

Payment for Ecosystem Services (PES)

Farmer Discussion Notes Summary

Prepared by: White River NRCD

February 2020

February 4, 2020: The Connecticut River Watershed Farmers Alliance (CRWFA) and the White River NRCD held a farmer-led discussion on the development of Payment for Ecosystem Services (PES) in the state of Vermont. 17 Farmers and 5 Agriculture Service Providers were in attendance, including: Joshua Allen, Tom Beaudry, Cat Buxton, Jennifer Byrne, Nic Cook, Leon Corse, Linda Corse, Andrew Davis, Jed Davis, Mike Dolloff, Paul Doton, Craig Gardner, Nico Horster, Marian Jordan, Kevin Kaija, Mark McElroy, Lisa Niccolai, Amy Richardson, Michael Snow, Steve Stocking, and Becka Warren.

The meeting lasted for 3.5 hours, beginning with an overview presentation on the current status of PES by Paul Doton, CRWFA Board Chair. Two breakout discussions were then facilitated, in which attendees sat in groups of 4 to discuss the following guiding questions:

1. What are ecosystem services? What ecosystem services do you provide? What ecosystem services should be included in this program?
2. How should farmers be compensated for the ecosystem services they provide? How should they be measured/Who should measure them? How does this differ from existing conservation programs?

The small group discussions were followed by a report-back from each group to the larger group. The following notes are a summary of the ideas and opinions of the attendees of this meeting. These notes were prepared by the White River NRCD and approved by the CRWFA Board of Directors.

PES Farmer-led Discussion

What is an Ecosystem Service?

Any service that is practiced to protect natural resources and ecosystems that can be controlled by farmers. An ecosystem service was also described as a permanent state of preserving natural resources. Payments should be quantified by things farmers can control. Ecosystem Services promote a thriving system above and below ground.

Ecosystem services identified by participants:

- Soil quality / soil health
- Carbon sequestration
- Water quality / Clean water
- Wildlife habitat
- Community
- Food
- The View
- Increased diversity
- Air quality

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- Flood mitigation
- Active farming itself is a service

Ecosystem services are provided by:

- Building organic matter, using no-till cover crops and interseeding, converting soil into sponge, reducing runoff, reducing erosion, keeping soil in place, land in permanent sod
- Planning for biodiversity
- Maintaining wildlife corridors
- Riparian buffers
- Nutrient management
- Energy conservation
- Promoting carbon cycling & sequestration
- Providing natural habitat

Who is involved?

The entire community must be committed to this effort. Agriculture is not the largest contributor to pollution, yet farmers are asked to bear the majority of clean-up efforts. We are all responsible and contribute in some way. This movement must remain farmer-led. As we further explore payment for ecosystem services, we do not want to focus on one particular practice or test.

A PES system in VT should involve all Vermonters, not just farmers. All landowners should practice proper land management to have soil serve as a sponge for improved water infiltration. In order to create the most effective and efficient system, this effort should remain farmer & forester driven.

Measurement

Measurement is a process. There is a question of how technical or how broad a measurement system should be. To some extent, there has to be a universal standard of metrics, however, a one size fits all approach won't do; every farm is independent and different farms have different solutions. We want to be inclusive of all farms, with as many farms as possible participating in the program.

Baseline. Building a standard baseline would be a very complicated process. Every farm is not on the same playing field; there are varying impacts and influences beyond control (ex. concrete/pavement up slope, soil type, infrastructure). We cannot rely on one test (i.e. soil health) to measure ecosystem services. Natural resource evaluations can be considerably different at different times of year. Measurements should be adjusted depending on farm type (dairy, beef, field crops, vegetables, diversified).

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Farmer Led. We do not want to reinvent the wheel or make a complicated, burdensome system for farmers to have to navigate. Farmers, not regulators, should be the drivers of PES measurement. Farmers have a history of running self-led cooperative and community-based systems. We could look to the Grange system and the dairy cooperative models to create a community-based award system for PES. Organic Valley, as an example, operates on a farmer-driven model in which a farmer first self-evaluates and self-identifies what they are currently doing and where improvements could be made. Their evaluation is then scrutinized by Organic Valley staff and any inconsistencies or issues are brought before a panel of farmers. The PES model could begin with a self-evaluation; farmers could submit their plans for review by a local board of farmers. A point system and a ranking system could also be developed and/or administered by such a board. Farms could be re-evaluated on a 5-10 year cycle.

Conservation Plans. There was general consensus that some form of planning should be required to be eligible for a PES program. This planning/assessment process would rely heavily on land manager observations, assisted by ag service providers. A potential starting point for determining eligibility in a PES system could be the existence of a Whole Farm Conservation Plan or farm management plan. A well-designed conservation plan documents the resources on the farm as well as the farmer's present and future conservation/management decisions. Following such a plan helps to avoid costs as well as avoid negative environmental impacts. Conservation plans must be written by Certified Conservation Planners; NRCS, NRCDs, and VACD could provide this service in the state if funded/deemed a priority.

Inventory and Evaluation. Proper inventory of resources and proper evaluation of the effects of management decisions is critical for meaningful implementation of a PES program, as well as to ensure maintenance of practices. It was observed that "Evaluation" is the consistently missing step in the nine-step conservation planning process. A PES system which includes a focus on Evaluation would place a greater value or importance on "outcomes".

The majority of attendees agreed they want to value Biology over Technology. This system should reward the biology, not the physics, of farming.

