Request For Proposals by Eco-Harvest

June 2023

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I. GLOSSARY OF TERMS

- **Impact Units:** Absolute carbon (CO_2e) emissions reductions or enhanced removals from regenerative agricultural practice changes that can be incorporated into emissions factors for agricultural commodities. Impact Units are used by companies to report the impacts of annual interventions designed to meet Scope 3 supply chain greenhouse gas (GHG) emissions reductions. Impact Units (IUs) will be referred to as "Credits" throughout the RFP.
- **Emission Factor:** A factor that converts activity data (from Impact Units) into GHG emissions data (e.g., kg CO_2e emitted per ton of wheat harvested).
- **ESMC/ESMRC Infrastructure**:
    - ESMC/ESMRC programming includes our tested and scalable market program for project development and verified credit generation, called Eco-Harvest by ESMC, as well as our pilot project R&D and innovation program (ESMRC) to expand Eco-Harvest market program operations to additional regions and production systems and to test innovative tools, technologies and modes of program delivery.
    - ESMC/ESMRC program operations are delivered via an end-to-end technological and programmatic infrastructure for project development and credit delivery. This infrastructure includes:
        - Protocols, training programs, and producer education and outreach materials
        - A digital platform that includes a Producer Enrollment portal and a Measurement, Reporting and Verification (MRV) platform to ingest, store and track data needed for Scope 3 credit generation (Scope 3 EFs from IUs)
        - Quantification, verification, tracking and co-investment for supply chain partners.
    - If you require additional detail on ESMC's Protocol, please reach out to Alana Pacheco via email (apacheco@ecosystemservicesmarket.org).
- **Project Partner Roles**
    - These refer to the non-ESMC/ESMRC roles in project development and delivery for which ESMC/ESMRC relies on the expertise of collaborating project partners to deliver. Project partners who can deliver specific project roles & services necessary for project development and implementation are the focus of this RFP.
    - This RFP seeks project partners who can perform the following roles (either singly, in combination, or all roles):
        - Project Manager
        - Project Developer
        - Enrollment Specialist & Data Entry
        - Technical Conservation Assistance

- **Eco-Harvest Market Project**
    - Eco-Harvest Market Projects are projects in regions and cropping systems that operate under approved ESMC protocols.
    - Eco-Harvest Market Projects operate in 5-year cycles:
        - Enrolled producers sign 5-year contracts that are renewable up to 3 times, for a possible total participation of 20 years.
        - Producers are paid annually after credit generation, verification and sale.
    - Market program regions include: Northern Great Plains (USA), Midwest Soy and Corn Belt, Southern Great Plains, Great Lakes
    - Eco-Harvest Market Projects can include the following crop types: wheat, oats, corn, soybeans, alfalfa, canola, millet, sorghum
- **Co-Investment and Co-Claiming**
    - Scope 3 GHG outcomes can be "co-claimed" or shared for reporting purposes within the same supply chain but in a different portion (or "impact layer") of that supply chain (grain elevator -> manufacturer -> retailer).
    - Buyers within the same supply chain have an incentive to "co-invest" and pool funds to help lower the individual cost of a single credit within the larger supply chain.

II. INTRODUCTION

ESMC's Eco-Harvest market program is an innovative ecosystem services scope 3 agricultural supply chain market program that pays farmers for beneficial environmental outcomes from regenerative agriculture. Eco-Harvest meets food and beverage sector annual Scope 3 reporting needs for quantified, verified soil carbon removals and reduced GHG emissions from agricultural production within their supply chains.

A. Goals and Objectives

GOALS. ESMC is issuing this **Request for Proposals (RFP)** to invite proposals to launch projects to generate annual outcomes to meet food and beverage company supply chain commitments and outcomes. The projects will utilize Eco-Harvest accredited programming to deliver impacts across the agricultural and food and beverage sector supply chains.

ESMC/ESMRC seeks collaboration from agricultural value chain partners to help launch projects. Partners take on critical roles to plan and implement projects that utilize Eco-Harvest programming to generate quantified, verified Scope 3 outcomes for food and beverage companies annual Scope 3 GHG supply chain reporting and that can be shared by other supply chain partners via co-investment and co-claiming.

The RFP will identify and deploy repeatable models of project development, implementation, and replication at scale. We seek partners to work with us to enroll producers in Eco-Harvest projects. **Partners should commit to enroll a minimum of 20,000 acres . The acreage maximum for the 2024 year is 280,000. Multiple awards may be given, and partners should indicate the acreage they can manage.** Projects will utilize Eco-Harvest programming to deliver increased soil carbon, reduced GHG emissions, and improved water quality and water conservation from adoption of regenerative agriculture practices and systems.

OBJECTIVES.
Key objectives include the following:

- Create project development infrastructures and pipelines to build a national-scale network of skilled project development partners to use ESMC/ESMRC programming to deliver regenerative agriculture project outcomes. The network will meet food and beverage sector supply chain GHG and ecosystem reporting needs at scale.
- Identify additional capacity building opportunities and needs among early-stage project development and implementation partners to add to project development pipelines

B. About ESMC

ESMC/ESMRC is a non-profit market program and a public-private partnership. Our mission is to scale soil health and other agricultural outcomes that benefit farmers and society in a collective enabling environment. Our members include buyers, sellers and other agricultural supply

chain partners. Eco-Harvest is a science and standards-based program and digitized platform with advanced quantification and verification technology systems.

