

# Environmental Management Systems for Wisconsin Agriculture

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# What is an Environmental Management System?



# It's a *system*.

**sys•tem** (sɪsˈtəm) *n.* A group of interacting, interrelated, or interdependent elements forming a complex whole; An organized and coordinated method.

**An AgEMS is a powerful,  
performance-based, decision-  
making system that covers all  
levels of farm management,  
from daily operations to long  
range planning.**

**A commitment to environmentally sound land  
management is essential.**

# An EMS:

- Focuses on environmental stewardship *and* business efficiency
- Is farmer-directed and voluntary
- Builds on what is already in place
- Involves family, employees, consultants, community
- A way to organize, prioritize, document, improve and take credit for environmental performance



# **You already** (sort of) **have an EMS!**

You don't have a name for it.

It's not written down.

You have no way to share it.



**An EMS starts with all the good  
things you are already doing.**



**An EMS is not...**

... adoption of best  
management  
practices.

... BMP records  
stapled together.







**Benefits of an EMS**



# An EMS can...

- ✓ Facilitate regulatory compliance
- ✓ Document stewardship efforts
- ✓ Improve neighbor and community relations
- ✓ Enhance business management & efficiency
- ✓ Maintain or improve access to markets
- ✓ Protect health of family & employees
- ✓ Capitalize on environmental programs
- ✓ Lower insurance premiums

Anything else?

# Improve Environmental Performance!





A scenic photograph of a calm lake, likely Lake Superior, surrounded by steep, forested hills. The trees on the hills are in various stages of autumn, showing shades of green, yellow, orange, and red. The water is a deep blue with gentle ripples. The sky is a pale, overcast grey. The overall mood is peaceful and natural.

# Elements of an EMS



## Taking Stock

- Identify priority environmental issues
- Conduct regulatory review
- Develop environmental policy

## Assessing Performance and Setting Objectives

- Conduct environmental assessments
- Set environmental objectives

## Environmental Action Planning

- Decide on practices, procedures, tools and technology
- Assign responsibility, develop a schedule
- Measure performance

## Emergency Action Planning

## Communications

- Internal & external communications

## Management Review and Audits





# Taking Stock



You have a wealth of resources to help you succeed.

# Regulatory Review

Are you in compliance?

- Nutrient Management
- Manure Storage & Handling
- Runoff from Livestock Facilities
- Farmstead Facilities





# Environmental Priorities



# Environmental priorities depend on...

- Sensitivity of local landscape
- Crops grown, livestock raised
- Regulations
- Personal/family goals, ability, knowledge
- Community and neighbor concerns
- Environmental degradation that has occurred
- Availability of resources and solutions
- Current level of environmental stewardship
- Health impacts: family/employees/public



# The Environmental Policy

- The foundation of an EMS
- The declaration of your commitment to the environment
- Provides a unifying vision of environmental stewardship for the entire organization
- The framework for setting environmental objectives and targets
- Directs goals, responsibilities, and the establishment of performance milestones against which the management system is judged

# The Environmental Policy

is developed by the farm owners/managers and must include commitments to:

- ✓ Regulatory compliance
- ✓ Pollution prevention
- ✓ Continual improvement



# A Robust Environmental Policy is:

- ✓ Communicated to and understood by employees, service providers
- ✓ Made available to the public
- ✓ Reviewed often

**This too is a process, not just words on paper.**

# Assessing Performance





# Assessing Performance

- On-line & paper assessments
- Standards, specifications, regulations
- Publications, BMP manuals
- Working with conservationists, agronomists, consultants, biologists

# Environmental Objectives





# Examples of Environmental Objectives

-- from assessments --

- Soil erosion less than “T” on all fields each year
- Stabilize creek banks
- Install approved fuel storage tanks
- Install rain gutters; feedlot water diversion berm
- Reduce odor/noise complaints
- Install waterways on all crop fields
- Phosphorus content of feed of 0.38%
- Soil test phosphorus levels below 150 ppm
- Develop emergency training

# Environmental Action Planning





# Environmental Action Planning

- ✓ Choosing techniques & technologies, plans & practices to address environmental impacts.
- ✓ Use standard operating procedures (SOPs) to maintain and improve daily management.
- ✓ Decide who is responsible for doing it.
- ✓ Lay out a timeline for when it will all get done.
- ✓ Use performance measures to review and determine effectiveness in reaching your goals.

**The what, how, who, where, & when of getting it all done.**

# Performance Measures

Some examples...

- Visual inspections of facilities, equipment
- Record weekly electricity use
- Soil, feed, manure sampling
- Estimate soil erosion using RUSLE2
- Monitoring stream health
- GPS generated yield data
- Results of on-line assessments



# Checking and Corrective Action

Monitor activities w/significant impacts



Photo courtesy of USDA NRCS

- ✓ Maintain good practices
- ✓ Identify needed improvements
- ✓ Implement corrective actions
- ✓ Document positive actions
- ✓ Document positive results
- ✓ Communicate corrective actions

# Emergency Action Planning





# Emergency Action Planning

Identify potential for, responses to emergencies:

- Weather
- Power Failure
- Fire
- Vandalism
- Equipment Failure
- Accidents
- Structural Failure
- Biohazards

Develop emergency response procedures:

- Practice drills
- Involve local experts
- Document/review any incident

The money, lives, and livelihood you save may be your own.

# Communications



# Internal Communications

To ensure everyone involved...

- ... could run the farm without owners/managers
- ... provides feedback when goals are, are not met
- ... feels comfortable reporting deviations/mistakes
- ... is encouraged to suggest improvements
- ... has a sense of ownership
- ... shares a common vision for the farm
- ... knows what they are responsible for, how to get it done, and why it is being done



# External Communications

So that stakeholders...

- ... understand your environmental commitment
- ... become familiar with your farm and EMS
- ... know what you are doing and plan on doing
- ... help you address/avoid complaints, legal actions
- ... can become useful sources of input
- ... can help you solve problems
- ... can become your supporters

# Management Review



Photo courtesy of USDA NRCS

# Management Review

- Ensures EMS continues to be relevant, effective
- Identifies needed changes in policy, priorities, objectives and other elements of the EMS

## Management Review Topics:

- |                            |                             |
|----------------------------|-----------------------------|
| - Environmental Policy     | - Regulatory Review         |
| - Priority Issues          | - Environmental Assessments |
| - Environmental Objectives | - Emergency Planning        |
| - Performance Measures     | - Environmental Action Plan |
| - Communications           | - Audit Results             |

**The documents that become the EMS.**



# Independent Audits

## To Verify:

- ✓ All EMS components are in place
- ✓ Environmental policy is being upheld
- ✓ Implementing procedures & practices
- ✓ Making progress
- ✓ Meeting objectives

# Records, Document Control



*If you can't prove it, you didn't do it!*



# Records must be:

Photo courtesy of USDA NRCS

- ✓ Legible
- ✓ Useable
- ✓ Accessible
- ✓ Accurate
- ✓ Traceable
- ✓ Protected



**All farms are different.  
All farms need good records.**

# You'll know it's working if...

- ... it is useful and acceptable to farmers
- ... it is credible to environmental agencies & organizations
- ... it continually improves environmental performance
- ... environmental management is incorporated into day-to-day operations

*...your EMS documents are dog-eared and coffee stained!*

# A final word...



- An EMS is a thoughtful, deliberate *system*, not a static final product.
- Owners/top management must lead the EMS.
- Combining environmental stewardship into routine business management is the key.