

ITASCA COUNTY CLIMATE DIALOGUE

MAY 2015



RURAL CLIMATE DIALOGUES

Rural communities are at-risk to be seriously affected by both the direct impacts of a changing climate (e.g. extreme weather) and by efforts to mitigate those changes. This is especially true in considering solutions and policies that increase energy, resource, or transportation costs.

At the same time, much of the “production” in climate-sensitive economies will occur in rural areas, including through renewable energy deployment, reinvigorated local and regional food economies, and changes to land use patterns. Rural communities will and must play an integral role in addressing climate issues.

Despite this significance, rural communities have often been overlooked in climate conversations; political debate and policy changes have tended to emphasize urban and suburban perspectives. In many communities, incomplete information and limited public participation have prevented sound, publicly-supported policy from emerging.

But it doesn't have to stay this way.

Rural residents and communities can develop innovative solutions that respond to local and regional challenges to remain vibrant and prosperous. Recent research has shown that 85 percent of rural Minnesotans feel that people like themselves can make an impact and improve local quality of life; 75 percent believe their community can work together across differences.

Drawing on this resilient attitude, rural communities – in conjunction with the **Jefferson Center** and the **Institute for Agriculture and Trade Policy** – are seeking to move conversations on climate change forward.

Climate Dialogues help rural communities think critically and plan strategically to address local challenges related to weather and climate. To foster high-quality engagement, we use the time-tested Citizens Jury method for community problem solving and leadership development. This approach—which brings together a microcosm of the community to study an issue in-depth and generate a shared community response—has consistently provided a productive, educational, and inclusive way to address complex, divisive challenges.

The **Itasca County Climate Dialogue** is the second in a series of projects aimed at galvanizing rural citizens to assert leadership and build resiliency in the face of extreme weather and changing climate conditions.

This Dialogue brought together a randomly selected but demographically balanced group of 18 citizens from Itasca County in an intense, three-day moderated study and deliberation forum. They were tasked with creating a shared, community-based response to changing weather conditions and extreme weather events. Beyond that charge, the group was completely citizen-driven—no one told them what to do or what to think. The panel had the liberty, information, and resources to produce their own recommendations that respond to community needs, priorities, concerns, and values in order to maintain and strengthen the resilience and prosperity of Itasca County. These recommendations will serve as a starting point for community conversations on extreme weather and climate.

The Jefferson Center and the Institute for Agriculture and Trade Policy, along with our local partners, will work to widely publicize the event and engage panelists and community members inspired by the conversation to work on these issues as local leaders. We'll continue to support the community as they work to implement citizen recommendations.

The Rural Climate Dialogues help develop and amplify an informed voice of the people so that regional, state, and national policymakers can take their needs into account when developing climate policy. Through the expansion of this project, we hope to build better climate change policy and stronger, civic-minded communities across rural Minnesota.

DIALOGUE PROCESS

Eighteen Itasca County citizens met at the Timberlake Lodge in Grand Rapids, Minnesota for 3 days, 8:30am to 5:00pm, starting Thursday, May 14th and concluding Saturday, May 16th. Participants were randomly selected and stratified to include a balanced representation of the Itasca County population. Participants were paid \$375 plus expenses for the three days.

The group was tasked with deciding how Itasca County might best address extreme weather and a changing climate in order to remain a healthy, resilient, and prosperous community. To respond to this charge, community panelists identified and prioritized significant challenges to the long-term prosperity of the community, opportunities to respond to those challenges, and individual and community actions to directly address challenges or realize opportunities. Those challenges, opportunities, and actions, along with other important outcomes from the three days, are highlighted in this report.

A detailed outline of the three day process is offered below.

