



*People and Nature: Our Future is in the Balance*

## **National Wildlife Federation**

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**Clemson University  
Clemson, South Carolina  
Spring 2002, Landscaping**

### **BACKGROUND**

#### **Campus Profile**

Founded in 1889, Clemson University is a public land-grant university with approximately 17,500 students enrolled. Degree programs are offered through five colleges: Agriculture, Forestry and Life Sciences; Architecture, Arts and Humanities; Business and Behavior Science; Engineering and Science; and Health, Education and Human Development.

Greening efforts are taking place in all five colleges, and green project descriptions can be viewed on the Sustainable Universities Initiative (SUI) webpage at [www.sc.edu/sustainableu](http://www.sc.edu/sustainableu).

Clemson's 1,400-acre main campus, located on the shores of Lake Hartwell in South Carolina, is surrounded by 17,000 acres of University farms and woodlands devoted to research. Experiment stations and an additional 12,390 acres in other areas of the state are devoted to research and education. For more information about Clemson University, call the Visitors Center at 864-656-4789 or visit our web site at [www.clemson.edu](http://www.clemson.edu).

#### **Group/Class Profile**

This project was completed by the "Problems in Landscape Design" class taught by Professor Mary Haque in the Horticulture Department at Clemson University. The SUI funded it using a service learning methodology. Students working on the project included horticulture majors Jason Horton, Jason Somerville and Amy Sturdy; working in an interdisciplinary group with Landscape Architecture majors Michael Anaya, Renee Boyer, Valerie Forth, Morris Freeman, Adrian Henson, Jeremy Kelly, Tiffany May, Adam Ormsbee, Michael Parks, Mark Sartain, Diane Schillow, Jeremy Thorne, Nathan Tidd, Carmen Turner and John White. Valerie Forth elected to design a webpage to communicate student work as part of her honors component.

#### **Contacts**

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### **GOALS AND ACCOMPLISHMENTS**

#### **Short-Term Goals**

Religious institutions are requesting the assistance of Clemson University faculty and students for the design development of outdoor spaces surrounding places of worship. As people within congregations work to foster an awareness of the value of creation and develop acts of care that reflect this awareness, university students are providing ideas about how this can be

done in part through sustainable landscape designs including meditation, memorial and memory gardens.

The goals of students enrolled in Hort. 461, "Problems in Landscape Design", were to learn how to research, analyze, design and communicate ideas about how these gardens, habitat gardens, parking lots and other associated spaces can be created incorporating principles of sustainability for a community religious institution.

We partnered with Mt. Zion United Methodist Church in Central, South Carolina, to develop a custom landscape design using a methodology that can be followed by other religious institutions around the country. College students completed landscape designs and a web page to help congregations envision, design and celebrate greening efforts through landscape design. Students researched topics such as sacred spaces, meditation gardens, plants of the Bible, the role of gardens in religion and the use of water as a metaphor in religion. They also identified practical problems that religious institutions face, such as how to design parking lots that accommodate large numbers of vehicles only one day of the week. After identifying problems, they proposed creative solutions to design such areas in an environmentally friendly manner.

Dr. Ansel Miller, a plant physiologist and retired professor in the CU Department of Forest Resources, represented the church. Tri-County Technical College's Sustainable Universities Initiative Fellow and congregation member, Dr. Sharon Miller, also served as both client and outside critic for Clemson University students working on the project. A committee chaired by Dr. Ansel Miller will spearhead the future installation and maintenance of the garden.

### **Long-Term Goals**

We propose to partner with at least one more institution in South Carolina to develop a custom landscape design using methodology that can be followed by other institutions around the country. The Greening Congregations program of Earth Ministry provides a resource for congregations nationwide through their website. We propose to share information and case studies developed by SUI students and faculty with them to help expand their resource base in the area of landscape design. We will develop a segment on sustainable landscape design for religious institutions which can be used as a guide nationwide using local examples.

Students enrolled in Dr. Sharon Miller's nutrition class at Tri-County Technical College will study the environmental impact of food intake, record daily garbage generated and explore opportunities to recycle, reuse and reduce the amount of trash while participating in a local food recovery program and providing educational material for this outreach project during the 2002/2003 school year.

An abstract has been accepted and phase one of our work will be presented at the Council of Educators in Landscape Architecture (CELA) Conference in September of 2002.

### **Accomplishments**

We did achieve the goals outlined above. Landscape designs, posters and a webpage were the specific outcomes of the project. These are available for review at:

<http://www.clemson.edu/hort/HORT461/webgraphics/index.htm>

Click on Project 1, Mt. Zion United Methodist Church, and then click on student names to view the analysis, custom landscape design and write-up completed by each student in the class. Valerie Forth developed the website.

### **Challenges and Responses**

Our biggest challenge is yet to come. We would like to take the ideas developed locally by college students and make them available globally to help other communities envision and take action on greening issues. We hope to transfer information and ideas to other institutions and share results of our research and projects with interested organizations and individuals.

## **ENGAGEMENT AND SUPPORT**

### **Stakeholder Engagement**

Key Groups: Clemson University, Mt. Zion United Methodist Church, Sustainable Universities Initiative

Key individuals and decision-makers: They are noted above in the Group/Class Profile.

Primary clients and teacher included Dr. Ansel Miller, Dr. Sharon Miller and Professor Mary Taylor Haque.

### **Funding and Staffing**

The research, design, planning and academic portions of the project will be completed at a cost of \$10,000 through the generous support of the Sustainable Universities Initiative.

Resources, time, space and cost-savings were obtained by utilizing a service learning methodology, which combines teaching, learning, research and public service in one project.

### **National Wildlife Federation's Campus Ecology Program**

We used NWF's webpage to complete part of our research and to obtain ideas and information about how to create sustainable landscape designs. The *Campus Ecology Environmental Yearbook* was helpful in both obtaining information and in disseminating information.

Campus Ecology has helped us take the ideas developed locally by college students and make them available globally to help other communities envision and take action on greening issues. Together with professional society meetings, Campus Ecology provide, an important forum for transferring information and ideas to other institutions so that we can share results of our research and projects with interested organizations and individuals.

## **OUTREACH, EDUCATION AND PRESS**

The project was integrated into the educational mission of the university by using a service learning pedagogy, which combines research, learning and outreach. Our project was publicized through 1) open oral presentations to community and congregation members, 2) through a two-week exhibition of student landscape designs in the Plant and Animal Sciences building on campus and 3) through a two-week exhibition at Mt.Zion United Methodist Church in Central, SC. An abstract has been accepted by CELA and a presentation will be made at their national meeting in New York in the fall of 2003. Valerie Forth developed a website, available at:<http://www.clemson.edu/hort/HORT461/webgraphics/index.htm>

## **REVIEW AND REPORTING**

Several outside guest critics including Karl Muzii, landscape design consultant, and members of the Mt. Zion landscape committee as well as members of the congregation and Mr. William Carson, the University Facilities grounds manager have reviewed the project. We plan to report on the project to the Sustainable Universities Initiative, and a copy of the report will appear on their webpage. A publication will be produced and submitted for peer review to a professional society such as the Council of Educators in Landscape Architecture or the American Society for Horticultural Science. We are endeavoring to institutionalize service learning through the formation of a service learning center at Clemson University.

## **CLOSING REMARKS**

Service learning provides a very powerful mechanism to engage students in greening projects that fulfill all three areas of the land-grant mission including research, teaching and outreach.