Committee discussion for this meeting revolved around the Kewaunee Co. recommendations individually for each soil depth if they were related to pathogen reduction. The recommendations for closed depressional areas and for assessment tools were put off for the next meeting.

There was discussion among the group regarding recommended practices that contradict efforts to reduce surface water runoff. In the southwest, farms that implement no-till to reduce T and soil health principles may be impacted by requirements to incorporate manure.

**Areas within 0-2 ft. – Avoid application of manure**

- Liquid manure should not be applied.
- No mechanical application of solid manure on 0-1 ft.

Avoid solid manure on 1-2 ft.

- Ability to spread solid manure in 1-2 ft. range, but with additional practices/restrictions (see item 4 on summary of sensitive areas handout) including rate, timing, and pathogen reduction. Some of these recommendations may change how farms manage their manure including potential storage, and a change of type of manure generated.
  - -- Retain rates (up to 15 tons/ac) and timing (close to crop planting date).
  - -- Not retain “spring only”, should be allowed in Fall cover crops.
  - -- Consider keeping composting as an option.

Leaving manure (solid) on the surface for UV exposure can reduce pathogens. There was discussion about the pros and cons of incorporation that may be more significant in the SW part of the state than the NE.

A recommendation was made to bring in agronomists from the southwest part of the state to provide insight on managing shallow soil areas. This was added to the agenda for the February meeting.

A question was asked about variance option for farmers if they can’t meet the standards. This topic can be explored in the future.
There was discussion on the significance of setting the standard to 2 ft. vs. matching the 20” depth restriction in 590. This would not be in conflict with the NRCS standard if the DNR performance standard was set at 24” because NRCS standards reference following state law to help address differences.

**Areas within 2 – 3 ft.** Table 2 – Avoid application of manure.

3a. Pathogen treatment composting (solid) – concern that this is more restrictive than what is allowed for solid application at 1-2 feet and it should be the same.
b. Pathogen treatment (liquid),
   -- There would need to be clarity on what pathogen to measure.
   -- Table 3 was applicable to a farm with a digester.
   --
   --c. Timing – similar to 1-2 in that it needs to be applied close to planting
d. Limit solids rate – similar to 1-2 ft for solid manure
f. Liquid manure - Split applications to reduce hydraulic loading also reduces pathogen application and may be option for a farm without a digester.
   -- Difficulty implementing this in high sloped areas (SW)
g. Liquid manure is <12% solids. Further reduce liquid rates if < 2% solids.
h,j,k,. NA for pathogens.
i. Incorporation depth, not below 4”, i.e. focus on low incorporation.

**Areas within 3-5 ft.** Table 3 – Avoid application of manure

3a. Limit on application rates to avoid hydraulic load.
   -- recommendation to add language that allows “or limits to avoid saturation” to allow flexibility during wet conditions (similar to f. in Table 2).
b,.c,.d. NA - nitrogen based, but there is a rate reduction.
Surface applications on residue may reduce pathogens and limit downward movement.
e. 6” incorporation depth limit. Group is comfortable with this.

**Areas within 2-20 ft.** –Table 1

2a Prior to rainfall >1” - prohibition
- Consideration of rainfall intensity is important.

b. Runoff Advisory System is not an appropriate regulatory tool but a good planning tool. Use a note to recommend use.
c. and e. Within closed depression areas. Hold for later discussion.

3. No emergency spreading or headland stacking on frozen or snow covered soils.
- consider language to require a winter spreading plan. DATCP would describe how.
4. Site assessment – hold for later
5. Build organic matter. – Consider keeping
- less cracking and development of macropores.
6. Surface application on slopes. >6% w/ injection/incorporation. None >12%. This may apply in closed depressional areas only (hold for later)
7. Incorporation contradicts efforts to build organic matter, no till systems. The group discussed the challenges of this recommendation for farms that are implementing no-till and other practices related to surface water runoff, particularly in the southwest.
8. Nitrogen based fertilizers, not applicable.
9. Pre-tillage to 2” depth (clay soils), when significant soil cracking is visible (or functional equivalent that achieves the same purpose).
10. Headland application – may not apply or be too detailed

**Setback Distances** Table 5

2. Recommend permanently marking direct conduits to groundwater. Don’t need the drain tile language.
   - primarily a visual to stay away from identified features (sinkholes, direct conduits).
   *Consider not keeping*
3. Setback distances
   a. 1000 ft. community well - *Consider keeping*(same as CAFO)
   b. 250 ft of private potable and public “non-community” supply wells – change to 100 ft.(greater than the 50 ft for private wells in 590)
   c. 100 ft of all other direct conduits to groundwater, and 300 ft. during frozen or snow covered –*Consider keeping*(same as CAFO)
   d. 100 ft. of defined channels that lead to a, b, or c – Delete concentrated flow path from recommendation. Setback not required if manure is incorporated.

4. Groundwater monitoring wells, research based, consider exempting these from the setback requirements.

5. Consult with local municipalities for wellhead protection area (if available?)

**For next meeting:**

- Presentation by a nutrient management planner from southwest Wisconsin.
- Review Table 4 for 5-20 feet.
- Review closed depressional areas recommendations
- Review assessment recommendations (Summary #1, Table 1 #s 1 and 4, Table 2 #2, Table 3 #2, Table 4 #2, Table 5 #1 (Recommendation A).