100 TONS/YR	METAL COATING AND ALLIED SERVICES	ACTIVE
SOUTHERN ARCHITCTR	SC0850040	EMISSIONS < 100 TONS/YR	MILL WORK	ACTIVE
LONE STAR-PONTIAC QR	SC0036130	EMISSIONS < 100 TONS/YR	MINERALS, GROUND OR TREATED	ACTIVE
SOUTHERN SLAG AGGREG	SC0035956	EMISSIONS < 100 TONS/YR	MINERALS, GROUND OR TREATED	ACTIVE
HEWITT ROBINS	SC0914244	EMISSIONS < 100 TONS/YR	MINING MACHINERY	ACTIVE
SMI STEEL SOUTHRN PST	SC0940622	EMISSIONS < 100 TONS/YR	MISCELLANEOUS METAL WORK	ACTIVE
MANSURE, E L	SC0848636	EMISSIONS < 100 TONS/YR	NARROW FABRIC MILLS	ACTIVE
MCENTIRE ANG BASE	SC0849319	EMISSIONS < 100 TONS/YR	NATIONAL SECURITY	ACTIVE



Table 12. Continued.

FACILITY NAME	AIRS ID	EMISSIONS	STANDARD INDUSTRY CLASSIFICATION	STATUS
STATE NEWSPAPERS	SC0036139	EMISSIONS < 100 TONS/YR	NEWSPAPERS	ACTIVE
SBP TECH	SC0849752	EMISSIONS < 100 TONS/YR	NONCLASSIFIABLE ESTABLISHMENTS	CLOSED
PIRELLI CABLE CO.LXNGTN	SC0849693	EMISSIONS < 100 TONS/YR	NONFERROUS WIREDRAWING AND INSULATING	ACTIVE
APG LIME CORP	SC0917607	EMISSIONS < 100 TONS/YR	NONMETALLIC MINERAL SERVICES	ACTIVE
BRYAN,RL.COLA	SC0849702	EMISSIONS < 100 TONS/YR	NOT PROVIDED	ACTIVE
CULLER-HOLSTEIN GIN	SC0848547	EMISSIONS < 100 TONS/YR	NOT PROVIDED	ACTIVE
EAGLE AVIATION, INC	SC0848621	EMISSIONS < 100 TONS/YR	NOT PROVIDED	ACTIVE
RIEGEL TEXT	SC0035924	EMISSIONS < 100 TONS/YR	NOT PROVIDED	CLOSED
SC EPISCOPAL HOME	SC0849868	EMISSIONS < 100 TONS/YR	NOT PROVIDED	ACTIVE
STATE PRINTING CO	SC0850206	EMISSIONS < 100 TONS/YR	NOT PROVIDED	ACTIVE
TREZEVANT FUNERAL	SC0918437	EMISSIONS < 100 TONS/YR	NOT PROVIDED	ACTIVE
ROSE TALBERT PAINT	SC0917571	EMISSIONS < 100 TONS/YR	PAINTS AND ALLIED PRODUCTS	ACTIVE
YORK TAPE & LABEL	SC0784258	EMISSIONS < 100 TONS/YR	PAPER, COATED AND LAMINATED, NEC	CLOSED
S EASTERN	SC0850030	EMISSIONS < 100 TONS/YR	PETROLEUM AND COAL PRODUCTS, NEC	CLOSED
HOLOPACK INT	SC0938364	EMISSIONS < 100 TONS/YR	PHARMACEUTICAL PREPARATIONS	ACTIVE
JOHNSON CONTROLS	SC0784252	EMISSIONS < 100 TONS/YR	PLASTICS PRODUCTS, NEC	ACTIVE
SC CRIMINAL JUS ACAD	SC0849754	EMISSIONS < 100 TONS/YR	POLICE PROTECTION	ACTIVE
COOPER.COLUMBIA	SC0848419	EMISSIONS < 100 TONS/YR	POWER-DRIVEN HANDTOOLS	ACTIVE
CROWN CONTRACT SERV	SC0854782	EMISSIONS < 100 TONS/YR	POWER LAUNDRIES, FAMILY AND COMMERCIAL	ACTIVE
HOMELITE	SC0938367	EMISSIONS < 100 TONS/YR	POWER-DRIVEN HANDTOOLS	ACTIVE
GOLD KIST.GASTON	SC0035951	EMISSIONS < 100 TONS/YR	PREPARED FEEDS, NEC	ACTIVE
STANDARD WAREH	SC0850197	EMISSIONS < 100 TONS/YR	PREPARED FEEDS, NEC	CLOSED
WIKOFF COLOR.COLA	SC0784257	EMISSIONS < 100 TONS/YR	PRINTING INK	ACTIVE
SC DEPT OF DISABILTS	SC0849866	EMISSIONS < 100 TONS/YR	PSYCHIATRIC HOSPITALS	ACTIVE
SLED	SC0849929	EMISSIONS < 100 TONS/YR	PUBLIC ORDER AND SAFETY, NEC	ACTIVE
SCETV	SC0849919	EMISSIONS < 100 TONS/YR	RADIO, TELEVISION, PUBLISHER REPRESENTATIVES	ACTIVE
HARDAWAY PLANT # 4	SC0922096	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
HARDAWAY PLANT # 9	SC0885022	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
HARDAWAY #5	SC0036157	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	CLOSED
HARDAWAY PLANT #10	SC0036162	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
HARDAWAY PLANT # 8	SC0890196	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
LANIER CONST #2	SC0035957	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
QUIKRETE-CAROLINA	SC0849645	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
STEPHENSON CONCRETE CO	SC0848343	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
UNICON INDUSTRIAL RD	SC0035958	EMISSIONS < 100 TONS/YR	READY-MIXED CONCRETE	ACTIVE
GREAT SOUTH SERVICES	SC0036163	EMISSIONS < 100 TONS/YR	REFUSE SYSTEMS	ACTIVE
IBP CAROLINA	SC0938366	EMISSIONS < 100 TONS/YR	SAUSAGES AND OTHER PREPARED MEATS	ACTIVE
HUTTO LUMBER, INC.	SC0919736	EMISSIONS < 100 TONS/YR	SAWMILLS AND PLANING MILLS, GENERAL	ACTIVE
ALEXANDER MILL SERV	SC0847600	EMISSIONS < 100 TONS/YR	SCRAP AND WASTE MATERIALS	ACTIVE
LEXINGTON TIRE PRCR	SC0823830	EMISSIONS < 100 TONS/YR	SERVICE INDUSTRY MACHINERY, NEC	ACTIVE
COLUMBIA SEWAGE PLNT	SC0036131	EMISSIONS < 100 TONS/YR	SEWERAGE SYSTEMS	ACTIVE
KINGSTON METAL SOUTH	SC0849087	EMISSIONS < 100 TONS/YR	SHEET METALWORK	ACTIVE
CONCEPT UNLIMITED	SC0848406	EMISSIONS < 100 TONS/YR	SIGNS AND ADVERTISING SPECIALTIES	ACTIVE
HOOVER TRUSSES	SC0093533	EMISSIONS < 100 TONS/YR	STRUCTURAL WOOD MEMBERS, NEC	ACTIVE
RICHTEX CORP. PLNT 3	SC0036121	EMISSIONS < 100 TONS/YR	STRUCTURAL CLAY PRODUCTS, NEC	ACTIVE
RICHTEX CORP.PLNT 4	SC0036122	EMISSIONS < 100 TONS/YR	STRUCTURAL CLAY PRODUCTS, NEC	ACTIVE
SQUARE D.COLUMBIA	SC0036137	EMISSIONS < 100 TONS/YR	SWITCHGEAR AND SWITCHBOARD APPARATUS	ACTIVE
UNION SWITCH&SIGNAL	SC0850298	EMISSIONS < 100 TONS/YR	SWITCHGEAR AND SWITCHBOARD APPARATUS	ACTIVE
SHAKESPEARE.COLUMBIA	SC0036136	EMISSIONS < 100 TONS/YR	THREAD MILLS	ACTIVE
ITT RAYONIER.SWANSEA	SC0035932	EMISSIONS < 100 TONS/YR	WOOD PRODUCTS, NEC	ACTIVE
M CRAIG & COMPANY	SC0849300	EMISSIONS < 100 TONS/YR	WOOD HOUSEHOLD FURNITURE	ACTIVE
SWANSEA LUMBER CO.	SC0035933	EMISSIONS < 100 TONS/YR	WOOD PRODUCTS, NEC	ACTIVE
CAROLINA CHEM	SC0035947	THRESHOLDS NOT DEFINED	AGRICULTURAL CHEMICALS, NEC	CLOSED
CAROLINA CONCRT PIPE	SC0036119	THRESHOLDS NOT DEFINED	CONCRETE PRODUCTS, NEC	ACTIVE
LEXNGTN SHERIFF DEPT	SC0849270	THRESHOLDS NOT DEFINED	CORRECTIONAL INSTITUTIONS	ACTIVE
CAMERON GIN & SEED	SC0034644	THRESHOLDS NOT DEFINED	COTTON GINNING	ACTIVE



**Table 12. Continued.**

FACILITY NAME	AIRS ID	EMISSIONS	STANDARD INDUSTRY CLASSIFICATION	STATUS
FARMERS GIN	SC0034651	THRESHOLDS NOT DEFINED	COTTON GINNING	CLOSED
MIDDLING COTTON COMPANY	SC0034654	THRESHOLDS NOT DEFINED	COTTON GINNING	ACTIVE
MISSISSIPPI LIME	SC0910121	THRESHOLDS NOT DEFINED	CRUSHED AND BROKEN LIMESTONE	ACTIVE
GENERATOR SYSTMS 2/C	SC0035953	THRESHOLDS NOT DEFINED	ELECTRICAL APPARATUS AND EQUIPMENT	ACTIVE
OWEN ELECTRIC STEEL	SC0036126	THRESHOLDS NOT DEFINED	ELECTROMETALLURGICAL PRODUCTS	ACTIVE
PHILLIPS COMPONENTS	SC0035954	THRESHOLDS NOT DEFINED	ELECTRONIC CAPACITORS	ACTIVE
UNITED BRAKE SYSTEMS	SC0036171	THRESHOLDS NOT DEFINED	ENGINE ELECTRICAL EQUIPMENT	ACTIVE
GOLD KIST:ST MATTHEW	SC0034646	THRESHOLDS NOT DEFINED	FARM PRODUCT WAREHOUSING AND STORAGE	ACTIVE
CAUGHMAN HARMON	SC0035948	THRESHOLDS NOT DEFINED	FUNERAL SERVICE AND CREMATORIES	ACTIVE
MIDLND PET CREMATORY	SC0924170	THRESHOLDS NOT DEFINED	FUNERAL SERVICE AND CREMATORIES	ACTIVE
GIANT FOOD:N MAIN	SC0036155	THRESHOLDS NOT DEFINED	GROCERY STORES	ACTIVE
GIANT FOOD:DECKER	SC0036156	THRESHOLDS NOT DEFINED	GROCERY STORES	ACTIVE
NEIL PARTS REBUILDER	SC0036169	THRESHOLDS NOT DEFINED	INDUSTRIAL MACHINERY, NEC	ACTIVE
AMERICAN ITALIAN PASTA CO	SC0931603	THRESHOLDS NOT DEFINED	MACARONI AND SPAGHETTI	ACTIVE
CAROLINA STEEL&WIRE	SC0035949	THRESHOLDS NOT DEFINED	MISCELLANEOUS FABRICATED WIRE PRODUCTS	ACTIVE
US ARMY: FT JACKSON	SC0036128	THRESHOLDS NOT DEFINED	NATIONAL SECURITY	ACTIVE
UNION CAMP:EASTOVER	SC0036145	THRESHOLDS NOT DEFINED	PAPER MILLS	ACTIVE
GLASSMASTER:MONO DIV	SC0035938	THRESHOLDS NOT DEFINED	PLASTICS PRODUCTS, NEC	ACTIVE
SHAKESPEARE:COLUMBIA	SC0036136	THRESHOLDS NOT DEFINED	PLASTICS MATERIALS AND RESINS	ACTIVE
COOPER:LEXINGTON	SC0035952	THRESHOLDS NOT DEFINED	POWER-DRIVEN HANDTOOLS	ACTIVE
UNICON:MILL FIELD RD	SC0036148	THRESHOLDS NOT DEFINED	READY-MIXED CONCRETE	ACTIVE
UNICON:CHAPIN	SC0035950	THRESHOLDS NOT DEFINED	READY-MIXED CONCRETE	ACTIVE
PONTIAC FOODS	SC0036154	THRESHOLDS NOT DEFINED	ROASTED COFFEE	ACTIVE
COLUMBIA STEEL	SC0036135	THRESHOLDS NOT DEFINED	SECONDARY NONFERROUS METALS	CLOSED
COLUMBIA SEWAGE PLNT	SC0036131	THRESHOLDS NOT DEFINED	SEWERAGE SYSTEMS	ACTIVE
FABRIQUE NATIONALE	SC0036150	THRESHOLDS NOT DEFINED	SMALL ARMS	ACTIVE
ANACONDA ERICKSON	SC0035946	THRESHOLDS NOT DEFINED	TELEPHONE AND TELEGRAPH APPARATUS	ACTIVE
JENKINS BROS	SC0036152	THRESHOLDS NOT DEFINED	VALVES AND PIPE FITTINGS, NEC	ACTIVE
CLEMSON LIVESTOCK	SC0036146	THRESHOLDS NOT DEFINED	VETERINARY SERVICES FOR LIVESTOCK	ACTIVE
ALLIED-SIGNAL:FIBERS	SC0035931	UNKNOWN	CONCRETE BLOCK AND BRICK	ACTIVE







