



Farming for the Future

Doing Things Right

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Overview

- Increasing pressures on agriculture to address nutrients
- State livestock regulations
- Federal CAFO rules



Environmental Issues

- Water quality
 - What is clean water?
 - Nutrients
 - Sediment
 - Pesticide use
 - Stormwater
 - Tile drainage
 - Wetlands
 - Floodplains
 - Jurisdictional waters



EPA's point of view

- “Nonpoint source (NPS) runoff is a significant problem with major water quality & economic impacts....”
- “Cost to rectify this is growing exponentially....”
- “Addressing nutrient pollution is a top EPA priority....”
- “Current efforts are not sufficient....”
- “The agricultural community must be accountable and involved in decision-making....”
- “After more than 30 years of progress towards the goals of the Clean Water Act, **existing programs alone will not stop serious new runoff** threats to public health....”
- “States have not gotten where they need to be.”

Key drivers

- Hypoxia in the Gulf of Mexico
- Chesapeake Bay Total Maximum Daily Load established by EPA
- Numeric nutrient criteria (standards) established by EPA
- Threat of activist lawsuits
- EPA “Stoner Memo”

Gulf Hypoxia

- Reduce the 5-year running average size of the Gulf of Mexico hypoxic zone to less than 5,000 square kilometers by the year 2015.
- Nutrient Reduction Goal of 45% reduction of N & P to Gulf by 2015
 - 16% decline in TN last five years
 - 11% increase in TP last five years
- State strategies by 2013 for specific actions to achieve nutrient reductions

Chesapeake Bay TMDL

- Executive Order 13508
- EPA settled a lawsuit with the Chesapeake Bay Foundation
- EPA assigned annual nutrient limits to ag
 - 25% reduction of nitrogen
 - 24% reduction of phosphorus
 - 20% reduction of sediment
- Ag is 22% of the watershed - 87,000 farms

Key drivers

- Numeric nutrient criteria (standards) established by EPA
- Threat of activist lawsuits
 - Petition for rulemaking filed by the Iowa Environmental Council requesting TMDL and numeric limits for the Mississippi River was denied
- EPA “Nancy Stoner Memo” provides states flexibility to address issues

Why does this matter?

- Iowa has choices to make.
- EPA expects results of reduced nutrients or it will be “forced” to regulate.
- Complex biological systems make cause and effect determinations difficult
- Major impacts on agriculture & rural Iowa - both on farm income and productivity.

Environmental Issues



- Air Quality
 - Definition of clean air is determined by the NAAQS
 - Particulate Matter
 - Ammonia Petition
 - ~~Ozone~~
 - Greenhouse gas emissions
 - **Livestock emissions study undergoing peer review**

Livestock Rules



State Rules

- AFO program lost staff in Culver's across the board cuts
 - One engineer for reviewing construction permits
 - Decided to eliminate service of providing timely karst and alluvial soil (flood plain) determinations
 - Need to allow more time for declaratory orders
- New DNR web site
 - <http://www.iowadnr.gov/Environment/LandStewardship/AnimalFeedingOperations.aspx>
- New stockpiling fact sheets are available

State Rules

- Available nitrogen on DNR MMP forms = 98% for liquid swine manure BUT
- First-year availability estimates in PM1003 now recognized:

Source	Nitrogen ¹	Phosphorus ²	Potassium ²
----- Percent of Total Nutrient Applied -----			
Beef cattle	30–40	60–100	90–100
Dairy	30–40	60–100	90–100
Liquid swine (pit)	90–100	90–100	90–100
Liquid swine (lagoon)	90–100	90–100	90–100
Poultry	50–60	90–100	90–100

