

The Coteau Legacy

Conserving Saskatchewan's Critical Waterfowl Habitat

Reporting Period:
April 2008 to March 2010

Submitted by Ducks Unlimited Canada and Ducks Unlimited Inc.

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Ducks Unlimited Canada
Conserving Canada's Wetlands



DUCKS UNLIMITED



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Ducks Unlimited (DU) is the world leader in wetland conservation. Since 1938, DU has invested over one billion dollars in waterfowl and wildlife habitat conservation in the United States, Canada and Mexico. In Canada alone, DU has completed over 8,400 habitat projects, securing 6.0 million acres and positively influencing 47 million acres of habitat that benefit waterfowl, wildlife and people. Besides waterfowl, numerous species of wildlife, including many threatened or endangered species, live and flourish on DU projects.



The Louisiana Department of Wildlife and Fisheries (LDWF) have contributed to waterfowl conservation on the Canadian Prairies since 1964. This partnership with DU recognizes the importance of Canadian waterfowl production to the Louisiana hunter. Over the past 46 years, LDWF has contributed in excess of \$9M to this effort.

Ducks Unlimited Canada (DUC) is a proud partner of the North American Waterfowl Management Plan (NAWMP). The Prairie Habitat Joint Venture (PHJV), a partnership led by federal and provincial governments, DUC, Nature Conservancy of Canada and Wildlife Habitat Canada, has collaborated on waterfowl conservation under NAWMP in Prairie Canada since 1986. DUC leads the delivery of conservation programs and science to support NAWMP goals on the Canadian Prairies. The success of DUC's programs in Saskatchewan, particularly in the prairie pothole-laden Missouri Coteau, will be critical to support the NAWMP goal of achieving sustainable waterfowl production at the 1970s level.

DUC uses the best scientific research available to direct, evaluate and modify DUC's conservation programs and practices so that DUC can most effectively meet the conservation needs of waterfowl in the Missouri Coteau. This union of science and conservation sets DUC apart from other non-government conservation organizations in Canada.

In June 2008, Ducks Unlimited presented a funding proposal to the LDWF in response to the critical waterfowl needs of the Missouri Coteau. The LDWF agreed to provide 50 per cent of the funds legislated to support work on these breeding grounds towards DUC's conservation efforts for FY 2009 and 2010. The funds were matched by DU, and this combined total was matched by the North America Wetlands Conservation Act (NAWCA), and other partners to realize just over \$2 Million in support of conservation efforts on the Coteau and surrounding prairies in Saskatchewan. Although this funding falls short of enabling DUC to fully deliver on its science-based goals for habitat conservation, DU has been successful in advancing several of our conservation goals in this critical waterfowl landscape.

This report highlights DUC's habitat accomplishments within Saskatchewan (Missouri Coteau priority area and Saskatchewan Prairies) during the period of April 1, 2008 to March 31, 2010.

Saskatchewan Prairies and the Missouri Coteau

The highest densities of breeding ducks in North America occur in the Prairie Pothole Region (PPR) of Canada. Located within the PPR are the Prairie and Aspen Parkland Eco-regions of Saskatchewan, which are composed of a diversity of wetland and upland habitats. These habitat characteristics make this area key to waterfowl production and provide a basis to strategically deliver conservation programs. The delivery area of focus for Louisiana funding falls within the Missouri Coteau and Saskatchewan Prairies (Figure 1).

Based on the U.S. Fish and Wildlife Service survey data, the Missouri Coteau and several other Saskatchewan landscapes stand out as the 'best of the best' breeding habitat in North America. However, the values of these habitats have been degraded.

DUC's Waterfowl Productivity Model Supports LDWF Investment

Ducks Unlimited Canada led an 11-year investigation into waterfowl breeding success as related to habitat conditions on the prairies as part of a PHJV Assessment. This study allowed DUC to develop a Waterfowl Productivity Model which relates duck production to habitat condition. The model allows us to ask the following questions:

- How have changes in habitat conditions due to agricultural activity impacted duck production?
- How do our habitat programs contribute to waterfowl productivity?

