
Soil Carbon Management Offsets Introduction and Overview RANGELAND

Introduction

Mickelson & Company, with selected agents, is providing ranchers in South Dakota with a new and growing source of production agriculture income – “carbon credits”. Carbon credits are derived from the environmentally friendly aspects associated with the adoption of a formal grazing plan involving light or moderate stocking rates and sustainable livestock distribution.

Benefits

- New source of income currently
- Acres enrolled may be eligible for years back to 2003
- Possibility of higher annual income amounts in the future
- Early rancher participation may provide input for future federal regulations

Requirements and Specifications

- Five year commitment to the rangeland management plan (through 2012)
- Located in an eligible land resource region (CCX has data and average rainfall between 14” and 40”)
- Must be rangeland (un-grazed grasslands are not eligible)
- Light or moderate stocking rates
- Sustainable livestock distribution
 - Rotational grazing
 - Seasonal use
- Stocking rates and livestock distribution must conform to NRCS standards
- Eligible acres must be enrolled through a CCX-registered Offset Aggregator (e.g. Mickelson & Company)
- Enrolled acres join “pools”, from which ten percent of the acres are annually selected for verification of the required practices by a CCX approved independent verifier
- Twenty percent of carbon records will be reserved or banked (not sold immediately) to ensure contract compliance
- Sustained drought may also lead to forfeiture of banked carbon credits

Contact information:

For questions you may contact the participating independent agent or:
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Rangeland Rates and Eligible Regions:

Frequently Asked Questions about CCX Rangeland Management Soil Carbon Offsets

1. *What qualifies as rangeland?*

“Land on which the historic plant community is principally native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing. In most cases, range supports native vegetation that is extensively managed through the control of livestock rather than be agronomy practices, such as fertilization, mowing or irrigation. Rangeland also includes areas that have been seeded to introduced species (e.g., clover or crested wheatgrass) but are managed with the same methods as native range.” NRCS.

2. *Is our rangeland located in an eligible land resource region?*

Region F (S.D. Counties)			Region G (S.D. Counties)		
Improved Management: .12 per acre			Improved Management: .27 per acre		
Previously Degraded: .24 per acre			Previously Degraded: .40 per acre		
Aurora	Davison	McPherson	Bennett	Harding	Mellette
Beadle	Douglas	Perkins	Butte	Jackson	Pennington
Brown	Edmunds	Potter	Custer	Jones	Shannon
Brule	Faulk	Sanborn	Dewey	Lawrence	Stanley
Buffalo	Hand	Spink	Fall River	Lyman	Todd
Campbell	Hughes	Sully	Gregory	Mead	Tripp
Charles Mix	Hyde	Walworth	Haakon		
Corson	Jerauld	Ziebach			

3. *What is a light or moderate stocking rate?*

See NRCS publication. Varies by county and state.

4. *What constitutes sustainable livestock distribution?*

This will also be defined by county and state in the NRCS publication. It must include both rotational grazing and seasonal use.

5. *Is a formal grazing plan required?*

Not at time of enrollment, but it is preferred. A rancher that does not have a plan may enroll with the agreement they will complete a formal grazing plan prior to the next grazing season.

6. *Can a rancher enroll just his qualifying rangeland?*

A rancher is not required to enroll all eligible rangeland. However, a rancher should be able to demonstrate that holdings outside of the Project are sustainably managed.

7. *Summarize what is required to enroll rangeland acres?*

- a. A formal grazing plan or a commitment to develop a formal plan prior to next grazing season
- b. A map or survey documenting eligible acres with legal descriptions
- c. Evidence of stocking rates

8. *What needs to be in a formal grazing plan?*

NRCS, BLM, USFS and other non-profit agencies or private rangeland consulting firms often consult on the development of a plan. It should contain a project narrative, livestock utilization and rotation, seasonal use, plant productivity, average grass height, dominant species, invasive species, precipitation and drought mitigation.

9. *What is the Chicago Climate Exchange, or CCX?*

CCX is an exchange where carbon credits are traded by members of the exchange. It was started in 2003. Many members have made legally binding but voluntary commitments to reduce air pollution. More information is available at www.chicagoclimateexchange.com.

