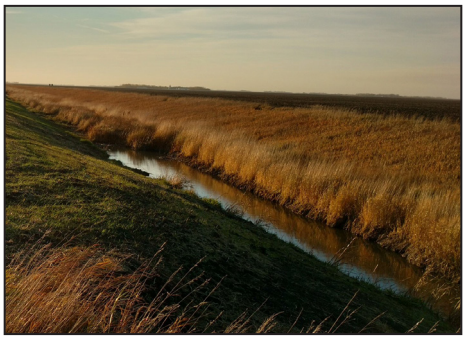
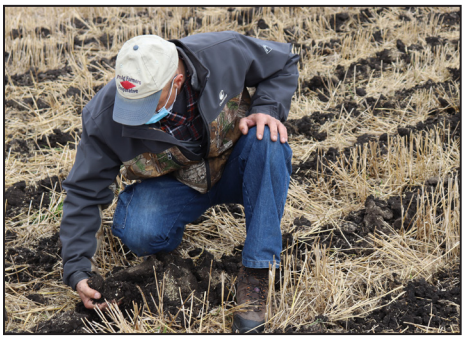
BWSR, state emphasize climate work





Left: *Riparian buffers, such as this one in Kittson County, can help build landscape resiliency in the face of a changing climate by filtering water and stabilizing shoreline.* **Photo Credit:** BWSR **Middle:** *Wetland restorations, such as this one in Blue Earth County, can provide water storage that helps landowners adapt to more frequent and heavier rains.* **Photo Credit:** BWSR **Right:** *A participant examined a strip-tilled field during a 2020 soil health field day in Grant County. Strip-tilling can help build soil health by decreasing erosion in farm fields.* **Photo Credit:** Traverse SWCD

Executive branch agencies in Minnesota — including the Minnesota Board of Water and Soil Resources (BWSR) — are accelerating efforts to address the economic, environmental and health effects of the state's changing climate.

Gov. Tim Walz signed an executive order in 2019 creating the Climate Change Subcabinet and the Advisory Council on Climate Change to coordinate climate change mitigation and resiliency strategies throughout the state. BWSR Executive Director John Jaschke serves on the subcabinet with leaders from 13 state agencies, the Metropolitan Council and the Environmental Quality Board.

"The subcabinet acts as a vehicle for state officials to come together to pursue and accomplish purposeful, practical and equitable actions to address climate changes across Minnesota" Jaschke said. "Our goals include reducing greenhouse gas emissions and making our working lands more resilient by preparing communities, businesses and farmers for climate impacts such as severe weather events."

The following are examples of BWSR and the state's climate work.

BWSR Climate Trends and Action Plan

BWSR released the fourth edition of its Climate Trends and Action Plan in September. The plan's purpose is to identify climate change impacts that affect Minnesota's water and soil resources, recognize the benefits that conservation programs and practices provide in adapting to climate change, and outline actions BWSR, local governments and citizens can take to make Minnesota landscapes and communities more resilient in the face of a changing climate.

More frequent, heavier, or longer-lasting rains can increase soil erosion and runoff, which can degrade water quality as sediment and pollutants (such as fertilizers and pesticides) enter ditches, creeks, rivers and lakes. Flooding can put extra pressure on the state's drainage infrastructure. Changes in the amount, frequency and intensity of precipitation can negatively impact stormwater management infrastructure. Combinations of extreme storms, flooding and invasive species can also degrade natural wetlands, prairies and forests.

Many of BWSR's programs and initiatives can help curb the effects of flooding and extreme weather events. Agricultural best management practices — such as no-till and strip-till farming, riparian buffers, cover crops, retention areas and restored wetlands — help landowners adapt to climate change. Programs that create conservation easements (such as the Minnesota Conservation Reserve Enhancement Program [MN CREP] and the Reinvest in Minnesota [RIM] Reserve program) by converting marginal agricultural land from row crops to native grasslands and wetlands make landscapes more resilient to flooding and drought. These protected natural lands also store carbon long-term in soils, forests and prairie vegetation, offsetting some of Minnesota's greenhouse gas emissions.