ESMC's research arm, ESMRC, is an innovation pipeline in which our members and partners co-invest in critical R&D and enhancements to continuously improve our technologically advanced market program and infrastructure.

ESMC's Eco-Harvest market projects and ESMRC pilot and demonstration projects pay farmers and ranchers for credits generated from implementing regenerative practice changes. The credits generated are shown in **Figure 1**. The process to create projects and generate credits – including the roles and services sought in this RFP – is depicted in **Figure 2**.

Eco-Harvest allows producers the autonomy to decide which eligible practices or systems changes to adopt from a menu of valid options. The same land stewardship practices that improve soil carbon and reduce GHG emissions often have additional benefits, including improved water quality and water conservation, and biodiversity benefits such as habitat for pollinators, insects and birds. Each producer's carbon, GHG, water quality and water quantity outcomes are quantified at a field and farm scale, and the credits generated can be "stacked" and sold together or disaggregated and sold individually in our streamlined program. Eco-Harvest maximizes the value returned to producers and to diverse supply chain buyers.

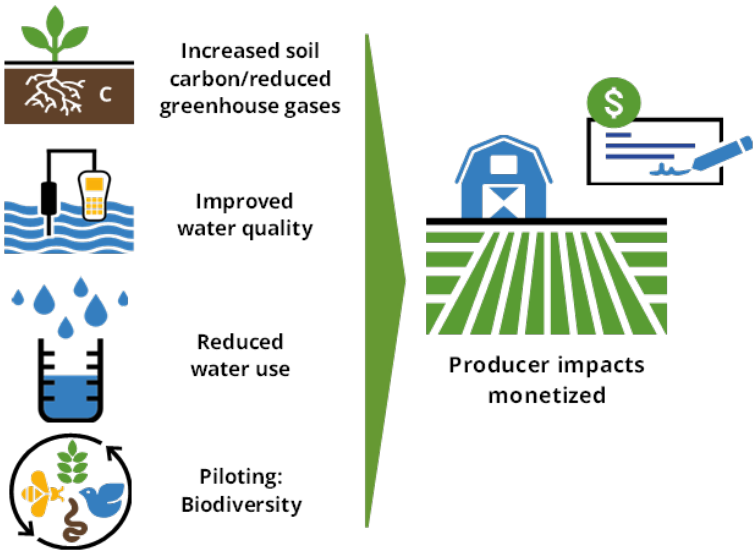


Figure 1: Scope 3 supply chain credits generated by Eco-Harvest. Our program stacks credits to deliver maximum soil health and financial benefit to the producers enrolled.

Eco-Harvest sells producer credits to buyers in the agricultural supply chain to help them achieve high priority climate change, Net Zero and corporate sustainability goals. As a non-profit, **ESMC only recovers operational costs from program operations and credit generation, creating the highest value for corporate buyers and for agricultural sellers.**

III. SCOPE OF WORK

This RFP seeks partners to assume specific critical regenerative agriculture project development and implementation roles. The diagram below shows each stage in the project development process and the different tasks and skills required from project partners. The specific roles sought include:

- Project Managers,
- Enrollment Specialists,
- Technical Conservation Assistance Providers, and/or
- Project Developers.

Applicants may submit proposals to fulfill all roles, or one or more roles in concert with additional partners.

Not within the scope of this RFP are the functions fulfilled or managed by ESMC, which include soil sampling stratification, soil sampling, and soil lab analysis; credit quantification and verification; and outcomes tracking and reporting.

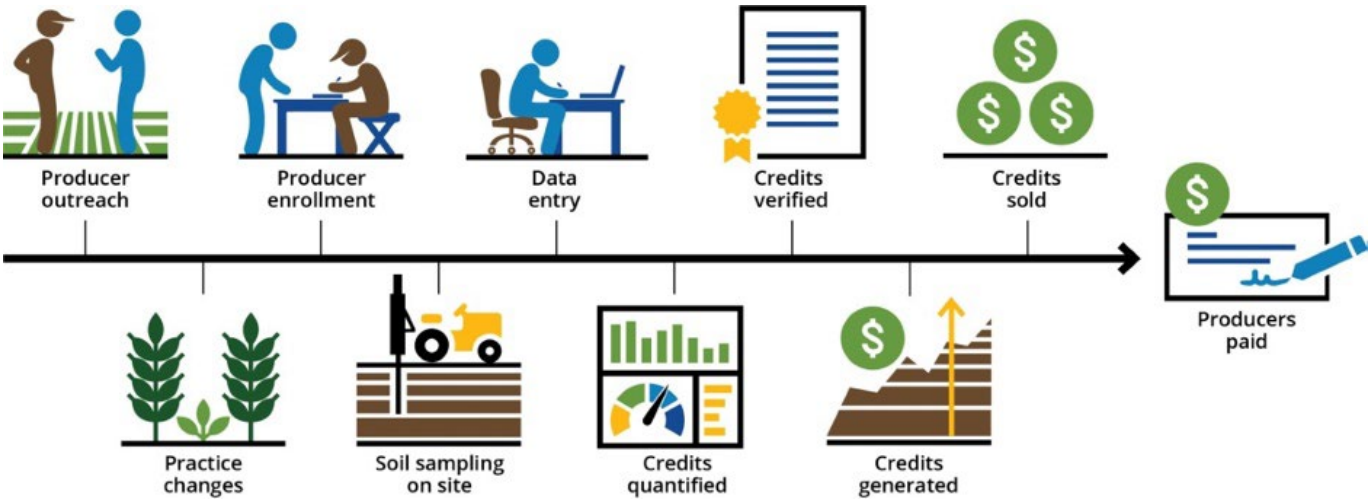


Figure 2: Eco-Harvest project development and impact unit generation process. Project Implementation Partners will support producers through outreach, enrollment, technical conservation assistance and data entry.

