

Forestry Research Agenda

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Today's Talk

- Goals
- Division and Department Process
- Format
- Council on Forestry's Role

Goals of Research Agenda

- Align research to inform short-term & long-term management and policy decision
- Ensure research is coordinated between Department programs, other agencies & academic institutions
- Inform research being conducted and supported by Department
- Ensure sound science is practiced

Research Agenda Influences

- Research conducted and supported by Division and Department
- Research conducted in collaboration with other agencies & institutions
- Research requests to be conducted on Department property

2011 Process

- Core team from Forestry & Science Services
- List of 22 priority topics and 66 projects identified from Statewide Forest Assessment, Strategic Forest Plan & key staff
- Prioritization criteria developed
- Evaluation team of regional & CO Forestry staff rank list
- Top 12 topics selected & presented to Department

2011 Forestry Division Research Agenda

- Social & Economic Values of Natural Resources
 - Economic values of forests
 - Industry: Supply & demand for markets
 - What affects choices of private forest landowners and the way they are currently managing
 - General public outreach/education

2011 Forestry Division Research Agenda

- Ecological Sustainability
 - Invasive non-native species are an increasing threat
 - Information about some aspects of forest ecosystem function is scarce
 - There are unresolved questions about the long-term sustainability of intensive forest harvesting for energy production (biomass harvesting)
 - Some tree species are becoming increasingly less common
 - Climate change may affect forest composition, structure, and function

2011 Forestry Division Research Agenda

- Fire
 - Fire landscape is a new component of fire suppression efforts in Wisconsin
 - The ability to accurately predict fire behavior conditions leads to efficient use of resources
- Deer
 - Deer are impacting forest regeneration and affecting successional trends

2015 Process

Sept – Nov: Internal & external teams engaged to identify priority research questions

- Forest Products Team
- Forest Health Team
- Reforestation Team
- Fire Team
- Private Forestry Team
- Urban Forestry Team
- Education & Outreach Team
- Science Team
- BHG AC
- UFC
- SGT
- NHC
- Science Services

2015 Process

- Nov. 20 – Problem statements & research questions to be ranked by staff representatives from programs for Divisions
 - Problem statements ranked
 - Research questions ranked within problem statements
- Dec. 5 – Priorities to be shared with FLT
- Dec. 15 – Forestry priorities shared with Department for inclusion in Department's Research Agenda

Ranking Criteria

- Criteria 1: Significance to Program
 - High priority issues in Program
 - Results are timely
 - Inform decision-making for policies, strategies & management practices

Ranking Criteria

- Criteria 2: Broad-Scale Value to Forestry Community
 - Long-term priority need
 - Inform forest management & policy decisions
 - Results valuable to public & private forests

Ranking Criteria

- Criteria 3: Application of Research
 - Clearly applicable to forest management & policy decisions
 - Inform high priority management issues
 - Clearly defined research questions that cannot be answered in another way

Format

- Problem Statements
 - Provide context of why research is needed
 - Describe the issue
 - Reference broad subject matter being addresses
 - Identify the intent or objective of the research need
- Research Questions
 - Frame the issues and concerns presented in problem statement
 - Provide specific data on information needed from research

BHG Problem Statement

- The long-term sustainability of intensive forest harvesting (such as biomass harvests and whole tree chipping) is unknown.

BHG AC Research Questions

- How does the amount of coarse and fine woody debris following a harvest vary by forest and site types, age, equipment and season?
- What is the impact of woody biomass harvesting retention levels and patterns on tree regeneration, habitat and biodiversity, invasive species, and soil nutrient cycling. What are the long-term impacts of climate on those relationships?

BHG AC Research Questions

- How much woody debris is needed to be left on dry nutrient-poor sites as a target? Are there effective strategies for mitigating the impact of biomass harvesting on dry nutrient-poor sites, with considerations for operability and costs?
- What are the site impacts of biomass harvesting compared to historic natural disturbance, such as fire?

BHG AC Research Questions

- What is the long-term impact of biomass harvesting on soil nutrients and the presence, abundance, and demographics of selected animal and plant species?
- What is the impact of the biomass harvesting guidelines on landowners, from a policy (cost/benefit) analysis?
- What is the landscape level implementation and implications of biomass harvesting at different levels?

Council on Forestry

- S. 26.02, Wis. Stats.: Council on Forestry shall advise the Governor, the Legislature, the DNR, and other state agencies on...
 - (a) The protection of forests from fire, insects, and disease.
 - (b) The practice of sustainable forestry, as defined in s. [28.04 \(1\) \(e\)](#).
 - (c) Reforestation and forestry genetics.
 - (d) Management and protection of urban forests.
 - (e) Increasing the public's knowledge and awareness of forestry issues.
 - (f) Forestry research.**
 - (g) Increasing the economic development of the forestry industry and employment in the forestry industry.
 - h) Marketing and use of forest products.
 - (i) Legislation that impacts on the management of forest lands in this state.
 - (j) Staffing and funding needs for forestry programs conducted by the state.

Proposal

- Update Council research priorities by:
 - Council could review problem statements & research questions for additions/deletions
 - Council rank & prioritize problem statements & research questions
 - Results shared with Council and establish research priorities for Council to work from

