

# Large-Scale Livestock Study Committee



The Large-Scale Livestock Study Committee was called to order by Chairman Fred Stand at 1:32 p.m. Present were: Jason Fischbach, Fred Strand, Bill Bussey, John Sauer, Alex Strachota, Ben Dufford, Terri Kramolis, Marco Bichanich, Dee Kittleson, Jim Crandall, Mark Abeles-Allison, Kenneth Jardine, Robert Schierman; Absent were: Dale Peacock and Michelle Dale.

1. **Motion to Approve the Minutes of June 5, 2013 Committee Meeting.** *A motion was made by Bussey/Kittleson to approve the minutes of June 5, 2015 Large-Scale Study Committee.* Sauer had a question regarding the preliminary findings, 3<sup>rd</sup> paragraph, last line; you "can grow" corn continuously or you "can't grow corn continuously. Discussion on this. The next meeting date said June 19<sup>th</sup> and it should have read June 18<sup>th</sup>. The motion carried.

2. **Public Comment:** None

3. **DNR Conference Call Regarding the Clean Water Act, Impaired Waters, Total Maximum Daily Loads (TMDLS) and CAFO Permitting.** Fischbach informed the Committee that Aaron Larson and Tom Ballman were present via telephone conference call to give a powerpoint presentation on the Clean Water Act, Impaired Waters, Total Maximum Daily Loads (TMDLS) and CAFO Permitting. (A copy of the powerpoint is available for viewing in the County Clerk's office). Questions were asked of both Larson and Ballman by Committee members as they related to the topics.

4. **Discussion and Possible Action Regarding Surface Water Quality.** Discussion took place amongst the Committee members on the presentation. They then turned to the Findings of Fact.

5. **Findings of Fact: Regarding Feasibility and Likelihood of Adherence to Standards and Compliance with Existing Regulations.**

## Findings of Fact Regarding: Surface Water

1. The predominant farmed soils in Bayfield County are clay-loams originating from glacial till. With high bulk density and slow infiltration, runoff during the spring snowmelt and after heavy rains is common.

2. To farm the clay soils of Bayfield County, agricultural producers maintain extensive surface drainage networks to rapidly remove excess water.

*Discussion that here is a flaw in allowing this much manure in the first place. Regulatory or designs are fine in a perfect environment, but what r we going to do to prevent extensive drainage?*

3. Drainage practices that increase runoff rates from agricultural lands lead to higher peak flows in streams, resulting in increased stream bank erosion and consequent loading of particulate phosphorus and sediment into downstream surface waters.

4. As such, the primary threat from agriculture to surface water in Bayfield County is from surface run-off carrying sediment, nutrients, and manure.
5. Phosphorus loading in surface waters and consequent algal blooms constitute a threat to human health due to toxins produced by the algae.
6. Microbiological pathogens from manure in runoff and surface waters constitute a threat to human health, particularly to swimmers and others in direct contact with the water.
7. Most erosion, sedimentation, and nutrient loss from agricultural lands occur during spring snowmelt and during large storm events.
8. Natural (background) and anthropogenic sources contribute phosphorus to surface waters. Anthropogenic phosphorus comes from both point-source (outflow pipes) and non-point sources (surface runoff).
9. Historical precipitation data and future climate modeling indicate the Chequamegon Bay region is and will continue to receive more precipitation in larger storm events.
10. Engineered edge-of-field mitigation and conservation practices such as settling ponds can be effective in retaining storm water and reducing peak flows and nutrient loading in adjacent waterways.
11. Phosphorus loss from agricultural lands varies considerably with management practices and precipitation, but averages 2.0 lbs/ac. Total maximum daily load (TMDL) levels are typically set at between 0.16-0.33 lbs/ac. Agriculture will increase phosphorus loading to surface waters compared to background levels.
12. Increasing manure and fertilizer applications within a watershed is likely to increase nutrient loading into surface waters within that watershed.
13. In Bayfield County it is currently unknown how much phosphorus can enter surface waters from agricultural lands before surface waters become impaired. Likewise, the predominant sources of phosphorus within each major watershed in Bayfield County have not been quantified. Therefore, it is unknown how much phosphorus loss from agricultural lands can occur before surface waters become impaired.
14. Protecting water quality and human health while also enabling agricultural production is a matter of risk management. The following agricultural practices and situations on clay ground in northern Wisconsin pose the greatest risk to surface water quality and downstream human health:
  - a) Spreading manure during periods of high runoff risk.
  - b) Constructing manure pits without pre-construction soil borings or engineering plans.
  - c) Applying manure to concentrated flow areas.
  - d) Lack of perennial vegetation in concentrated flow areas.

