College of Forest Resources: Strategic Vision

B. Bruce Bare, Dean
College of Forest Resources
University of Washington
Seattle, WA 98195

South Puget Sound Chapter, SAF
October 16, 2003

College Mission Statement

- The College of Forest Resources is dedicated to generating and disseminating knowledge for the stewardship of natural and managed environments and the sustainable use of their products and services through teaching, research, and professional and public outreach

College Vision Statement

- The College of Forest Resources will be a world-class internationally recognized source of knowledge relevant to environmental and natural resource issues

What We Do

- Study and investigate the functionality and sustainability of natural resource systems
- Natural and managed environments
- Interdisciplinary approach across multiple spatial and temporal scales of urban, suburban and wildland landscapes

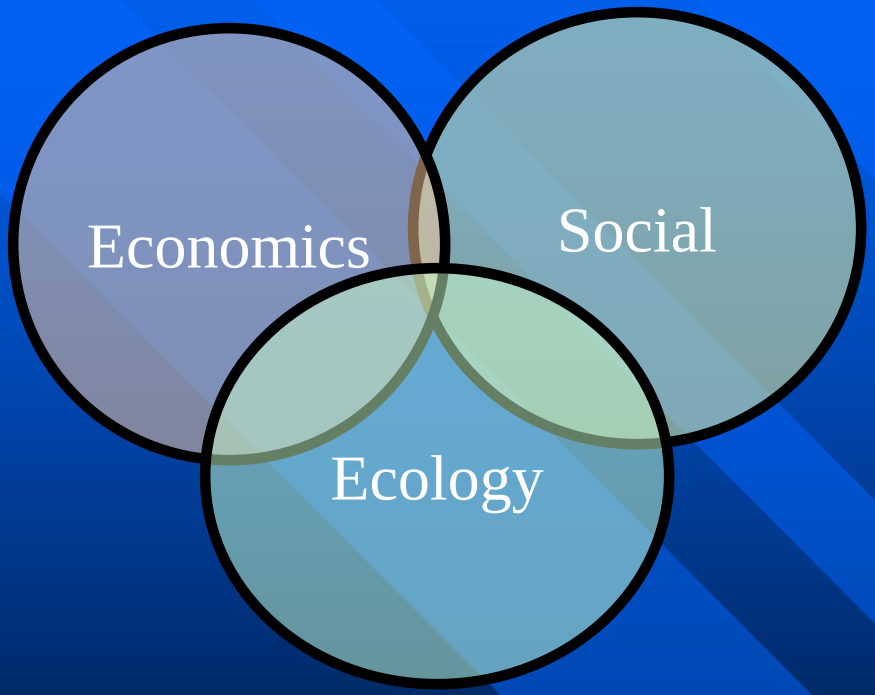
Sustainability Is Our Integrating Goal

- Sustainable forestry in managed and natural forests
  - Plantations, parks, reserves, watersheds
- Sustainable urban environments
  - Urban forestry, horticulture, restoration ecology, water, wildlife, water, wildlife, public gardens, green belts, open spaces
- Sustainable forest enterprises
  - Paper mills, precision forestry technologies, tourism, recycling, wood products, non-timber products

Sustainability

- Sustainability is the cornerstone and relates to all resources
- Considers the needs of future generations as well as those of the present
- Is concerned with ecological functions and condition
- Is as much a social and economic as an ecological process

Sustainability Occurs at the Intersection



Characteristics of a World Class College

- Undergraduate and graduate students meet market needs for economic, environmental, and social responsibility in fields related to forest resources and ecological sciences (the triple bottom line)
- The best academics in the field want to work and teach at CFR
- Standards for admission to CFR majors are high and admission is competitive

Characteristics of a World Class College

- Collaborative problem solving, scientific research, and intellectual debate are centered at the College and are recognized nationally and internationally
- Research grants support contemporary problem-solving at the leading edge
- A full range of constituents in the marketplace demand the outreach services, the high-quality graduates, and other products of CFR

Characteristics of a World Class College

- Undergraduate and graduate curricula are solidly linked to other UW core programs; and
- Gifts and endowments liberally support the stature of the College

