

**RED RIVER BASIN FLOOD DAMAGE REDUCTION WORK GROUP
MEETING AGENDA**

August 17, 2016

MN DOT Lower Meeting Room (park in lower parking lot)
Detroit Lakes

- 10:00 Introductions and review agenda (Jerome)
- 10:05 Review and approve June 21 meeting notes (Jerome)
- 10:15 Review action items and FY17 objectives (Henry)
- 10:30 FY 2016 Budget Closeout (Naomi)
- 10:45 FY 2017 Budget Approval (Henry)
- 10:50 FY2018/19 Budget Request
- 11:00 Committee Updates
- Project Team Handbook update
 - Project Readiness form update
 - Legislative and funding related issues (Ron H.)
 - TSAC update
 - o IWI workplan (attached) including wetland monitoring update
- 11:15 Communications Objectives 2017 (attached)
- 11:30 Watershed District Updates
- Lunch *(provided)*
- 12:45 Agency and Organization Updates
- 1:15 Tile drainage issue (Charlie Anderson document attached)
- 1:30 EQB Rule Revision (RRWMB draft letter; Ron Harnack)
- 2:00 Other Updates
- Buffer Map
 - Runoff based drainage assessment
 - Prairie Grains Conference 2016 (handout)
- 2:30 Adjourn
- 3:30 Adjourn

**RED RIVER BASIN FLOOD DAMAGE REDUCTION WORK GROUP
MEETING NOTES**

June 21, 2016

Red Lake Watershed District, Thief River Falls, MN

These meeting notes are provided as a record for this meeting. **Action Items are indicated in bold italicized text.**

Work Group members present: Jerome Deal, Greg Nelson, Keith Weston, Eddie Bernhardson, LeRoy Carriere, Bruce Nelson, Rob Sip, Brian Dwight, Dan Wilkens, Jim Ziegler, Greg Holmvik,

Guests present: Henry Van Offelen, Nick Brown, Nate Dalager, Charlie Anderson, Dan Thul, Jim Courneya, Erik Jones, Blake Carlson, Allen Wold, Danny Omdahl, Danni Halvorson, Jeff Lewis, Andrew Ulven, Charlie Anderson, Craig Jarnot, Dan Money, Ron Harnack

Introductions and Review Agenda. Meeting agenda was reviewed and approved.

Review and approve April 20 meeting notes. Highlights of the April meeting notes were reviewed and approved with a correction regarding Greg's presence. Henry provided an update on the FY16 objectives which are mostly complete. **Henry will develop FY17 objectives based on previous lists and current carryover objectives. If work group members have additional objectives, submit them to Henry soon.**

Budget update

- FY16 – Quarter two expense requests are ready to be sent to DNR. Quarter three expenses will be processed in the next week or two. We are on course to have more than adequate expenses to use the annual budget funds. The finance committee recommended that any remaining funds be allocated to project team expenses based on the expenses that each watershed has submitted by the end of the fiscal year. The work group agreed. It was also recommended that **Henry and Naomi get the 2nd and 3rd quarter expenses submitted to DNR as soon as is possible and work to get the 4th quarter expenses done by the end of July.**
- FY17 budget - The finance committee met prior to the June meeting and drafted a FY7 budget. The budget was reviewed and accepted by the work group. An additional \$5,000 was put into monitoring to participate in funding the MDA phosphorus monitoring in addition to their nitrogen and flow monitoring. The work group proposal needs to be reviewed by BTSAC. The work group also encouraged Rob to seek additional funding from other sources such as the RRBC and the RRWMB. **Rob will contact Chuck Fritz and coordinate review and participation of the BTSAC.**

Committee Updates

- PT handbook – The readiness form has been on hold but should be completed soon. The USACE has prepared a new draft of the Points of Concurrence

section which is under review by Henry and Chuck Fritz and Brian Dwight. Since Tim is leaving the USACE, Craig Jarnot will finish up crafting the document. **Henry will work with Craig and Chuck and Brian to complete development of the POC guidance for review by the WG at their August meeting.**

- Project Readiness – A final revised form is under review. Target completion for August meeting.
- Legislative Update – Ron provided an update on the bonding bill status. It remains to be seen whether there will be a special session to resolve issues.
- Communications Team – The joint RRWMB, FDRWG, and the RRBC has met once to work on communications issues and needs. The website has been updated. There was discussion of the need for a more formal and specific action communication plan. The joint communications group will meet soon and develop some communications objectives for this year. There was discussion of several missed communications opportunities over the past couple years. Plans for the March Conference have begun. It was suggested to look at the week before Easter in order to get more legislators to attend the event.
- TSAC – The data collected in 2016 still needs to be written up in a report. **Henry is working with Chuck and IWI staff to complete a summary report and to develop 2017 monitoring plans for vegetation conditions in FDR impoundments.** An ArcGIS story map for the Brandt impoundment was presented by Danni and Henry. They will continue to develop this technology for a couple of other sites and present these examples to the communications group for their input.

