

BUFFALO-RED RIVER WATERSHED DISTRICT

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MEDIATION PROJECT TEAM MINUTES

April 7, 2016

The Buffalo-Red River Watershed District (BRRWD) Mediation Project Team (PT) held a meeting on Thursday, April 7, 2016, at 1:30 PM at the BRRWD office, Barnesville, MN.

Attending were: Gerald L. Van Amburg, Peter V. Fjestad, John E. Hanson and Mark T. Anderson, BRRWD Managers; Bruce E. Albright, BRRWD Administrator, Erik Jones, Engineer, and Thomas Eskro, Engineer, Houston Engineering, Inc. (HEI); Don Schultz, Area Wildlife Manager, Minnesota Department of Natural Resources (DNR); Shawn May, United States Fish and Wildlife Services (USFWS) and Detroit Lakes Wetland Management District (WMD); Lynn Foss, Clay Soil and Water Conservation District (SWCD); Rodger T. Hemphill, Area Hydrologist, DNR; Nicholas Brown, DNR Wildlife; Pete Waller, Board Conservationist, Minnesota Board of Water and Soil Resources (BWSR); Ross Aigner, Landowner/Wilkin SWCD; Julie Aadland, Area Hydrologist, DNR; Keith Weston, Red River Basin Coordinator/Natural Resources Conservation Service (NRCS); Mike Oehler, DNR Wildlife, Fergus Falls; Amanda Hillman, Restoration Coordinator, DNR; and Anthony Nelson, Pheasants Forever (PF) and Clay SWCD.

Absent were: Troy E. Larson, Breanna L. Kobiela, and Cathy L. Affield, BRRWD Managers; Larry Martin, USFWS and Fergus Falls WMD; Edward J. Musielewicz, District Conservationist, NRCS; Peter Mead, Becker SWCD; Robert A. Zimmerman, Engineer, City of Moorhead; Henry Van Offelen, Red River Basin Coordinator, DNR; Ryan Frohling, Detroit Lakes USFWS and WMD; Audubon Dakota; Brian Dwight, Board Conservationist, BWSR; Craig O. Evans, PM-D, Army Corps of Engineers (COE); Keith Mykleseth, Assistant Regional Manager, Division of Ecological and Water Resources, DNR; Larry Puchalski, Project Manager, COE; Josh Kavanagh, Biologist, Ducks Unlimited (DU); Don Bajumpaa, District Manager, Wilkin County SWCD; Mandy Erickson, Fisheries, DNR; Brian Winter, Program Director, The Nature Conservancy (TNC); and Tara Mercil, Minnesota Pollution Control Agency (MPCA).

Bruce Albright, BRRWD Administrator, called the meeting to order at 1:30 PM. Group introductions were made, and Albright noted that the meeting was being recorded to aid in the preparation of minutes. He circulated a sign-up sheet to record attendance. He also noted that as of 04/05/16, Tara Mercil, MPCA, has taken a leave of absence to stay at home with her new daughter. In the future, we will be working with Jim Courneya or Jim Ziegler, MPCA.

Business brought before the group included:

Meeting Minutes. Draft minutes for the 01/28/16 Mediation PT meeting were distributed with the meeting notice. **Motion** by Anderson to approve the minutes. **Seconded** by Foss. **Approved.**

DNR Culvert Inventory: Albright announced that the Minnesota DNR is completing a stream crossing inventory and barrier ranking guidelines for the BRRWD. Amanda Hillman, DNR, explained that they started a culvert inventory pilot study in Root River watershed in 2013. They are now beginning a second study within the BRRWD and are in the process of developing a procedure/protocol to carry out this study. The DNR began this study in an effort to obtain a statewide culvert inventory since one does not currently exist. Hillman distributed a draft copy of the inventory and ranking guidelines to be used for the culverts throughout the BRRWD. Hillman stated a culvert inventory would help with decision making during project design and development.

