**VERMONT PAYMENT FOR ECOSYSTEM SERVICES & SOIL HEALTH WORKING GROUP**

**PROGRAM OBJECTIVES, ELEMENTS AND ASSUMPTIONS**

Vision:

A Payment for Ecosystem Services and Soil Health Program will promote climate resilience and mitigation, provide clean water, and improve the health of the broader ecosystem for all Vermonters, while also supporting the economic health of Vermonters engaged in agriculture.

Goals:

The PES Program will:

* Compensate farmers for providing clearly defined ecosystem services.
* Ensure that metrics and associated compensation are clearly and directly linked to the specific, quantifiable ecosystems services of carbon storage, nutrient, soil retention, stormwater retention, and ability to support biodiversity.
* Identify and pay for ecosystem services that could be provided by farms of diverse types and sizes, including those currently and historically underserved by payment programs.
* Be efficient with time and funding to ensure that a high return is provided to the farmer and society.
* Continually improve both research and the program to support agricultural innovation, adaptative management and development of new practices and tools.

Framework:

***Eligibility***

1. All farmers[[1]](#footnote-2) are eligible to participate in the program if they are in good standing with the Required Agricultural Practices (RAPs).
2. Disadvantaged farmers[[2]](#footnote-3) are provided access to tailored technical assistance if they choose to participate, and potentially a higher rank in proposal review.
3. Farmers are paid a base fee to participate, at least in the first year(s), acknowledging that participation will require certain paperwork, data gathering and soil sampling and that the time spent engaging with this program should be compensated.

***Program Phasing***

1. The program will be developed in phases to allow for initial implementation but to provide the ability to grow in the services it pays for over time.
2. The program will start as a one-year pilot/demonstration at the scale funding allows to move action forward, to learn from, and to get payments into farmers’ hands for producing ecosystem services.
3. The pilot will seek to target a manageable number of farms given overall funds appropriated to ensure those farms can meaningfully benefit.
4. The pilot will seek to be representative of the outcomes the program seeks to achieve and the diversity of farms it intends to reach.
5. The pilot program will focus on outcomes in the soil, in the field, and at edge of field while considering outcomes in other parts of the farm.
6. The PES WG will stay engaged throughout the rollout and initial implementation of the pilot program to support, monitor, and provide guidance, at least through the group’s statutory deadline of early 2023. The pilot program will be administered by the AAFM because of its authorities, expertise, staffing, and ability to initiate the program in the Fall of 2022. However, the ultimate program administrator[[3]](#footnote-4) may be different.
7. The pilot will consider how must best to frame the program so as to support conservation values, reward stewardship and avoid treating payments as simply transactional.
8. The long-term program design will need to consider whether payments are permanent and annual or intended to effect behavior change and phase down or out over time.

***Program Elements***

1. The program will pay for ecosystem services based on outcomes, which may be determined via real-time measurements, modeling, and/or a combination.
2. The program will use tiering that may involve: 1) enrollment and basic data collection and soil testing; 2) payments for widely supported, evidence-based practices that produce ecosystem services; 3) payments for soil health and other measured outcomes with more extensive monitoring and sampling; 4) potential research or innovation tier (i.e., California program approach).
3. The program will incorporate a research element to: 1) monitor and provide analysis for program development and adaptive management; and 2) support innovation and development of new practices and tools over time.
4. The program will track results and make improvements to the program on a periodic basis.
5. The program will include a threshold that exceeds that required by the RAPs as well as improvements over baseline conditions. Whether the improvements are above and beyond a threshold or improvements to help reach a high threshold will be determined in detailed program design.
6. The program will integrate farmer learning networks and other collaborative tools for co-production of benefits and improvements to the program overall over time.
7. To the greatest extent possible, the program will seek to streamline with current programs using existing data for efficiency and ease of use.
8. The program will coordinate with, be additive to, and be compatible with existing funding programs to the greatest extent possible.
9. The program will support farming practices that promote and protect biodiversity while keeping farmland in production.
10. The program will seek outcomes some or all part of the participating farms to allow entry, innovation, and adaptation, but will be designed to minimize or avoid “leakage” or cherry-picking the “best fields” at the expense of continuous improvement. One option is selecting a representative sample of fields from a farm. As a farm enrolls, it should include a map of all its acreage, regardless of enrollment, for future consideration.
11. The program will ensure that ecosystem services are valued through payments such that farmers’ benefit from enrolling exceeds their marginal cost and that adequate technical assistance is provided to assist farmers to enroll.
12. The pilot will identify ways to deploy technical assistance in an effective and efficient manner, in part by using existing talent on the ground through such means as the conservation districts, extension, farmer watershed groups, and independent providers.

***Program Tools***

1. A Vermont-tailored Cornell Comprehensive Assessment of Soil Health (CASH) test will be developed but a standard or modified CASH test will be used in the pilot year as the Vermont-tailored version is developed.
2. Exact models to be used are to be determined but could include RSET, APEX, others, or some combination. Farmer-led tools (like observation and in-field tests) will also be incorporated wherever possible.
3. Whatever models are used should be tailored to Vermont, cost-effective, and easy to use.

***Payments***

1. Payments will be based on evidence-derived values that consider both society’s willingness to pay (WTP) and farmer’s willingness to accept (WTA).
2. The program and the pilot will seek to maximize funding from a variety of sources to the extent possible (state, federal/NRCS, and other sources).
3. Payments may be paid in a tiered, threshold manner: 1) having a score that is equal to or greater than a stated threshold (field, soil type, cropping type, etc.) to reward good practice and those already producing valued ecosystem benefits; and 2) measured improvements from their farm’s baseline (field, soil type, cropping type, etc.) to reward additionality and improvement. Whether that improvement is above the threshold or for approaching that threshold is to be determined.

***Farmer Engagement***

1. The program will partner with existing agencies and initiatives across the state to increase public understanding and appreciation of the critical role of agriculture in healthy landscapes and how ecosystem services are essential to a healthy environment and quality of life.

***Pilot Development Process***

1. WG will develop program parameters and elements by 15 June 2022, based on the UVM work to date, case studies, suggested program designs offered to date to the WG, and discussions and dialogue among the WG.
2. AAFM plus PES WG Coordinating members will work June-August 2022 to detail the PES pilot program based on the WG’s parameters.
3. It is essential that the WG and interested public will be kept informed via at least bi-weekly email updates tied to the bi-weekly WG Coordinating Group and be provided opportunities for input and comment, with one week for comment when possible.
4. The PES WG will engage farmers and the public in discussions around the program parameters and elements, beginning generally over the summer to “prime the pump” and into the Fall in more detail (and including conference). At the least, this document will be posted on the AAFM website and should be shared to groups via WG members, including farmer watershed groups, Healthy Soils Coalition, UVM Extension, VT Ag Water Quality Partnership, existing state groups like the Commission on the Future of Ag and VCC Climate Council and others. To this end, a short set of talking points would be helpful.
5. The design team will report back to the PES WG in September 2022.
6. The PES WG will refine and hone final issues and questions with the design team.
7. The pilot program will then be finalized and implemented in late 2022.

1. RAP definition - <https://agriculture.vermont.gov/water-quality/regulations/farm-definitions-and-determinations> ? [↑](#footnote-ref-2)
2. USDA definition - [Historically Underserved Producers | NRCS (usda.gov)](https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/people/outreach/slbfr/) – can be a self-certification. USDA definition? Other? [↑](#footnote-ref-3)
3. Note that data privacy is related to the funder’s requirements not the administrator’s [↑](#footnote-ref-4)