

Environmental Stewardship Initiative 2006 Annual Report



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Executive Summary

The North Carolina Department of Environment and Natural Resources' Environmental Stewardship Initiative is a voluntary program that assists and encourages facilities to use pollution prevention and innovation to meet and go beyond regulatory requirements. The ESI takes a unique approach to supplement the current command and control regulatory approach by providing a voluntary, systematic and holistic approach to environmental management.

This approach combines recognition with assistance, training, mentoring and networking opportunities. A three-tiered membership structure of Partners, Rising Stewards and Stewards allows participation from a wide range of regulated organizations. The Partner level helps organizations address compliance issues and have access to assistance while higher tiers require organizations to be models of stewardship, mentoring and educating others. In 2006 ESI membership included 81 Partners, 13 Rising Stewards and six Stewards.

ESI members commit to developing environmental management systems that lead to continual improvement and stewardship. In 2006, ESI members set 331 goals covering multi-media regulated and non-regulated impacts including energy and water conservation. Fifty-eight members reported progress towards these goals, resulting in the following environmental impact reductions. Members report reductions after being in the program for one full year.

2006 ESI Members Reported Reductions

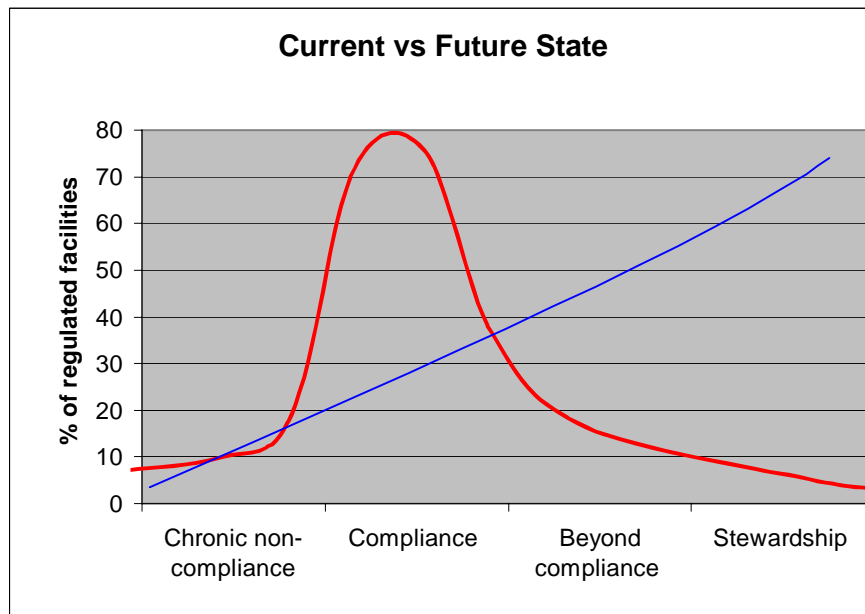
Area	Value	Unit
Landfilled Waste	59,809.9	Tons
Hazardous waste	36.3	Tons
Air Emissions	231.6	Tons
Energy	169,349,051.7	Mbtu
Water Use	591356273	Gallons
Material Consumption	973.20	Tons
Wastewater Pollutants	399.95	Tons
Wastewater Volume Reduction	106,092,200.00	Gallons
Biosolids Volume	2720350	Gallons
Total Recycled Volume in 2004	12,594.15	Tons
Total Cost Savings	\$10,393,930.32	

Reductions and cost savings reported by members demonstrate real results and improvements to the environment in North Carolina. The ESI model addresses environmental challenges through partnerships and a voluntary, comprehensive and innovation approach that benefits both the environment and continued economic growth.

2006 Progress Report

“In an ideal world, regulation is replaced by stewardship, an inherent respect for the environment. In this concept of stewardship, everyone takes responsibility for their actions and the use of resources for the benefit of the community.”

