College of Natural Resources
State of the College, August 26, 2013
Mary C. Watzin, Dean
Our Discussion Today

• Welcome Back Announcements
• Status and Health of our College
• Strategic Plan
• Goals for the Year
• Final Reflections
Welcome Back Announcements

• Leadership Transitions  
  — Assistant Dean for Business and Finance  
  — Associate Dean for Research  

• Department Head Reviews  
  — FER - Barry  
  — PRTM - Dorothy  

• New Faculty and Staff
New Faculty Members

• **Jason Delborne**, Associate Professor – FER
• **Ross Meentemeyer**, Professor – FER
• **Scott Mills**, Professor – FER
• **Lara Pacifici**, Teaching Assistant Professor – FER
• **Louie Rivers**, Assistant Professor – FER

• **Michael Edwards**, Assistant Professor – PRTM
• **Jordan Smith**, Assistant Professor – PRTM
• **Susanne Morais**, Lecturer – PRTM
• **Mickey Fearn**, Professor of Practice – PRTM and CNR
New Staff Members

- **Linda Judge**, Administrative Support Specialist – Forestry Extension
- **Crystal Walton**, Accounting Technician – FER Contracts and Grants
- **Cassie Sauls**, Administrative Support Specialist – Forest Biotech
- **Jarrod Morrice**, Analyst – Tree Improvement Cooperative
- **Elizabeth Eastman**, Research Technician – CEO
- **Lisa Mills**, Outreach Associate, FER
- **Mary Beth Koop**, Administrative Support Specialist – PRTM
- **Joshua Green**, Editor – Forest Biomaterials
- **Barbara Perry**, Administrative Office Support – Forest Biomaterials
- **Shannon Cox**, Administrative Support Specialist – Academic Affairs
- **Sharon Wright**, Director, CNR Research Administration
- **Aletta Davis**, Pre-Award Specialist – CNR Research Office
New Post Doctoral Associates

- Ellen Cheng – FER
- Adam Wesley Gibson – FER
- Lilian Paola Matallana Ramirez – FER
- William Darnell Graham – FB
- Junyeong Park – FB
- Siddhesh Nitin Pawar – FB
- Carlos Luis Salas Araujo – FB
- Yanxia Zhang – FB
New Visiting Scholars

• Larisse Aparecida Ribas Batalha – FB
• Ana Ferrer Carrera – FB
• Wenhui Geng – FB
• Miklos Horvath – FB
• Fatima Vargas Gonzalez – FB
• Jinhua Yan - FB
• Daniel Grans – Tree Improvement Coop

• Gokhan Sen – FER
• Navinder Pal Singh – FER
• Jihong Song – FER
• Burak Aricak - CEO
• Banu Bekci – CEO
• Shiming Fang – PRTM
• Dan Theriault – PRTM
• In Jae Lee – PRTM
Welcome Back Announcements

• New Conger Room and “Gallery of Deans”
• Classroom expansion – Biltmore 2010
• Renovation of Lab Spaces in Biltmore and Hodges
Biltmore – First Floor Concept
Welcome Back Announcements

- New Conger Room and “Gallery of Deans”
- Classroom expansion – Biltmore 2010
- Renovation of Lab Spaces in Biltmore and Hodges
- New Space in Jordan Hall for Geospatial Analytics Cluster and CEO
- New Varsity Drive trailers for graduate students and visiting scholars
- Card access
Status and Health of CNR

Incoming Class of Students
Characteristics of New Student Population
Numbers of Students Enrolled
(and trends across programs)
Base Budget of the School
Grant and Gift Funding Received
## Undergraduate Admissions

<table>
<thead>
<tr>
<th></th>
<th>First year</th>
<th>Transfer</th>
<th>All Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled</td>
<td>172</td>
<td>103</td>
<td>1402*</td>
</tr>
<tr>
<td>% Female</td>
<td>34%</td>
<td>34%</td>
<td>30%</td>
</tr>
<tr>
<td>% Non-white</td>
<td>15%</td>
<td>15%</td>
<td>15%**</td>
</tr>
<tr>
<td>% Out-of-state</td>
<td>18%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>% International</td>
<td>3%*</td>
<td>1%</td>
<td>≥15%</td>
</tr>
</tbody>
</table>

