

## APPENDIX E

### **Request for Authorization to Establish a Bachelor of Science Degree in Environmental Science at Western Carolina University**

#### **Introduction**

The Board of Governors gave Western Carolina University authorization to plan a Bachelor of Science degree in Environmental Science (CIP# 03.0102) in Long-Range Planning 2000-2005. The university requests authorization to establish the program in August 2002.

#### **Program Description**

The BS in Environmental Science will be an interdisciplinary degree program with an emphasis in natural and applied sciences. Students will be required to complete significant course work in biology, chemistry, mathematics, and physics before beginning an emphasis chosen from ecosystem modeling and analysis, environmental toxicology, or environmental policy and administration. The program will complement existing programs in biology, chemistry, geosciences, natural resources management, and environmental health, providing an additional component of a set of environmentally-related programs that Western Carolina would promote as a particular academic strength. A number of existing facilities would support the program (Mountain Aquaculture Research Center, the Center for Regional Development, and the Highlands Biological Station), and strong associations exist with other entities such as the Coweeta Hydrologic Laboratory, the Tennessee Valley Authority, the US Forest Service, and the Great Smoky Mountains National Park.

#### **Program Need**

The recently approved WCU mission statement emphasizes environmental stewardship as a goal for WCU. The Bureau of Labor Statistics projected that numbers of environmental scientists and engineers could be expected to increase by 45 percent between 1996 and 2006 (most recent estimate). Environmental Business International, Inc., counted over one million jobs in more than a dozen environmental industry sectors in 1998, or roughly one worker out of every 12 in the economy as a whole. The Environmental Careers Organization expects the \$1 billion pollution prevention industry to grow by 10 percent in the next decade. The State of North Carolina has recognized the importance of environmental science in secondary education, and has added earth and environmental science as a required course area in the high school curriculum. WCU anticipates that 50 fulltime students will be enrolled in the program by its fourth year.

#### **Resources**

Most environmental courses, covering the spectrum of disciplines and specialties envisioned for the program, are currently being taught at WCU. Some courses will be restructured to be more relevant for environmental science. An endowed Professorship in Environmental Science was established and filled in the 1999-2000 academic year, and no additional faculty is needed at this time. Future needs of the program will be met from the additional funding generated by increased student enrollment, and no other State funds are requested.

#### **Recommendation**

It is recommended that the Board of Governors approve the request to establish a Bachelor of Science in Environmental Science degree at Western Carolina University effective August 1, 2002.