A. Roles and Responsibilities of Services Sought

Project Managers

Project Managers are external partners who serve as the lead organization or individual managing project(s) and partners on the ground. External Project Managers work in coordination with a dedicated ESMC/ESMRC Project Manager. External Project Managers manage and coordinate other involved parties or partners and work with a dedicated ESMC Project Manager to ensure project operations run smoothly.

Responsibilities of External Project Managers include:

- Oversee on-the-ground project development and implementation processes and manage project partners;
- Participate in regular project and training calls/meetings hosted by ESMC/ESMRC;
- Coordinate, oversee and communicate regularly with other project partners via meetings, emails and calls;
- Work generally to keep projects running smoothly and on time to achieve project completion according to established processes and timelines.

Enrollment Specialists

Enrollment Specialists serve to identify and recruit producers to enroll in the ESMC/ESMRC program and support producer data entry into the Eco-Harvest Producer Portal. Enrollment Specialists also serve as a producer point of contact throughout the length of the project.

An 'enrolled producer' is a producer who has completed entry of all necessary information to the Eco-Harvest Producer Portal, has signed the Eco-Harvest Producer Agreement, and has uploaded field boundaries for any field they are enrolling in the project for that particular year.

Responsibilities of Enrollment Specialists include:

- Work with dedicated ESMC/ESMRC Project Managers to understand full program requirements, producer eligibility requirements, project goals, producer responsibilities and expectations; project timelines and deadlines; and targeted regions/supply sheds and target production systems.
- Participate in Eco-Harvest Enrollment Training to learn how to properly enroll producers in the program and the Eco-Harvest Producer Portal.
- Work with a dedicated ESMC/ESMRC Project Manager to adapt targeted producer outreach and education materials for the project.
- Identify and conduct outreach to producers to enroll them in the project and clearly communicate project eligibility requirements and responsibilities, anticipated producer payments, processes and timelines.
- Assist producers with the project enrollment process, including entering required farm data into the Eco-Harvest Producer Portal and signing producer agreements.

- Ensure producers understand and meet all established project requirements, timelines and deadlines.

Please find details on data requirements and eligible practice changes in the Appendix.

Technical Conservation Assistance

Technical conservation assistance providers possess expertise to work with producers enrolled in an Eco-Harvest project to help them plan and implement eligible conservation practices on their fields, farms, and ranches.

Responsibilities of Technical Assistance Providers include:

- Demonstrate proficiencies in providing technical conservation assistance to farmers and ranchers.
- Participate in trainings with ESMC/ESMRC to learn about our program and its operations and to understand eligible practices producers can adopt.
- Work with producers and project partners to identify which practice changes or suites of practices (systems) are recommended for a given producer based on their geography, soil type(s), operation and production system.
- Provide assistance and educational training on how to implement identified conservation practice changes to meet program and producer needs.

An overview of ESMC eligible conservation practices is provided in the Appendix for reference.

Project Developers

Project Developers provide project support services in concert with ESMC and external Project Managers, using ESMC's Eco-Harvest programming to enroll eligible acres and generate credits.

Responsibilities of Project Developers include:

- Producer outreach, recruitment and enrollment; producer data collection support; facilitation of soil sampling; and often co-engagement of buyers.
- Project Developers:
    - Must be ESMC/ESMRC members *(see Appendix for details on ESMC Membership);*
    - Can perform Project Manager, Enrollment Specialist and Technical Conservation Assistance roles (or some combination of the three);
    - Can work with ESMC/ESMRC to facilitate contracting of soil sampling on enrolled fields; and
    - Can sub-contract other organizations to perform enrollment and technical assistance.
- Ensure that the project follows all necessary ESMC/ESMRC program requirements and timelines for each Reporting Year.

B. Overview of Projects Supported

Eco-Harvest seeks projects in the regions and crops listed in the table and map below. Partners should be prepared to **enroll a minimum of 20,000 acres per project** with a maximum of 280,000 acres. Details of projects are outlined in the following sections.

Eco-Harvest Market Projects operate in 5-year cycles. Enrolled producers sign 5-year contracts that are renewable up to 20 years. Producers are paid annually after credit generation, verification, and sale.

