

BUFFALO-RED RIVER WATERSHED DISTRICT

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MEDIATION PROJECT TEAM MINUTES May 7, 2015

The Buffalo-Red River Watershed District (BRRWD) Mediation Project Team (PT) held a meeting on Thursday, May 7, 2015, at 7:00 PM at the BRRWD office, Barnesville, MN.

Attending were: Gerald L. Van Amburg and Mark T. Anderson, BRRWD Managers; Bruce E. Albright, BRRWD Administrator, Erik Jones, Engineer, Ted Rud, Engineer, and Thomas Eskro, Engineer, Houston Engineering, Inc. (HEI); Rodger T. Hemphill, Area Hydrologist, Minnesota Department of Natural Resources (DNR); Pete Waller, Board Conservationist, Minnesota Board of Water and Soil Resources (BWSR); Brian Winter, Program Director, The Nature Conservancy (TNC); Shawn May, United States Fish and Wildlife Service (USFWS) and Detroit Lakes Wetland Management District (WMD); Tara Mercil, Minnesota Pollution Control Agency (MPCA); Don Schultz, Area Wildlife Manager, DNR; Robert A. Zimmerman, Engineer, City of Moorhead; Lynn Foss, Clay Soil and Water Conservation District (SWCD); and landowners: Jim Haick, Sherwood Peterson, and John Peterson.

Members absent were: Peter V. Fjestad, Troy E. Larson, Breanna L. Kobiela, and Cathy L. Affield, BRRWD Managers; Larry Martin, USFWS, Fergus Falls WMD; Mandy Erickson, Fisheries, DNR; Alice Klink, State Wetland Restoration Biologist, Natural Resources Conservation Service (NRCS); Edward J. Musielewicz, District Conservationist, Becker NRCS; Anthony Nelson, Pheasants Forever (PF) and Clay SWCD; Ross Aigner, Landowner/Wilkin SWCD; Mike Oehler, DNR Wildlife, Fergus Falls; Julie Aadland, Area Hydrologist, DNR; Keith Weston, Red River Retention Authority (RRRA)/NRCS; 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); Kevin Kassenborg, District Manager, Clay SWCD; Keith Mykleseth, Assistant Regional Manager, Division of Ecological and Water Resources, DNR; Larry Puchalski, Project Manager, COE; Emily Siira, Area Hydrologist, DNR; Josh Kavanagh, Biologist, Ducks Unlimited (DU); and Don Bajumpaa, District Manager, Wilkin County SWCD.

Bruce Albright, BRRWD Administrator, called the meeting to order at 7:00 PM. Introductions were made. A signup sheet was passed to record attendance. Albright gave a brief explanation of the Mediation Process.

Business brought before the group included:

Meeting Minutes. Draft minutes for the 03/19/15 Mediation PT meeting were distributed with today's meeting materials. **Motion** by Anderson to approve the minutes. **Seconded** by Zimmerman. **Approved.**

Barnesville Township Area Drainage Study. Albright explained that the Mediation Agreement emphasizes the need for both flood damage reduction (fdr) and natural resource enhancement (nre). The Barnesville Township Study at this time primarily focuses on fdr features. The group reviewed a map of the area under study, located southwest of the City of Barnesville, ultimately draining into Whisky Creek. There have been numerous problems with the waterway for several decades. A portion of Whisky Creek in Barnesville Township was channelized back in the early 1900s (Clay County Ditch (C.D.) No. 34). The Barnesville Township Tributary to Whisky Creek is DNR protected waters up to the line of Sections 32 and

33, Barnesville Township. The BRRWD has held several landowner informational meetings over the past two years, and the landowners' consensus was to continue project development. An acceleration grant application was submitted to the Red River Basin Flood Damage Reduction Work Group (RRBFDRWG), which was approved in September 2014 for \$10,000 to help finance the survey to move the project development forward. The field survey work included Whisky Creek from its confluence with the South Branch of the Buffalo River in Section 9, Alliance Township, upstream through Section 21, Barnesville Township, and the Barnesville Township Tributary that joins Whisky Creek (South Tributary) near the line of Sections 10 and 15, Alliance Township, and proceeds upstream for approximately seven miles ending in Section 33, Barnesville Township. Another landowner informational meeting has been scheduled for May 28, 2015.

