• Questions?

• Topic 4: Education Update
Education and Public Engagement Update

• People
  – We have hired 3 new people and will be posting 2 additional positions next month.
  – Additional hires are planned as we approach the start of construction

• Citizen Science
  – Project BudBurst, a citizen science project that monitors plant phenology, has become a part of NEON
  – Prototype widgets are currently under development using Project BudBurst data
  – Baseline assessment of current citizen science projects, including scope, data, goals, and users, planned for next 8 months

• Communication projects
  – NEON overview video completed, AOP video in production
  – Web site, outreach, conference exhibits, community engagement event planned for prototype site in Sterling
Wendy Gram, Ph.D., Chief of Education and Public Engagement

Wendy has been with NEON for almost 2 years. Wendy is an ecologist and educator who has developed and led science education programming for over 15 years.

Jennifer Walton, M.S., Public Relations Manager

Jen has been with NEON for almost 18 months. She has experience in communications and program management at several environmental non-profits and federal agencies.

Lisa Gardiner, Ph.D., Director of Education

Lisa just joined NEON this month. She has extensive experience developing web-based educational products, including 8 years working at the National Center for Atmospheric Research (NCAR) developing an array of educational products and workshops.
Sandra Henderson, Ph.D., Senior Education Specialist

Sandra is the Director of Project BudBurst and has been working with NEON since January. She has over 2 decades of environmental science experience. She is particularly interested in citizen science campaigns that address the needs of underrepresented populations.

Bridget Morrissey, M.S., Communication Intern

Bridget began her internship with NEON in July of 2010. She recently graduated from Colorado State University with a MS in Public Communication and Technology. Her thesis explored how individuals communicate and understand hurricane risk in the Gulf Coast.
Schedule for Education Activities

- July 2010 – June 2011 (Bridge)
  - Prototype citizen science projects
  - Communication activities
    - Web site, prototype data, conferences, media, e-newsletter, outreach
- July 2011 (Proposed construction start)
  - Develop Educational products (= construction for education)
    - Web portal
    - Educational activities
  - Continue communications activities
- May 2013 – 2016
  - Educational products are piloted and move into operations when completed
  - Communications ramp-up to share educational as well as science products as they become available.
• **Project BudBurst**
  – Public engagement field campaign focused on plant phenology
  – Data are being collected by individuals from across the country
  – Over 12,000 observations submitted
  – Provides an ideal test bed for data-based tools

• **Online tools provide Project BudBurst users with opportunities to analyze and visualize data**
• Questions?

• Topics 5 & 6: Future of NEON Communities and Opportunities
DSECC History & Current Status

• Clear need for domain committees in early 2009
  – Better NEON-domain communication
  – Misperceptions about domain model
• Committees formed Jan-June 2009
• All committees met Aug 2009 – Feb 2010
• DSECCs are now in phase of low activity
  – Change in construction funding schedule by NSF
  – Need for advice/input will increase as construction period approaches for each domain
  – Construction phased – 3-4 years off for some domains
Goals and Tasks of DSECCs

• Broaden participation in NEON – more institutions, agencies, NGOs, under represented groups, disciplines

• Provide communication link between NEON & domains
  – Identify scientists who can provide advice on FSU & AQU sampling
  – Identify local education/outreach opportunities
  – Identify local site issues

• Disseminate information about NEON to colleagues and other audiences in the domains

• Discuss research and education opportunities that will utilize NEON data and facilities

TOR calls for disbandment of DSECCs during construction
Continental Scale of NEON

• Focus on enabling regional to continental scale research is what makes NEON “transformational”
  – This was justification for MREFC funding, not site- or domain-specific research – a national observatory
• Cross domain or national groups are an effective mechanism for encouraging discussions & planning of continental-scale research initiatives
• NEON user groups can provide such a mechanism and would complement DSECCs
• User groups would be organized by scientific and educational topics, not geographically by domain
Examples of NEON User Groups

Existing:
• FORECAST RCN – Forecasts Of Resource and Environmental Changes: data Assimilation Science and Technology (Yiqi Luo et al.)
• RCN – Establishing an Ecological Research/Education Network at PUIs (Laurel Anderson et al.)

Possible:
• Metagenomics at continental scales
• Ecology of changes in rain-snow transition zones in mountains
NEON User Groups

- Grass-roots initiatives, not normally initiated by NEON
- Composed of scientists or educators with a strong interest in the specific topic
- Complement DSECCs by providing a different mechanism for community involvement
- Mechanism for dialogue with NEON regarding plans for new data products or other future observatory developments
- Help prepare ecological community to fully exploit NEON capabilities
• Macrosystem Biology solicitation – provides support for projects and “planning and development activities to enable groups to conduct Macrosystems Biology Research.”

• Research Coordination Networks (RCNs) – Goal is to “advance a field or create new directions in research or education.” $100,000/yr for 5 years

• NSF Synthesis Centers (e.g., NCEAS, NESCent, NIMBioS) provide support for workshops and other synthesis activities.
• NSF-sponsored workshops – Most NSF programs will support workshops. The two current NEON related RCNs started with a workshop.

• Annual professional society meetings provide opportunities for groups to meet (workshops, discussions, symposia) at minimal cost.

• NEON all-hands meeting – NEON hopes to hold a national meeting following initiation of construction. One focus will be to encourage continental scale research.

• NEON can facilitate these activities.
The National Ecological Observatory Network is a project sponsored by the National Science Foundation and managed under cooperative agreement by NEON Inc.

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NEON Advisory Structure

- STEAC – Science, Technology, and Education Advisory Committee (strategic advice)
- DSECC – Domain Science & Education Coordination Committee (input on domain level)
- TWG – Technical Working Group (input on specialized area to Product Team Lead or Project Scientist)