



**Department of Forestry
Strategic Plan
2007-2012 Update**

Introduction

The core mission of the Department of Forestry is to educate foresters and natural resource managers, and to discover and disseminate the knowledge needed to effectively manage forest and allied natural resources. This revised strategic plan reiterates our commitment to this mission as we enter the 21st century. Established in 1959 in the College of Agriculture, the department has matured and grown and is now one of four departments in the College of Natural Resources. The department can point to thousands of successful professionally-employed graduates, millions of dollars of research funding, and thousands of scholarly publications produced by faculty and graduate students as testimony of past achievements. However, the needs of the Commonwealth for information on forestry and renewable natural resource management and the skills necessary for new professionals change constantly. The mission statement, strategic goals, and objectives provided by this plan have been designed to provide the best education, research, and outreach services in forestry and natural resource management. Our charge begins with providing these services to the Commonwealth of Virginia but extends nationally and internationally as our teaching, research, and outreach efforts adopt a global outlook. In all these endeavors, our objectives will be pursued while adhering to core principles of technological excellence, the highest professional standards, and an appreciation for our role in a global community.

Mission Statement

The mission of the Department of Forestry is the education of undergraduate and graduate students in forestry and natural resource conservation, environmental professionals, and the general public and the generation and application of new knowledge concerning the management of forest resources.

Vision of the Future

The Department of Forestry is recognized at the state and national levels as a leader in the education of highly-qualified professional foresters, environmental consultants, natural resource recreation managers and environmental educators. The central theme of our instruction is that forests and the goods and services they provide are essential to society, and that deliberative, scientific management is necessary to sustain them and the benefits

and services they provide. Our faculty members are uniquely qualified to integrate and apply knowledge from the natural, physical, and social sciences to address the full range of forest related challenges and opportunities facing our world.

The department achieves its mission through classroom and field instruction, outreach activities, and the discovery and dissemination of research results. Most aspects of the profession are covered in the department's undergraduate majors (Forestry and Natural Resource Conservation). Under the Forestry major, there are five options: Forest Resource Management, Environmental Resource Management, Industrial Forestry Operations, Urban Forestry and Watershed Management. We are currently expanding the Urban Forestry program and plan to offer a major in Urban Forestry in the near future. The Natural Resource Conservation major has three options: Natural Resource Recreation, Natural Resources Education (K-6), and Natural Resources Science (6-12). The department's vigorous research program ensures that our students are on the cutting edge of forest science, keeps our faculty current within their various specialties, and assures that Virginia's forest owners, practicing professional foresters, and the general citizenry in Virginia and beyond receive the most current scientific information on forest management, wildland ecosystems, forest industries, and attendant social, environmental, and economic issues. Our responsibilities extend beyond the campus to the delivery of information to the various publics within the state and nation and parts of the world through outreach activities such as adult education, group advisory programs, applied research and demonstration projects, scientific forums, and other modes of continuing education. Furthermore, our faculty serve a host of professional and scientific societies and associations at the state, national, and international levels.

We envision a future in which growing population leads to fragmented forests and increased problems associated with the agricultural- and urban-forest interface, in which the quality and quantity of water resources become increasingly important, and in which rising incomes create demands for an increasingly broad array of forest-derived benefits. Accordingly, our graduates must possess a professional stewardship ethic respecting diverse ownership objectives and changing community expectations as well as possess the technical abilities to work effectively in an increasingly fragmented, politicized, and complicated work environment.

We envision increased involvement by the department in the university community. Our goal is to be the primary university resource on forestry and related environmental matters. In addition, the department is thoroughly qualified and well positioned to provide scientific information for forest resource technology and policy development to industry and government at the state, national, and international levels. Our research efforts must accelerate to contribute to the university goal of ranking among the nation's best research institutions.

Goals and Strategies

Learning Scholarship Domain

Goal 1. Reinforce our commitment to producing well-prepared, high-quality undergraduates, responsive to the needs of employers and broad societal needs.

Strategies:

- A. Review the undergraduate curriculum to ensure that students receive broad exposure to all aspects of forestry and natural resource conservation in order to develop an appreciation for the importance of long-term viability of forest ecosystems.
- B. Expand the urban forestry curriculum and develop a new major in Urban Forestry that meets the SAF accreditation standards.
- C. Expand the number of distance learning courses taught in forestry and natural resource conservation.
- D. Provide opportunities for our students to develop and practice their leadership skills.
- E. Continue to improve the communication skills and business management skills of our students.
- F. Improve the ability of our students to analyze and resolve conflicts that arise from competing demands placed on natural resources.
- G. Increase the recruitment of superior high school graduates and community college transfer students to our department.
- H. Continue to develop opportunities for international student exchanges and studies abroad.
- I. Increase the diversity of the student body in forestry and natural resource conservation.

Goal 2. Establish the department as the center for forestry and natural resource conservation-related environmental science education in the university.

Strategies:

- A. Promote the Natural Resource Education (K-6) and Natural Resources Science (6-12) programs within the Natural Resource Conservation major to attract students to this program.
- B. Encourage the development of forestry and natural resource conservation courses that would attract a broad student base from throughout the university.
- C. Actively promote the minors in Forestry, Urban Forestry, and Natural Resource Conservation to attract students from other colleges who have an interest in these areas.
- D. Investigate opportunities for increasing the exposure of the department within the University Honors Program.
- E. Expand participation of our students in the cross-campus certificate in Watershed Studies.

Goal 3. Reinforce our commitment to graduate education by producing high-quality Masters of Forestry, Master of Natural Resources, Master of Science and Doctors of Philosophy in Forestry who will make significant contributions to forest science and natural resource conservation in the Commonwealth, the nation and the world.

