

RECOMMENDATIONS BY DEPARTMENT

Green County Land & Water Conservation Department

The Green County Land and Water Conservation Department was identified as the lead organization for the following recommendations. Recommendation numbers correspond with the numbers within the Livestock Facility Study Group Report & Recommendations document.

COMMUNITY MAPPING & MONITORING (page 25)

MONITORING (page 25)

3. Coordinate well water test results, which are required to be taken every 15 months, to establish water quality trend data.

- Rationale: This can be used to make decisions to reduce groundwater contamination.
- Note: The Green County Land and Water Conservation Department, Green County Health Department, and Green County UW-Extension were all identified as lead stakeholders for this recommendation.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on September 6, 2018 minutes show “Item 3: Possibly map poor well reports to decide where to focus conservation work. Do not require testing every 15 months. More outreach and awareness is needed to have land and property owners to test their wells.”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018, minutes show “Let UW-EX be the lead on this recommendation.”

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

4. Increase surface water monitoring near potential impaired waterways.

- Rationale: This can be used to monitor and make decisions to reduce and prevent surface water runoff.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 4: DNR, WAV, and LWCD already do this. How do we increase monitoring and where would the extra funding com from? Keep this recommendation.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: Two points of contact for additional information are the Lower Sugar River Watershed Association, they do a lot of monitoring, or Katy Bradford, Water Action Volunteer Program Manager (wav@extension.wisc.edu).

TESTING (page 26)

6. DNR or county offices have the right to obtain a manure or effluent slurry sample from any livestock facility or private septic system to use as they see fit to track down pollution sources.

- Rationale: Would allow trace-back to sources of contaminated wells using DNA technology.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 6: The DNR does this already, so we don’t need the county doing it as well.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

7. Green County Board and Green County Land and Water Conservation Department request to the Wisconsin Department of Natural Resources to consider for all e. coli positive samples an investigation using microbial source tracking testing if offsite livestock contamination seems plausible.

- Rationale: Initiate an investigation and allow trace-back to sources of contaminated wells using DNA technology.
- Note: The Green County Land and Water Conservation Department and the Green County Board were both identified as lead stakeholders for this recommendation.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on September 6, 2018 minutes show “Item 7: At whose expense is this recommendation? The committee doesn’t disagree with the recommendation, but it would be up to the individual with the problem to pay for the testing.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018, minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

BEST PRACTICES & OUTREACH (page 27)

OUTREACH (page 27)

1. Notify neighbors of off farm spills or spills impacting surface water as soon as possible but within 24 hours.

- Rationale: Disclosure to area landowners of spills that may lead to private water supplies.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 1: This recommendation is needed, but may need to be reworded somewhat. Possibly anyone affected or downstream well owners. An operational spill plan should be posted.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

4. Increase education and outreach to landowners regarding the Wisconsin Manure Runoff Prediction website.

- Rationale: Increase awareness of weather-related impacts on surface water runoff.
- Note: The Green County Land and Water Conservation Department and Green County UW-Extension were both identified as lead stakeholders for this recommendation.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on September 6, 2018 minutes show “Item 4: This recommendation is OK.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: The Green County Land and Water Conservation Department does radio programs to promote it and has refrigerator magnets to hand out in the front lobby of their office to promote the Wisconsin Manure Runoff Prediction website.

6. Inform haulers and farmers of requirement that all land applicators have, at a minimum, one set of spreading restriction maps and written instructions present for land application sites where manure is actively being applied.

- Rationale: Ensure proper application of manure and nutrients.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 6: This recommendation is needed. This is a requirement no matter what size of farm.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

BEST PRACTICES (page 28)

7. Request NRCS to provide incentives for composting, separating, and treating manure.

- Rationale: Reduce runoff and odor from manure applications.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 7: NRCS already does this. Recommendation rejected.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: NRCS has programs for funding these projects.

RULES & REGULATIONS (page 29)

SETBACKS (page 30)

5. Revise county code to modify setback distance to 250 feet for manure storage from private wells and 1,000 feet for public wells.

- Rationale: Reduce potential for surface water and groundwater contamination and odor concerns.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 5: Leave the setbacks in line with the NRCS standards.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

6. Revise county code to increase property line setbacks for feedlots over 1,000 animal units.

- Rationale: Large farms over 1,000 animal units should have a greater setback to reduce odor and potential for ground and surface water contamination in neighboring wells.
- Note: Both the Green County Land and Water Conservation Department and the Green County Land Use and Zoning Department were identified as lead stakeholders for this recommendation. On further discussion, it seems the Green County Land & Water Conservation Department would be the predominate stakeholder to take the lead on this action.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on September 6, 2018 minutes show “Item 6: Table this recommendation until the Zoning Committee acts on it.”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018, minutes show “Revise county code to increase property line setbacks for feedlots over 1,000 animal units. Approved. Increase setback to 350 feet.”

