

RECOMMENDATIONS OF THE NORTH CAROLINA STATE UNIVERSITY ENVIRONMENTAL SUSTAINABILITY TASK FORCE

April, 2000

On September 10, 1998, Governor James B. Hunt, Jr. convened a conference of his cabinet officers and 150 public leaders of state agencies, university and community college campuses. At that conference, he committed all public agencies in North Carolina to the development and implementation of a state strategic plan for environmental sustainability. To coordinate North Carolina State University's response to that charge, Chancellor Marye Anne Fox appointed a campus-wide sustainability officer, who, in turn, created the Environmental Sustainability Task Force. The Task Force was established to help the University respond to the mandate from the Governor. It was selected to provide broad-based representation from the Faculty Senate, Staff Senate, Student Senate, Physical Environment Committee, several colleges, and several administrative offices. Over time, additional students and faculty members joined the Task Force out of personal or professional interest. Task Force members and their affiliations are listed in the attachment.

The Task Force worked within the framework of the set of guiding principles for environmental sustainability that were officially adopted by North Carolina State University on May 10, 1999, particularly those that deal with NC State's commitment to using and managing its own physical environment in ways that lead to sustainability. As was recognized in the guiding principles, North Carolina State University must strive to apply the best ideas, technologies, policies and practices on its own campus if it is to play a meaningful role in helping society move to a sustainable mode of development.

To help guide its work, the Task Force conducted a campus-wide survey of on-going initiatives that contribute to the environmental sustainability of campus operations. This survey revealed that there are a large number of programs and initiatives in progress at North Carolina State University that relate to environmental sustainability. All of these initiatives are important. The challenge facing the Task Force was to select a manageable set of initiatives that would meet the following criteria:

- If implemented, would have visible and significant environmental benefits for the entire campus,
- Could be readily implemented without requiring significant new resources,
- Would promote an interest in, and commitment to, environmental sustainability on the part of the entire campus community – faculty, staff, and students, and
- Would be consistent with the directions of the Governor's environmental sustainability initiative.

Much of the work of the Task Force has been devoted to identifying a few, potentially highly visible, high pay-off activities that might serve as campus rallying points for sustainable operations. The following recommendations are offered in this spirit. Four of the recommendations are specific to the North Carolina State University campus in Raleigh, and one calls for state-wide leadership. The Environmental Sustainability Task Force recommends that the Chancellor publicly endorse these initiatives and assign the Task Force the responsibility to monitor the degree to which they are being implemented.

1. Energy Management

Recommendation - North Carolina State University will implement and support an energy management and conservation program with a goal to reduce its consumption of energy by 20% over the next seven-year period.

NC State is a major user of energy. Most energy is obtained from the combustion of fossil fuels, which directly affects air quality and indirectly affects the sites from which the fuels are extracted. Furthermore, energy is a significant cost item in the University budget, amounting to about \$17 million in expenditures each year. The Director of Facilities Operations is fully aware of both the environmental and the economic implications of an effective energy management and conservation program and has initiated some important steps toward developing such a program. Basic components of the program will include:

- Hire an Energy Manager
- Collect historic data and information about patterns of energy use
- Perform a campus-wide energy audit to determine current opportunities for increased efficiency and cost reduction
- Based on the above, develop an energy management and conservation plan that will be consistent with the 20% reduction goal
- Establish short and long term strategies for implementing the plan
- Develop and implement purchasing guidelines to promote energy conservation
- Develop and implement energy guidelines for construction and renovation
- Develop and implement creative funding strategies to achieve the goal, including ways to allow units that successfully reduce energy costs to retain the savings and use them for additional energy conservation approaches.

An effective energy management program will not come about without some cost and sacrifice on the part of the campus users. Also, depending upon the speed at which attainment of the goal is desired, the energy conservation strategy may require additional financial resources. For these reasons, the goal cannot be reached unless it is fully supported and promoted by the Chancellor.

Accordingly, we urge the Chancellor to accept and visibly support the goal of a 20% reduction in energy consumption over the next seven years, and to work with the Facilities Operations office and the Environmental Sustainability Task Force to assure that orderly progress is being made toward the goal.

2. Recycling, Waste Reduction, and Resource Conservation

Recommendation - North Carolina State University will implement and support a program of recycling, waste reduction, and resource conservation that will exceed the mandated 40% reduction in waste going to landfills from the University.

North Carolina State University, by the nature of its business, is a major generator of solid waste that has historically been deposited in landfills. Although programs to capture selected waste products have been in place for many years, Governor Hunt's mandate to reduce waste to landfills by 40% has not been fully met. As a leader in environmental sustainability, our University must support a comprehensive program to not only recycle waste, but to reduce waste generation at its source and to promote the use of recycled materials.

Facilities Operations has supported a program with modest goals and resources. To achieve the mandated reduction and to promote resource conservation throughout the entire University, the program must be expanded to obtain the enthusiastic support of the entire Campus community. The components of a successful program will include:

- Hire a University Recycling Coordinator (completed)
- Develop an assessment of potential resource conservation opportunities

- Based on this assessment, establish a University-wide policy for recycling and resource conservation
- Develop specific goals and objectives for the resource conservation plan
- Identify staffing needs and resource requirements to implement the plan
- Create a campus-wide network of recycling "coordinators"
- Initiate a pilot program for "Deskside" recycling and collection
- Initiate an effective pilot program for Residence Hall recycling and collection
- Implement the expansion of the Composting Facility at Lake Wheeler
- Implement record-keeping to measure performance and trends
- Develop and implement media tools to promote awareness and participation

The Task Force believes that the goal can be met within 5 years with existing resources. Additional resources will be required if the goal is to be met sooner.

