

**DRAFT**  
**WDNR Sensitive Areas and Management Practices Workgroup**

**December 15, 2015 Meeting Notes**

1. After reviewing Dec 15 meeting agenda and meeting notes from November 23, the agencies listed below each explained and they would not take a position or 'vote' on submitted recommendations for consensus because it was not appropriate to do so without first consulting with their respective management

Wisconsin DNR  
Wisconsin DATCP  
NRCS  
Kewaunee County

Each agency explained they remained committed to participating in workgroup discussions and will provide technical/advisory expertise to other workgroup members on submitted recommendations.

2. Russ Rasmussen (WDNR) explained WDNR still views the workgroup recommendations as valuable and it will not ignore them.
3. Kevin Erb (UWEX) explained similar questions/concerns to item 1 came up during development of the 2007 NE Wisconsin Karst Report. Kevin stated the Karst report was developed on a science and technical basis and did not consider practical elements/considerations related to agency approval, staff and budget priorities and/or administrative/legal authorities to implement the recommendations. The decision was to make the report available to agency managers for review and follow up action (e.g., ordinances, amendment/creation of performance or technical standards).
4. Kevin Masarik (UWEX) asked what the measureable outcomes and expectations for the workgroup? The workgroup reviewed the Sensitive Areas and Practices purpose, scope and expected outputs document which states the intent of the workgroup is to reduce or eliminate groundwater pollution within sensitive areas (defined by the workgroup). Kevin then asked how success will be measured to against the criteria. What metrics will be used? Is the goal to have zero groundwater contamination or only to minimize/ reduce the frequency?

Workgroup discussion ensued on the following items:

- 2007 Karst task force membership (see executive summary agreed on the following: because of the aquifer type, overlying soils and land use practices it would be impossible to prevent every instance of groundwater contamination.
- Page 4 - assumptions – of the Karst report states: given the rapid interconnection between surface waters and ground waters in the areas,

prevention of all surface contamination of groundwater is a physical impossibility, however landowners can take action to greatly reduce the potential for animal waste, human waste and other contaminants from entering the aquifer.

- The geology and land use practices make it impossible to meet a zero risk standard for groundwater contamination. We need to be honest about expectations and outcomes.
- The recharge characteristics of the soils and aquifer result in flashy water quality data, this is the reality. Can WQ trends/contamination levels/frequency be measured within such factors?
- Is it possible to measure success (e.g., lower frequency or extent of wells exceeding the 10 mg/L nitrate standard) after implementation of practices within sensitive areas?
- The workgroup should make practices available for voluntary adoption to help better manage manure via specific practices (e.g., placement, timing, rates, manure types, amounts, and field inspections).
- Having private landowners monitor private wells should not be the primary means to measure success. It is not appropriate to expect zero nitrates/bacteria contamination in groundwater. The workgroups focus should be on reducing frequency and extent of nitrate and bacterial contamination.
- Private well owners are expected to install treatment measures on their wells when contaminated or to prevent contamination/illness; this should not be the status quo.
- Bacteria and Nitrate – what is the focus of the workgroup recommendations? There is a teeter-totter effect; when you try to reduce one contaminant, you may be indirectly increase the other. Different tools/strategies may need to be employed to address both contaminants.
- What tools/strategies are best when rock depth is a 2 feet, 3 feet, or 5 feet?
- There are two pathways for groundwater contamination from waste applications on shallow bedrock soils: Vertical and Horizontal. Some practices the workgroup is discussing/reached consensus upon may not address both pathways.
- Some practices may be only effective for vertical and not on horizontal pathways; recommended practices should be specific as to which pathway they will address.
- Can LIDAR be used to better define closed depressions and internally drained areas? Yes. Using this tool and field verification will help better define these areas and can be used to help implement practices to reduce risk for horizontal and vertical groundwater contamination pathways.
- Treated and Raw liquid manure applications and corresponding risk levels for groundwater contamination. Request by workgroup members for WDNR to report on NR 204 treatment standards.
- Solid manure vs. liquid manure and corresponding risk levels for groundwater contamination.

5. See DRAFT workgroup recommendations document for additional December 15 meeting notes and consensus recommendations.

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