

## PLEASE NOTE NEW DEADLINES AND OTHER CHANGES



# Northeastern States Research Cooperative 2012 Request for Proposals

**PRE-PROPOSALS DUE January 6, 2012**

The USDA Forest Service Northern Research Station, The Rubenstein School of Environment and Natural Resources at the University of Vermont, The Department of Natural Resources and the Environment at the University of New Hampshire, the Center for Research on Sustainable Forests at the University of Maine, and the State University of New York College of Environmental Science and Forestry are pleased to announce the 2012 Request for Proposals from the Northeastern States Research Cooperative (NSRC).

***Please read the RFP carefully as there are several deadline and other changes from previous years.***

**Research Areas / Themes:** The 2012 NSRC program will support four broad areas of research that are relevant to the Northern Forest region. **Theme One** focuses on integration of social, economic, and ecological issues. **Theme Two** focuses on sustaining ecosystem health. **Theme Three** focuses on forest productivity and products. **Theme Four** focuses on biodiversity and protected area management.

The primary goal of the NSRC is to fund research, support outreach, and catalyze actions that will balance protection and utilization of the Northern Forest. Stakeholders include other scientists, resource managers, community members, government bodies and policy makers, not-for-profit organizations, businesses, and educators. This RFP solicits pre-proposals from applicants in New York, Vermont, New Hampshire, and Maine that will address any of the four Themes that are defined more fully below. Pre-proposals will be accepted from a variety of sources, including public and private research institutions, non-profit organizations, businesses, and industry interests, and must contain a strong central research focus.

Pre-proposals may be submitted to any Theme, but the same pre-proposal (or substantively similar pre-proposals) may not be submitted to more than one theme. Multiple pre-proposals may be submitted by one lead PI, but only one full proposal will be accepted per lead PI per theme. Pre-proposals that involve multiple investigators, institutions, agencies, and/or states are strongly encouraged. We recognize that there is some overlap among the interest areas described for the four NSRC themes. Investigators should select the theme to which they think their pre-proposal is most relevant and are encouraged to contact any of the theme managers if they have questions about which theme is most relevant to their interests. **Priority will be given to projects that produce well-defined outputs in a 1-3 year timeframe.**

**Background / Mission of NSRC:** Additional details about the NSRC and the four themes, including information about past and ongoing NSRC awards, can be found on the website: <http://www.nsrcforest.org>. The 26 million-acre Northern Forest, home to 1.3 million residents, stretches from eastern Maine through New Hampshire and Vermont and into northern New York State. Extensive changes in the patterns of land use and ownership in this region during the 1980s prompted the formation of the Northern Forest Lands Council (NFLC) in 1990. The NSRC grant competition is a research program based on recommendations of that council's 1994 report, *Finding Common Ground: Conserving the Northern Forest*, which led to Public Law 105-185 and the formal creation of the research cooperative. A key theme in the NFLC report, which is also reflected in the mission of the NSRC, is the importance of the Northern Forest to society and the need for research activities to have relevance and benefit to "the people who live within its boundaries, work with its resources, use its products, visit it and care about it." The NSRC interprets this mission broadly. Research on the Northern Forest is a central focus, but pre-proposals relevant to the economy, ecology, forest products, and biodiversity of areas near the boundaries of the Northern Forests (the northern tier of New York, Vermont, New Hampshire, and Maine) are acceptable. The NSRC is committed to practical applications of supported research. We disseminate general project and contact information for funded projects via the web and through other outreach mechanisms.

**Funds Available:** The Northeastern States Research Cooperative expects to have more than \$1 million available for 2012 award funding. Funding will be based on scientific merit, with no specific allocations to themes.

