

NORTH CAROLINA

State Agency
Reduction of
Solid Waste Disposal

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Sixth Annual Report

ACKNOWLEDGMENTS

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The Division of Pollution Prevention and Environmental Assistance (DPPEA) provides free, non-regulatory technical assistance and training on methods to eliminate, reduce or recycle wastes before they become pollutants or require disposal. Contact DPPEA for more information about this document or waste reduction.

DPPEA-FY01-17. (0) copies of this publication were printed in an effort to reduce waste and save paper. The report can be accessed online at www.p2pays.org/buyrecycled or a paper copy can be ordered by calling (800) 763-0136.

Introduction

State agencies are directed to reduce the quantity of solid waste disposed by G.S. 130A-309.14 and former Gov. Jim Hunt's Executive Order No. 8, signed in 1993 and rewritten in 1999 as Executive Order 156 in support of the governor's environmental sustainability initiative, N.C. Project Green.¹ Agency recycling requirements were originally devised to help North Carolina achieve its goal of reducing solid waste disposal in landfills and incinerators by 40 percent in 2001.² State agency waste reduction, recycling and buy recycled efforts initiated nearly nine years ago have since become the cornerstone of environmental sustainability in state government. Various representatives from state agencies across the state continue to take part in N.C. Project Green. The sustainability plans, many of which include objectives to reduce waste and increase recycling can be found at: www.sustainablenc.org

A recent achievement in state agency recycling is the revamping of the contract for recycling services for state agencies in Wake County. A group of committed individuals from various state agencies including the Department of Environment and Natural Resources, the Department of Health and Human Services, the Department of Administration, and the Department of Transportation have worked together to implement a comprehensive recycling collection program, which will serve thousands of Raleigh-area state employees. Although a contract had been in effect in the past, this is the first time a multi-agency task group was convened to ensure that service requirements stated in the contract accurately fit the needs of the affected stakeholders. It is hoped that a similar process can be used in other regions of the state to assist with the implementation of recycling programs across North Carolina.

This document fulfills the reporting mandate of Executive Order No. 156 for Fiscal Year 2001. It compiles waste reduction reports required from 26 state government departments and offices, 18 constituent institutions of the University of North Carolina, and 58 community colleges. Reports were received from 71 percent of required agencies.

The Division of Pollution Prevention and Environmental Assistance (DPPEA) is the agency charged with compiling data from agency reports and publishing this summary. Copies of this and past reports may be obtained from the DPPEA Web site, www.p2pays.org, or by calling (919) 715-6500 or (800) 763-0136.

This report was not filed for fiscal year 2000 due to the change in administration. For benchmarking purposes, data for year 2001 will be compared against data for 1999.

State Agency Source Reduction, Recycling and Composting Efforts

Administrative Support and Source Reduction. During the past fiscal year, as depicted in Figure 1, it appears that administrative support for recycling has leveled off or slightly increased from past years. In fiscal year 2000-2001, 72 percent of responding agencies reported that their chief administrator communicated the importance of reducing waste and recycling, up only 1 percent from fiscal year 1999. A larger segment of these agencies, 83 percent, reported that they had established a lead coordinator for waste reduction and recycling efforts. This has remained stagnant based on data collected in fiscal year 1999. Just over half of the reporting agencies had an established network of assistant coordinators or have routinely circulated memoranda and other information to employees. Employee education saw the biggest increase with 57 percent of agencies reporting that they had conducted ongoing educational campaigns about recycling and waste reduction. This is up 8 percent from fiscal year 1999.

¹ Executive Order No. 8 was superseded by Executive Order No. 156, *State Government Environmental Sustainability, Reduction of Solid Waste, and Procurement of Environmentally Preferable Products*, on July 20, 1999.

² G.S. 130A-309.04(c), *The Solid Waste Management Act of 1989*.

