Marin Carbon Project
Rahr Grant Deliverable

March 24, 2020

Marin Carbon Project's statement on Carbon Markets

There is considerable debate on the efficacy of the voluntary carbon market and carbon credit development in support of the planning and implementation of agricultural carbon sequestration projects. Whether these mechanisms are appropriate and/or an effective source of revenue to support carbon farm planning and implementation remains a question for the Marin Carbon Project (MCP) and its member organizations. The following summary highlights MCP efforts and findings with regard to agricultural carbon credit development .

Over the past decade, MCP has undertaken several assessments of the feasibility and efficacy of carbon markets to support carbon farming. MCP helped create the protocol, "Methodology for Compost Additions to Grazed Grasslands," under the American Carbon Registry for the voluntary market and subsequently a protocol adopted by the CA Air Pollution Control Officers Association for the GHG Rx. In its efforts to develop credits under these protocols, MCP has observed the following:

- A general lack of consistency and clarity around emissions from the composting process and requirements for validation and verification
- Lack of agreed upon standardized methodology for in-field soil sampling and laboratory soil carbon measurement as a basis for carbon credit development
- High and variable transaction costs, including the costs and requirements of validation and verification
- Price per ton of carbon is insufficient to cover the actual cost of projects
    - At the time of this work, in 2014, the voluntary market price for carbon was (and still is) <$5/MTCO2e. A 2012 analysis by Terra Global Capital, a consultant contracted by MCP, "*demonstrated that to cover the implementation costs of the activities in the model carbon farming plan (excluding cost savings, productivity increases and premium product pricing), that even when 75% of implementation costs are covered through other sources, carbon prices would need to be close to $200 per ton to make it economically viable for producers.*"
- In light of high transaction costs and currently low prices for carbon, terrestrial carbon offset projects are, generally, financially unattractive [particularly at small scale].

Terra Global Capital concluded: *"The financial analysis showed that the current economic value of carbon in rangelands cannot cover many of the costs to producers of implementing conservation practices, nor cover the costs incurred by MCP to provide the services to develop*

these carbon credits. A financially sustainable business model will still depend heavily on grant funding and the ability to leverage current and new incentives for producers to change practices."

As of March 2020, the market price for terrestrial carbon is still, for most projects, insufficient to support the actual costs of planning and implementing carbon farming projects and for meeting the requirements of typical offset protocols to monetize sequestered carbon in agroecosystems generally. Currently, the voluntary market value is <$5/MTCO2e and the California cap and trade price is ~$16.68/MTCO2e at auction. This contrasts with the low carbon fuel standard price of $191.88 (March 27, 2020).

Thus, we conclude that the current price of carbon on the voluntary market is insufficient in most cases to support implementation and verification of carbon farm plans for soil carbon sequestration. Additional funding sources (e.g. via policy incentives, community or government investment, or other form of financial support) would be required to provide a sustainable revenue stream to support these climate change mitigation activities apart from the carbon market.

For agricultural producers interested in possible funding sources for climate-beneficial agriculture…

The following are financial streams that can help fund carbon farming practices:

Landowners can apply directly for the following programs to support development and implementation of their carbon farm plans:

1. California Department of Food and Agriculture
    a. Healthy Soils Initiative Program
    b. Alternative Manure Management Program
2. U.S. Department of Agriculture
    a. Farm Service Agency:
        i. Conservation Reserve Program (CRP)
    b. Natural Resources Conservation Service Programs:
        i. Environmental Quality Incentives Program (EQIP)
        ii. Conservation Stewardship Program (CSP)
3. Other possible sources:
    a. Marin Resource Conservation District has multiple Carbon Farming programs available
    b. Marin Agricultural Land Trust supports MALT easement properties with stewardship practices including carbon farming practices