RCPP Update

Keith Weston presented an update on the RCPP program. Ten of eleven agreements have been signed. The outstanding agreement is with the Sand Hill and depends on NRCS action. Bois de Sioux has decided not to move forward with the Fivemile Creek and Rabbit River PL-566 projects. Various meetings are beginning to take place.

Watershed District Project Team Updates

The watershed update handout was distributed, reviewed, and updated as needed during the meeting.

Agency and Organization Updates

The agency and organization update sheet was distributed, reviewed, and updated as needed during the meeting.

Buffer Mapping Update

Henry presented an update on buffer mapping. Over 2,500 comments have been processed and a new map will be available around July 1. Additional comments will

be accepted and reviewed for a map update scheduled for October.

Review and discuss letter to Collin Peterson regarding recent “listening session”

The group reviewed and discussed a draft letter put together in response to the listening session held in early June. After much discussion it was decided to move forward with some modifications to the existing letter to be reviewed by the FDRWG members before signing and sending to the Congressman.

Other Items

No other items were presented.

Upcoming Events

June 23 –Red River Valley Drainage Water Management Tour

Late August – BWSR Board Tour East Grand Forks

Meeting Adjourned at 3:50

DRAFT

RED RIVER BASIN FLOOD DAMAGE REDUCTION WORK GROUP

FY 2017 Budget

Minnesota's Flood Damage Reduction Work Group is working to ensure the full implementation of the 1998 Mediation Agreement. This spending plan identifies sufficient funds to continue a reasonable level of planning, project development, coordination, and oversight of the project team process.

Work Item	FY16	FY17
Project Team Support	120,000	120,000
Project Monitoring	90,000	95,000
Project Acceleration Grants	28,000	23,000
TSAC: Coordination and projects	15,000	11,000
Work Group Meetings and Conference	6,000	10,000
Communications and Outreach	5,000	5,000
Total	264,000	264, 000

Flood Damage Reduction Work Group FY 17 Objectives (August 15, 2016)

Objective	Lead	Committee / Support	Status & Expected Completion
1. Schedule and coordinate six work group meetings	Henry	Naomi	
2. Create quarterly update project development tracking table	Henry	WD administrators	Remains a work in progress.
3. Quarterly update and review of budget	Henry & Naomi	Finance Committee	
4. Develop Communications Plan	To be determined.	Communication Committee	Communication table for review
5. Update the work group website and maintain	To be determined.	Communication Committee	Ongoing.
6. Produce annual report to legislature	Henry & Naomi	Communication Committee	FY16 year-end report almost complete.
7. Plan and implement March Conference	Henry & Naomi	Conference Planning Committee	Planning has begun.
8. Review and update PT handbook	Henry, Brian	New Committee - WD administrator, DNR and BWSR PT members	Readiness form almost done. Now "project status".
9. Hold early coordination meetings with USACE as needed	Henry	WD administrators, consultants	Ongoing - Regular communication has started.
10. Update project monitoring protocols			WQ update complete. TSAC work on other areas.
11. Develop project monitoring guidance document, educate PT members			TSAC still needs to work on this.
12. Host one TSAC meeting	Henry	TSAC	
13. Conduct and complete FDR project assessment work		TSAC	Ongoing TSAC project.

Watershed District Project Team Reports

August 17, 2016 - FDR Work Group Meeting

Bois de Sioux

The BdSWD has begun the planning team meetings for the Bois de Sioux Direct PL-566 Planning Process. An Agency Scoping meeting was held on June 8. On July 13, the first planning team meeting was held. On July 27, the group held a Public meeting to gather their input on problems. The next planning team meeting is scheduled for August 23, 2016 in the Wilkin County Recycling Center Conference room.

Progress is being made on acquiring the remaining lands needed for the Redpath Impoundment, mainly the by-pass corridor. Due to no approved bonding bill in the 2016 legislative session, it appears any work beyond land acquisition will come to a halt. Without bonding bill funding, further development cannot proceed. We have requested \$2M for the next biennium.

