



Climate Executive Order 19-37  
Governor's Advisory Council on Climate Change  
November 30, 2020



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Background Climate Presentation

Frank Kohlasch | MPCA Climate Director

November 30, 2020

# One Minnesota Climate Vision

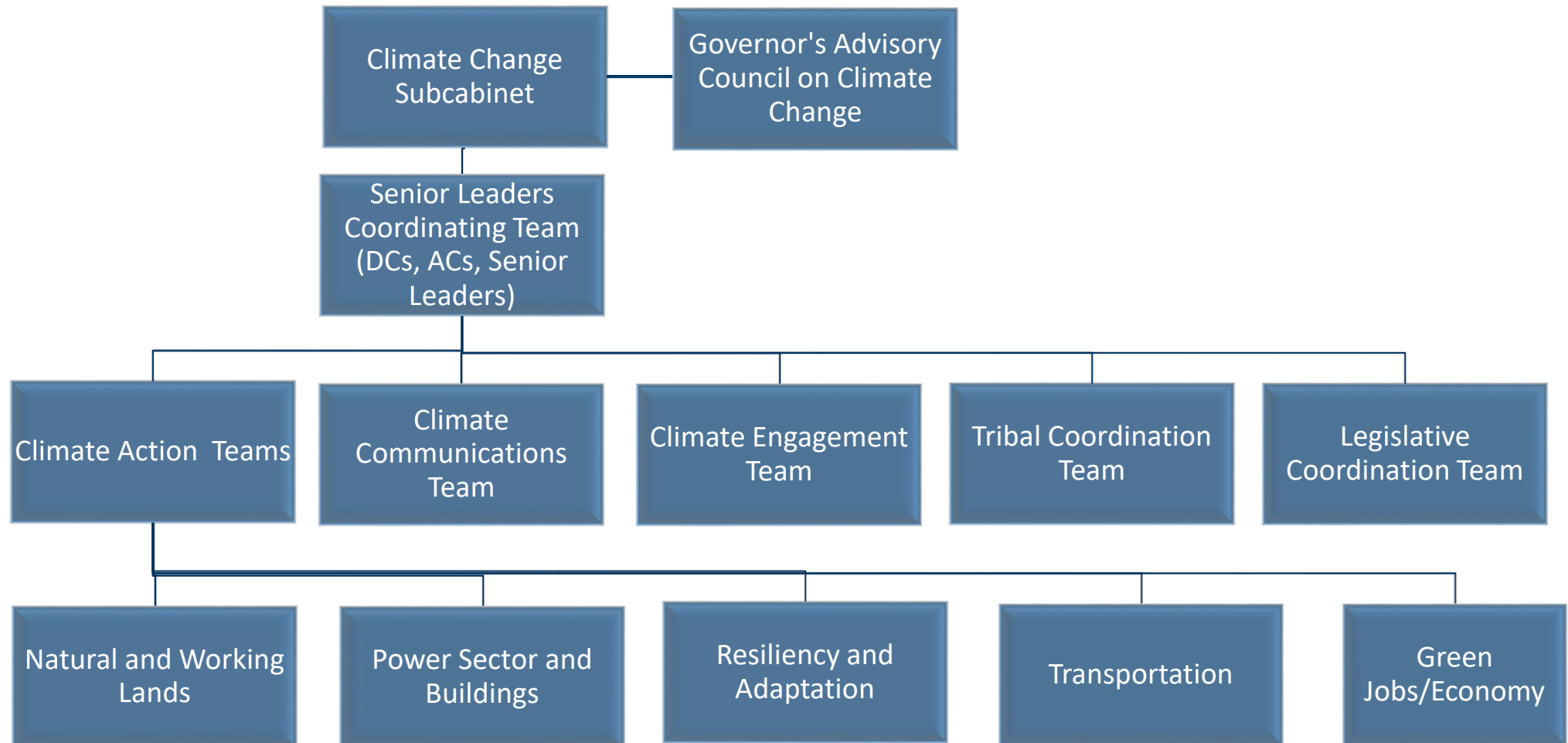
Climate change is an existential threat that impacts all  
Minnesotans

Establish and accelerate policies that put Minnesota on track to  
meet or exceed our greenhouse gas goals and  
achieve greater resiliency in the face of climate change.