**Table 13.** Clean Air Act-regulated “major” air discharging facilities located within 60 km of COSW.

FACILITY NAME	AIRS ID	DISCHARGED CHEMICALS	STANDARD INDUSTRY CLASSIFICATION	STATUS
FOSTERDIXIANA:QUARRY	SC0035941	PT	ABRASIVE PRODUCTS	ACTIVE
SUNBIRD BOAT	SC0777718	NOT REPORTED	BOATBUILDING AND REPAIRING	ACTIVE
BORAL BRICKS:LEXNGTN	SC0035928	NOT REPORTED	BRICK AND STRUCTURAL CLAY TILE	ACTIVE
MARTIN, JB	SC0906110	NOT PROVIDED	BROADWOVEN FABRIC MILLS, MANMADE	ACTIVE
USC:ENERGY FAC	SC0938365	NOT PROVIDED	COLLEGES AND UNIVERSITIES	ACTIVE
COLUMBIA SILICA SAND	SC0035940	NOT REPORTED	CONSTRUCTION MATERIALS, NEC	ACTIVE
MARTIN MAR:CAYCE QRY	SC0035929	CO, NO2, PT, SO2, VOC	CRUSHED AND BROKEN GRANITE	ACTIVE
MARTIN MAR:COLA QRRY	SC0036118	CO, NO2, PT, SO2, VOC	CRUSHED AND BROKEN GRANITE	ACTIVE
TARMAC:COLUMBIA	SC0036125	PT	CRUSHED AND BROKEN GRANITE	ACTIVE
TARMAC:DRYFUS QUARRY	SC0036129	PT	CRUSHED AND BROKEN GRANITE	ACTIVE
DUKE POWER:BUZZARD	SC0036009	CO, NO2, PT, SO2, VOC	ELECTRIC SERVICES	ACTIVE
SCE&G:COIT	SC0913470	NOT PROVIDED	ELECTRIC SERVICES	ACTIVE
SCE&G:WATEREE	SC0036124	CO, NO2, PB, PT, SO2, THAP, VOC	ELECTRIC SERVICES	ACTIVE
SCE&G:MCMEEKIN	SC0035925	CO, NO2, PB, PT, SO2, THAP, VOC	ELECTRIC SERVICES	ACTIVE
OWEN ELECTRIC STEEL	SC0036126	CO, NO2, PT, SO2, VOC	ELECTROMETALLURGICAL PRODUCTS	ACTIVE
PHILLIPS COMPONENTS	SC0035954	CO, NO2, PT, SO2, TCA, VOC	ELECTRONIC CAPACITORS	ACTIVE
KLINE IRON&STL:CAYCE	SC0906750	MTETN, TOLU	FABRICATED STRUCTURAL METAL	ACTIVE
KLINE IRON&STL:COLA	SC0036138	VOC	FABRICATED STRUCTURAL METAL	ACTIVE
SC STATE FARMERS MKT	SC0849907	NOT REPORTED	FRESH FRUITS AND VEGETABLES	ACTIVE
LEXINGTON MED CENTER	SC0035955	NOT REPORTED	GENERAL MEDICAL AND SURGICAL HOSPITALS	ACTIVE
RICHLAND MEM HOSP	SC0036158	CO, NO2, PT, SO2, VOC	GENERAL MEDICAL AND SURGICAL HOSPITALS	ACTIVE
ROPER HOSPITAL	SC0034868	CO, EO, HCL, NO2, PB, PT, SO2, THAP, VOC	GENERAL MEDICAL AND SURGICAL HOSPITALS	ACTIVE
VA HOSPITAL:COLUMBIA	SC0036132	CO, EO, NO2, PT, SO2, THAP, VOC	GENERAL MEDICAL AND SURGICAL HOSPITALS	ACTIVE
ARATEX SERVICES	SC0917659	NOT PROVIDED	INDUSTRIAL LAUNDERERS	ACTIVE
CARDINAL COMPANIES	SC0036134	NOT REPORTED	INDUSTRIAL ORGANIC CHEMICALS, NEC	ACTIVE
CAROLINA EASTMAN CO	SC0035930	ACETA, BRMT, CO, HBR, NO2, PB, PT, SO2, THAP, VOC, XYLs	INDUSTRIAL ORGANIC CHEMICALS, NEC	ACTIVE
TCM MFG	SC0849912	NOT REPORTED	INDUSTRIAL TRUCKS AND TRACTORS	ACTIVE
US SILICA	SC0035927	CO, NO2, PT, SO2, VOC	INDUSTRIAL SAND	ACTIVE
FIBERTECH CORP	SC0848669	STYR, THAP, VOC	LAMINATED PLASTICS PLATE AND SHEET	ACTIVE
AMERICAN ITALIAN PASTA CO	SC0931603	NOT REPORTED	MACARONI AND SPAGHETTI	ACTIVE
DEVRO-TEEPAK	SC0034639	CO, NO2, PT, SO2, VOC	MANUFACTURING INDUSTRIES, NEC	ACTIVE
SC DHEC: FARROW RD.	SC0849909	NOT REPORTED	MEDICAL LABORATORIES	ACTIVE
DIAMANT BOART	SC0036161	NOT REPORTED	MINING MACHINERY	ACTIVE
CONSOLIDATED SYSTEMS	SC0036140	NOT REPORTED	MISCELLANEOUS METALWORK	ACTIVE
US ARMY: FT JACKSON	SC0036128	CO, NO2, PT, SO2, VOC	NATIONAL SECURITY	ACTIVE
ALLIED-SIGNAL:FIBERS	SC0035931	CO, NO2, PT, SO2, VOC	ORGANIC FIBERS, NONCELLULOSIC	ACTIVE
UNION CAMP:EASTOVER	SC0036145	CO, NO2, PT, SO2, VOC	PAPER MILLS	ACTIVE
ANCHOR CONTINENTAL	SC0036133	CO, NO2, PT, SO2, THAP, TOLU, VOC	PAPER; COATED AND LAMINATED, NEC	ACTIVE
WORTHNGTN CUSTM PLAS	SC0851996	NOT REPORTED	PLASTICS PRODUCTS, NEC	ACTIVE
SC DMH:BULL ST	SC0036153	NOT REPORTED	PSYCHIATRIC HOSPITALS	ACTIVE
HARDAWAY:PLANT # 2	SC0898234	NOT PROVIDED	READY-MIXED CONCRETE	ACTIVE
HARDAWAY:PLANT # 1	SC0848778	NOT PROVIDED	READY-MIXED CONCRETE	ACTIVE
UNICON:KEY RD	SC0036166	NOT REPORTED	READY-MIXED CONCRETE	ACTIVE
CORLEY & SONS SAWMIL	SC0848424	NOT REPORTED	SAWMILLS AND PLANING MILLS, GENERAL	ACTIVE
GASTON COPPER RECYCL	SC0035936	CO, NO2, PB, PT, SO2, THAP, VOC	SECONDARY NONFERROUS METALS	ACTIVE
SAFETY-KLEEN CORP	SC0035942	CO, NO2, PT, SO2, VOC	SERVICES, NEC	ACTIVE
RIGHTEX CORP: PLNT 2	SC0036123	CO, NO2, PT, SO2, VOC	STRUCTURAL CLAY PRODUCTS, NEC	ACTIVE
MICHELIN:LEXINGTON	SC0035945	CO, NO2, PT, SO2, VOC	TIRES AND INNER TUBES	ACTIVE
SPRINGS IND:OLYMPIA	SC0891388	NOT REPORTED	YARN SPINNING MILLS	ACTIVE



**Table 14. 1997 CERCLIS sites located within the Congaree watershed (with NPL status).**

SITE NAME	FACILITY ID	ADDRESS	CITY	STATE	ZIP	DIRECTION <sup>a</sup>	DISTANCE <sup>b</sup>	NPL STATUS	COMMENTS
SC RECYCLING AND DISPOSAL INC (SCRDJ)	SCD00622787	321 BLUFF RD S	COLUMBIA	SC	29209	NORTHWEST	3	FINAL NPL	INACTIVE CHEMICAL WASTE MANUFACTURING, STORAGE, RECYCLING AND DISPOSAL FACILITY. SOIL AND GROUND WATER CONTAMINATION WITH VOC'S, PCB'S RUNOFF INTO MEYERS CREEK. CLEAN UP ACTIVITIES UNDERWAY.
LEXINGTON COUNTY LANDFILL AREA	SCD980558043	US 321 1 MILE S OF I-26	CAYCE	SC	29033	NORTHWEST	30	FINAL NPL	LANDFILL. SOIL AND GROUND WATER CONTAMINATED WITH METHANE GAS AND VINYL CHLORIDE. MONITORING AND CLEANUP PROCESS UNDERWAY.
PALMETTO WOOD PRESERVING	SCD003362217	DIXLAINA RD	CAYCE	SC	29033	NORTHWEST	30	FINAL NPL	EVIDENCE OF GROUND WATER AND SOIL CONTAMINATION WITH PCP, CHROMIUM, ARSENIC AND COPPER. CLEANUP PROCESS UNDERWAY.
SCRD1 DIXIANA	SCD980711394	OFF SC HWY 321	CAYCE	SC	29033	NORTHWEST	30	FINAL NPL	ABANDONED PROPERTY. DRUM STORAGE OF INDUSTRIAL WASTE. GROUND WATER CONTAMINATED WITH VOC'S, INORGANICS, PAH'S, PCB'S, PCE'S AND PESTICIDES. REMOVAL OF DRUMS COMPLETED AND REMEDIAL ACTIONS UNDERWAY.
COLUMBIA ORGANIC CHEMICALS INC	SCD003343571	DRAKE AVE	COLUMBIA	SC	29209	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
DAVIS & RODGERS PLATING COMPANY	SCD097634489	2825 COMMERCE DRIVE	COLUMBIA	SC	29205	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
DIAMANT BOART AMERICA	SCD003336194	10250 TWO NOTCH ROAD	COLUMBIA	SC	29223	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
DREYFUS STREET SITE	SCD980839575	DREYFUS ST & ASSEMBLY ST	COLUMBIA	SC	29201	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
ESTECH GENERAL CHEMICALS CORP	SCD980491369	1150 SHOP RD	COLUMBIA	SC	29205	NORTHWEST	30	NOT ON NPL	SUSPECTED SOURCE OF SUBDIVISION CONTAMINATION.
HEWITT-ROBINS	SCD054247051	101 45 TWO NOTCH RD (US#1)	COLUMBIA	SC	29223	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
LINDAU CHEMICAL	SCD044942670	750 GRANBY LANE	COLUMBIA	SC	29201	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
ROYAL PINES SUBDIVISION	SCD987588183	US 1, FORE AVE.	COLUMBIA	SC	29223	NORTHWEST	30	NOT ON NPL	GROUNDWATER PLUME IN SUBDIVISION SOURCE UNKNOWN. FIVE PRIVATE WELLS ABOVE MCLS WITH DCE, TCE AND TTCE. ONE PUBLIC WELL CONTAMINATED, BUT BELOW MCLS.
SHADY DEALS	SCD987598182	10260 TWO NOTCH RD	COLUMBIA	SC	29223	NORTHWEST	30	NOT ON NPL	OUT OF BUSINESS TRUCK MAINTENANCE SHOP. ADJACENT TO THE ROYAL PINES SUBDIVISION. GW PLUME, SOURCE UNKNOWN.
KOPPERS CO. INC. (FLORENCE PLANT)	SCD0033353026	KOPPERS RD	FLORENCE	SC	29503	WEST	30	FINAL NPL	ACTIVE WOOD TREATING AND PRESERVATIVE PLANT. ON SITE GROUNDWATER, SURFACE WATER, AND SOIL ARE CONTAMINATED WITH PAH'S, PCP, HEAVY METALS INCLUDING ARSENIC AND MERCURY AND OIL AND GREASE SITE UNDER EVALUATION FOR CLEANUP.
CAROLINA CHEMICALS INC	SCD003339991	QUARTERMASTER ST & COLUMBIA ST	WEST COLUMBIA	SC	29169	NORTHWEST	30	NOT ON NPL	NO RECORD OF DECISION AVAILABLE
GRACE W R & CO AG CHEM GROUP	SCD0033343191	HARMON & ELGIN STS	CHARLESTON	SC	29402	WEST	60	NOT ON NPL	NO RECORD OF DECISION AVAILABLE