Hillman discussed the impacts that culverts can have on Minnesota's water systems. They can affect the connectivity of water systems and act as a barrier during fish migration and transport. Culverts can also negatively impact the hydrology by altering flow regimes, velocity, and depth. Biologically, culverts threaten the population diversity by altering composition of invertebrate communities, and separating the genetic fish population. Hillman stated that culverts also affect the water quality by increasing the turbidity due to more erosion. They can also alter water temperatures. Finally, culverts also affect the geomorphology, or the strength, stability, and composition of the streambed.

Hillman explained the Barrier Ranking categories as follows:

Ranking	Degree of Barrier	Parameters Characterizing Barrier Type
1	Complete	>2.0' perched (Aadland, personal communications, September 9, 2014)
2	Significant	0.05'-2.0' perched (WDFW 2000, USFS et al. 2011) <0.8 sizing width ratio (constricted) Not countersunk and one or both: <ul style="list-style-type: none"> • Water/Culvert Slope >1% (WDFW 200) • Headloss of >1.0'
3	Partial/Seasonal	Water depth <0.2' (USFS et al. 2011) Upstream pool or evidence of backwatering (USFS et al. 2011, Verry 2011) Downstream scour pool (USFS et al. 2011) >2.0 sizing width ratio (overwide)
4	Passable	No parameters exceed set limits
5	Dry	No data collected at dry crossings

Hillman stated that the DNR is focusing on the complete and significant barriers first. While referring to a map displayed on the overhead screens, Hillman noted there was only one Level 1/Complete barrier in the north east corner of the Watershed District and 37 Level 2/Significant barriers throughout. She listed the criteria used to determine the top 10 priority sites within the BRRWD: degree of barrier, miles to be reconnected upstream, contributing area of the upstream watershed, quality of habitat being reconnected, and impacts to stream stability. Jones stated that Site Identification No. 14-0067 was fixed in November/December 2015 to allow fish passage. He also thought the County installed or has plans to install a third culvert at Site Identification No. 14-0100. The group discussed in more detail options/solutions for some of these high priority sites.

Manager Anderson questioned what the DNR's first goal would be to work on. Hillman said this was still to be determined. Albright stated that there is more than one way to address certain problems, if the issue is connectivity/fish passage, etc. He noted that removing a dam like Stinking Lake is not likely, so the next step would be to find ways to modify the structure to allow fish passage for as many days out of the year as possible.

Julie Aadland, DNR, questioned if the BRRWD had an inventory of culverts within the District. Jones stated that we do not. Albright informed Hillman that the BRRWD would be willing to continue to cooperate with her on this project. By working together, we might be able to modify the priority list, to see which sites might be the easiest/least expensive to address.

Barnesville Township Area Drainage Study. Thomas Eskro, HEI, stated the overall project includes approximately 70 square miles (sq. mi.) of drainage area to Whisky Creek. The project goals are to provide flood damage reduction (fdr) and natural resource enhancement (nre) benefits. The project component plan features include channel restoration along the unnamed tributary to Whisky Creek, setback levees along the Clay County Ditch (C.D.) No. 34 portion of Whisky Creek, and an impoundment structure with approximately 7,000 acre-feet (ac.-ft.) of storage.

Eskro noted that they continue to work with Magellan Midstream LP and NuStar Energy, LP regarding some pipeline depth issues within the proposed project area. Eskro reported that a conference call was held on 01/29/16 with Magellan to discuss the depth of their pipelines. He felt the call went well, with only a few concerns needing to be addressed, such as the depth of the pipeline cover under/through Clay C.D. No. 34. Magellan said it would be possible to lower the pipeline, however, it would be expensive to do. Eskro stated that Magellan has a process to follow when determining whether or not to lower a pipeline. Jones explained that a Magellan representative would need to review the pipeline and write a recommendation to lower it. Eskro noted a second option would be to work with the Minnesota Office of Pipeline Safety.

