

Trends Exploration Workshop Summary

University of Minnesota
Boreal Forest and Community Resilience Project
September 27, 2012



Workshop Goals

Purpose

Draw on **data** and **information** presented thus far + **integrate with stakeholder knowledge**

Synthesize key trends relative to northeast landscape

Identify and prioritize key trends and implications to focus on in the Northeast Landscape Plan Update



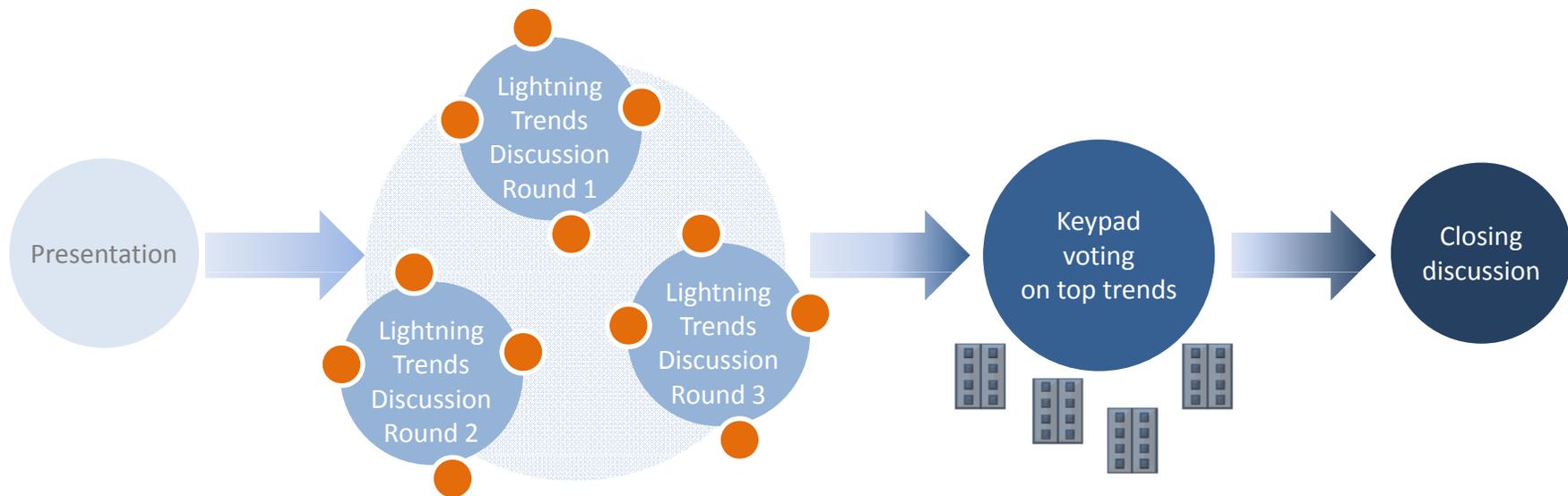
Outcomes

Learn about each others' perspectives

Build a base of support for plan & implementation

Have fun

June 12 workshop activities



Kick-off Presentation

Recap on what we heard from you and from experts in different topic areas

Topic areas: Economic, ecological, recreation, tribal, demographics, development, climate change, water and fisheries, wildlife

Worksheets highlighted your perspectives



Lightning Trends Discussions

First 5 minutes

individual brainstorming
about *trends and
implications*

Next 20 minutes

facilitator leads discussion of
trends and implications

Last 5 minutes

discussion participants
identify top *trends*
(using 3 dots)

Topics

- Administration & Funding
- Climate Change
- Demographics
- Development & Ownership
- Ecological Health
- ***Economic***
- Forest Products
- ***Invasive Species***
- Tourism
- ***Tribal Trends***
- Water & Fisheries
- Wildlife

topics in **italics were suggested at the beginning of the workshop activities*

Discussion questions:

What are the key trends relative to this topic that might be relevant to the Northeast Landscape Plan Update?

