



Prairie
PONDERings

North Dakota
Natural Resources Trust

N.D. Natural Resources Trust 2008 Annual Report

EXECUTIVE DIRECTOR'S REPORT

By Keith Trego, executive director
North Dakota Natural Resources Trust

The year just past, 2008, was one for the record books. We had extremes in weather and the economy. We had some of the highest gas prices on record and, by the end of the year, one of the steepest price declines. Agricultural producers saw record commodity prices early in the year, along with likely record input costs. By year's end, the fading economy had sliced the value of many farm commodities in half. Not surprisingly, input costs did not go down at a comparable rate. And, unfortunately, the weakness in the country's financial system and markets, fully exposed in the fall of 2008, has temporarily compromised the fiscal resources of many conservation groups, the Trust included.

Conservation and the economy are more closely tied than one might imagine. The fiscal resources available to do conservation are one element. A second and very important element involves where conservation decisions fit in the competitive environment of today's agriculture. While many farmers and ranchers do conservation projects on an ongoing basis, setting land aside or altering its use for a conservation purpose must often compete with other options, namely producing commodities and making a living. It's not too hard to understand that equation. So, the wild swings in commodity prices created a challenging environment for producer decision making.

One of the high points of 2008 was the passage of a new farm bill, complete with the full complement of voluntary conservation programs we've grown used to. We continue to have access to the Conservation Reserve Program (CRP), the Environmental Quality Incentive Program (EQIP), the newly named Conservation Stewardship Program (CSP), the Grassland Reserve Program (GRP), the Wetland Reserve Program (WRP), and the Wildlife Habitat Incentive Program (WHIP). And, for the most part, each was reasonably well funded.

In the tumultuous days of early 2008, there seemed little interest in new conservation – we were often not financially competitive with commodities. As the year wore on, the economic downturn took hold. The United States Department of Agriculture (USDA) came out with new incentives for certain programs and raised rental rates to keep up with rising land values and cash rents. All of a sudden, conservation options became more competitive, and as the winter of 2008-09 came on, many producers were again weighing more aggressive conservation strategies in their mid- to long-term land use plans.

The second important and extremely positive occurrence of 2008 was the continued interest in renewable, alternative energy sources produced on agricultural lands. While controversy still rages in some circles about the best products to convert to energy, the most efficient processes to use, etc., it is fair to say that we are still far too early in this important new energy economy to know the answers. So, as a state and as a country, we will try many approaches, and ultimately the rules of efficiency and the marketplace will determine the best long-term outcome. It still appears to us that well-managed, dedicated energy crops have a high probability of figuring big in the equation. With that comes the potential for broad interest in sustainable perennials that protect soil, water and air, provide a renewable energy source and a sustainable economic alternative for producers. The Trust remains involved in partnership-based, alternative energy work on agricultural land, and there are more details about that work in Karen Kreil's article, which is shown later in this report.

Overall interest by private landowners in doing conservation work that makes sense for each individual operation has not waned. In these somewhat uncertain economic times, we expect that conservation will be

an increasingly competitive land use option. While our ability to pay for or cost share certain practices may be temporarily challenged, our ability to provide guidance to producers and bring together partnerships that can get the job done has never been stronger.

Tough times are good incubators for innovation, a quality that is reflected in the Trust's mission and past accomplishments. Uncertainty breeds exciting opportunity, and it is in that context we intend to move forward into

2009 and beyond. A point I made last year in this same report seems ever more important now – conservation is just not for the good and easy times. Good decisions about use and allocation of our natural resources are what sustain all of us. With all the distractions of a bad economy, alternative energy needs, and wildly fluctuating prices, good land management and conservation decisions will always be in everyone's best interest.

Opportunities Available to Strengthen North Dakota's Ag Profitability and Natural Resources

By Karen Kreil, biologist

North Dakota Natural Resources Trust

OK, I am going to date myself. Back in 1979, I was a junior at the University of North Dakota and country singer Barbara Mandrell had a hit with the song, "I Was Country When Country Wasn't Cool." In writing this article, the song popped into my head and reminded me of reactions to the North Dakota Natural Resources Trust's (Trust) initial efforts several years ago in the promotion of dedicated perennial energy crops for cellulosic ethanol. We heard comments such as, "Why are you working on this?" or, "What does this have to do with conservation or agriculture?"

What are the Benefits of Dedicated Perennial Energy Crops for Natural Resources?

Extensive stands of perennial grasses can be established in places of existing, marginal crop land providing nesting and brood rearing habitat for migratory and resident birds and cover for other wildlife. The focus of dedicated energy crops is currently on perennial native grasses and forbs, and these plants reduce soil erosion and improve water and wetland quality. Carbon sequestration is higher in soils planted with perennial plants than it is in soils planted to traditional crops and managed with no-till systems. Dedicated energy crops used to produce cellulosic ethanol would be harvested after the first frost, avoiding the primary nesting season of April 1-Aug. 1. Biomass production would be harmful if native prairie or CRP were converted.

