

BUFFALO-RED RIVER WATERSHED DISTRICT

BARNESVILLE, MINNESOTA 56514

1303 4th AVE NE
Email: general@brrwd.org

PO BOX 341

PHONE 218-354-7710
Website: www.brrwd.org

MINUTES FOR HEARING TO ADD & REMOVE LANDS IN WILKIN COUNTY DITCH NOS. 44, 13, 13-LATERAL

June 26, 2018

Pursuant to Minnesota Statutes Annotated (M.S.A.) 103E.351, 103E.401, 103E.805, and any other applicable statutes, the Board of Managers, Buffalo-Red River Watershed District (BRRWD), held a hearing to add and remove lands to the benefit areas of Wilkin County Ditch (C.D.) Nos. 44, 13, and 13-Lateral on Tuesday, June 26, 2018, at 7:30 PM in the BRRWD Office, Barnesville, MN. BRRWD Managers present were Jay A. Leitch, Peter V. Fjestad, Mark T. Anderson, John E. Hanson, and Troy E. Larson. Others attending included Bruce E. Albright, BRRWD Administrator, Kathleen K. Fenger, Administrative Assistant, and Erik Jones, Engineer, Houston Engineering, Inc. (HEI); and landowners: Shawn Norman, Bryan Henderson, Jeff Nord, Joe Wulfekuhle, Kurt Krueger, John Thompson, Pete Thompson, Steven Thompson, Wesley Christiansen, Etta May Christiansen, Avis Wiese, Ardean Haugrud, Adrian Haugrud, and Alex Czichotzki.

BRRWD President Leitch called the hearing to order at 7:32 PM. An attendance sheet was distributed. He noted that the hearing was being recorded to aid in the preparation of minutes.

Albright gave a brief history of the events that led up to tonight's hearing. Last January, landowner Shawn Norman submitted a permit application (Permit No. 18-003) to install a main and pattern tiling in the E $\frac{1}{2}$, Section 21, Manston Township, Wilkin County, outletting via a lift station in the southwest corner of the section, crossing the minimum maintenance grassed roadway to the south on Norman property, then west to an existing private ditch, and eventually to Manston Slough. The Board tabled the permit due to ditch benefit area concerns. In March, in conjunction with this tiling project, Norman filed two petitions to partially remove benefitted lands from Wilkin C.D. No. 44 and to add lands for subsurface drainage/tile water only to Wilkin C.D. No. 13 and Wilkin C.D. No. 13-Lateral. The area to be partially removed from Wilkin C.D. No. 44 and added to Wilkin C.D. No. 13 and Wilkin C.D. No. 13-Lateral is described as follows: the SW $\frac{1}{4}$, Section 14; the SE $\frac{1}{4}$, the E $\frac{1}{2}$ SW $\frac{1}{4}$ and the E $\frac{1}{2}$ NW $\frac{1}{4}$, Section 15; Manston Township, Wilkin County (480 acres). It is proposed that the benefits on the Norman property should be redetermined and reduced from the current rate of \$40/acre to \$20/acre to reflect the noted subsurface drainage. The same lands would be added to Wilkin C.D. Nos. 13 and 13-Lateral at the rate of \$10/acre to each system to assess them for future maintenance.

Using the wall maps displayed in the meeting room, Erik Jones, Engineer, HEI, discussed the potential impacts the proposed drainage changes would have on the Manston Slough Restoration project, Wilkin C.D. Nos. 44, 13, and 13-Lateral, and the South Branch of the Buffalo River.

For Manston Slough, the project proposes to partially add (subsurface flow only) approximately 480 acres to the project area. For a 100-year rainfall event of roughly 6", about 50% becomes runoff and 50% (3") is infiltrated into the soil and/or caught on vegetation. Assuming all of the non-surface runoff would get to the Manston Slough through the tile system, a conservative impact estimate would be that the maximum additional bounce on the slough would be the result of 120 acre-feet (A-F) of subsurface flow (3" over 480 acres = 120 A-F), and 120 A-F would change the peak water surface on the Manston Slough by 0.037 feet (120 A-F additional inflow/3,254 acres of flood pool for the 100-year event). Jones pointed out that this

estimate is conservative because it doesn't take into account the increased storage of water in the soil profile as not all the infiltrated water will percolate and enter the tile system, and it also doesn't factor in that the subsurface hydrograph will be long and drawn out. A typical $\frac{1}{3}$ -inch drainage coefficient means it will take at least 9 days for all this water to get to the outlet, yielding a maximum tile discharge in the 10-15 cubic feet per second (cfs) range. Norman's tile is actually designed with a $\frac{1}{4}$ -inch coefficient, which would result in the lower discharge rate of approximately 10 cfs over 12 days to reach the outlet.