DAY 1

- » Panelists meet one another and discuss goals and expectations for the 3 days
- » Panelists engage in a simulation exercise as an introduction to the process of assessing information and working together to achieve shared results
- » Panelists determine what makes a question “good” for getting clear and useful information
- » Presentation on local extreme weather and climate conditions by Mark Seeley (*University of Minnesota Extension*)
- » Presentation by Brian Palik (*USDA Forest Service*)

DAY 2

- » Presentation by John Latimer (*KAXE*) on phenology and wildlife
- » Presentation by Tim Goeman (*DNR*) on fisheries
- » Presentation by Megan Christianson (*Visit Grand Rapids*)
- » Presentation by Julie Kennedy (*City of Grand Rapids*) on public infrastructure
- » Presentation by Michael Duval (*DNR*) on water resources
- » Group deliberation about all speakers
- » Presentation by Grand Rapids High School students

DAY 3

- » Panelists identify and select top challenges
- » Panelists identify and select top opportunities
- » Panelists identify top actions
- » Panelists write final statement in group editing process

STATEMENT FOR OUR NEIGHBORS

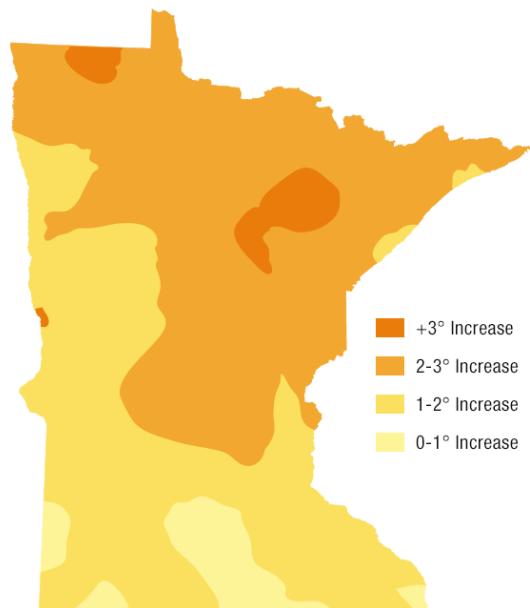
From May 14–16, 2015, we came together as 18 residents of Itasca County to consider changes in our weather and climate and the impacts of those changes on our economy, tourist industry, public infrastructure, forests, fish and wildlife, and water resources. Based on this experience and testimony from local subject matter experts, we created the following report.

Evidence points to changing weather patterns, which will likely affect all of our lives in some way. These changes will have a real measurable impact on our overall economy, personal finances, health, and culture. The tourism, lumber, and outdoor life (fishing, hunting, hiking, camping, etc.) components of our economy can adapt and thrive with thoughtful long-term management.

We as individuals and communities have the power to take action by working together. By doing so, we can improve our environment, save our natural resources, address the effects of changing weather, and create more opportunities to make a more vibrant community.