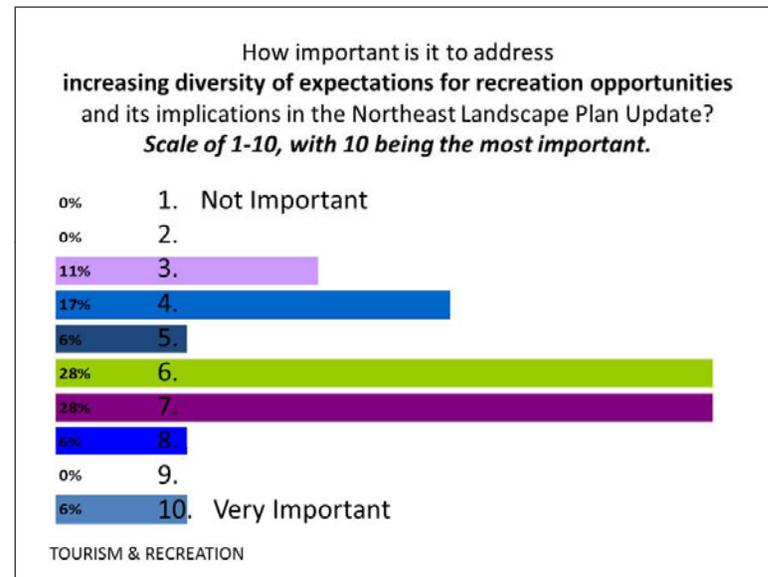
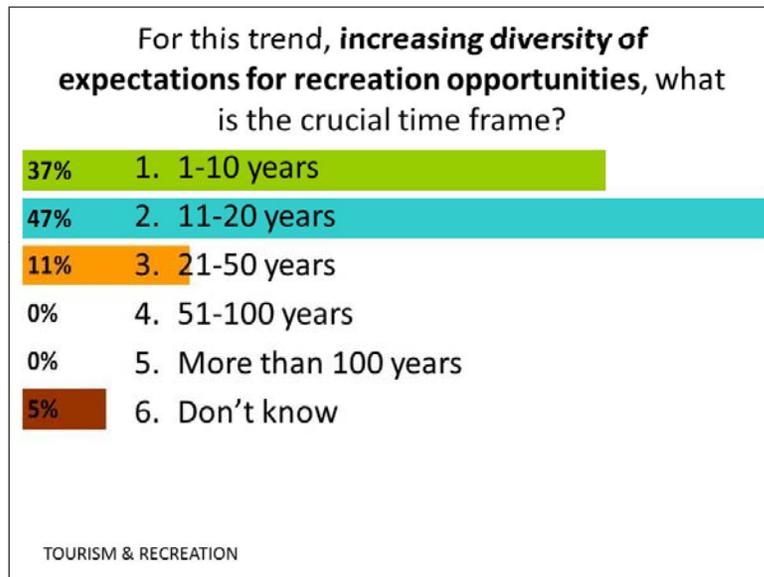
What are the implications of each of these trends in the northeast landscape?





Keypad Voting

Top trends in each topic



Voting questions

For this trend, what is the crucial time frame?

How important is it to address this trend in the Northeast Landscape Plan Update?



Keypad Voting Results

Question 1: For this trend, what is the crucial time frame?

- 1. 1-10 years*
- 2. 11-20 years*
- 3. 21-50 years*
- 4. 51-100 years*
- 5. more than 100 years*
- 6. don't know*



Summary Table : For this trend, what is the crucial time frame?

(pg 54-55)

Possible responses: 1=1-10 years, 2=11-20 years, 3=21-50 years, 4=51-100 years, 5=More than 100 years, 6=Don't know

Trend	Topic	Mean ¹	Mode	SD ¹	n	"don't know" responses #(%)
Not as effective in implementation of the NE Landscape Plan	Administration and Funding	1.00	1	0.00	18	6 (33.00%)
Increased political assertion by tribes	Tribal Trends	1.05	1	0.24	17	0 (0.00%)
Increased use of forest management guidelines	Water and Fisheries	1.11	1	0.33	19	2 (10.53%)
Ecological classification systems used by managers differ	Ecological Health and Condition	1.13	1	0.35	17	2 (11.76%)
Increase in mining pressure	Development and Ownership	1.18	1	0.39	18	1 (5.56%)
Need for collaboration	Wildlife	1.22	1	0.55	18	0 (0.00%)
Declining forest products industry	Forest Products	1.24	1	0.56	18	1 (5.56%)
Increased tribal capacity to exercise vested rights on the landscape	Tribal Trends	1.25	1	0.58	19	3 (15.79%)
Declining moose populations	Wildlife	1.26	1	0.45	19	0 (0.00%)
Need for more collaboration	Administration and Funding	1.28	1	0.75	19	1 (5.26%)
Increasing awareness of the need for management	Forest Products	1.35	1	0.49	18	1 (5.56%)
Elevation of mining as a new resource economy	Economic	1.40	1	1.12	19	4 (21.05%)
Increasing water temperature	Water and Fisheries	1.41	1	0.62	19	2 (10.53%)
Positive feedbacks between invasives plus interactions with human disturbances	Invasive species	1.44	1	0.78	19	1 (5.26%)
Increasing storm intensity	Water and Fisheries	1.50	1	0.65	19	5 (26.32%)
Hard rock / new mining	Demographics	1.53	1	1.06	18	3 (16.67%)
Aging population	Demographics	1.53	1	0.64	19	4 (21.05%)
Changing markets resulting in changing management	Economic	1.56	1	0.70	19	1 (5.26%)
Increases in insect outbreaks and new insects due to climate change and other factors	Invasive species	1.56	1	0.70	19	1 (5.26%)