Eskro explained they are still considering alternative alignments for the impoundment location. He explained that landowner Frank Schindler was concerned the retention site would impede drainage from his land, since the water would need to flow through the site and then into a natural waterway. Eskro stated an alternative alignment would require moving the south embankment back to include additional drainage area, which would include most of Schindler's land. Eskro stated some benefits of this alignment are that there would be approximately 1,000' less of embankment and an additional 1,000 ac.-ft of gated storage. He also noted that there would be an extra mile and a half of drainage area included from the South Tributary which is beneficial for this watershed. The negative aspects include an increased cost for flowage easements due to a larger pool area and that Schindler's building site would need to be bought out or protected by a ring dike. Jones noted that the model is based off of a 4.4" runoff event, which is probably a much larger pool than what is needed. Albright commented that Schindler might not be opposed to a buyout.

While referring to a map displayed overhead, Eskro described two scenarios for the placement of the inlet diversion. The first option would be along the upstream side of County Road (C.R.) No. 56, bringing water south and then west into the site. Eskro explained drawbacks to this route include the channel length, and that it would cut off entrances into the north side of Section 26, Barnesville Township. A second option would be to stay on the south side of C.R. No. 2. The water would flow overland into the site without needing to add extra crossings, since no roads exist between Sections 26 and 27, Barnesville Township. The second option would create a much longer ditch, but hopefully smaller ditch because the fall into the site is greater.

VanAmburg asked if there is a cost analysis for the option that reduces the embankment length. Eskro stated that he does not have any estimates calculated yet. Jones explained that we need to consider the amount of water that can get into the site under various flood conditions for each option and optimize the design for the most effective storage.

Shawn May, USFWS, commented that there is a prairie bank in the southeast corner of Section 27, Barnesville Township. He also noted that there is Wetland Reserve Program (WRP) land in Section 4, Barnesville Township, but he thought the impoundment site is west of this.

Jones discussed options for how the BRRWD could acquire the rights for projects similar to this. He explained that the BRRWD is considering the use of Reinvest in Minnesota (RIM) rates to establish land easement values. However, some projects, such as the Stony Creek Comprehensive Project, can have a large variance in productive and non-productive lands. Another option to consider is appraised land values. Jones explained that the BRRWD met with the NRCS yesterday, about the Agricultural Land Easements (ALE), which is part of the current Farm Bill Program. This type of easement ensures the land will remain in agricultural use such as pasture land, hay land, or row crops. In order to be eligible for ALE, the BRRWD would need to become ALE qualified. NRCS may contribute up to 50% of the cost for qualified land. The remaining 50% would have to be raised by the sponsoring entity, which would most likely be the BRRWD. These easements are permanent, but would be held by the sponsoring agency. Jones commented

that the ALE has mainly been used in Dakota County to maintain/preserve green space within rapidly urbanizing, non-residential areas.

Schultz questioned if the ALE prohibits housing on this land. Jones stated the only requirement is that the land remains in agricultural production. It cannot be converted to non-agricultural use. Van Amburg commented that it is a program to protect agricultural sustainability.

South Branch of the Buffalo River. Eskro displayed a project concept map overhead while discussing the project. He stated a few project concepts include an impoundment site to store water for flood and recreation benefits. Other project concepts would include stream restoration along a section of the South Branch with set-back levees on the west side to contain flood flows.

Eskro noted that Ross Aigner, landowner/Wilkin SWCD, had suggested at the 12/10/15 PT meeting, that the BRRWD exhaust our research/options east of Trunk Highway (T.H.) No. 9 before approaching landowners west of T.H. No. 9 to install project features. Aigner felt there could be downstream benefits to potentially diverting water back into the historic river channel which still exists on most of the landscape today. Eskro stated that HEI has finished evaluating this possibility and the impact this could have on the proposed impoundment site west of T.H. No. 9.