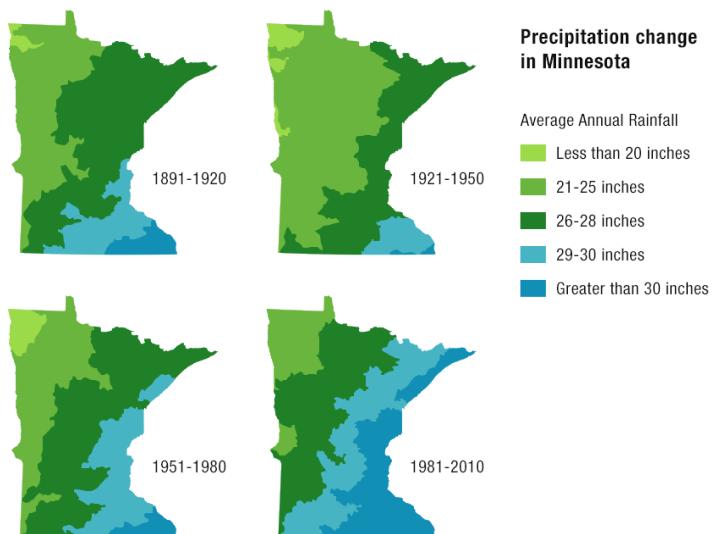
KEY WEATHER AND CLIMATE FACTS

- » Climate is never constant, but our climate is changing more rapidly than it ever has in our measurement history.
- » The general character of Minnesota's climate, including in Itasca County, is experiencing rising temperatures and more precipitation.
- » Precipitation is more often created during thunderstorms. This creates larger geographic disparities (areas where rain falls and where it doesn't), leading to a higher frequency of drought. For example, a county can be in drought and a declared flood zone at the same time.
- » Grand Rapids has seen a 22% increase in precipitation since the 1920–1951 average. Precipitation has especially increased in the last 3–4 decades.
- » We are seeing more extreme weather events (heat waves and flash floods) in the last two decades than in the previous period of climate measurements, dating back to the 1840s.

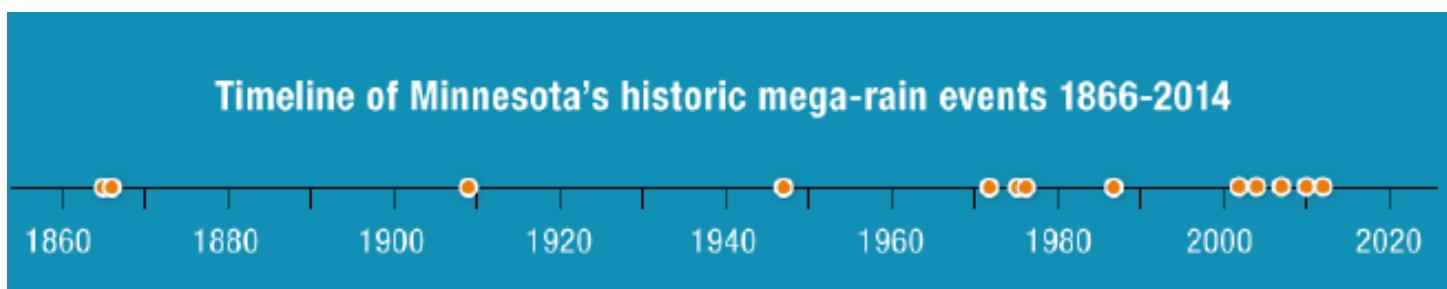


Change in average temperature from 1901–1960 period to 1991–2012 period. Graphic by Jaime Chismar for Minnesota Public Radio News. © 2015 Minnesota Public Radio. Used with permission. All rights reserved. Data source: National Climate Assessment

- » The mean values of nighttime minimum temperatures are increasing at twice the rate of the mean values of daytime maximums.
- » Tropical and more severe weather is becoming more common further north, leading to increasing heat indices rather than just higher air temperatures.
- » The change in weather and climate affects the livelihood of residents of Itasca County in many ways. These changes influence not just our economic livelihood, but health, energy use, infrastructure, and many other aspects of our life.



Graphic by Jaime Chismar for Minnesota Public Radio News. © 2015 Minnesota Public Radio. Used with permission. All rights reserved. Data source: Minnesota DNR



1866-1965

Four mega-rains in 100 years

August 6, 1866

Killed 16 people in Fillmore County.

July 17-19, 1867

Known as the state's greatest flash flood, in central Minnesota.

July 20-22, 1909

Extensive across northern Minnesota, killed 2 children in Duluth.

September 9-10, 1947

More than 8 inches in five hours at Hibbing.

1966-1999

Three mega-rains in 33 years

July 21-22, 1972

Nearly 11 inches in 24 hours at Ft. Ripley, a state record at the time.

June 28-29 and July 1-2, 1975

Intense rain in northwestern Minnesota in two events.

July 23, 1987

9 inches at Minneapolis-St. Paul International Airport, a record.

2000-2014

Five mega-rains in 14 years

June 9-10, 2002

More than 12 inches in 48 hours in northern Minnesota.