## **THEME ONE: Sustaining Productive Forest Communities: Balancing Ecological, Social, and Economic Considerations**

Theme One, which is administered through the Rubenstein School of Environment and Natural Resources at the University of Vermont, seeks pre-proposals that support research and outreach focused on sustainable and *integrated* solutions to the social, economic, and ecological challenges of the communities, businesses, and working landscapes in the Northern Forest. Pre-proposals must contain a clear focus and an explicit methodology. Priority will be given to projects that test clearly-stated hypotheses and will produce well-defined outputs. These hypotheses and outputs should support identifiable outcomes that could be achieved in the foreseeable future.

**Theme One** seeks pre-proposals that **integrate social, economic and ecological disciplines**. Pre-proposal submissions to Theme One may include, but are not limited to, one or more of the following broad research topics:

- **Sustainable Forest Management**  
Research to define, demonstrate, and/or evaluate sustainable approaches to Northern Forest management, including the social, economic, and ecological challenges facing the Northern Forest. Example projects include studies of land use change, carbon sequestration, easements, effective regional communication, and other long-term forest management issues.
- **Community and Economic Development**  
Research to support plans and programs for effective rural community and economic development in the Northern Forest. Example projects include study and assessment of social, economic, and ecological changes in Northern Forest communities, analysis of conflict resolution strategies, studies of challenges unique to Northern Forest businesses, studies of community connectivity, and assessment of Northern Forest resource markets for both wood and non-wood products, and the development and viability of a new carbon trading market for the Northern Forest.
- **Ecological Economics and Ecosystem Services**  
Research to quantify and understand the value and importance of ecosystem services and resources in the Northern Forest. Example projects include assessments of the region's wood resources, recreation and tourism resources, energy potential, social capital, carbon sequestration, greenhouse gas mitigation, and overall ecosystem services.
- **Nature-based Tourism**  
Research to better understand the benefits and challenges associated with past, current, and planned recreation and tourism in the Northern Forest. Example projects include studies of Northern Forest culture, values, and tradition and their roles in recreation and tourism, studies of transportation challenges unique to the region, and studies of how best to encourage local entrepreneurship and Northern Forest “image” branding.
- **Watershed Planning**  
Integrated research designed to enhance scientific information needed for long-term planning and decision making aimed at sustaining productive forests, clean water, and strong, economically viable communities within and between Northern Forest watersheds. Example projects include studies to utilize and/or value forest lands to protect water resources, assessments of past planning activities, and demonstrations of innovative new approaches to planning. Proposals to implement a specific solution for a local problem will generally *not* be considered unless there is a strong research and/or monitoring component that could clearly lead to regional implementation of the solution.

## **THEME TWO: Sustaining Ecosystem Health in the Northern Forest**

Theme Two, which is administered through the University of New Hampshire, seeks research pre-proposals that will improve understanding and management of forests and associated aquatic ecosystems in the Northern Forest. Land use change, climate change, and regional atmospheric pollutants are among the many threats facing the ecosystem health of the Northern Forest. Pollutants produced throughout central North America are part of the atmospheric deposition received by the Northern Forest, with significant impacts for forest health. Climate change poses uncertain, but potentially large impacts on the community ecology and hydrology of the Northern Forest. Land use changes, such as intensive harvesting for biomass energy or conversion of private forest lands to homeowner building lots, have a very high potential for degrading water quality, ecosystem health and the value of the forest for multiple stakeholders. Sustaining forest integrity into the future and supporting sustainable development in the region both rely on sound, quantitative estimates of the multiple factors that influence ecosystem health of the Northern Forest.

**Theme Two** thus solicits pre-proposals that address **hydrological, biogeochemical, and carbon cycling processes** in forested ecosystems.

More specifically, pre-proposals are requested that:

- Address threats to **forest health, forest productivity, and water resources** from regionally important pollutants such as acids, nitrogen, mercury, and ozone; more intensive utilization of forest lands for energy production; conversion of forests to other land uses, climate change; or other regional phenomena.
- Develop **quantitative methods for estimating and predicting changes in carbon storage** over time in ways relevant to emerging carbon credit markets and carbon management policies.