<sup>a</sup>Direction from the center of Congaree Swamp National Park.

<sup>b</sup>Approximate distance (km) from the Congaree Swamp National Park.



Table 15. Environmental fate and effects<sup>a</sup> for contaminants of concern released within 60 km of COSW.

Contaminants	Environmental fate			Biological effects	
	Mobility	Persistence	Aquatic	Terrestrial	
<b>Metals</b>					
cadmium	cadmium particles can travel in air for long distances before falling;	half life >200 days in water; slightly water soluble; binds to soil particles; does not break down but can change forms	high acute and chronic toxicity to aquatic life; bioaccumulation in fish and other aquatic life	uptake by plants and terrestrial animals; bioaccumulate in animals	
chromium	settles from air (<10 days), small amounts move from soil to groundwater	binds to soil particles (in soil and water); slightly soluble; half life >200 days in water;	chromium (III) has moderate acute toxicity to aquatic life and chromium (VI) has high acute toxicity; both have a high chronic toxicity; very little to no bioaccumulation in fish	insufficient data available	
cobalt	settles from air <10 days; can move from soil to groundwater	persistent for years in soil and water; half life >200 days in water; cobalt and its salts range from insoluble to highly soluble	cobalt and its salts have a high acute and chronic toxicity to aquatic life; slight bioaccumulation in fish	uptake by plants	
copper	settles from air; can move from soil to groundwater	half life >200 days in water; copper and its salts are highly soluble; binds to air and soil particles	copper and its compounds have an acute and chronic toxicity; bioaccumulation in fish	uptake by plants and animals	
lead	settles from air <10 days; will move to groundwater if soil is acidic	half life >200 days in water; binds to soil particles for long durations; lead and its compounds are insoluble to highly soluble	high acute and chronic toxicity to aquatic life; the softer the water the more toxic; bioaccumulates in fish	bioaccumulates in animals	
nickel	attaches to particles and may be more than a month before it settles; moves to groundwater in acidic soils	attaches to particles; does not break down but does change forms	does not bioaccumulate in fish; low toxicities	bioaccumulates in plants and animals	
vanadium	attaches readily to particles in the air before it settles	insoluble; binds to particles; highly persistent in aquatic systems	elemental vanadium toxicology is unknown but ammonium vanadate is moderately acute and has a high chronic toxicity; little or no bioaccumulation in aquatic animals.	little or no bioaccumulation in animals but some in plants	
zinc	attaches to particles in air; settles from rain or snow; can move to groundwater	most stays bound to soil particles	bioaccumulates in aquatic animals but not in plants; low toxicities	bioaccumulates in terrestrial animals but not in plants	





Table 15. Continued.

Contaminants	Environmental fate		Biological effects	
	Mobility	Persistence	Aquatic	Terrestrial
<b>Inorganic chemicals</b>				
ammonia		total ammonia is non-persistent in water, with a half-life of less than 2 days; last about a week in air; readily broken down in soil	little to no accumulation in fish; total ammonia has moderate acute and chronic toxicity to aquatic life; uptake by plants	uptake by plants
hydrochloric acid		can be neutralized in soil and water	can lower pH; may play a role in uptake of nutrients, contaminants, etc.	can lower pH; may play a role in uptake of nutrients, contaminants, etc.
nitric acid		can be neutralized in soil and water	can lower pH; may play a role in uptake of nutrients, contaminants, etc.	can lower pH; may play a role in uptake of nutrients, contaminants, etc.
phosphoric acid		can be neutralized in soil and water	can lower pH; may play a role in uptake of nutrients, contaminants, etc.	can lower pH; may play a role in uptake of nutrients, contaminants, etc.
<b>Organic chemicals</b>				
1,4-dioxane	can readily move to groundwater	degrades in air but not readily biodegraded in soils and water; half-life of between 20 to 200 days in water	low acute toxicity to aquatic organisms; not expected to bioconcentrate in fish; slight acute and chronic toxicity to aquatic life	expected to have a low acute toxicity; not expected to bioaccumulate in plants and animals
2-methoxyethanol and ethylene glycol	evaporates from soil and water; can move to groundwater	highly soluble; half-life of between 2 to 20 days in water	plants and animals not expected to accumulate; slight acute and chronic toxicity in aquatic organisms	plants and animals not expected to accumulate
acetaldehyde	evaporates quickly from soil and water; can move to groundwater	moderately persistent in water, with a half-life of between 2 to 20 days; highly soluble; breaks down in air soil and water	high acute and chronic toxicity to aquatic life; little to no accumulation in fish	not likely to accumulate in plants and animals
bromomethane	can move to groundwater; evaporates quickly from soil and water	evaporates quickly to the air where it can take several years to break down; breaks down within days in soil and months in groundwater	does not build up in plants and animals	does not build up in plants and animals
methanol	highly mobile in soil- moves to groundwater; can be removed from the atmosphere by rain and snow	highly soluble; half-life in water estimated at 4.8 days and 51.7 days; in air the half life is 17.8 days; removal in soil by microorganisms	no significant accumulation in aquatic organisms; low acute toxicity	plants and animals unlikely to store



Table 15. Continued.

Contaminants	Environmental fate		Biological effects	
	Mobility	Persistence	Aquatic	Terrestrial
methyl ethyl ketone	evaporates from soil and water; can move to groundwater	one half will breakdown in air within a day; breaks down in water in about 2 weeks	plants and animals not likely to store; low toxicity levels in fish and other organisms	plants and animals not likely to store
styrene	evaporates from soil and surface water; can move to groundwater	quickly broken down in air (2 days) and soil and surface water, but remains in groundwater up to 7 months	little or no bioaccumulation; moderately toxic to aquatic organisms	low toxicity to terrestrial organisms; little or no bioaccumulation
toluene	evaporates quickly from soil and surface water; movement to groundwater dependent on soil composition	readily broken down in soil; in air it combines with oxygen to form benzaldehyde and cresol; half-life in water <2 days; slightly soluble	low bioaccumulation in aquatic animals and plants; moderate acute and chronic toxicity	moderate toxicity to plants
xylene	evaporates quickly; can move to groundwater	broken down in air after several days; may last 6 months or longer in groundwater	low acute and chronic toxicity	low acute and chronic toxicity

<sup>a</sup>Data collated from the USEPA Envirofacts Chemical Reference Tables.



**Table 16. Risk assessment of contaminants released within 60 km of the Congaree Swamp National Monument.**

PCA/description	Contaminants	Toxicity <sup>a</sup>	Value <sup>b</sup>	Persistence <sup>c</sup>	Value <sup>b</sup>	Magnitude <sup>d</sup>	Value <sup>b</sup>	Risk <sup>e</sup>
PCA-1 Near COSW boundary below convergence of Myers Creek and Cedar Creek	cadmium	high	3	high	3	low	1	9
	chromium	high	3	high	3	low	1	9
	lead	high	3	high	3	low	1	9
	vanadium	moderate	2	high	3	low	1	6
	copper	low	1	high	3	low	1	3
	nickel	low	1	high	3	low	1	3
	zinc	low	1	high	3	low	1	3
PCA-2 Intersection of Congaree River and COSW boundary	cobalt	high	3	high	3	low	1	9
	ammonia	moderate	2	low	1	high	3	6
	2-methoxyethanol and ethylene glycol	low	1	moderate	2	moderate	2	4
	1,4-dioxane	low	1	high	3	low	1	3
	acetaldehyde	high	3	low	1	low	1	3
	bromomethane	low	1	high	3	low	1	3
	methanol	low	1	moderate	2	low	1	2
PCA-3 Near COSW boundary below confluence of Tom's Creek and McKenzie Creek	No priority sources identified on this pathway							0
PCA-4 Near center of COSW in upland area not dominated by hydrologic cycles	styrene	moderate	2	low	1	high	3	6
	ammonia	moderate	2	low	1	high	3	6
	toluene	moderate	2	low	1	high	3	6
	xylene	low	1	high	3	moderate	2	6
	methyl ethyl ketone	low	1	moderate	2	moderate	2	4

<sup>a</sup>Toxicity rank of high medium or low based on review of data sources (see Table 15).

<sup>b</sup>High ratings were assigned a value of 3, moderate ratings a value of 2, and low ratings a value of 1.

<sup>c</sup>Persistence rank of high, medium, or low based on review of data sources (see Table 15).

<sup>d</sup>Releases greater than 100,000 pounds per year was rated as high. Releases greater than 10,000 but less than 100,000 pounds per year were rated as moderate, and releases of less than 1,000 pounds per year were rated as low.

<sup>e</sup>The final risk value for each of the identified contaminants was derived by multiplying across each table row.





## **Appendix A. Instructions for Accessing On-line Data for the Congaree Park**

1. Open Internet browser software (recommend using Netscape® or Internet Explorer®).
2. In URL address box at top of browser window, type in the following address:

**<http://orion.cr.usgs.gov/cimas>**

This step will take you to the U.S. Fish and Wildlife Service/USGS Biological Resource Division, Contaminant Information Management and Analysis System (CIMAS) homepage.

3. Scroll down page till you see the section titled:

**“Contaminant Data Tools – View Spatial and Summary Contaminant Data  
GEOTRACT”**

4. Continue scrolling down page till you see hypertext link (indicated by blue text) that reads:

**“Contaminant Data for any Geographic Area”**

5. Select this option by placing your cursor on the text and clicking your left mouse button.
6. The next page you will see is titled “GEOTRACT - Geographic Tool for Remote Assessment of Contaminants.”
7. Move your cursor to the menu box titled “Area Type.” Use scroll bars in the box to move down list until you see the option: “**Basin**”
8. Select this option by placing your cursor on the text and clicking your left mouse button.
8. Move your cursor into the text box titled “**Keyword**” and click inside the box.
9. Type the text string: “**Congaree %**”
10. Place your cursor on the “submit” button and click your left mouse button.
11. The next page will display the following text:

**“03050110 - CONGAREE”**

12. Below this text you will see a menu box. Place your cursor on the arrow of the scroll bar on the menu box and click your left mouse button. You will have three choices, “Refuge-Based Contaminant Information, Contaminant Information from Other Agencies, and Contaminant Analysis for HUC #H03050110-Congaree”. Select the second option latter (Contaminant Information from Other Agencies) by placing your cursor on the text and pressing the left mouse button.
13. Place your cursor on the “submit” button and click your left mouse button.
14. You will see a map of COSW.