New climate-focused BWSR programs

While many of BWSR's long-standing programs offer climate change mitigation and resiliency benefits, the agency recently launched two pilot

programs to specifically address climate-related soil health and water storage needs. The Legislature appropriated funding to BWSR in 2021 to partner with local governments and landowners to implement actions that will sequester carbon and increase working lands' resiliency.

BWSR launched a Water Quality and Storage Pilot Program earlier this year that provides grants to local governments to control water rates and volumes, and to protect infrastructure. Water storage practices supported by the program include water retention basins, restored wetlands, and controlled outlet structures. The Legislature allocated $2 million from the general fund to support the pilot program.

BWSR accepted grant applications from February through April, prioritizing applicants in the Minnesota River or Lower Mississippi River basins. In June, the agency awarded a total of $843,851 in grant funding to three local governments: Lyon and Le Sueur soil and water conservation districts (SWCDs) and Area II Minnesota River Basin Projects, Inc. Grant-funded work is slated to include wetland modifications to increase water storage capacity, a wetland restoration and a grade stabilization structure. A second round of grants is planned for next year.

BWSR also received funding in 2021 to support new soil health initiatives. A $1.35 million general fund appropriation will offer noncompetitive cost-share grants to SWCDs to work with landowners to implement soil health practices (including practices that promote carbon sequestration). An additional $3.5 million in Clean Water Fund dollars is available for grants to implement soil health practices, including cover crop adoption and other management practices that directly benefit public water supplies.

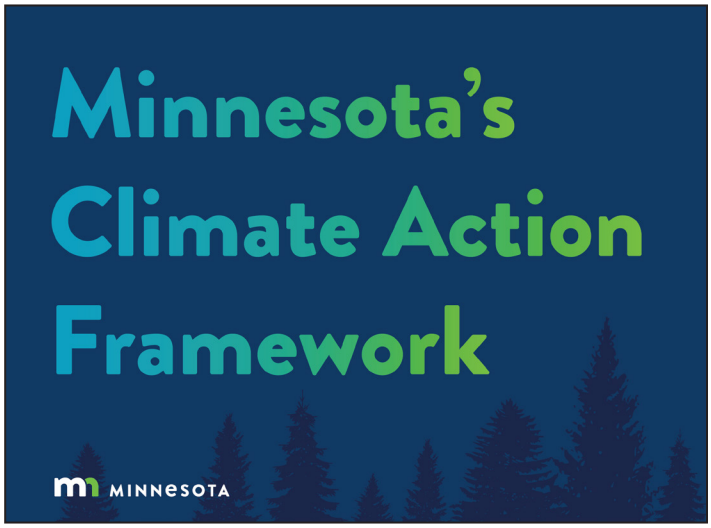
Climate change resources

Our Minnesota Climate: Minnesota-specific information about climate change, maintained by executive branch agencies

Northern Institute of Applied Climate Science: Info on managing forests for climate change adaptation and improved carbon sequestration

USDA Midwest Climate Hub: Climate-change focused webinars, workbooks and toolkits from the USDA

U.S. Climate Alliance: Strategies for reducing greenhouse gas emissions in conjunction with The Paris Agreement, an international treaty on climate change



Gov. Tim Walz's Climate Change Subcabinet in September released its Climate Action Framework, a plan outlining how the state intends to address and prepare for climate change.
Graphic Credit: Minnesota Pollution Control Agency

Minnesota Climate Action Framework

In addition to implementing programs with climate benefits, BWSR works with other subcabinet agencies and organizations to produce statewide goals and strategies for climate action.

In September, the subcabinet released the Minnesota Climate Action Framework, a plan that outlines how the state intends to address and prepare for climate change. The framework incorporates input from more than 3,000 Minnesota residents, who were publicly invited to submit ideas for addressing climate change via the state's Our Minnesota Climate website.

The framework is intended to broadly guide climate strategies in Minnesota. Some actions outlined in the framework will be used to develop legislative proposals for new climate-focused programs, while others strive to enhance existing state programs and initiatives. A variety of climate-related topics are addressed in the framework, including goals related to clean energy, a clean economy, clean transportation, resilient and healthy communities, and climate-smart natural and working lands. BWSR's contributions to the framework focused on increasing carbon sequestration and building resilient landscapes on Minnesota's natural and working lands.