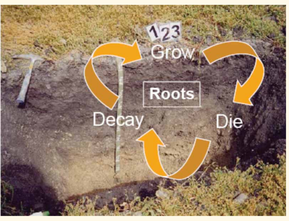
DU AVOIDED GRASSLAND CONVERSION PROJECT IN THE PRAIRIE POTHOLE REGION

THE PROJECT

The DU Avoided Grassland Conversion project will encumber threatened native grasslands with Perpetual Conservation Easements in order to prohibit conversion to crop-based agriculture, thereby protecting biodiversity and wildlife habitat, ensuring permanent storage of soil organic carbon, and providing alternative revenue source to landowners besides cropping. The Perpetual Conservation Easements purchased by Ducks Unlimited are donated to the U.S. Fish and Wildlife Service and incorporated into the National Wildlife Refuge System. The easement and carbon payment provide a sufficient incentive to retain grass, allowing landowners to realize financial gain from their land assets without the need to exploit them in an ecologically negative fashion.



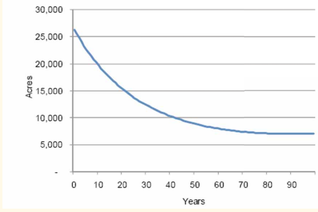
Carbon- Via the implementation of the project, the SOC stocks will stay constant because they are in equilibrium, meaning that they are constantly losing SOC and sequestering CO2 but not actually emitting or sequestering additional CO2

Carbon stocks are quantified in accordance to IPCC Tier 1 methodologies, supported by peer-reviewed literature and expert opinion. Based on these analyses, initial carbon stocks across most of the project region are estimated at 140.0 MTCO2e/acre. A soil oxidization loss rate of 31% of initial SOC stocks is applied over a 20 year period, resulting in a 2.18 MTCO2e/acre/year of avoided emissions.

References	Geographic Region	Soil Organic Carbon SOC (Mg/ha)	Soil Organic Carbon CO2e Mg/ac
Cold Temperate Dry			
IPCC (2006)	Cold Moist Dry	50.0	74.1
Cold Temperate Moist			
IPCC (2006)	Cold Moist Temperate	95.0	140.9
Frank et al. 2006	Mandan, ND	84.4	125.0
Liebig and Doran 1999	Stutsman county, ND	106.5	157.8
Dr. Larry Cihacek, project area 1	Project Area	85.1	126.1
Dr. Larry Cihacek, project area 2	Project Area	125.7	186.2
NDSU 2008 data project area 4	Project Area	84.1	124.5
NDSU 2008 data project area 5	Project Area	85.3	126.4
NDSU 2008 data project area 6	Project Area	92.4	136.8
NDSU 2008 data project area 7	Project Area	97.3	144.1
Mean Cold Temperate Moist*		*95.1*	*140.9*

* The mean value for cold temperate moist excludes the IPCC (2006) value

Land Use Conversion- High commodity prices and increasing land rental rates are placing enormous pressure on landowners to convert native grasslands to cropland. The baseline scenario incorporates the probability of conversion of native grasslands in the Project Area to cultivation-based farming activities. Cropland acreage increased 2.78% and 1.72% annually for 2007 and 2008 respectively in North Dakota, totaling 0.97 million additional cropland acres during the two year period. Conversion rates are based on peer-reviewed land-use conversion models and expert opinion.



ADDITIONAL

Offset accounting is based on a land-use conversion trend to estimate acres that would be converted in the absence of the project. Landowners that enroll in the program have expressed an interest in the easement program but the financial payment for the easements was not enough. The greenhouse gas payment provides enough additional incentive for participating landowners to enroll in the easement program.

If it were not for the purchase of Perpetual Conservation Easements on the Project Properties, analyses conducted for this project show that 73.1% of native grasslands would be converted to crop-based farming activities. The project also meets the "additionality" criteria (test 1) outlined in the Voluntary Carbon Standard 2007 edition in that there is no regulatory surplus, faces implementation barriers both financial and investment return, and is not common practice in the region.

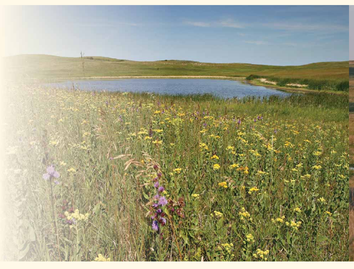
PERMANENT

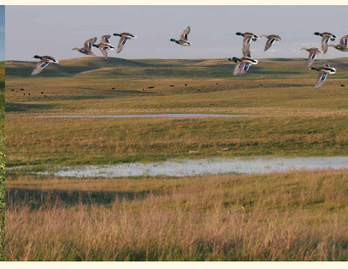
Left undisturbed, soil carbon at project sites is considered to be at a long-term equilibrium. The protection afforded by the perpetual conservation easements ensures that project grasslands and soil carbon will remain intact, and therefore at equilibrium. The Perpetual Conservation Easements are enforced by law, monitored by the U.S. Fish and Wildlife Service and at their own cost. Ducks Unlimited or project property owners will not have ongoing financial costs associated with the project, helping to ensure long-term sustainability.