Thomas Eskro, HEI, discussed the Points of Concurrence, which are project development steps put forward by the COE in their permitting structure. Point No. 1 is to establish the project purpose and need. Point No. 2 is to review possible solutions/measures to address the fdr concerns. Eskro referred to the map, which was distributed earlier, showing the Whisky Creek drainage area. He noted that the project lies west of Barnesville, along a relatively narrow drainage area on Whisky Creek and the south tributary (unnamed).

Jones explained that this draft report follows the COE's Concurrence Points, and he invited the agency personnel to comment. Albright distributed a handout of the COE's Concurrence Points, which were developed by Brian Dwight, BWSR, and Mark Deutschman, HEI, in conjunction with the COE in an attempt to develop a template to streamline the COE's permitting process, in the event a COE permit is required for a project. He explained the background of the Concurrence Points and discussed each one briefly: 1. Demonstration of need and project purpose. 2. Range of alternatives, subject to the Detailed Analysis. 3. Identification of the preferred alternative. 4. File application and address any required mitigation.

Eskro continued his review of the maps, which show recurrent year flood damage locations, and problem locations that landowners have identified on Whisky Creek and the south tributary. These problem areas were verified when HEI conducted their field elevation survey, which determined that there is about 3' of sediment in portions of south tributary in Clay County. Eskro noted that Whisky Creek is listed as impaired waters for turbidity and E. coli. Sedimentation and erosion contributes to the stream degradation and impairment. He explained that there are both nre and fdr concerns that would lead to the need for a project for this waterway. Technical Paper (TP) No. 11 outlines all the various fdr strategies and the efficacy of particular measures to address problem areas within the BRRWD and the Red River Basin, based on contribution timing in the flood flow hydrograph. Jones noted that Whisky Creek is in the middle contribution zone for both the Buffalo River and the Red River, which means that this waterway contributes to the peak flood for both rivers. Eskro listed the project goals regarding Concurrence Point No. 1: to provide 100-year level of protection to farmsteads and 10-year protection to agricultural land. Albright explained these goals are in line with the 1998 Mediation Agreement. Eskro added that the BRRWD's Revised Watershed Management Plan (RWMP) lists storage goals for the Whisky Creek area as being between 8,000-9,000 acre-feet and peak flow reduction by 34% on the 10-year event and 22% for the 100-year event. HEI is also using nre improvement goals to identify the best strategies/measures to address the area problems.

Eskro discussed various secondary and primary measures that have been reviewed and ranked by color coding on the map. The primary measures that ranked the highest in terms of increasing the temporary flood storage and decreasing the peak flow hydrograph would be the installation of gated or ungated impoundments west of Barnesville and south of Clay C.D. No. 34/Whisky Creek, plus setting back the existing levies along C.D. No. 34 and restoring the south tributary channel to remove sediment, expanding the bufferstrips, and installing side inlet controls. Jones noted they reviewed the National Wetland Inventory (NWI) and determined there are approximately 600 acres of drained wetlands in the area. He

commented that restoring these areas wouldn't provide significant storage to reach our fdr/storage goals. HEI also used the Stream Power Index to identify 140 locations within the project area where inlet pipes could be installed. HEI calculated preliminary inlet sizing to control restrict future sediment from coming into the waterways, which will reduce maintenance. Jones noted that they used existing tools, such as LiDAR, survey information, existing GIS information, etc. to screen the various strategies to develop the proposed project design. Albright distributed a summary of the TP No. 11 for the group's review. He explained that the project goal is not to increase downstream flows, but to offset increased downstream flows with some other means that create no downstream impacts. Jones displayed a map showing channel capacities along the Whisky Creek channel. Albright commented that there is about 800-1,000 acres of native grassland on former BRRWD Manager Roger Ellefson's property in the project area, which he uses for pasture. One of the project goals should to find a way to protect these areas.