The answers enable us to prescribe habitat interventions that will restore duck production on these habitats over the long term.

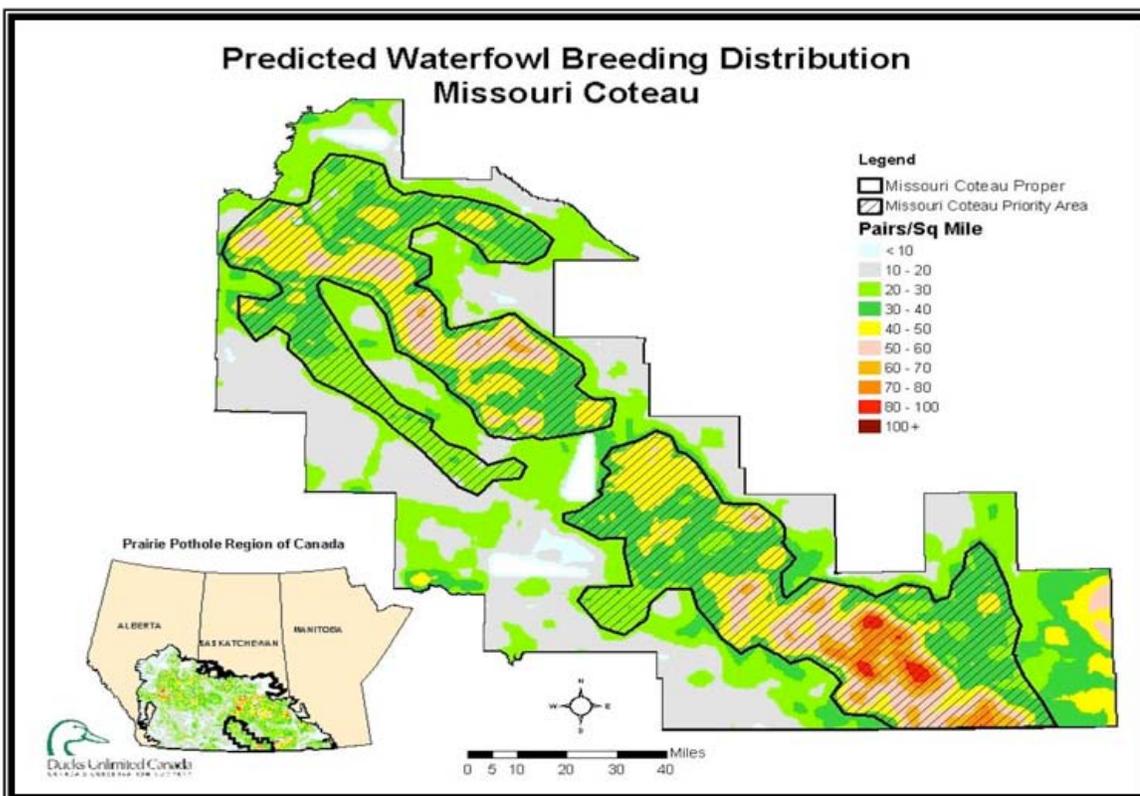


Figure 1. Breeding duck density and distribution within the Missouri Coteau in southern Saskatchewan. Yellow and red areas represent the highest duck densities in the province. This map is based on over 50 years of U.S. Fish and Wildlife Service survey data and represents average waterfowl distribution over the long term.

Based on the Waterfowl Productivity Model, DUC has defined waterfowl needs for all landscapes in the Canadian Prairies and specifically, habitat actions needed to restore duck populations within these critical Saskatchewan landscapes. These needs are represented in the habitat objectives set out in the PHJV Implementation Plan. Our 2008 Coteau Legacy proposal defined a partnership opportunity for LDWF to support conservation in these landscapes to sustain waterfowl populations that are vital to the Louisiana hunter.

