

An EMS Enhances the Picture for Water Quality and Farms

Environmental Policy and EMS

The US Environmental Protection Agency released effluent guidelines involving Concentrated Animal Feeding Operations (CAFOs) on December 15th. The federal agency has designed the rule to “ensure that CAFOs take appropriate actions...to protect the nation’s water quality.” All CAFOs will be required to submit annual reports on nutrient management plan implementation. The rule also supports “voluntary alternative performance standards to encourage innovative technologies,” and allows individual states to have the flexibility to develop their own standards.

How an EMS can help: An EMS approach provides a flexible, voluntary and proven system for continual environmental improvement.

- The NPDES/CAFO rule states: “EPA is requiring that CAFOs develop and implement nutrient management plans that can help CAFOs manage manure and protect water quality. CAFOs may want to consider implementation of nutrient management plans as part of a broader EMS to manage the specific impacts of excess nutrients.”

The EPA does not require EMSs, but supports their use. Technologies for managing livestock and wastes are rapidly changing, and flexible options such as an EMS support use of new and more effective technologies. In addition, an EMS can address resource issues of the highest local or regional concern.

- Section 412.37 states that each CAFO must implement visual inspections, depth markers corrective actions and mortality handling. Record keeping is required for: inspections, corrective actions, design of manure or litter storage structures, and requirements for the land application areas. Each CAFO must maintain a copy of its site-specific nutrient management plan, as well as test results, weather data, crop yields and other information.

The EMS process provides producers with a much-needed mechanism for responding to the permitting process. The “Check” phase of the EMS cycle, for example, supports good record keeping, communication, continual improvement, and facilitates auditing or public recognition efforts. Furthermore, while the EMS approach is flexible, it also requires a uniformity of documentation that can facilitate state and federal agency review of environmental performance.



What is needed: EPA is currently supporting such EMS-based programs as the National Environmental Performance Track, the United Egg Producers XL Project, and the National Biosolids Partnership.

- EPA and state agencies can support EMSs in agriculture by:
 - Establishing specific performance standards upon which EMSs and other innovative approaches can build pollution prevention efforts that are legitimate and credible in the eyes of all stakeholders;

- Supporting the development of industry-specific guidelines for EMSs so early adopters have encouragement and clarification on the procedures;
- Supporting incentives for voluntary EMS adoption, including reduced license or permit fees, subsidized consulting on EMS, and expert-led workshops on EMS development;
- Clarifying agency support for the EMS approach in agriculture as a legitimate avenue for “regulatory relief,” but not “regulatory avoidance.”
- Supporting a streamlined and coordinated outreach with relevant regulatory information so stakeholders are up-to-date.
- Publicizing the benefits of EMS.

Continual Improvement

Review & Improve

Check & Correct

Implement

Plan

Agricultural EMS Steps to Continual Improvement

Farm Environmental Policy

EMS and the Farm Bill

The recently passed Farm Security and Rural Investment Act takes a “diversified portfolio” approach to land management, including stewardship incentives, conservation compliance requirements and regulatory assistance. Programs include the Environmental Quality Incentives Program, the Wildlife Habitat Incentives Program, the Wetlands Reserve Program, the Grasslands Reserve Program, the Conservation Reserve Program, and a new addition, the Conservation Security Program (CSP).

The CSP is a voluntary program providing financial and technical assistance for conservation efforts.

- The CSP regulation states:
 - SEC. 1238A. (c) CONSERVATION SECURITY PLANS –

- IN GENERAL- A conservation security plan shall—
 - identify the designated land and resources to be conserved under the conservation security plan;
 - describe the tier of conservation security contract, and the particular conservation practices to be implemented, maintained, or improved...; and
 - contain a schedule for the implementation, maintenance, or improvement of the conservation practices...”

The EMS provides a tested framework for meeting these requirements, specifically through:

- identifying what is to be managed;
- identifying and describing the particular management practices that are currently employed and need improvement; and
- developing a plan that includes a schedule for the implementation, maintenance and continual improvement of the management process.



The EMS approach further complements stated goals of the CSP by:

- Supporting long-term and comprehensive conservation strategies;
- Providing a flexible and voluntary framework that supports innovation;
- Providing documentation that supports recognition of stewardship efforts;
- Coordinating all of a farmer’s conservation efforts; and
- Capitalizing on existing conservation efforts.