Albright discussed a proposal to construct a storage site east of Barnesville on Whisky Creek, which was abandoned because it included what was considered to be a "high hazard" dam. The group also discussed other alternatives in the upstream reaches of Whisky Creek drainage area. Jones discussed criteria they utilized to identify possible impoundment sites. Brian Winter, TNC, asked about identifying storage areas on the map. Jones explained that it appears that it would be more economical and easier maintenance to create one larger impoundment site rather than several smaller sites. There was an extended discussion about alternative plans/past project proposals, setback levee locations, existing channel configurations (meanders), etc. Jones noted that the next step would be to meet with the landowners to share the survey results and get their feedback.

Wetlands Reserve Program (WRP)/Wetlands Reserve Enhancement (WRE). Albright explained that NRCS is still working out the details for implementing the Regional Conservation Partnership Program (RCPP) funding (\$50 million) provided in the New Farm Bill. The BRRWD has two projects that could be eligible for NRCS funding include the Haick/Peppel WRP site and the South Reep Lake WRP site.

The BRRWD held a landowner informational meeting last year for the Haick/Peppel WRP to review a concept using the existing wetland easement. Another meeting will be held on 05/18/15 to bring the landowners back in to discuss the status of the project development. Ted Rud, HEI, updated the group on the survey results. Mark Aanenson, HEI, conducted hand soil borings to determine soil conditions. There were a few spots with good clay that would be conducive for holding water. Rud explained there will be wetland impacts in a few areas, and we have to determine if the site would be self-mitigating. Jones explained there is about 200 acres on the east side of Trunk Highway (T.H.) No. 9 that was cut off from the rest of the drainage area. The plan could include restoring the site hydrology through the use of ditch plugs to force the water through T.H. No. 9, and with ditches, drain the water back into the original wetland to try to restore the natural area hydrology. Jones noted that the site encompasses about 600 acres. He described the possible project alignment, including a two-stage riser with a 15" dia. outlet pipe through the embankment with a small ditch that would take the water to the South Branch of the Buffalo River. Jones explained that the first step is to hold another landowner meeting, and then the inlet channel alignment needs to be determined with landowner input. The final issue is to determine if the 30.4 acres of Permanent Wetland Preserve (PWP) easement in Section 4, Manston Township, can be used for the project. Jones prepared a draft design report that determined that the "bounce" produced by the proposed project would not be significant (18"-24" for the 100-year event) even with the proposed additional watershed draining into it. With the project, the current wetland elevation would be raised 6"-12" to more closely match the historic elevation. The group briefly discussed potential and historic drainage patterns. Jones noted breakouts will still occur with very large events, which will utilize the emergency spillway, located north of the project. The group also discussed the elevation survey results. The embankment would be approximately 5' high with 5:1 side slopes. They also discussed vegetation in the wetland and possible construction features to deter

muskrat activity. Anderson asked if there would be enough clay material to construct the embankment. Jones thought there was enough material onsite.

Jones asked Jim Haick what he would want to know about the project as a landowner. Haick said he would be interested to know if there were plans to address the problems with the South Branch of the Buffalo River channel, so water can get out of the area. Albright noted that discussion about the South Branch of the Buffalo River restoration will come up later on tonight's agenda. Haick also asked how far the water would breakout to the east in the event of a large rainfall event. Jones showed him the water elevations on the map, displayed on the overhead monitors. Anderson asked if the plans called for a larger culvert through T.H. No. 9. Eskro said a larger culvert wouldn't be necessary because the drainage area is small. Jones thought the existing 24" dia. pipe would be adequate. Jones calculated that the impoundment would "bounce" the wetland approximately 15"-18".

There was a question about what type of existing easement is in the area. Waller said it was a PWP, which was set up to protect part of the wetland, but not restore it. Waller noted that this program came out of Wetlands Conservation Act (WCA). He said that the BRRWD will have to submit an inquiry to BWSR to find out if we can store water on the PWP. Albright noted that the office will mail landowners notices in the next few days for the 05/19/15 meeting.