The following list was identified by attendees to be included in an Inventory:

- Drainage systems i.e. old, new, and proposed ways water passes through farm (look to the NRCS tile records)
- Sealed surfaces i.e. roofs, driveways
- Legacy Phosphorous tied up in AI (look to NRCS spreading records)
- Existing water sources i.e. test for lead, cadmium, mercury, heavy metals
- Old landfills/dumps i.e. buried cars/trucks
- Infiltration rates as indicator of water holding capacity
- Animals vs Acres

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Outcomes vs Practices. The overarching goal to pay for outcomes over practices was welcomed by the group, however, the length of time between implementation and measurable outcomes is often many years, potentially delaying payments. There is concern among the group that relying too heavily on a single test or a particular outcome will create extra barriers and restrictions for farmers to participate in the process. With proper planning, farmers and conservation specialists already know when and where practices will produce a desired outcome.

This system could still be designed as outcome based, but could begin with planning and inventory and then, over time, be refined to pay for outcomes as data becomes available. A performance-based or maintenance-based system would be strengthened by formal planning. Depending on the context, payments could be staggered to first implement a practice, and then maintenance payments could be ongoing as long as the practice continues. Another way of looking at this is a “Start to Finish” plan, in which payment could center around a Whole Farm Plan, where payments are delivered for performance or on a maintenance payment schedule.

Eligibility. Some concerns arose around the definition of farmers vs landowners and who would be eligible to receive funding in a PES program. We want to ensure eligible land is actively farmed or in production, and that any payments and benefits go directly to the farmer of the land. In order to ensure equity throughout this system, we must consider differences between current stewards who are already doing conservation work and new conservation farmers who are just entering the system, so that no particular group benefits more. We want to make sure farmers already doing the work are not excluded or undervalued in the program. We also want to be sure small farms get the same focus as large farms.

Funding

Our society and economy has never placed a value on resources in an unexploited state. Ecosystem services are enjoyed by the global community. The natural environment affects everyone, everywhere. Farmers, as stewards of the land, provide value to all people. The burden of funding for ecosystem services should, in some way, be shared by all.

Farmers agree that penalties do not work to fix issues - this should be a voluntary and simple awards program which incentivises good stewardship of the land and is paid for by all who benefit.

Taxes. Funding for PES will have to come from a variety of sources. One potential source is a tax on non-ag polluters and exploitative industries. The Meals and Room Tax, also known as the “Tourism tax” should be explored for potential contribution to PES since farms contribute a great deal to Vermont’s tourism industry. We could also explore a cap and trade model for

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ecosystem services throughout all state and local governments and private industries and businesses.

Insurance. The PES system could be modeled as an insurance policy where society invests in land management as a measure to avoid future costs. Towns and cities could also contribute to pay for “PES insurance”. Shifting support from Carbon-intensive farming models such as corn and soy to more diversified, conservation-based farming systems would free up another revenue source.

Markets. There was concern among the group in setting up PES as a market-based program. Publicly trading ecosystem services makes the value of land and decision making authority vulnerable for take-over by outside forces and even other countries.

Existing Programs. While most conservation programs are based on practices, not performance, a PES system is notably similar to the Conservation Stewardship Program (CSP) administered by the USDA-NRCS. This is the only existing federal program that pays farmers for the good stewardship practices they are already implementing on-farm. When a farmer enrolls in CSP, all the land they manage is assessed by an NRCS Soil Conservationist, and payment is based on a calculation of the resource concerns and the total acres enrolled in the program. CSP is a 5 year contract with a minimum annual payment of \$1,500. There is an option to renew this contract for one more 5 year term.

The Vermont Environmental Stewardship Program (VESP) was briefly touched on in this meeting. One current VESP farmer was in attendance. There is interest in exploring how this program could be strengthened and become accessible to more farms.

We must take a closer look at how to leverage existing systems to simplify the process of getting payments for ecosystem services to farmers and limit increases in paperwork. We should partner with the NRCS and the state to strengthen existing initiatives in order to make programs more consistent and reliable for farmers as they plan for the future.

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Questions Posed by Farmers:

If you want a diversified income, start with thinking big picture - what is the type of food system we really want? Is it a commodity type system?

This service is important but are we creating a barrier?

Who might game the system by measuring "soil carbon" and "non-standard" sampling?

Many of the ag-programs of the past are a dis-incentive to innovate (ex. FSA crop payments).

How do you propose to see to it that this program does not become one where it turns out to be a "hand-out" to someone who really is not a farmer? (ex. A second home owner getting paid to brushhog a field for grassland birds)

Who polices a landowner gaming the system?

Measurement of performances vs practices is definitely a challenge.

Classification of "relevant" or "recognized" ecosystem services is important - could follow a material determination process.

Monetization step should make reference to pre-existing methods (look at Gund Institute report).

Measurement should be grounded in carrying capacity of the land.

How would funding be acquired?

Determining the funding source will be the ultimate measure of success.

How to measure the threshold of farmer performance?

Could producers draft requirements or would it be done by an external entity?

Farmers are already stewards of the land - will this just mean more regulation?

Farmers all have different issues on their farms (landscape issues, dynamic natural forces, CT River flooding - affecting nutrients spreading, timing of planting, pollinators).

What is wrong with \$ for practices? Hard to measure performance.

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If payments are started by practices, it could get started sooner as opposed to waiting for outcomes.

How many acres of ag/forest land exist vs acres of non-ag land/entities?

How will this include what farmers are already doing? Uneven starting point.

Don't want another strategy for farmers to compete against each other - we want to promote working together as a culture.

Can we, as a society, invest in land management?

What do you contribute overall? (positive effects on air, water, soil)

How do we take C from the air and put it back in the soil?

Is Product an Ecosystem Service?