An EMS requires the user to be committed to pollution prevention, compliance with regulations and continual improvement. It provides a voluntary, flexible and tested approach that answers many of the stated goals of the CSP, and mirrors the NRCS’s Conservation Planning process. The CSP Tier III requirements address all NRCS technical criteria for each state. The EMS approach can aid farmers in not only achieving Tier III, but also in taking advantage of synergies between their conservation efforts — helping them identify how one practice can address multiple environmental impacts.

What is needed: The NRCS process of conservation planning contains many parallels to the existing EMS approach. Agency recognition of EMS in agriculture would encourage farmers to see the EMS as an effective and worthwhile step toward overall good management. Toward this end the NRCS can:

- Clarify and coordinate the relationship between the EMS approach and existing Farm Bill programs.
- Clarify the requirements for the CSP Tiers I, II and III, and how an EMS can be correlated to meet each tier.
- Clarify local and regional resource concerns such that EMSs can be focused on critical issues.
- Offer technical assistance and/or cost-share for EMS planning and implementation.
- Support training of Technical Service Providers in the EMS approach.

Major Environmental Issues Include:	Water quality (ground and surface), air quality, wildlife habitat, soil quality, soil erosion, water quantity, plant management
Federal Programs & Financial Support:	CSP, EQIP, Continuous CRP, CRP, GRP, WRP, WHIP

EMS and TMDL

A Total Maximum Daily Load (TMDL) is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. Over 40% of our assessed waters still do not meet official water quality standards. Under section 303(d) of the 1972 Clean Water Act, states, territories, and authorized tribes are required to develop a plan for waters impaired by nonpoint sources.

According to the EPA, these plans should include: Reasonable assurances that load allocations will be achieved, a Public participation process, and Recognition of other watershed management processes and programs, such as local source water protection and urban storm water management programs, as well as the state’s section 303(e) continuing planning process.

How a watershed-level EMS can help:

The EMS process is essentially a management tool geared toward obtaining environmental objectives. It’s a flexible approach that offers a framework for bringing diverse stakeholders together to achieve watershed conservation goals. The basic steps of Plan-Implement-Check-Review provide a process through which people develop a vision, agree on shared values and approaches, make informed decisions and act together to successfully manage natural resources. The EMS has been successfully used in both industry and also by watershed partnerships.

The development of a watershed management plan contains steps such as:

- Identifying all stakeholders;
- Gathering and analyzing information and concerns & defining challenges and opportunities;
- Establishing objectives;
- Selecting management alternatives;
- Developing an action plan for implementation;
- Determining how to measure progress; and
- Reviewing plan.

Key steps in the EMS process include:

- Establishing a mission or policy statement for the overall effort;
- Assessing all environmental risks in an area;
- Identifying stakeholders and developing a communication strategy;
- Evaluating management alternatives; and
- Creating an action plan, including a timeline, documentation process, and progress measures.



Pulling It All Together: An Environmental Management System, or EMS, can bring regulatory requirements and program opportunities into a common framework. An EMS is a voluntary, flexible management system for integrating environmental considerations into the daily management decisions of a farm or other operation. The EMS framework was developed to apply to all types of production regardless of size, scope or location.

It consists of a PLAN-IMPLEMENT-CHECK-REVIEW cycle, which emphasizes pollution prevention, regulatory compliance and continual improvement. An EMS works with existing plans for manure handling, pest management, nutrient management, soil conservation, odor management and worker training, for example. With an EMS, farmers are in a better position to be well ahead of regulatory requirements, and are organized to meet requirements of cost-share programs.

Several key steps in the EMS process provide opportunities for identifying and coordinating with policies and programs. An operation:

- Identifies and prioritizes specific impacts on soil, air and water and other aspects of the environment.
- Tracks all legal and other requirements.
- Implements environmental objectives and targets.
- Develops a plan for achieving goals and documenting stewardship.
- Includes regular monitoring and corrective action.

Contact info:
Elizabeth Ann R. Bird, Ph.D., Coordinator
Mriil Ingram, Outreach Specialist

Farm and Home Environmental Management Programs

Room 303 Hiram Smith Hall
1545 Observatory Drive
Madison, WI 53706
608-265-3727
FAX 265-2775
eabird@facstaff.wisc.edu