# Natural & Working Lands Action Team

## Climate Focus Areas

The primary goal of the Natural and Working Lands Action Team, under the Governor's Climate Subcabinet, is **to identify policies and strategies that will help make Minnesota's natural resources, working lands and communities more resilient to climate change while reducing or mitigating greenhouse gas emissions.**

The Natural and Working Lands Team is working to identify and implement or accelerate land management activities that:

1. Achieve and enhance carbon sequestration, and
2. Reduce or mitigate greenhouse gas emissions.

This team also has a role in adapting natural and working lands to the changing climate and is working closely with the Resiliency & Adaptation Team in this effort.

## Initial Focus Areas

**Three initial focus areas** for advancing climate change mitigation on natural and working lands have been identified:

1. Develop and implement a mitigation tracking system for natural and working lands.
2. Accelerate cover crop adoption and additional soil health and sequestration measures.
3. Reforest marginal forest land and converted acres that can be restored, and enhance urban/community tree canopies.

These initial focus areas involve actions that have gained identifiable momentum and are foundational to climate-related efforts. Specifically, the first action is critical to the success of other mitigation efforts on natural and working lands, both to illustrate the opportunity these lands present for carbon mitigation, and to track effectiveness of actions. The second two actions reflect existing efforts than can be accelerated, have statewide significance, are already the subject of significant discussions about the associated climate benefits, and are generally supported by many constituencies for various reasons. The following paragraphs more fully describe the initial focus areas.

**1) Quantify the carbon storage benefits of natural and working lands by developing and implementing a mitigation tracking system.**
Track greenhouse gas (GHG) emission reductions (including enhanced carbon sequestration) on public and private lands resulting from land use changes and the implementation of best management practices (BMPs).

This includes:

- tracking practices and land-use changes on public lands, or private lands enrolled in publicly-funded conservation partnerships, and on other lands by using publicly available or acquired information;
- developing and implementing a systematic survey of land use practices on private lands;
- refining the estimates of reduced or avoided GHG emissions per acre for each BMP (for example, an acre of cover crops is estimated to reduce GHG emissions by 0.20 tons per year);
- refining/standardizing the estimates of carbon sequestration on natural and working lands (both baseline and changes over time);
- verifying reductions through on-the-ground monitoring at select sites.

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**2) Store more carbon on agricultural land through cover crop adoption and additional soil health measures.**
Provide incentives for farmers to combine practices that sequester carbon over the long term and improve soil health. Practices include perennial and winter annual cover crops; short-rotation forestry (agroforestry); conservation crop rotation; nutrient/nitrogen management; and reduced tillage practices. Implementation actions include developing ecosystem services and carbon markets; development of new crops; development of markets and supply chains for new crops, forage and other products; technical assistance and peer-to-peer learning opportunities; financial assistance, including cost-share and grants; focused research; the Minnesota Agricultural Water Quality Certification Program (MAWQCP) and similar programs.

**3) Plant trees and shrubs to store more carbon, create habitat, and reduce urban heat islands. Focus on reforesting marginal forest land and converted acres that can be restored, and enhancing urban/community tree canopies.**
Focus on the restoration, establishment and management of climate-adapted, resilient tree and shrub species and forests on private and public lands (as locally appropriate) to sequester carbon, produce forest products, improve air and water quality, reduce stormwater runoff, control erosion, and promote biodiversity. Establish and manage resilient tree species in urban areas, including both street trees and urban natural areas.

Identify and address opportunities to increase carbon sequestration of existing forest lands through:
- improving biomass growth to enhance forest carbon stocks (e.g. improved seed selection),
- increased tree stocking levels,
- increased planting survival,
- climate adaptive species selection,
- forest thinning, and
- competition reduction (e.g. invasive species removal).

Furthermore, promote the development of long-lived forest products to further sequester carbon and expand the forest products market.

## Process for Identifying Focus Areas

The team met during spring and summer 2020 to compile an initial inventory of best practices for enhanced carbon storage and reduced emissions from various land types, drawing upon existing written resources and ongoing discussions with stakeholders. Next the team identified three focus areas for initial action using the following criteria:
- Feasibility
- Additionality
- Durability
- Measurability
- Partner support
- Impact
- Prevention of losses.

## Next steps

The Natural and Working Lands Action Team is spending time this fall connecting with individuals and groups interested and engaged in efforts to address climate change mitigation and adaptation for natural and working lands. The purpose of this engagement is to:

- Share information about the Climate Change Subcabinet and related interagency efforts to implement Governor Walz's Executive Order 19-37,
- Share the initial action ideas and learn what others are doing, and
- Discuss opportunities for partnership and collaboration around these initial ideas and related efforts.

These conversations are intended as the start of a long-term dialogue about how we can all learn from each other, and support and advance both the carbon sequestration and climate resiliency of Minnesota's natural and working lands.