DEPARTMENT OF NATURAL RESOURCES

Division of Forestry's Approach to Climate Change

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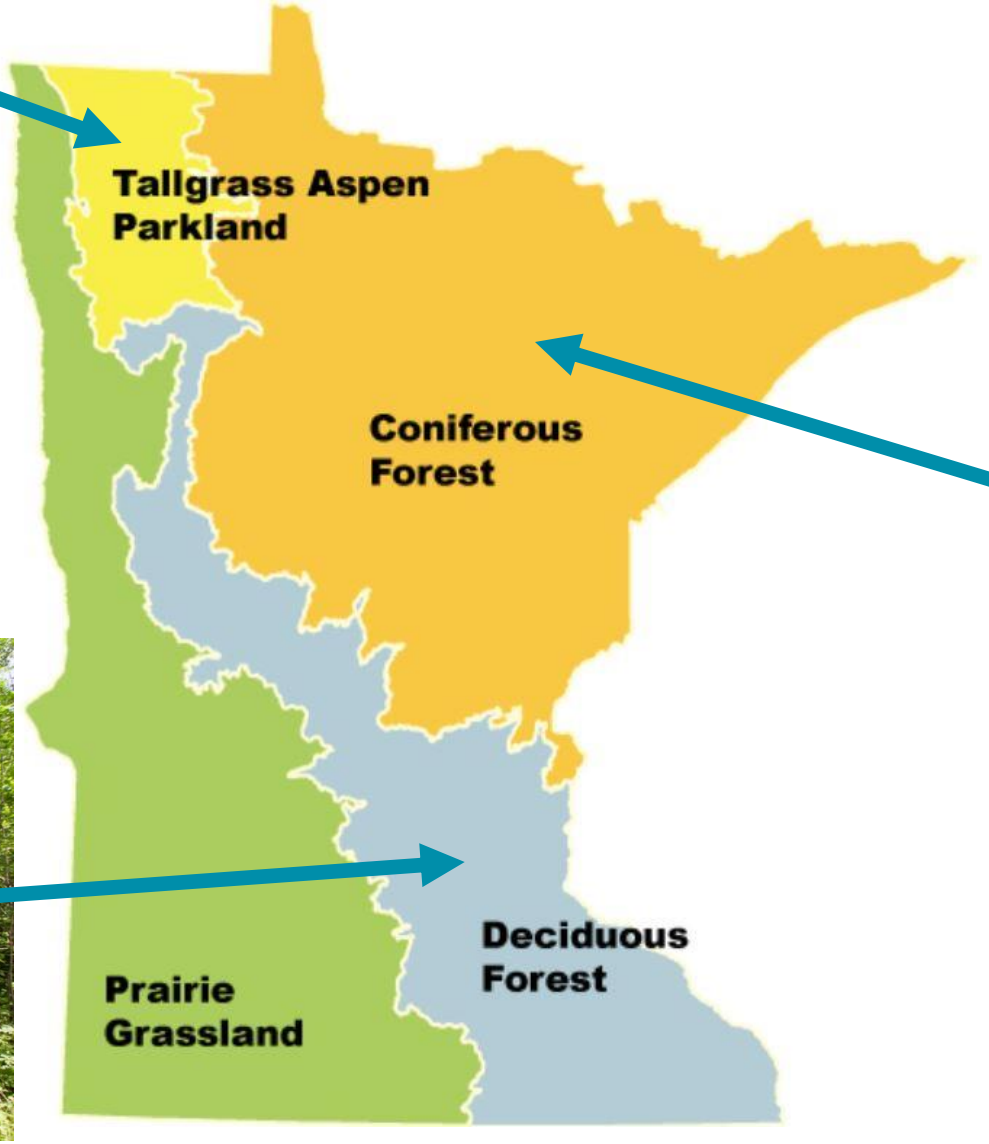
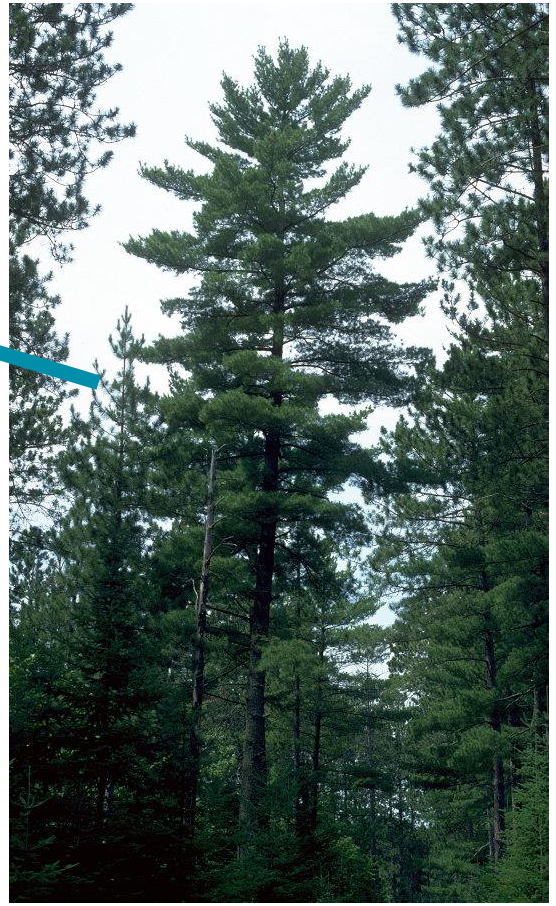
