

MN STAC Partner Update – Minnesota Forest Resources Council

Updated Forest Management Guidelines: Addressing Current Day Issues

The Sustainable Forest Resources Act requires the MFRC to develop and periodically update Voluntary Forest Management Guidelines for use on public and private forestland in Minnesota to minimize potential negative impacts of timber harvest and forest management activities. In 2024, the MFRC finalized updates to its Voluntary Site-Level Forest Management Guidelines (FMGs), releasing a revised version of the resource that incorporates:

- Additional direction on effective practices related to invasive terrestrial plant species.
- Language to address linkages between the guidelines and mitigation of climate change risks.
- Adjustments to support consistent interpretation of the guidelines.
- Format enhancements to conform with the Americans with Disabilities Act, Web Content Accessibility Guidelines, and Section 508 accessibility compliance.

Updates were informed by an extensive, multi-year process that accounts for current science and practical guidelines, incorporated a scientific literature review, monitoring program results, peer review and feedback from diverse stakeholders, and a public comment process.

FMG Climate Change Considerations

There is growing concern about how climate change impacts Minnesota forest ecosystems. Early observed effects include warming temperatures, more frequent severe weather events, spread of insect pests and disease, and increased periods of drought stress. These changes intensify disturbance patterns, increase tree mortality, and can impact the composition of Minnesota's forests--all of which have major implications for the future ecological, economic, and social benefits that these forests provide.

For 25 years, Minnesota's forest management guidelines have incorporated water quality, wildlife, soil erosion, forest regeneration, stream, and wetland protection considerations into site-level timber harvesting decisions and other forest management activities. MFRC's 2024 guideline updates have now added climate change considerations to these existing best management practices. The updated guidelines can be identified by a new "Climate Consideration" logo that provides highlighted attention to specific forest management activities and considerations.

Pioneering Research on Carbon

MFRC invested in and advanced research with the University of Minnesota to create a forest carbon baseline and life cycle assessment that estimates carbon sequestration, storage, and emission outcomes of forest management strategies and forest products. This groundbreaking project will help public and private forest landowners, foresters, forest product industries, and policymakers better understand and compare forest management alternatives and associated carbon mitigation outcomes in tandem with other forest benefits.

- ~20,000,000 Metric tonnes CO₂-e added to in-forest storage each year.
- Harvested Wood Products store an additional ~2,700,000 Metric tonnes CO₂-e each year.

Cultivating Locally Led Solutions

MFRC's Regional Landscape Program is helping advanced the CAF's community resilience goal. The program brings together diverse stakeholders at the regional level to coordinate

on locally led solutions to climate change challenges that are unique to their area. Examples of climate change focused activities include:

- **Northern Regional Landscape Plan:** The plan infused climate change considerations throughout including silvicultural management for climate resilience, restoring hydrology in aquatic systems for aquatic animal migration, and importance of peatlands for carbon storage.
- **Biodiversity Crisis Wildlife Conversations:** The East Central and North Central committees held wildlife-focused meetings to connect forest managers with wildlife managers, discussing concerns and possible solutions in the face of our changing climate.
- **Responding to increasing forest health issues** -Emerald ash borer workshop to share best management practices for increasing forest resilience in ash-dominated forests.
- **Assisted Migration Field Tours and Discussions** –The Northeast and Southeast committees held tours meetings focused specifically on climate resiliency and mitigation through assisted migration and managing forests for resilience through silviculture within their respective regions.
- **Coordinated assistance and targeted outreach to private landowners** –Several committees utilized regional committee meets to improve shared understanding amongst all the agency staff and private consulting foresters of forestry and other land management cost-share programs to improve services to landowners in family forest-dominated landscapes.

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