

Nutrient Management:

Where Are We Going and Why?

Pat Murphy, NRCS

Water Quality Regulations

- 1972 Clean Water Act- established goal of fishable and swimmable waters by 1992. Established process to determine designated use (305 b Report to Congress).
- NR- 102 ; classifies beneficial uses that water bodies are capable of supporting if “controllable impacts to water quality are managed” (Warm Water Sport Fishery).

Water Quality Regulations

- Waters that do not meet CWA designated use are classified as “impaired” (303 d).
- States are required to identify waters that are not expected to achieve water quality standards after implementation of existing required controls. Establish Total Maximum Daily Loads (TMDL’s) for these waters.

Water Quality Regulations

- TMDL's - pollutant load allocation (minus natural background levels) that are projected to raise water quality to meet designated use.
- 1973 CWA established ability for citizens to petition EPA in federal court if intent of the CWA was not met.

Clean Water Action Plan

- 1998 - Clinton administration and EPA launched initiative to reinvigorate the Clean Water Act. Animal Feeding Operations (AFO's) identified as a major remaining source of non-point source pollution. Driven by consolidation of livestock industry to larger operations.

Clean Water Action Plan

- Joint Strategy on Animal Feeding Operations (AFO's) Recommendations:
 - Reduce EPA permit threshold from 1000 to 300AU.
 - Implement Permit Nutrient Management Plans.
 - Clarify manure spreading requirements.
 - Clarify runoff control requirements from AFO's.

Water Quality Regulations

- Coastal Zone Management Act - 1990, require states to approve coastal management plans to control discharge of polluted runoff into coastal areas.

Wisconsin is impacted by great lakes coast line. Wisconsin is unique in concentration of livestock operations within it's CZMA.

Water Quality Regulations

- Agricultural sources targeted by CZMA
 - Cropland Erosion
 - Animal Waste/Nutrient Management
 - CAFO Runoff
 - Grazing Management
 - Pesticide Runoff

Water Quality Regulations

- NR-243 - establishes permit program for large animal feeding operations (1000+ AU). Permit process includes opportunity for public hearing to gather permit information. Key items include manure storage design, nutrient management plan, air quality issues and stormwater runoff.

Water Quality Regulations

- NR-243 Notice of Discharge (NOD) - allows enforcement against operations with <1000 A.U. if a “manmade” conveyance delivers animal waste to navigable waters or if navigable waters pass through the confinement or come into direct contact with animals (CWA enforcement).

Water Quality Regulations

- Ch.29 - discharge of deleterious substances to surface waters. Allows game wardens to investigate and cite landowners for negligent discharges of pollutants into the waters of the state.
- Ch.283 - civil/criminal referral to Dept. of Justice for deliberate discharges. Allows injunctions, forfeitures of \$0 - 25,000/day.

Water Quality Regulations

- NR 151 Agriculture Performance Standards
DNR will establish performance standards to reduce non-point pollution from agriculture and other sources.
- ATCP 50 - DATCP will prescribe conservation practices and technical standards to implement the DNR rules on agricultural lands.

NR-151 Performance Standards

- Soil Loss to T- RUSLE II
- Manure Storage Facilities - constructed according to an approved design.
- Clean Water Diversions- divert clean runoff from barnyards in WQMA.
- Nutrient Management - required for all cropland (N based). Permitted livestock operations 303d, ORW/ERW use P based.

NR151 Performance Std.

- Manure Management Prohibitions
 - No overflow of manure storage facilities
 - No unconfined manure pile in WQMA
 - No direct runoff from feedlot or storage to waters of the state.
 - No unlimited access of livestock to the waters of the state.

2002 Farm Bill

- Bush administration - AFO's are a priority that must be dealt with. Emphasizing need for voluntary, incentive based approach vs. increased federal and state regulations.
- Stewardship Program - conservation incentive payments based on establishment of a conservation system on farm; "Environmental Performance Payments".

2002 Farm Bill

- Increase cost-sharing through EQIP, including AFO's 1000AU +
- Implement Comprehensive Nutrient Management Plans to address:
 - manure storage, stormwater management
 - nutrient management, land treatment, records
 - new technology, source reductions

Emerging Issues

- TMDL - competition point vs. non-point for limited waste load allocation.
- Pollutant Trading - point source's agree to “buy” a reduction in pollution from upstream non-point sources.
- Surface Water Nutrient Criteria - EPA is developing surface water target levels for P. Could become goals for future enforcement.

Emerging Issues

- Safe Drinking Water Act - large metropolitan areas becoming more reliant on surface water for drinking water. Pathogen, Nitrogen and pesticide runoff management being discussed (NY City).
- Land Use Conflicts - non-farm public's impact on existing, expanding and new livestock operations (odor/local ordinances)