10. *What is a carbon credit?*

A carbon credit is a common term used to refer to a metric ton of carbon dioxide. It is the most common reference for a number of greenhouse gases (including carbon dioxide) believed to contribute to the gradual warming of the earth's climate.

11. *Carbon credits and global warming – is this for real?*

Jeffrey Imelt, CEO, General Electric:

“We saw seven states in the U.S. that had cap-and-trade systems already, and this impossible labyrinth of regulations coming our way...There is no percentage for any CEO in the world to run his or her business thinking that there are not going to be carbon caps someday. Because the day it becomes law, you're five years too late. And you either get out ahead of these things or you get stomped by them.” Wall Street Journal, March 24, 2008

In addition, Senators McCain, Clinton and Obama all support U.S. federal greenhouse gas regulation.

12. *So what is an Exchange Soil Offset, or XSO?*

An XSO is the term used by CCX to refer to a carbon credit (a metric ton of carbon dioxide) that is generated by sequestering (storing) a metric ton of carbon in the earth due to certain recognized environmentally friendly farming or rangeland management practices.

13. *Aren't there significant costs associated with ascertaining specific identifiable carbon sequestration taking place in individual rangeland parcels?*

Yes. CCX has avoided most of these costs (which may outweigh the value of the sequestered carbon) by defining a minimally accepted set of practice guidelines and then applying conservative sequestration rates to geographic regions to come up with their standard issuance rates.

14. *What is the value of a carbon credit on CCX?*

It changes daily – www.chicagoclimateexchange.com carries current pricing. Historically the price range has been between \$1.00 and \$6.00. Take this price times the carbon credit issuance rate of your land to determine the gross value per acre. Of course, there is no guarantee as to the future value of a carbon credit.

15. *What are the expenses associated with signing up?*

Mickelson & Company charges ten percent (10%) to act as an aggregator, its agents may receive up to an addition ten percent (10%) and CCX charges \$.20 per carbon credit for registration and trading. There will also be some costs associated with the annual verification work. These expenses are deducted from sales proceeds so there are no anticipated out-of-pocket expenses associated with signing up.

16. *When will the carbon credits be sold?*

Carbon credits are eligible for trading after verification of the carbon pool in which you are enrolled. This is expected to be completed shortly after the conclusion of the verification work which will be done which will be completed once a year for each pool. Annual distributions are anticipated, but ultimately CCX requires all trading decisions be made by Mickelson & Company. Pricing of your potential carbon credits would be done as they are verified and traded (i.e. annually as they are issued).

17. *May I earn carbon credits annually through 2012?*

Yes, in all likelihood. However, CCX Phase II guidelines provide for the issuance of carbon credits through the 2010 year. CCX will likely revise these guidelines for an anticipated Phase III; likely taking into consideration passed or proposed federal carbon regulation rules. Mickelson & Company anticipates there will be a market at CCX and possibly other places for soil based carbon credits past the 2010 year, but there is no guarantee what the nature of that market will be or if it will exist. In the event CCX does not extend the rules and there is no viable alternative market, the rancher may elect to opt out of the remaining years of the contract (2011 and 2012).

You may also earn carbon credits back to 2003 in the event you have physical livestock grazing records demonstrating compliance with a light or moderate stocking rate and grazing rotation patterns.

18. *What qualifies as eligible degraded rangeland?*

- a. Moderate to extreme bare ground
 - b. Moderate to extreme soil loss or degradation
 - c. At least a twenty percent affect on annual livestock production
- Physical evidence of all of the foregoing.
Corrective action after January 1, 1999.

Potential Carbon Credit (XSO) Income Worksheet

	Total	Less: Ineligible	Net	Offset Issuance Rate	Metric Tons Year
Rangeland - Region F					
Rangeland - Region G					
Total Offset Tons Annually (XSO's)					
Price per ton					
Total Annual Payment					
Less:					
Aggregator compensation (10%)					
Agent compensation					
CCX Offset Registration and Trading fees (\$.20/ton)					
Verification costs					
Annual Net Contract					
Times: 80% (to account for 20% reserve account)					
Times: Five years (total potential contract revenue)					

**FOR PURPOSES OF DEMONSTRATION ONLY - NOT BINDING
DEPENDENT UPON A MARKET EXISTING FOR CARBON CREDITS AND
FUTURE PRICES FOR CARBON CREDITS**