This quote from the DENR Principles of Enforcement is the foundation of the ESI vision. The 2006 DENR Compliance Report records the overall compliance rate for regulated facilities as 80 percent. By supporting and encouraging superior environmental performance by North Carolina’s regulated community the ESI vision is to move regulated organizations from a current state of non-compliance and borderline compliance (red line) to a future state of stewardship (blue line).



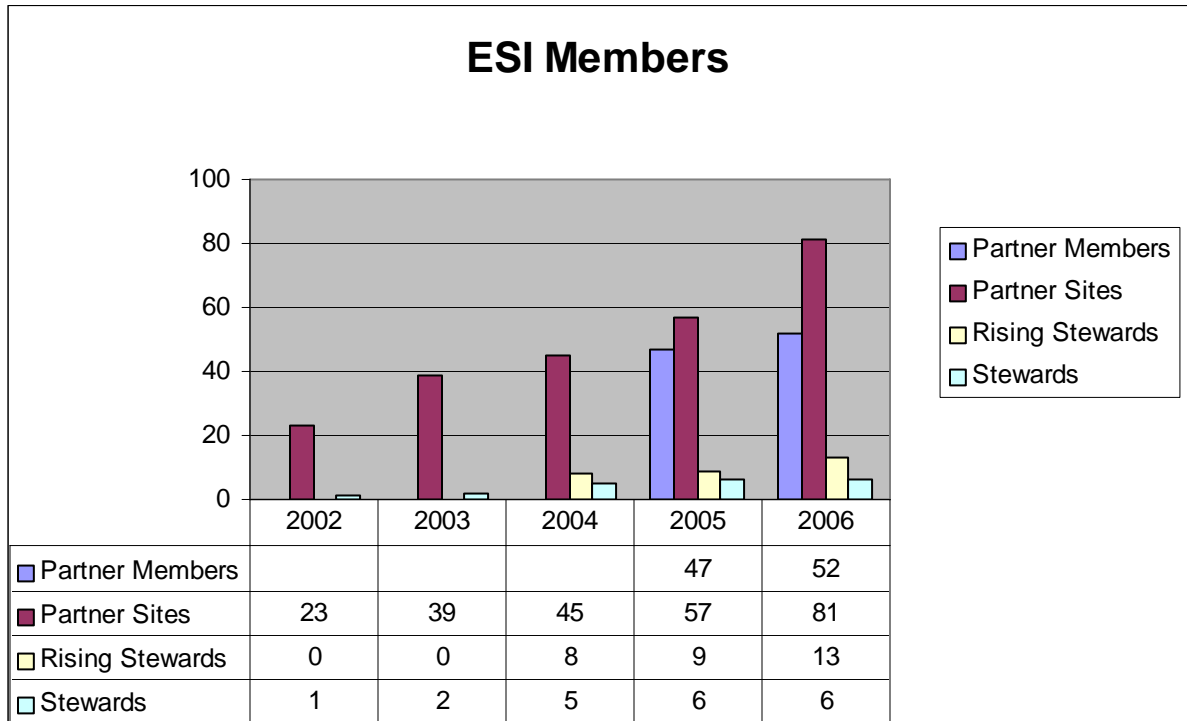
The current command and control regulatory approach to environmental management is necessary in the real world and has led to significant improvements, however it is not practical or fiscally possible for North Carolina to regulate all pollution and consumption of natural resources. The ESI seeks to reduce an organization’s impacts beyond measures required by any permit or rule to improve the environment, conserve natural resources and gain long-term economic benefits.

As a requirement of membership, each organization must report annually on their progress towards their goals. This annual report summarizes progress towards the ESI vision. As an environmental program the best measure of progress is reduced environmental impacts, reported annually by ESI members. In the last two years, members have also reported on cost savings from implementing environmental improvements.