The South Reep Lake Restoration is a drained lake basin, located northwest of Audubon. Becker County NRCS worked with area landowners to obtain perpetual easements for this project. The owners of one of the needed properties weren't interested in the perpetual easement, but were interested in possibly taking a BRRWD storage easement. Becker County is ready to start restoration of some of the basins that are not actually part of South Reep Lake. Albright plans to meet with the landowners one more time to determine whether or not they are interested in the project. Using the overhead monitors, the group reviewed a map of the 20 square miles (sq. mi.) drainage area to the proposed site. Current storage capacity in this area is about 0.75" of runoff. Jones said that the operation plan would need to be based on when flood peaks are expected downstream, using the Hawley and Dilworth stream gauges. Albright observed that this site would be used primarily during spring runoff. He added that the DNR has indicated that our proposed restoration should be acceptable, but since the Lake is protected waters, the COE will also have to approve the proposal in regards to possible wetland impacts.

Pierce Lake is another drained basin on the Becker C.D. No. 15 system within the Hamden Slough National Wildlife Refuge (NWR). The BRRWD investigated this possible restoration in the early 1980s. At that time, there had been some landowner support for a project. Phil Doll, DU/WRP Wetland Specialist, Becker SWCD, revisited the proposal recently, and discussed a possible project with the landowners. Early investigations showed a potential for up to 6,000 acre-feet of storage in the site. Jones noted that it would only require a small embankment to provide significant storage. An operation plan would need to be put in place for this site based on downstream conditions. Albright noted that all the property is private land near the Hamden Slough NWR, which because of its location, could be a very useful multi-purpose site. He added that Pierce Lake is a meandered lake. The BRRWD would like to partner with NRCS and the New Farm bill funding to develop this site, but at this time, NRCS isn't prepared to commit any funding to projects of this nature.

South Branch of the Buffalo River. Albright gave a brief history regarding the development of a proposed project for a four mile reach in the upstream area of the South Branch of the Buffalo River, beginning at T.H. No. 9 and continuing downstream to Wilkin County Road (C.R.) No. 30, which is Phase 1 of a possible restoration project for the upper reaches of the South Branch of the Buffalo River. To avoid

downstream impacts, the project should not increase flows at the Clay/Wilkin County line. With this criterion in mind, the project design requires multiple components. Albright discussed a possible site in Section 11, Manston, which was enrolled in Reinvest In Minnesota (RIM) during our investigation, and because of the BWSR funding source (Lessard-Sams Outdoor Heritage Council (LSOHC)), this site is now no longer available for a BRRWD water storage project. In light of this and other obstacles to project development, Jones and Albright will refocus their efforts to find other options for retention sites in the upstream area, following the same set of project components: channel restoration, setback levees, and retention to offset downstream impacts. One potential storage site is located in Section 10, Manston Township. Haick asked Brian Winter, TNC, if their land in the W½, Section 11, Manston Township, could be used for water storage. Winter explained that the site is designated as State Scientific and Natural Area (SNA) (native prairie), which has the highest protection under state law. It was set aside to preserve the native habitat, and storing water on the site would compromise the plant habitat.

The group briefly discussed a township proposal to remove a culvert in 170th ST, between Sections 3 and 10, Manston Township, abandon Wilkin C.D. No. 44 on the north side of the road, and reclaim the private ditch as part of the outlet for C.D. No. 44. A ditch system hearing is required for this change.

Albright reiterated that he and Jones plan to regroup efforts to find storage site opportunities in the next 2-3 months and by the next PT meeting in July, we should have some revised concepts for review.

Stony Creek Comprehensive Project. A map was distributed to the group showing the current alternatives for this project. There are two sites: A (north pool) and B (south pool). The current design would bring more water west from Clay C.D. No. 31 into Site B via a diversion from Stony Creek between Sections 2 and 11, Barnesville Township. Jones noted that this could require a new culvert in Interstate-94 (I-94). The plan would also include setback levees to help contain the water, designed to allow the channel to meander between the levees. The additional channel survey should be completed next week. Eskro explained the current area flooding issues involving both Clay C.D. No. 31 (Stony Creek) and 17 (Hay Creek). For Site A, one option would be to divert Hay Creek to the south and west, plus restore the historic Hay Creek channel. Jones explained that if a new culvert were installed in I-94 for Site B, the culverts on Stony Creek could be used to help fill the site. Currently, if the Minnesota Department of Transportation (MNDOT) agrees to the proposed new culverts through I-94, Site B could provide all the storage needed to address flows from Stony Creek by building the site south of C.D. No. 31.