ESMC Market Program Regions:

- Northern Great Plains
- Southern Great Plains
- Great Lakes
- Midwest Soy and Corn Belt

Supported Primary Crops:

- Corn
- Soybeans
- Wheat
- Alfalfa
- Oats

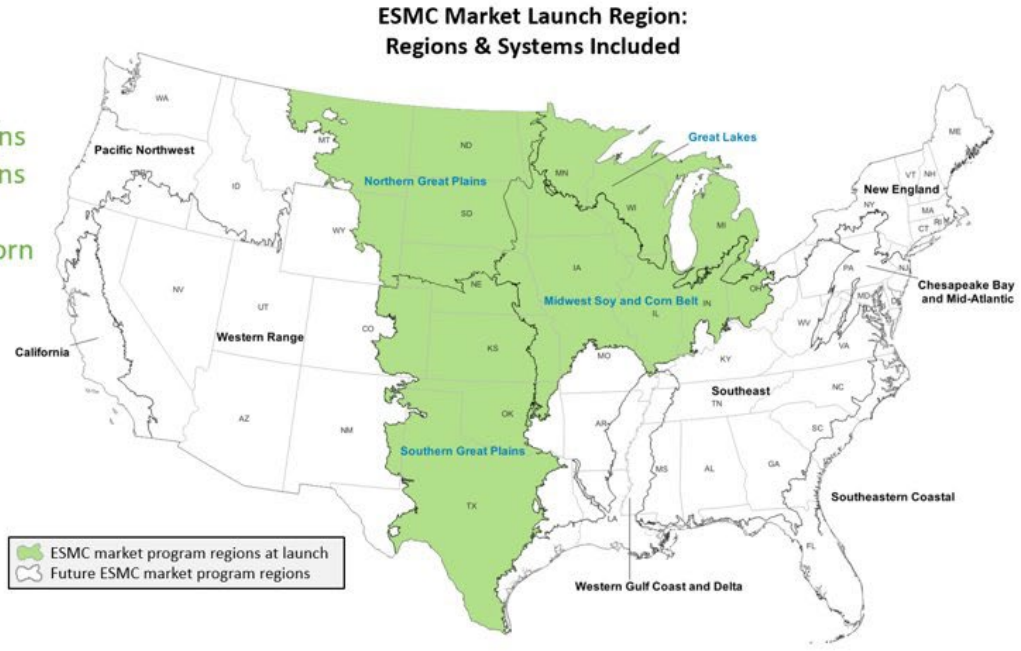


Figure 3: Eco-Harvest Program Eligible Regions and Crop Systems.

Eco-Harvest projects **must include one or more** of the following ***Primary Crops*** in the enrolled fields over the 5 year contract:

- Corn
- Soybeans
- Wheat
- Alfalfa
- Oats

Eco-Harvest can support the following ***crops in rotation*** with the above Primary Crops:

- Barley
- Buckwheat
- Canola
- Clover
- Dry Bean
- Flax
- Lentil
- Millet
- Mustard
- Pea

- Peanut
- Popcorn
- Potato
- Pumpkin
- Radish
- Rye
- Ryegrass
- Sorghum
- Sugarbeet
- Sugarcane
- Sunflower
- Sunn Hemp
- Sweet Corn
- Teff
- Triticale
- Turnip
- Vetch
- Watermelon
- Wheatgrass

ESMC understands that other crops will be grown in rotation with the primary crops identified and will work in tandem with corporate buyers to ensure credits that are generated from the entire rotation are purchased.

All projects seek fulfillment of the following project partner roles: Project Manager, Enrollment Specialist, Technical Conservation Assistance Provider, and Project Developer. Applicants may submit proposals to fulfill more than one role on their own or in concert with other partners.

Participating farmers may be paid an incentive payment supported by a project buyer upon enrollment into the program. This is a one-time payment that will help to drive enrollment and offset the costs of implementing conservation practices. For incentive payments, ESMC will pay producers directly upon completion of the enrollment process.

C. Project Timelines

ESMC/ESMRC Projects in this RFP will follow the general timeline outlined in Figure 3 below. The project crediting period will run from Harvest of Year 0 to Harvest of Year 1. For example, 2024 projects will begin after 2023 harvest is completed and will be credited for practice changes implemented before harvest is completed in 2024. The 2024 project enrollment timeline is as follows:

- By December 31st, 2023
  - Producers must be enrolled in a project via having completed documentation requirements in the ESMC Producer Portal; and
  - Soil Sampling will occur in Spring 2024 (Pre-Planting) or Fall 2024 (Post-Harvest).
- A producer is considered enrolled when they have completed the following:
  - ESMC Producer Agreement signed via ESMC Producer Portal; and
  - Field boundaries and practice changes identified for each field entered into ESMC Producer Portal