## Executive Order 19-37

- Establishes a Climate Subcabinet
- Establishes a Climate Change Advisory Council
- Supports enhanced public engagement

# Climate Change Executive Order 19-37



# 2018 IPCC Climate Update

## High confidence findings:

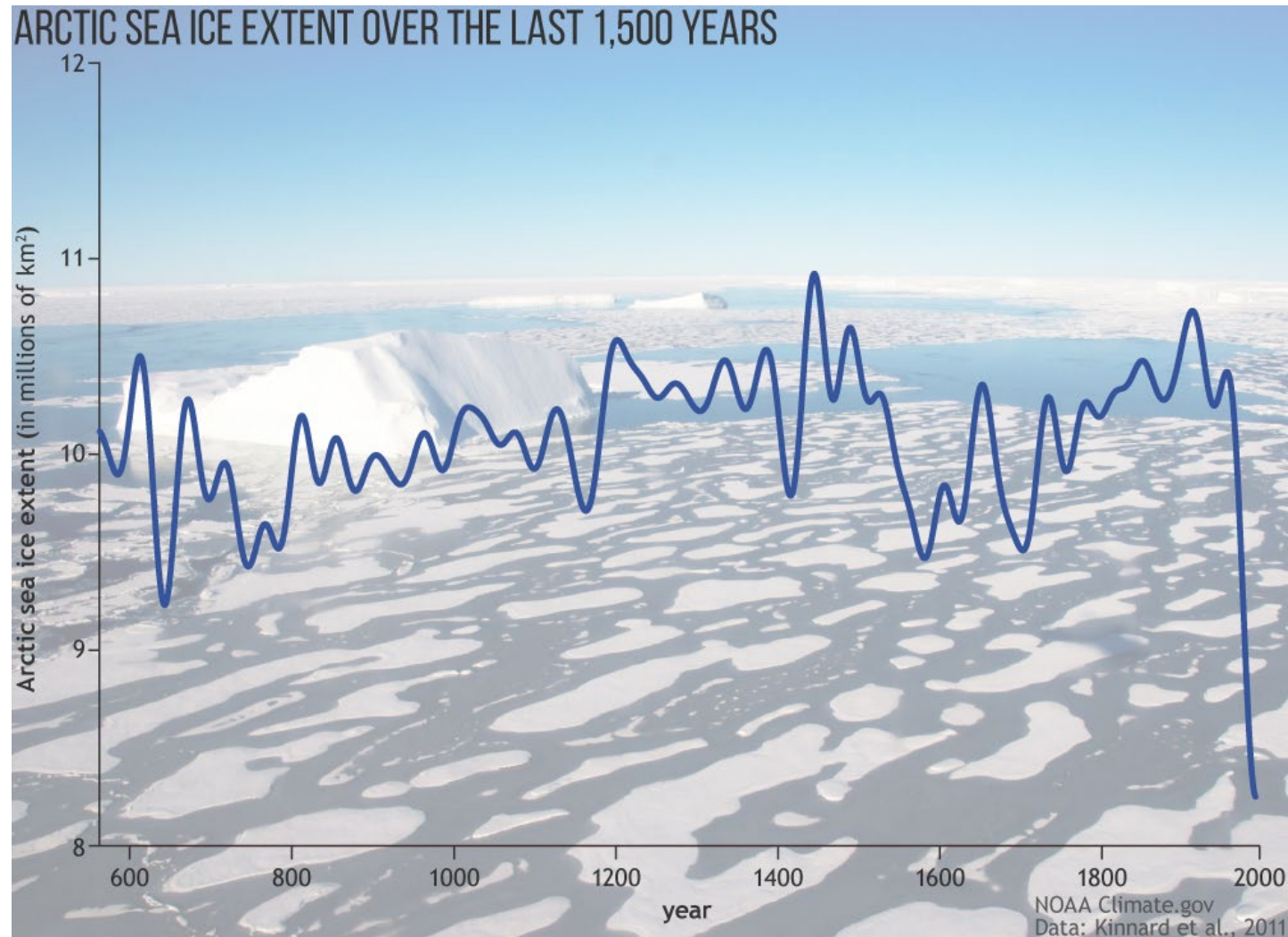
- Human activities have warmed the planet 1.0° C
- At current rate, warming will reach 1.5° C between 2030 - 2050
- 1.5° C warming reduces risks to oceans, land, humans, and infrastructure compared to 2.0° C warming

## What's needed:

- Net zero emissions by 2050 to maintain 1.5° C increase
- Net zero emissions by 2070 to maintain 2.0° C increase

