

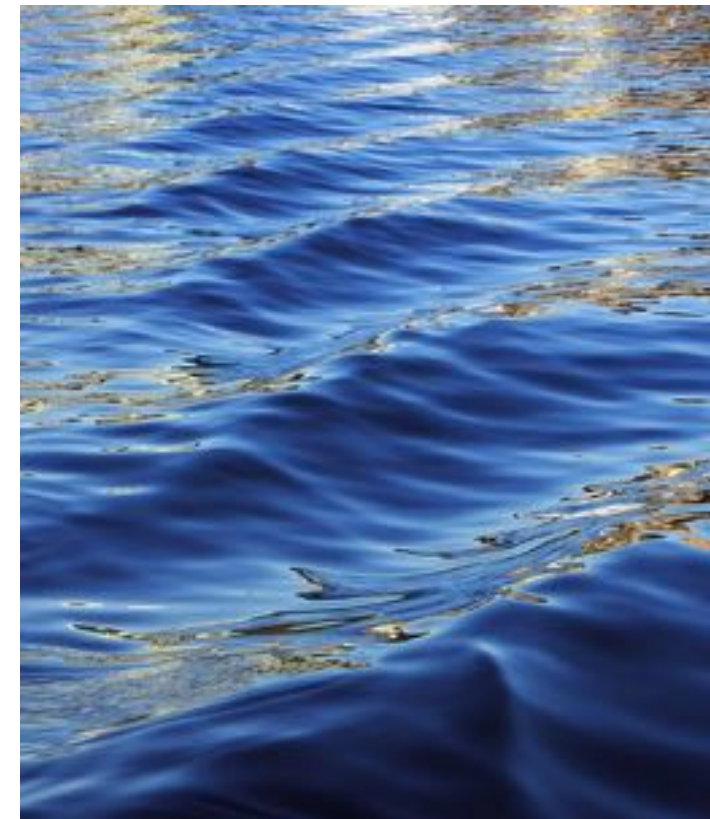


Vermont Environmental Stewardship Program Pilot

Working Lands for a Better Vermont



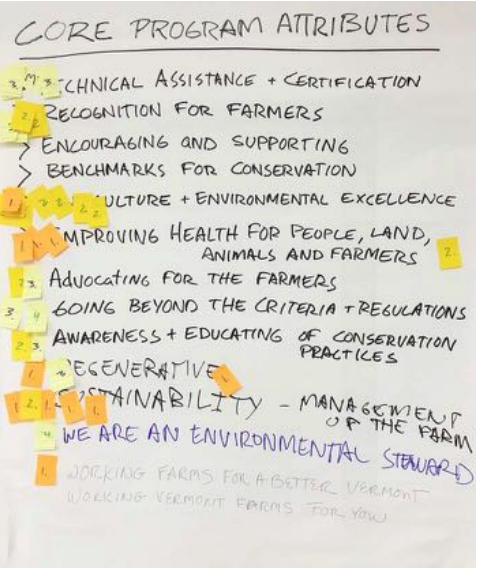
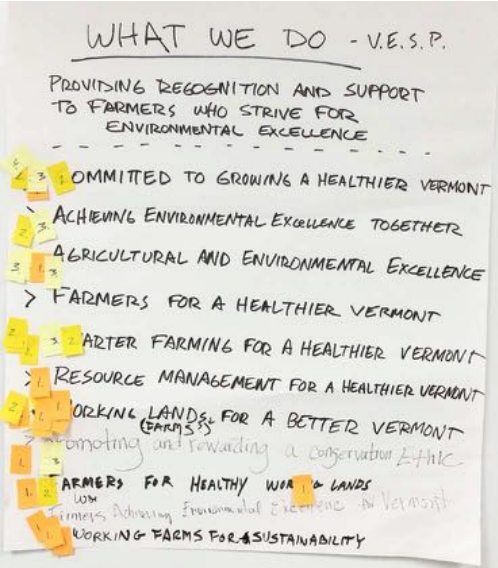
vermont
environmental
stewardship
PROGRAM



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Vermont Agency of Agriculture, Food and Markets
Northeast NACD Annual Meeting
August, 14 2017

Background

- Funding for program development originally came from NRCS VT CIG grant for the development of a “Certainty” Program
- Series of stakeholder meetings informed what farmer’s wanted most:
 - Science-backed social recognition
 - Eligible even if nothing is wrong with their farm!