Source: CFR Advisory Board, 2001

We Desire Academic Programs

- Stress key principles and processes that explain the behavior and interaction of biotic and social systems along gradients from highly to minimally impacted terrestrial ecosystems
- Focus on the interaction between nature and humans and a synthesis of existing and yet unknown scientific sustainability information

Program Elements

- The College provides programs of study for students seeking: 1) professional education and/or 2) broad scientific understanding of natural resources, environmental and amenity services

Program Elements

- Self-sustaining research, outreach, and development programs are also directed at achieving world-class status
- Our research centers and cooperatives will strive to increase funding by at least 25% over two years
- Professional outreach and continuing education will continue to grow

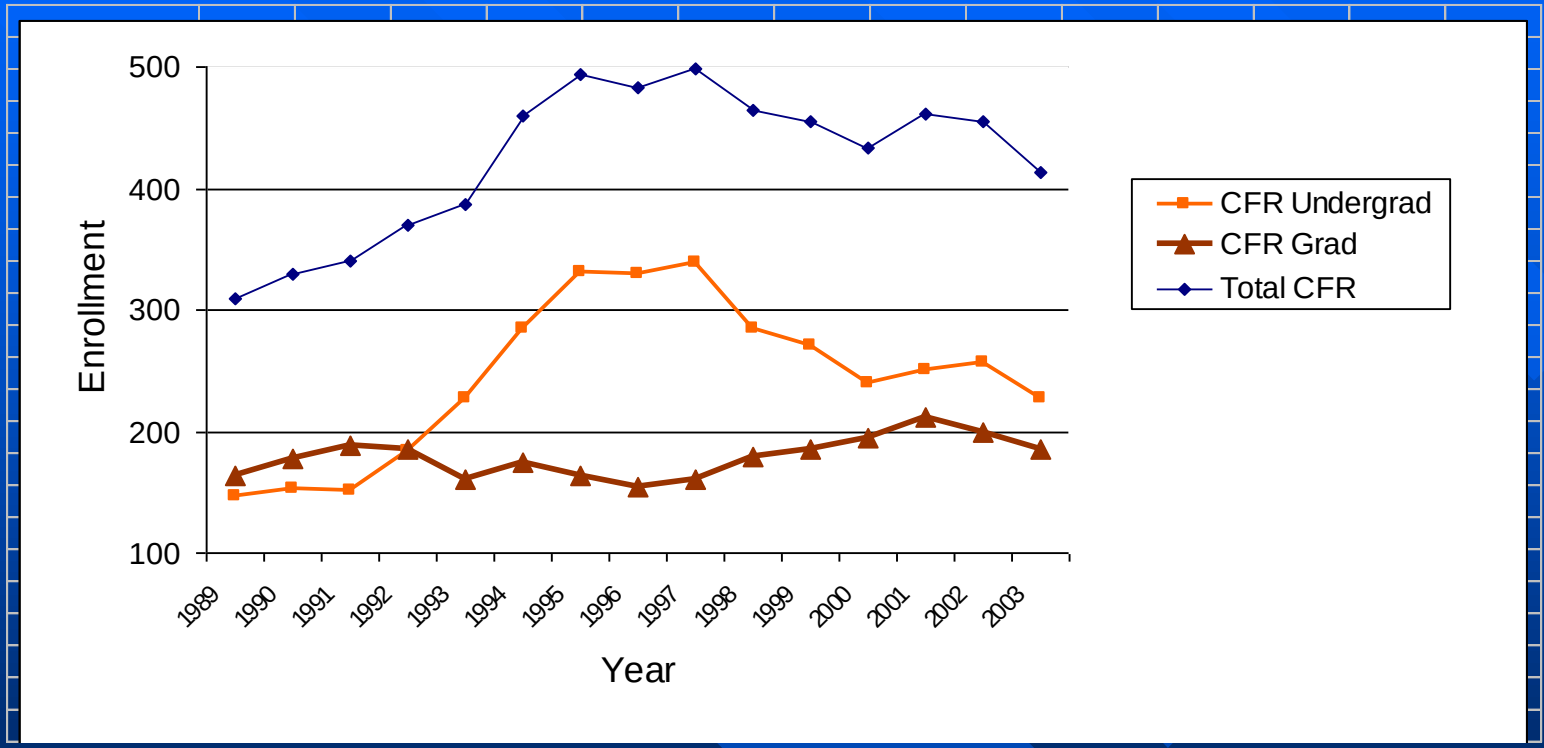
On-Going College Transformation

- Driven by both budget and programmatic needs:
  - access
  - efficiency
  - enrollment targets and credit hours
  - flexibility
  - market needs
  - integration and links to UW units