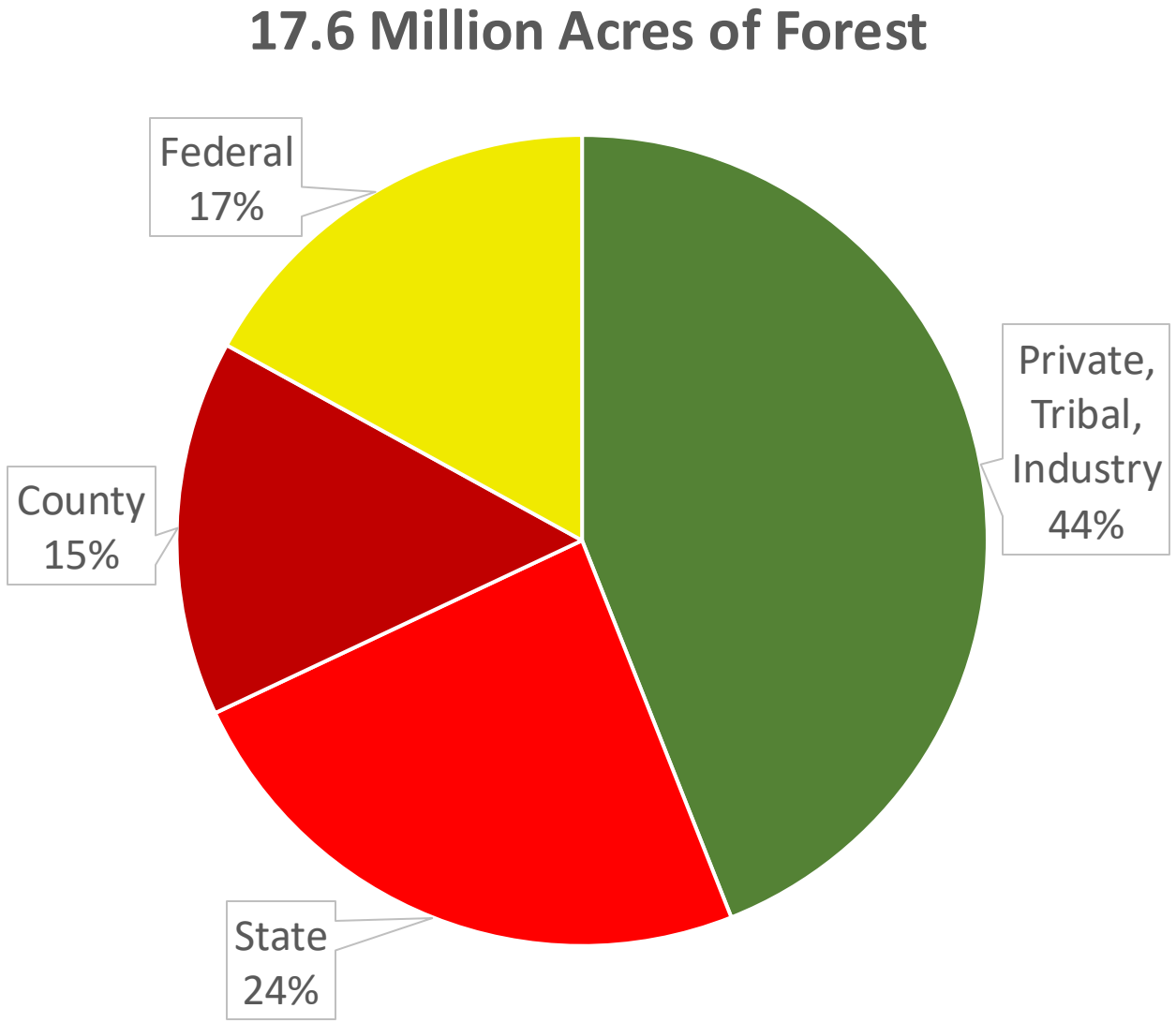
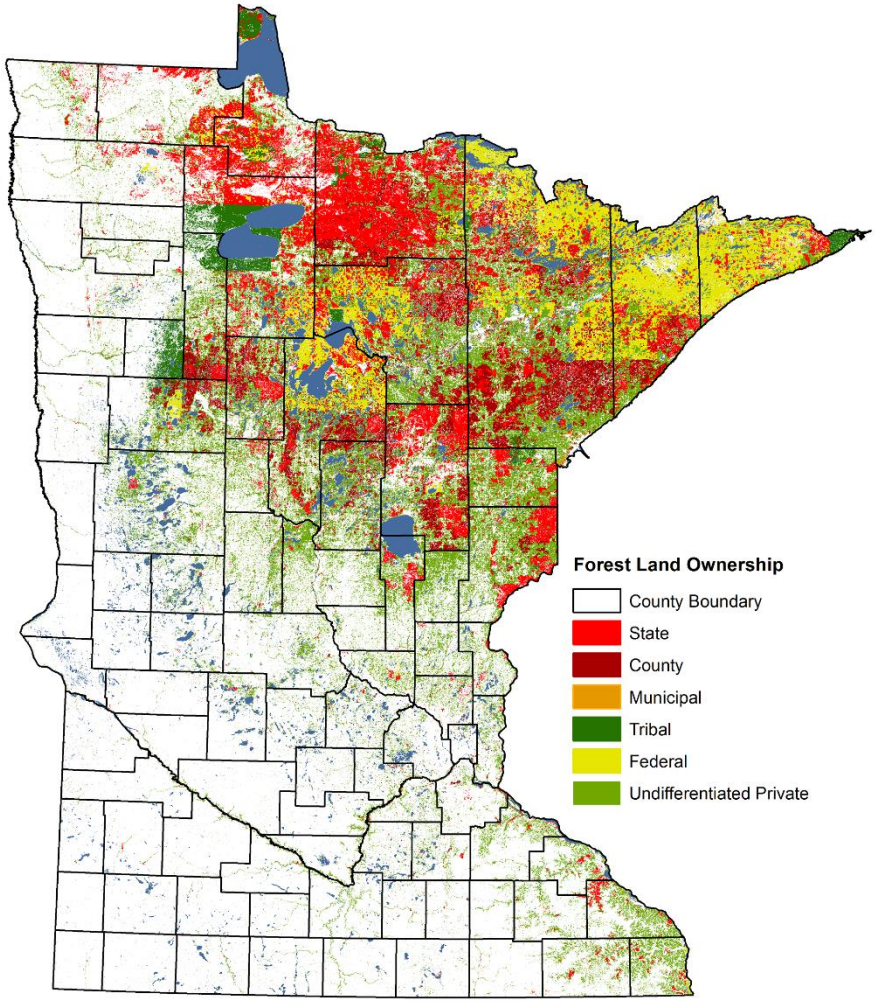
Minnesota's forest resources