What are the Benefits of Dedicated Perennial Energy Crops for Agriculture?

The year 2008 was a roller coaster ride for agricultural producers, and significant uncertainty exists in 2009. Growing perennial dedicated energy crops would benefit agricultural producers by providing additional income through carbon credits, lowering risk associated with

growing annual crops, reducing herbicide and fertilizer costs for growing annual crops, diversifying rural agriculture and energy industries, and creating jobs and economic development.

What are the Opportunities?

The 2008 Farm Bill includes several provisions that offer incentives for biomass production, harvest, and transportation. The U.S. Department of Agriculture (USDA) is going through the rule-making process, therefore specifics are not known at this time. However, what we do know offers high hopes for agricultural producers who want to minimize risk associated with traditional commodity crops.

These opportunities include:

- **The Biomass Crop Assistance Program**, which directs the U.S. Department of Agriculture (USDA) to establish project areas in which potential producers and a biorefinery or other facility agree to produce and use biomass crops for conversion to advanced biofuels or bioenergy. The program is funded with uncapped mandatory funding, and Congress estimates approximately \$70 million will be available for incentives for farmers to grow and transport fuels for biomass energy. Agricultural producers in project areas receive a payment for up to 75 percent of establishment cost to plant energy crops. Incentives also include an annual payment intended to compensate the producer for the opportunity cost associated with growing an energy crop. Land that was formerly planted to row crops will likely garner a larger annual incentive than land that was fallow or pasture. The annual payments can continue up to five years for producers growing perennial grasses.
- **Logistics**. Anyone collecting and selling biomass crops or agricultural waste for energy is entitled to receive a harvest, transport, processing, and storage

payment. The payment is structured to match the amount of money the biomass collector, which does not have to be a farmer, receives from the biomass user. USDA will match dollar for dollar, up to \$45 per dry ton.

- **Biorefinery Assistance** creates a new \$1.01 per gallon tax credit for the production of cellulosic biofuels through 2012. It also provides financing for cellulosic refineries (grants and loan guarantees) at up to \$920 million, including grants of up to 30 percent of cost for demonstration scale plants, and loan guarantees for up to \$250 million each for commercial-scale advanced fuel biorefineries.
- **Bioenergy/Energy Efficiency** nearly doubles the Rural Energy for America (REAP) program (to \$255 million) to help farmers and rural businesses become more energy efficient and to effectively use renewable technologies. Provides \$95 million for existing biorefineries to switch to using renewable biomass to power their operations.

From the beginning, the Trust had a vision that, given proper planning, use of incentives and, of course, an economic model that works, we can improve North Dakota's ecological landscape and agricultural producers profitability through biomass production. Natural resources, quality of life, and rural economies are



One of several biomass research plots at NDSU Research Extension Centers in Carrington, Hettinger, Minot, Williston, and Streeter. Studies will evaluate the production of 10 perennial grass and grass-legume mixtures for biomass production. Researchers at the Agricultural Research Station in Mandan are studying the carbon sequestration of each species in the biomass plots. The Trust is providing funds to support the biomass plots study.

intertwined and now there will be more opportunities to strengthen North Dakota's best attributes. Renewable energy is "cool," and the Trust will continue to work with its conservation and agriculture partners in trying to take advantage of the available opportunities.

Sponsorships

The North Dakota Natural Resources Trust was pleased to sponsor the following events in 2008:

| | |
|---|----------------|
| North Dakota Wildlife Federation's Annual Convention | \$200 |
| North Dakota Water Education Foundation's Summer Water Tours | \$2,500 |
| North Dakota Wildlife Federation's Youth Conservation Camp | \$250 |
| Towner County Soil Conservation District's Rhizome Planting Day | \$225 |
| Prairie Climate Stewardship Conference | \$200 |
| Area 4 Soil Conservation District's Cooperative Research Farm – Friends and Neighbors Day and 2009 Research Results Workshop | \$325 |
| NDSU Conference – "Northern Plains Biomass Economy: What Makes Sense?" | \$375 |
| National Association of State Departments of Agriculture's 2008 Annual Conference | \$1,000 |
| TOTAL | \$5,075 |