Albright suggested that the BRRWD should focus on a project for Stony Creek. The plan could include the channel restoration, the redetermination of benefits, and the construction of Site B (south pool). Jones agreed that the work to the north could be included in a future project.

Jones reported that Terracon, Inc., conducted the geotechnical analysis at 10 locations. They are still working on the soils analysis, and Jones expects to have the results in about a month to determine what it will take to build the embankment in terms of seepage, settlement, etc. Once the results are available, HEI will create a hydraulic model of Stony Creek within the project reach, and then, using this model, they will determine the geometry of the diversion channel to Site B, which will include various elevations to create pools within the project area. Albright explained that the Site B south alternative leaves open a possible option for a future project for Hay Creek. Jones explained that the Site B project encompasses 36 sq. mi. of drainage area.

Van Amburg asked what nre features the project would provide. Jones thought that the main nre features would be the preservation of a corridor for the meandering of the Stony Creek channel and the setback levees on C.D. No. 31 that would provide water quality features by preventing breakout flows carrying sediment to the north into Hay Creek. Jones observed that a project in this area would reduce flooding on

the South Branch of the Buffalo River with the 7,000-8,000 acre-feet of storage. Combining the project with the other BRRWD proposed projects could have a significant effect on downstream flooding.

Albright noted that once HEI's survey and Terracon, Inc.'s soils analysis are completed, Jones will be able to input this data into his design. Jones noted that Terracon commented that the site has soft clays, which can be addressed by overbuilding the embankments to allow for settlement.

Winter asked if any maintenance work was planned for further downstream on Stony Creek at the outlet. Jones said they plan to pick up some survey information to see if anything needs to be done. Albright observed that it's a natural channel with deadfall, beaver dams, etc., from the outlet to Hay Creek. There was a brief discussion about a potential project for Hay Creek. Peterson questioned why Jones didn't include the wetland areas south of Site B. He wondered how the BRRWD could justify placing retention sites on intensively farmed land. Albright explained that the Mediation Agreement doesn't preclude putting retention on farmland with willing owners.

Manston Slough Restoration. Albright reported that a site review was conducted today to put together a punch list for the contractor. The seeding contractor plans to start next week depending on weather conditions. The Manston project is one of three finalists for the Minnesota Environmental Initiatives Award in the Natural Resources category. The winners will be announced at a ceremony on May 21, 2015, in Minneapolis. Albright distributed an article BWSR included in their May Snapshot Newsletter regarding the Manston Slough Restoration project.

Oakport Flood Mitigation. The BRRWD is awaiting the Legislature's decision regarding a 2015 bonding bill that could include the \$5.66 million dollars we need to complete Phase 4. The project is on the DNR's funding list this year with a proposed \$17 million bonding bill. If the bonding bill is approved, the Oakport project could be finished in 2016. At this time, the House of Representatives does not support a bonding bill.

The Audubon Society is working with the BRRWD and the Cities of Fargo and Moorhead to seed buyout areas to native grass. Audubon will be seeding some of the buyout sites (about 40 acres) on the west side of Broadway (C.R. No. 1) between the Red River and C.R. No. 93 (70th AVE NW) yet this year at their expense. They also agreed to maintain the sites for 3 years.

Wolverton Creek/Comstock Coulee. The BRRWD held an informational meeting on 04/02/15 to discuss the NRCS' Environmental Quality Incentives Program (EQIP) funding opportunity, which had a sign-up deadline of 04/17/15. Albright distributed a summary of the meeting. NRCS decided that the project isn't ready for funding. We will do more work to package the project and submit it to other funding sources.

Georgetown Levee. The BRRWD continues to work with one remaining buy-out property. We are having some issues with the lending institutions regarding one house that needs to be demolished for placement of the levee. The BRRWD will use condemnation on the property in order to get the project finished this year. The contractor intends to come back this summer to finish the work and complete the project.