Achievements

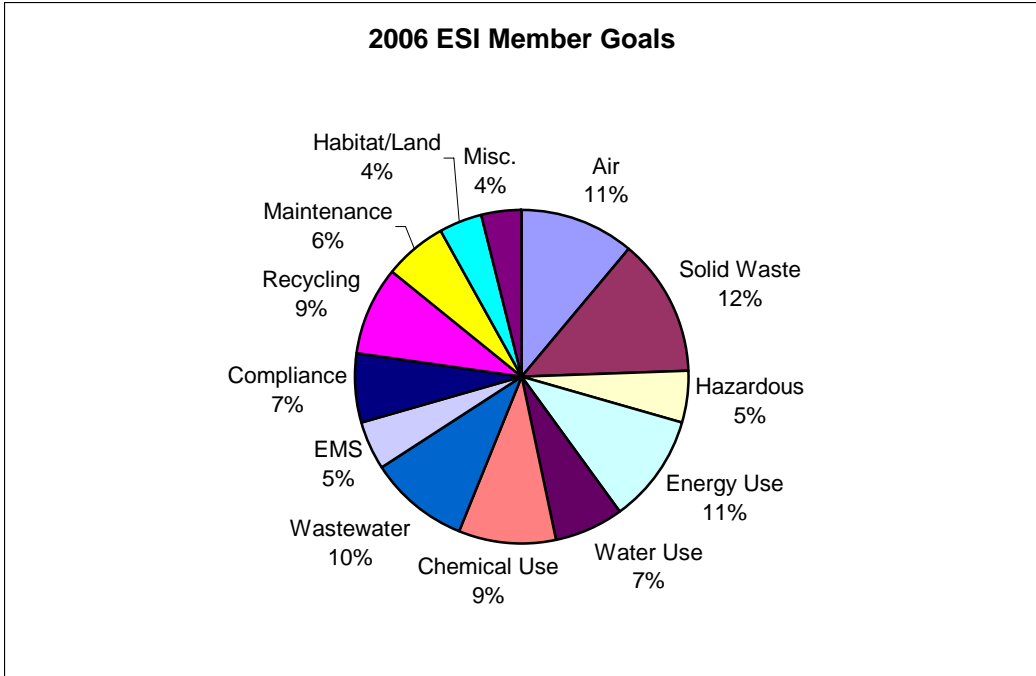
Membership Growth

ESI membership has more than quadrupled since it began in 2002, from 24 member sites in 2002 to 100 member sites in 2006. Beginning in 2005, Partner applicants were allowed to submit one application for multiple facilities.



Member Goals

ESI requires the development of an environmental management system to drive the development and progress toward performance based environmental goals. Members reported on 331 goals that covered multi-media regulated and non-regulated impacts.



Member Reductions

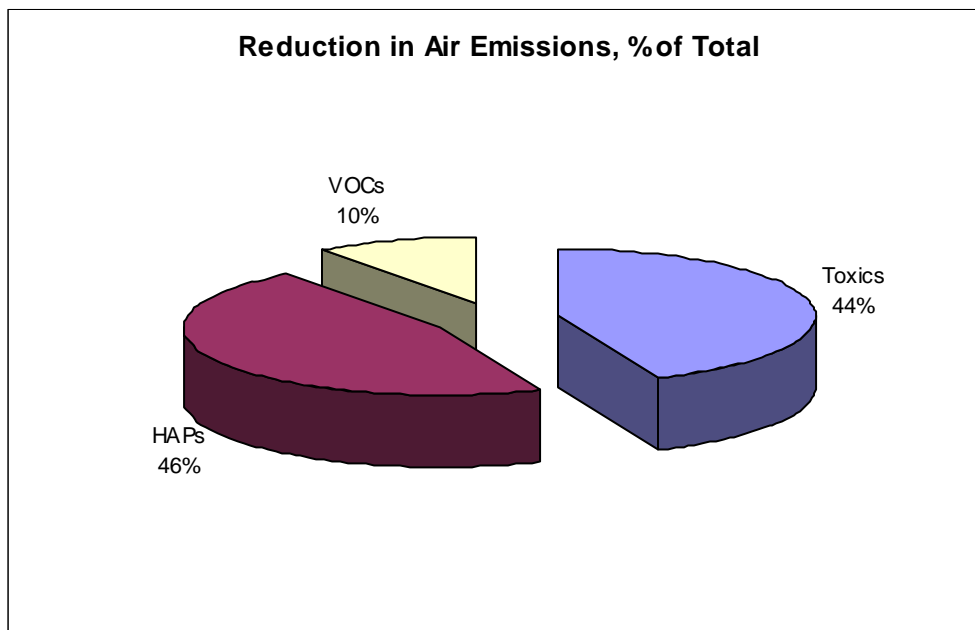
ESI members are required to report on performance toward environmental goals and reductions in environmental impacts. Fifty-eight members reported progress towards these goals, resulting in the following environmental impact reductions. Members' reductions are included in the final compilation after being in the program for one full year. All reduction data are self-reported by member facilities and are not verified by N.C. DENR.