¹ Value 6 (Don't know) is removed from mean and SD calculation to capture mean and standard deviation of the time scale responses.

Summary Table : For this trend, what is the crucial time frame?

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continued...

Trend	Topic	Mean ¹	Mode	SD ¹	n	"don't know" responses #(%)
Increase in small parcel size	Development and Ownership	1.59	1,2	0.62	19	2 (10.53%)
Declining cold water fish populations	Water and Fisheries	1.65	1	0.79	19	2 (10.53%)
Uncertainty is increasingly recognized	Climate Change	1.67	1,6	0.89	19	7 (36.84%)
Increasing diversity of expectations for recreational opportunities	Tourism and Recreation	1.72	2	0.67	19	1 (5.26%)
Changes in forest management and fire affecting wildlife habitat and populations	Wildlife	1.78	1	0.94	18	0 (0.00%)
Increasing detachment from the natural environment	Tourism and Recreation	1.82	1	1.19	19	2 (10.53%)
Shifts in mega-fauna	Wildlife	1.83	2	0.62	19	1 (5.26%)
Decreasing anglers	Water and Fisheries	1.87	2	1.06	19	4 (21.05%)
Changing forest products	Forest Products	1.89	2	0.68	19	1 (5.26%)
Species shift and phenological changes	Climate Change	2.28	1,3	1.23	18	1 (5.26%)
Long-term landscape scale homogenization	Ecological Health and Condition	2.55	6	1.37	17	6 (35.29%)

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Average and most frequent response on all trends suggests somewhat immediate timeframe (1-20 years)

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From first part of the table...

Elevation of mining as a new resource economy
Hard rock / new mining

SD¹

1.12
1.06

A divergence on when people perceived the key trend would become relevant or important.

Time Frame Question Summary

- Average and most frequent response on all trends suggests **somewhat immediate time frame** (1-20 years)
- A **divergence** on perspectives on some trends as to **when it would become relevant or important**
 - *Increasing detachment from the natural environment*
 - *Decreasing anglers*
 - *Species shift and phenological changes*
 - *Long-term landscape scale homogenization*
 - *Elevation of mining as a new resource economy*
 - *Hard rock / new mining*

Keypad Voting Results

Question 2: How important is it to address this trend in the Northeast Landscape Plan Update?

1. *Not important*
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
10. *Very Important*



Summary Table : How important is it to address [name of trend] and its implications in the Northeast Landscape Plan Update? (pg 56-57)

Possible responses: scale of 1-10, 1=not important, 10=very important

Trend	Topic	Mean	Mode	SD	n
Changing markets resulting in changing management	Economic	8.50	10	1.46	16
Not as effective in implementation of the NE Landscape Plan	Administration and Funding	8.26	10	2.21	19
Increases in insect outbreaks and new insects due to climate change and other factors	Invasive species	8.16	10	1.98	19
Declining forest products industry	Forest Products	8.12	10	2.62	19
Increased use of forest management guidelines	Water and Fisheries	8.11	10	2.11	19
Need for more collaboration	Administration and Funding	8.02	10	2.30	19
Need for collaboration	Wildlife	8.00	10	2.24	19
Species shift and phenological changes	Climate Change	7.89	8	2.26	19
Declining moose populations	Wildlife	7.84	8	2.34	19
Increase in mining pressure	Development and Ownership	7.74	10	2.70	19
Increasing awareness of the need for management	Forest Products	7.74	8,10	2.08	19
Changes in forest management and fire affecting wildlife habitat and populations	Wildlife	7.68	8	2.11	19
Positive feedbacks between invasives plus interactions with human disturbances	Invasive species	7.53	8	2.37	19
Increased tribal capacity to exercise vested rights on the landscape	Tribal Trends	7.53	10	2.65	17
Increase in small parcels	Development and Ownership	7.47	10	2.61	19
Increasing water temperature	Water and Fisheries	7.37	8	2.54	19
Increased political assertion by tribes	Tribal Trends	7.26	10	3.18	19
Increasing storm intensity	Water and Fisheries	6.72	10	3.10	18
Declining cold water fish populations	Water and Fisheries	6.63	10	3.17	19

