A COUNTY GUIDE

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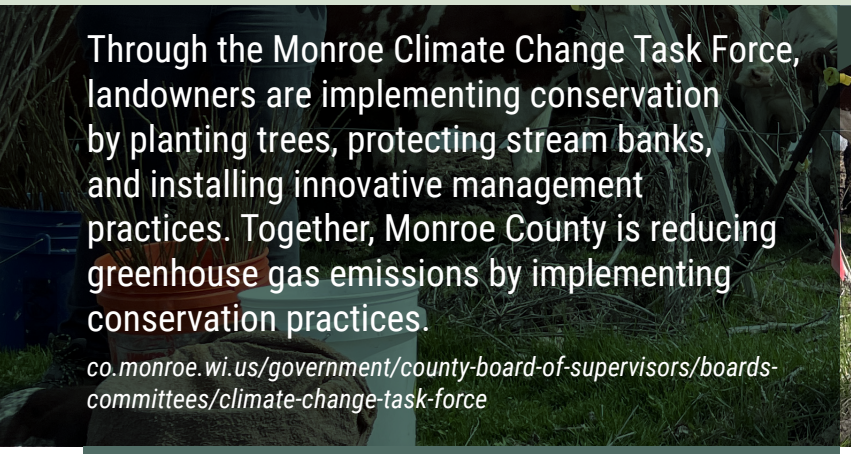
Reducing Emissions Through Conservation



Through the Monroe Climate Change Task Force, landowners are implementing conservation by planting trees, protecting stream banks, and installing innovative management practices. Together, Monroe County is reducing greenhouse gas emissions by implementing conservation practices.

co.monroe.wi.us/government/county-board-of-supervisors/boards-committees/climate-change-task-force

WORKING TOGETHER

MONROE COUNTY TREE SALE

The Monroe County tree sale sold 13,600 trees in 2022. Over the course of 50 years of growth, the potential offset is roughly 80,845 CO_2e.

Equivalent to 17,420 cars, roughly 50% of the county

COUNTYWIDE CREP/CRP PROGRAM

In 2021, conservation cover or riparian buffers were installed on 878 acres throughout the county and helped sequester approximately 592 CO_2e.

Equivalent to 167 cars off the road

ON THE FARM-SCALE

A 30 acre grazing operation was converted to silvopasture by planting 1100 trees along the contour in 2022. Over the course of 50 years of growth, the trees potential offset is approximately 2,747 CO_2e.

Equivalent to 600 cars off the road

Start reducing emissions on your farm

Consider this: On average, a Monroe County small farm might use 3,000 gallons of diesel fuel annually. This fuel consumption equals approximately **30.37 CO_2e.**

Use the climate resilient examples below to reduce the GHG footprint and create a more resilient farm.

WAYS TO SEQUESTER CARBON

147 CO_2e
Incorporate alley cropping on 100 acre farm

121 CO_2e
Convert 100 acres of cropland to forage for grazing

66 CO_2e
Convert to no-till on a 100 acre farm

65 CO_2e
Add agroforestry practices by planting 100 trees

16 CO_2e
Plant cover crops on a 100 acre farm

MORE WAYS TO LOWER THE FARM FOOTPRINT

- Reduce farm fuel when converting to no till
- Offset farm electricity by adding renewable energy
- Consider beyond-the-farm-gate impacts by reducing commercial fertilizer

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Working Toward Net Zero

The earth continues to warm causing ice caps to melt, seas to rise, and extreme weather throughout the world. Communities big and small are coming together to reduce greenhouse gas emissions (GHG) and limit the impacts of climate change.

To achieve this, nations have signed onto the Paris Agreement to reduce GHG emissions by 45% by 2030 and net zero by 2050 limit global warming to under 2 degrees Celsius.

LEARN MORE:

Wisconsin's Climate Change Plan
» climatechange.wi.gov

Paris Agreement
» un.org/en/climatechange/paris-agreement

KEY TERMS

GREENHOUSE GAS EFFECT

Heat from the sun is trapped in the atmosphere allowing life to flourish on earth. But, human activity has increased the gases into the atmosphere, trapping extra heat and warming the planet.

GREENHOUSE GASES

Gases that trap heat in the atmosphere, including: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), and fluorinated gases.

CARBON DIOXIDE EQUIVALENTS

Carbon dioxide equivalents (CO_2e) is a measurement that accounts for all greenhouse gasses under one common unit based on the global warming potential (GWP).

MITIGATION AND ADAPTATION

Use mitigation strategies to reduce GHG emissions and limit climate impacts. Use adaptation strategies to withstand climate impacts. In conservation planning, these strategies often overlap.

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The Predictions

The Wisconsin Initiative for Climate Change Impacts (WICCI) has many resources to understand trends and climate predictions across the state. What does the future hold for Monroe County? According to the interactive mapping tool from the University of Maryland, two scenarios are likely.

If current high emissions continue...

The weather in 2080 might feel similar to Lansing, Kansas, at ***14.3°F warmer and 23.3% wetter*** than winter in La Crosse, Wisconsin.

If we reduce emissions...

The weather in 2080 might feel similar to Ottumwa, Iowa, at ***7.6°F warmer and 15.6% wetter than winter*** in La Crosse, Wisconsin.

WICCI Statewide Trends and Predictions Maps*: wicci.wisc.edu/wisconsin-climate-trends-and-projections/*

University of Maryland Interactive Mapping*: fitzlab.shinyapps.io/cityapp/*

The Tools

There are a few tools to help you estimate the carbon capture potential from conservation practice implementation in a few easy clicks. These tools are rapidly evolving to provide a better user experience, improve precision, include innovative practices, and offer customized scenarios. To determine the level of precision needed to account CO_2e, consider these few questions.

Carbon for Conservation

Using carbon as a conservation tool? *Simple carbon planning tools can help landowners understand their footprint and improve soil health.*

Credit Ownership Transfer

Is there is payment or carbon credit ownership transfer? *You may need a third party verifier to assure carbon modeling match results.*

COMET — **COMET-farm.com**

Whether you are looking for simple GHG estimates in a few clicks or detailed reports to help a landowner reduce their footprint, the COMET suite of tools can help estimate the GHG reduction benefits for many conservation practices.

EPA — **epa.gov/energy/greenhouse-gas-equivalencies-calculator**

Make sense of the numbers by entering them into the EPA equivalent generator.