For Wilkin C.D. No. 13 Main and Lateral, Jones explained that the Lateral has a 5-year capacity, so it will handle the runoff from about a 3" rainfall event before it is outside of its banks in some locations. The Manston Slough project reduces the outlet size from the project area from two lines of 95" x 67" corrugated metal arch pipes (CMP-A) (66 square feet (sq. ft.) of total waterway area) to one line of 65" x 40" reinforced concrete arch pipes (RCP-A) (14.3 sq. ft.) There are two RCP-A in the principal spillway, but the second pipe will only be used during events in excess of the 100-year flood. Peak discharges are reduced 36% to 60% for the two pipes through the 100-year event. The watershed to the Manston Slough is approximately 27.5 square miles (sq. mi.). The partial addition of 480 acres that the Normans are proposing to add to the watershed of Manston Slough and C.D. No. 13 does not significantly change the peak flows experienced along the Lateral or C.D. No. 13.

Jones noted that during large runoff events, the surface runoff from the proposed tile area will continue to run north to Wilkin C.D. No. 44 and the South Branch of the Buffalo River. Breakout flows from the South Branch in Section 6, Manston Township, also affect Wilkin C.D. No. 13-Lateral and Main. He felt that the tiled fields should result in less runoff (sponge effect) flowing north to the South Branch which should result in less breakout flows. Tile water will tend to peak later than surface water runoff, so the change in water surface is small in the reservoir as based on the calculations above, so even with the conservative calculations, discharges don't change by more than 3 cfs at the Manston Slough outlet and the change in peak discharge would diminish going downstream.

Jones thought that there should be less surface runoff from Norman's 480 acres going north to C.D. No. 44 and the South Branch, and it should provide a small reduction in breakout flows with a very small net benefit at the Clay-Wilkin county line with flow being metered through the Manston Slough project.

Albright noted that neighboring landowners had expressed concerns that this project was just the start of Norman's plan to add more tiling projects that will drain through the system. He pointed out that any future drainage projects would have to be handled through separate proceedings.

There was a general discussion about increased flows/breakouts from the South Branch. Jones explained that HEI's current models show that a 2 to 5-year rainfall event (2.5"-3.5" of rainfall in 24-hours) will cause water to break southwest out of the South Branch to C.D. No. 13-Lateral. Albright discussed the BRRWD's efforts to develop a channel restoration project for the South Branch of the Buffalo River, which would be a phased project starting on the east side of Trunk Highway (T.H.) No. 9, hopefully in 2019.

Following the 6/16/18 heavy rainfall event, Albright noted that he received phone calls from several area landowners and conducted a field review of the Manston Township project. He also discussed the Board's work to revise their tiling regulations as part of their Rules revision. Albright also noted that the BRRWD should consider a future redetermination of benefits for C.D. No. 13 and 13-Lateral where we would combine the two systems.

Albright read a letter from downstream landowner Terry Czichotzki, who couldn't attend tonight's hearing. Czichotzki's concern was that we have not yet seen if the Manston Slough Restoration project and C.D. No. 13 can handle a heavy rain event. He noted that after the 3" rainfall last week, water was up 2' on the dike the BRRWD built for his farmstead last year. Czichotzki also noted his concerns about adding more water

to C.D. No. 13 when breakouts from the South Branch of the Buffalo River also add water to that ditch system. He also pointed out that the tile pumps would need to be shut down during downstream flooding and questioned why subsurface water from Norman's tiling should drain to C.D. No. 13 and 13-Lateral, when the natural overland drainage for this property is to C.D. No. 44.

Shawn Norman explained the reason they designed the tile project to drain to C.D. No. 13/13-Lateral and eventually the Manston Slough project was that C.D. No. 44 and the South Branch of the Buffalo River are a "mess" and they wanted to avoid controversy. This drainage route cost him more money to install. He used this route to be a "good neighbor" by keeping the additional water out of the C.D. No. 44 system and the South Branch, but all it's caused is more controversy with his neighbors.