Louisiana's Ducks Need Saskatchewan

Waterfowl band recovery over the past 17 years has established a clear link between waterfowl produced and banded in the Missouri Coteau of Saskatchewan and recovered in the Mississippi Flyway. Saskatchewan and the Missouri Coteau in particular, stand out as a primary Canadian source of ducks harvested in Louisiana (Figure 2).



Figure 2. Origin of ducks harvested in Louisiana from 1986 - 2005. Note that this data is not corrected for banding effort.

PROGRAM ACCOMPLISHMENTS

Based upon DUC's waterfowl science and assessment of the effectiveness of our conservation programs, DUC has adapted a suite of conservation initiatives to maximize waterfowl benefits. In the 2008 Coteau Legacy Conservation Plan, DUC delivered against specific objectives for these habitat initiatives in Saskatchewan. *See Table 2 for specific accomplishments.*

How Your Investment will be Used

Habitat Retention

Drainage of wetlands and breaking of native uplands continues to be the most significant activities negatively impacting waterfowl. DUC uses a variety of program tools to protect these remaining critical habitats, which are vital to the long-term productivity of the Saskatchewan landscape.

- 1) **Conservation Easements and Agreements** protect habitats on private lands through programs offering financial incentives for varying levels of protection. All CE's are perpetual, most of which are in partnership with provincial and federal government agencies. Conservation agreements are all a minimum of 10 years.
- 2) **Rangeland stewardship** programs are designed to positively impact the majority of native grasslands in the Missouri Coteau under the control of private ranches. To protect these lands from loss, unique partnerships with ranchers are employed. Conservation agreements addressing the protection of existing native prairie habitats while offering incentives for environmentally sound improvements are the main focus.

Wetland Restoration

Most wetland restoration work has to occur on private lands. More than 70 years of program delivery has taught us that it takes a combination of intensive and extensive programs to successfully work with producers. The nature of the Missouri Coteau is that due to the soils and topography, most wetlands are difficult to drain and in part due to the high use of the Missouri Coteau by ranchers, many wetlands are valued as stock watering options by landowners. As a result much of the wetland base is still intact in the Missouri Coteau and surrounding prairies. DUC is currently using other programs such as land purchase to initiate efforts to restore wetlands.

Upland Restoration

Duck nest success is a major influential factor for continental waterfowl populations. Improving nest success in the Missouri Coteau and surrounding prairies will require the restoration of grass to provide secure nesting habitat. DUC will focus significant efforts on restoring perennial cover in the Missouri Coteau and the Saskatchewan prairies through two primary efforts:

- 1) **Forage conversion** programs will provide incentives to landowners to convert cultivated land to perennial cover to provide waterfowl nesting benefits and support the beef industry. For the waterfowl the increase in forage will provide more nesting choices with better protection from predators.
- 2) **Winter wheat** programs focus on the agronomic and economic benefits of the crop to the producer. Approaches vary from supporting research to developing new varieties that are more successful in the Canadian prairies, to working more directly with the producers through incentive or extension programs. DUC's research has confirmed that there are 24 times more ducks hatched in winter wheat compared to spring wheat on a per acre basis because both nest success and density increase. This is particularly beneficial to northern pintails, a species that has experienced steady declines since the late 1970s. Historically, northern pintails have been an important species to Louisiana waterfowlers.

Habitat Asset Management

Focuses on the additional attention and maintenance on completed projects to ensure their long-term production value.

FUNDING & ACCOMPLISHMENTS

The Louisiana Department of Wildlife and Fisheries FY 2010 contribution was \$166,192 for a combined total of \$335,293 toward the priority areas in southern Saskatchewan in 2008-2010. LDWF's contribution was matched by Ducks Unlimited and the combined amount was matched with NAWCA funds totaling \$1,341,172. Additional funds of \$670,586 were leveraged from other contributors totaling just over two million dollars for habitat programs.

