



## **From today's presentations:**

**What have learned?**

**What are some important themes?**

**Are there any thoughts about clear “no regret” actions?**



## “Supporting Minnesota’s Climate Change Goals Through Development of Sustainable Forest Products Markets”

“**BE IT THEREFORE RESOLVED**, the Minnesota Forest Resources Council, consistent with its statutory responsibility, recommends support for new and expanded Minnesota markets for forest and mill residuals, and other types of sustainably harvested woody biomass and encourages elected and appointed officials to:

- a. Include woody feedstocks in statewide fuel or energy standards and/or offer broadly available production incentives for low carbon renewable biofuels derived from woody biomass or other bioenergy feedstocks.”

**“BE IT FURTHER RESOLVED,** the Minnesota Forest Resources Council commits to developing an **action and communications strategy** to further align new market development and sustainable forest management by:

CELEBRATING  
**25** YEARS



- a. Evaluating appropriate sources of material** that could be considered “woody biomass” or “forest residuals” such as mill residuals, harvest residuals, wood waste, diseased wood, unmerchantable wood, and other material removed for fuel reduction.
- b. Describing how harvesting of these materials acknowledges Tribal treaty rights while integrating with existing forest management plans, timber harvesting guidelines, and forest certification standards.**
- c. Recommending policies and strategies for attracting new markets that align with the state’s management objectives,** to potentially include energy products (e.g commercial and residential heating, pellets, biofuels) and non-energy products (e.g thermally-modified wood, biochar, activated carbon, biobased chemicals and extractives, and engineered and specialty wood products).



# Mill Residuals

---

## Types of Biomass:

Sawdust, Wood Chips, Bark, etc.

- For Sawtimber, approx. 50% of log volume ends up as residuals.

2017 TPO Example:

606K Cords Sawtimber

with 40% Mill Residuals =

**242,500 Cords Biomass**





# Harvest Residuals

## Types of Biomass:

- Coarse Woody Debris
- Fine Woody Debris

## 2019 State Harvest Example:

2.76M Cord Timber Harvest =  
753,000 Cords Biomass  
Less 30% FMG Residual  
= **580,000 Cords Biomass**





# Unmarketable Wood & Shrubs

---

- Unsold Timber Sales
- Unsold Biomass Sales

FY21 DNR Example:

*24% Unsold Timber = 216K Cords*

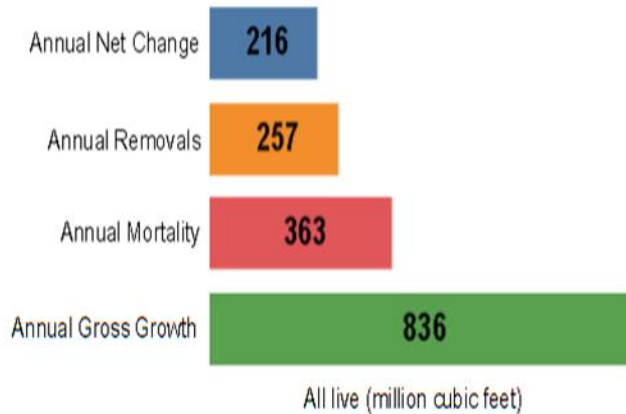
*95% Unsold Biomass = 176K Cords*

*Total = **392,000 Cords Biomass***





# Dead and Dying Trees



2019 FIA Example:

363 M cu ft/yr =

**2.8 M Cords Biomass**



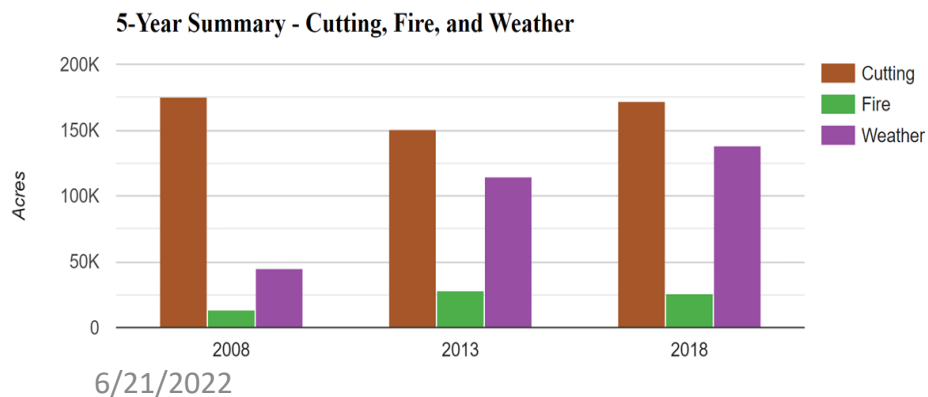


# Wind & Weather

## Types of Biomass:

- Coarse Woody Debris
- Fine Woody Debris

FIA 5-Yr Summary Example:





