College of Forest Resources: Strategic Vision

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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

World Class Vision

- High quality (faculty, staff, students, facilities, programs, graduates)
- High impact (at UW and in our external community)

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
- Sustainable forest enterprises
  - Paper mills, precision forestry technologies, tourism, recycling, wood products, non-timber products

Strategic College Themes

- Land and ecosystem management in an urbanizing world
  - ***conflicts and tradeoffs among competing human and natural resource values in the growing and urbanizing global population***
- Sustainable forest enterprises
  - ***land and water resource production, use, and management, with attention to the material and social impacts of sustainable practices***

3-Year College Goals

- Curricular innovation in both graduate and undergraduate programs
- Attracting and retaining the highest quality faculty, staff and students
- Building and upgrading facilities and laboratories, integrating technology advances where appropriate
- Broadening and increasing financial support through grant funding and donor support
- Developing dynamic and creative leadership throughout the College

College Vision

- Detailed description of the College vision is available at:

  faculty.washington.edu/bare/newvision.doc

What Is Sustainability?

- A set of activities or processes that produce desired products and services over long periods of time
- Rational approach that seeks a dynamic equilibrium
- Uses interdisciplinary set of social, ecological and economic sciences in an integrated fashion
- Future generations have the opportunity to enjoy the same products and amenities as we do

Sustainability

- applies to all resources
- considers the needs of future generations as well as those of the present
- is concerned with ecological functions and condition and
- is as much a social and economic as an ecological process that is characterized as a triple bottom line approach

Sustainable Forestry

- Managing a forest to meet all existing regulations such that environmental, social and economic factors are balanced to meet the needs of the present without compromising the ability of future generations to meet their needs

Sustainable Forestry

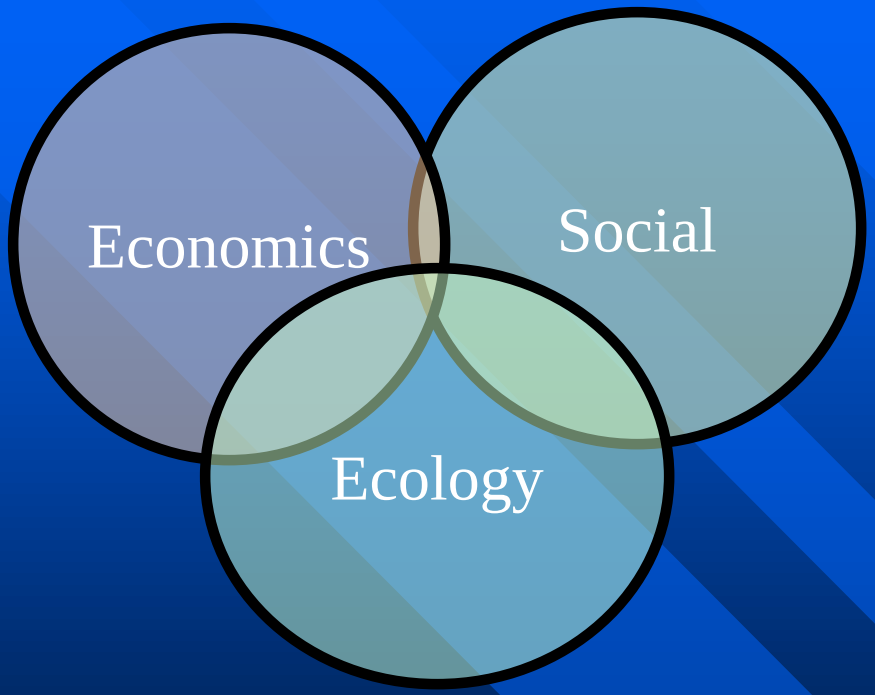
- A land stewardship ethic that integrates reforestation, growing, and harvesting trees for useful products while conserving soil, air, and water quality, wildlife and fish habitat and aesthetics, and protecting: a) the resource from fire, pests, and diseases and b) lands of special significance