15. If you want to look at EPA data for the area, scroll down the page till you see the menu box titled:

**“Select type or types of contaminant source sites to display”**

16. You will see a list of data options, including TRI, PCS (NPDES), CERCLIS, RCRIS, AIRS etc. etc. Select the data source or sources of interest by placing your cursor on the word and pushing the left mouse button.

17. If you want to look at monitoring data collected by the South Carolina Department of Health and Environmental Control (SCDHEC) or the National Water Quality Assessment (NAWQA) Program, scroll down the page until you see the menu box titled:

**“Select a type of contaminant sampling site to display”**

18. Place your cursor on the scroll arrow on the menu box and push the left mouse button. You will see several data sources available including USFWS, SCDHEC, and NAWQA.

**Note:** Other themes can be selected at this point to display with the contaminant data sets, including hydrology, land cover, ownership, etc.

19. Pick the data type you are interested in and select it by clicking the left button of your mouse.

20. Scroll down the page and hit the submit button.

21. A map with site locations will be displayed. To look at the data for a site:

- a. Move your cursor on the map and select a point by clicking your left mouse button, or
- b. Scroll down page to the pick list for the area and use your cursor to select a site.

22. Once data set is returned, use scroll keys to scan page.



## **Appendix B. On-line Data Sources Used in Assessment**

### *Toxic Release Inventory System (TRIS)*

Title III of the Superfund Amendments and Reauthorization Act of 1986 (also titled the Emergency Planning and Community Right-to-Know Act of 1986) requires that manufacturers that handle, process, store, or use any of the 600 designated toxic chemicals report releases of the chemicals to the environment. The chemicals reported are known to cause or can reasonably be anticipated to cause in humans: cancer or teratogenic effects, serious or irreversible reproductive dysfunctions, neurological disorders, heritable genetic mutations, or other chronic health effects. Secondly, the chemicals are known to cause or can reasonably be anticipated to cause, toxicity and persistence in the environment, or toxicity and tendency to bioaccumulate in the environment. Reports concerning the chemicals are submitted by the state and maintained by the EPA in its Toxic Release Inventory System (TRIS) database. The most recent data available through the TRIS database is 1995.

### *Resource Conservation and Recovery Information System (RCRIS)*

The 1976 Resource Conservation Recovery Act (RCRA) regulates hazardous waste generators, transporters and storage, treatment, and disposal facilities. Information for the regulated facilities is maintained on the RCRIS database. Hazardous wastes regulated under RCRA include: solvents, ignitable wastes, lead acid batteries, acids, pesticides, dry cleaning filtration residues, heavy metals/inorganics, ink sludges containing chromium and lead, reactives, spent plating and cyanide wastes, and wood preserving agents. The EPA defines three categories of hazardous waste generators based on the quantity of hazardous waste they generate per month:

- (1) conditionally exempt small quantity generators (less than 220 pounds [100 kg] per month)
- (2) small quantity generators (between 220 pounds (100 kg) and 2,200 pounds [1,000 kg] per month)
- (3) large quantity generators (more than 2,200 pounds [1,000 kg] per month).

### *Permit Compliance System (PCS)*

All facilities discharging wastewater into waters of the United States are required to have a effluent discharge permit issued through the National Pollutant Discharge Eliminations System (NPDES). The EPA maintains permit and monitoring data for discharging facilities on the Permit Compliance System (PCS) database.

### *Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)*

The Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) of 1980 was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The CERCLA established a federal program responsible for responding to emergency chemical spills and cleaning up inactive and abandoned sites contaminated with hazardous waste. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database is maintained by the EPA to archive information on hazardous wastes and remediation efforts at Superfund sites.

### *Aerometric Information Retrieval System (AIRS) Facility*

The Aerometric Information Retrieval System (AIRS) Facility Subsystem database is maintained by the EPA to handle emission and compliance data required by the Clean Air Act including administrative information, industrial classification, status, description, stack data, emission points, and processes within the facility.





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### *Envirofacts Chemical Reference Tables*

Envirofacts provides access to chemical factsheets from different sources on the Internet (<http://www.epa.gov/enviro/html/emci/chemref/index.html>).

- Integrated Risk Information System: Contains chemical health risk assessments and regulatory information.
- Office of Pollution, Prevention and Toxics: Provides chemical factsheets and summaries on exposure, health, environmental effects, regulatory and contact information.
- Agency for Toxic Substance and Disease Registry: Provides public health statements.
- University of Virginia Ecogopher: Provides chemical factsheets.
- University of Utah Material Safety Data Sheet: Provides material safety data sheets.



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- University of Virginia Ecogopher: Provides chemical factsheets.
- University of Utah Material Safety Data Sheet: Provides material safety data sheets.



# Appendix C: Congaree Swamp Species List.

Source: NPFauna Database: National Park Service and Dr. James F. Quinn, Report date 1/19/95.

Family	Scientific Name	Common Name
<b>Vascular Plants</b>		
<b>Selaginellaceae</b>	<i>Selaginella apoda</i>	
	Meadow spike-moss <sup>a</sup>	
	<i>Ophioglossaceae</i>	
<b>Ophioglossaceae</b>	<i>Botrychium dissectum</i>	
	Cut-leaf grape fern <sup>a</sup>	
	<i>Botrychium virginianum</i>	
<b>Rattlesnake fern<sup>a</sup></b>	Rattlesnake fern <sup>a</sup>	
	<i>Osmundaceae</i>	
	<i>Osmunda regalis</i> var. <i>spectabilis</i>	
<b>Royal fern<sup>a</sup></b>	Royal fern <sup>a</sup>	
	<i>Schizaceae</i>	
	<i>Lygodium japonicum</i>	
<b>Japanese climbing fern<sup>a</sup></b>	Japanese climbing fern <sup>a</sup>	
	<i>Adiantaceae</i>	
	<i>Adiantum pedatum</i>	
<b>Northern maidenhair<sup>a</sup></b>	Northern maidenhair <sup>a</sup>	
	<b>Polypodiaceae</b>	
	<i>Polypodium polypodioides</i>	
<b>Pleopeltis polypodioides ssp.<sup>a</sup></b>	<i>Pleopeltis polypodioides</i> ssp. <sup>a</sup>	
	<i>polypodioides</i>	
	<b>Dennstaedtiaceae</b>	
<b>Pteridium aquilinum</b>	<i>Pteridium aquilinum</i>	
	Northern bracken fern <sup>a</sup>	
	<b>Thelypteridaceae</b>	
<b>Thelypteris hexagonoptera =</b>	<i>Thelypteris hexagonoptera</i> =	
	<i>Phegopteris hexagonoptera</i> <sup>a</sup>	
	<i>Thelypteris palustris</i>	
<b>Eastern marsh fern<sup>a</sup></b>	Eastern marsh fern <sup>a</sup>	
	<b>Aspleniaceae</b>	
	<i>Asplenium platyneuron</i>	
<b>Ebony spleenwort<sup>a</sup></b>	Ebony spleenwort <sup>a</sup>	
	<b>Blechnaceae</b>	
	<i>Woodwardia areolata</i>	
<b>Netted chain fern<sup>a</sup></b>	Netted chain fern <sup>a</sup>	
	<b>Dryopteridaceae</b>	
	<i>Athyrium asplenoides</i> = <i>Athyrium filix-femina</i> ssp. <sup>a</sup> <i>asplenoides</i>	
<b>Southern wood fern<sup>a</sup></b>	<i>Dryopteris ludoviciana</i>	
	Southern wood fern <sup>a</sup>	
	<i>Onoclea sensibilis</i>	
<b>Densitive fern<sup>a</sup></b>	Densitive fern <sup>a</sup>	
	<i>Polystichum acrostichoides</i>	
	Christmas fern <sup>a</sup>	
<b>Pinaceae</b>	<i>Pinus palustris</i>	
	Long-leaf pine <sup>a</sup>	
	<i>Pinus taeda</i>	
<b>Loblolly pine<sup>a</sup></b>	Loblolly pine <sup>a</sup>	
	<b>Cupressaceae</b>	
	<i>Juniperus virginiana</i>	
<b>Eastern red-cedar<sup>a</sup></b>	Eastern red-cedar <sup>a</sup>	
	<b>Taxodiaceae</b>	
	<i>Taxodium distichum</i>	
<b>Southern bald-cypress<sup>a</sup></b>	Southern bald-cypress <sup>a</sup>	
	<b>Typhaceae</b>	
	<i>Typha latifolia</i>	
<b>Broad-leaf cat-tail<sup>a</sup></b>	Broad-leaf cat-tail <sup>a</sup>	
	<b>Poaceae</b>	
	<i>Andropogon virginicus</i>	
<b>Broom-sedge<sup>a</sup></b>	Broom-sedge <sup>a</sup>	
	<i>Aristida stricta</i>	
	Pineland three-awn <sup>b</sup>	
<b>Arundinaria gigantea</b>	<i>Arundinaria gigantea</i>	
	Giant cane <sup>a</sup>	
	<i>Avena sativa</i> <sup>b</sup>	
<b>Oats</b>	Oats	
	<i>Bromus catharticus</i>	
	Rescue grass <sup>a</sup>	
<b>Echinochloa crus-galli</b>	<i>Echinochloa crus-galli</i>	
	Large barnyard grass <sup>a</sup>	
	<i>Erianthus giganteus</i> = <i>Saccharum giganteum</i> <sup>a</sup>	
<b>Hordeum pusillum</b>	<i>Hordeum pusillum</i>	
	Little barley <sup>a</sup>	
	<i>Leersia lenticularis</i>	
<b>Catchfly grass<sup>a</sup></b>	Catchfly grass <sup>a</sup>	
	<i>Leersia oryzoides</i>	
	Rice cut grass <sup>a</sup>	
<b>Leersia virginica</b>	<i>Leersia virginica</i>	
	White grass <sup>a</sup>	
	<i>Microstegium vimineum</i>	
<b>Nepalese browntop<sup>a</sup></b>	Nepalese browntop <sup>a</sup>	
	<i>Oplismenus setarius</i>	
	Short-leaf basket grass <sup>a</sup>	
<b>Panicum agrostoides = Panicum rigidulum var. rigidulum<sup>a</sup></b>	<i>Panicum agrostoides</i> = <i>Panicum rigidulum</i> var. <i>rigidulum</i> <sup>a</sup>	
	<b>Areaceae</b>	
	<i>Sabal minor</i>	
<b>Dwarf palmetto<sup>a</sup></b>	Dwarf palmetto <sup>a</sup>	
	<b>Cyperaceae</b>	
	<i>Carex baileyi</i>	
<b>Bailey's sedge<sup>a</sup></b>	Bailey's sedge <sup>a</sup>	
	<i>Carex grayi</i>	
	Gray's sedge <sup>a</sup>	
<b>Carex howei = Carex atlantica ssp. capillacea<sup>a</sup></b>	<i>Carex howei</i> = <i>Carex atlantica</i> ssp. <i>capillacea</i> <sup>a</sup>	
	<i>Carex louisianica</i>	
	Louisiana sedge <sup>a</sup>	
<b>Carex turgescens</b>	<i>Carex turgescens</i>	
	Pine-barren sedge <sup>a</sup>	
	<i>Carex typhina</i>	
<b>Cat-tail sedge<sup>a</sup></b>	Cat-tail sedge <sup>a</sup>	
	<i>Dulichium arundinaceum</i>	
	Three-way sedge <sup>a</sup>	
<b>Eleocharis tortilis</b>	<i>Eleocharis tortilis</i>	
	Twisted spike-rush <sup>a</sup>	
<b>Scirpus cyperinus</b>	<i>Scirpus cyperinus</i>	
	Cottongrass bulrush <sup>a</sup>	
	<i>Scleria minor</i>	
<b>Slender nut-rush<sup>a</sup></b>	Slender nut-rush <sup>a</sup>	
	<b>Areaceae</b>	
	<i>Sabal minor</i>	
<b>Dwarf palmetto<sup>a</sup></b>	Dwarf palmetto <sup>a</sup>	