*Including PSU students
**NC is 35% non-white
# Undergraduate Admissions

<table>
<thead>
<tr>
<th></th>
<th>CNR</th>
<th>NC State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average High School GPA (First year)</td>
<td>4.28</td>
<td>4.39</td>
</tr>
<tr>
<td>Average SAT (First year)</td>
<td>1177</td>
<td>1230</td>
</tr>
<tr>
<td>Average Transfer GPA</td>
<td>3.12</td>
<td>3.33</td>
</tr>
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</table>
Undergraduate Enrollment

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013*

Number of Students

WP/SMT  PSE  SPT MGT  PRT  PGM  NR  FOM  FWCB  ETM  ESH

*Enrollment Data as of 8/14/2013 (Official data will be available after Census Day)
Graduate Student Enrollments

New in Fall 2013: 84 MS/MR; 12 PhD students

<table>
<thead>
<tr>
<th>Enrolled</th>
<th>MS/ MR</th>
<th>PhD</th>
<th>All Students</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>300</td>
<td>96</td>
<td>396</td>
</tr>
<tr>
<td>% Female</td>
<td>43%</td>
<td>31%</td>
<td>40%</td>
</tr>
<tr>
<td>% Non-white</td>
<td>15%</td>
<td>41%</td>
<td>21%*</td>
</tr>
<tr>
<td>% Out-of-state</td>
<td>24%</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>% International</td>
<td>5%</td>
<td>36%</td>
<td>13%</td>
</tr>
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</table>

*NC is 35% non-white
Graduate Student Enrollments

*Enrollment Data as of 8/14/2013 (Official data will be available after Census Day)
CNR’s budget is lean, but robust

Funding streams are diverse:
- include state and federal appropriations, foundation funding and gifts, sponsored projects and other sources
## CNR Expenditures FY13

<table>
<thead>
<tr>
<th>Fund Type</th>
<th>Dean</th>
<th>PRTM</th>
<th>FB</th>
<th>FER</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>State App. Academic</td>
<td>2,118,092</td>
<td>4,135,353</td>
<td>1,736,335</td>
<td>3,872,740</td>
<td>11,862,520</td>
</tr>
<tr>
<td>Agricultural Research</td>
<td>305,361</td>
<td>52,892</td>
<td>531,967</td>
<td>993,485</td>
<td>1,883,705</td>
</tr>
<tr>
<td>Cooperative Extension</td>
<td>26,491</td>
<td>169,532</td>
<td>446,013</td>
<td>779,857</td>
<td>1,421,893</td>
</tr>
<tr>
<td>McIntire-Stennis*</td>
<td>162,310</td>
<td>98,210</td>
<td>206,026</td>
<td>451,696</td>
<td>918,242</td>
</tr>
<tr>
<td>Contracts &amp; Grants</td>
<td>2,493</td>
<td>964,885</td>
<td>2,704,878</td>
<td>6,421,827</td>
<td>10,094,083</td>
</tr>
<tr>
<td>F&amp;A Receipts</td>
<td>204,832</td>
<td>24,915</td>
<td>75,181</td>
<td>99,778</td>
<td>404,706</td>
</tr>
<tr>
<td>Foundations</td>
<td>734,202</td>
<td>280,682</td>
<td>916,719</td>
<td>929,800</td>
<td>2,861,403</td>
</tr>
<tr>
<td>Gifts (Ledger 7)</td>
<td>230,234</td>
<td>46,568</td>
<td>294,440</td>
<td>2,167,172</td>
<td>2,738,414</td>
</tr>
<tr>
<td>Other</td>
<td>416,734</td>
<td>360,125</td>
<td>396,085</td>
<td>1,117,522</td>
<td>2,290,466</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>4,423,383</td>
<td>5,910,528</td>
<td>7,307,644</td>
<td>16,833,877</td>
<td>34,475,432</td>
</tr>
</tbody>
</table>

*Shows actual expenditures for the Federal Fiscal Year that ended September 30, 2012.