Pre-proposals may take one or more of several approaches to addressing these needs, including synthesis of existing data, collection of new data, or increasing the level of communication among researchers, resource managers, policy-makers, regional businesses and residents, and other stakeholder groups. Priority will be given to projects that produce clearly defined outcomes, have a direct relationship to the health, productivity, and management of forest and aquatic ecosystems in the Northern Forest, and reflect the needs and interests of stakeholder groups in the region. Proposed outcomes should advance our understanding of ecological processes and relationships affecting the structure and function of forest and aquatic ecosystems, and demonstrate the value of this new understanding in addressing the issues of ecosystem health or carbon and energy management in the Northern Forest Region.

## THEME THREE: Forest Productivity and Forest Products

Theme Three, which is administered through the Center for Research on Sustainable Forests at the University of Maine, seeks research pre-proposals that will **quantify, improve, and sustain productivity** of the Northern Forest as a working forest landscape. Forest productivity for purposes of this RFP includes all aspects of forest production that are most important to the future of the wood products-based economy of the Northern Forest. Aspects of primary interest include underlying biological processes, management practices, and methods of prediction that will influence future wood supplies and forest conditions.

**Theme Three** supports research that addresses **forest productivity and forest products**. Research pre-proposals to be considered for funding under **Theme Three** must address one or more of the following topics:

- **Biological Processes:** Increased understanding about the underlying biological processes driving current and future net primary productivity of Northern Forest ecosystems, including:
  - Ecophysiological responses of commercial tree species to silvicultural practices
  - Influence of harvesting practices on genetic variation of commercial tree species
  - Influence of management practices on long-term site productivity.
- **Management:** Increased understanding about the influence of management practices on productivity of Northern Forest stands, including:
  - Influence of current partial harvesting practices on future regeneration and growth
  - Low-cost silvicultural systems to improve the species composition of natural hardwood regeneration
  - Intensive and extensive management silvicultural systems for production of commercial hardwood and softwood species
  - Influence of silvicultural practices on wood formation and quality
  - Practices to support production of biofuels and other bioproducts.
- **Prediction:** Improved prediction of how changing management and environmental conditions will influence future wood supplies and forest conditions, including:
  - Influence of thinning and other partial cutting methods on future growth & yield of stands and forest-level wood supplies
  - Decision-support systems for large-scale pest outbreaks
  - Influence of forest practices on stand and forest-level carbon dynamics
  - Forest growth and species response to climate change.

## **THEME FOUR: Biodiversity and Protected Area Management**

Theme Four, which is administered through the SUNY College of Environmental Science and Forestry, seeks research pre-proposals that focus on **biodiversity and protected area management** of the Northern Forest. The Northern Forest provides jobs, clean water, and recreational opportunities and protects biological diversity for millions of our citizens. Sustaining this region requires vision and the ability to synthesize new knowledge about the forest, the citizens who live near and in it, and the economic and policy choices that shape our future. Important changes in forestland ownership and the economy require timely consideration of strategies to secure the continuing conservation of these lands and communities. Public investment in forestry research and outreach ensures the conservation and protection of these values. Protecting and enhancing the economic and ecological integrity of the Northern Forest is a critical issue for the region.

**Theme Four** supports research focused on **biodiversity and protected area management** in the Northern Forest. Pre-proposals must contain a clear research focus and an explicit methodology in order to be considered.

Pre-proposal submissions to Theme Four may include, but are not limited to, one or more of the following broad research topics in Northern Forest areas:

- **Biodiversity**
  - Forest biodiversity conservation topics related to the interactions between plant and animal species, populations, communities and ecosystems such as species loss, human development pressures, or invasive plants, animals, insects, and diseases that have the potential to affect large areas of forest and change their ecological functions and biodiversity
  - Natural variability in species, communities, and ecosystems in the Northern Forest
  - Maintaining biodiversity and ecological integrity while providing wood products and other ecological services, as well as providing for human values and needs within managed forest areas.
  