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

7. Review and establish proper setbacks for land spreading manure.

- Rationale: Reduce surface water runoff and odor concerns.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on August 2, 2018 minutes show “Item 7: Education is needed on this. Follow a nutrient management plan.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018, minutes show this recommendation was approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: A nutrient management plan (NMP) establishes these setbacks. Tonya has a program to help farmers write their own plan.

PERMITTING & FEES (page 30)

8. Only a certain amount of well capacity permitted per square mile to relieve the “straw effect.”

- Rationale: Reduce the amount of water taken from one specific area.
- Note: Both the Green County Land and Water Conservation Department and the Green County Land Use and Zoning Department were identified as lead stakeholders for this recommendation.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on September 6, 2018 minutes show “Item 8: This recommendation would include all wells in Green County, including cities, villages, and center pivots. This is a good idea, but what is the well threshold?”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018, minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

9. New manure storage permittee applicants must ensure that sufficient funds will be available for pollution clean-up, nuisance abatement, and proper closure of the manure storage if it is abandoned or otherwise ceases to operate as planned and permitted.

- Rationale: Livestock owners should be responsible for cleanup and proper closure to eliminate contamination of surface water.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on July 12, 2018 minutes show “Item 9: Bucholtz is monitoring a case that is ongoing in the state. Committee would like to adopt this recommendation. Will it prohibit the 200 cow dairies from getting storage for financial concerns?”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

10. Revise manure storage ordinance permit fee to have a sliding fee schedule per animal unit, not one set fee for everyone.

- Rationale: Current fees do not cover the current cost to the county and a sliding scale would be a more appropriate fee format.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on July 12, 2018 minutes show “Item 10: Agree with this recommendation. It should be an animal per animal unit. For cows charge \$10/head. Equating that charge to animal units, would be \$7.14/animal unit.”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018 minutes show the following recommendation was approved:

- Revise manure storage ordinance permit fee to have a sliding fee schedule per animal unit, not one set fee for everyone.
\$500 for 5,000 cubic feet – 250,000 cubic feet
\$1,000 for 255,001 – 500,000 cubic feet
\$2,500 for 500,001 – 1,000,000 cubic feet

Anything higher -- \$1 for each 500 cubic feet

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

OPERATIONS ORDINANCE (page 31)

11. Create CAFO operations ordinance.

- Rationale: Would allow County to have more oversight and monitoring of CAFOs.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on July 12, 2018 minutes show “Item 11: CAFOs are required to do an annual checklist already through the DNR. Check with Richard Castelnovo of DATCP to get his checklist. Can we require small farms to do this as well?”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018, minutes show “Not approved. We already have this.”

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: Once approved, DNR is responsible for CAFOs. They have annual checklist to run through annually. They are also on a 5 year schedule for repermitting their operation. They are much more heavily regulated than other farms.

12. Require fall cover crops on fields following corn silage, including sweet corn silage, and soybeans.

- Rationale: Research has shown this practice reduces soil erosion and unleashing of nutrients and runoff.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on July 12, 2018 minutes show “Item 12: Change the word require to strongly recommend.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was changed to “Strongly recommend fall cover crops on fields following corn silage, including sweet corn silage, and soybeans” and approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: The Land and Water Conservation Department annual report shows they are doing more cover crops each year. They do education on them and have a few field days each year promoting them.

13. Establish best management practices for odor and noise and require windbreaks around barnyards and storage for new and modified structures.

- Rationale: Reduce odor and noise issues caused by large livestock facilities.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on July 12, 2018 minutes show “Item 13: Agree with this recommendation, change require windbreaks to recommend.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was approved as “Establish best management practices for odor and noise and recommend windbreaks around barnyards and storage for new and modified structures.”

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: This is done on a one on one with the landowner in the planning stage of implementing their project.

MANURE STORAGE (page 32)

14. Require all new or modified manure storage structures to be double-lined (have a liner of clay plus something additional i.e. HDPE, concrete, etc).

- Rationale: Reduce potential for groundwater contamination.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on July 12, 2018 minutes show “Item 14: Jenson reviewed this with DATCP and NRCS state engineers. With the new change to the 313 (manure storage) standard the double liner is basically met. They recommended not to adopt this recommendation.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

15. Increase manure storage for all farms building new or modifying existing manure storage structures for a minimum of 3 months and CAFOs to have a minimum of 1 year storage.