**Bottom line:** “Rapid and far-reaching transitions” in all sectors

# Loss of Arctic sea ice



# National Climate Assessment: Midwest Climate Impacts

1. Reduced Midwest agricultural productivity

2. Increased tree mortality and reduced forest productivity

- Potential loss of economically and culturally important tree species
- Conversion of some forests to other forest types or even to non-forested ecosystems by the end of the century



# National Climate Assessment: Midwest Climate Impacts

3. Great Lakes, freshwater resources are most at risk

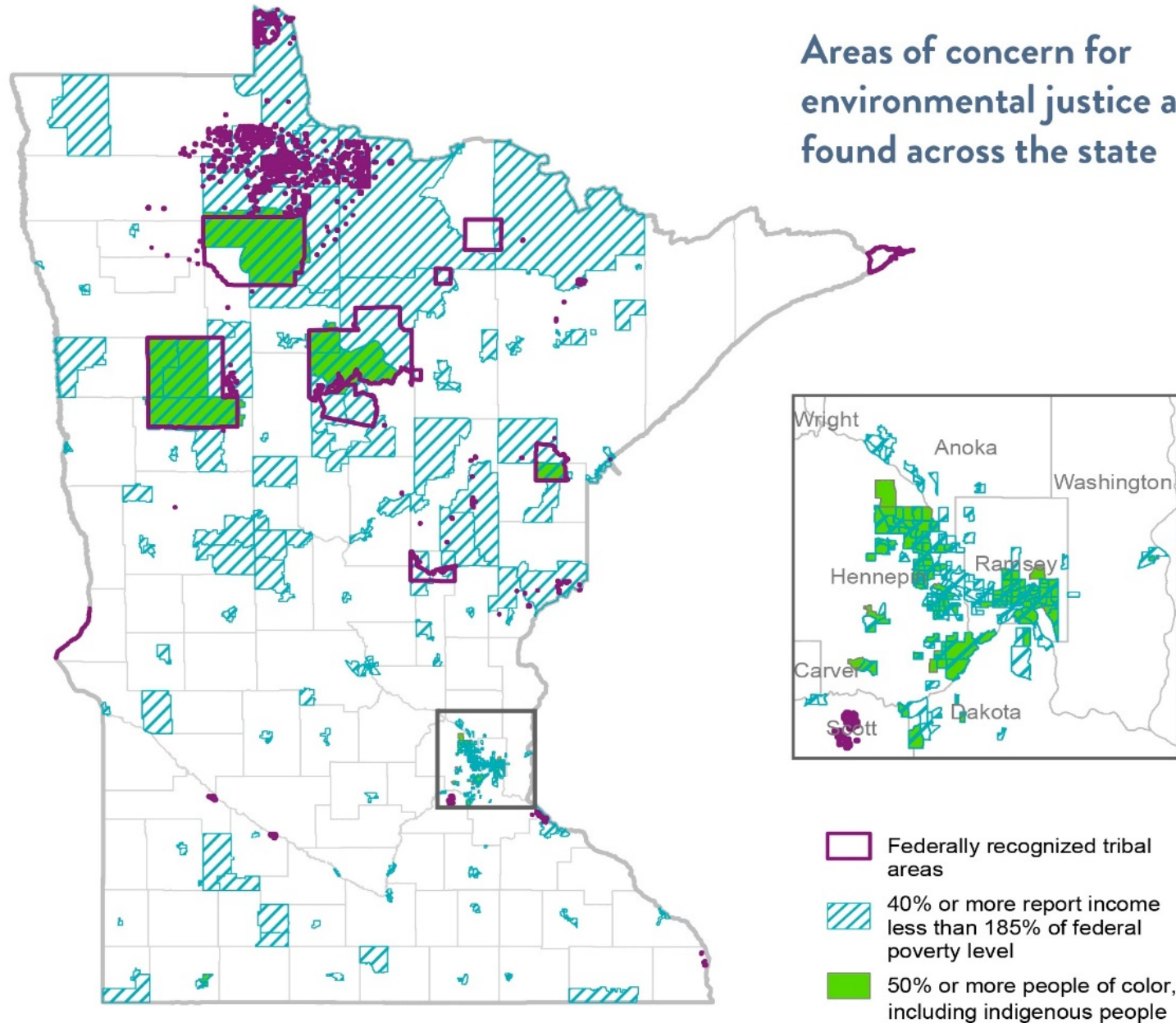
4. Human health and economic impacts

- Poor air quality days
- Extreme high temperature events
- Heavy rainfalls
- Extending pollen seasons
- Disease-carrying pests and insects