Eskro explained that the primary area of interest is between the Wetland Management Area (WMA) and where the South Branch begins, which is at the point where Wilkin C.D. No. 44, Lateral B joins with Wilkin C.D. No. 44, Lateral A and exits into the South Branch. Eskro noted there is a large amount of fall across the analysis area (approximately 100') from C.R. No. 15 to the confluence. Eskro explained that there are three different systems/routes within this drainage area. Wilkin C.D. No. 44, Lateral A collects all the flows on the east side of the county road, a middle section that is likely the old remnants of the historic South Branch, and Wilkin C.D. No. 44, Lateral B that originates near the County Road and catches some drainage on the north and south sides. Eskro reported that approximately two-thirds of the local drainage at the South Branch is from Lateral A, one-sixth from the middle section, and one-sixth from Lateral B.

Eskro discussed the conservation easements within the proposed project area. He noted that the area includes DNR lands, 2007 Conservation Reserve Program (CRP) lands in which the 2015 aerial images reflect that some of this land is likely back into production, and 2008 WRP easements that were placed on the W1/2, Section 7, Manston Township, and E1/2, Section 12, Manston Township. Eskro continued to describe the potential flow of water that would stretch across Section 11, Manston Township. This is where the main channel restoration would begin.

With a project concept map displayed overhead, Eskro described in great detail three areas to potentially downsize culverts, and the affect this would have on downstream hydrographs. One concept would require reducing the 54" diameter (dia.) pipe in Wilkin C.D. No. 44, Lateral B, which currently carries water through the ridge between Sections 10 and 11, Manston Township. The second concept evaluated the flows through the first crossing past C.R. No. 52. The 36" dia. culvert currently cannot handle the large amount of water and begins to back water into the natural drainageway. Eskro said they evaluated the affects an even smaller culvert would have on area flows. The third location is along C.R. No. 15 and would require the 72" dia. culvert be downsized. Eskro explained the results showed a 4% peak flow reduction at the confluence of Laterals A and B, for the 2 and 5-year flood events. However, there was very little impact for the 10, 25, or 100-year events. He said this is because the water is already flowing into the overland paths under current conditions, due to the existing small culvert sizes along Lateral A. Aadland questioned if the results were the same for all three concepts. Eskro confirmed they were all the same. Eskro stated they also considered the amount of natural storage with each concept and found the natural storage is only approximately 4% of what the impoundment site would be capable of holding.

Van Amburg asked about the project status. Jones stated that HEI has evaluated the area upstream of T.H. No. 9 and found there is very limited storage potential by directing the water back into the historic channel. Albright commented that even though there is limited storage there might be greater potential for nre benefits. Jones noted that there is some fdr benefit, but it is not as large as originally thought prior to the evaluation.

Stony Creek Comprehensive Project. Jones reported that they are attempting to schedule a conference call or an online meeting with Minnesota DNR Dam Safety to discuss the details of the breach analysis. He stated an online meeting would be ideal to ensure that Dam Safety is interpreting the information correctly. The project can move forward once a resolution concerning the dam classification has been reached.

WRP/Wetlands Reserve Enhancement (WRE). Jones informed the group that the BRRWD met with the NRCS concerning the fdr potential of the Hovland WRE site. He said one issue with this site is that there is a large amount of fall across the site, and it could not store a lot of water without high embankments. However, the types of soils on this site are questionable as to whether or not decent dike materials could be found. Jones explained that due to the limited fdr potential of this site, the NRCS would design a more typical WRP restoration. Jones briefly explained what this might entail.

Georgetown Levee. Jones reported that we are still working to finalize one last buyout. There will be some seeding and cleanup work to complete this spring.

COE F-M Diversion Authority. Jones noted that the BRRWD has been asked to be members of the revised Joint Powers Agreement (JPA). He stated that we are still working out the details regarding the Watershed Districts responsibilities in this respect. He explained that one of these responsibilities might include acquiring lands for project features in Minnesota (dam and flowage easements). The BRRWD Board still has questions regarding their role in the overall process. Although everyone pretty much agrees that if we are not part of the JPA, there is no way we can influence the project design or represent our constituents in the process.