Source: American Forest and Paper Association

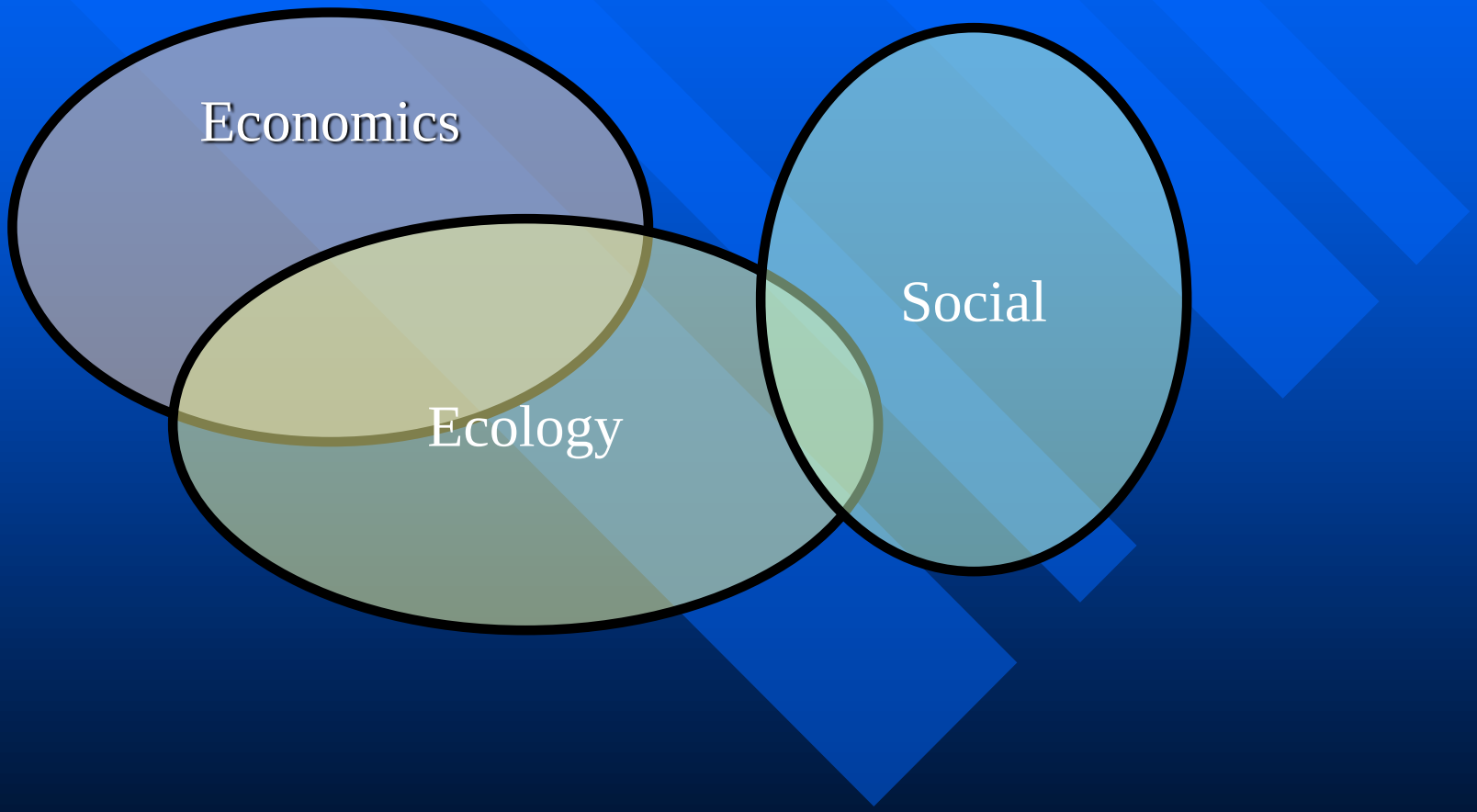
Sustainable Forestry

- Definition conveys the notion that sustainability applies:
  - to many resources in addition to timber
  - considers the needs of future generations as well as those of the present
  - is concerned with ecological functions and condition and
  - is as much a social and economic as a bio-physical process