The North Ottawa Impoundment is done. The final contract payment hearing is scheduled for August 18, 2016 at 11:00 a.m. Final accounting and grant close out will be complete by August 30, 2016 as requested by the State of Minnesota. Finalizing the Operations and Maintenance Manual and the State Dam Safety Permit are next on the work lists. A meeting with the NRE Team was held on August 9, 2016 to discuss cooperative funding of the Operations and Maintenance of the project going forward.

Buffalo - Red

Our next PT meeting is Thursday, August 18, 2016 at 7:00 PM in the Watershed Office, Barnesville. We have an agency meeting scheduled for next Tuesday, August 16, 2016 at 1:30 PM in Barnesville to discuss a Phase 1A project for the South Branch of the Buffalo River east of Trunk highway (T.H.) No. 9. Since our last report, we submitted two BWSR Clean Water Fund (CWF) applications: one for the South Branch Buffalo River BMP's – Part 3 (requesting \$380,000); and Prioritizing and Targeting Conservation in the Buffalo-Red; PTMAApp and Geomorphic Assessment (requesting \$168,000). The Becker SWCD also submitted an application, titled: Upper Buffalo River Sediment Reduction Project, asking for \$328,159. If received, the Prioritizing and Targeting grant would be used to pave the way for the One Watershed One Plan (1W1P).

We have an interview with the Lessard-Sams Outdoor Heritage Council for our Wolverton Creek Restoration Project, seeking \$3.015 million. We are working on scheduling a Phase 1 landowner meeting in the next few weeks, which will include the NRCS to discuss use of the Wetland Restoration Enhancement Program (WRE) for land acquisition and construction assistance. The BRRWD hopes to begin project construction next summer. The BRRWD plan to implement a water management district (wmd) to raise local funding for the grant matches.

The BRRWD is the “drainage authority” for 95 ditch systems in need of a buffer to meet the State’s new regulation. We’ve taken a systematic approach, starting on the northern end of the District, and working south, to survey the existing ditch, tying everything into legal descriptions, research and tabulation of right-of-way (R/W) needs, holding the required hearings in accordance with Minnesota Drainage Law, and then making the R/W payment and posting, seeding, and recording of the R/W with the County Recorder.

The Fall Tour is scheduled for Thursday, September 8, 2016. The tour will leave the Watershed Office in Barnesville at 1:30 PM, and return about 5:30 PM for supper.

Wild Rice

Goose Prairie: There seems to be agreement amongst the agencies that if the project proceeds as currently intended, that a determination from the State side of a “No Loss” would be made. The next step is to communicate with the USACOE this information to keep them informed. The final answer will come when it comes time to apply for the permit.

Lower Wild Rice: John Voz and Henry have been working on potential language for an easement that could be used to have BWSR execute a RIM type easement for the Watershed.

Green Meadow: Engineering studies are being worked on in conjunction with the Benefit Cost Analysis .

Red Lake

The RLWD and MnDNR staff attended a public informational meeting on both Four Legged Lake Watershed and Pine Lake Watershed July 12th at the Gonvick Community Center from 4:00 pm to 7:30 pm. Although we have already held various public meetings on these project, the recent meetings were held in accordance to the seven step process set forth in the RCPP agreements the District signed with the NRCS.

As a result of various meeting which have been held between the Red Lake Watershed District and Minnesota Department of Natural Resources, we can announce that both parties are moving forward with revising the O & M for Little Pine Lake WMA. A draft O & M was circulated to all interested parties August 3, 2016 with the hope of signatures being obtained. This is a great compromise by both parties which would gain an additional 270 acre feet of storage upstream of Pine Lake. There will be continuing discussion to improve the outlet structure to assure maximum safety in future operation of the structure.

The RLWD is continuing to develop the Purpose and Need statements for each watershed with the hope of getting the documents submitted to the NRCS for review.

Sand Hill

To be provided at the meeting.

Middle Snake Tamarac

New administrator, Brent Silvis, was hired.

Two Rivers

BSPWT met and discussed the Klondike Clean Water Retention Project. Work continues with the PL566 Plan EA, USCOE concurrence points, and state EAW. Installing monitoring wells and working cooperatively with DNR on a “Fen Management Plan”. Also beginning work on an Engineer’s report for the project.

Joe River

Nothing to report

Roseau River

Construction of Roseau WMA project is proceeding. Roseau Lake Open House was held and a project planning continues. Upper Beltrami Open House was held. Whitney Lake landowner meeting planned for September.

Agency and Organization Updates

August 17, 2016 - FDR Work Group meeting

BWSR

To be provided at the meeting.