- Rationale: To enable spreading at more optimal times. Eliminates hauling manure on high-risk days.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 15: Agree with one year minimum storage for a CAFO. Change new or modified manure storage structures from 3 months, up to 6 months. Do we have the authority to do this?”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018, minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

NUTRIENT MANAGEMENT & APPLICATION (page 32)

16. Require all Green County livestock and crop operations to have an approved Nutrient Management Plan.

- Rationale: County is currently at 17% of cropland acres in nutrient management plans. Nutrient management plans greatly benefit groundwater and surface water and prevent soil erosion.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 16: Possibly require in county code and enforce with penalties. Would apply to any mechanical spreading of manure or fertilizer. Is there a previously set state code that we can adopt?”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018, minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

17. Conduct more land application hauling audits/oversight in sensitive areas.

- Rationale: Monitoring applications may improve surface and groundwater quality.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 17: There are not enough hours or staff to watch everyone. Farmer education is needed for this recommendation.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018, minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

18. Restrict winter spreading. Encourage winter no-spread and frozen ground manure regulations that restrict January through March manure spreading to reduce nutrient runoff.

- Rationale: Reduce nutrient runoff and groundwater contamination.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 18: This is more stringent than a nutrient management plan. January through March may not have frozen ground. Delete “restrict winter spreading.””

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation: “Restrict winter spreading. Encourage winter no-spread and frozen ground manure regulations that restrict January through March manure spreading to reduce nutrient runoff” was approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: The Committee went from “no” to encourage not to winter spread. January through March doesn’t always fit, sometimes November and December can be frozen as well.

19. Do not incorporate or inject manure greater than 4 inches below the soil surface.

- Rationale: Would help reduce leaching of nitrate into groundwater and keep nutrients in the plant root zone.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 19: Remove this recommendation.”

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

20. On soils with less than 12” to bedrock, no manure applications of liquid manure is allowed. Liquid manure is defined as having less than 12% solids content. Avoid mechanical application of manure on these soils and use other available acres, OR, if avoidance is not possible, implement at least two of the following mitigation practices:

- a. No liquid manure applications;**
- b. No fall manure applications;**
- c. Apply only solid manure in spring;**
- d. Limit solid manure application rate to 20 tons/acre/year;**
- e. Apply within 10 days or less from planting date or apply on a growing crop/cover crop treatment;**
- f. Manure treatment.**

- Rationale: Would help reduce leaching of nitrate into groundwater and encourage better use of nutrients for plant growth.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 20: CAFO’s are already required to do this. 90% of farmers will not be affected by this. Keep this recommendation.”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018 minutes show the following recommendation was approved:

- On soils with less than 12” to bedrock or groundwater, no manure applications of liquid content are allowed. Liquid manure is defined as having less than 12% solids content. Avoid mechanical application of manure on these soils and use other available acres, OR, if avoidance is not possible, implement at least two of the following mitigation practices:
 - a. No liquid manure applications;
 - b. No fall manure applications;
 - c. Apply only solid manure in spring;
 - d. Limit solid manure application rate to 20 tons/acre/year;
 - e. Apply within 10 days or less from planting date or apply on a growing crop/cover crop treatment;
 - f. Manure treatment.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

21. Incorporate manure management prohibitions into Green County’s storage ordinance.

- Rationale: Reduces potential for surface and groundwater contamination.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 21: Keep this recommendation.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

ENFORCEMENT & MONITORING (Page 34)

23. If self-monitoring of manure storage has not been done properly, the county should have the right to force the violator to hire county personnel for a fee.

- Rationale: Ensure accountability for current self-reporting regulations when needed.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 23: This recommendation is already covered under current county code.”

As per a Green County Land and Water Conservation Committee Meeting on November 8, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.

Additional Note: Land and Water Conservation Department started a program to monitor all manure structures on a 5 year cycle. To date, they have checked each structure once.

IMPLEMENTATION & STAFFING (page 34)

24. Increase staff in the Green County Land & Water Conservation Department beyond what is already planned.

- Rationale: Additional staff needed to assist with implementation.

UPDATE AS OF JUNE 2023

As per a Green County Land and Water Conservation Committee Meeting on June 7, 2018 minutes show “Item 24: Table this recommendation right now. Wait and see how many recommendations are passed to see if more staff is needed.”

As per a Green County Land and Water Conservation Committee Meeting on December 6, 2018 minutes show this recommendation was not approved.

See Appendix A: Updates from Land & Water Conservation Department (June 2023) for Land and Water Conservation Committee minutes during that time period.