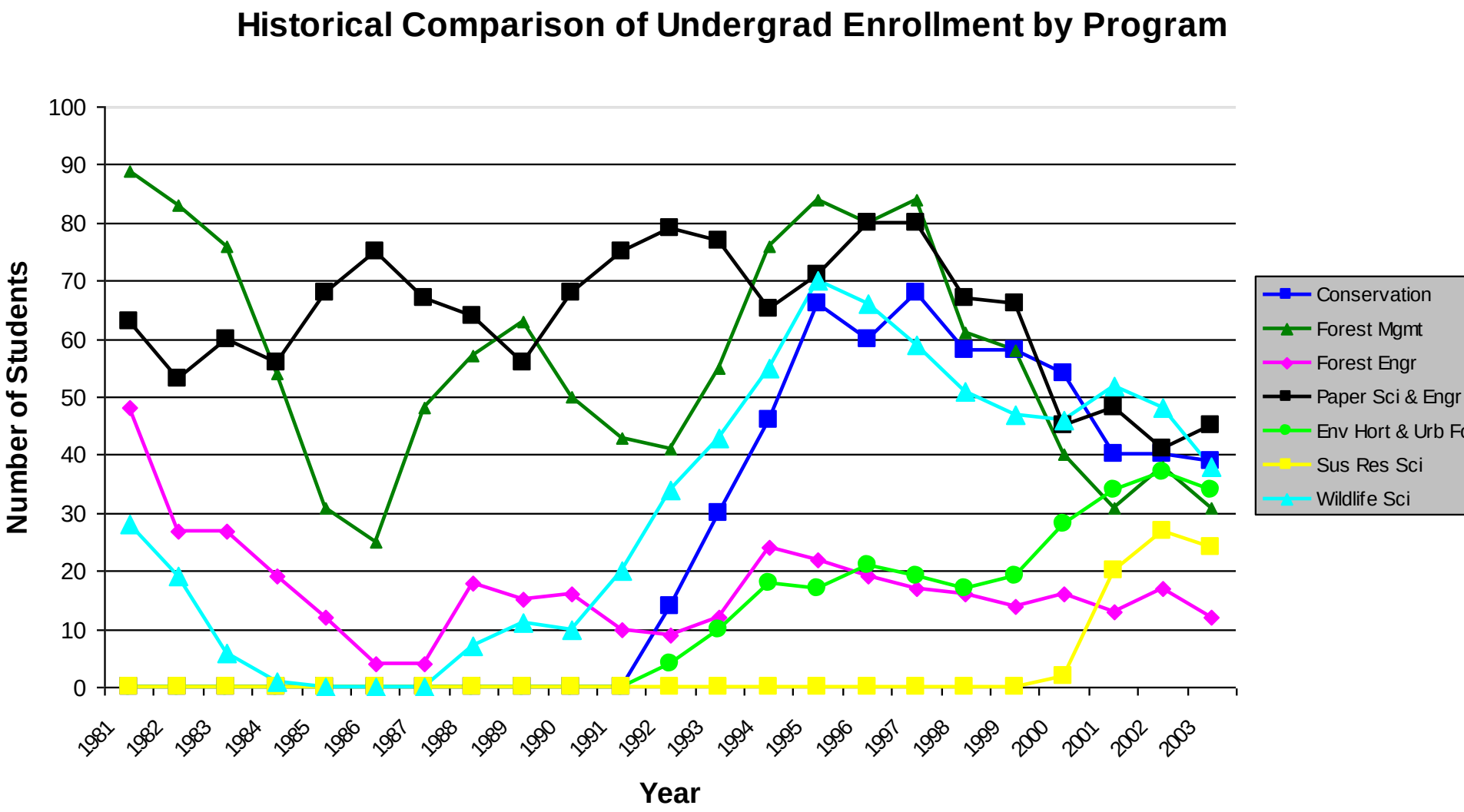
BUDGET

PROGRAM

College Enrollment Trends



College Enrollment Trends



Program Efficiency

- Consolidate seven undergraduate curricula into two:
  - Environmental science and resource management
  - Paper science and engineering
- Redesign core undergraduate curriculum with a foundation of collaborative teaching and research toward sustainable management and stewardship of natural resources

