

Summary of TAC Meetings (Oct.-Jan.) presented at 2/16/17 meeting

Sensitive Area Definition – Discussion to date

October TAC Meeting: the Committee brainstormed possible factors for definition of “Sensitive Areas”:

- Thickness of soil
- What is mapping reliability?
- Soil types (presence of macropores, % fines)
- Infiltration rates, rate of movement through soils minimize treatment time, or recharge rate.
- Depth to groundwater
- Consider topsoil and subsoil type (below topsoil 60” and above rock)
- Weather (saturation or draught), or as a treatment strategy to kill pathogens
- Proximity to groundwater conduits (position on landscape).
- What is growing on the field, land cover, placing manure into cover crops?
- How is manure applied? Recommend surface application over injection.
- How many wells are within the area? Well setbacks?
- Animal density
- Inorganic fertilizers
- Is a sensitive area going to be defined area, or are we defining activities?
- Need to consider multiple options for the farmer for better implementation.

November TAC Meeting: The Committee reviewed the brainstorm list from October (above), and additional factors from the definition of “areas susceptible to groundwater contamination” that included:

- Depth to water
- Depth to bedrock
- Type of soil (0-60”)
- Type of bedrock
- Characteristics of surficial deposits (> 60”)

The TAC identified two of the factors for inclusion in the definition of sensitive area - depth to bedrock and bedrock type.

Depth: There were multiple perspectives regarding which part of the carbonate bedrock area should be included in the sensitive area definition. There was a proposal to have soil thickness be set at 50’ since there is a map with that depth identified. There was discussion on how to define a useable tool to verify depth.

December TAC Meeting: The Committee learned more about the karst in the SW part of the state.

Type: The scope statement says ‘fractured bedrock’. The focus has been on carbonate bedrock. There was discussion about crystalline bedrock (north central part of state) where soils are also shallow. The TAC recommended not considering that type of bedrock at this time.

Performance Standards/Technical Standards

Notes from January TAC Meeting

Soil Depth Suggestions

0-1 ft –

- No application of liquid manure
- No mechanical application of solid manure
- Bring all farms to CAFO standards

1-2 ft –

- No application of manure (any type)
- No application of liquid manure
- Avoid mechanical application of solid manure
- Bring all farms to CAFO standards
- Use Kewaunee recommendations to allow solid manure application
- Use Kewaunee recommendations with modification to allow fall cover crops and possible treatment options like composting
- No application of solid manure unless treated
- Incorporation may be a problem in the SW part of the state where no-till is encouraged. Non-incorporation may be a problem for surface water protection and odor.
- Consider a variance option

2-3 ft –

- No application of manure (any type)
- No application of any manure unless treated
- Treatment requirements must be clear (what pathogen, to what concentration, different for farms with digesters?)
- Timing is close to planting (whether spring or fall with cover crops)
- Follow Kewaunee recommendations
- Modify Kewaunee recommendations for hydraulic loading (e.g. split applications may be difficult in areas of the SW where there are significant slopes)
- Use low incorporation depths (incorporation may be a problem in SW part of state)
- No additional requirements on CAFOs until other farms are brought up to these requirements

3-5 ft –

- No application of manure (any type)
- Follow Kewaunee recommendations
- Modify Kewaunee recommendations to allow flexibility on assessing saturation, surface application and incorporation
- Rate reduction to meet nutrient requirements may have a secondary effect of reducing pathogens
- No additional requirements on CAFOs until other farms are brought up to these requirements

2-20 ft –

- No application of manure (any type)
- No application of manure if a rainfall of greater than 1 inch is forecasted.
- Rainfall intensity should be considered
- Use Runoff Advisory System as a planning tool only
- No emergency spreading or headland stacking on frozen or snow covered ground (include a winter spreading plan)
- Build organic matter
- Recognize trade-offs with pathogen reduction and nutrient reduction to surface waters (e.g. no-till systems)
- Use pre-tillage
- Use Kewaunee recommendations
- Modify Kewaunee recommendations
- No additional requirements on CAFOs

Setback Distance Suggestions:

- Use Kewaunee Recommendations: Recommend permanently marking direct conduits to groundwater but not the drain tile language.
- Modify Kewaunee Recommendations to not include the drain tile language and/or to not permanently mark features.
- Setback distances
 - a. 1000 ft. community well
 - b. 250 ft to private potable and public “non-community” supply wells or 100 ft to private potable and public “non-community” supply wells
 - c. 100 ft to all other direct conduits to groundwater, and 300 ft during frozen or snow covered conditions
 - d. 100 ft. to defined channels that lead to a, b, or c – Delete concentrated flow path from recommendation. Setback not required if manure is incorporated.
- Consider exempting groundwater monitoring wells, or research based wells from setbacks
- Consult with local municipalities for wellhead protection area setbacks (if available?)

General Discussion Topics

DNR authority for performance standards and DATCP authority for technical standards

- DNR authority includes prohibitions and performance standards
- Some existing DNR performance standards were a compromise by industry
- DATCP should be writing technical standards
- Some of the Kewaunee Recommendations read like technical standards
- Need to find the line between performance standards and technical standards
- Need to find the balance between a performance standard with limited detail on how to implement and a performance standard with some specificity

Evidence that the current performance standards are inadequate and targeted standards are needed

- Presentations were provided on the nature of the carbonate geology in both the eastern and southwestern part of the state and its similarity
- Presentations were provided on the incident of groundwater contamination in the eastern and southwestern part of the state and its similarity
- Kewaunee county has a high rate of farms with NMPs and there is still a groundwater contamination problem