

Wisconsin's Nutrient Management Standard Revisions

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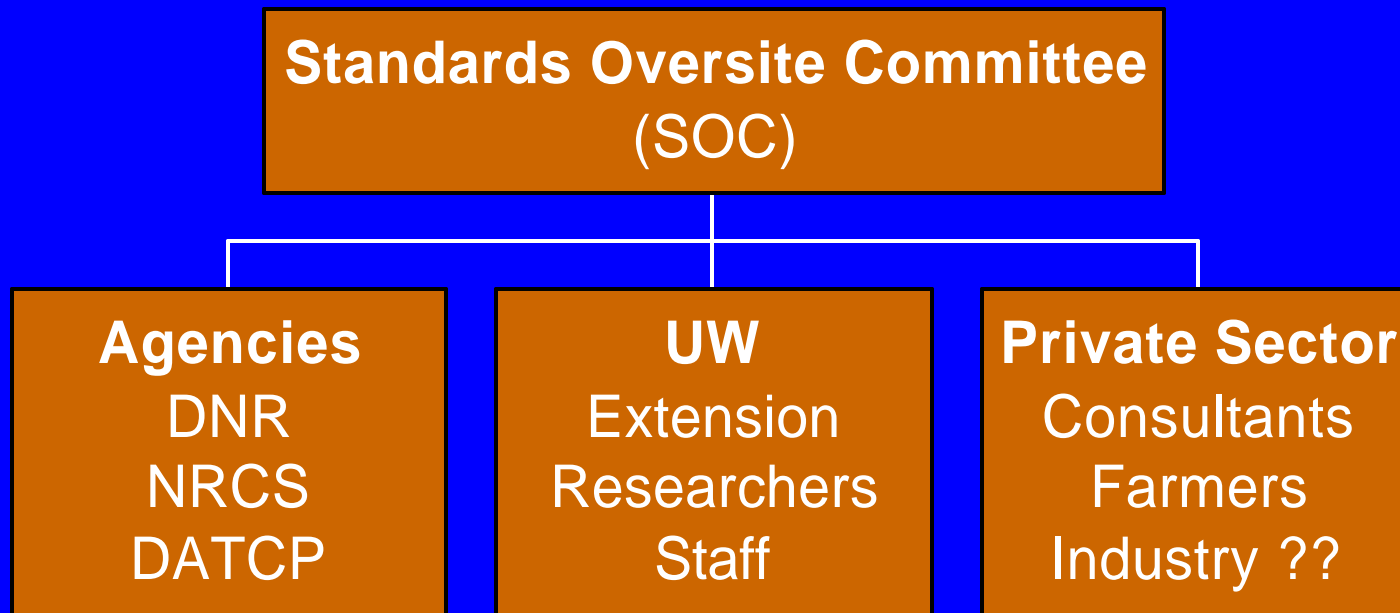
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Soil Solutions Consulting

Why the Changes ?

- First version 1993
- Need to step up P strategies
- Wisconsin Non-Point Rules
- Body of knowledge is changing
- Structural revisions

Who is Involved in the Revision



Challenges to the Process

- Need to merge Federal and State directives
- Uncertainty of Non-point rule content
- Developing research
- Economic solutions to problems
- Current momentum of NM in WI

General Criteria

1993 vs. 2002

- | | |
|--|---|
| <ul style="list-style-type: none">• ‘T’ on Manure Fields• N based manure• Annual Nutrient Needs• Field by Field Rec’s | <ul style="list-style-type: none">• ‘T’ on All Fields• N or P based• Rotational P Needs• Field by Field or NM Unit |
|--|---|

General Criteria

'02 Manure/Legumes

- First Year Legume/Manure Required
- Second year recommended
- Recognize limits of credit estimates

General Criteria

'02 Manure Applications

No Runoff during application

If it happens:

- Stop Application
- Take corrective action
- Modify application
- Report spills to waters of state

Groundwater Criteria applied to all Fields

- High Permeability Soils
- Other critical sites

High Permeability

- Equivalent to Hydrologic Group A
 - Infiltration $> 6''$ or more/hr in top 20''
and
 $> 0.6''$ in the upper 40''
- List of soils by county in Tech Note

High Permeability Sites

Fertilizer N

- Where Commercial N is Applied:
 - No Fall N – except fall cereals
 - Manage N with one of the following:
 - >Use nitrification inhibitors
 - >Apply majority of N post-planting

High Permeability Sites

Manure N

- Soil Temps $> 50^{\circ}$ F: (apply one)
 1. Use inhibitors and limit Fall N to 120 lbs
 2. Delay appl. to 9/15 and limit 90 lbs N/A.
 3. Apply to established perennial crops

Groundwater Critical Sites

Manure

- Incorporate w/in 200' upslope of:
 - Identified wells
 - Creviced bedrock at surface
 - Gravel pits

Surface Water Criteria

All sites

- Avoid building P beyond the required range for the crop rotation.
- Identify areas of high potential for impact to waters.

Surface Water Criteria

- New Criterion 1:

P Index

- Erosion
- Soil test P
- P Delivery
- Management

- Criterion 2:

Similar to old version
plus a soil P limit.

Criterion 2

Soil P Limits

- < 50 ppm: Manure applied to N needs of crop.
- 50 – 100 ppm: P applied to P removal in rotation (up to 4 years)
- > 100 ppm: Eliminate P if possible and apply $<$ crop removal.

Criterion 2

Location & Timing

- Surface Water Quality Management Areas

(SWQMA)

= within 300' of streams or 1000' of lakes

- Consistent with NR 151 rules

Criterion 2

Management

- No manure on frozen ground w/in SWQMA
- If not frozen, utilize management practices for manures or fertilizers appropriate for site (buffers, residue, incorporation, etc)

When Will it Begin ?

- Limited use for 2003 growing season
- Dependent on targets of non-point rules

THANK YOU

??Questions??