Foundations expenditures only show spending within the college. They do NOT include Hofmann Forest operational expenditures.

70% of the total amount spent from Foundation funds comes from the Natural Resources Foundation/Hofmann Forest.
CNR Budget Cuts

• In FY14, we must accommodate cuts to our state appropriated dollars:
  – 3.23% cut – Academic Budget
  – 3.82% cut – Agricultural Research budget
  – 3.82% cut – State CES budget

• Federal cuts are not yet known (FY begins Oct 1), but may be closer to 7%
# CNR Budget Cuts Since 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>State Appropriation</th>
<th>Agricultural Research Fund</th>
<th>Cooperative Extension</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>-37,876</td>
<td></td>
<td>-52,247</td>
<td>-90,123</td>
</tr>
<tr>
<td>2009</td>
<td>-32,921</td>
<td></td>
<td></td>
<td>-32,921</td>
</tr>
<tr>
<td>2010</td>
<td>-489,522</td>
<td>-233,081</td>
<td>-94,109</td>
<td>-816,712</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>-267,478</td>
<td>-71,885</td>
<td>-22,821</td>
<td>-362,184</td>
</tr>
<tr>
<td>TOTALS</td>
<td>-1,390,479</td>
<td>-519,516</td>
<td>-169,177</td>
<td>-2,079,172</td>
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</tbody>
</table>

Over the last 6 years, more than 15 positions have been lost – the vast majority of these were vacant when given up.

**Our base State Appropriation has decreased by about 21% since FY 2008.**

**Specifics about how we will achieve our FY 2014 cuts are due Sept 6th.**
Sponsored Project Dollars Received

<table>
<thead>
<tr>
<th>Year</th>
<th>Dollars Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0.00</td>
</tr>
<tr>
<td>2005</td>
<td>2.00</td>
</tr>
<tr>
<td>2006</td>
<td>4.00</td>
</tr>
<tr>
<td>2007</td>
<td>6.00</td>
</tr>
<tr>
<td>2008</td>
<td>8.00</td>
</tr>
<tr>
<td>2009</td>
<td>10.00</td>
</tr>
<tr>
<td>2010</td>
<td>12.00</td>
</tr>
<tr>
<td>2011</td>
<td>14.00</td>
</tr>
<tr>
<td>2012</td>
<td>16.00</td>
</tr>
<tr>
<td>2013</td>
<td>20.00</td>
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</table>
CNR Sponsored Projects

- CNR Portfolio – 189 Active Projects (and growing)
  - Total Value = $38.4M
- In FY13, 91 new awards were received, ranging in size from $1,000 to $1,336,000.
- Federal, State, Private Foundations and Industry sponsors
- Research, Training grants, Extension projects, Memberships (consortia contributions)
FY13 Awards – by Grant Amount
NC State - Academic Unit Grants FY12

 Millions of Dollars

<table>
<thead>
<tr>
<th>Unit</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALS</td>
<td>60</td>
</tr>
<tr>
<td>Engineering</td>
<td>70</td>
</tr>
<tr>
<td>PAMS/COS</td>
<td>20</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>6</td>
</tr>
<tr>
<td>Vet Med</td>
<td>5</td>
</tr>
<tr>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>Poole College</td>
<td>1</td>
</tr>
<tr>
<td>CHASS</td>
<td>3</td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
</tr>
</tbody>
</table>

$$ per T/TT faculty FTE: Engineering is 1st, Textiles is 2nd, CALS is 3rd, COS is 4th, CNR is 5th $$
Natural Resources Foundation

- Pledge Totals
- Gift Totals
NC State - Academic Unit Gifts FY13

Millions of Dollars

- CALS
- Engineering
- Vet Med
- Natural Resources
- Textiles
- PAMS/COS
- Poole College
- CHASS
- Design
- Education
Strategic Planning

• We took a courageous step forward last spring!

• Draft plan submitted to the Provost June 30, 2013 – link on CNR home page.

• Well-received among our stakeholders – listening tour across the state.

• Continue the momentum
A Lot to be Proud of in CNR!