September 14-15, 2004

More than 10 inches in 36 hours in Faribault and Freeborn counties.

August 18-20, 2007

15 inches near Hokah, state record for 24 hours.

September 22-23, 2010

More than 10 inches at Amboy.

June 19-20, 2012

7 inches in two day in Duluth, St. Louis River at record level.

Graphic by Jaime Chismar for Minnesota Public Radio News. ©2015 Minnesota Public Radio. Used with permission. All rights reserved. Data source: Minnesota Department of Natural Resources. State Climatology

TOP CHALLENGES FOR ITASCA COUNTY

1. Extreme temperature variations and severe flooding conditions reduce the life of capital assets and increase operational disruptions for public infrastructure. We need to consider new design standards for our stormwater systems to address larger precipitation events and new regulations. There are significant economic costs associated with future designs.
2. We need to emphasize management of natural resources from a long-term perspective (such as 50 years or more) and use a systems approach (recognizing that everything is interrelated) to more effectively manage and protect natural resources and ensure a legacy for future generations.
3. Stormwater runoff can increase sediment and phosphorus load in waterways, which can reduce water quality.
4. Fish community composition is changing. This will affect angling opportunity, Minnesota's fishing economy, and our outdoor culture.
5. We are experiencing vast temperature extremes (ex. early springs followed by a cold snap) that affect the availability of food (shifts in timing between plants blooming and insects emerging after winter) and the prevalence of suitable habitat for some bird and insect species, which threaten the populations of these species.
6. Emerald Ash Borer is expanding its territory into northern Minnesota and Itasca County because of warmer winters. The Emerald Ash Borer will wipe out our black ash forests, which grow in wet areas that may not be suitable for replacement by other tree species.
7. There will be less water and more water at different times, because of changes in precipitation patterns and temperature.
8. The increasing prevalence of drought in summers reduces the growth and health of pine forests that are overly dense. Reduced growth and declining health in pine forests could negatively impact the timber industry (due to declines in forest productivity) and the tourism industry (due to decreasing aesthetic quality).
9. The Itasca area will become less hospitable to certain tree species and more favorable to others. This corresponds roughly to tree habitat moving northeast.
10. More drastic weather conditions – rainy springs, dry summers, unpredictable snow conditions – potentially mean fewer tourists choosing to stay in Grand Rapids and Itasca County. Tourism is a very important driver of local economic activity.

TOP OPPORTUNITIES FOR ITASCA COUNTY

1. We can manage forests so they're more adaptable in the face of changing conditions by pursuing the following strategies:
 - Manage forests for diversity so that they contain their full array of native tree species, some of which may be adapted to future climate conditions, and evaluate tree species southwest of the Itasca area for suitability to future climate conditions.
 - Thin overly dense pine forests on a regular basis to increase soil moisture and tree growth, improve pine resistance and resilience against drought, and produce a marketable supply of good-sized pines to timber mills.
 - Address the potential loss of ash trees (due to Emerald Ash Borer) by managing forests to ensure growth of new species, using small patch cutting to create suitable habitat for new species, and by evaluating the species best suited to replace ash trees.
2. Information is power. We can ensure information is accessible. Decision-makers at all levels – including individuals, government, and businesses – need to be informed and engaged concerning how changes in climate affect our natural resources and economy. It's important to adapt present practices based on new information.
3. We can accept changes to natural systems and change the way we manage these systems. One opportunity is to move natural resource management into a long-term planning and sustainability mode, which includes empowering citizen interests in the planning process and being adaptive but realistic about changes.
4. To manage excessive water during extreme weather events, we can reduce imperviousness and allow water to infiltrate into the ground; we can adapt stormwater infrastructure to hold higher volumes; and we can maintain riparian buffers and forest cover, using natural features that slow or retain water.
5. To effectively manage water in times of drought, we can implement water conservation measures to maximize the benefit of every drop of water; we can prioritize water uses and allocations by identifying the most important uses to maintain in a drought; and we can plan water-consumptive development.
6. After a drastic weather event (which may deter tourism), we can communicate correct information and get it out there in a timely manner (like Visit Duluth after the 2012 storms and flooding).
7. We can protect and preserve habitat and food sources for bird and insect populations.
8. We can market what we have, by marketing alternatives to snow (like ice) during seasons with low snowfall.
9. To ensure public safety and reduce property damage during and after extreme weather events, we can avoid developing in floodplains.
10. To protect and strengthen our infrastructure we can increase the life of our capital investments and reduce operational disruptions.

