Environmental Management Systems for Wisconsin Agriculture

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What is an Environmental Management System?
It’s a *system*.

**system** (sɪst?m) *n.* A group of interacting, interrelated, or interdependent elements forming a complex whole; An organized and coordinated method.

The American Heritage® Dictionary of the English Language.
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!
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 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

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

Photo courtesy of USDA NRCS
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

- 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
- Priority Issues
- Environmental Objectives
- Performance Measures
- Communications
- Regulatory Review
- Environmental Assessments
- Emergency Planning
- Environmental Action Plan
- 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:

- 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.