Curriculum Characteristics

- The Environmental Science and Resource Management curriculum possesses:
  - flexibility in free and restricted electives
  - integrated core of ecological, social, economic and measurement subjects
  - pathways to promote specialization
- The curriculum better accommodates community college transfer students as well as UW pre-major students

Program Efficiency

- Will offer professional masters programs in forestry, urban horticulture, etc., to provide in depth technical knowledge (accredited where appropriate) to satisfy employer needs
- MF, MS and MEH graduate programs linked to our four year BSF undergraduate programs provide efficiency and flexibility
- Consolidate learned degree (MS and PhD) programs to gain efficiency and integration

Resource Needs

- Infusion of new faculty and associated resources will contribute to the research, teaching and service central to our vision
- Modernization of classroom and laboratory infrastructure and a major investment in new equipment
- UW recognition and support of this new focus and program transformation

Observations

- Our new integrated undergraduate curriculum in Environmental Science and Resource Management:
  - retains and improves our historic strengths in forestry and horticulture
  - improves flexibility in the curriculum allowing students to tailor their studies
  - improves integration, access and efficiency
  - provides opportunity to obtain both a Masters and BSF in five years

Observations

- Our new integrated undergraduate curriculum in Environmental Science and Resource Management :
  - focuses specialization at the graduate-level
  - has potential to attract more students into the College
  - promotes sustainability (triple bottom line)
  - fosters team approach to natural resource education through interdisciplinary courses

College Development Goals

- Promote faculty research and development activities
- Enhance student learning opportunities
- Improve College facilities and associated infrastructure
- New initiatives to sustain urban and wild land environments
- Program support of interdisciplinary centers

New Initiative

Northwest Environmental Forum

Northwest Environmental Forum

- The Forum can play a vital role in shaping the future of the physical, natural, and economic environment of the Pacific Northwest, helping specialists and decision makers collaborate to resolve land and water resource management issues

Forum Goals

- Integrate science and policy capabilities of the University of Washington and other major regional institutions
- Assist policy leaders to use science, social, economic, cultural, and technological information with confidence
- Create a collaboration for scientific research
- Build a neutral and trusted interactive problem-solving environment and a new learning space
- Create a classroom where science and public policy come together in a cutting-edge collaboration

Forum to Stimulate Research Aimed at Long-Term Solutions

- The Forum will define and bring research initiatives into the University and enhance innovations such as an Earth Initiative. Research and teaching will discover new creative venues
- Sustainability will be addressed through applications, while research questions are addressed with cutting edge work

New Initiative

Advanced Technology and Geospatial Collaboratory

Geospatial Initiative

- Assessing the condition of large scale natural resource systems at regional or landscape levels
- Improving turn around time between observation (measurement), analysis, and policy implications
- Improve accuracy of assessments
- Promote integration across urban to wild land gradient

Precision Forestry

- GOAL: To develop tools and processes that increase the precision of forest data to support better decisions about forests -- their services and products
- A collaborative effort with private landowners, public agencies, manufacturers, and harvesters
- A cooperative program at the College

Precision Forestry

- Employs high technology sensing and analytical tools to support site-specific, economic, environmental, and sustainable decision-making for the forest sector
- Will provide insights into the current "state of the art" an provide a springboard for new ideas and innovations.

New Initiative

Sustainability of Urban Ecosystems

Urban Ecosystem Initiative

- Complete rebuilding of enhanced Merrill Hall
- Integrate programs at the Center for Urban Horticulture and the Washington Park Arboretum (new director currently being recruited)
- Seek new funding for Urban Ecology program

Continuing Initiative

Rural Technology Initiative

Rural Technology Initiative

- A cooperative program between UW/WSU and USDA Forest Service
- Technology transfer from research enterprise to land owners
- Rural non-industrial private landowners have been the initial focus, but Native American, non-governmental, state and federal users are increasing

Rural Technology Initiative

- Program recently reviewed by CSREES and received broad endorsement