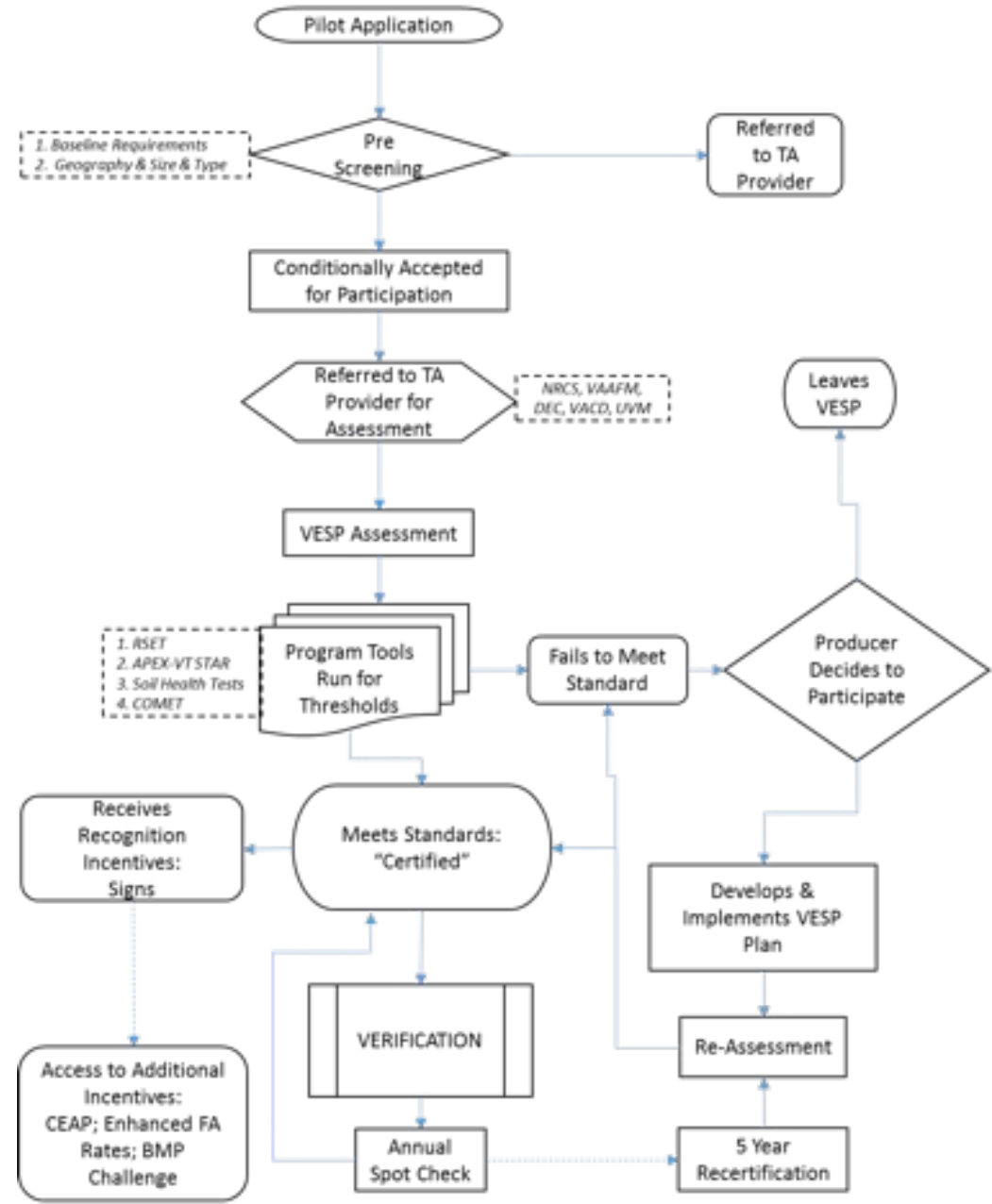


Program Overview

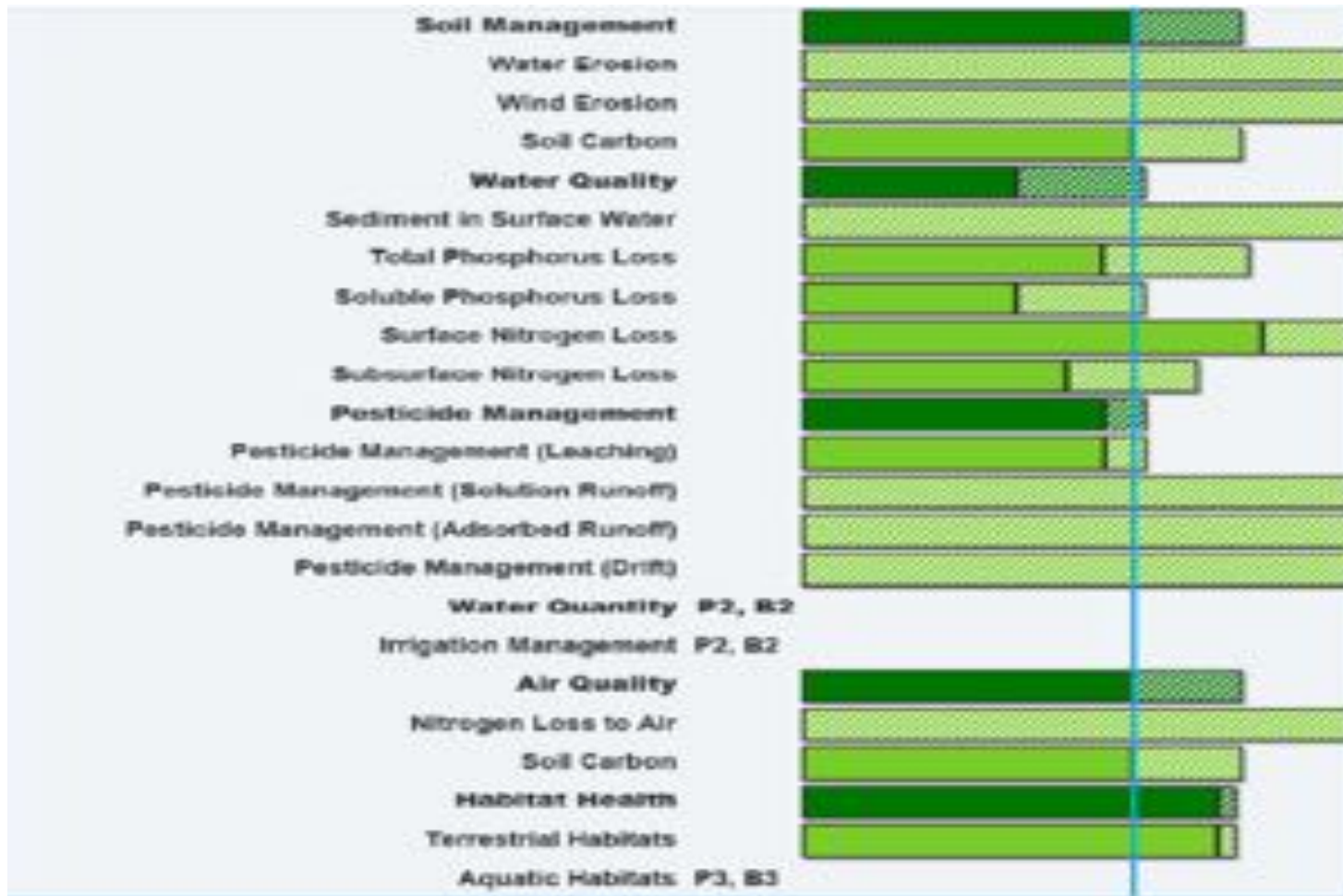
- The goal of VESP is to **accelerate water-quality improvements** through additional voluntary implementation efforts, and **provide recognition to farmers who strive for environmental excellence.**
- **Baseline Requirements:** Must be actively farming, must meet existing environmental regulations
- **Assessment:** Nutrient management, sediment and erosion control, soil health, and air quality and carbon sequestration, and pasture health
- **Conservation Planning:** For farms that need to change management, conservation planning services are available through existing NRCS and partner programs
- **Incentives:** Focuses on recognition based incentives, potential to expand into financial incentives
- **Certification Structure:** 3rd party verification, 5 year certification period