Family	Scientific Name	Common Name
Araceae	<i>Arisaema dracontium</i>	
	Greendragon <sup>a</sup>	
	<i>Arisaema triphyllum</i>	
	Jack-in-the-pulpit <sup>a</sup>	
	<i>Peltandra virginica</i>	
	Green arrow-arum <sup>a</sup>	
Lemnaceae		
	<i>Lemna valdiviana</i>	
	Pale duckweed <sup>a</sup>	
Bromeliaceae		
	<i>Tillandsia usneoides</i>	
	Spanish-moss <sup>a</sup>	
Commelinaceae		
	<i>Commelina virginica</i>	
	Virginia dayflower <sup>a</sup>	
	<i>Murdannia keisak</i>	
	Wart-removing-herb <sup>a</sup>	
Juncaceae		
	<i>Juncus biflorus</i>	
	Bog rush <sup>a</sup>	
	<i>Juncus effusus</i>	
	Lamp rush <sup>a</sup>	
	<i>Luzula echinata</i>	
	Hedgehog wood-rush <sup>a</sup>	
Liliaceae		
	<i>Smilacina racemosa</i> =	
	<i>Maianthemum racemosum</i> ssp <sup>a</sup>	
	<i>racemosum</i>	
	<i>Trillium catesbaei</i>	
	Bashful wakerobin <sup>a</sup>	
	<i>Uvularia sessilifolia</i>	
	Sessile-leaf bellwort <sup>a</sup>	
Smilacaceae		
	<i>Smilax bona-nox</i>	
	Fringed greenbrier <sup>a</sup>	
	<i>Smilax glauca</i>	
	Sawbrier <sup>a</sup>	
	<i>Smilax laurifolia</i>	
	Laurel-leaf greenbrier <sup>a</sup>	
	<i>Smilax rotundifolia</i>	
	Horsebrier <sup>a</sup>	
Dioscoreaceae		
	<i>Dioscorea batatas</i> = <i>Dioscorea</i>	
	<i>oppositifolia</i> <sup>a</sup>	
	<i>Dioscorea villosa</i>	
	Wild yam <sup>a</sup>	
Orchidaceae		
	<i>Aplectrum hyemale</i>	
	Adam-and-Eve <sup>a</sup>	
	<i>Malaxis unifolia</i>	
	Green adder's-mouth orchid <sup>a</sup>	
	<i>Platanthera clavellata</i>	
	Green woodland orchid <sup>a</sup>	
	<i>Platanthera flava</i>	
	Pale-green orchid <sup>a</sup>	
	<i>Spiranthes odorata</i>	
	Marsh ladies'-tresses <sup>a</sup>	
	<i>Tipularia discolor</i>	
	Crippled-cranefly <sup>a</sup>	
Saururaceae		
	<i>Saururus cernuus</i>	
	Lizard's-tail <sup>a</sup>	
Salicaceae		
	<i>Populus deltoides</i>	
	Eastern cottonwood <sup>a</sup>	
Smilacaceae		
	<i>Smilax heterophylla</i>	
	Swamp cottonwood <sup>a</sup>	
	<i>Salix nigra</i>	
	Black willow <sup>a</sup>	
Myricaceae		
	<i>Myrica cerifera</i>	
	Southern bayberry <sup>a</sup>	
Juglandaceae		
	<i>Carya aquatica</i>	
	Water hickory <sup>a</sup>	
	<i>Carya cordiformis</i>	
	Bitter-nut hickory <sup>a</sup>	
	<i>Carya glabra</i>	
	Pignut hickory <sup>a</sup>	
	<i>Carya ovata</i>	
	Shag-bark hickory <sup>a</sup>	
	<i>Carya tomentosa</i> = <i>Carya alba</i> <sup>a</sup>	
	<i>Juglans nigra</i>	
	Black walnut	
Betulaceae		
	<i>Alnus serrulata</i>	
	Hazel alder <sup>a</sup>	
	<i>Betula nigra</i>	
	River birch <sup>a</sup>	
	<i>Carpinus caroliniana</i>	
	American hornbeam <sup>a</sup>	
	<i>Ostrya virginiana</i>	
	Eastern hop-hornbeam <sup>a</sup>	
Fagaceae		
	<i>Fagus grandifolia</i>	
	American beech <sup>a</sup>	
	<i>Quercus laurifolia</i>	
	Laurel oak <sup>a</sup>	
Ulmaceae		
	<i>Celtis laevigata</i>	
	Sugar-berry <sup>a</sup>	
	<i>Planera aquatica</i>	
	Planer tree <sup>a</sup>	
	<i>Ulmus alata</i>	
	Winged elm <sup>a</sup>	
	<i>Ulmus americana</i>	
	American elm <sup>a</sup>	
Moraceae		
	<i>Morus rubra</i>	
	Red mulberry <sup>a</sup>	
Urticaceae		
	<i>Boehmeria cylindrica</i>	
	Small-spike false nettle <sup>a</sup>	
	<i>Laportea canadensis</i>	
	Canadian wood-nettle <sup>a</sup>	
	<i>Pilea pumila</i>	
	Canadian clearweed <sup>a</sup>	





Family	Scientific Name	Common Name
	<i>Urtica chamaedryoides</i>	
	Heart-leaf nettle <sup>a</sup>	
<b>Viscaceae</b>		
	<i>Phoradendron serotinum</i> =	
	<i>Phoradendron leucarpum</i> <sup>a</sup>	
<b>Aristolochiaceae</b>		
	<i>Aristolochia serpentaria</i>	
	Virginia-snakeroot <sup>a</sup>	
	<i>Asarum canadense</i>	
	Canadian wild ginger <sup>a</sup>	
	<i>Hexastylis arifolia</i>	
	Little-brown-jug <sup>a</sup>	
<b>Polygonaceae</b>		
	<i>Polygonum aviculare</i>	
	Yard knotweed <sup>a</sup>	
	<i>Polygonum hydropiperoides</i>	
	Swamp smartweed <sup>a</sup>	
	<i>Polygonum punctatum</i>	
	Dotted smartweed <sup>a</sup>	
	<i>Polygonum setaceum</i>	
	Bog smartweed <sup>a</sup>	
	<i>Rumex acetosella</i>	
	Common sheep sorrel <sup>a</sup>	
<b>Phytolaccaceae</b>		
	<i>Phytolacca americana</i>	
	American pokeweed <sup>a</sup>	
<b>Caryophyllaceae</b>		
	<i>Silene virginica</i>	
	Fire-pink <sup>a</sup>	
	<i>Stellaria media</i>	
	Common chickweed <sup>a</sup>	
	<i>Stellaria pubera</i>	
	Great chickweed <sup>a</sup>	
<b>Ranunculaceae</b>		
	<i>Clematis crispa</i>	
	Swamp leather-flower <sup>a</sup>	
	<i>Clematis viorna</i>	
	Vasevine <sup>a</sup>	
	<i>Clematis virginiana</i>	
	Devil's-darning-needles <sup>a</sup>	
	<i>Hepatica americana</i> = <i>Hepatica</i>	
	<i>nobilis</i> var. <i>obtus</i> <sup>a</sup>	
	<i>Ranunculus abortivus</i>	
	Kidney-leaf buttercup <sup>a</sup>	
	<i>Thalictrum thalictroides</i>	
	Rue-anemone <sup>a</sup>	
<b>Berberidaceae</b>		
	<i>Podophyllum peltatum</i>	
	May-apple <sup>a</sup>	
<b>Magnoliaceae</b>		
	<i>Liriodendron tulipifera</i>	
	Tuliptree <sup>a</sup>	
	<i>Magnolia virginiana</i>	
	Sweet-bay <sup>a</sup>	
<b>Calycanthaceae</b>		
	<i>Calycanthus floridus</i>	
	Eastern sweetshrub <sup>a</sup>	
<b>Annonaceae</b>		
	<i>Asimina triloba</i>	
	Common pawpaw <sup>a</sup>	
<b>Lauraceae</b>		
	<i>Lindera benzoin</i>	
	Northern spicebush <sup>a</sup>	
	<i>Persea borbonia</i>	
	Red bay <sup>a</sup>	
<b>Ranunculaceae</b>		
	<i>Clematis crispa</i>	
	Swamp leather-flower <sup>a</sup>	
	<i>Clematis viorna</i>	
	Vasevine <sup>a</sup>	
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	Rue-anemone <sup>a</sup>	
<b>Berberidaceae</b>		
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	May-apple <sup>a</sup>	
<b>Magnoliaceae</b>		
	<i>Liriodendron tulipifera</i>	
	Tuliptree <sup>a</sup>	
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	Sweet-bay <sup>a</sup>	
<b>Calycanthaceae</b>		
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	Eastern sweetshrub <sup>a</sup>	
<b>Annonaceae</b>		
	<i>Asimina triloba</i>	
	Common pawpaw <sup>a</sup>	
<b>Lauraceae</b>		
	<i>Lindera benzoin</i>	
	Northern spicebush <sup>a</sup>	
	<i>Persea borbonia</i>	
	Red bay <sup>a</sup>	
<b>Ranunculaceae</b>		
	<i>Clematis crispa</i>	
	Swamp leather-flower <sup>a</sup>	
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	Rue-anemone <sup>a</sup>	
<b>Berberidaceae</b>		
	<i>Podophyllum peltatum</i>	
	May-apple <sup>a</sup>	
<b>Magnoliaceae</b>		
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	Tuliptree <sup>a</sup>	
	<i>Magnolia virginiana</i>	
	Sweet-bay <sup>a</sup>	
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	<i>Calycanthus floridus</i>	
	Eastern sweetshrub <sup>a</sup>	
<b>Annonaceae</b>		
	<i>Asimina triloba</i>	
	Common pawpaw <sup>a</sup>	
<b>Lauraceae</b>		
	<i>Lindera benzoin</i>	
	Northern spicebush <sup>a</sup>	
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	<i>Clematis crispa</i>	
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	<i>Clematis crispa</i>	
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	May-apple <sup>a</sup>	
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	Sweet-bay <sup>a</sup>	
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	Northern spicebush <sup>a</sup>	
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	Red bay <sup>a</sup>	
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	Swamp leather-flower <sup>a</sup>	
	<i>Clematis viorna</i>	
	Vasevine <sup>a</sup>	
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	Devil's-darning-needles <sup>a</sup>	
	<i>Hepatica americana</i> = <i>Hepatica</i>	
	<i>nobilis</i> var. <i>obtus</i> <sup>a</sup>	
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	<i>Thalictrum thalictroides</i>	
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	Kidney-leaf buttercup <sup>a</sup>	
	<i>Thalictrum thalictroides</i>	
	Rue-anemone <sup>a</sup>	
<b>Berberidaceae</b>		
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	<i>nobilis</i> var. <i>obtus</i> <sup>a</sup>	
	<i>Ranunculus abortivus</i>	
	Kidney-leaf buttercup <sup>a</sup>	
	<i>Thalictrum thalictroides</i>	
	Rue-anemone <sup>a</sup>	