# Wildfire Fuel Reduction

---

- Coarse Woody Debris
- Fine Woody Debris

Examples:

*Thinning with Slash Removal*

*Community Firewise Programs*

*USFS Fireshed Program*







## “Supporting Minnesota’s Climate Change Goals Through Development of Sustainable Forest Products Markets”

“**BE IT FURTHER RESOLVED**, the Minnesota Forest Resources Council commits to developing an **action and communications strategy** to further align new market development and sustainable forest management by:

- b.** Describing how harvesting of these materials acknowledges Tribal treaty rights while integrating with existing forest management plans, timber harvesting guidelines, and forest certification standards.



# Tribal Treaty Rights

---

- **Ownership:**
- Tribal land ownership is complicated.
- Ownership patterns developed over time and under multiple Treaties.
- Different Tribes and Bands will have different ownership patterns.
- **Rights:**
- *Tribes have retained sovereignty, they were not granted anything.*
- *Usufructuary Rights (the rights to hunt, fish, gather, pass through and use for certain purposes).*





# Forest Plans

*U.S. Forest Service*

*Tribes*

*Department of Natural Resources*

*County Land Commissioners*

*Private Landowners*

*And more.....*

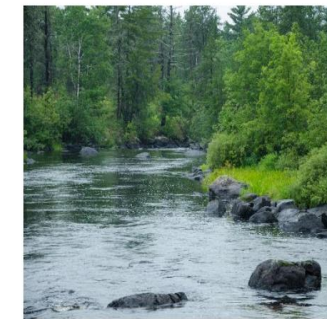
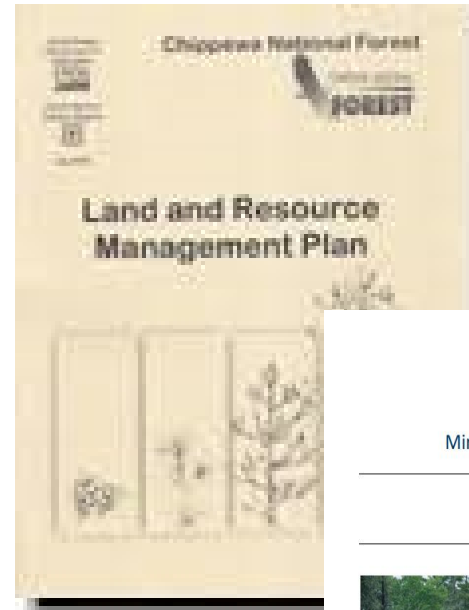
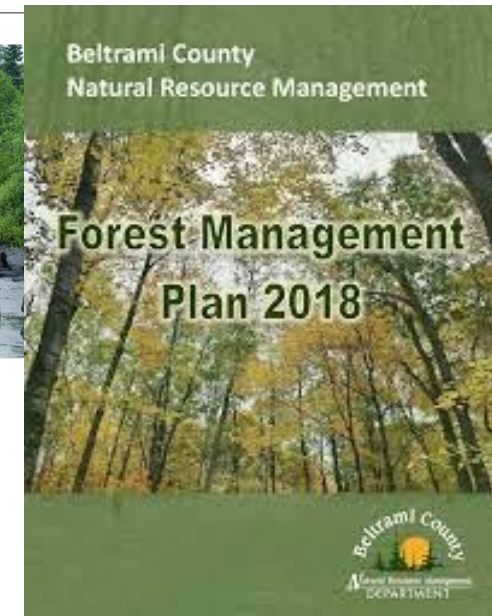


Figure 1 – Bear Island State Forest. Source: DNR.



CELEBRATING  
25 YEARS





# Forest Certification



The mark of  
responsible forestry



SUSTAINABLE  
FORESTRY  
INITIATIVE®



MINNESOTA  
FOREST  
RESOURCES  
COUNCIL

6/21/2022

[www.mn.gov/frc](http://www.mn.gov/frc)



# Forest Management Guidelines







## “Supporting Minnesota’s Climate Change Goals Through Development of Sustainable Forest Products Markets”

“**BE IT FURTHER RESOLVED**, the Minnesota Forest Resources Council commits to developing an **action and communications strategy** to further align new market development and sustainable forest management by:

**c. Recommending policies and strategies for attracting new markets that align with the state’s management objectives**, to potentially include energy products (e.g commercial and residential heating, pellets, biofuels) and non-energy products (e.g thermally-modified wood, biochar, activated carbon, biobased chemicals and extractives, and engineered and specialty wood products).