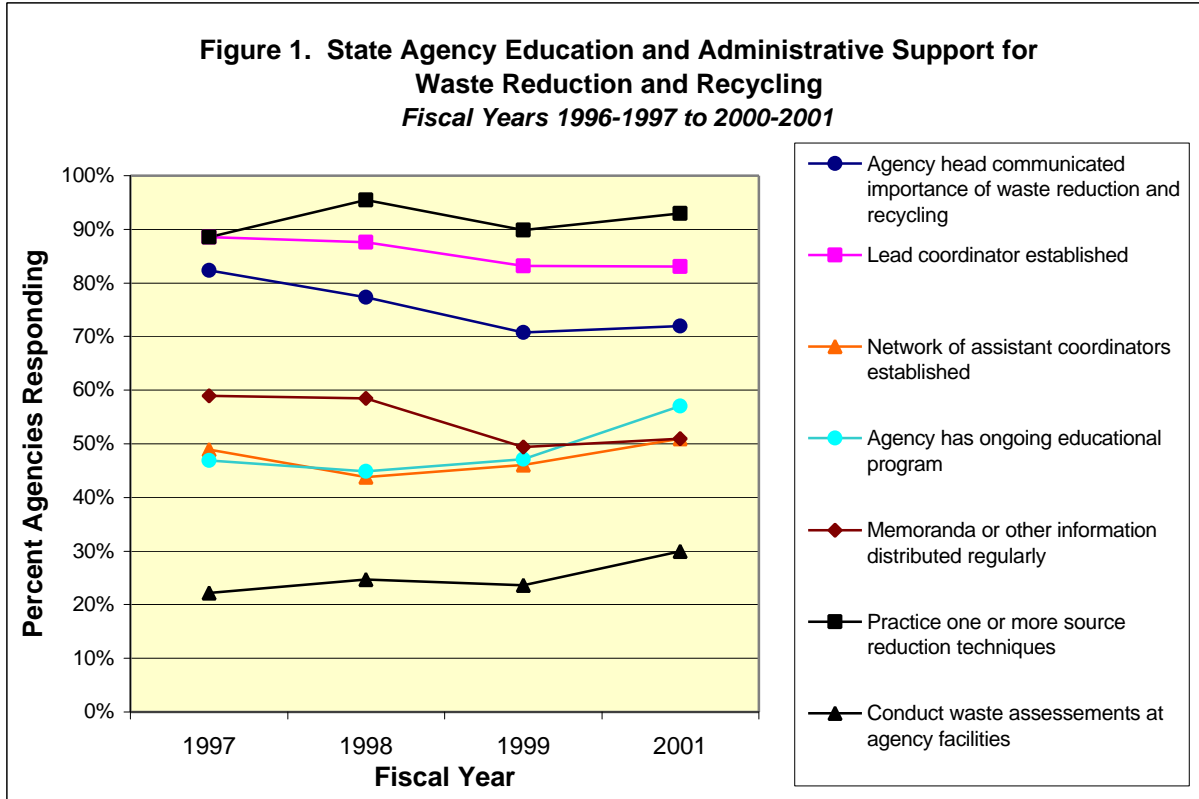
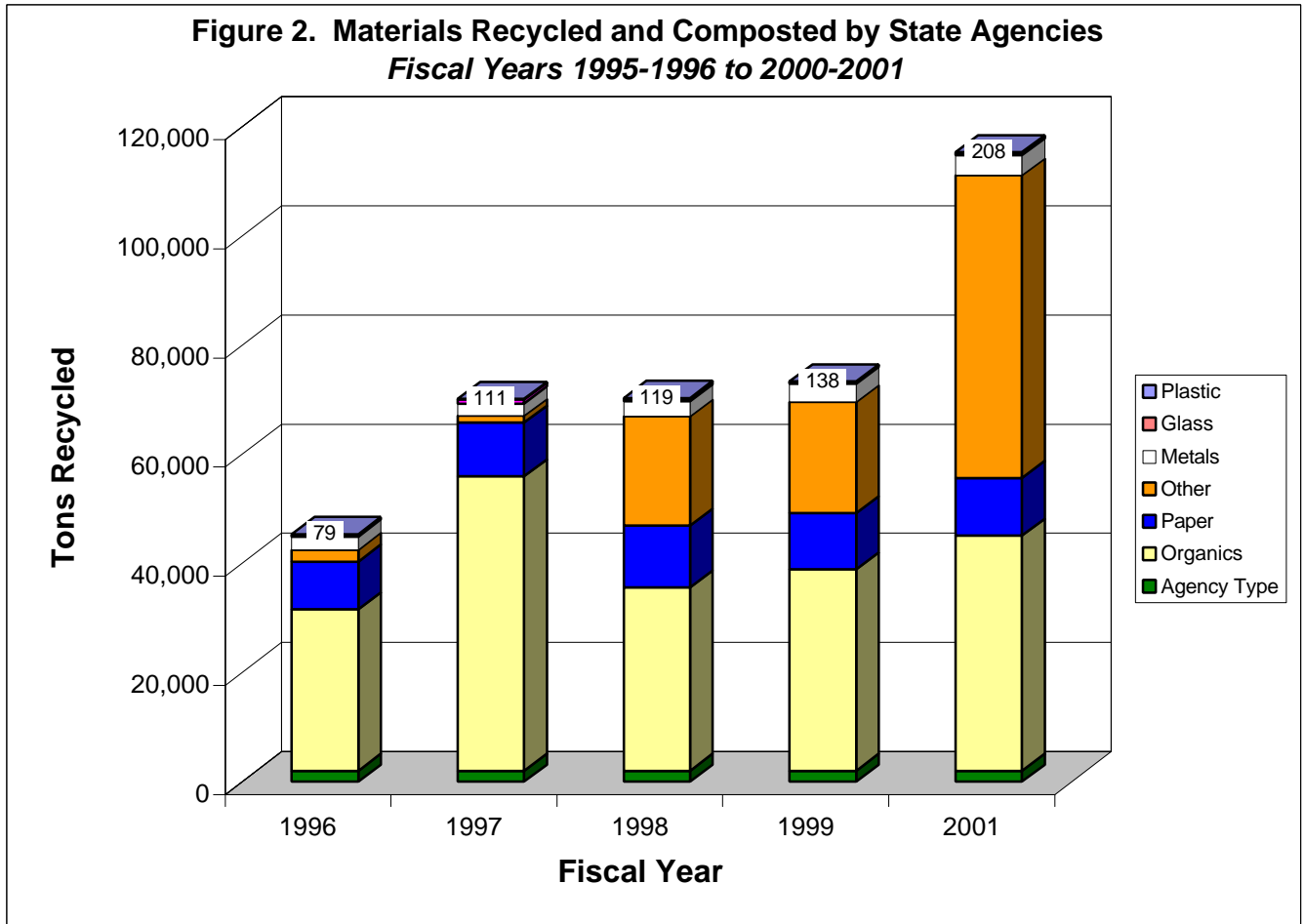