2006 ESI Members Reported Reductions

Area	Value	Unit
Land filled Waste	59,809.9	Tons
Hazardous waste	36.3	Tons
Air Emissions	231.6	Tons
Energy	169,349,051.7	Mbtu
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Reducing solid waste, air emissions, and energy use were the most common goals of ESI members.

- Twenty-three facilities reported reducing almost 60 tons of solid waste sent to landfills through optimizing material usage and reducing plastic, paper, cardboard and other nonhazardous solid waste sent to landfills.
- Eleven members reported reducing consumption of energy (natural gas, propane and electricity) by more than 169 million Mbtus.
- Ten members reported air emission reductions of 231.6 tons. The largest reductions were in hazardous air pollutants, followed by reductions in toxic air pollutants and volatile organic compounds. Process changes, chemical substitutions and improved equipment efficiency were some of the methods used to accomplish these reductions.

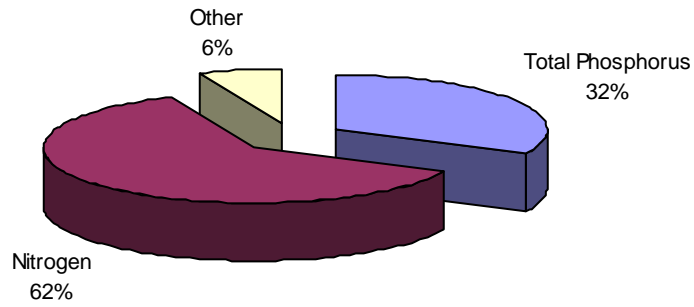


Facilities also reported reductions in wastewater pollutants, wastewater volume, hazardous waste, water use, material consumption, and biosolids.

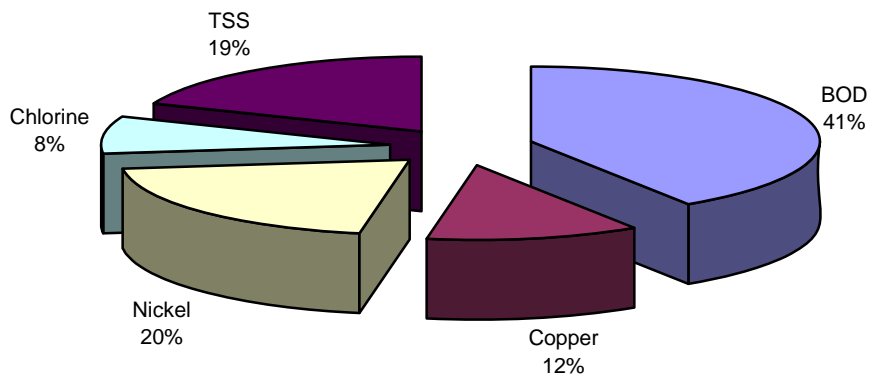
- Five facilities reported wastewater pollutant reductions with the greatest reduction in phosphorus and nitrogen pollutants.
- Two facilities reported a reduction in wastewater volume of over 106 million gallons.
- Four facilities reported reducing hazardous waste. Seventy percent of the total hazardous waste reductions were from reduced paint stripping and metal preparation waste.
- Seven facilities reported reductions in material consumption including reductions in the use of caustic, acids, oils and pesticides.