Sustainability Occurs at the Intersection



Not Sustainable If No Intersection



Seeking Sustainability Is Complex

- Many stakeholders
- Multiple and conflicting goals (trade offs)
- Uncertainty
  - future societal needs
  - future state of ecosystem and unknown environmental factors
  - lack of complete understanding of ecosystem behavior and reaction to natural or man caused perturbations

Seeking Sustainability

- The use of science is absolutely necessary to find the proper balance but is by no means sufficient
- Value preferences expressed through the economic, political,and legal systems will largely determine the ultimate balance
- Requires that we adopt an integrated, holistic, adaptive approach that simultaneously considers all values

Challenges

- The challenge to actually define and implement sustainable forestry is tremendous
- It may be the greatest challenge for educators, resource managers, scientists, and policy makers at the start of this Century
- Requires that we advance the science of sustainability

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

Characteristics of a World Class College

- Examples that demonstrate our world-class status are located at:

  faculty.washington.edu/bare/world-class.html

Academic Program Characteristics

- 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
- Programs focus on the interaction between nature and humans and a synthesis of existing and yet unknown scientific sustainability information

Academic Programs Characteristics

- Programs encompass the functionality and sustainability of complex natural resource and environmental systems featuring
  - Interdisciplinary
  - Integrated
  - Multiple scales
  - World-class laboratory
  - Gradient from urban to rural
  - Linked to other campus programs

Program Elements

- The College provides high quality – impact programs of study for students seeking: 1) professional education and/or 2) broad scientific understanding of forest ecosystems, 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

College Transformation

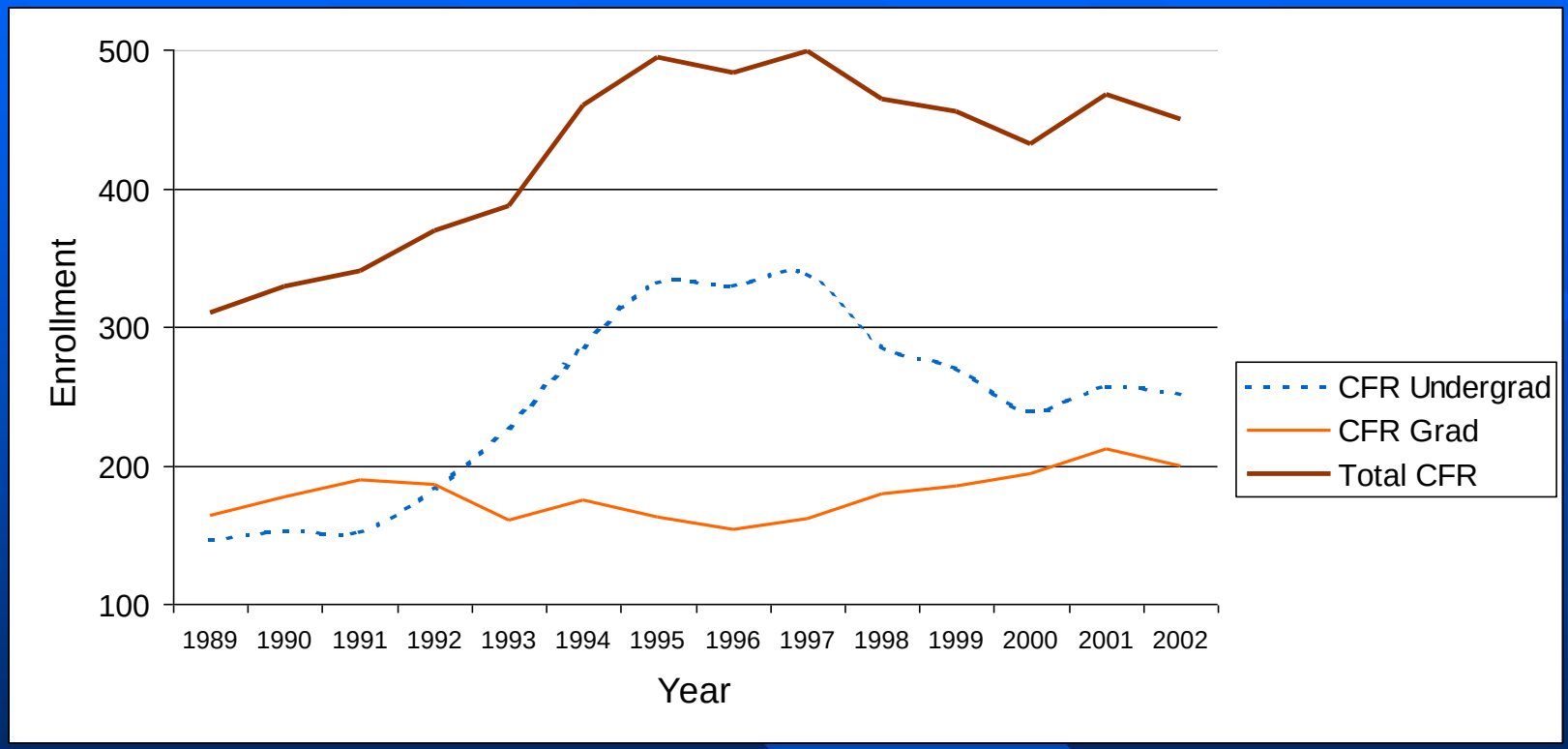
- Driven by both budget and programmatic needs:
  - access
  - efficiency
  - enrollment targets and credit hours