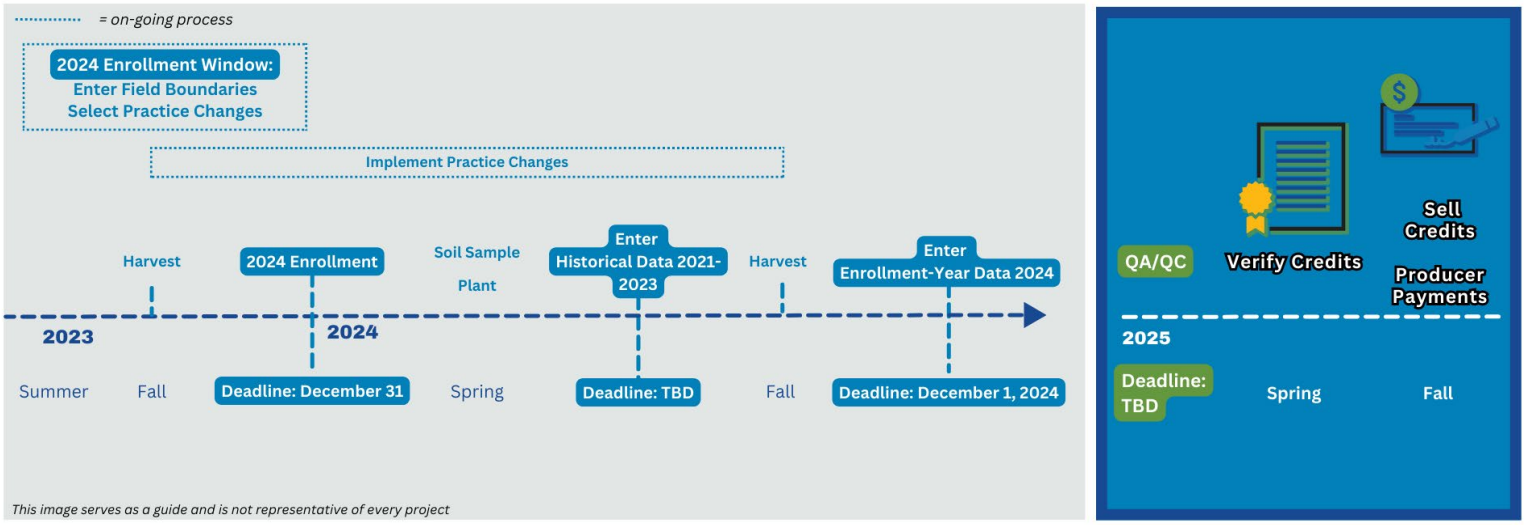


Figure 4: Eco-Harvest Project Timeline for Project Partner and Producer Activities. Deadline for enrollment for the 2024 project year is December 31, 2023.

Note that while producer enrollment can be completed up until December 31, 2023 at the latest, we highly recommend beginning the process soon after projects have been awarded. Outreach to producers and enrollment processes can take several weeks or longer. Soil sampling timelines will also differ based on regional conditions and is highly dependent on weather, which can affect the ability to sample during different times of year. Additionally, details will be confirmed in separate contracts for project, producer, and buyer levels, which will require appropriate time for legal review by each party.

Following enrollment into the Eco-Harvest Producer Portal, field-level stratification and soil sampling will be coordinated through ESMC per established processes and timelines. All field-level management data must be entered into the Producer Portal ***no later than December 1st, 2024 for credits to be generated***. Year 1 (2024) credits will be quantified, verified and certified in Q1 of 2025. These units will be sold in Q2 2025 with producer payments to follow. Soil sampling will likely reoccur after 5 years.

IV. PROPOSAL REQUIREMENTS

Proposals submitted for consideration should include the following information:

A. Scope of Work to Be Provided

Specify from the Scope of Work sections which services (roles) your organization and any partner organizations seek to provide. Please be specific which services will be performed by each organization included in your proposal.

- If your organization or a partner organization can only provide services for a portion of acreage in a project region, you are still encouraged to apply. Be as specific as possible about the scope of services and the regions covered in your proposal, including counties.
- Please indicate, to the best of your ability, all crops grown in rotation (if known) beyond the primary crops indicated in the above tables *(e.g., Primary Crop: Wheat – 70% of rotation. Additional Crops in Rotation: Canola, Soy, Corn – 30% of rotation).*
- Please identify according to the table below (include the table if possible) which of the roles and services are included in your proposal and who will deliver the services for each role (either your organization or that of an identified partner). Insert the name of the organization to provide the services for each role (where "x" appears below). If the proposal does not include specific roles or services in the table, leave it blank or insert "N/A".
- Be specific about FTE capacity to deliver services for each individual role in the proposal. Include the number or portion of FTE staff available to perform every function *(e.g., 3.5 FTE per year of project to perform all roles).*
- A clear rational should exist for why acreage estimates are feasible to achieve.
- **Please use a table format per the example listed below. Please add additional lines as needed. Add a notes column if that is useful to you.**
- **If partners have an interest or ability to work in additional Program Regions beyond Market Program, please provide any information**

For RFP submissions, as much detail from each of these sections is appreciated, but proposals should include at minimum a descriptive plan of work, staffing required (in FTE's), statement of qualifications, desired contract length, acreage to be enrolled and in which regions, and a budget with budget narrative.

Region/ State(s)	Crop Type(s)	Acreage	Capacity (staff)	Project Developer	Technical Conservation Assistance	Enrollment Specialist	Project Manager (lead on the ground)
North Dakota (Richland, Cass, Barnes counties)	Primary: Wheat, oats Rotation: canola, soybean, corn	25,000 acres	*3.5% FTE (100 hours total)*	*X 0.5 FTE*	*X 1.0 FTE*	*X 2.0 FTE*	*N/A*

B. Budget

Applicants should include an itemized and scenario-specific budget (examples detailed below) as part of each submitted proposal. The budget should include all project partners and the role of each project partner and tie back to delivered enrollment acreage and project roles and services.

