Research Agenda for the Future

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College Mission

- <u>Study</u> and <u>investigate</u> the <u>functionality</u> and <u>sustainability</u> of natural resource <u>systems</u>
- <u>Natural</u> and <u>managed</u> environments
- <u>Interdisciplinary</u> approach across multiple <u>scales</u> of <u>urban</u> and <u>wild</u> <u>land</u> landscapes
- <u>Generate</u> and <u>disseminate</u> information through our <u>teaching</u>, <u>research</u> and <u>outreach</u> programs

Our Academic Programs

- Stress key <u>principles</u> and <u>processes</u> that explain the <u>behavior</u> and <u>interaction</u> of <u>biotic</u> and <u>social systems</u> along <u>gradients</u> from highly to minimally impacted <u>terrestrial ecosystems</u>
- Focus on the interaction between <u>nature</u> and <u>humans</u> with a <u>synthesis</u> of scientific <u>knowledge</u> related to natural resources and environmental <u>sustainability</u>

Our Research Programs

- Emphasize the <u>functionality</u> and <u>sustainability</u> of complex <u>natural</u> <u>resource</u> and <u>environmental</u> <u>systems</u> featuring:
 - Integration
 - Interdisciplinarity
 - <u>Collaboration</u> (on and off campus)
 - Team-approach
 - <u>Multiple</u> <u>scales</u>
 - <u>Gradient</u> from <u>urban</u> to <u>rural</u> ecosystems

Possible Research Mission

 To <u>discover</u> and <u>understand</u> ecosystem <u>processes</u>, develop new approaches for the <u>use</u> and <u>protection</u> of <u>natural resources</u> and <u>environmental services</u>, and <u>understand human</u> behavior and <u>decisions</u> about natural resources

Source: Don DeHayes, President, NAPFSC

Suggested Research Themes

<u>Ecosystem Structure and Function</u>
<u>Social and Human Systems</u>
<u>Technology</u>

Three Suggested Research Themes

1. Ecosystem Structure and Function

- Productivity
- Health
- Function
- Management

Suggested Research Themes

2. Social and Human Systems

- Environmental valuation
- <u>System integration</u> (population, ecosystem, and socio-economic)
- <u>Natural</u> and <u>human system</u> <u>interactions</u> (land use, watershed planning, open space, and parks)
- <u>Communication</u> and <u>negotiation</u>

Suggested Research Themes

- 3. Technology
 - Bio-technology
 - <u>Sustainable energy production</u> (energy from biomass)
 - <u>Sustainable products</u> and <u>low impact</u> processes
 - <u>Information</u> and <u>communication</u> <u>technology</u>
 - <u>Satellite</u> and <u>remote</u> <u>imagery</u>

Today's Symposium

- Gives our graduate students a chance to present their research
- Respond to questions and engage in discussion
- Will lead to a better understanding of the research activities throughout the College