# National Climate Assessment: Midwest Climate Impacts

- 5. High price tag for adapting stormwater systems to new norms
- 6. Disproportionate impacts and higher risks for some communities

Areas of concern for environmental justice are found across the state



# Minnesota's climate is already changing

**Minnesota has warmed by nearly 3°F since 1895**

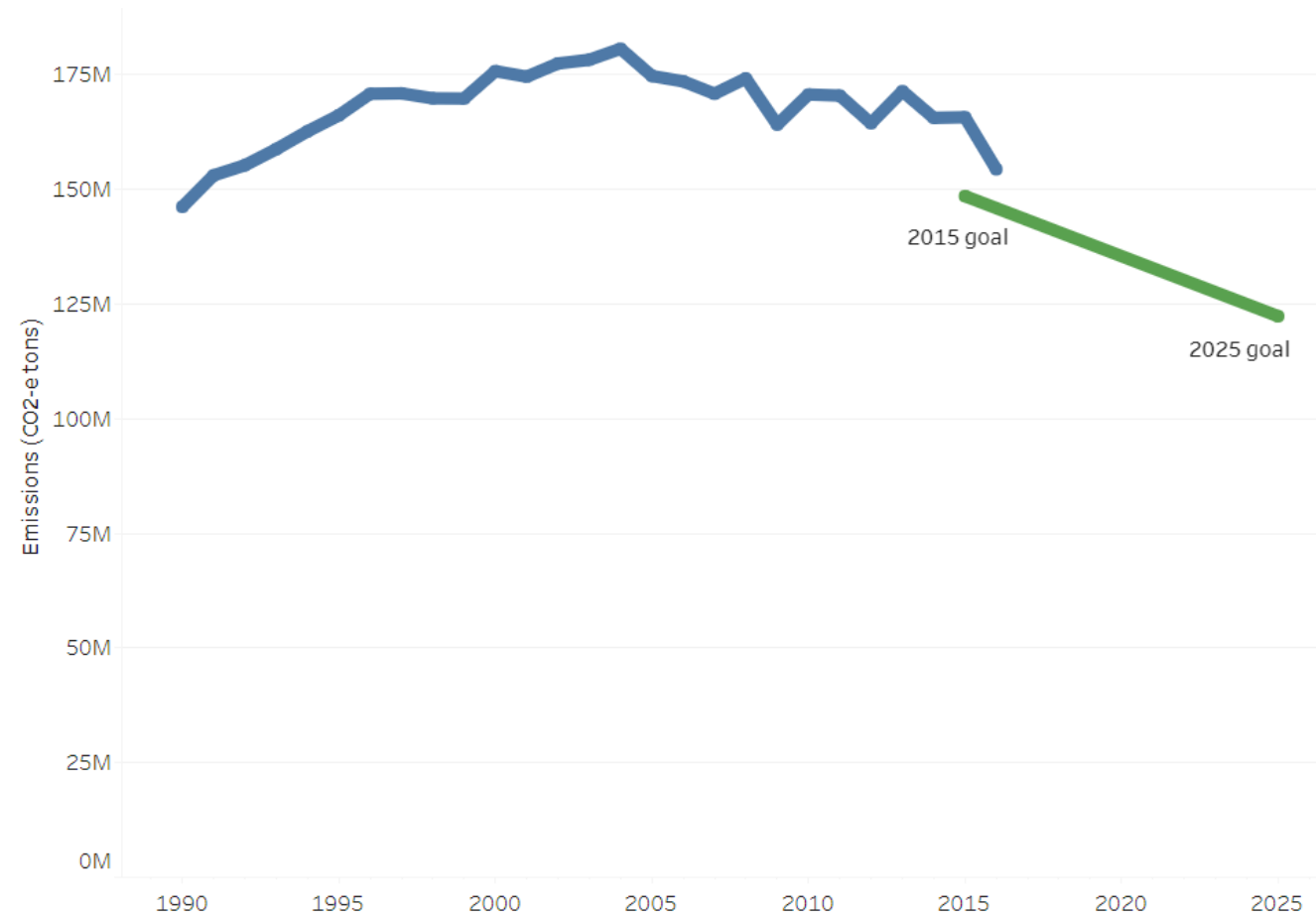
**Top 10 warmest and wettest years on record all occurred since 1998**