The budget should be broken down to a **per acre cost price** for performance of the services. **Budget should also outline pricing for Year 1 (enrollment) and Years 2-5 (maintenance of enrolled acres).**

- Price for Year 1 (initial enrollment of producers)
    - Year 1 requires more partner involvement and a larger time commitment from Implementation Partners
    - This is due to the work that outreach and enrollment of producers required (phone calls, site visits, planning conservation practices, producer contract signature)
- Price for Years 2-5 (maintenance of producer engagement with the acres enrolled)
    - Years 2-5 will be focused on maintaining enrolled acres, data entry and conservation planning (including potentially adding new practice adoption)

E.g., Cost to perform technical assistance is $X/acre

If bulk pricing exists for the applicant, the scale at which that pricing would apply and what it is should be indicated as a separate line item.

E.g., Cost to perform technical assistance is $X/acre up to 10,000 acres. After 10,000 acres, cost to perform technical assistance is $X/acre for all acres enrolled.

E.g., Cost to perform technical assistance is $X/acre for first 10,000 acres. For every acre after 10,000, cost to perform technical assistance is $X/acre.

Applicants should specify whether items are fixed-cost expenses or time-and-expense items, as well as any minimum or maximum acreage per project to perform services.

A budget narrative must accompany the itemized budget. The budget narrative must describe every cost center and line item in the budget and describe services and who will provide the services.

C. Statement of Qualifications

Applicants should include in the proposal a statement of organizational, staff and partner qualifications for each of the roles identified to be provided in the project, including any current or past experience in these roles, and for the given region, crop type and project scale. Please include:

- Past and current activity in voluntary and/or compliance carbon offset markets, water quality and nutrient trading markets, or related ecosystem services markets
- Past and current activity delivering the services included in the proposal

- Existing relationships with producers and any experience working with producers to engage them in ecosystem service markets and in communicating to them issues such as eligibility to participate in such programs, the value proposition of soil health improvements, and the benefits of participation in ecosystem service markets
- Experience working with farm data collection platforms, communicating with producers about data requirements and entry, and working directly with producers to collect field level and management practice data
- Experience implementing conservation practices with producers, communication with producers about the benefits of conservation practices, and connections to educational and financial resources for producers transitioning to conservation practices

D. Contract and Payment Timeline

Awards will be made for contracted work to develop specific projects and services as described in proposals. Eco-Harvest scaled market projects typically require 5-year producer and project partner contracts.

Proposed Contractor Payment Schedule
(subject to change; contingent on contracts)

Payments to be made from ESMC to contractor per year

- Upon award of the contract (Fall 2023):
  - 25% of contract total will be paid
- Upon closing and completion of producer enrollment (Net 90 terms after enrollment closes on December 31st, 2023):
  - 25% of contract total will be paid
- Upon end of project year (Net 90 terms after data entry completed on December 1st, 2024):
  - 50% of contract total will be paid

Please include any minimum contract requirements (e.g., acreage, staff FTE's, years of engagement) in your proposal. Please indicate whether or not the proposed payment schedule above is acceptable to your organization. If not, please include any organization-specific payment timelines that ESMC should be aware of that are not covered.

Payments Made to Producer (by ESMC)

- Enrollment Incentive (one time only)
  - 90 days after completion of enrollment process (deadline of December 31st, 2023)
- Payment from Sale of Verified Credits
  - For 2024 project year: July/August 2025

V. PROPOSAL DEADLINE AND REVIEW INFORMATION

Proposals must be submitted **by 5pm EDT on July 19th, 2023,** via email to Alana Pacheco (apacheco@ecosystemservicesmarket.org.) Alana will confirm receipt of your response via email.

Proposals will be reviewed and awardees will be notified by **August 11th 2023** via email.

Preference will be given to proposals that demonstrate the following:

- Stated and demonstrated ability to meet full acreage goals in a region for primary crop(s) identified by ESMC
- Proposals that provide all services and roles needed to generate projects
- Organizations with demonstrated prior experience working with producers in ecosystem service markets and providing the services and roles as identified
- Existing relationships with producers in the project area(s) included in the proposal
- Competitive pricing

Please email Alana with any questions. Thank you for your time and effort.

VI. APPENDIX

A. ESMC Membership Overview

As a public-private partnership, we have over 75 members including farmers, ranchers, agriculture commodity organizations, food and beverage companies, agribusinesses, and non-profit environmental and conservation organizations across the agricultural supply chain and value chain. ESMC members represent the spectrum of the agricultural sector supply chain with whom we are scaling sustainable agricultural sector outcomes.

Membership Terms: Members sign 2-year Participation Agreements, which are renewable, and pay annual dues.

All members have access to: Research groups, Member calls and meetings, Basecamp, Webinars and Research/Market project development

Members contribute **in-kind to research work** for match to ESMC's FFAR grant. In-kind contributions include participation in working groups and strike teams and supporting pilot projects through producer enrollment and technical assistance.