DNR

- Staff changes – Greg Nelson retired. The Commissioner’s office will make an appointment soon. John Williams is the acting regional director.
- Project teams – DNR staff continue to participate in the project work teams that are active including Roseau WMA, Roseau Lake, Klondike, JD14, JD19, Swift –Coulee, Four-legged lake, Pine Lake, Green Meadow, Buffalo=Red, and direct to the Red. Lead staff and PT members have been assigned for all anticipated project teams.
- Roseau WMA work has started. Roseau Lake rehabilitation planning continues.
- Goose Prairie WMA project has a hearing at LSOHC in August.
- North Ottawa NR team. Staff met with BDSWD and RRBC to discuss long-term maintenance funding for the project.
- Development of a Klondike fen management plan has begun with staff assigned. A monitoring site visit was completed in June. Soil boring discussions are ongoing.
- Environmental review – Staff are prepared to assist with ER needs especially in the context of PL-566 planning.
- Buffer mapping – the buffer map has been published to the web. About 2,500 comments were received before June and about 1,400 changes were made to the original draft map. Additional comments should be submitted using the online tool. All comments received will be processed and the map will be updated periodically
- Riparian corridor projects and easements – Henry and Jamison are working with WRWD to successfully adapt the RIM program for use in channel corridor restoration projects.
- NR planning – DNR staff continue to participate in the process and review the draft in the One Watershed One Plan in the Red Lake Pilot watershed.
- FM Diversion – Adequacy decision complete.

FSA

Margin Protection Program payments will be forth coming for dairy producers in the coming months, which are desperately needed. ARC/PLC payments for the regular farm program will be coming later this fall also. ARC/PLC payments vary from county to county, and crop to crop. The MPP and ARC/PLC payments are sizable for many counties and are very much appreciated by producers due to very low commodity prices for milk and crops. Farm Storage Facility Loans are very active in several counties. Producers are opting to build storage to wait for better prices, rather than liquidate at poor prices. Wet conditions are causing extensive crop loss, and terrible harvest conditions in the NW portion of the valley. Some offices are still completing acreage reports, and ARC/PLC annual enrollment due to farm reconstitutions still being completed. Kittson County has been approved for emergency haying of CRP due to excessive wet conditions. Many producers in Kittson County have not been able to complete a single cutting of hay due to the wet conditions.

IWI

Attached.

MDA

- MDA Ag BMP Local Program – Well Initiative (see attached document).
- MDA CWF RFP – Contracts Signed (see attached document).
- WRAPs handbook – From the MN Soybean Growers (attached background).
- Buffer Science and Design Symposium, September 16th, 2016, Northstar Ballroom, University of Minnesota, St. Paul Campus Draft agenda, registration link, and abstract submission form are at <http://www.wrc.umn.edu/bufferdesignsym>
- **NITRATE IN GROUNDWATER LEGISLATIVE REPORT:**
The MDA developed a Report on Nitrate in Groundwater as required by the Legislature covering the period from July 1, 2013 through June 30, 2016. The report explains how the MDA used Clean Water Funding to increase efforts to reduce groundwater contamination from nitrogen fertilizer. The report is available online here: <http://www.mda.state.mn.us/news/~media/Files/news/govrelations/legrpt-2016gwnitrate.pdf>

PCA

WRAPS – The following WRAPS and TMDL's have been public noticed and are moving through the final approval stage:

Buffalo/Red – TMDL's have been approved by EPA, WRAPS has been finalized and approved by Division Director. Both documents should be posted to the Web this week.

Mustinka – TMDL's have been sent to EPA, Response to WRAPS comments are being drafted. Once final approval of TMDL's by EPA is received, the WRAPS is final and published. Expect less than 30 days.

Sand Hill – Public notice complete. Final edits to TMDL's and WRAPS are being drafted. TMDL's should be sent to EPA within 10 days. Expect finalization in less than 60 days.

Other WRAPS that are nearing completion and should reach public notice in the next 30-90 days include: **Upper Red, Bois De Souix, Thief River.**

Staffing Issues:

Monitoring Coordinator (Joe Hadash position) – this position has been filled by Evelyn Ashiamah. Her start date was August 1.

Project Manager (Tara Mercil position) – This position has been filled by Danielle Kvasager from Grygla. Her start date is September 12.

Stressor Identification (Bruce Paakh position) – Posting packet is currently being prepared. Expect to fill position by early October.

Red Lake Band

Nothing new to report.

Red River Basin Agency Interaction Team

Nothing new to report.