DNR is part of Minnesota's larger forest community





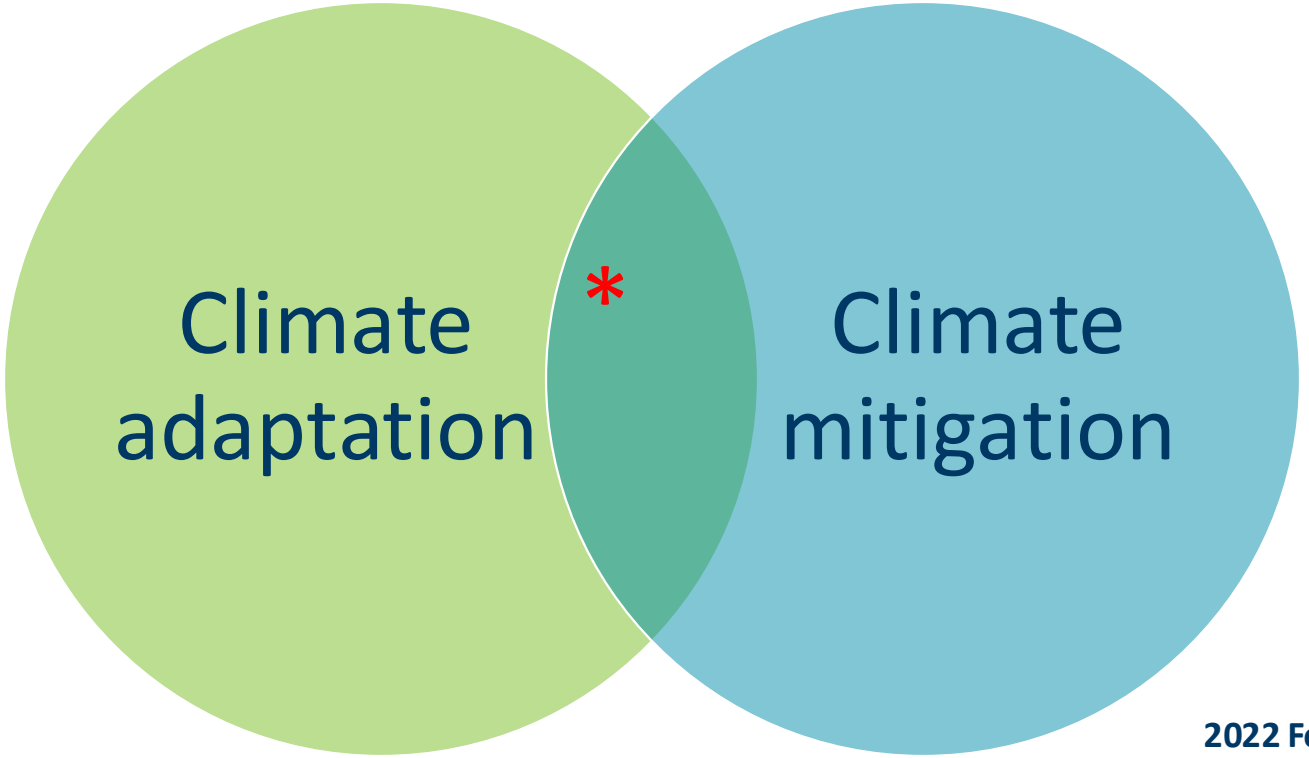
Division of Forestry's workload is broad and diverse