Membership Levels:

- **Founding Circle Level: $75,000**
  - Priority access to market program as Buyer
    - For credits that have not been allocated to a project developer buyer, ESMC will make those credits available to Founding Circle Members before Gold Legacy Members are given access
  - Voting rights on changes to membership structure, FFAR research priorities
  - Preference given in development of research & market projects
  - Organizations wishing to buy credits must pay dues in cash

- **Gold Legacy Level: $25,000**
  - Priority access to market program as Buyer
    - For credits that have not been allocated to a project developer buyer and have not been purchased by Founding Circle Members, ESMC will make remaining credits available to Gold Legacy Members
  - Participation in pilot projects
  - Organizations wishing to buy credits must pay dues in cash

- **Silver Legacy Level: $10,000**
  - Operating budget over $5M: Universities, co-ops, producer groups, pilot project partners
  - Participation in pilot projects
  - No priority access to buy credits at this level

- **Bronze Legacy Level: $5,000**

- Operating budget under $5M: Small non-profits, foundations, co-ops, producer groups, pilot project partners
- Participation in pilot projects
- No priority access to buy credits at this level

** If dues are paid through in-kind contributions, value of contributions are to be double that of cash dues*

B. Eco-Harvest Market - Producer Eligibility Overview

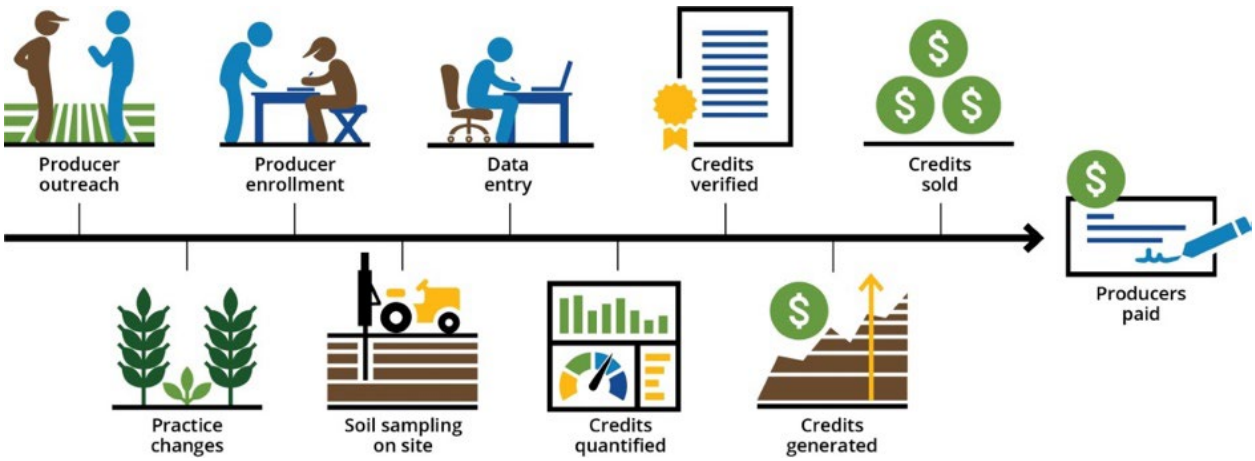
Ecosystem Markets. Built for Producers. Backed by Science.

ESMC is a non-profit, member-based organization launching a national scale ecosystem services market program, Eco-Harvest, to reward agricultural producers for beneficial environmental outcomes from regenerative agriculture. Eco-Harvest is science- and outcomes- focused and not practice-specific, meaning producers have autonomy to decide which practice changes are best suited to their operation based on a menu of specific practices/systems. Focusing first and foremost on farmers and ranchers, Eco-Harvest is designed to encourage regenerative agricultural production systems that create sound social, economic, and environmental outcomes that benefit producers, local communities, consumers, and society.

Each producer's carbon, greenhouse gas, water quality, water quantity and biodiversity outcomes are quantified, and the credits generated can be stacked in our streamlined program. ESMC is committed to maximizing the value returned to producers while meeting multiple market needs of buyers. By generating credits that food and beverage companies seek, Eco-Harvest enables our members and society to meet high priority climate change and sustainability goals. Producers' environmental stewardship of private land is recognized and rewarded for its public benefits.

Participating in Eco-Harvest: The Steps

Producer outreach, engagement and technical assistance enables practice change; enrollment, soil sampling, credit quantification and verification, generation, and credit sale, results in payments.



Eco-Harvest Eligibility Information for Producers

Producers interested in Eco-Harvest enrollment need to be:

- **Producers who are interested in adopting soil health systems and new conservation practices** that benefit their agricultural operations while improving environmental impacts.
- **Producers interested in implementing improvements** that exceed minimum standards set by law.

- **Producers who can provide proof of credit ownership rights**, including explicit authorization from the responsible agency for any rented fields on state or local-government owned land.
- **Producers managing land that is not federally owned**, has not been deforested or previously in natural areas in the past 10 years, and has not been converted from grassland to cropland in the past 10 years.
- **Producers with fields that are not enrolled in another ecosystem service program that generates credits**, offsets, or claims related to soil carbon sequestration and/or changes in GHGs.
- **Producers operating within specific ESMC Protocol regions & production systems.** Current Eco-Harvest program regions include the Midwest Corn and Soy Belt, Northern Great Plains, Southern Great Plains, and Great Lakes regions for corn, soy, wheat, alfalfa, canola, sorghum and oat cropping systems.
- **Producers who are newly implementing at least one of the following practice changes on cropland:** Cover cropping, tillage reduction, and nutrient management. Producers are encouraged to enroll fields that are also eligible for federal, state, and local cost-share programs that incentivize conservation practice implementation. Check with your local NRCS office to see if there are incentives available in your area that can provide up-front financing to lower costs and increase returns.