F-M Diversion Authority. Albright explained some of the issues involved with the BRRWD's review of the Diversion Authority's (DA) Fiscal Year (FY) 15 budget of approximately \$210 million dollars. As the only member of the Joint Powers Agreement (JPA) who has not approved the Budget, the BRRWD was under pressure from both the DA and the upstream opposition regarding our vote. In the meantime, the Minnesota Governor and the DNR have made statements that there should be no construction work on the Diversion until the Minnesota Environmental Impact Statement (EIS) is completed, which is expected in

August 2015. There is no official Minnesota opposition to levee work within the City of Fargo, or hardship case buyouts. The BRRWD did approve \$1.5 million in the DA budget to help fund the DNR's EIS.

Total Maximum Daily Load (TMDL)/Watershed Restoration and Protection Strategy (WRAPS).

Albright noted that the MPCA's contract for the Buffalo River TMDL/WRAPS Studies with BRRWD ended on 12/31/14. MPCA has published the Study in the State Register for comments. They received two minor comments. Public informational meetings will be scheduled to present the studies. The information will be included in our Revised Watershed Management Plan (RWMP) for the new Watershed District area.

The Upper Red River TMDL project is scheduled to be completed by 06/30/16.

Project No. 9, Buffalo River Detention-Donnelly Site No. 1. The USFWS has purchased some of the former project site from the Donnelly family, and is interested in working with the BRRWD on a restoration project for the Buffalo River.

RWMP. The BRRWD met with BWSR to request a revised deadline to complete our RWMP. They agreed to extend our deadline to 09/09/15. A Technical Advisory Committee (TAC) meeting is scheduled for 05/12/15 at 1:00 PM at the BRRWD office. Jones distributed maps showing the two new planning regions. He included input from the informational meeting held earlier this year where landowners were asked to identify problem areas. Albright noted that DNR Fisheries in Fergus Falls has been considering a potential project to restore parts of the Otter Tail River from Orwell Dam downstream to the Red River, including the River within the City of Breckenridge. HEI has developed some maps regarding this proposal. Parts of the channel were straightened by the COE back in 1952. The BRRWD plans to submit a 319 Grant application for funding for a survey study to develop this project, which would provide 55% of the project expenses. The Board of Managers will have to decide if they want to provide the local 45% match. Albright observed that this will be large project. The deadline to submit the 319 grant application is 05/22/15.

International Water Institute (IWI). Albright distributed information that Chuck Fritz, IWI, provided to the Board on 4/27/15, regarding a new application, using their LiDAR data, called the Prioritized Target and Measure Application. Fritz also discussed the IWI's Briefing Paper No. 3, which deals with Water Management Options for Surface Drainage. This Paper ties in with Briefing Papers No. 1 and 2, which dealt with subsurface (tiling) drainage.

Activities Update. Albright distributed a copy of the 04/27/15 BRRWD press release.

RRBFDRWG Meeting. The RRBFDRWG held a meeting on 04/29/15 in Detroit Lakes. Albright distributed draft minutes from that meeting for the PT's review.

RRWMB. Albright distributed position papers published by the Red River Watershed Management Board (RRWMB). The first was titled "The Importance of Multi-Purposed Flood Damage Reduction Efforts in Northwestern Minnesota". The second paper discussed "Reducing Ditch System Maintenance Costs in the Red River Basin of the North", and the third addressed "Drainage Permitting and Management in the Minnesota Red River Basin".

Albright reported that Ron Harnack, RRWMB, forwarded information regarding possible bufferstrip legislation for this Legislative session. Albright explained that the new rendition of the bill would require 16.5' bufferstrip installations on all legal drainage systems to be completed by 2025. Public waters would have to have the required 50' buffers installed by 2022. BWSR would be in charge of tracking the progress. Winter commented that 50' buffers might not even be enough on some ditches given the severity of the

wind erosion this spring. Van Amburg agreed that some waterways need wider buffers to address water quality concerns.

Next Meeting. The next BRRWD Meditation PT meeting is tentatively scheduled for Thursday, July 9, 2015, 7:00 PM, in the Barnesville office.

Adjournment. There being no further business to come before the group, Albright adjourned the meeting at 9:50 PM.

Respectfully Prepared and Submitted by

Bruce E. Albright, BRRWD Administrator