

**DODGE COUNTY  
LAND CONSERVATION COMMITTEE MEETING  
127 EAST OAK STREET  
JUNEAU, WI 53039  
JULY 22, 2015**

The Dodge County Land Conservation Committee (LCC) met on July 22, 2015 beginning at 7:30 PM in Rooms 1H and 1I of the Dodge County Administration Building.

**Call to Order:** The meeting was called to order by Chair Ed Nelson at 7:30 PM with the following members present: Ed Nelson, Dale Macheel, Gerald Adelmeyer, Bill Muche, Howard Kriewald, Larry Bischoff, and Bill Foley.

**Also present were members of a task force formed to discuss the issue of a county-wide conservation buffer ordinance, and included the following:** Jeff Kreuziger, Dan Guenterberg, Rachel Samerdyke, Tim Meekma, Dennis Uecker, Kevin Roche, Laura Stremick-Thompson, Ruth Johnson, Roger Hildebrandt, Howard Bohl, and Bill Boettge.

**Other County Staff Present:** Jeff Hoffman, UWEX Community Development Educator; Marc Bethke, County Conservationist; Jim Mielke, County Administrator.

**CONSERVATION BUFFER JOINT TASK FORCE CONSIDERATION AND DISCUSSION OF ADVISORY RECOMMENDATIONS TO THE DODGE COUNTY LAND CONSERVATION COMMITTEE:**

Under the guidance of meeting facilitator Jeff Hoffman, the Conservation Buffer Joint Task Force that was convened by the Land Conservation Committee spent the next two hours reviewing comments and ideas shared at previously scheduled small group task force meeting, and discussing ways in which to better control cropland erosion and runoff, including the option of a county-wide buffer ordinance. No consensus of opinion was reached for recommendation to the Land Conservation Committee at this specific meeting.

**ADJOURNMENT:** There being no further business to come before this committee, motion by Bischoff to adjourn at 9:30 PM, seconded by Kriewald. Motion carried.

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Ed Nelson, Chair

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Gerald Adelmeyer, Secretary

**Disclaimer: The above minutes may be approved, amended or corrected at the next committee meeting.**

DATE: 8/19/2015  
TO: Dodge County Land Conservation Committee  
FROM: Marc Bethke  
RE: Recommendation on Request for County-Wide Buffer Ordinance

As you have requested, the following are my thoughts and recommendations regarding the request to enact a county-wide conservation buffer ordinance in Dodge County.

After giving substantial consideration to this request, it is necessary for me to say that I do believe there is a valid basis or reason behind the request. Dodge County surface waters have at times been negatively impacted by surface water runoff from certain agricultural farming operations. Soil and nutrients have been delivered to Dodge County surface waters at times when specific weather events occur over inadequately protected cropland located adjacent to ditches, streams and lakes. It must also be said, however, that this problem is not unique to Dodge County – it is a problem that occurs at times across the entire state of Wisconsin.

However, considering information recently obtained and reviewed regarding buffers, and considering some of the legal and/or practical issues that would be encountered with the enactment and enforcement of this type of an ordinance, and based on nearly 37 years of work experience with land & water conservation issues in Wisconsin, I do not believe that an ordinance that requires the installation of 20 foot wide grass buffers on all county water bodies is the solution to the problem stated above. Below are some the reasons behind this statement:

1. Buffers will not provide long term protection of surface waters from sediment and nutrient delivery as a stand-alone practice. All of the “experts” that I have talked with on this topic agree that supporting upland conservation practices are essential to ensure long-term and effective functioning of a conservation buffer. Buffers should be considered a form of “tertiary” treatment – the final treatment step used to filter out and/or capture small amounts of particulate and dissolved pollutants. For this to happen, primary and secondary treatment needs to occur first on lands draining to the buffer (i.e. implementation of practices such as high residue management, contour farming, cover crops, critical area stabilization, etc.). Without supporting practices that can control the dislodging and movement of soil particles and can also minimize the volume of water that sheds off the land above a buffer, the filtering capacity of a buffer will soon be overwhelmed by both the volume of water, as well as the volume of suspended sediments. To require a landowner to implement specific conservation practices on the uplands requires the provision of cost share funding (required under NR151.09(c) 1. and 92.17 (2m) Wis. Stats.). Since most of the upland practices identified above are considered “cropping practices”, and because cost share funding for these types of practices is currently very limited, effective enforcement of this ordinance would also be very limited.
2. Some studies have shown that newly established buffers can capture a high percentage of sediments, perhaps in excess of 70% (Cannon River Watershed Partnership Newsletter, Minnesota). However, after several large runoff events have impacted the buffer, it is also true that runoff will not be able to pass through the buffer in an even

manner, but rather will be diverted by previously deposited sediment, and will pass through the buffer as concentrated flow, causing the buffer to be much less effective in trapping sediments and nutrients, and possibly even resulting in the formation of “gully heads” on the banks of ditches and streams. In addition, sediments previously trapped in the buffer can actually release and discharge phosphorus into the adjacent water body during future runoff events (2009 Minnesota Ag. Shore land Management Project Final Report – Ross Hoffman).