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Elevation of mining as a new resource economy	Economic	6.58	10	3.55	19
Shifts in mega-fauna	Wildlife	6.53	8	2.46	19
Uncertainty is increasingly recognized	Climate Change	6.26	10	3.33	19
Increasing diversity of expectations for recreational opportunities	Tourism and Recreation	5.89	6,7	1.81	18
Hard rock / new mining	Demographics	5.80	10	3.54	19
Changing forest products	Forest Products	5.68	5	2.43	19
Long-term landscape scale homogenization	Ecological Health and Condition	5.21	5,10	3.58	17
Increasing detachment from the natural environment	Tourism and Recreation	5.12	3	2.69	19
Aging population	Demographics	4.58	8	2.65	19
Decreasing anglers	Water and Fisheries	3.11	1	2.54	18

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Aging population	Demographics	4.58	8	2.65	19
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Average vote for nearly all of the trends (28 of 30) is five or greater, indicating many respondents felt that the trends identified in this process are relatively important to address in the NE Landscape Plan Update.

Northeast Landscape Plan Update Question Summary

- Many respondents felt that most of the trends identified in this process are **relatively important to address in the NE Landscape Plan Update**
- Top trends are related to **forest health** and **forest industry**, or **collaboration and management**
- Notably, **mining is present** among those issues deemed most important
- **Administration and funding** issues rose to the top as key issues to be addressed in the plan update, with both of the associated trends showing up among the top 6 trends

Closing Discussion

Questions

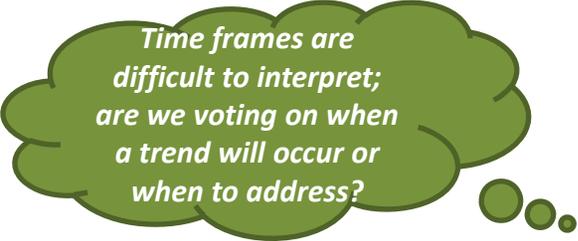
Is there anything that surprised you related to the results of the discussion?

Are there important trends that are missing from these topical areas that need to be addressed?

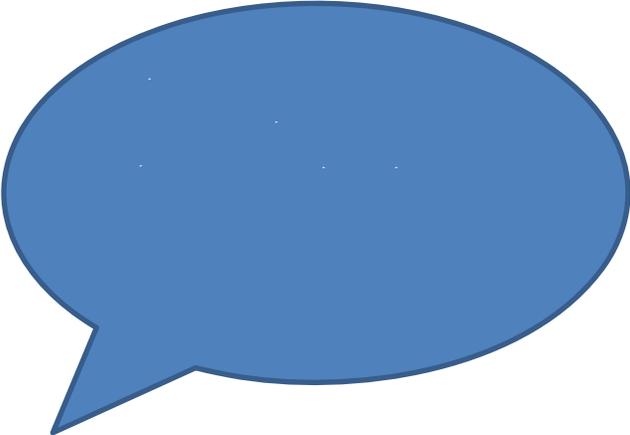
Among the trends identified by the groups, where is there significant uncertainty about the trend or its potential implications and what is the source of this uncertainty?



**Difference in perception
of trends by public or
private land owners**



*Time frames are
difficult to interpret;
are we voting on when
a trend will occur or
when to address?*



**Missing
political
trends**



Workshop Purpose

- ✓ Generate a list of key trends and implications
- ✓ Provide a prioritized list of trends to be addressed in the update process, and
- ✓ Allow participants to actively participate in framing potential content for the Northeast Landscape Plan Update.

Questions / Comments?

Report was emailed to all planning committee members and will be posted at:
http://www.frc.state.mn.us/initiatives/ilm_committees_northeast.html