NECESSARY ACTIONS FOR ITASCA COUNTY

Individual Actions

- » We can change the way we manage our individual properties to protect wildlife habitat and water quality:
 - Create more natural or wild areas so that bird and insects have more habitat
 - Build birdhouses to provide habitat for birds
 - Leave dead trees and snags on our property (if they don't threaten our structures)
 - Plant flowers and native plants on our property (without diminishing our property values)
 - Plant early blooming plants on our property to provide more food sources for insects
 - Encourage attitude shifts away from highly manicured "Home and Garden Magazine" lawns (which remove habitat for insects and birds and adds carbon dioxide to the atmosphere to maintain) to "wilder" properties
 - Reduce or eliminate the use of pesticides to protect from insects
 - Raise our own bees
 - Address stormwater runoff and noncompliant septic systems (if you own waterfront property)
- » Actions by individuals add up! We can insulate our homes, use efficient bulbs and appliances, use solar power, travel by bike, improve the fuel efficiency of our vehicles, travel less, increase energy efficiency, and pursue alternative energy sources.
- » We can participate in public decision-making meetings related our infrastructure systems. Get involved by asking what you can do on your property to address stormwater and infrastructure issues. To understand and be involved in managing our public infrastructure, we can get educated on local regulations, the latest research and trends, and the consequences of pursuing different public policies; and we can share knowledge with our friends, peers, and neighbors.

Community Actions

- » We can install green infrastructure to reduce stormwater runoff on new developments. We can reduce risks associated with stormwater runoff by pursuing low impact development best practices. We should educate our public officials and our general public about balancing risks associated with stormwater and the costs of managing stormwater. We should pay attention to new data and research.
- » To ensure tourists come to Itasca County, we can be adaptive and focus on what we have. We can create new reasons for tourists to come to Itasca County if weather conditions don't support traditional tourist activities.
- » To improve our infrastructure systems, we should be more creative and keep an open mind, for example, by implementing green design ideas (e.g. new thermal pavements that reduce damage related to severe fluctuations in temperature).

For the full list of challenges, opportunities, actions, and other resources, visit:

JEFFERSON-CENTER.ORG/ITASCA

RURALCLIMATENETWORK.ORG/CONTENT/RURAL-CLIMATE-DIALOGUE-ITASCA-COUNTY-MN

PANELIST DEMOGRAPHICS

Invitations to participate in the Itasca County Climate Dialogue were sent to 5,000 randomly selected households in Itasca County. Interested citizens completed a questionnaire with demographic information and were then added to a pool of potential panelists. 18 panelists were selected from that pool, chosen anonymously to match the demographics, as near as possible, of the county.

DEMOGRAPHIC	ITASCA COUNTY PERCENTAGE	IDEAL # OF PARTICIPANTS	ACTUAL # OF PARTICIPANTS
GENDER			
Female	50%	9	9
Male	50%	9	9
RACE/ETHNICITY			
Caucasian/White	93%	16-17	17
Persons of Color/Multiracial	7%	1-2	1
PARTY AFFILIATION			
Democrat	28%	5	4
No Party, Other	44%	8	10
Republican	28%	5	4
AGE			
15-39	31%	6	5
40-64	45%	8	8
65 & over	24%	4	5
EDUCATION			
Less than High School	7%	1-2	0
High School or GED	61%	10-11	10
Associate's/Bachelor's	25%	4-5	6
Graduate degree	7%	1-2	2
TOTAL NUMBER OF PARTICIPANTS	100%	18	18

PANELIST PERSPECTIVES

“I really had no interest in signing up – my wife signed me up. But I came and I’m really glad I came. It was good to see all the different sides of the issue and I learned a lot, too. I’ve got to hand it to you guys – taking 18 people and trying to get all these opinions, balanced opinions, and facilitate this and channel this group to come up with a product in 3 short days, all things considered, you did a great job.”