- Seven facilities reported reductions in water use through reduced consumption and process water recycling.
- All biosolids reductions were reported by one facility.

Reduction in Wastewater Pollutants, % of Total



"Other" Wastewater Pollutants



Application Review Process

Partner applications are accepted year-round and reviewed monthly. Steward and Rising Steward applications are accepted only during a two-month period starting in March.

Following receipt of an application, an environmental compliance check is completed to determine if the facility has been under environmental criminal indictment or been convicted within the last two years, as well as identify any compliance issues.

The DENR Internal Workgroup reviews all Partner applications and makes a recommendation to the Secretary regarding acceptance into the program. The internal workgroup reviews Rising Steward and Steward applications to provide regulatory and compliance information to the ESI Advisory Workgroup. The internal workgroup comprises representatives from regulatory divisions within DENR.

2006 DENR Internal Workgroup Members

Sonya Avant	Division of Land Resources
Tom Belnick	Division of Water Quality
Jimmy Carter (Chair)	DENR Asst. Sec. for Information Systems/Chief Information Officer
Linda Culpepper	Division of Waste Management
Dale Dusenbury	Division of Environmental Health
David Lee	Customer Service Center
Donnie Redmond	Division of Air Quality/Planning
Paula Hemmer	Division of Air Quality/Technical Services
John Sutherland	Division of Water Resources
David Williams	Division of Soil and Water Conservation

Following compliance review by the Internal Workgroup the Rising Steward and Steward applications are presented to the ESI Advisory Workgroup.

DENR Secretary Bill Ross established an Advisory Workgroup to oversee program development and implementation. Membership consists of manufacturers, industries, industry trade groups, environmental and citizen non-governmental organizations, small businesses, representatives of city and county government, DENR representatives, and others as deemed appropriate. DENR Assistant Secretary, Jimmy Carter, chairs the workgroup. Whenever possible, Environmental Stewards are given priority for membership. Membership on the Advisory Workgroup rotates every three years and is capped at fifteen members.

2006 ESI Advisory Workgroup Members

Jimmy Carter (chair)	Dept. of Environment and Natural Resources	Raleigh
Jennifer Adams	Corning, Inc.	Wilmington
Katy Ansardi	Sustainable North Carolina	Raleigh
Kristin Beck	Progress Energy	Raleigh
Jack Blackmer	Novozymes North America Inc.	Franklinton
Dr. Bob Bruck	N.C. State University	Raleigh
Eric Henry	TS Designs	Burlington
Preston Howard Jr., P.E.	Manufacturers and Chemical Industry Council	Raleigh
Matt Jordan, P.E.	City of Gastonia	Gastonia
Lisa Merrell	Fleet Readiness Center East	Cherry Point
Ivan Urlaub	NC Sustainable Energy Association	Raleigh
Todd Miller	North Carolina Coastal Federation	Newport
Danny Yount	ASMO North Carolina	Statesville

Rising Steward and Steward applicants receive an on-site verification visit to ensure the EMS is functioning and to gather observations supporting the organization's application. All information obtained through the application and the onsite-verification visit is documented and collated into a report that is given to the Advisory Workgroup for review.

The DENR Secretary reviews recommendations made by the Advisory Workgroup and makes the final decision. Organizations accepted into the program are usually announced by December.

Membership

Utilizing pollution prevention and other innovative approaches, this voluntary effort offers benefits to members for developing and implementing programs to meet and go beyond regulatory requirements.

Any regulated company or organization that operates one or more facilities in North Carolina and whose activities impact the environment is eligible to participate in ESI. This includes, but is not limited to, manufacturers, businesses, agribusiness, service providers, government agencies, schools and nonprofit organizations. Members can enter the program at one of three tiers: Environmental Partner, Rising Environmental Steward or Environmental Steward. Membership criteria in the ESI vary depending on the tier.

