

Protocol Development for Ecosystem Service Market Credits from Agricultural Working Lands

Kieser & Associates, LLC of Kalamazoo, Michigan has been leading a national team of pragmatic market-makers and shapers for the Ecosystem Service Market Consortium (www.ecosystems-servicesmarket.org) to develop functional protocols to advance markets that incentivize farmers and ranchers to improve soil health systems that benefit society focusing on soil carbon, water quality and water quantity. The team is comprised of service providers, scientists, policy-makers, legal, financial and market influencers that understand the importance of environmental, economic and societal benefits of production agriculture. Our pragmatic strategy is building off existing market initiatives to comprehensively develop an easy-to-use protocol, flexible and valuable to farmers that focuses on marketable ecosystem services encompassing soil carbon, water quality and water quantity. Credits will be suitable for use in ecosystem service markets and yield economic benefits to the producer while ultimately providing a range of environmental and societal benefits.

The first integrated edition of the ESM Protocol was completed in late 2018 to address three environmental attributes: greenhouse gases (GHGs), water quality, and water quantity. Each of these attributes will allow participating ranchers and farmers to generate saleable assets as a result of soil health improvements within their operations. These assets are available for use in the unfolding ESM Program through the Protocol that provides the framework for participation.

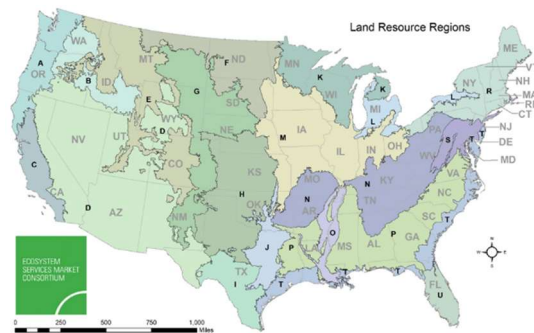
This initial Protocol was specifically developed for agricultural production systems in the Southern Great Plains. It fully describes the process that ranchers and farmers must undergo to quantify, monitor, report, verify, and register individual environmental assets generated by their soil health activities for the program. Tiered assets range from certificates to credits and are intended to be compatible with

Tier	Environmental Assets Generated by Protocol		
	GHGs	Water Quality	Water Quantity
Tier 1	Carbon Inset Credit	Agricultural Water Quality Protection Certificate	Water Efficiency Credit
Tier 2	Carbon Offset Credit	Water Quality Credit	--

corporate reporting requirements and existing ecosystem services markets.

The Protocol is designed to meet the needs of farmers, ranchers, and potential buyers considering participation for any of the three environmental attributes by allowing them a singular point of entry to participate in multiple market opportunities with implementation of soil health improvements on their lands. Potential buyers will have access assets generated through a scientifically rigorous and cost-effective process to meet corporate sustainability and reporting standards.

Through 2021, K&A will continue to work with the Protocol Team to expand this effort to all agricultural production regions in the U.S. Participation in the overall ESM is broad with numerous U.S. corporations, foundations and USDA supporting these efforts.



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Project Costs:
 \$750,000

Project Duration:
 2018-2020