Vermont Environmental Stewardship Program Pilot Program Process Flowchart



Assessment Tools and Certification Criteria



- Must meet threshold requirements on at least 90% of land base, and have plan in place to meet requirements on remaining land base



Cornell Soil Health Assessment

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Sample ID: J_1204
Field/Treatment: Low Field
Tillage: 7-9 inches
Crops/Crowns: COGL COG
Date Sampled: 4/13/2015
Given Soil Type: Barh silt loam
Given Soil Texture: Silt Loam
Coordinates: Coordinates Not Provided

Measured Soil Textural Class: Silt Loam Sand: 33% Silt: 57% Clay: 10%

Test Results

	Indicator	Value	Rating	Constraint
Physical	Available Water Capacity	0.22	88	
	Surface Hardness	230	25	Rooting, Water Transmission
	Subsurface Hardness	390	15	Subsurface Pan/Deep Compaction, Deep Rooting, Water and Nutrient Access
	Aggregate Stability	77.1	93	
Biological	Organic Matter	3.0	35	
	ACE Soil Protein Index	6.1	43	
	Respiration	0.68	62	
	Active Carbon	440	25	Energy Source for Soil Biota
Chemical	pH	5.5	11	Low pH: Toxicity, Nutrient Availability
	Phosphorus	6.4	100	
	Potassium	67.3	93	
	Minor Elements Mg: 140 Fe: 4.2 Mn: 6.6 Zn: 1.9		100	
Overall Quality Score		57	Medium	

Cropland key indicators and thresholds

	Key Indicator	Threshold
Soil Management	Erosion Management (Water)	½ Tolerable Soil Loss (½ T)
	Soil Organic Matter Management	Improving Soil Organic Matter
Water Quality	Nutrient Management (Total P)	P loss less than or equal to 3 lbs./acre
	Nutrient Management (Soluble P)	P loss less than or equal to 1 lbs./acre
	Nutrient Management (N to Surface Water)	N loss less than or equal to 15 lbs./acre
	Nutrient Management (N to Ground Water)	N loss less than or equal to 25 lbs./acre
	Sediment Management	Sediment loss less than or equal to 2 tons/acre
	Pesticide Management	Low Risk
Air Quality	Carbon Sequestration	Maintaining or Increasing Soil Carbon
	Nitrogen Loss to Air	N loss to air minimized



Pilot Program Goals

- Goal: 10-12 farms to participate from 2016-2018, looking for a diversity of farm types, sizes, and geographic location
- Vetting new assessment tool: RSET
- Vetting new data collection methods: Drones and LiDAR
- Workload assessment
- Needed environmental baseline of various agricultural management styles
- Will result in recommendations for a full program structure



Incentives for Stewardship

- Pilot
 - Recognition Based Incentives
 - Soil Health Tests
 - Increased technical and financial assistance for farms needing conservation plans
 - BMP challenge opportunity to protect against yield loss risk
- Full Program: Seeking Partnerships
 - Lump-sum Cash Incentives
 - Flexible Lending Options
 - Low to Zero Interest Revolving Loan Fund?
 - Insurance Rates Adjustments
 - Other ideas?



Current Status and Existing Needs

- Status
 - 6 farms have applied, all dairy, 2 LFO, 1 MFOs, 3 CSFO
 - We have shifted towards an open enrollment process
 - Really need to encourage small, non-dairies to apply.
- Needs
 - Identify partner staff who needs to be trained on RSET and Soil Health Tests
 - Hold Trainings
 - Coordinate with UVM spatial lab on Drone pilots
 - Begin Field Work

More Information

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