Strategies:

- A. Increase the enrollment of high-quality graduate students and the proportion of graduate students pursuing a Ph.D.
- B. Expand enrollment in the interdisciplinary Ph.D. program in geospatial analysis. \
- C. Provide students the opportunity to pursue M.F. degrees to gain specialization in aspects of forestry and natural resource management that may not be possible in a four-year undergraduate program.
- D. Ensure that graduate students gain experience in undergraduate teaching, scientific publication, and grant writing.
- E. Ensure that graduate students are well mentored, educated, and trained and that they receive a combination of experiences that will make them competitive for the best jobs.
- F. Create and distribute high quality recruitment materials and websites targeting potential graduate students.

Discovery Scholarship Domain

Goal 4. Reinforce our commitment to a strong, needs-based research program for forest science and natural resource conservation.

Strategies:

- A. Increase sponsored research on critical regional, national, and international forestry issues and problems.
- B. Seek increase state support for research operations to reflect the critical importance of forestry to Virginia's economy, and provide a balance between state support (which promotes stability and long-term focus) and sponsored research (which ensures relevance and competitiveness).
- C. Increase the use of research results in the undergraduate and graduate teaching program. Demonstrate the ways in which research results are incorporated in our teaching and public service programs.
- D. Increase the collaboration among natural, physical, and social science departmental faculty to diagnose and solve multi-disciplinary forest system problems in Virginia and beyond.
- E. Increase the level of publication of research results in accordance with university goals.

Goal 5. Help shape and actively participate in university wide strategic research thrusts related to forestry, natural resource conservation, sustainable development, and the environment.

Strategies:

- A. Participate in the current university-wide strategic research thrust in energy by expanding research on the use of biomass from forests as a renewable source of energy and fuel.
- B. Participate in the current university-wide strategic research thrust in the environment by expanding research activities on carbon sequestration by forest ecosystems and the role of forests in mitigation climate change.
- C. Participate in the current university-wide strategic research thrust in the environment by increasing research activities on hydrology and water quality and the role of trees and forest ecosystems in protecting water resources, including metropolitan watersheds. Work closely with the Virginia Water Resources Research Center on these issues.
- D. Participate in the current university-wide strategic research thrusts in complex systems analysis by expanding research in geomatics and geospatial analysis and the use of GIS technology to address natural resource management issues.
- E. Expand research on the contributions of forests to environmental quality and the sustainable development.

Engagement Scholarship Domain

Goal 6. Reinforce our commitment to a dynamic and comprehensive outreach/extension program that successfully meets the needs of the citizenry and enhances the department's reputation and credibility throughout the Commonwealth, the region, the nation, and beyond.

Strategies:

- A. Maintain our position as the public's primary source of science-based forestry information, education, and technology transfer in the Commonwealth.
- B. Maintain our position as the primary source of continuing education for forestry professionals in Virginia and the mid-Atlantic region.
- C. Establish our department as a primary source of forestry-and natural resource conservation related environmental education for public school teachers in the Commonwealth, in cooperation with other state agencies and non-governmental organizations.
- D. Encourage and motivate all department faculty to participate in outreach programs.
- E. Become a national leader in the use of information and communication technologies for providing effective outreach and continuing education programs.
- F. Promote international outreach activities.

Foundation Strategies

Goal 7. Develop the staffing, support, facilities, and administrative systems that will increase the efficiency and effectiveness of our department's operations.

Strategies:

- A. Seek opportunities to increase university support for field travel, technical staff support, equipment, and lab facilities.
- B. Work to insure equitable distribution of space within the College of Natural Resources for Department of Forestry programs based on standard metrics (such as square feet/research dollar; square feet/faculty FTE; or square feet/graduate student).
- C. Enhance the support for, and development of, off-campus properties such as the Fishburn Forest and Reynolds Homestead and pursue opportunities to establish other strategic land and/or facilities resources.
- D. Fill faculty positions in critical teaching and research-areas, such as forest hydrology.
- E. Insure that adequate expertise and support for outreach and Cooperative Extension is provided by filling the currently-vacant position of Forest Management Extension Specialist and by adding new positions in forest hydrology and community forestry.

Outcome Measures and Benchmarks

Progress towards these goals is constantly measured using a variety of indicators and metrics. These include internal and external evaluations of our programs such as periodic accreditation reviews.

The success of our efforts in the Learning Scholarship Domain is measured by enrollment levels, increased gender and ethnic diversity of students, performance of incoming students on standardized tests such as the SAT and GRE, scholarships and awards earned by students, course evaluations, teaching awards, number of undergraduate and graduate degrees conferred, placement rate for graduates, salary range of graduates, the performance of our graduates in their professional careers, and feedback provided by potential employers of our graduates.

The success of our efforts in the Discovery Scholarship Domain is measured by the research and scientific stature of the faculty, number and size of external grants received, state support received for research, publications in peer reviewed journals by faculty and

graduate students, quality of journals where research is published, and participation of faculty in university wide strategic research initiatives.

The success of our efforts in the Engagement Scholarship Domain is measured by our continuing education efforts focused on the clients of our programs including professional foresters and environmental managers, loggers, landowners, and youth. The metrics of success include the number of extension and outreach programs presented, extension publications, web sites developed and maintained, and distance education programs developed.

The success of our Foundation Strategies are measured by the facilities available to students, faculty and staff in the department, both on campus and off-campus, allocation of resources required to fill key faculty positions in critical areas, and the support that is provided for outreach and engagement efforts in forestry.