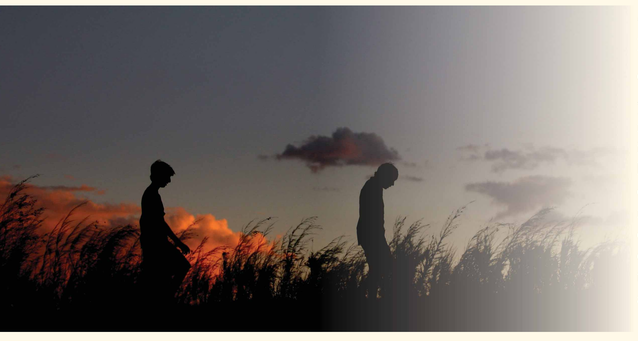
CO-BENEFITS

Wildlife

The diversity of the flora is vast, with more than 100 grass species in addition to many hundreds of native forb species. Grassland-dependent wildlife includes numerous avian groups such as Neotropical migratory birds, shorebirds, waterfowl, and others. Because many of these species are migratory, both national and international bio-diversity will benefit as a result of the project. The proposed actions will positively impact flora and fauna found only in the U.S. as well as many landbirds that winter in Neotropical countries. Endangered or threatened species of wildlife that will benefit from projects properties in this proposal: the piping plover, whooping crane, Dakota Skipper butterfly, and bald eagle.







Rural Community Support

Project activities provide the means for landowners to maintain grassland-based economic activities, primarily cow-calf cattle operations. The day-to-day rigors and year round demands of these operations require that ranchers and their families reside in close proximity to their livestock, either living on individual farmsteads or in one of the small rural communities within the project region. Crop producers, however, due to the size and efficiency of modern equipment and the sporadic nature of planting, spraying, and harvesting, can and often do manage their operations remotely. The expansion of average farm size and the conversion of grass-based economies to crop-based economies are expected to be a primary factor in the rural out-migration of the region. Project activities aim to reverse this trend by maintaining the grass base necessary to sustain grass-based economic activities, therefore sustaining rural communities.

VERIFICATION, VALIDATION, AND CERTIFICATION

The DU Avoided Grassland Project was the first North American project to be validated by the Climate, Community and Biodiversity Standard. The exceptional wildlife and rural community attributes of the project earned the standards highest distinction of a Gold Rating.

CCB Standards
The Climate, Community & Biodiversity Alliance

Currently, no protocols exist for the Avoided Conversion of non-Forested systems. DU and its partners are working towards the development of an Avoided Grassland Conversion protocol suitable to the Voluntary Carbon Standard, Climate Action Reserve, or any mandatory Federal offset program.

Opportunities exist now to purchase Avoided Grassland Conversion offsets. Inquire for further details.

SCIENTIFIC CERTIFICATION SYSTEMS

Statement of CCB Standards Compliance

Ducks Unlimited Avoided Grassland Conversion Project in the Prairie Pothole Region

Validation Scope:

The SCS Greenhouse Gas Verification Program has conducted a validation of the Ducks Unlimited Avoided Grassland Conversion Project in the Prairie Pothole Region against the requirements of the Climate Community Biodiversity Alliance (CCBA) Project Design Standards, Version 1.0 (May 2005). SCS conducted both desk and field based assessment activities in its evaluation of the project. SCS used the Project Design Document supplied by Eco Products Fund as the basis for its evaluation.

Validation Opinion:

Based on the results of our validation activities, it is our opinion that the project meets the quality standard defined by CCBA. The Ducks Unlimited Avoided Grassland Conversion Project in the Prairie Pothole Region conforms to the 15 Required CCB Criteria. The project also conforms to a total of 8 Optional CCB Criteria qualifying the project for Gold Level.

Mike Thompson, SCS Lead Verifier
SCS Greenhouse Gas Verification Program

Robert J. Hrubes, Senior Vice President
SCS Greenhouse Gas Verification Program

SCS SCIENTIFIC CERTIFICATION SYSTEMS
Certification for a sustainable world

Date: 03/27/2009

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EERC Energy & Environmental Research Center
PCOR Partnership
USGS science for a changing world
NDSU