Family	Scientific Name	Common Name
	<i>Desmodium rotundifolium</i>	
	Prostrate tick-trefoil <sup>a</sup>	
	<i>Gleditsia triacanthos</i>	
	Honey-locust <sup>a</sup>	
	<i>Glycine max</i>	
	Soybean <sup>a</sup>	
	<i>Phaseolus polystachios</i>	
	Thicket bean	
	<i>Robinia nana</i> = <i>Robinia hispida</i>	
	var. <i>nana</i> <sup>a</sup>	
	<i>Wisteria frutescens</i>	
	American wisteria <sup>a</sup>	
Geraniaceae		
	<i>Geranium carolinianum</i>	
	Carolina crane's-bill <sup>a</sup>	
Oxalidaceae		
	<i>Oxalis stricta</i>	
	Upright yellow wood-sorrel <sup>a</sup>	
Meliaceae		
	<i>Melia azedarach</i> <sup>b</sup>	
	China-berry <sup>a</sup>	
Anacardiaceae		
	<i>Rhus glabra</i>	
	Smooth sumac <sup>a</sup>	
	<i>Toxicodendron radicans</i>	
	Eastern poison-ivy <sup>a</sup>	
	<i>Toxicodendron vernix</i>	
	Poison-sumac <sup>a</sup>	
Cyrillaceae		
	<i>Cyrilla racemiflora</i>	
	Swamp titi <sup>a</sup>	
	<i>Aquifoliaceae</i>	
	<i>Ilex amelanclhier</i>	
	Sarvis holly <sup>a</sup>	
	<i>Ilex glabra</i>	
	Inkberry <sup>a</sup>	
	<i>Ilex opaca</i>	
	American holly <sup>a</sup>	
	<i>Ilex verticillata</i>	
	Common winterberry <sup>a</sup>	
Celastraceae		
	<i>Euonymus americana</i>	
	American strawberry-bush <sup>a</sup>	
Aceraceae		
	<i>Acer negundo</i>	
	Boxelder <sup>a</sup>	
	<i>Acer rubrum</i>	
	Red maple <sup>a</sup>	
	<i>Acer saccharinum</i>	
	Silver maple <sup>a</sup>	
	<i>Acer saccharum</i> <sup>b</sup>	
	Sugar maple <sup>a</sup>	
Hippocastanaceae		
	<i>Aesculus pavia</i>	
	Red buckeye <sup>a</sup>	
	<i>Aesculus sylvatica</i>	
	Painted buckeye <sup>a</sup>	
Balsaminaceae		
	<i>Impatiens capensis</i>	
	Spotted touch-me-not <sup>a</sup>	
Vitaceae		
	<i>Ampelopsis arborea</i>	
	Peppervine <sup>a</sup>	
	<i>Ampelopsis cordata</i>	
	Heart-leaf peppervine <sup>a</sup>	
	<i>Parthenocissus quinquefolia</i>	
	Virginia-creeper <sup>a</sup>	
	<i>Vitis rotundifolia</i> muscadine <sup>a</sup>	
Tiliaceae		
	<i>Tilia heterophylla</i> = <i>Tilia americana</i>	
	var. <i>heterophylla</i> <sup>a</sup>	
Clusiaceae		
	<i>Hypericum genianoides</i>	
	Orange-grass <sup>a</sup>	
	<i>Hypericum hypericoides</i>	
	St. Andrew's-cross <sup>a</sup>	
	<i>Hypericum mutilum</i>	
	Dwarf St. John's-wort <sup>a</sup>	
Cistaceae		
	<i>Lechea villosa</i> = <i>Lechea mucronata</i> <sup>a</sup>	
Violaceae		
	<i>Viola affinis</i>	
	Sand violet <sup>a</sup>	
	<i>Viola papilionacea</i> = <i>Viola sororia</i> <sup>a</sup>	
Passifloraceae		
	<i>Passiflora lutea</i>	
	Yellow passion-flower <sup>a</sup>	
Nyssaceae		
	<i>Nyssa aquatica</i>	
	Water tupelo <sup>a</sup>	
	<i>Nyssa sylvatica</i> var. <i>sylvatica</i>	
	Black tupelo <sup>a</sup>	
	<i>Nyssa sylvatica</i> var. <i>biflora</i> = <i>Nyssa biflora</i> <sup>a</sup>	
	<i>Melastomataceae</i>	
	<i>Rhexia mariana</i> var. <i>mariana</i>	
	Maryland meadow-beauty <sup>a</sup>	
Onagraceae		
	<i>Ludwigia glandulosa</i>	
	Cylindric-fruit primrose-willow <sup>a</sup>	
	<i>Ludwigia leptocarpa</i>	
	Angle-stem primrose-willow <sup>a</sup>	
	<i>Oenothera biennis</i>	
	King's-cureall <sup>a</sup>	
Haloragaceae		
	<i>Proserpinaca palustris</i>	
	Marsh mermaidweed <sup>a</sup>	
	<i>Proserpinaca pectinata</i>	
	Comb-leaf mermaidweed <sup>a</sup>	
Araliaceae		
	<i>Aralia spinosa</i>	
	Devil's-walkingstick <sup>a</sup>	
Apiaceae		
	<i>Angelica triquinata</i>	
	Filmy angelica <sup>a</sup>	
	<i>Centella asiatica</i>	
	Spadeleaf <sup>a</sup>	
	<i>Cryptotaenia canadensis</i>	
	Canadian honewort <sup>a</sup>	
	<i>Hydrocotyle umbellata</i>	
	Many-flower marsh-pennywort <sup>a</sup>	
	<i>Hydrocotyle verticillata</i> var. <i>verticillata</i> <sup>a</sup>	
	Whorled marsh-pennywort	
	<i>Osmorhiza claytonii</i>	
	Hairy sweet-cicely <sup>a</sup>	



Family	Scientific Name	Common Name
	<i>Osmorhiza longistylis</i>	
	Aniseroot <sup>a</sup>	
	<i>Sanicula canadensis</i>	
	Canadian black-snakeroot <sup>a</sup>	
	<i>Zizia aurea</i>	
	Golden Alexander's <sup>a</sup>	
<b>Cornaceae</b>		
	<i>Cornus florida</i>	
	Flowering dogwood <sup>a</sup>	
<b>Clethraceae</b>		
	<i>Clethra alnifolia</i>	
	Coastal sweet-pepperbush <sup>a</sup>	
<b>Pyrolaceae</b>		
	<i>Chimaphila maculata</i>	
	Striped prince's-pine <sup>a</sup>	
<b>Monotropaceae</b>		
	<i>Monotropa uniflora</i>	
	One-flower Indian-pipe <sup>a</sup>	
<b>Ericaceae</b>		
	<i>Gaylussacia dumosa</i>	
	Dwarf huckleberry <sup>a</sup>	
	<i>Kalmia latifolia</i> <sup>b</sup>	
	Mountain-laurel <sup>a</sup>	
	<i>Lyonia lucida</i>	
	Shinyleaf <sup>a</sup>	
	<i>Oxydendrum arboreum</i>	
	Sourwood <sup>a</sup>	
	<i>Rhododendron canescens</i>	
	Mountain azalea <sup>a</sup>	
	<i>Vaccinium arboreum</i>	
	Tree sparkle-berry <sup>a</sup>	
	<i>Vaccinium corymbosum</i>	
	Highbush blueberry <sup>a</sup>	
	<i>Vaccinium elliptii</i>	
	Elliott's blueberry <sup>a</sup>	
<b>Primulaceae</b>		
	<i>Samolus parviflorus</i> = <i>Samolus valerandi</i> ssp. <i>parviflorus</i> <sup>a</sup>	
<b>Sapotaceae</b>		
	<i>Bumelia lycioides</i> = <i>Sideroxylon lycioides</i> <sup>a</sup>	
<b>Ebenaceae</b>		
	<i>Diospyros virginiana</i>	
	Common persimmon <sup>a</sup>	
<b>Styracaceae</b>		
	<i>Styrax americanus</i>	
	American snowbell <sup>a</sup>	
<b>Symplocaceae</b>		
	<i>Symplocos tinctoria</i>	
	Horsesugar <sup>a</sup>	
<b>Oleaceae</b>		
	<i>Chionanthus virginicus</i>	
	White fringetree <sup>a</sup>	
	<i>Forestiera acuminata</i>	
	Eastern swamp-privet <sup>a</sup>	
	<i>Fraxinus americana</i>	
	White ash <sup>a</sup>	
	<i>Fraxinus caroliniana</i>	
	Carolina ash <sup>a</sup>	
	<i>Fraxinus pennsylvanica</i> var. <i>subintegerrima</i> <sup>a</sup> = <i>Fraxinus pennsylvanica</i>	
	<i>Ligustrum sinense</i>	
	Chinese privet <sup>a</sup>	
	<b>Loganiaceae</b>	
	<i>Cynoctonum mitreola</i> = <i>Mitreola petiolata</i> <sup>a</sup>	
	<i>Gelsemium sempervirens</i>	
	Evening trumpet-flower <sup>a</sup>	
	<i>Spigelia marilandica</i>	
	Woodland pinkroot <sup>a</sup>	
	<b>Asclepiadaceae</b>	
	<i>Asclepias perennis</i>	
	Aquatic milkweed <sup>a</sup>	
<b>Convolvulaceae</b>		
	<i>Ipomoea lacunosa</i>	
	Whitestar <sup>a</sup>	
<b>Cuscutaceae</b>		
	<i>Cuscuta compacta</i>	
	Compact dodder <sup>a</sup>	
<b>Polemoniaceae</b>		
	<i>Phlox carolina</i>	
	Thick-leaf phlox <sup>a</sup>	
<b>Boraginaceae</b>		
	<i>Heliotropium indicum</i>	
	Indian heliotrope <sup>a</sup>	
<b>Verbenaceae</b>		
	<i>Callicarpa americana</i>	
	American beauty-berry <sup>a</sup>	
<b>Lamiaceae</b>		
	<i>Lycopus virginicus</i>	
	Virginia water-horehound <sup>a</sup>	
	<i>Perilla frutescens</i>	
	Beefsteak plant <sup>a</sup>	
	<i>Scutellaria lateriflora</i>	
	Mad dog skullcap <sup>a</sup>	
	<b>Solanaceae</b>	
	<i>Solanum americanum</i>	
	American black nightshade <sup>a</sup>	
	<i>Solanum pseudocapsicum</i>	
	Jerusalem-cherry <sup>a</sup>	
<b>Scrophulariaceae</b>		
	<i>Gratiola virginiana</i>	
	Round-fruit hedge-hyssop <sup>a</sup>	
	<i>Linaria canadensis</i> = <i>Nuttallanthus canadensis</i> <sup>a</sup>	
	<i>Lindernia dubia</i>	
	Yellow-seed false pimpernel <sup>a</sup>	
	<i>Mimulus alatus</i>	
	Sharp-wing monkey-flower <sup>a</sup>	
<b>Bignoniaceae</b>		
	<i>Bignonia capreolata</i>	
	Crossvine <sup>a</sup>	
	<i>Campsis radicans</i>	
	Trumpet-creeper <sup>a</sup>	
	<i>Catalpa bignonioides</i>	
	Southern catalpa <sup>a</sup>	
<b>Orobanchaceae</b>		
	<i>Epifagus virginiana</i>	
	Beechdrops <sup>a</sup>	
<b>Lentibulariaceae</b>		
	<i>Utricularia subulata</i>	
	Zigzag bladderwort <sup>a</sup>	
<b>Acanthaceae</b>		
	<i>Dicliptera brachiata</i>	
	Branched foldwing <sup>a</sup>	
	<i>Justicia ovata</i>	
	Loose-flower water-willow <sup>a</sup>	
	<i>Ruellia caroliniensis</i>	
	Carolina wild petunia <sup>a</sup>	







Family  
Scientific Name  
Common Name

**Plantaginaceae***Plantago rugelii*Black-seed plantain<sup>a</sup>**Rubiaceae***Cephalanthus occidentalis*Common buttonbush<sup>a</sup>*Diodia virginiana*Virginia buttonweed<sup>a</sup>*Galium circaezans*Licorice bedstraw<sup>a</sup>*Galium obtusum* ssp. *obtusum*Blunt-leaf bedstraw<sup>a</sup>*Galium tinctorium*Stiff marsh bedstraw<sup>a</sup>*Hedyotis caerulea* = *Houstonia caerulea*<sup>a</sup>*Mitchella repens*Partridge-berry<sup>a</sup>*Richardia scabra*Rough Mexican-clover<sup>a</sup>**Caprifoliaceae***Lonicera japonica*Japanese honeysuckle<sup>a</sup>*Lonicera sempervirens*Trumpet honeysuckle<sup>a</sup>*Sambucus canadensis*American elder<sup>a</sup>*Viburnum cassinoides* = *Viburnum nudum* var. *cassinoides*<sup>a</sup>*Viburnum dentatum* var. *dentatum*Southern arrow-wood<sup>a</sup>*Viburnum nudum*Possumhaw<sup>a</sup>*Viburnum prunifolium*Smooth blackhaw<sup>a</sup>*Viburnum rufidulum*Rusty blackhaw<sup>a</sup>**Cucurbitaceae***Cayaponia boykinii* = *Cayaponia**quinqueloba*<sup>a</sup>**Campanulaceae***Lobelia cardinalis*Cardinal-flower<sup>a</sup>*Lobelia puberula*Downy lobelia<sup>a</sup>**Asteraceae***Aster lateriflorus*Farewell-summer<sup>a</sup>*Aster pilosus*White oldfield aster<sup>a</sup>*Aster vineus* = *Aster lateriflorus*var. *lateriflorus*<sup>a</sup>*Baccharis halimifolia*Groundseltree<sup>a</sup>*Bidens bipinnata*Spanish-needles<sup>a</sup>*Conyza canadensis*Canadian horseweed<sup>a</sup>*Eclipta alba* = *Eclipta prostrata*<sup>a</sup>*Erechtites hieracifolia*American burnweed<sup>a</sup>*Eupatorium coelestinum*Blue mistflower<sup>a</sup>*Gnaphalium obtusifolium*Rabbit-tobacco<sup>a</sup>*Haplopappus divaricatus* =*Croptilon divaricatum*<sup>a</sup>*Helenium autumnale*Fall sneezeweed<sup>a</sup>*Helianthus angustifolius*Swamp sunflower<sup>a</sup>*Mikania scandens*Climbing hempvine<sup>a</sup>*Pluchea camphorata*Plowman's-wort<sup>a</sup>*Prenanthes serpentina*Cankerweed<sup>a</sup>*Senecio glabellus*Cress-leaf ragwort<sup>a</sup>*Solidago odora*Anise-scented goldenrod<sup>a</sup>*Taraxacum officinale*Common dandelion<sup>a</sup>**Butterflies, Skippers and Moths****Butterflies**

