Vermont Payment for Ecosystem Services and Soil Health Working Group

Summary of Meeting #23: March 15, 2022

More detailed information, including presentation slides and the meeting recording can be found at https://agriculture.vermont.gov/pes.

Introduction

The Payment for Ecosystem Services (PES) and Soil Health Working Group held its twenty-third meeting on March 15, 2022. The objectives of the meeting were to review phosphorus erosion and carbon findings from the Task 5 (Valuation of soil health ecosystem services) report, to discuss the working group's progress on key program design concepts (whole farm, biodiversity, and tiering), to receive an overview of Working Group funding, and to receive public comment.

Summary of discussion

Ben Dube, PhD reviewed findings from the Valuation of soil health ecosystem services study (Task 5) related to phosphorus loss and erosion and carbon findings. Key clarifications are as follows:

- A limitation of the "social cost of carbon" approach to valuing carbon storage for this type of program is that payments assume that carbon is permanently reduced from the atmosphere. The "social cost of radiative forcing" approach annualizes the carbon storage values, allowing for valuations per year that carbon is stored.
- The reason that the dollar value of phosphorus retention benefits for agriculture is large is not because of a direct connection to the biophysical harms due to phosphorus, but rather because EPA deems phosphorus retention in agriculture cheaper than in other sectors.
- The abatement cost view assumes that the TMDL will be met, and therefore any reduction in loads in one sector reduces the burden on other sectors and produces a benefit, thereby creating a "value".

Ben Dube and the technical team will make revisions to the report over the coming weeks and share those with the Working Group.

The Working Group also discussed progress and current thinking around three key themes – whole farm, biodiversity, and tiering. Key takeaways are as follows –

- Whole farm
    - Key program design questions include:
        - Should we include all parts of the farm (fields, woodlands, wetlands)? How do we understand how they are used and their value to the farmer and others?
        - Should we require that all fields be enrolled in a program or individual fields?
        - How do we maximize sequestration, biodiversity, and farm success?
    - There is a desire to start with a pilot or more limited program, rather than delaying further to design a larger program
    - There is appetite for hybrid approaches which begin with in-field outcomes and expand to edge-of-field practices and incorporate metrics

    - The term “whole farm” is unclear, and it may be worth refining the term
- Biodiversity
    - Key questions include:
        - Is biodiversity a foundation of other ecosystem goods and services, or is it an outcome in itself? Does it matter?
        - How will the program address the invasive/endangered species paradigm? (There may be material from the Climate Council’s work to draw on.)
        - How could a program measure biodiversity in a simple and credible way? Would farmers be able to measure and self-report?
        - How would a program interact with existing programs that incentivize and compensate farmers for biodiversity services? Would it fill in the gaps, supplement, and/or “piggyback” on these existing programs?
- Tiering
    - Key questions include
        - How much complexity should be incorporated, given that the more complex a program the more tools needed?
        - What can be done to ensure acceptance by those paying for and participating in the program? How can the program ensure access for people who might not get into the system as easily?
        - Should the program incorporate thresholds? Should the program be outcome-based?
        - Should the program measure everything at once (like RSET) or measure one ecosystem service (at the risk of omitting other services which are important to farmers)?
    - Practices and measurements should be key components, along with technical assistance.

Members of the technical team then gave updates on their activities. Alissa White shared that Jon Winsten is working on the task 4 (Program Design) report and hopes to share a draft in the coming weeks. Nour El-Naboulsi shared that over 100 responses have been received for the farmer input survey and that the team will 25-30 farmers for more in-depth conversations.

Christopher Bonasia shared an update on work under task 7 (Approaches to measuring ecosystem services at the whole-farm scale). The task 7 study involves a SWOT analysis of 8 tools for greenhouse gas estimation and accounting and 3 case studies of how these tools are used in existing whole farm projects and programs. The team expects to have a draft report in the coming weeks.

Alyson Eastman, co-chair and Deputy Secretary of VAAFM gave an overview of developments related to funding for the Working Group. The Working Group received $250,000 last year from the Coronavirus Relief Fund (CRF). The Governor has proposed $1 million for the Working Group from the General Fund and $5 million for agronomic practices from American Rescue Plan Act (ARPA) funds for FY 2023.

One member of the public made public comment to highlight the negative effects of the ongoing conflict in Ukraine on global agricultural markets, its effects on the human and natural worlds, and the importance of promoting organic regenerative practices.

The meeting was adjourned at 2 PM.

Links shared during discussions

1. The Lake Champlain TMDL, by the Numbers (Presentation by E. Smeltzer)
2. Vermont Clean Water Initiative 2021 Performance Report
3. He Waka Eke Noa – Primary Sector Climate Action Partnership (New Zealand)
4. Memorandum - House NRFW Recommendation Pertaining to the FY23 Governor's Recommended Budget