3. Most research on buffer effectiveness has been done at the “research plot” level, and not at the on-farm, watershed based level (2010 Literature Review by Dan Yu). It has also been stated that much more research needs to be done on the effectiveness of grass buffers that are less than 50 feet in width (A 2004 Review Article by Hickey and Doran). Also, most “experts” consulted on the topic indicated that a “one size fits all” approach cannot effectively protect surface waters. Due to the unevenness of the terrain adjacent and draining to a water body, a 20-30 foot wide grass buffer would be overly protective in some places, while in other places the same 20-30 foot wide buffer would be completely covered in water flowing over the banks of an adjacent ditch or stream channel during a runoff event. Additionally, land & water conservation work is to be guided by adopted standards and specifications outlined in Section IV of the USDA-NRCS Technical Guide. Technical standard #393 (Filter Strip) sets minimum widths for buffers. Most soil types and land slope conditions within the first 300 feet of most riparian cropland in Dodge County calls for a minimum of 30 feet of grass buffer, and under some scenarios the minimum could be 50 feet or greater. The suggested 20 foot buffer width would not meet the guidelines of USDA-NRCS Tech. Standard #393.
4. It appears that Brown County’s own buffer ordinance has not produced the kind of results that may have been anticipated. I spoke with a staff member of the Brown County Land Conservation Department who has worked for the department about as long as their ordinance has been in effect. While this person did say that they believe certain buffers have helped reduce the delivery of some non-point source pollution, they also acknowledged that Brown County has not seen any impaired waters removed from the DNR’s 303d list of impaired waters as a result of the implementation of their buffer ordinance. Furthermore, this person also agreed that buffers need to be installed in conjunction with other upland practices to minimize runoff and sediment movement before entering a grass buffer strip, otherwise the buffer will not function properly, and will ultimately fail.
5. Based on information obtained through Dodge County Assistant Corporation Counsel, Zev Kianovsky, I would expect some legal challenges to this type of an ordinance for the perceived “taking of rights” from landowners by not allowing them to crop the area required to be in a grass buffer. One way to avoid this legal challenge may be to purchase easements on any acreage required to be maintained in grass cover; however, the cost to do this would be in the millions of dollars to cover the entire county, and would take, at a minimum, many decades to complete. Additionally, Chapter 92.17 (2m) of the Wisconsin Statutes indicates that a county cannot enforce an ordinance like this unless cost sharing is provided to establish the required practices (i.e. the grass buffer

itself, possibly fencing, etc.). Once again, available cost share funding would be a limiting factor.

Alternative actions to be considered, individually or in some combination, in lieu of the enactment of a conservation buffer ordinance may include:

1. Continue to encourage the voluntary installation of conservation buffers through the federal Conservation Reserve Program (CRP) or the Conservation Reserve Enhancement Program (CREP) where a “systems approach” is used to plan and install buffers. Perhaps new incentive cost-share funding could be secured that would provide additional incentives to landowners to voluntarily establish more grass buffers in critical shore land areas.
2. Continue to encourage the Dodge County Drainage Board to more effectively implement the provisions of Wisconsin Administrative Rule ATCP 48.24 which requires that a 20 foot wide uncropped corridor be established and maintained around every district ditch.
3. Help identify priority riparian lands in need of conservation practices that could help protect water quality, providing technical assistance where needed, and using “incentives” provided by local municipalities through point to non-point nutrient trading cost-share agreements. Practices to focus on could include grass buffers, no-till/reduced till planting, cover crops, critical area stabilization, gypsum treatments, etc.
4. A long-term, statewide alternative (which would require legislative action) may be to tie reduced cropland tax rates under use-value assessment to compliance with specific conservation performance standards in shore land management areas.
5. Seek other alternative solutions to the issue of non-point source pollution delivery to surface waters by establishing a local nonpoint source pollution citizen’s advisory council.