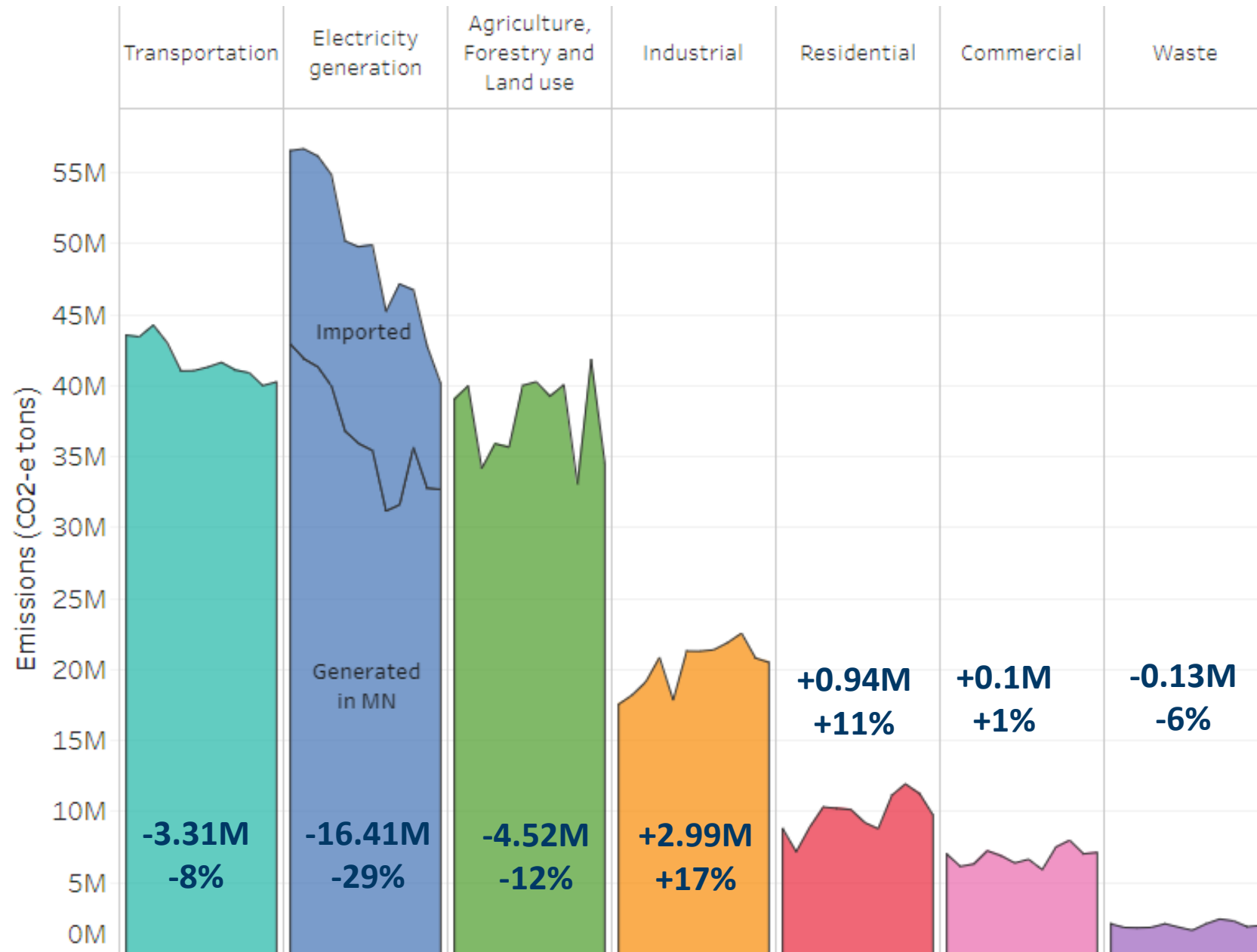
**Heavy rains are now more frequent and intense than at any time on record**



# We're not on track

## Minnesota's GHG emissions compared to our goals





## GHG emissions change by sector, 2005-2016

# Addressing Climate Change in Minnesota

## Power Sector

- Reduce carbon emissions from electricity generation, with a goal to achieve 100% carbon-free electricity

## Buildings

- Increase efficiency in and reduce emissions from new and existing buildings

# Addressing Climate Change in Minnesota

## **Land management incentives and assistance**

- Encourage land practices that reduce emissions, build soil health, protect water quality and assist in adapting to a changing climate
- Protect forest lands, including urban forests, from climate change assist with adaptation to a changing climate