We are a strong College. **We will not diminish or step away from what we do well.**

**But we can be more.** . . . by building on our strengths and leveraging new partnerships and collaborations to address the increasingly complex “grand challenges of society.”

The goal of our work is not a document, but a dynamic process that will **take the College of Natural Resources to the next level of excellence in teaching, research and scholarship, and engagement.**
Our Mission:
Educate tomorrow’s natural resource leaders and professionals, generate new knowledge and technology, meaningfully engage with industry and communities.

Our Vision:
To be a world leader among Colleges of our kind. . . .

the “go-to place”
for solutions
to natural resource challenges
To Find Solutions, We Need. . .

- A comprehensive, **systems** perspective.
- **Strong partnerships** with many players outside the university.
- A collaborative **transdisciplinary** approach – involving multiple disciplines and the space between the disciplines.
Three New Themes

Theme 1  
**Sustainability Solutions**

Theme 2  
**Land & Water**

Theme 3  
**Built & Natural Environments**
A way of living that leaves our environment as good or better than we found it, so future generations have the same opportunities we do.
Theme 1

Sustainability Solutions

- A framework for making choices, evaluating tradeoffs
- A societal challenge as much as an environmental one
- Will require new tools for quantifying, visualizing, and analyzing alternative scenarios for the future
Theme 2
Land & Water

- There is no more pressing natural resource issue for the 21st century than freshwater.
- 80% of world’s population lacks water security.
Most of the world’s useable freshwater falls first on land.

In North Carolina 70% of our water falls first on forested land.

Water management is inextricably tied to land management.

In NC, as in most of the world, integrated water resource management means coordinated multiuse management of forests.
• A growing population puts enormous pressures on local ecosystems, especially where rural and urban meet.

• Disconnecting people from nature also affects health and wellness.
Urban – Rural Interfaces

Fragmented landscapes and habitats

Nuisance wildlife

Increased risk of forest fire
Theme 1 – Sustainability Solutions (year 1)

1. Hire **3 new faculty members in the area of sustainability**, with specialties to be defined in the next 6 months.

2. Create a named **“Professor of Practice” in Sustainability.**

3. Create a **new PhD program in Geospatial Analytics** to support the development of the models, methods and metrics needed to solve sustainability challenges.

4. Build cross-campus collaborations and other academic program changes to support a new corps of sustainability professionals.

5. Incentivize and build faculty capacity for interdisciplinary research in sustainability science and policy.

6. Fund and **recruit 10-12 PhD students** to conduct interdisciplinary research in sustainability science and policy.
Theme 2 – Land and Water (year 2)

1. Create a Land-Water Institute to bring together interdisciplinary expertise across the campus and highlight the strengths, capacities and urgencies for research, education and outreach in this area.

2. Identify the specific expertise areas, hire 3 new CNR faculty members with these qualifications including a director to lead the Institute.

3. Create the cross-campus collaborations and academic program additions and changes necessary to support the questions and issues discussed.

4. Incentivize and build faculty capacity for interdisciplinary research in integrated water management.

5. Fund and recruit 10-12 PhD students to conduct interdisciplinary research to solve water resource management challenges.
Theme 3 – The Intersection of Built and Natural Environments (year 3)

1. Further **define specific focal areas which might include fire use and management, ecological design, human health and resilient communities, and urban wildlife and conservation.**

2. Then **hire 3 new faculty members** who have strengths and leadership potential in these areas.

3. Create cross-campus and inter-institutional collaborations and academic program additions and changes to support this theme.

4. Incentivize and build faculty capacity for interdisciplinary research in this area.

5. Fund and **recruit 10-12 PhD students** to conduct interdisciplinary research to solve urban ecosystem management challenges.
Other Goals & Objectives

**Goal 1:** Enhance Student Success through Educational Innovation

**Goal 2:** Increase Interdisciplinary Research, Leveraging Cross-College Collaborations

**Goal 3:** Expand and Foster CNR External Partnerships

**Goal 4:** Strengthen and Enhance Infrastructural Support Across CNR

**Goal 5:** Reorganize CNR Development to Better Support CNR’s Strategic Plan
## CNR Goal Areas

### Goal Area 1: Enhance Student Success Through Educational Innovation, Both Within CNR and Through Collaborations Across the NC State Campus