- e) Animal grazing within intermittent and perennial stream drainages in which animals have unrestricted access to the stream and/or vegetative cover within the drainage is lost.
- f) Barnyards, feedlots, and dry lots with unmitigated runoff to surface waters.
- g) Over-application of nutrients resulting in annual loss of excess nitrogen and/or increased risk of phosphorus loss due to higher soil phosphorus levels.

*A very lengthy discussion took place on the above topics as it concerned understanding manure storage, runoff, drainage, and manure applications. A motion was made by Bussey/Strochata to preliminarily agree to the Findings of Fact regarding surface water subject to final approval. The motion carried.*

### **Management Strategy Options for Bayfield County**

1. Take no additional action and rely on farmers, existing regulations, and existing outreach education and cost-share capacity to limit nutrient and bacterial loading in surface waters. Rely on the Clean Water Act (as implemented by the DNR) and the TMDL process to fix a problem if it occurs.
2. Provide *additional outreach education* to farmers and landowners to understand and adopt best management practices and comply with existing regulations.
3. Provide *additional outreach education and cost-share dollars* to assist farmers and landowners in adopting best-management practices, installing conservation practices, and complying with existing regulations.

*The County has a back log. If the County wanted to put more dollars towards this practice then farmers would be able to make improvements and cost-share would come into play. Projects are done voluntarily.*

4. Adopt additional regulations to mandate more aggressive risk management practices by farmers. Such regulations could include:
  - a) Manure storage permitting regardless of farm size.
  - b) 9-12 months of manure storage to accommodate missed spreading windows for new or expanded operations.
  - c) Nutrient and crop management plans that include multiple spreading windows during a calendar year (spring, summer, fall, low-risk winter).
  - d) County-enforced concentrated flow area protections.
  - e) Adopt NR 151 agricultural runoff standards to allow for County enforcement.

*All of these would require that standards be followed. Fischbach went over the above items with the Committee.*

5. Limit livestock density in a watershed with zoning districts to limit impacts of changes in nutrient mass balance (i.e. elevated soil phosphorus levels) and to militate against low compliance and/or enforcement capacity. Such zoning options could include:

- a) Exclude livestock facilities and or manure spreading from shoreland zones through zoning ordinance amendment.
- b) Only allow new livestock operations with 500 or more animal units in the A2 zoning district.

6. Set maximum phosphorus and bacterial loading allocations for each watershed and require new or expanding operations to acquire phosphorus and bacteria credits (load allocation) as a permit or license contingency (cap and trade).

*We have strategies to consider. In order to do anything we need to talk to Bayfield County farmers to see what works and we also want to clean up non-compliant farmers. Are more regulations the answer - perhaps for new farmers? We need to regulate the number of animals that can be in a watershed. With additional regulations, you have to remember that additional staff will be needed as well. The State has cut back their positions and the duties and responsibilities that the State had are now falling on the shoulders of our Land & Water and Zoning departments. They are backlogged now.*

*Discussion took place on acreage vs. animals. Most Committee members were not in favor of Item 1, "take no action."*

*A motion was made by Bussey/Sauer to direct our adviser to give more information on Items 2-6. Discussion on manure storage ordinance, a special zoning district and where it might be located. A target date on when to revisit this was suggested the latter part of August to Sept. The motion carried.*

7. **Next Meeting, Thursday, July 2, 2015, 1:30 pm**, "Understanding Microbiological Risks from Livestock Operations." Dr. Mark Borhardt will be the guest speaker at our meeting and again that evening at the Visitor's Center at 6:00 pm.

8. **Future meeting dates and times, updated speaker listing, additional topic/presenters:** July 16<sup>th</sup> we will discuss Dr. Bocharadt's talk. Committee member Dale Peacock had asked, at the last meeting, for us to get in touch with Clark and/or Marathon County to see if they would be willing to come to give us a presentation on what the CAFOs have been like in their counties.

There being no further business to come before the Large-Scale Livestock Study Committee, Chairman Strand adjourned the meeting at 3:45 pm.

Respectfully submitted,

Dawn M. Bellile,  
Deputy County Clerk  
dmb