- **Protected Area Management**
  - The need for protection of sensitive areas, unique habitats, wilderness areas, and ecological reserves within forested landscapes to provide biodiversity and connectivity at various scales within a landscape or region
  - Ecological services and human values and needs provided by protected areas and reserves
  - Recreation opportunities and experiences provided by protected areas and reserves for residents and visitors.

**PLEASE NOTE NEW DEADLINES AND OTHER CHANGES**



**Northeastern States Research Cooperative  
2012 PRE-PROPOSAL AND PROPOSAL INFORMATION**

**Pre-Proposals are Due No Later Than 4:30 pm January 6, 2012**

**Note: Principal Investigators who are delinquent with terms of current or previous NSRC awards, such as reports, are not eligible to apply for NSRC funds until award terms have been met.**

Pre-proposals may be submitted to any Theme, but the same pre-proposal (or substantively similar pre-proposals) may not be submitted to more than one theme. Lead investigators are discouraged from submitting more than one pre-proposal to any single theme. Theme Directors will not advance more than one pre-proposal to the proposal round submitted by the same Principal Investigator. Preference may be shown to young investigators or to investigators who are not currently funded by the NSRC. Research pre-proposals may be submitted for projects up to 3 years in duration with budget requests ranging from small seed grants to a maximum total award of \$150,000. Projects involving collaborative research among institutions are especially encouraged. Matching funds are desirable, but not required. Support for graduate and undergraduate research assistantships is highly desirable.

USDA Forest Service provides funding for the Northeastern States Research Cooperative and therefore indirect charges may not be charged on project budgets submitted by Principal Investigators from Land Grant institutions. In accordance with USDA guidelines, indirect charges will be limited to 20% for non-Land Grant institutions.

Participation in this RFP is open to scientists, resource managers, policy makers, and other individuals pursuing research relevant to forest lands in the northern tier of New York, Vermont, New Hampshire, and Maine. The Principal Investigator *must* be from an institution or organization in one of the four states. Only one award per project will be made to the lead Principal Investigator's institution. The lead PI's institution may issue sub-awards to members of the project team.

Pre-proposal and proposal submissions will be reviewed through an anonymous peer-review process. Each theme will determine which pre-proposals advance to the full proposal round. Full proposals will also be reviewed by an anonymous peer-review process and those to receive awards will be selected collectively by the Theme Directors and the Program Manager based on their assessments of the highest needs for the NSRC and on the review panel recommendations.

**Pre-proposals are due by 4:30 pm on January 6, 2012 and should be sent to the appropriate NSRC Theme Manager. Notification of acceptance or denial of pre-proposals will be made by February 10, 2012.**

<p><b><u>THEME ONE</u></b> Kate Baldwin University of Vermont Rubenstein School of Environment and Natural Resources 113 Hills Building Burlington, VT 05405 Phone: 802-656-1362 E-mail: <a href="mailto:kate.baldwin@uvm.edu">kate.baldwin@uvm.edu</a></p>	<p><b><u>THEME TWO</u></b> Michelle Daley University of New Hampshire Dept. of Natural Resources and the Environment 114 James Hall 56 College Road Durham, NH 03824 Phone: 603-862-1794 E-mail: <a href="mailto:michelle.daley@unh.edu">michelle.daley@unh.edu</a></p>
<p><b><u>THEME THREE</u></b> Kae Cooney University of Maine Center for Research on Sustainable Forests 5755 Nutting Hall Orono, ME 04469 Phone: 207-581-3794 E-mail: <a href="mailto:kathleen.cooney@maine.edu">kathleen.cooney@maine.edu</a></p>	<p><b><u>THEME FOUR</u></b> Dr. David Newman SUNY-ESF Dept. of Forest &amp; Natural Resources Management One Forestry Drive Syracuse, NY 13210 Phone: 315-470-6534 E-mail: <a href="mailto:dnewman@esf.edu">dnewman@esf.edu</a></p>

## 2012 NSRC RFP PRE-PROPOSAL SUBMISSION GUIDELINES

**Format:** Pre-proposal submissions should be on 8.5” x 11” paper with 1” margins and 12-point font with no more than 6 lines per inch (standard line spacing for 12-point font).

