Forestry and Climate Change

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Climate Change and Forests: The Good

• Forests as carbon sinks
• Longer growing season
• CO$_2$ enhances growth
Climate Change and Forests: The Bad

- Tree mortality = emissions
- Increase in pests and diseases
- Forest fires ($CO_2$, $N_2O$, $CH_4$)
Climate Change and Forests: The Ugly

• Forests under stress
• Reproductive failure
• Boreal extirpation
• Extreme events = destruction
What to Do? - Mitigation

- Sink conservation
- Reduced emissions – DNR too!
- Enhanced sequestration
- Bio-energy
What to Do? - Mitigation

• Wood as a renewable fuel

• Sustainable harvest levels and practices – BHGs

• Public policy around tradeoffs
What to Do? - Adaptation

- Forests slow to change
- Managing long-term with uncertainty
- Choices – assess risk/reward
What to Do? - Adaptation

• We have many good tools; need different approach

• Approach:
  – Resistance
  – Resilience
  – Response
In Conclusion...

• Climate change is not for the squeamish!

• Decisions must be made with significant uncertainty – we can outline likely consequences of the choices

• Climate change will affect in significant ways most of what the DNR does
In Conclusion...

- This is the first great conservation challenge of the 21st century (but it won’t be the last)

- It’s an important time to be working in conservation!
Questions?