Little wood satyr

Gemmed satyr

Carolina satyr

Pearly eye

Pearly wood nymph

Monarch

Viceroy

Comma

Questionmark

Morning cloak

Red admiral

**Moths**

Forest tent caterpillar

Underwing moth

Tussock moth

Flannel moth

Polyphemus moth

Sooty wing

Tent caterpillar

Carpenter moth

**Skippers**

Silver-spotted skipper

Zarucco dusky-wing skipper

Checkered skipper

Saddleback



Appendix C. Continued.

Family	Scientific Name	Common Name
<b>Moths (con't)</b>		
Luna moth	<i>Anguilla rostrata</i>	
Grape-leaf folder	American eel <sup>d</sup>	
Clymene tiger moth		
Great leopard moth		
<b>Fish</b>		
<b>Order</b>		
<b>Family</b>		
Scientific Name		
Common Name		
<b>Acipenseriformes</b>		
<b>Acipenseridae</b>		
<i>Acipenser brevirostrum</i>		
Shortnose sturgeon <sup>e</sup>		
<i>Acipenser oxyrinchus</i>		
Atlantic sturgeon <sup>d</sup>		
<b>Lepisosteiformes</b>		
<b>Lepisosteidae</b>		
<i>Lepisosteus osseus</i>		
Longnose gar <sup>d</sup>		
<b>Amiiformes</b>		
<b>Amiidae</b>		
<i>Amia calva</i>		
Bowfin		
<b>Anguilliformes</b>		
<b>Anguillidae</b>		
<i>Anguilla rostrata</i>		
American eel <sup>d</sup>		
<b>Clupeiformes</b>		
<b>Clupeidae</b>		
<i>Dorosoma cepedianum</i>		
Gizzard shad <sup>d</sup>		
<b>Cypriniformes</b>		
<b>Cyprinidae</b>		
<i>Cyprinella nivea</i>		
Whitefin shiner <sup>d</sup>		
<i>Cyprinus carpio</i>		
Common carp <sup>d</sup>		
<i>Hybognathus nuchalis</i>		
Mississippi silvery minnow <sup>d</sup>		
<i>Notemigonus crysoleucas</i>		
Golden shiner <sup>d</sup>		
<i>Notropis altipinnis</i>		
Highfin shiner <sup>d</sup>		
<i>Notropis cummingsae</i>		
Dusky shiner <sup>d</sup>		
<i>Notropis lutipinnis</i>		
Yellowfin shiner <sup>d</sup>		
<i>Notropis maculatus</i>		
Taillight shiner <sup>d</sup>		
<i>Semotilus atromaculatus</i>		
Creek chub <sup>d</sup>		
<b>Catostomidae</b>		
<i>Carpiodes cyprinus</i>		
Quillback <sup>d</sup>		
<b>Atheriniformes</b>		
<b>Cyprinodontidae</b>		
<i>Fundulus lineolatus</i>		
Lined topminnow <sup>d</sup>		
<b>Poeciliidae</b>		
<i>Gambusia affinis</i>		
Western mosquitofish <sup>d</sup>		
<b>Atherinidae</b>		
<i>Labidesthes sicculus</i>		
Brook silverside <sup>d</sup>		
<b>Perciformes</b>		
<b>Percichthyidae</b>		
<i>Morone chrysops</i>		
White bass <sup>d</sup>		
<i>Morone saxatilis</i>		
Striped bass <sup>d</sup>		
<b>Centrarchidae</b>		
<i>Acantharchus pomotis</i>		
Mud sunfish <sup>d</sup>		
<i>Centrarchus macropterus</i>		
Flier		
<i>Enneacanthus gloriosus</i>		
Bluespotted sunfish <sup>d</sup>		
<i>Enneacanthus obesus</i>		
Banded sunfish <sup>d</sup>		
<i>Lepomis auritus</i>		
Redbreast sunfish <sup>d</sup>		
<i>Lepomis gibbosus</i>		
Pumpkinseed <sup>d</sup>		
<i>Lepomis gulosus</i>		
Warmouth <sup>d</sup>		
<b>Catostomus commersoni</b>		
White sucker <sup>d</sup>		
<i>Erimyzon oblongus</i>		
Creek chubsucker <sup>d</sup>		
<i>Erimyzon sucetta</i>		
Lake chubsucker <sup>d</sup>		
<i>Minytrema melanops</i>		
Spotted sucker <sup>d</sup>		
<b>Siluriformes</b>		
<b>Ictaluridae</b>		
<i>Ameiurus catus</i>		
White catfish <sup>d</sup>		
<i>Ameiurus natalis</i>		
Yellow bullhead <sup>d</sup>		
<i>Ictalurus punctatus</i>		
Channel catfish <sup>d</sup>		
<b>Salmoniformes</b>		
<b>Esocidae</b>		
<i>Esox americanus</i>		
Redfin or grass pickerel <sup>d</sup>		
<i>Esox niger</i>		
Chain pickerel <sup>d</sup>		
<b>Percopsiformes</b>		
<b>Aphredoderidae</b>		
<i>Aphredoderus sayanus</i>		
Pirate perch <sup>d</sup>		
<b>Amblyopsidae</b>		
<i>Chologaster cornuta</i>		
Swampfish <sup>d</sup>		



Order	Family	Scientific Name	Common Name
		<i>Lepomis macrochirus</i> Bluegill <sup>d</sup>	
		<i>Lepomis marginatus</i> Dollar sunfish <sup>d</sup>	
		<i>Lepomis microlophus</i> Redear sunfish <sup>d</sup>	
		<i>Lepomis punctatus</i> Spotted sunfish <sup>d</sup>	
		<i>Micropterus salmoides</i> Largemouth bass <sup>d</sup>	
		<i>Pomoxis annularis</i> White crappie <sup>d</sup>	
		<i>Pomoxis nigromaculatus</i> Black crappie <sup>d</sup>	
		<b>Percidae</b>	
		<i>Etheostoma fusiforme</i> Swamp darter <sup>d</sup>	
		<i>Etheostoma olmstedii</i> Tessellated darter <sup>d</sup>	
		<i>Etheostoma serrafer</i> Sawcheek darter <sup>d</sup>	
		<i>Etheostoma thalassinum</i> Seagreen darter <sup>d</sup>	
		<i>Perca flavescens</i> Yellow perch <sup>d</sup>	
		<b>Amphibians</b>	
		<b>Caudata</b>	
		<b>Sirenidae</b>	
		<i>Siren lacertina</i> Greater siren <sup>d</sup>	
		<b>Ambystomatidae</b>	
		<i>Ambystoma opacum</i> Marbled salamander <sup>d</sup>	
		<b>Plethodontidae</b>	
		<i>Desmognathus auriculatus</i> Southern dusky salamander <sup>d</sup>	
		<i>Plethodon glutinosus glutinosus</i> Northern slimy salamander <sup>d</sup>	
		<b>Anura</b>	
		<b>Bufonidae</b>	
		<i>Bufo terrestris</i> Southern toad <sup>d</sup>	
		<b>Hylidae</b>	
		<i>Acris gryllus gryllus</i> Southern cricket frog <sup>d</sup>	
		<i>Hyla chrysoscelis</i> Cope's gray treefrog <sup>d</sup>	
		<i>Hyla cinerea</i> Green treefrog <sup>d</sup>	
		<i>Hyla gratiosa</i> Barking treefrog <sup>d</sup>	
		<i>Hyla versicolor</i> <sup>c</sup> Gray treefrog <sup>c</sup>	
		<i>Pseudacris crucifer crucifer</i> Spring peeper <sup>d</sup>	
		<b>Microhylidae</b>	
		<i>Gastrophryne carolinensis</i> Eastern narrow-mouthed toad <sup>d</sup>	
		<b>Ranidae</b>	
		<i>Rana catesbeiana</i> Bullfrog <sup>d</sup>	
		<b>Reptiles</b>	
		<b>Testudines</b>	
		<b>Kinosternidae</b>	
		<i>Kinosternon subrubrum</i> Eastern mud turtle <sup>d</sup>	
		<i>Sternotherus odoratus</i> Common musk turtle <sup>d</sup>	
		<b>Chelydridae</b>	
		<i>Chelydra serpentina serpentina</i> Snapping turtle <sup>d</sup>	
		<b>Emydidae</b>	
		<i>Terrapene carolina carolina</i> Eastern box turtle <sup>d</sup>	
		<i>Trachemys scripta scripta</i> Common slider <sup>d</sup>	
		<b>Squamata</b>	
		<b>Polychridae</b>	
		<i>Anolis carolinensis</i> Green anole <sup>d</sup>	
		<b>Scincidae</b>	
		<i>Eumeces fasciatus</i> Five-lined skink <sup>d</sup>	
		<i>Eumeces inexpectatus</i>	
		<b>Occipitomaclulata</b>	
		<i>Storeria occipitomaculata</i> Red-bellied snake <sup>d</sup>	
		<b>Colubridae</b>	
		<i>Coluber constrictor</i> Racer	
		<i>Diadophis punctatus punctatus</i> Ring-necked snake <sup>d</sup>	
		<i>Elaphe obsoleta</i> Rat snake <sup>d</sup>	
		<i>Farancia obituary obituary</i> Mud snake <sup>d</sup>	
		<i>Heterodon platirhinos</i> Eastern hog-nosed snake <sup>d</sup>	
		<i>Lampropeltis getula getula</i> Common kingsnake <sup>d</sup>	
		<i>Nerodia erythrogaster erythrogaster</i> Plain-bellied water snake <sup>d</sup>	
		<i>Nerodia fasciata fasciata</i> Southern water snake <sup>d</sup>	
		<i>Nerodia taxipilota</i> Brown water snake <sup>d</sup>	
		<i>Opheodrys aestivus</i> Rough green snake <sup>d</sup>	
		<b>Eumeces laticeps</b> Broad-headed skink <sup>d</sup>	
		<i>Scincella lateralis</i> Ground skink <sup>d</sup>	
		<b>Southeastern five-lined skink<sup>d</sup></b>	
		<i>Rana clamitans</i> Green frog <sup>d</sup>	
		<i>Rana sphenoccephala</i> Southern leopard frog <sup>d</sup>	
		<i>Rana virgatipes</i> Carpenter frog <sup>d</sup>	