Figure 1 also shows that since fiscal year 1997 a relatively constant proportion of reporting agencies engaged in efforts to reduce waste at the source. In fiscal year 2001, 93 percent of agencies reported that most of their employees practice one or more source reduction techniques, such as e-mail vs. paper letters, duplex copying, envelope reuse, and food rescue, when feasible. While most agencies assert their participation in source reduction, just 30 percent reported having conducted facility waste assessments, a tool for identifying new waste reduction opportunities.

Overall State Agency Performance. In the face of stagnating administrative support and budgetary concerns, state agencies collectively diverted 113,273 tons of paper, metals, glass, plastic, organics and other items from disposal in landfills and incinerators. This amount exceeds the 71,344 tons recycled and composted the previous year by 47 percent. As illustrated in Figure 2, this is the largest increase since reporting began in fiscal year 1996. The rise in tonnage may have resulted from increased awareness about recycling and solid waste issues, more accurate reporting and compliance with the recommendations set forth in Executive Order 156, as well as increased programs for tires, asphalt, compost and other high-volume, weight-intensive recyclables.



Agency Performance. The 26 departments and offices located throughout North Carolina, including but not limited to, Corrections facilities, Department of Transportation facilities, Department of Health and Human Services facilities, and legislative and office buildings, recycled 91,580 tons through contracted and interagency recycling programs in fiscal year 2001. Broken down into individual categories:

- 4,170 tons of paper,
- 3,039 tons of metals,
- 29 tons of glass,
- 100 tons of plastic (PET and HDPE bottles only),
- 29,428 tons of organics, and
- 5,412 tons of other materials

Many Department of Corrections Facilities have implemented full scale waste reduction programs including:

- recycling of standard materials such as glass, plastic, aluminum and paper,
- trash sorts to find items such as uniforms which had been improperly disposed, and
- implementation of food composting programs, which remove substantial tonnage from the waste stream daily and result in a product which can be used on facility grounds or sold/donated as soil enhancers.

State Universities. The 18 universities and affiliated institutions of the UNC system reported recycling approximately 5,579 tons of paper, 419 tons of metals, 284 tons of glass, 104 tons of plastic, 13,450 tons of organics, and 597 tons of other materials for a total of 20,433 tons recycled. This is a substantial decrease from

fiscal year 1999 in which universities reported recycling 29,881 tons of material. This decrease is most likely due to elevated numbers in fiscal year 1999-2000 due to clean-up efforts related to Hurricane Floyd.

The UNC system has several shining examples of comprehensive waste reduction and recycling programs. UNC-Chapel Hill, UNC-Greensboro, UNC-Charlotte, UNC-Asheville and Appalachian State University continue to lead by example in the move towards food composting/reuse initiatives, waste reduction and inclusion of solid waste issues in the university curriculum. East Carolina University has recently hired a recycling coordinator who is working to take the campus to the next level. Other universities such as North Carolina A&T are looking to expand their programs with the help of a student-based initiative.

Community Colleges. Community colleges saw the largest increase in tonnage with a jump from 964 tons during fiscal year 1999 to 1,260 total tons in 2001. Individual totals were 812 tons of paper (almost double the total reported in 1999), 223 tons of metals, 189 tons of organics, three tons of plastics, one-half ton of glass, and 31 tons of other materials. The growth in the community college sector is likely due to factors including: a new momentum from within the system to develop comprehensive waste reduction programs, mandatory reporting requirements, and a realization that waste reduction helps save money for the agency.