## **Pursue market-based systems for land practices to reduce emissions and build resiliency**

- Value ecosystem services and carbon management to facilitate reductions, sequestration, and adaptation efforts



# Addressing Climate Change in Minnesota

## **Assist Tribal Nations, local governments, and state with adapting to a changing climate and building resiliency in our communities**

- Assisting with the assessment, planning, designing, and construction of resilient infrastructure and critical facilities
- Prioritize the needs of vulnerable populations

## **Expand climate data and information that is accessible to Minnesotans**

- Increase accessibility to information on current and future impacts, emissions, adaptation opportunities, and risks/vulnerabilities
- Develop tools to help vulnerable populations participate in climate discussions and prepare for a changing climate

# Addressing Climate Change in Minnesota

## **Reduce emissions from our transportation system**

- Electrify vehicles, expand electric charging infrastructure, use biofuels to reduce carbon emissions from liquid fuels, expand mass transit, and enable other ways to move around

## **Reduce the generation of waste in Minnesota and the emissions that result from managing waste**

- Reduce food waste and direct food to beneficial uses, reduce the generation of solid waste, and minimize emissions from landfills

## Minnesota's regional efforts

- U.S. Climate Alliance
- Under 2 MOU
- Midcontinent Power Sector Collaborative
- Midcontinent Transportation Electrification Collaborative
- Midwestern Clean Fuels Policy Initiative

# Possible federal climate action

## Biden/Harris plan

1. Carbon neutral by 2050
2. Carbon-free electricity by 2035
3. Invest \$1.7 trillion in climate change programs over next 10 years
4. Focus on emissions reductions from electricity generation, efficient buildings, and the transportation sector
5. Create 10 million jobs creation
6. Work in partnership to eliminate environmental injustices

*The Biden Plan for a Clean Energy Revolution and Environmental Justice:*  
<https://joebiden.com/climate-plan/>

# Day One Actions

**President-elect Biden has committed to using executive action to tackle climate change, and has proposed 11 “Day One” actions he’s willing to take.**

- Rejoin the Paris Climate Agreement
- Require limits on methane for oil and gas
- Clean energy and ZEVs purchases by the federal government
- Ensure US government buildings are energy efficient
- Unwind the SAFE rule and increase emissions standards for light and heavy duty vehicles
- Focus on biofuels and agriculture as a climate solution
- Enact appliance and building efficiency standards
- Require federal permit decisions to consider GHG emissions and climate impacts
- Require public disclosures of GHG emissions and climate risks
- Protect biodiversity and enhance land and water conservation
- Ban new oil and gas permits on federal lands and increase renewable energy projects on federal lands



# Our future depends on action now



Commissioner  
Bishop, Numa  
Zahra, and Lt. Gov.  
Peggy Flanagan





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Climate Change Barriers and Opportunities

Craig McDonnell | MPCA Assistant Commissioner for Air and Climate Policy

November 30, 2020

# Barriers and Opportunities

- The Climate Subcabinet and its senior leaders have recently devoted time to discussing the barriers and opportunities related to climate action.

Opportunities
• Partnership with the Advisory Council
• High energy for climate solutions among young folks and others
• Intersection between climate strategies and economic opportunities
• Critical climate work is already being done by many different actors
• Potential state/federal partnerships with the incoming administration

Barriers
• Scope and scale of the challenge can be daunting
• Continued polarization
• Funding constraints
• Effectively communicating the problem, and the potential opportunities, is hard
• Action may require new systems and processes to be developed





# Climate Change Public Engagement Framework

Katie Pratt, Executive Director, Environmental Quality Board

The Subcabinet will develop and implement a public engagement framework to ensure meaningful public engagement is conducted by the Subcabinet's agencies and boards. The purpose of the engagement framework is to:

- Build partnerships and shared understanding
- Provide a platform for dialogue about the strengths and challenges of climate change mitigation and resilience solutions
- Highlight regional differences across Minnesota
- Share and gather ideas for how Minnesotans can get involved with, and stay informed about, climate change issues that matter to them

# Why engagement?



# Why engagement?

- Social barriers to taking action on climate change:

- Divergent viewpoints
- Lack of urgency
- Narrow thinking
- Technical complexity
- Sense of overwhelm
- Inequality and exclusion

