

# E3 IN MONTANA AGRICULTURE

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## **Assessment Components to be Provided by the Extension Agent to the Producer Check List**

### Pre-Assessment

- E3 Assessment Frequently Asked Questions
- Factsheet on E3/AgEMP process
- Approximate Timeline
- Questionnaire for Producers
- Hazardous Waste Worksheet
- Copies of relevant billing data, energy audit data, and other utility information
- List of outcomes the producer can expect

### On-Site

- Agricultural Activities Waste Disposal Guidelines and Factsheet
- Pesticide Frequently Asked Questions and Factsheet
- Montana Pesticide Regulations and Resources Factsheet
- Oil Spill Prevention, Control, and Countermeasure (SPCC) Program: Information for Farmer Factsheet
- Hazardous Waste Worksheet analysis and list of recommendations, prioritized
- Information sheet for producers interested in pursuing USDA funding through the AgEMP program

### Post-Assessment:

- Recommendations (organized into separate tables by type)
- Web Soil Survey Data
- Copies of completed data sheets
- Funding opportunities matrix



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## What is the E3 in Montana Agriculture Initiative?

**E3: Economy, Energy, and Environment** is a coordinated federal and local technical assistance framework that helps communities adapt and thrive in a new business era focused on sustainability by providing customized, hands-on assessments of production processes.

Montana is leading the nation by using this framework with our agricultural producers to reduce energy consumption, increase productivity, minimize their carbon footprint, prevent pollution, and drive innovation.

### What Can E3 Do for my Farm/Ranch?

- Identification and calculation of energy saving opportunities
- One-on-one assessment with a Montana State University Extension Agent.
- Efficiency assessments on lighting practices, irrigation equipment, grain drying, potato storage, dairy operations, and more.
- Assessment results suitable for submission to multiple federal and state funding programs including: USDA NRCS, RD & FSA, MT DEQ, and SBA

### How is E3 data Collected?

- Pre-assessment forms filled out by the producer
- On-site audit completed by a Montana State University Extension Agent
- Data analysis completed post visit by agent, results sent directly to producer with follow up by agent

### How do I sign up for an E3 assessment?

Visit [e3.peakstoprairies.org](http://e3.peakstoprairies.org)

OR

Contact Myla Kelly (Project Coordinator)

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## **Expected Outcomes for Producers**

1. **Personalized Recommendations:** With every completed assessment, producers can expect to receive a full analysis on the current operations of their farms and flexible recommendations that will result in energy savings, pollution reduction, and water conservation. Producers can also expect the agent to give detailed explanations of the recommended improvements/changes to farm/ranch operation.
2. **Agent Availability at Every Stage:** Some parts of the E3 Assessment might require further clarification. Producers can expect prompt and detailed responses to questions that may arise through out the E3 Assessment process
3. **Advice on Funding Opportunities:** Agents are trained to give advice on how to fund efficiency and pollution prevention projects. Producers are encouraged to inquire with the agent about potential grant and loan programs.
4. **Organized and Efficient Assessment:** As a producer, you can expect the agent completing your assessment to arrive on time with all the required documents and equipment to complete your onsite assessment.



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**Approximate Timeline for Producers**

January/February – Program Enrollment, contact Myla Kelly, E3 in Montana Agriculture Project Coordinator to request an assessment and be assigned to a Montana State University extension agent.

March/April – Establish an assessment date with Extension agent. Discuss farm operations and receive pre-assessment materials. If you would like the agent to use a flow meter to test your irrigation system, let the agent know.

Two weeks prior to assessment – Send agent all requested pre-assessment materials.

June-August – Compete on site assessment with extension agent.

One-Three weeks after assessment – Receive results and recommendations from extension agent.



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## **Frequently Asked Questions**

### How much will an assessment cost me?

Through the E3 in Montana Agriculture Initiative, all assessments are free for the producer. Similar assessments through the NRCS and other agencies can cost between \$1,900 and \$3,000 depending on the type of assessment and the agency completing the assessment.

### How long does the assessment take?

### What data/records will need to be made available?

### Who do I contact to schedule an assessment?

### What time of year should I schedule my assessment for?

### What kind of outcomes can I expect from my assessment?

### What is reviewed in an assessment?

### Who completes the assessment?

### What is a Technical Service Provider?

Technical Service Providers (TSPs) are individuals or businesses that have technical expertise in conservation planning and design for a variety of conservation activities. TSPs are typically hired by farmers, ranchers, private businesses, nonprofit organizations, or public agencies to provide these services on behalf of the Natural Resources Conservation Service (NRCS). Each certified TSP is listed on the NRCS TSP online registry, TechReg. The TSP registration and approval process involves required training and verification of essential education, knowledge, skill, and abilities.

### What kind of work can a TSP do?

TSP's provide conservation technical services to NRCS clients in two broad areas: Conservation Activity Plan (CAP) and Conservation Practice design, installation, and checkout. There are 16 separate CAPs and several different practice categories, each with individual TSP eligibility requirements.