Many community colleges, including Durham Technical Community College and Alamance Community College, have begun the process of developing full-scale recycling programs in the past year. Through support from DPPEA and other sources, these agencies are striving to meet the goals of Executive Order 156 by implementing recycling programs, analyzing their purchasing decisions, and looking for ways to reduce waste at the site.

State Agency Solid Waste Disposal and Costs

Based upon available data from Raleigh-area haulers and reported weights from state facilities, institutions and offices statewide, approximately 127,303 tons of solid waste were landfilled or incinerated by state agencies in fiscal year 2001, costing about \$11.5 million in collection and disposal fees. The total quantity of waste disposed in fiscal year 2001 fell about 6 percent from fiscal year 1999. This total appears to be low and may be a result of inaccurate recordkeeping and a lack of quality data available from the numerous contractors overseeing many state agency waste management programs.

Conclusion

State agency performance in waste reduction and recycling showed outstanding growth during the past fiscal year. Agencies as a whole are diverting more material from disposal than they did five or six years ago. Yet data summarized from fiscal year 2001 reports suggest that much variability still exists among agencies in level of commitment, effort and performance. Several agencies have not reported totals for several years, making it difficult to get an accurate reading of waste reduction and recycling initiatives throughout the state.

Some of the variability in waste reduction and recycling performance may result from the inability of many agencies to accurately track tonnage. The problem affects departments and offices more acutely since they often share leased, county or municipal buildings with other agencies and businesses. When waste collection and recycling services are provided through a lease or by a local government at no charge, agencies may not be able to directly access their solid waste data. They may also have difficulty calculating their portion of the building's waste and recycling tonnage. For these reasons, the data reported by state agencies likely underestimate the true quantities and costs of waste being disposed. Incomplete tracking and agency use of estimates may also contribute to fluctuations in reported recycling levels over time.

The unreliability of the data prevents the assertion that the rise in recycling tonnage has led to a corresponding decrease in the amount of solid waste being disposed of in the state's landfills and incinerators since fiscal year 1996. Only with improved awareness of agency solid waste streams and more accurate data collection will an assessment of this type be possible. Data compiled for this report indicate that state agencies are recycling at a fairly high rate. Whether agencies have simultaneously achieved waste reduction through their efforts still remains unknown.

Recommendations

I. Remove the reporting mandate from Executive Order 156 and any subsequent Environmental Sustainability orders

Because of the nature of solid waste and recycling services many agencies have a difficult time realistically determining the total tonnages for their programs. Because the majority of agencies contract their solid waste services, accurate accounting of tonnages and materials collected can only be in the best cases estimated. This has led many agencies to either guesstimate or copy totals from year to year rather than accurately track their progress.

In addition, the reporting requirement ties up an enormous amount of staff time within the Division of Pollution Prevention and Environmental Assistance. The value of spending time on the reporting process is very low relative to the waste diversion that could be achieved if that time were spent working with agencies on waste reduction projects. DPPEA feels that its role as report administrator could be better served through:

- Increased site visits and technical assistance to individual agencies;
- Development of tracking tools so that agencies can independently assess their waste reduction activities; and
- Increased education regarding cost savings related to waste reduction and recycling.

Through these and other efforts DPPEA would be able to assist individual agencies with the implementation of waste reduction programs, therefore setting positive examples for other agencies to follow. Currently the reporting process takes up a large portion of staff's time and makes it difficult to focus on the needs of individual agencies.

II. Increase Administrative Support and Educational Programs. Disparity among agencies in the degree of support and routine communication received from top management may be the most significant factor contributing to waning agency participation in recycling and waste reduction activities. For those agencies that have not yet prioritized waste reduction and buying recycled, it is recommended that they:

- Institutionalize the mandates of G.S. 130A-309.14 which require that state agencies “provide that recycling containers are readily accessible on each floor where state employees are located in a building occupied by a state agency.”
- Issue internal policies, official memoranda and formal declarations that demonstrate administrative leadership and support for source reduction and recycling.
- Establish and maintain a network of lead and assistant coordinators to communicate and promote agency policies and requirements for buy recycled as well as waste reduction.
- Develop and implement ongoing outreach and education programs for employees and visitors.

III. Assess the Impact of Source Reduction and Recycling on Waste Disposal and Costs. Tracking the amounts of solid waste disposed annually by state agencies is the only way to determine whether efforts to reduce waste, including recycling programs, are impacting the waste stream. This information, along with data on the costs for collection and disposal of solid waste, can be used to evaluate the cost efficacy of agencies' waste management strategies as well as the costs avoided through waste reduction and recycling. To maximize data recovery and assessment, it is recommended that agencies:

- Conduct waste assessments at their constituent facilities, offices and institutions;
- Initiate opportunities to track and prevent office paper waste generation at the source through electronic communication; and
- Require full accounting for all costs associated with solid waste collection and disposal services.