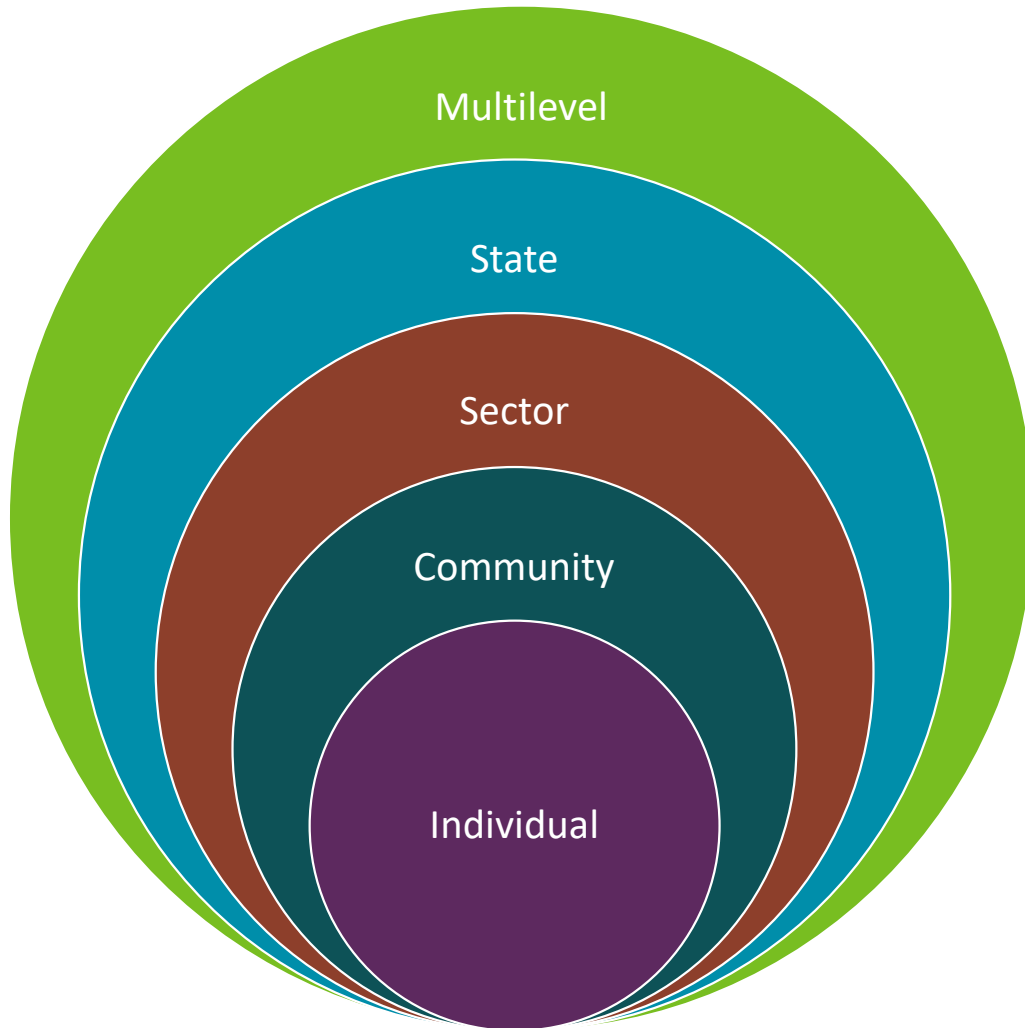


- Build shared understanding
- Keep climate change top of mind
- Bring diverse expertise into contact
- Learn and understand
- Build a sense of efficacy
- Remove systemic barriers and bring new voices to the table

# What is engagement?

- Public access to information
- Raising public awareness
- Opportunities for public participation
- Education
- Skills training
- Partnership building
- And more...

# Engagement at multiple scales



<b>Multilevel</b>	Grow partnerships to secure commitments and resources for climate action
<b>State</b>	Expand opportunities for democratic engagement in climate policy and programs
<b>Sector</b>	Convene expert teams to generate and test innovative climate solutions
<b>Community</b>	Build networks and local capacity for climate mitigation and resiliency
<b>Individual</b>	Raise the commitment and capacity to act on climate change

- What types of engagement activities are needed to further climate action in the state?
- What should be the role of state government?
  - What are the roles of other sectors – private, non-profit, academic institutions, etc.?
- What is the role of Governor's Advisory Council?