

***Avoided Grassland Conversion Carbon Project  
Ducks Unlimited in Partnership with The Nature Conservancy and The Climate Trust  
July, 2011***

Opportunities for ranchers and grassland producers to participate in carbon markets have been limited relative to cropland producers. This project proposes developing the necessary tools for grassland producers to receive compensation through the sale of carbon offsets for the carbon storage benefit of retaining rangeland that would otherwise be converted to cropland. The conversion of rangeland to cropland continues to occur at a chronic rate in the Northern Great Plains, emitting CO<sub>2</sub> as the soil organic carbon becomes oxidized through cultivation. Conservation of grasslands also provides numerous other environmental and social benefits from reduced soil erosion, to increased recreation opportunities. Proposed project activities will develop and certify a methodology for Avoided Grassland Conversion for use in the Verified Carbon Standard (VCS). The VCS is a premier voluntary carbon standard and VCS approved projects and offsets will be attractive to a broad range of offset buyers. Experts from Ducks Unlimited, The Nature Conservancy and The Climate Trust will be involved in this process. In addition to the methodology being applicable to rangeland (native prairie), it will also be applicable to grasslands re-established through the Conservation Reserve Program whose contracts have expired, or are set to expire.

A large component of the methodology will consist of guidance on the establishment of rigorous baselines through estimation of land use conversion and associated changes in greenhouse gas balances. This will include aerial surveying of the Northern Great Plains to develop land use change metrics and developing region and parcel-specific Greenhouse Gas emission estimates. All tools and products will become publicly available for use by others to develop Avoided Grassland Conversion projects.

The second component of the project will include enrolling EQIP eligible producers in an Avoided Grassland Conversion program in central and eastern North Dakota, developing and validating a Project Description Document (PDD) against VCS requirements, and then registering the Verified Carbon Units. Given the success of the initial program and market demand, enrollment opportunities will be expanded in subsequent years and geographic regions.

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**Background Information for the C-AGG Chicago Meeting July 20-21, 2011**  
**Project: Avoided Grassland Conversion Carbon Project**

**1. What are the major goals of the project?**

Develop and validate a VCS methodology for Avoided Grassland Conversion, develop and validate a Project Description Document for producers in the Prairie Pothole Region of North Dakota, and bring approximately 5,700 acres of grassland through the validation and verification process. Depending on the success and market demand of the initial pilot phase, expand the program to other regions and cover types in the Northern Great Plains.

**2. What is the project timeline?**

*Summer 2011:* Enroll landowners, produce baseline land-use change data, write methodology.

*Fall 2011:* Submit methodology for double validation. Produce PDD.

*Winter:* Submit PDD for validation.

*Spring-Summer 2012:* VCUs are issued, assess expansion opportunities.

**3. Which GHG are targeted by the project, and/or which activities?**

Avoiding the conversion of grasslands, and thereby preventing the oxidation of soil organic carbon is the primary activity of the project. CO<sub>2</sub> will be the main GHG targeted, but net reductions in CH<sub>4</sub> and N<sub>2</sub>O will also be realized by preventing the conversion of grassland.

**4. Can you provide an estimate of tons of CO<sub>2</sub>equivalents (per year, and/or over the course of the project) that the project might mitigate/abate?**

The initial 5,700 acres involved in the pilot phase will avoid the emissions of approximately 228,000 MTCO<sub>2</sub>e over a 10 year time period. The expansion phase, where an additional 5,000-25,000 acres per year would be enrolled in the program would reduce emissions by 200,000-1,000,000 MTCO<sub>2</sub>e over a 10 year period per each annual enrollment.

**5. What methods or protocols will the project use to measure or estimate GHG emissions and emissions reductions (e.g. direct measurement, sampling, models, etc)**

A combination of sampling and modeling will be used to estimate net GHG reductions of project activities.

**6. Do you anticipate or envision any obstacles or barriers to achieving your project goals and outcomes as currently set out, or activities that you believe will be challenging?**

Soil organic carbon and net GHG estimation of project and baseline activities are anticipated to be the most challenging component of the project. Project partners are working to collaborate with regional and national entities that can assist with this component.

**7. Have you identified any data or knowledge gaps associated with the project?**

At present, there is insufficient sampling data available to calibrate GHG estimation models for the targeted portion of the Northern Great Plains.

**8. Please list the project partners affiliated with the project.**

The Nature Conservancy and The Climate Trust are the primary partners of Ducks Unlimited on this project.