Total Maximum Daily Load (TMDL)/Watershed Restoration and Protection Strategy (WRAPS). Jones reiterated to the group that Tera Mercil, MPCA, is taking leave for a couple years. The MPCA informed us that the TMDL/WRAPS are still moving forward. Jones stated one unfortunate aspect that the TMDL/WRAPS are not completed yet is that there are opportunities for funding right now.

Lower Otter Tail River Restoration (LOTR). Jones stated that the BRRWD is working to acquire the landowner survey permission forms. He explained they plan to begin surveying at Orwell dam. He said the channel geometry would be compared to the historic geometry from 1952, when the COE channelized a stretch of the LOTR. They will also evaluate changes that have occurred in the hydraulics since the COE's project was completed. While referring to a map displayed on the overhead screens, Jones explained that restoration strategies to be developed, which most likely be within the straightened portion of the LOTR.

Jones stated the SWCD received funding to complete a project on an outside bend of the LOTR, referred to as the Karlo Etten site. Jones and Ted Rud, Engineer, HEI, will be meeting with Don Bajumpaa, Wilkin County SWCD, on Monday to go over details. He also noted that they would be submitting a DNR permit application in the near future for this project. Jones explained that funding was also received for retrofitting the last two ditch systems, Wilkin C.D. Nos. 7 and 4, which empty directly into the Otter Tail River. Once completed, all the county ditch systems contributing to the Otter Tail River will have the required 16.5' one-rod grassed bufferstrip and side inlet sediment control structures installed.

Whiskey Creek Enhancement: Jones stated they are acquiring information regarding the location of the 2, 5, and 10-year floodplains. They would prefer to base the placement of the buffers on a 10-year level of

flood protection. Jones estimated that the upstream survey work would begin within the next week or two. Albright noted that the channel is farmed upstream of T.H. No. 9. Someone questioned what the full length of the project was. Jones stated it is approximately 18 miles. He commented that a repair stretch was completed last fall, which started at T.H. No. 9 and extended downstream approximately one mile, across Section 14, Connelly Township. Jones noted that we did acquire easements to establish the mandatory 50' grass bufferstrip within this section, but we did not analyze the 2, 5, and 10-year floodplain for this stretch. Jones commented that might change with this new project. He stated any waterways entering Whiskey Creek within this stretch also had side inlets installed.

Revised Watershed Management Plan (RWMP)/Watershed District Enlargement (WDE). Jones stated that the next steps would be to hold the Citizen Advisory Committee (CAC) and Technical Advisory Committee (TAC) meetings for a final review. Then, a 60-day review period would begin. Jones hopes that the draft RWMP would be finished in the next couple months.

Activities Update. Albright distributed a copy of the 03/14/16 BRRWD press release. He noted that there was a discussion on the first page regarding work accomplished by the City of Moorhead, which has provided fdr for the City.

Landowner Forums: Jones explained that the BRRWD held a series of three meetings to discuss fdr projects with area landowners. At the meetings, Jones had presented an overview of past BRRWD projects, how these projects changed with the Mediation Agreement, and the importance of more comprehensive projects. Jones also stated that they discussed project funding with landowners and the different options the BRRWD has used to raise funds to apply to the local cost share. One funding possibility included re-joining the Red River Watershed Management Board (RRWMB), and how that might affect local landowners and their taxation.

Minnesota Conservation Reserve Enhancement Program (CREP): Albright circulated an informational handout about Minnesota CREP that he received from Aigner. Pete Waller, BWSR, noted that the payment to the landowner would include funds from both CRP and RIM, but that the amount is unknown at this time.

BRRWD Rules: Jones reported that the BRRWD is in the process of updating their Rules. He commented that they are working to develop a process to notify landowners when to stop their drain tiles and encourage conservation drainage. He noted that other Watershed Districts are already doing something similar via their websites.

Next Meeting. The next BRRWD Meditation PT meeting is tentatively scheduled for Thursday, June 16, 2016, at 7:00 PM, in the Barnesville office.

Adjournment. There being no further business to come before the group, Albright adjourned the meeting at 4:19 PM.

Respectfully Prepared and Submitted by

Bruce E. Albright, BRRWD Administrator