  } BUDGET

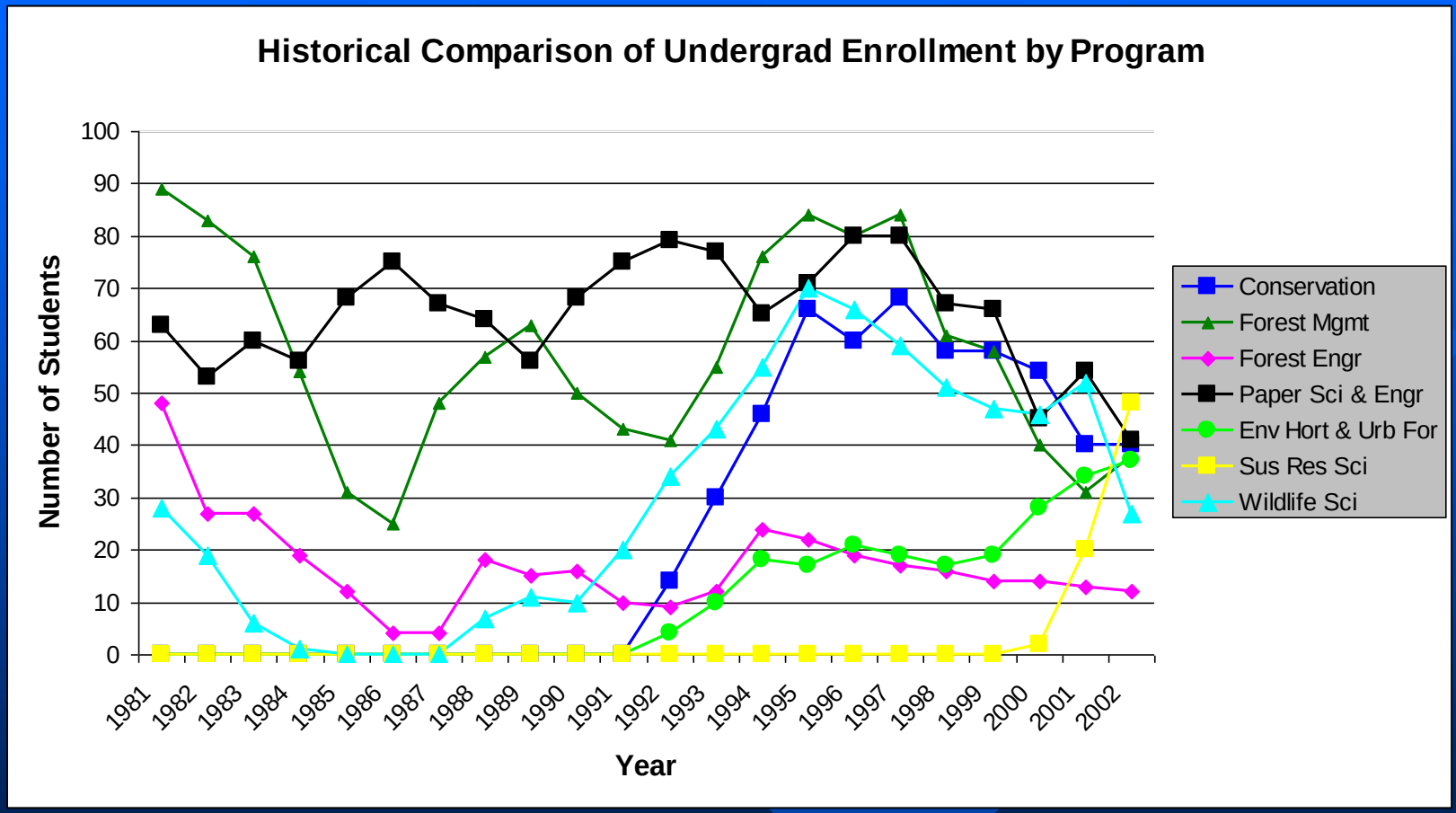
  - flexibility
  - market needs
  - integration and links to UW units

