



USDA Natural Resources Conservation Service

Environmental Credit Trading Information Series

Carbon Credit Trading on Rangelands

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Introduction

The Natural Resources Conservation Service (NRCS) is encouraging the growth of market-based opportunities through private sector investment in conservation on private lands. Environmental Credit Trading is a market-based approach that can help meet this Nation's conservation and environmental protection goals. Greenhouse gas emission reduction (including carbon sequestration), wetland mitigation banking, water quality credit trading (including nutrient trading) and habitat credit trading are all examples of potential market-based opportunities that can produce win-win situations for the environment, agricultural and forestry producers, and the general public. Environmental Credit Trading creates new incentives to apply proven conservation practices with private sector investments and NRCS can support these markets by creating and distributing reliable information through our existing programs and activities. This reliable information can be used within these markets to apply the best available science to trading transactions.

The NRCS Environmental Credit Trading Information Series is designed to prepare employees to answer questions for producers and land managers who visit Service Centers or ask to learn more about environmental credit trading and other marketing mechanisms that might be available. As environmental markets evolve, additional documents in this series will be developed.

Carbon Credit Trading on Rangelands

Carbon sequestration is the process by which carbon is stored in soils and in so doing, removes carbon dioxide, a greenhouse gas, from the atmosphere. Agricultural and forestry conservation practices offer a wide variety of opportunities to reduce greenhouse gases and increase carbon sequestration.

Recently, the Chicago Climate Exchange (CCX) announced their intention to offer soil carbon credits for rangeland management and restoration activities. This announcement offers opportunities for additional incentives to apply conservation to rangeland. Rangeland management that is necessary to enhance carbon sequestration is the result of conservation practices that have formed the basis of conservation plans for decades. However, there are some unique aspects to carbon credit trading that must be considered. As with some agricultural markets, the carbon market has relatively few buyers and many sellers and it is strictly a voluntary market. Each acre of land can sequester only a relatively small amount of carbon in any given year making it impractical to attempt marketing individual acres or even 10s or 100s of acres for credit trading. For that reason, aggregators play a critical role in organizing projects and delivering larger quantities of sequestered carbon for marketing as carbon credits.

Aggregators are nonprofit or for profit organizations that work with groups of farmers and ranchers to determine among other things:

- the potential for carbon sequestration;
- the practices necessary to achieve that potential;
- how those practices can be verified in a cost-effective manner to assess carbon sequestered; and
- how to aggregate sequestered carbon, and market it to provide a desirable package to buyers.

The role of the aggregator will be critical in determining the success of land management-based carbon sequestration projects. Because NRCS staff has limited experience working with aggregators, it is necessary to define NRCS' role in order to continue functioning efficiently and credibly as conservation advisors. NRCS will continue to provide technical assistance and develop conservation plans in the same manner and with the same high quality. Assistance to verify or certify sequestered carbon for credit trading is the responsibility of the aggregator. NRCS is not authorized to provide this type of assistance nor can NRCS provide advice on market participation or financial matters.

Environmental credit trading offers unique opportunities to proactively increase environmental performance while reducing implementation costs. First and foremost, it can become an additional incentive for producers to apply conservation practices. Much the same as with livestock or grain, sequestered carbon is a product that society values and is willing to buy. Similar to the local livestock auction or the grain elevator, aggregators may buy and sell carbon credits or act as a pass-through entity that brings buyers and sellers together. Just as NRCS employees do not help ranchers roundup cattle, drive their trucks to market, or take bids from buyers, they do not help producers market carbon. At the same time, NRCS technical assistance is critical to managing the natural resource practices that sequester carbon and produce environmental benefits, and NRCS will continue in that role to the benefit of our environment. As new policy is developed, the NRCS role may change but until such time, NRCS is focused on providing technical assistance and natural resource conservation planning.

Frequently Asked Questions

1. What is the role of the field office staff in assisting clients with carbon credit trading applications? NRCS staff should assist their clients in the same manner as before, regardless of the client's involvement in carbon credit trading. Conservation planning and technical assistance are basic activities for the implementation of existing programs that can also serve to facilitate environmental markets. In this case, NRCS staff should explain the suite of information and technical assistance available and how it relates to sequestering carbon on the land.

2. What is the priority in my field office for providing assistance to clients with carbon credit trading applications? Clients with carbon credit trading applications may not have special priority in NRCS. Client priority should be developed in the usual manner, with the State Conservationist and in consultation with conservation partners.

3. When a landowner interested in carbon credit trading asks for assistance to determine if their land is in a "degraded" state, do we assist? NRCS does not provide landowners with a

determination of the “degraded” state of their land. “Degraded” in this context refers only to the capacity of the land to increase carbon storage. NRCS can supply information such as ecological site descriptions, soil interpretations, identification of existing conservation practices, and assistance for landowners to develop conservation plans.

4. How should I advise clients who ask if they should be involved in a carbon sequestration and credit trading project? NRCS is not authorized to provide advice on market participation. NRCS staff can provide the client with some very valuable information upon which to base a decision, but ultimately the decision to participate is the producer’s.

5. Should field office staff discuss money issues regarding carbon credit trading with their producers? No, NRCS does not provide financial advice. Producers will contract with aggregators to implement certain conservation practices and the value for those activities will vary depending on many factors. It is the responsibility of the producer to negotiate a price.

6. What is the aggregators’ role in assembling an application package for carbon credit trading? The aggregator provides the service of organizing the project and delivering the credits to a market. One role of the aggregator is to bring the buyer and seller together through a formal, legal contract that meets the criteria agreed upon by each of the participants. Another role may be for the aggregator to buy the carbon credits and then sell them. Either way, the aggregator will work with the producer to establish specific practices and provide monitoring and verification processes that assure the expected level of performance.

7. Does field office staff prepare or validate stocking rates for carbon credit trading? No, this should be the role of the aggregator. NRCS will continue to develop conservation plans and provide technical assistance commensurate with activities identified in the plan that meets NRCS standards and specifications.

8. Does NRCS validate or certify weather, stocking, or other records for carbon credit trading? No, certification of this sort would be the responsibility of the aggregator and should be described as such in the legal agreement between the aggregator and the producer.

9. Does NRCS keep a list of CCX authorized aggregators? No, not at this time, but a list of CCX authorized aggregators can be found on the CCX website (<http://www.chicagoclimatex.com>). As the market develops and more aggregators participate, it may be expedient for NRCS field offices to maintain a contact list that can be supplied to the producers.

10. Does NRCS have a tool that can be used to predict soil carbon from changes in land management? Yes. NRCS technical specialists have developed the CarbOn Management Evaluation Tool for Voluntary Reporting (COMET-VR) to evaluate changes in soil carbon resulting from changes in management systems in cropping and range systems. A web-based tool, COMET-VR asks users about their location, field information, soil type, management systems, and tillage intensity (for cropped systems), and provides an estimate of annual soil carbon change resulting from the projected management system. The COMET-VR model is available at <http://www.cometvr.colostate.edu/>.