Table 1. Ducks Unlimited Canada Funding Proposed and Received

Partners	Grant Proposed	Grant Received (Year 1)	Grant Received (Year 2)	Total Contribution
LDWF	\$350,000	\$169,101	\$166,192	\$335,293
DU	\$350,000	\$169,101	\$166,192	\$335,293
NAWCA	\$700,000	\$338,202	\$332,384	\$670,586
Sub-Total	\$1,400,000	\$676,404	\$664,768	\$1,341,172
Other Contributions	\$700,000	\$338,202	\$332,384	\$670,586
Total	\$2,100,000	*\$1,014,606	*\$997,152	*\$2,011,758

* Ducks Unlimited will match LDWF's contribution, and then this combined total is matched with federal funds under the North American Wetlands Conservation Act. A Canadian partner commitment of an additional 25 per cent from DUC, Canadian Federal and Provincial governments and other non-governmental organizations is applied as per the NAWMP.

Table 2. Coteau Legacy Program Needs, Goals, Accomplishments and Costs based on funding received

Conservation Programs	5-year Needs (acres)	2-year Program Goals (acres)	2-year Accomplishments (acres)	2 year Program Costs (\$)
1. Habitat Retention	69,600	18,200	19,650	\$1,087,926
2. Wetland Restoration	0	0	0	\$0
3. Upland Restoration	70,000	13,400	13,634	\$419,249
4. *Habitat Asset Management	*450,000	*86,200	*85,820	\$504,583
Totals	139,850	31,600	33,284	\$2,011,578

* Habitat Asset Management acres are not incremental and are therefore not included in the total acre goals.

SECURING THE LEGACY



The PHJV Implementation Plan and Ducks Unlimited have set habitat objectives to fully recover the Canadian Prairies and to sustain waterfowl production equivalent to the levels of the 1970s. Continued partnerships will be the key to success. DUC values its relationship with LDWF and recognizes them as a key player in supporting NAWMP conservation efforts in Canada. However, we will need increased support from all partners if the ambitious goals of NAWMP are to be met.

The waterfowl community continues to recognize habitat programs as the primary solution to waterfowl recovery. Ducks Unlimited Canada is the primary delivery agent of the NAWMP program in the PPR of Saskatchewan.



Continued action on the Canadian Prairies means that critical waterfowl habitat will be protected in the top waterfowl production area of North America. Your critical support is needed now as every year the cost of habitat conservation rises making it more difficult to achieve our conservation goals.

Ducks Unlimited and the Louisiana Department of Wildlife and Fisheries working together to conserve the Missouri Coteau and the Saskatchewan Prairies - ensuring strong fall flights in the Mississippi Flyway.

Table 3. Missouri Coteau and Saskatchewan Prairies Priority Area Accomplishments FY 2010

Conservation	Direct Programs	Extension Programs	FY10 Total	FY10 Costs
Initiatives/Programs	(Acres) ¹	(Acres) ²	(Acres)	(\$'s)
Habitat Retention				
Conservation Easements	3,081		3,081	515,054
Rangeland Stewardship	5,213	16,898	22,111	27,995
Lease / Conservation Agmt	2,200	-	2,200	35,125
Sub-total	10,494	16,898	27,392	578,174
Wetland Restoration	-	-	-	-
Upland Restoration				
Conservation Forages	0	-	0	1,250
Winter Wheat	8,919	83,657	92,576	119,964
Planted Cover Establishment ³	0	-	0	43,688
Sub-total	8,919	83,657	92,576	164,902
Total Acres	19,413	100,555	119,968	
Habitat Management ⁴	-	-	42,350	254,076
Total Expenditure FY10				997,152

¹ Direct programs – Programs whereby DUC directly impacts actions of producers, improves, or protects habitat.

² Extension programs – are programs whereby DUC extends technical advice mutually beneficial to both producers and to waterfowl habitat.

³ Planted Cover - The acres in this category were previously secured and are not included in the total of habitat accomplishments.

⁴ Habitat Management - These acres include the existing projects requiring annual management to maintain healthy habitats. The acres in this category are not included in the total of habitat accomplishments.