- Manage 4.2 million acres
- 30% of MN wood fiber
- +2,000 miles State Forest Roads
- Reforestation
- Fire prevention & suppression

- SFI/FSC dual certification
- Assistance to private owners
- Urban & community forestry
- Outreach & education

Climate is a rapidly emerging dimension of forestry

"…Actions that help adapt forests to future conditions help to maintain healthy, productive forests that continue to sequester carbon" (Janowiak et al. 2017).



SUSTAINABLE FORESTRY INITIATIVE MINNESOTA
SFI-01129

2022 Forest Management Standard
"Climate Smart Forestry" (Obj. 9)

Department-wide climate policy provides a framework

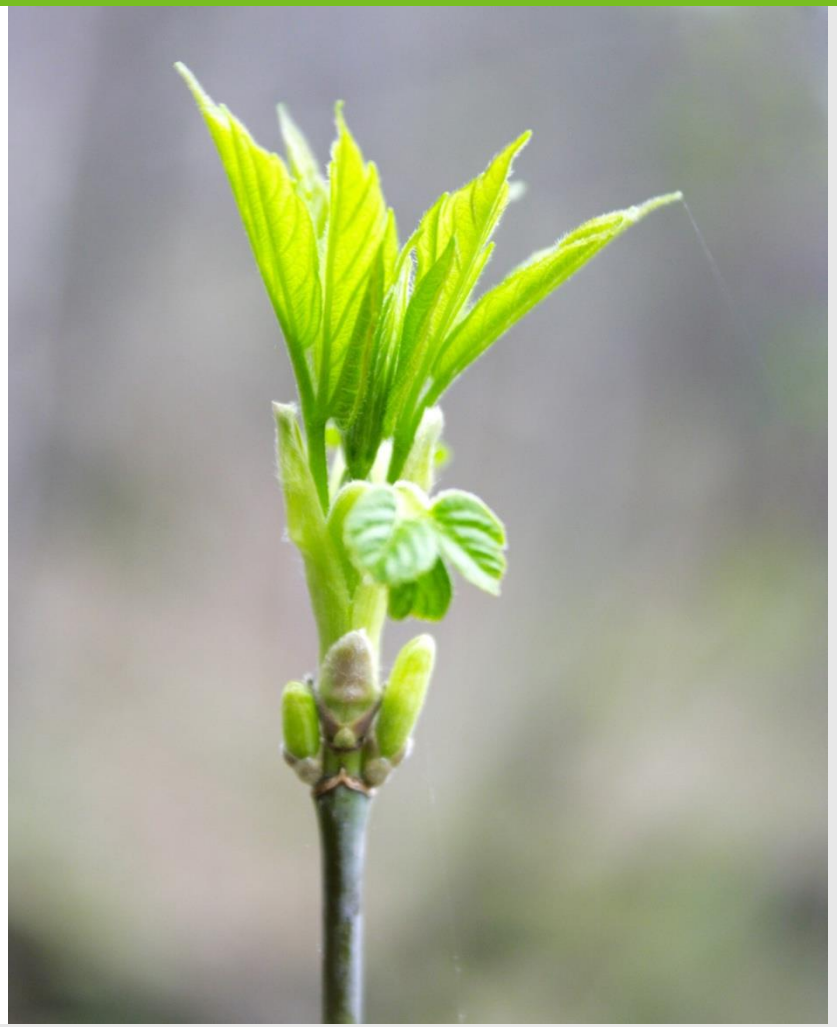
Operational Order 131 (2014): Climate Adaptation and Mitigation in Natural Resource Management