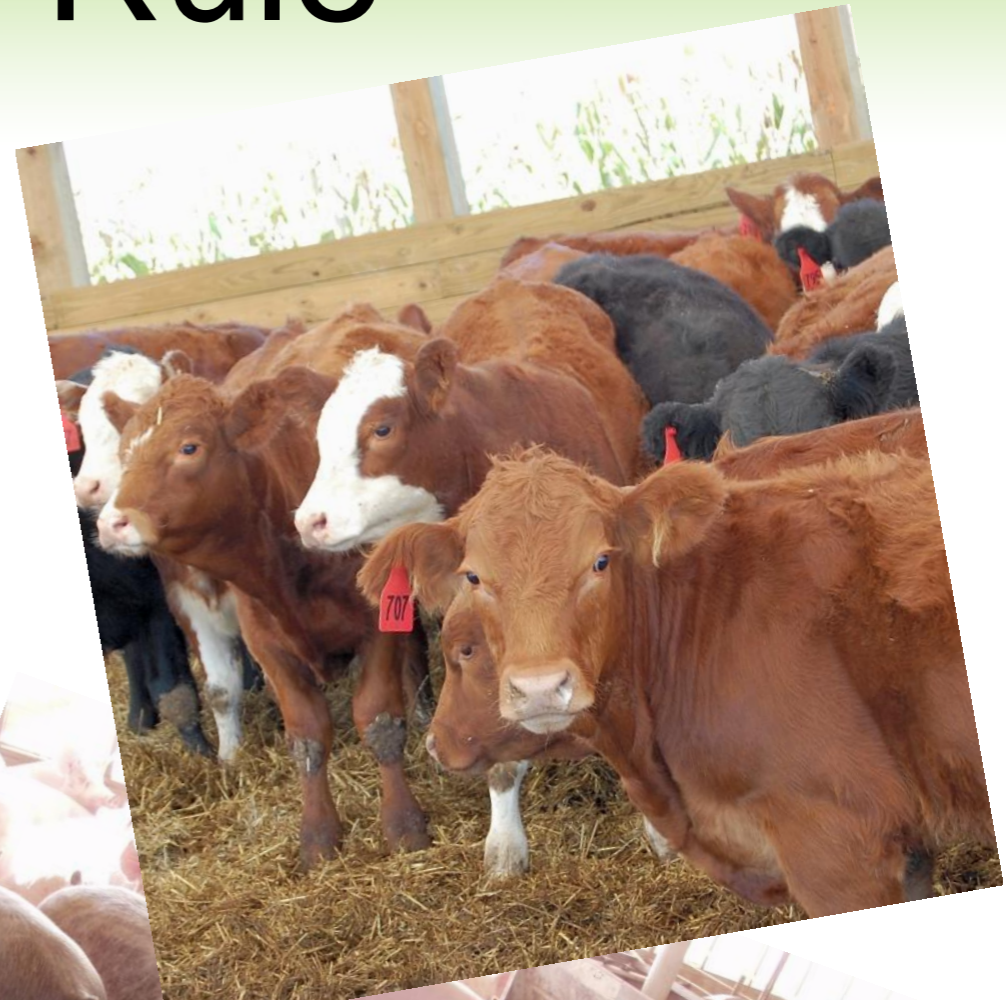
MMPs

- Submit MMP to DNR if have more than 500 animal units in roofed areas OR if required to have NPDES permit (NMPs)
- **Agricultural stormwater exemption**
 - CAFO rule said that only get exemption if only have run-off during precipitation and can demonstrate agronomic rates.
 - Do the calculations and keep records even if don't submit MMP to DNR

Animal Units

- 45 days or more in a contained area with no vegetation or post-harvest residue
- Combine facility type even if different species for state confinement construction permits
- Combine species category for federal NPDES permits
- Combine species category for open lot construction permits

NPDES Rule



EPA CAFO Issues

- Continuing issues
 - EPA continues fly-overs
 - Is there a discharge?
 - Run-off from silage, hay, DDGs storage
 - Man-made conveyances
 - Tile intakes
 - Road ditches
 - Medium CAFOs or Large CAFOs
- SPCC plan for above ground oil-fuel storage larger than 1320 gallons

EPA CAFO Issues

- Winter feeding areas (cattle) are a new focus for EPA review.
 - Does it look like an expansion of feedlot or are they legitimately on cornstalks?
 - Proximity to production area
 - Is there vegetation or crop residue?
 - Where do they get their feed? Do you bring them all their feed?

EPA CAFO Issues

- Is there a discharge?
 - Distance to stream
 - Man-made conveyances such as tile intakes
 - Slope
- By the numbers
 - 300 head cattle or more
 - Stocking density high so no vegetation or crop residue left

CAFOs

- EPA entered into a settlement with environmental groups in 2010 to issue guidance and new rulemaking.
- 5th Circuit Court of Appeals overturned parts of 2008 CAFO rule



De-delegation Petition

- Sept. 2007 de-delegation petition filed with Region 7 by Sierra Club, ICCI & EIP asking EPA to take over NPDES program
- Iowa has adopted laws and rules to address EPA requests for changes to address petition over past several years
- Petition is still pending but notice of intent to sue was filed by the groups
- Petitions also filed in Illinois & Indiana

Time to Evaluate Your Farm

- Where does water go when it rains?
- **It is a performance-based system**
- Bottom line: does your farm discharge?



Time to Evaluate Farm



- Conveyances to Water
- Animal numbers
- Vegetation
- Feed storage
- Mortality handling
- Pesticide storage
- Oil and fuel storage
- Open burning
- Septic Systems

What can you do on your farm?



Questions?

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