*Note:* Theme Three conducts all communications electronically. For Themes One, Two, and Four, 6 hard copies plus an electronic version (Microsoft Word or PDF via email) must be sent to the appropriate NSRC Theme Manager.

For all themes, pre-proposals must be received on or before January 6, 2012. Late proposals will not be accepted. Any proposal that does not conform to the format and required information guidelines will be rejected without consideration prior to the pre-proposal or final proposal review panels, as appropriate.

Required information includes:

### Cover Page:

- Heading “2012 Pre-proposal”
- NSRC Theme being addressed (Each pre-proposal may be submitted to only one of the four themes)
- Project Title
- Lead Principal Investigator\* (Name, Institution, Address, Phone(s), FAX, and E-mail)
- Co-PIs, Cooperators, and Other Participating Institutions (with contact information)
- Total Amount Requested and the Amounts Requested per Project Year
- List, if appropriate, current and past NSRC projects managed by PI or co-PI (specify role)

### Project Narrative (two pages):

- Focused “Project Goals and Supporting Objectives”
- Logical “Project Justification and Relevance”
- Clear “Research Approach and Methodology”  
If models are proposed, provide a brief description of the model
- Explicit “Expected Products and Outcomes”

**Project Budget (two pages):** A budget table (with annual line items including salary by type, student support, travel, equipment, supplies, etc.) and a budget justification that addresses each component of the budget are required. The specific roles and responsibilities of every person or entity identified in the proposal must be explained. Persons or entities that would receive NSRC funds must be explained and justified in sufficient detail to judge whether the requested funds are warranted. This should be done in the Budget Justification section. PIs with more than one multiple-year NSRC project should explain proposed summer or other salary in relationship to current NSRC funds.

**Supporting Documentation:** The role for every person listed on the title page (PIs and partners) must be explained, whether they receive funds or not. A one page Curriculum Vitae (CV) is required for **every** person (or group, e.g. consulting firm) specifically identified in the proposal to receive funds for the project. In the case of specifically-identified groups, the expertise to be provided and person(s) with primary responsibility to provide this expertise must be explained. For collaborators identified on title page and who will not receive proposed direct funding from NSRC, provide a brief description of their contribution to the project.

*\* NOTE: The “Lead Principal Investigator” will be the sole contact for NSRC managers throughout the competition. Responsibility for forwarding NSRC related updates to Co-PIs and others rests with the Lead PI.*

**PLEASE NOTE NEW DEADLINE**



**Northeastern States Research Cooperative  
2012 FULL PROPOSAL INFORMATION**

**2012 FULL PROPOSALS WILL BE DUE MARCH 9, 2012**

Detailed guidelines will be provided with requests for full proposals, in response to successful pre-proposal submissions. In general, full proposals will include further detail about the rationale, objectives, methodologies, and deliverables of the proposed research, allowing peer-reviewers to assess the scientific, social, and economic need and merit of the project. Only one full proposal per theme will be allowed for each individual lead-PI. Funding recommendations will be made by a peer-review panel coordinated within each Theme and under the direction of the Theme Manager and Theme Director. Recommendations will be based on a ranking of standardized scores for requested information, reviewer comments, project cost, and available funds.

Final decisions for awards will be made by the Theme Directors and the Northern Research Station Program Manager after the peer-review recommendations have been evaluated across all four Themes. For 2012, the goal of NSRC is to fund research that will have the greatest beneficial impact on the Northern Forest, regardless of theme.

**Full proposals will be due by 4:30 pm March 9, 2012. Final decisions regarding project awards will be made by April 6, 2012.**