  } PROGRAM

College Enrollment Trends



College Enrollment Trends



Program Efficiency

- Consolidate seven undergraduate curricula into two:
  - Natural resource science and 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 natural resource 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
- One year MFR 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

- College faculty age profile shows that we have a huge opportunity to reshape the disciplinary character of our faculty with new hires
- Must carefully evaluate the disciplinary focus of new faculty to support our new vision

Observations

- Our new integrated undergraduate curriculum in natural resources
  - retains and improves our historic strengths in forestry and horticulture
  - improves flexibility in curriculum allowing students to tailor their studies
  - improves integration, access and efficiency
  - provides opportunity to obtain both an MFR and BSF in five years

Observations

- Our new integrated undergraduate curriculum in natural resources:
  - 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 plays 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

Need for Forum

- A trusted convener institution
- The best tools of science, practical knowledge, and public values, to allow confident action
- Collaborative decision-making for complex sustainable development problems
- Facilitation of social learning
- Empowering people to make facts-based choices
- An educational observatory and cutting-edge collaboration between science and public

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 Concepts

- Many policy leaders want to better use physical and biological information to manage natural resources
- New governance tools and credible, innovative institutions are needed
- Much data are under used, despite new models, simulations, and technologies
- Scientific research too often fails to inform decision makers
- Scientists are frustrated at political processes
- Stakeholders criticize decisions that ignore their values
- Current models of mediation and facilitation are based on immediate political tradeoffs, and have limited long-term success

Forum Users

Government
- Federal & State Land Managers
- Fisheries Managers
- Urban Growth Planners
- Water Resources Managers

Industry
- Agriculture and Range Operators
- Forest Land Managers
- Oil and Mining Explorers
- Real Estate Interests

NGOs and Other
- Watershed Councils
- Tribal Resource Managers
- Land Conservancy Organizations

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 Institute. 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

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

College Organizational Culture Goals

- Positive behavior will be rewarded
- Improve communications
- Improve accountability
- Put into practice our core values of respect, accountability, open communication