***For Producers operating on newly acquired land who are not aware of prior land practices, remote sensing can be used to ensure cover crops or reduced tillage have not been used in the past 10 years.*

Eco-Harvest Enrollment

- There are no minimum or maximum acreage enrollment limits. Producers are not required to enroll all of their acreage either at sign-up or at any time.
- Producers can phase in additional acres and/or practices over time as they see fit.
- Producers are not required to relinquish data ownership or purchase new inputs, subscriptions, etc.
- Producers pay no fees and do not have to purchase inputs to participate in Eco-Harvest.
- Producers enroll in 5-year contracts with Eco-Harvest.

C. ESMC/ESMRC Eligible Practice Changes for 2024 Project Year

Agricultural Management Practice	Potential Credit Types	Market / Pilot Phase (M/P) [a]
Residue and tillage management, reduced tillage	GHG, Water Quality, Water Quantity	Market
Cover crop	GHG, Water Quality, Water Quantity	Market
Nutrient management:		
• Injection	GHG, Water Quality	Market
• Incorporation	GHG	
• Reduced fertilizer application rate	GHG, Water Quality	
• Timing (no winter application)	GHG, Water Quality	
• Split application	GHG, Water Quality	
• Change in source	GHG, Water Quality	
• Composting and organic amendments	GHG, Water Quality, Water Quantity	
Cropland grazing	GHG, Water Quality, Water Quantity	Pilot
Prescribed grazing	GHG, Water Quality, Water Quantity	Pilot
Edge of field conversion of cropland to grassland	GHG, Water Quality, Water Quantity	Pilot (GHG), Market (Water)
Constructed ponds and wetlands	Water Quality, Water Quantity	Market
Grassed waterway	GHG, Water Quality	Pilot (GHG), Market (Water)
Conservation crop rotation	GHG, Water Quality, Water Quantity	Pilot
Whole orchard recycling	GHG, Water Quality, Water Quantity	Pilot
Irrigation water management	GHG, Water Quality, Water Quantity	Pilot
Drainage water management	Water Quality, Water Quantity	Market
Bioreactor	Water Quality	Market
Saturated buffer	Water Quality, Water Quantity	Market

D. ESMC Data Requirements & Definitions for Row Crop Systems

Practice Changes (Program Requirement):

- Cover Cropping
    - Cover crops reduce soil erosion, limit nitrogen leaching, suppress weeds, increase soil organic matter and improve overall soil quality. Small grain cover crops increase surface cover, anchor corn and soybean residues, increase water infiltration and reduce erosion. In addition to the environmental and soil quality

benefits, several cover crops may be used for grazing forage for livestock and wildlife. Cover crops are planted in the late summer or fall around harvest and before spring planting of the following year's crops.
    - **Link:** https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_006012.pdf
- Nutrient Management
    - Managing the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments to budget, supply, and conserve nutrients for plant production, minimize agricultural nonpoint source pollution, mitigate nitrogen emissions, and improve soil health.
    - **Link:** https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1078380.pdf
- Tillage Reduction
    - Conventional tillage leaves the soil surface bare and loosens soil particles, making them susceptible to the erosive forces of wind and water. Conservation tillage practices reduce erosion by protecting the soil surface and allowing water to infiltrate instead of running off. The Conservation Technology Information Center (CTIC) defines conservation tillage as any tillage and planting system that leaves at least 30 percent of the soil surface covered by residue after planting. Table 1 in the link below shows the relationship between residue cover and soil loss.
    - **Link:** https://www.extension.purdue.edu/extmedia/ct/ct-1.html

Additional Practice Changes:

These practice changes are available to producers, but they must have one of the above practice changes(s) also marked on the field. These practice(s) are not able to be used as standalone practices for ESMC field enrollment.

- Edge of Field *(This includes grassed waterways, prairie strips and edge of field vegetative buffers. Producers adopting this practice will be required to identify the associated field boundary)*
    - Mixtures of perennial grasses, forbs, and/or legume species are established on cropland where annually-seeded cash crops have been grown. Benefits may include reduced soil erosion, sedimentation, and pollution from dissolved and sediment-attached substances (CSP Conservation Practice 512). Benefits include reductions in soil and water erosion, increases in carbon sequestration, GHG reductions, and improved biodiversity and wildlife habitat.
    - Link: https://attra.ncat.org/wp-content/uploads/2019/05/grassland.pdf
- Irrigation Management
    - Irrigation water management is the process of determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner. It can also be used to optimize the use of available water supplies, minimize irrigation-induced erosion, reduce surface and groundwater run-off, manage salts in the root zone, and provide for safe chemigation or fertigation.

    - Link: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs141p2_017781.pdf
- Drainage Water Treatment *(This must be newly implemented for the enrollment year)*
    - Drainage water treatment is the process of managing the timing and volume of tile water discharged from agricultural drainage systems at the subsurface level. Practices may include drainage water management (DWM), bioreactors, and or constructed wetlands.
- Surface Water Management *(This must be newly implemented for the enrollment year)*
    - Surface water management is the process of managing the timing and volume of water discharged from agricultural drainage systems at the surface level.

Current Enrollment Year Questions

Information must be collected for the following activities:

- Tillage, Cover Crops, Planting and Harvest
- Irrigation and Drainage
- Fertilizer and Pesticides
- Fuel

3 years of historical information may be required for certain practices including:

- Cover Cropping
- Cropland Grazing
- Nutrient Management
- Tillage Reduction