MEMORANDUM

TO: Howard H. Karr  
Chairperson, Board of Regents

VIA: M.R.C. Greenwood  
President

VIA: Virginia S. Hinshaw, Chancellor  
University of Hawai‘i at Mānoa

FROM: Reed Dasenbrock  
Vice Chancellor for Academic Affairs  
University of Hawai‘i at Mānoa

SUBJECT: Approval of Established Status for the Bachelor of Science Degree in Natural Resources and Environmental Management, College of Tropical Agriculture and Human Resources, University of Hawai‘i at Mānoa

SPECIFIC ACTION REQUESTED:
It is requested that the Board of Regents grant established status to the Bachelor of Science degree in Natural Resources and Environmental Management, in the College of Tropical Agriculture and Human Resources, at the University of Hawai‘i at Mānoa.

RECOMMENDED EFFECTIVE DATE:
To be effective upon Board of Regents’ approval (Fall 2009).

ADDITIONAL COST:
No additional costs are associated with this request.

PURPOSE:
The Bachelor of Science degree in Natural Resources and Environmental Management (NREM) completed its provisional cycle, and in accordance with Board of Regents’ policy, was reviewed under the procedures of program review at Mānoa, and recommended for established status.
The Bachelor of Science in Natural Resources and Environmental Management is an interdisciplinary science degree that emphasizes tropical island ecology and natural resources. The program provides students with scientific knowledge on the physical, chemical, biological, economic, social, and policy elements of natural resources management, and so allows them to understand the principles that underpin productive, sustainable land use and environmental quality. Students are trained in the use of quantitative methods and tools to optimize natural resource management and environmental stewardship.

BACKGROUND INFORMATION:
Board of Regents' Policy 5-1 confers upon the Board the authority to grant established status to provisional degree programs. University of Hawai'i Executive Policy E5.201 requires that requests for changes from provisional to established status respond to the questions in Appendix D of the policy. This response is presented in the attached.

The Department of Natural Resources and Environmental Management (NREM) was created by a reorganization of the College of Tropical Agriculture and Human Resources (CTAHR) in 2000. Initial faculty were transferred from the dissolved Department of Agronomy & Soil Science, and the Department of Agriculture & Resource Economics. On June 22, 2001, the Board of Regents provisionally approved the Bachelor of Science degree in Natural Resources and Environmental Management. The department began admitting undergraduate majors in August 2001, and has since graduated 66 students. There are currently 47 students enrolled in the program.

The NREM undergraduate degree prepares students to become natural resources managers and professionals, with emphases upon:

- a. Understanding the biophysical aspects of natural resources within a tropical island context;
- b. Using the latest information, tools, and models to effectively manage these resources;
- c. Discovering the real economic value of these resources and evaluating the costs and benefits of different management options;
- d. Working with the community and stakeholders to implement practical solutions to their resource management challenges and concerns.

The objectives and outcomes of the degree address the goals of the University of Hawai‘i System’s strategic plan by increasing the educational capital of the state, and expanding workforce development. NREM provides effective education and produces successful students in a number of ways. Active hands-on learning and opportunities for student research are an integral part of the program. The required internship experience provides students with an opportunity to work with a variety of businesses, government agencies or non-profit organizations at the local, state and national level. Past internship employers include the U.S. Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Forest Service, Hawai‘i Ecotourism Association, Hawai‘i Department of Land and Natural Resources, Bishop Museum, an O‘ahu native plant nursery, Hawai‘i County Department of Environmental Management, a Kaua‘i agribusiness firm, and a Honolulu water engineering company.

NREM’s undergraduate program also contributes to many of the core commitments in the University of Hawai‘i at Mānoa’s strategic plan. The NREM undergraduate student body is very diverse; about half of the students come from the U.S. mainland, while around 20 percent are native Hawaiian or Pacific islanders. The program features strategic focus areas in public policy and sustainability, with interdisciplinary project-based learning opportunities. Indigenous management systems and cultural values, such as the ahupua‘a model for watershed management, are integrated into course work, service opportunities and internship experiences.

The program also meets the goals in the College’s strategic plan. The goal to *Diversify and Strengthen the State’s Economy* is addressed by exposing students to sustainable business models such as organic farming, ecotourism, and environmental service providers. These industries are expected to be areas of growth in coming years. NREM is the central unit for addressing the College’s goal to *Protect and Enhance the Environment and Hawai‘i’s Resources*, and this is the primary focus of the undergraduate curriculum.

Thus, the Bachelor of Science in Natural Resources and Environmental Management is central to many strategic directions guiding the University of Hawai‘i’s future at the system, campus and college levels. The department has developed a contemporary, science-based interdisciplinary curriculum that provides natural resource managers with the knowledge and skills to meet the sustainability challenges of the 21st century. Assessment data, student surveys, and external reviews demonstrate the high quality of NREM’s Bachelor of Science program and its effectiveness in meeting student learning objectives.
The Council on Program Reviews reviewed the program and recommended that it be granted established status. The Council of Chief Academic Officers has also reviewed this request.

**ACTION RECOMMENDED:**
It is recommended that the Board of Regents grant established status to the Bachelor of Science degree in Natural Resources and Environmental Management in the College of Tropical Agriculture and Human Resources at the University of Hawai‘i at Mānoa, to be effective upon Board approval.

Attachments
c: Vice President Johnsrud
   Vice Chancellor Dasenbrock
   Dean Hashimoto