### What are Conservation Activity Plans (CAPs)?



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A Conservation Activity Plan or CAP can be developed for producers to identify conservation practices needed to address a specific natural resource need. Typically, these plans are specific to certain kinds of land use such as: transitioning to organic operations, grazing land, and forest land. A CAP can also address a specific resource need, such nutrient management or an air quality concern. With a CAP plan, producers can then apply for financial assistance to implement the needed conservation practices.

## How Do CAP Costs and Payments Work?

The Farm Bill statute allows EQIP payments based upon the estimated incurred cost of practice implementation, which for a CAP will be the labor costs typically associated with development of a plan meeting agency standards and requirements. The payment is increased for qualifying historically underserved producers. NRCS approves CAPs and contract payment rates offered through EQIP every fiscal year. Producers should check with their local NRCS office where located to find out which CAPs are offered in their State; each State may support only specific CAPs. Eligible producers may apply at their local NRCS office. EQIP payments are made directly to program participants for development of a CAP. These CAP plans may only be developed by an NRCS-certified Technical Service Provider (TSP). Although NRCS personnel are prohibited from developing CAPs, they can assist with the development of conservation plans to address identified resource concerns.

## What is an AgEMP Headquarters Plan (CAP 122)?

An Agricultural Energy Management Plan- Headquarters (AgEMP) is a detailed documentation of energy consuming components and practices of the current operation, the previous year's on-farm energy consumption, and the strategy by which the producer will explore and address their on-farm energy conservation concerns, objectives, and opportunities.

## What is an AgEMP Landscape Plan (CAP 124)?

A Landscape Energy Plan is a detailed report/audit documenting the energy consuming components and practices of the current operation's on-farm field energy consumption involved in the cropland, pasture/hayland, range, and woodland activities with recommended strategies to conserve energy resources.



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## **Pre- Assessment Questions for Ag Producers:**

Please Fill this questionnaire out and return to the agent prior to assessment.

1. Please provide a brief description of your operation, including wells, ditches, pivots, etc. associated with each field.
  
  
  
  
  
  
  
  
  
  
2. What is the current crop rotation? What is the lifespan of each crop? Do you continuously crop the same crop or rotate out to something else over a specific time period?
  
  
  
  
  
  
  
  
  
  
3. How many acres of each crop are farmed?
  
  
  
  
  
  
  
  
  
  
4. Do you apply commercial fertilizer or organic amendments to your crop, and if so, at what rate? Please also provide the approximate timing and normal application methods of those applications.



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5. What is your current method of determining crop nutrient needs (i.e. soil sampling, etc.)?
  
  
  
  
  
  
  
  
  
  
6. What is your schedule for your regular farming operations? (i.e. For wheat, apply fertilizer and disc in August, plant in September, spray insecticide in May, harvest with combine in late June to early July, etc.)
  
  
  
  
  
  
  
  
  
  
7. Please list each tractor/piece of equipment used (make and model), fuel type used, and approximate horsepower of each.
  
  
  
  
  
  
  
  
  
  
8. For each pesticide application, please list chemical name, approximate timing and amount of each chemical applied.
  
  
  
  
  
  
  
  
  
  
9. What is the current method for irrigation of each crop?



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10. How many inches of water are applied to each crop, and what is the approximate timing of that irrigation?
  
11. What is the current horsepower of the irrigation pump(s)?
  
12. Is the pump diesel or electric? If diesel, is there a specific reason why?
  
13. What is the pumping depth?
  
14. How many gallons are pumped yearly?
  
15. Have you had any pumping tests done on this well? If yes, please provide copies of tests.
  
16. What percentage of efficiency do you feel this system is operating at currently?



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17. If applicable, how often are nozzles replaced and/or checked?
  
  
  
  
  
  
  
  
  
  
18. When was the pump last re-built? (New bowls, gears, etc.)
  
  
  
  
  
  
  
  
  
  
19. What is your regular pump service routine? (Dripper oil, change oil, etc.)
  
  
  
  
  
  
  
  
  
  
20. Do you have a VFD (Variable Frequency Drive) installed on your pump? If yes, please include the year it was installed, the cost of installation, and an estimation of savings. If no, are you interested in installing a VFD on your property?
  
  
  
  
  
  
  
  
  
  
21. Do you have any concerns with the irrigation system you are operating now?
  
  
  
  
  
  
  
  
  
  
22. Do you use a grain dryer? If so, what type of grain dryer do you use?



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23. Are you engaged in dairy production? If so, please describe the size and daily operation.

24. Do you need to store potatoes on-site? If so, please describe your storage facilities.

25. How many on-site structures with electricity do you have? For each structure (excluding living quarters) please provide a brief description of its purpose.

26. Do you have any other concerns regarding the energy efficiency of your farming/ranching operations, equipment, or outbuildings? If so, please describe them here.

27. Are there any areas of your production that you feel consume a disproportionate amount of energy?

28. Please provide any fuel (including diesel, gasoline, biodiesel, propane, natural gas, etc) and/or electrical records relating to your production practices for the previous year. Additionally, please attach any prior energy audit records.



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