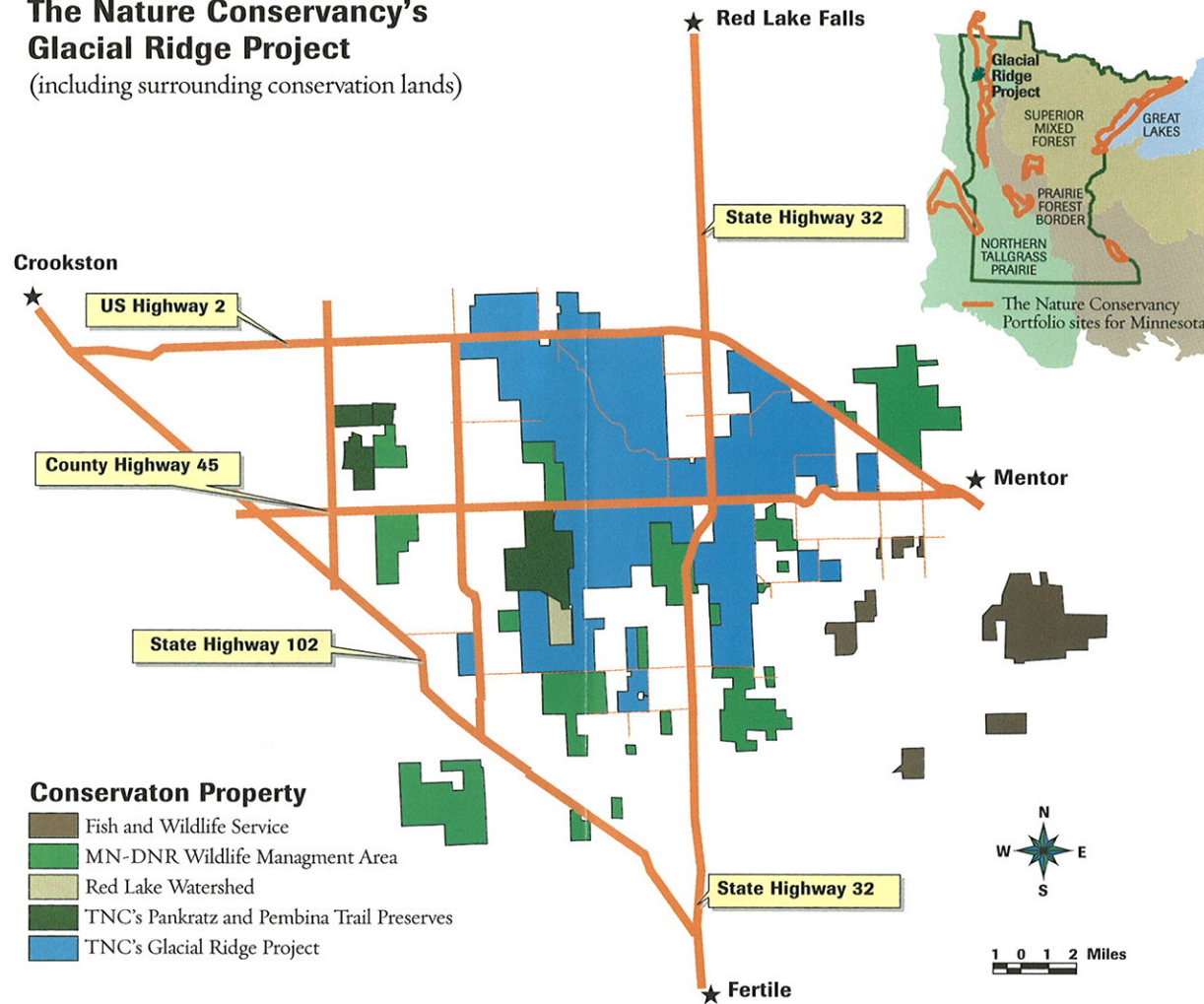


The Nature Conservancy's Glacial Ridge Project

(including surrounding conservation lands)



Partners

Twenty-six public and private partners are cooperating in this historic restoration project. One day Glacial Ridge will be the crown jewel of the northern tallgrass prairie.