Criteria

The “**Environmental Partner**” level is designed for adoption by a broad range of organizations that are interested in beginning the process of developing a systematic approach to improving their environmental performance. Partner applications may include multiple sites. By December 2006, the program had 81 Environmental Partner sites.

To be considered at the Partner level the following criteria must be met:

- Demonstrate commitment to compliance.
- Set environmental performance goals that include pollution prevention and are appropriate to the nature, scale and environmental impact of the organization.
- Commit to developing, implementing and maintaining an EMS based on ISO 14001 or a functionally equivalent model.
- Not be under any environmental criminal indictment or conviction.
- Agree to report annually on progress toward the organization’s environmental performance goals, reductions in environmental emissions and/or discharges of releases, solid and hazardous waste disposal, use of energy and water, and any reportable non-compliance events.

The “**Rising Environmental Steward**” level is designed for those organizations that have a mature environmental management program. Rising Steward applications must be for a single site. By December 2006, the program had 13 Rising Environmental Stewards.

Rising Environmental Steward applicants must meet all Partner criteria and the following:

- Environmental performance goals must be measurable goals adopted into the framework of the EMS, demonstrate annual improvements to performance.
- Demonstrate a mature EMS based on ISO 14001 or a functionally equivalent model. The EMS for the site must be ISO 14001 third-party certified or be reviewed on-site by DENR staff.
- Demonstrate commitment to meet and go beyond compliance.

The “**Environmental Steward**” level is for those organizations that display a commitment to exemplary environmental performance beyond what is required by law. Steward applications must be for a single site. By December 2006, the program had six Environmental Stewards.

Environmental Steward applicants must meet all Partner and Rising Steward criteria and the following:

- Set aggressive environmental performance goals.
- Have a process for communication with the local community on program activities and progress toward performance goals.

- Demonstrate how the EMS is integrated into core business functions.
- Agree to be a mentor to Environmental Partner and Rising Environmental Steward participants.

Organizations at each level are accepted into the program for a period of five years. Rising Stewards and Stewards are assessed after three years on their progress toward meeting the organization's overall program goals. An organization may apply for renewal after five years. Partner participants are reviewed annually, through their annual report submissions, to assess progress made toward environmental performance goals and overall program goals.

Benefits

All levels of ESI members are eligible for the following:

- Technical assistance on developing an EMS, pollution prevention approaches, environmental management and treatment technologies, and achieving and maintaining compliance with local, state and federal regulations;
- Specialized training;
- Networking opportunities;
- Recognition of program participation;
- Coverage by U.S. EPA and DENR self-reporting policies;
- A coach and/or single point of contact within DENR; and
- Other benefits as deemed appropriate by the Secretary based on recommendations from the Advisory Group.

Partners have the additional benefit of access to Stewards as mentors where appropriate. Environmental Stewards have the following additional benefits:

- Formal public recognition from the secretary of DENR that may include use of a program logo, an on-site award ceremony, public announcements and press releases.
- Participation in the Environmental Stewardship Forum chaired by the secretary and including key department policy makers.
- Priority membership on the ESI Advisory Workgroup.
- Established time frames for permit decisions. This does not change existing public comment opportunities.
- Stewards who have been in the program for at least one year can seek support from DENR to implement regulatory innovations that follow principles outlined in the Joint EPA/State Agreement to Pursue Regulatory Innovation.

Facilities accepted into the program at the Environmental Partner level receive a certificate of recognition signed by the DENR secretary and Rising Environmental Stewards receive a plaque during the annual members' meeting. Environmental Stewards accepted into the ESI receive a personal letter signed by the DENR Secretary. The secretary presents Stewards with a large plaque during an on-site ceremony. DENR highlights members' participation in press releases, the ESI

Web site and newsletters. Facilities' achievements are also written in publications by peer facilities and customers, which promote companies' environmental reputations and public relations.

