CURRENT RESEARCH RELATED TO PES WG

Title	Principle Investigators	Timeframe	Value	Description	Relevance to PES WG
Future of Work at the Human-Technology Frontier	University of Vermont and University of South Dakota	Jan 2021 – Dec 2024	$3 m	This project will use real farms in South Dakota and Vermont as living laboratories for developing and testing new precision agriculture tools (intelligent decision support system), sensor driven performance-based incentives for implementation of sustainable agriculture practices, and workforce training initiatives that can enhance farm workers' trust and confidence in precision agriculture tools	Precision Tools for on-Farm ESG measurement
Vermont Soil Health Investment Trust (NRCS CIG)	John Winsten	Completed	$75K	Helping Vermont farmers move toward greater soil health to deliver ecosystem services and improved financial performance and resilience. Proposed model of a Trust that includes a loan-driven Farm Transformation Fund and a Outcome Fund that can aggregate funding from multiple streams for different ESG.	Framework (skeleton) for multi-ESG PES approach
Managing pasture for health farms and soils across Vermont (NRCS CIG)	Vermont Land Trust, Biological Capital, UVM, UVM Extension	Jan 2021 – Dec 2025	$2.64 m	Implement on-the-ground conservation and evaluate their impact on soil health. Using no-till, compost and soil amendments, non-invasive mechanical soil improvement and rotational grazing, seek to: 1) measure impact on soils and ecosystems; 2) calculate financial cost/benefit; 3) understand social outcomes; 4) predict potential for VT-wide implementation.	Soil Health measures, payments, and programs
Vermont PES for Phosphorus (NRCS RCCP -Alternative Funding Arrangement)	VT Agency for Agriculture, Food and Markets	Jan 2021 – Dec 2025	$7 m	The VPFP Program will use an innovative 'pay-for-performance' approach to compensate farmers for voluntary and verified phosphorus load reductions in agricultural crop fields that exceed phosphorus reductions set by state and federal standards on a farm-by-farm basis. This new and innovative program will build on the existing agricultural water quality clean-up framework and will accelerate the pace of implementation and clean water work occurring with farmers, partners, and the state.	P pricing, PES program design
Linking FarmPREP to TMDL Modeling and Phosphorus Reduction Valuation Analysis	VT Agency for Agriculture, Food and Markets	2020-2022	$250K	(1) Modify FarmPREP to model phosphorus reductions from a modeled TMDL Base Load.(2) Recruit 10-12 farms statewide of diverse sizes and types to input their land management data. (3) Evaluate the opportunity for payments for phosphorus reductions from the TMDL Base Load.	PES Tools for P