“I learned a ton of information. I knew of climate change but **I really had no idea just how much it affected me personally.**”



“It’s been a wonderful adventure and I’m really glad I was invited to this. I really want to compliment [the staff]. You guys are phenomenal and you really know how to make personalities interact in a professional way. You guys are awesome.”

“My brain’s been frazzled a couple times, but I think I learned a lot of things, things that I hadn’t thought about. **And I like to think that I have 17 new friends.**”

GRAND RAPIDS HIGH SCHOOL STUDENT DIALOGUE

We strive for demographic diversity and inclusion in all Climate Dialogues, including by asking students to participate. Due to the timing of the Itasca Climate Dialogue, students were unable to participate in the three-day May event. We decided instead to host a compressed Climate Dialogue at the Grand Rapids High School. Brielle Carlson's advanced geography students and Shawn Linder's agriculture and natural students participated in a week long project studying and discussing the changes in climate and weather in Itasca County. Students began by researching some of the impacts of changes in climate and weather across Minnesota. Students then identified and invited local experts representing a range of perspectives and backgrounds to discuss changes in Itasca County during a panel Q&A session:

Bud Stone – President, *Grand Rapids Chamber of Commerce*

Megan Christianson – Executive Director, *Visit Grand Rapids*

John Latimer – Phenologist, *KAXE*

David Roerick – Retired, *US Forest Service*

Perry Loegering – Grand Rapids Area Wildlife Manager, *Department of Natural Resources*

Brian Palik – Research Ecologist, *US Forest Service*

Harry Hutchins – Natural Resources Instructor, *Itasca Community College*

Jack Rajala – *Rajala Companies*

Before the expert panel session, students came up with a set of questions based on their research and group deliberation. Students asked questions of the panel in a 2 hour assembly. Students spent the next few days considering the speakers' perspectives and researching solutions to some of their top concerns. A group of students presented their findings to the Itasca Climate Dialogue participants on May 15th.

You can read more about the students' work at:

ruralclimatennetwork.org/content/rural-climate-dialogue-itasca-county-mn



INTERESTED IN YOUR OWN CLIMATE DIALOGUE?

The Jefferson Center and the Institute for Agriculture and Trade Policy are in the process of identifying communities across Minnesota for future Climate Dialogues. If you are interested in hosting a Dialogue in your community, or would like to receive additional information, please contact:

Andrew Rockway at arockway@jefferson-center.org / 651-209-7672

Anna Claussen at aclaussen@iatp.org / 612-870-3423

Hosting a Climate Dialogue requires significant engagement with community members months prior to the event in order to identify issues of principal concern, engage local and regional experts, work with community institutions to develop information sources, and determine community receptivity among policymakers and the general public to incorporate Dialogue findings into community planning efforts.



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The Jefferson Center is a nonpartisan organization committed to strengthening democracy by advancing informed, citizen-led solutions to challenging public issues through deliberation and community action. We're collaborating with governments, nonprofits, and others to unleash the power of citizens and solve today's toughest challenges. We focus on building powerful coalitions, creating meaningful opportunities for education and public deliberation, and empowering citizen-led action.



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The Institute for Agriculture and Trade Policy is a Minnesota-based nonprofit working locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems and to foster vibrant, prosperous rural communities. We support rural communities through research, market development, and policy advocacy to address local challenges, including issues associated with extreme weather and a changing climate.