ESI Members

Stewards

ASMO North Carolina, Inc., Statesville
City of Gastonia Long Creek Water Resource Recovery Facility
Corning Incorporated - Wilmington Optical Fiber Facility
GKN Driveline - Sanford Precision Forming Facility
Novozymes North America, Inc, Franklinton
Naval Air Depot, Cherry Point

Rising Stewards

City of Gastonia Crowders Water Resource Recovery Facility
City of Gastonia Wastewater Treatment Division Biosolids, Bessemer City
Firestone Fibers & Textiles Company, Gastonia
Firestone Fibers & Textiles Company, Kings Mountain
GKN Driveline - Roxboro Facility, Timberlake
GKN Driveline, Sanford
NACCO Materials Handling Group, Greenville
N.C. Zoological Park - Horticulture Section, Asheboro
Progress Energy - Roxboro Steam Electric Plant, Semora
Smithfield Packing Company, Inc. Tar Heel Division, Tar Heel
Smithfield Packing Company, Wilson
Smithfield Transportation Company, Tar Heel
Degussa Stockhausen, Inc., Greensboro

Partners

American & Efird Inc.: Gastonia Plant 01; Depot 21, Gastonia; Dyeing & Finishing Plant 15, Mount Holly; Filament Plant 05, Mount Holly; Gastonia 56; Gastonia Plant 20; Nelson 02, Lenoir; Nelson 12, Lenoir; Rush Plant 03, Mount Holly; Rush Plant 09, Mount Holly
Asahi, Greenville
Baker Furniture, High Point
Baker Furniture, Hildebran
Baker Furniture, Mocksville
Baxter Healthcare, Marion
Borden Chemical, Inc., Morganton
Borg Warner Emissions/Thermal Systems, Fletcher
BSH Home Appliances Corp. New Bern
Caterpillar, Franklin
City of Gastonia Fields Operations and Customer Service Center
City of Gastonia Water Treatment Plant
City of Hendersonville Water Treatment Plant, Horse Shoe

City of Shelby First Broad River Wastewater Treatment Plant
City of Shelby Water Treatment Plant
Duke University, Durham
Engineered Sintered Components, Troutman
Fort Bragg & 18th Airborne Corps, Fort Bragg
Freudenburg Nonwovens Interlining Division, Durham
Freudenburg Nonwovens Tufts Division, Durham
General Electric Co., Industrial Systems, Mebane
Gwaltney/Stadler's Country Hams, Elon
Hexion, Morganton
Highland Industries Inc., Kernersville Finishing
Hunter Farms Dairy, High Point
International Paper - Riegelwood Mill
Kao Specialties Americas, High Point
Marine Corps Base, Camp Lejeune
Michelin Aircraft Tire Co., LLC, Norwood
NC DOT Ferry Division: Cape Hatteras; Cedar Island; Cherry Branch; Currituck; Manns
Harbour; Ocracoke; Pamlico River, Bath; Southport; Swan Quarter
NIEHS, RTP
Premium Standard Farms - Clinton Plant
PSNC Energy Corporate Office and Operations Center, Gastonia
PSNC Energy Compressor Center: Mill Spring, Roxboro; Ruffin; Stem;
PSNC Energy Operations Center: Asheville, Forest City, Sylva, Horse Shoe, Troutman,
Kannapolis, Mebane, Henderson, Chapel Hill, Durham (2), Cary, Apex, Sanford,
Raleigh (2)
RF MicroDevices, Greensboro
Smithfield Foods, Benson
Smithfield Foods, Clayton
Smithfield Packing Co., Kinston
Talecris Biotherapeutics, Clayton
Tube.tec, Statesville
USCG-Support Center Elizabeth City
Warren Wilson College, Swannanoa
WSACC - Interceptor System, Concord
WSACC - Mt Pleasant Water Treatment Plant, Mt. Pleasant
WSACC - Rocky River Regional Wastewater Treatment Plant, Concord