Joe Wulfekuhle thought Norman should have drained his tile water to C.D. No. 44, as assessed. Norman stated that when he was planning this project, he talked to Albright about routing the subsurface water to the Manston Slough and the C.D. No. 13 system, to avoid adding to existing problems on C.D. No. 44.

Wulfekuhle discussed his concerns about how the Manston Slough project will operate when we get a high water or snow event that will test it. He asked what the status of the permit was, and Albright stated that the permit application has been tabled since February 12, 2018.

John Thompson commented that all of the water from this area ends up in Section 9, Alliance Township, Clay County. He pointed out that nothing has been done to address drainage on the downstream end of the South Branch of the Buffalo River. Albright commented that if a project is developed for the South Branch in Wilkin County, retention would have to be a part of the design to address increased flows downstream. He mentioned that the potential projects the BRRWD is considering for the waterways west of Barnesville could go a long way in addressing those downstream concerns, including Section 9, Alliance Township.

Wulfekuhle asked who the tiling contractor was. Norman said it was AgTech Drainage. He asked if the permit application for this project had required downstream landowner notification forms. Albright explained how the BRRWD determines when to require notification forms. If water runs directly adjacent to a neighboring landowner's property, we usually send out the form to record their comments/concerns. Wulfekuhle commented that if a landowner is assessed to a ditch system, they have the right to use the ditch as a project outlet.

Jeff Nord asked if there is a cap on how much a parcel of land can be taxed since some land is assessed to ditch systems for both drainage and protection. Albright noted that the Viewers attempt to keep the assessments fair. Nord also discussed the way the benefits were assessed for Wilkin C.D. No. 22. He felt that water retention sites should be selected according to soil types and potential downstream seepage. He feels the Manston Slough is causing seepage on his property northwest of the project (Section 2, Mitchell Township). Albright noted that Nord had these concerns when we were developing the Manston project.

Wulfekuhle asked about the 30" dia. outlet culvert for Norman's tile project, and if he plans to add future tiled land to this outlet. He said Norman's tile project is finished, and he didn't expect him to remove his tiling, but he's concerned about adding more water from future projects. Norman said that they have another quarter and 80 acres that are assessed to C.D. No. 13 that could be tiled in the future and drain through the 30" dia. culvert. He explained the drainage design coefficient required a larger culvert because the area is so flat.

Albright commented that he worked with Norman on the tile design. He agreed that it would have been preferable for all the neighboring landowners to have a chance to comment on the project before it was constructed, but he honestly didn't think the proposal was going to be controversial.

Wulfekuhle commented that the C.D. No. 13/13-Lateral repair was not completed on the Thompson property, which is impacting the ditch's performance. Albright noted that the Thompsons have been working with the BRRWD about their repair project concerns. Hopefully, we can finish cleaning in Section 36, Deerhorn Township, in July 2018.

Jeff Nord commented that the companies that installed his tiling projects wouldn't start the work until he had all his permits in place. He wanted to know how the Normans got their project installed without the necessary permits.

Manager Anderson commented that once the Board has completed their Rules revision, we will have a process to follow, which will address permitting and contractor accountability. Albright discussed future methods to control tile operations following downstream flooding, including Drainage Water Management (DWM) practices.

Kurt Krueger commented on the operation procedures for the Manston Slough project. Albright explained that project management is contingent on the agency partners and the management plan. Jones noted that the project design was a compromise, so that all the partners got some things they wanted. The group discussed the elevation of the emergency spillway (974.0), and the 100-year flow elevation (973.75).

Wulfekuhle commented that Norman's current tiling project isn't going to be a problem, but he will be concerned if this is just the start of a larger plan to drain many more acres of land into the Manston Slough project. He doesn't want the Manston Slough to become the outlet for all the area tiling projects. Wulfekuhle said as long as the water is assessed to C.D. Nos. 13 and 13-Lateral, he would not complain about any of Norman's future tiling projects.

Albright discussed the condition of Whiskey Creek near Kent and Wulfekuhle's attempts to petition to drain to that waterway. Jones noted that with the recent survey and engineering plans, we now have a "road map" to move forward with a future restoration project for this waterway. Jones thought the process would be similar to Wolverton Creek.

President Leitch asked if there was any further testimony to come before the Board. There being none, the hearing was adjourned at 8:40 PM. He noted the Board would be considering the Orders for these requests at the 7/9/18 BRRWD meeting.

Respectfully Submitted by

Bruce E. Albright, BRRWD Administrator