# Appendix C. Continued.

Order	Family	Scientific Name	Common Name	
Birds	Ciconiiformes	<i>Thamnophis sauritus sauritus</i>		
		Eastern ribbon snake <sup>d</sup>		
		<i>Thamnophis sirtalis sirtalis</i>		
		Common garter snake <sup>d</sup>		
		Viperidae	<i>Agkistrodon contortrix contortrix</i>	
			Copperhead <sup>d</sup>	
			<i>Agkistrodon piscivorus piscivorus</i>	
		Cottonmouth <sup>d</sup>		
		<i>Crotalus horridus</i>		
		Timber rattlesnake <sup>d</sup>		
	Ardeidae	<i>Ardea herodias</i>		
		Great blue heron <sup>d</sup>		
		<i>Botaurus lentiginosus</i>		
		American bittern <sup>d</sup>		
		<i>Butorides striatus</i>		
		Green-backed heron <sup>d</sup>		
		<i>Egretta caerulea</i>		
		Little blue heron <sup>d</sup>		
		<i>Nyctanassa violacea</i>		
		Yellow-crowned night-heron <sup>d</sup>		
	<i>Hyticorax nycticorax</i>			
	Black-crowned night-heron <sup>d</sup>			
	Threskiornithidae	<i>Eudocimus albus</i>		
		White ibis <sup>d</sup>		
	Columbiformes	Columbidae	<i>Elanoides forficatus</i>	
			American swallow-tailed kite <sup>d</sup>	
		<i>Haliaeetus leucocephalus</i>		
		Bald eagle <sup>d</sup>		
		<i>Ictinia mississippiensis</i>		
		Mississippi kite <sup>d</sup>		
		Falconidae	<i>Falco sparverius</i>	
			American kestrel <sup>d</sup>	
		Cuculiformes	<i>Coccyzus americanus</i>	
			Yellow-billed cuckoo <sup>d</sup>	
	Cuculidae	<i>Coccyzus erythrophthalmus</i>		
		Black-billed cuckoo <sup>d</sup>		
	Strigiformes	Tytonidae	<i>Tyto alba</i>	
			Barn owl <sup>d</sup>	
		Strigidae	<i>Bubo virginianus</i>	
			Great horned owl <sup>d</sup>	
Caprimulgiformes	Caprimulgidae	<i>Otus asio</i>		
		Eastern screech owl <sup>d</sup>		
	<i>Strix varia</i>			
	Barred owl <sup>d</sup>			
Phasianidae	Meleagris gallopavo			
		Wild turkey <sup>d</sup>		
	<i>Colinus virginianus</i>			
	Northern bobwhite <sup>d</sup>			
	Galliformes			
	Charadriiformes	Charadriidae	<i>Charadrius vociferus</i>	
			Killdeer <sup>d</sup>	
	Scolopacidae	<i>Actitis macularia</i>		
		Spotted sandpiper <sup>d</sup>		
<i>Gallinago gallinago</i>				
Common snipe <sup>d</sup>				
<i>Scolopax minor</i>				
American woodcock <sup>d</sup>				
<i>Tringa flavipes</i>				
Lesser yellowlegs <sup>d</sup>				



## Appendix C. Continued.

Order	Family	Scientific Name	Common Name	
Apodiformes	Apodidae	<i>Chaetura pelagica</i>	Chimney swift <sup>d</sup>	
	Trochilidae	<i>Archilochus colubris</i>	Ruby-throated hummingbird <sup>d</sup>	
	Coraciiformes			
	Alcedinidae	<i>Ceryle alcyon</i>	Belted kingfisher <sup>d</sup>	
	Piciformes			
	Picidae	<i>Colaptes auratus</i>	Northern flicker <sup>d</sup>	
		<i>Dryocopus pileatus</i>	Pileated woodpecker <sup>d</sup>	
	<i>Melanerpes carolinus</i>	Red-bellied woodpecker <sup>d</sup>		
	<i>Melanerpes erythrocephalus</i>	Red-headed woodpecker <sup>d</sup>		
	<i>Picoides borealis</i>	Red-cockaded woodpecker <sup>d</sup>		
	<i>Picoides pubescens</i>	Downy woodpecker <sup>d</sup>		
	<i>Picoides villosus</i>	Hairy woodpecker <sup>d</sup>		
	<i>Sphyrapicus varius</i>	Yellow-bellied sapsucker <sup>d</sup>		
	Passeriformes	Tyrannidae	<i>Contopus virens</i>	Eastern wood-peewee <sup>d</sup>
			<i>Empidonax virens</i>	Acadian flycatcher <sup>d</sup>
<i>Sayornis phoebe</i>		Eastern phoebe <sup>d</sup>		
<i>Myiarchus crinitus</i>		Great crested flycatcher <sup>d</sup>		
<i>Tyrannus tyrannus</i>		Eastern kingbird <sup>d</sup>		
<i>Tyrannus verticalis</i>		Western kingbird <sup>d</sup>		
Hirundinidae		<i>Hirundo rustica</i>	Barn swallow <sup>d</sup>	
		<i>Progne subis</i>	Purple martin <sup>d</sup>	
<i>Stelgidopteryx serripennis</i>		Northern rough-winged swallow <sup>d</sup>		
<i>Tachycineta bicolor</i>		Tree swallow <sup>d</sup>		
Corvidae		<i>Corvus brachyrhynchos</i>	American crow <sup>d</sup>	
		<i>Corvus ossifragus</i>	Fish crow <sup>d</sup>	
<i>Cyanocitta cristata</i>		Blue jay <sup>d</sup>		
Paridae		<i>Parus bicolor</i>	Tufted titmouse <sup>d</sup>	
		<i>Parus carolinensis</i>	Carolina chickadee <sup>d</sup>	
		Sittidae	<i>Sitta carolinensis</i>	White-breasted nuthatch <sup>d</sup>
			<i>Sitta pusilla</i>	Brown-headed nuthatch <sup>d</sup>
		Certhiidae	<i>Certhia americana</i>	Brown creeper <sup>d</sup>
		Troglodytidae	<i>Thryothorus ludovicianus</i>	Carolina wren <sup>d</sup>
	<i>Troglodytes aedon</i>		House wren <sup>d</sup>	
	<i>Troglodytes troglodytes</i>	Winter wren <sup>d</sup>		
	Muscicapidae	<i>Polioptila caerulea</i>	Blue-gray gnatcatcher <sup>d</sup>	
		<i>Regulus calendula</i>	Ruby-crowned kinglet <sup>d</sup>	
	<i>Regulus satrapa</i>	Golden-crowned kinglet <sup>d</sup>		
	<i>Catharus fuscescens</i>	Veery		
	<i>Catharus guttatus</i>	Hermit thrush <sup>d</sup>		
	<i>Catharus minimus</i>	Gray-cheeked thrush <sup>d</sup>		
	Cathartidae	<i>Catharus ustulatus</i>	Swainson's thrush <sup>d</sup>	
		<i>Hylocichla mustelina</i>	Wood thrush <sup>d</sup>	
		<i>Sialia sialis</i>	Eastern bluebird <sup>d</sup>	
		<i>Turdus migratorius</i>	American robin <sup>d</sup>	
		Mimidae	<i>Dumetella carolinensis</i>	Gray catbird <sup>d</sup>
<i>Minus polyglottos</i>			Northern mockingbird <sup>d</sup>	
<i>Toxostoma rufum</i>		Brown thrasher <sup>d</sup>		
Bombycillidae		<i>Bombycilla cedrorum</i>	Cedar waxwing <sup>d</sup>	
Laniidae		<i>Lanius ludovicianus</i>	Loggerhead shrike <sup>d</sup>	
Sturnidae		<i>Sturnus vulgaris</i>	European starling <sup>d</sup>	
Vireonidae		<i>Vireo flavifrons</i>	Yellow-throated vireo <sup>d</sup>	
		<i>Vireo griseus</i>	White-eyed vireo <sup>d</sup>	
<i>Vireo olivaceus</i>		Red-eyed vireo <sup>d</sup>		
<i>Vireo solitarius</i>		Solitary vireo <sup>d</sup>		



Appendix C. Continued.

Order	Family	Scientific Name	Common Name
Emberizidae	<i>Dendroica caerulescens</i>	<i>Parula americana</i>	<i>Guiraca caerulea</i>
	Black-throated blue warbler <sup>d</sup>	Northern parula <sup>d</sup>	Blue grosbeak <sup>d</sup>
	<i>Dendroica castanea</i>	<i>Protonotaria citrea</i>	<i>Passerina cyanea</i>
	Bay-breasted warbler <sup>d</sup>	Prothonotary warbler <sup>d</sup>	Indigo bunting <sup>d</sup>
	<i>Dendroica coronata</i>	<i>Seiurus aurocapillus</i>	<i>Pheucticus ludovicianus</i>
	Yellow-rumped warbler <sup>d</sup>	Ovenbird <sup>d</sup>	Rose-breasted grosbeak <sup>d</sup>
	<i>Dendroica discolor</i>	<i>Seiurus motacilla</i>	<i>Aimophila aestivalis</i>
	Prairie warbler <sup>d</sup>	Louisiana waterthrush <sup>d</sup>	Bachman's sparrow <sup>d</sup>
	<i>Dendroica dominica</i>	<i>Seiurus noveboracensis</i>	<i>Junco hyemalis</i>
	<i>Dendroica magna</i>	Northern waterthrush <sup>d</sup>	Dark-eyed junco <sup>d</sup>
	Magnolia warbler <sup>d</sup>	<i>Setophaga ruticilla</i>	<i>Melospiza georgiana</i>
	<i>Dendroica pensylvanica</i>	American redstart <sup>d</sup>	Swamp sparrow <sup>d</sup>
	Chestnut-sided warbler <sup>d</sup>	<i>Vermivora celata</i>	<i>Melospiza melodia</i>
	<i>Dendroica pinus</i>	Orange-crowned warbler <sup>d</sup>	Song sparrow <sup>d</sup>
	Pine warbler <sup>d</sup>	<i>Vermivora chrysoptera</i>	<i>Passerella iliaca</i>
	<i>Dendroica striata</i>	Golden-winged warbler <sup>d</sup>	Fox sparrow <sup>d</sup>
	Blackpoll warbler <sup>d</sup>	<i>Vermivora peregrina</i>	<i>Pipilo erythrophthalmus</i>
	<i>Dendroica virens</i>	Tennessee warbler <sup>d</sup>	Rufous-sided towhee <sup>d</sup>
	Black-throated green warbler <sup>d</sup>	<i>Vermivora pinus</i>	<i>Poocetes gramineus</i>
	<i>Geothlypis trichas</i>	Blue-winged warbler <sup>d</sup>	Vesper sparrow <sup>d</sup>
	Common yellowthroat <sup>d</sup>	<i>Wilsonia canadensis</i>	<i>Spizella passerina</i>
	<i>Helmitheros vermivorus</i>	Canada warbler <sup>d</sup>	Chipping sparrow <sup>d</sup>
	Worm-eating warbler <sup>d</sup>	<i>Wilsonia cirina</i>	<i>Spizella pusilla</i>
	<i>Icteria virens</i>	Hooded warbler <sup>d</sup>	Field sparrow <sup>d</sup>
Insectivora	Yellow-breasted chat <sup>d</sup>	<i>Wilsonia pusilla</i>	<i>Zonotrichia albicollis</i>
	<i>Linnothlypis swainsonii</i>	Wilson's warbler <sup>d</sup>	White-throated sparrow <sup>d</sup>
	Swainson's warbler <sup>d</sup>	<i>Piranga olivacea</i>	<i>Agelaius phoeniceus</i>
	<i>Mniotilta varia</i>	Scarlet tanager <sup>d</sup>	Red-winged blackbird <sup>d</sup>
	Black-and-white warbler <sup>d</sup>	<i>Piranga rubra</i>	<i>Euphagus carolinus</i>
	<i>Oporornis formosus</i>	Summer tanager <sup>d</sup>	Rusty blackbird <sup>d</sup>
	Kentucky warbler <sup>d</sup>	<i>Cardinalis cardinalis</i>	<i>Icterus spurius</i>
		Northern cardinal <sup>d</sup>	Orchard oriole <sup>d</sup>
Mammals			
Passeridae			
Marsupialia			
Didelphidae			
Insectivora			
Soricidae			





[illegible]

<sup>b</sup>Present (unreliable record), documentation: scientific study.

<sup>d</sup>Present, documentation, reliable record.

<sup>e</sup>Probably absent.