STATE AND FEDERAL GOVERNMENT

- USDA Natural Resources Conservation Service
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- Environmental Protection Agency
- Minnesota Pollution Control Agency
- Minnesota Department of Natural Resources

LOCAL GOVERNMENT

- City of Crookston
- Polk County
- Red Lake County
- Red Lake River Watershed District
- Sandhill River Watershed District
- West Polk Soil and Water Conservation District
- East Polk Soil and Water Conservation District
- Red River Flood Damage Reduction Work Group
- Pembina Trail Resource Conservation and Development

UNIVERSITIES AND RESEARCH INSTITUTES

- University of Minnesota, Crookston
- University of North Dakota
- North Dakota State University
- Moorhead State University
- Concordia College of Moorhead
- South Dakota State University
- Nature Northwest

NON-GOVERNMENTAL ORGANIZATIONS AND FOUNDATIONS

- Ducks Unlimited, Inc.
- Bush Foundation
- Minnesota Waterfowl Association
- The Audubon Society

The Nature Conservancy

The Nature Conservancy is a private, international, nonprofit organization with the mission of preserving the plants, animals, and natural communities that represent the diversity of life on Earth. Since its founding in 1951 the Conservancy has protected more than 12 million acres in the United States. The Minnesota chapter, with a membership of 22,000, has protected 400,000 acres, and today owns 56 preserves, totaling approximately 60,000 acres.



MONARCH BUTTERFLY ON A BLAZING STAR

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Saving the Last Great Places
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COVER PHOTO WESTERN PRAIRIE FRINGED ORCHID © BRIAN WINTER

Glacial Ridge Project



The Nature Conservancy
Saving the Last Great Places

In August 2000 when The Nature Conservancy purchased 24,270 acres 10 miles east of Crookston, the stage was set for the largest prairie restoration project in history.

Agassiz Beach Ridges

As the last glacier receded, its melting ice fed Glacial Lake Agassiz, which stretched far into Canada. A set of beach ridges that developed along the lakeshore forms the underlying skeleton of the current Glacial Ridge ecosystem.

The variable soils—from sand to silt to clay—result in a patchwork of moist and dry prairies, dotted with wetlands. Zones of groundwater seepage give rise to more specialized plant communities: calcareous fens and seepage prairies. These wet prairies and fens are among the largest, least-damaged examples in the region.

Countless species find habitat here, including such rarities as prairie chicken, marbled godwit, Dakota skipper butterfly, and western prairie fringed orchid.



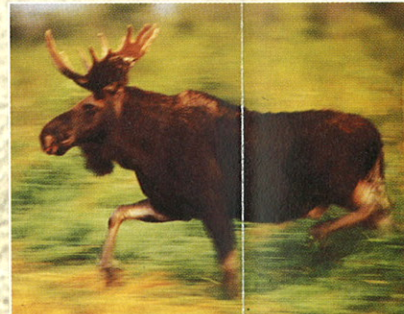
GREATER PRAIRIE CHICKEN

© DOMINIQUE BRAUD

The Protection of a Landscape

The purchase of Glacial Ridge, the Conservancy's largest in Minnesota to date, has linked the pre-existing Pembina Trail preserve with two Scientific and Natural Areas, three Waterfowl Production Areas, and about a dozen Wildlife Management Areas. Much of it may eventually become the Glacial Ridge National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service.

But purchasing the land is not enough. Less than 1% of Minnesota's native prairie remains unplowed, and even though the beach ridges landscape is not highly productive for agriculture, 15,000 acres of Glacial Ridge were converted to row crops. The size of the area, with small patches of native prairie, makes Glacial Ridge a superb restoration opportunity.



BULL MOOSE

© RICHARD HAMILTON SMITH

The Restoration of an Ecosystem

The Conservancy hopes to have approximately 11,700 acres enrolled in the Wetland Reserve Program (WRP) of the USDA Natural Resources Conservation Service by the fall of 2003. Local contractors are restoring natural water levels and vegetation to drained wetlands on WRP land. Eventually 8,000 acres of wetlands will be re-created. The contractors seed the surrounding uplands with native prairie grasses and wildflowers collected within 65 miles.

Restoration doesn't replace what's gone—restored prairies are usually far less diverse than natural ones—but it connects the isolated remnants, permitting populations of plants and small animals to interact. Starting with these isolated prairies, restoration at Glacial Ridge will set an entire ecosystem on the road to recovery.

The tremendous scale of the restoration project allows tests for all sorts of landscape level responses. The U.S. Geological Survey is conducting a five-year hydrological study to measure any reduction of sedimentation in ditches, improvements in water quality, increases in groundwater recharge, or reduction of downstream flooding potential.



© BRIAN WINTER

Community Cooperation

The Glacial Ridge project benefits the local community beyond ecological and hydrological improvements. The City of Crookston plans to install new municipal wells on Conservancy land. Local farmers are growing prairie seed for the project, and some gravel pits will remain in operation. All the restoration activities will pump hundreds of thousands of dollars into the local economy annually.



REGAL FRITILLARY ON FLODMAN'S THISTLE

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