- *"The DNR's responsibility is to use the **best available science** to develop implementation of **adaptation and mitigation strategies** that will minimize the negative impacts of climate change."*
- *"Under this policy, **DNR plans and activities** will incorporate climate change adaptation, mitigation, communication, and coordination strategies, and ensure that employees have knowledge and skills to apply this policy to their work."*

Division climate guidelines link our work to larger goals

Division of Forestry Climate Guidelines (2020)

- Describes current and expected impacts of climate change on the resources we manage
- Objective: *"Increase the capacity of Minnesota's forests to adapt to a changing climate while continuing to provide forest products and other ecosystem services."*
- Objective: "*Lessen the magnitude of climate change by maintaining carbon storage and increasing carbon sequestration…on DNR-administered lands*."

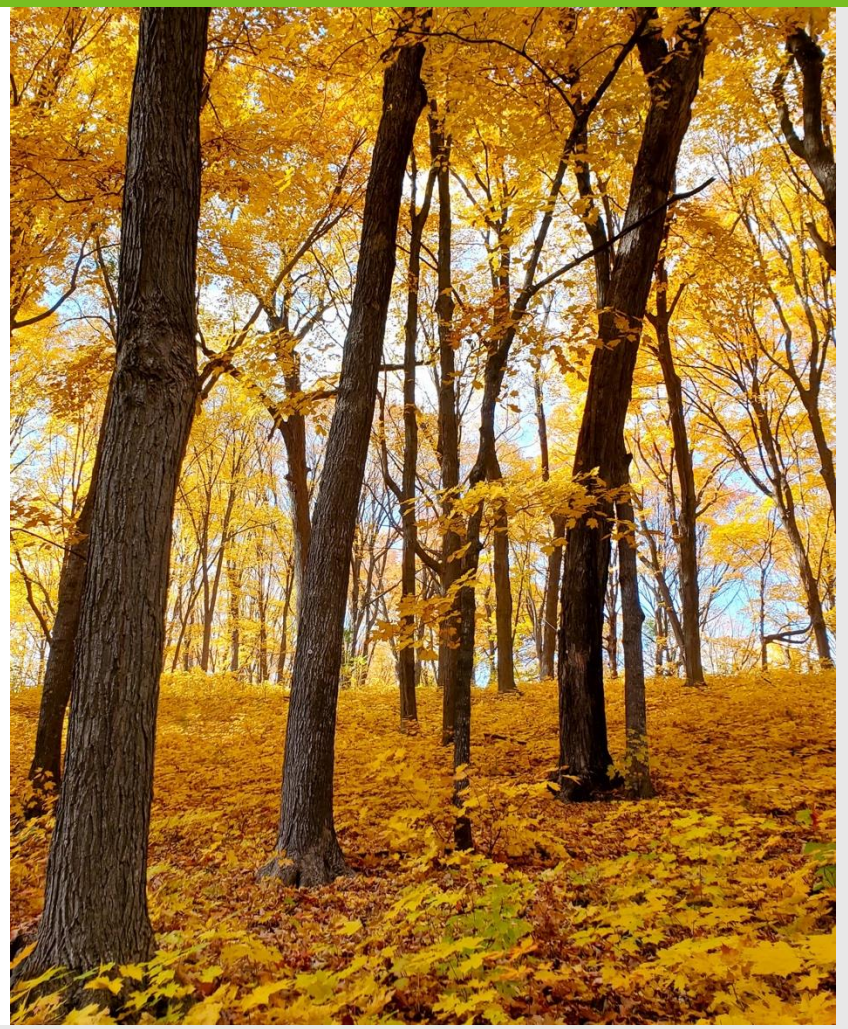


Forest planning shapes on-the-ground climate actions

Broad direction: **Use best-available science to increase resilience of forests and help them adapt to change.**

Example strategies include:

- Maintain/increase forest diversity – favor species projected to respond well to climate change
- Maintain refugia – keep a wide range of conditions across landscape
- Maintain habitat connectivity for species migration
- Enhance genetic diversity – incorporate more southerly populations



What does this look like in practice?