As with all programs that depend on participation by all members of a community, the leadership must publicly endorse and support the program. At North Carolina State University, we encourage the Chancellor to endorse the goal of exceeding the mandated 40% reduction in waste going to landfills, to support a comprehensive program for meeting this goal, and to challenge the entire campus community to participate in the program.

3. Campus Restoration

Recommendation – Rocky Branch Creek become a nationally acclaimed model of ecological restoration and be converted into a healthy stream system and attractive greenway from Gorman Street to Pullen Park by 2010.

Rocky Branch is a severely degraded creek that runs the length of the campus. Throughout its history, this creek has been subjected to mass development along its banks; flood plains have been filled, and large sections have been channelized. A project committee has already raised \$4.6 million towards the restoration project from such contributors as the Environmental Protection Agency, the Clean Water Management Trust Fund, the Department of Transportation, and North Carolina State University. Planning in progress includes the stabilization of the stream using natural channel design concepts; the installation of innovative stormwater controls; expansion of the riparian buffer zone; and creation of a greenway pedestrian system for the full length of the stream corridor through campus. A significant remaining issue is the question of how to deal with the parking and related revenue issues associated with the parking spaces that will need to be removed from the project area. This issue will need to be resolved before the project can move forward.

The Environmental Sustainability Task Force recommends that the Chancellor support the completion of the Rocky Branch Creek project as part of NC State's overall commitment to natural system protection throughout its campus.

4. Sustainability Recognition

Recommendation – North Carolina State University will establish a highly visible annual cash award program for members of the faculty, staff, and/or student body making the best suggestions for enhancing environmental sustainability of the campus.

An award program that would provide the Chancellor with a highly-publicized award or group of awards would help energize the entire campus community to think about innovative yet practical ways to assure that environmental sustainability is considered in all campus operations.

It is recommended that the Chancellor establish such an award or group of awards, to be first awarded in 2000-2001. The Environmental Sustainability Task Force would be most willing to assume the responsibility for developing award criteria, preparing the processes for soliciting

suggestions, and selecting the winner or winners. It is further recommended that the Chancellor direct the Office of Public Affairs to develop a publicity plan for the award and its recipients and to identify the appropriate University-wide event at which the award could most appropriately be presented.

5. Green Purchasing

Recommendation – North Carolina State University provide the intellectual leadership for redefining State purchasing and service procurement guidelines to incorporate sustainability and involve local businesses and communities in all purchases by State agencies.

Each day, the State of North Carolina purchases enormous quantities of materials, supplies and services required to fulfill its mission of providing for the needs of our citizens. North Carolina State University's land-grant mission validates its leadership position to bring about change that will enhance the environment of our state. Therefore, our University should lead the way in demonstrating the wisdom and the practicality of incorporating environmental sustainability concepts into the purchasing guidelines used across the state. By drawing upon the creativity of the faculty, the benefits that can be obtained by promoting sustainable manufacturing and transportation concepts can be identified and demonstrated.

Several important purchasing changes can be made on our own campus. By identifying faculty to lead students in special projects, these opportunities can be identified. Examples of such projects are:

- Determine sustainability criteria for selecting goods and services and identify sources/availability of green goods and services
- Sustainability audits in departments and administrative units based on these criteria
- Oversee and facilitate student internships that focus on conducting sustainability audits
- Begin an intensive educational campaign for students, faculty, and staff to teach and encourage a broad base of support for green purchasing
- Encourage administrative units to adopt purchasing changes
- Organize a competition and reward structure between departments with real dollars for the most significant changes and impacts
- Investigate procedures and costs to enter into a carpet leasing agreements
- Encourage all new buildings and renovations to incorporate energy efficiency, "green" design and building materials.

In order to have a substantial impact on sustainability, significant changes must be made in purchasing and procurement practices of State governmental agencies, including universities. System-wide regulations that currently block implementation of sustainability initiatives need to be identified. For example, if an agency reduces energy consumption, it should be possible to apply the saved funds to reward and support these sustainability efforts. Perhaps a loan program could be initiated by the State to offset the costs of new sustainability initiatives that only pay back over time. Ways could be found to permit the approval of state contracts shown to have lower life-cycle costs, even though they may have higher initial costs. These are simply examples of state-wide procurement and purchasing issues that need to be systematically addressed.

Several faculty members have expressed an interest in working with the total UNC system and State purchasing personnel to develop more state purchasing and procurement guidelines that promote environmental sustainability.

Based on this interest, the Task Force recommends that the Chancellor take two actions: (1) propose to the President of the University of North Carolina that a "green purchasing" task force be appointed with representatives from all the campuses, and (2) provide funds for half-time release of a faculty member to coordinate this effort. The purpose of the task force would be to work with appropriate personnel in State purchasing agencies to identify new approaches to green purchasing

that could serve as national models.

The Environmental Sustainability Task Force believes that these five recommendations, if implemented individually or collectively, will be important steps along the way of sensitizing faculty, staff, and students to the issue of environmental sustainability and to encouraging a lifelong commitment to this important issue.

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