**Objective 1:** Enhance Undergraduate Academic Programs by Emphasizing Interdisciplinarity, Leveraging Opportunities for Cross-College Collaboration, and Using New Technologies and Engaged Learning Across the Curriculum.

| 1. | Create a common interdisciplinary class that would allow all CNR students to recognize the complex array of environmental, economic and societal challenges and demands on natural resources and the livelihoods they support and to learn about diverse strategies for meeting those demands. |
| 2. | Lead a campus-wide effort to enhance the Environmental Science B.S., including establishing a common first-year experience, greater curricular coherence across the campus, and upper-level options across the Colleges that build on the many strengths that exist in CALS, COS, COD, COE, and CHASS. |
| 3. | Review and enhance the structure of our Fisheries, Wildlife, and Conservation Biology undergraduate program to fully support (or eliminate) options in Fisheries. Implement the structural and curricular changes necessary. |
| 4. | Build on CNR’s near 100% participation of all students in engaged learning, create progressively more challenging opportunities from the first year to graduation. |
| 5. | Strengthen linkages with strategic international partners to increase opportunities for undergraduate study abroad and internships. |
| 6. | Provide training and support for faculty to use web-based tools more effectively. The use of appropriate technology and training for faculty can provide the seamless delivery of video, simulations, graphics, and visual aids that can be accessible across the college. |
| 7. | Partner with DELTA to begin moving appropriate large undergraduate courses to blended class models (part on-line and part face-to-face), beginning in PRTM. |
| 8. | Market CNR and NC State remote facilities and partnerships (Camp Stlocum at Hill Forest, CMAST in Morehead City, Nature Research Center at the Natural Science Museum) as ‘outposts’ where all colleges can work, train, teach, and collaborate. |

**Objective 2:** Create New Opportunities for Cross-College Collaboration Around Graduate Programs That are Transdisciplinary and Jointly Delivered.

| 1. | Develop a new Ph.D. Program in Geospatial Analytics that ties to the Faculty Excellence Cluster and is focused on land use change, people, and the Environment. |
| 2. | Create a new vision for the interdisciplinary Fisheries, Wildlife and Conservation Biology graduate program that leverages the strengths of CNR, CALS and CVM, and implement the infrastructural changes necessary to implement it. |
| 3. | Work with the Graduate School and other college deans to develop a university-wide Ph.D fellowship program that focuses on cross-campus collaboration, similar to the cluster hire program. |

<table>
<thead>
<tr>
<th>NC State Goals</th>
<th>Start Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
College of Natural Resources
Goals for the New Academic Year
Goal 1 – Complete our Strategic Plan

• Further develop our three themes across our college, in all three departments.

• Continue to work on our other 5 goals, setting priorities among the many objectives and action items.

• Develop indicators (performance measures) to track our progress.

Establish work groups to take on these challenges.
Goal 2 - Strategic Budgeting

• Are we making the best use of the resources we have?

• Our budget must link directly to our core mission, strategic goals and objectives, vision for future.

• Establish criteria for allocating resources and making budget decisions.

• Implement those criteria in future budget allocations.
Goal 3 – Create a Comprehensive Communications Plan for CNR

- Our College must do a better job of telling our stories.
- Contract with Vitalink to help us.
Goal 3 – Create a Comprehensive Communications Plan for CNR

• Our College must do a better job of telling our stories.
• Contract with Vitalink to help us.

Goal 4 – Create a Comprehensive Space Plan for CNR

• We cannot be the best without addressing our space limitations and renovation needs.
Goal 5 – Lead/Actively Participate in Campus Initiatives

• Environmental Sciences undergraduate program
• Fisheries, Wildlife and Conservation Biology
• Clusters – Global Environmental Change, Geospatial Analytics, Genetic Engineering and Society
• Academic Programming around Sustainability
Final Reflections

• CNR’s future is in OUR hands.

• We can make the world a better place through our teaching, research and scholarship, and engagement.

• Please get involved in YOUR College.