2008 Accomplishments

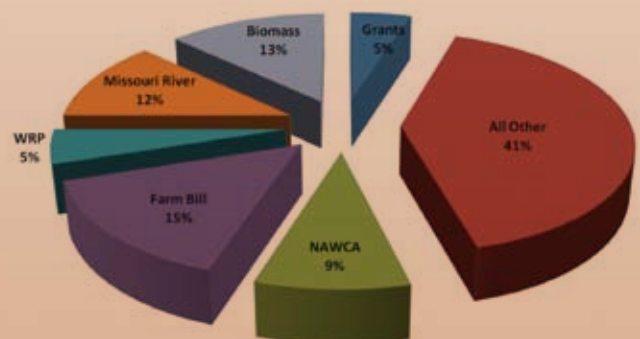
Wetlands Habitat

| | | |
|----------------------------|----------------------|---------------------|
| Wetlands Restored/Created | 570 acres | 34 producers |
| Wetlands Managed/Protected | <u>1,716.5 acres</u> | <u>28 producers</u> |
| Totals | 2,286.5 acres | 62 producers |

Associated Habitat

| | | |
|------------------------------|----------------------|---------------------|
| Upland Restored (Native/DNC) | 566 acres | 5 producers |
| Uplands Managed/Protected | <u>2,336.3 acres</u> | <u>7 producers</u> |
| Totals | 2,902.3 acres | 12 producers |

Trust Expenditures 2008



Gateway to Science, 2008 Environmental Festival

The 9th annual Gateway to Science Environmental Festival was held March 5, 2008, at the Frances Leach High Prairie Arts & Science Complex and the Jack Science Center at Bismarck State College. The objective of the festival is to increase understanding and enhance the curriculum presented at the fifth grade level. Students are also introduced to possible career choices in a variety of environmental fields.

Presentations on environmental topics and hands-on activities to better understand how their actions can affect the environment were presented to 1,073 students and teachers. The festival offered 24 different sessions on various aspects of the environment, which were presented by 75 volunteers. Ten of the sessions contained a significant discussion regarding habitats. This year a total of 47 classes were held.

NDSU Extension Service, Rangeland Monitoring Program

The objective of the NDSU Extension Service's Rangeland Monitoring Program is to assist range managers with monitoring and improving rangeland health, thereby increasing their subsequent profits. The program was implemented during the summer of 2006 with funding through a grant from the USDA Sustainable Agriculture Research and Education (SARE) program. Rangeland monitoring materials and technical assistance were provided to approximately 20 cooperators in North and South Dakota. The project continued in 2008 with a grant from the North Dakota Natural Resources Trust.

During the summer of 2008, telephone follow-up conversations were conducted with producers contacted in 2006. The major effort during 2008 was to expand the program to more cooperators over a wider geographic area. To achieve that goal, Extension agents were contacted in counties in the Missouri Coteau. That effort resulted in the expansion of the program to several new counties and resulted in 20 new contacts, bringing the total number to 40.

Cooperators were encouraged to keep written records of their management activities and set up permanent "photoplots" for monitoring pasture health. Follow-up visits with cooperators will be conducted in 2009.

An enhancement to the monitoring program was to provide more relevant information for producers on the research center's website. This included the establishment of the Range Managers Forum, now in cooperation with

the North Dakota Grazing Lands Coalition. This site also has information on cost-sharing and technical assistance available to producers and links to other useful websites.

City of St. John, Wakopa Trail Phase I Interpretive Signs

The interpretive panels for the Wakopa Trail are currently being constructed at a local welding shop. After review of several options for the panels, an artistic design that compliments the Turtle Mountain Scenic Byway monument was chosen. The panel design is that of a bur oak tree holding a book in its branches. The sign is constructed of a steel frame and posts and is covered with rebar to give the appearance of bark and branches of an oak tree.

The book will hold the interpretive information mounted on a sign board covered with Plexiglas, which is removable for informational changes as needed. This style will also compliment one of the tourism publications entitled, "More Interesting than a Fairy Tale: a guide to historic sites in the Turtle Mountain Region." The publication gives information about the original Wakopa Trail, which was an early fur trapper trail. That information will be incorporated with maps and information from the North Dakota Game and Fish Department posters about the flora and fauna of the area.

Turtle Mountain Outdoor Learning Center, Lake Metigoshe State Park (LMSP)

The mission of Lake Metigoshe State Park's Outdoor Learning Center is to provide hands-on, concept-oriented environmental education to school groups and community members of all ages.

Staff conducts canoeing programs to explore the natural world. Students start by learning the parts and their function of a canoe and paddle. Next, they learn basic paddling strokes on land so they will know how to maneuver a canoe. Finally, participants are assigned to canoes and are taken out on a guided canoe adventure for nature exploration and discovery on School Section Lake.

Participants can see active beaver lodges and slides, painted turtles sunning themselves on logs, and other wildlife. They are able to identify various bird calls and see pelicans, double crested cormorants, great blue herons, as well as other birds and waterfowl. Other topics include species behavior, niches, and habitats.

The grant from the North Dakota Natural Resources Trust was used to update equipment for this educational program.