RRBC

No report.

RRRA

Nothing to report.

SWCDs

No report.

USFWS

No report.

USACE

The USACE St. Paul District Regulatory Branch (Corps) and NRCS are working on a Memorandum of Understanding outlining roles and responsibilities for NRCS as the lead federal agency and the Corps as a cooperating agency in the development of an Environmental Assessment for PL-566 projects. Corps PM Jarnot has taken over completion of the three regulatory tasks; (1) adapting concurrence point framework to watershed planning approach; (2) developing mitigation guidance for retention project proponents; and (3) reviewing and updating existing concurrence point guidance for retention projects, included in the Red River Basin Watershed Specifically Authorized Feasibility Study. Jarnot has been coordinating these tasks with Henry Van Offelen and Chuck Fritz.

Agricultural Sector

To be provided at meeting.

June -July 2016 International Water Institute Monitoring and Education Activity Report

FDR, Condition, Watershed, and SWAG Projects:

- WPLMN monitoring frequency has increased with recent high water levels. Several sites have been event based monitoring mode for the past few weeks. Water levels are normal (South) and normal to high (North) as listed in the latest MN DNR Stream Reports. Staff have been calculating 2014 loads for the WPLMN project sites since mid-February and have completed loads for all but a handful of sites that have available flow data. The final project report for FY14_15 was approved on 06/14/16 and is complete. A final request for funds was submitted.
- Staff are working with Henry Van Offlen to begin the organization/planning for the 2016 monitoring project reports which will incorporate wetland plant community conditions, water quality, and other available information. A model/draft report has been developed using information for the Brandt Impoundment. The draft/example report was presented to FDR Workgroup June 21, 2016. Additional reports will be developed in 2016 and will be created taking into consideration input received from the workgroup. Completed the IWI FDR project 2016_17 work plan.
- BRRWD water quality monitoring project began the last week in April. IWI staff have been collecting monthly water quality samples at 21 sites and downloading flow data from 7 sites in the Buffalo Red Watershed District. Work will continue through October.

River Watch:

- Staff have been assisting River Watch teams with equipment issues and monitoring. Many of the teams began monitoring in early March.
- The final report for the 2014 – 2015 River Watch CWL project is complete. It is available on the IWI website. This report also needs to be posted to the RRWMB website on or before July 24, 2016. I have contacted Naomi in regards to this. The report can be viewed at the IWI website under “What’s New” or can be viewed at the following www.iwinst.org/wp-content/uploads/2016/06/2015-Red-River-Basin-River-Watch-Annual-Report.pdf
- IWI staff coordinated with Wilderness Inquiry in the planning and execution of the paddle events on the Red Lake River in Crookston June 8th, Thief River Falls June 9th, and East Grand Forks June 10th and June 11th. These paddle events were open to River Watch and River of Dreams students in the early afternoon sessions and to the public for evening paddles. Wilderness Inquiry provided 6 Voyager Canoes (10 passenger) to accommodate attendees. These events were a big success with 100 students and 250+ community members participating.
- Staff are in the process of locating biological monitoring sites and establishing biological monitoring protocols for our River Watch teams. They will be monitoring a select few locations starting this fall. Database updates to accommodate the macroinvertebrate data collected by the students are also in the planning stages with work to hopefully begin soon.
- Spring River Explorer trips have been completed for five schools. The schools to paddle in May included Valley-Edinburg May 17, Cavalier May 18, Walhalla May 19, Newfolden May 20, and Clearbrook May 31. Forty-two (42) students participated in these paddle trips. Summer/Fall trips in planning stage are Red Lake Falls, Hawley, Barnesville, Crookston, and Norman County East.

June-July 2016 International Water Institute Watershed Research Activity Report

PL566 Planning/Project Acceleration/BCA:

- Presented Green Meadow BCA status / preliminary results to Wild Rice Watershed District Board (August 10th)
 - Agriculture and infrastructure without project condition economics data compiled.
 - Without project natural resource economics
- Economist Leitch - Coordination meetings/field visits with Moore Engineering Economics Team and NRCS staff.
- Generating PTMAApp dataset for Green Meadow
 - Water Quality with/without project condition.
- Preparing BCA template for use in other PL566 Planning efforts.

PTMAApp

- Developing statewide PTMAApp outreach/support budget and business plan for BWSR.
- ND James River Basin
 - Input processing
 - Project completion - winter 2016
 - Working with NDDH to develop ND Red River Basin strategy

Roseau Lake PTMAApp (MN DNR - LCCMR/Clean Water Legacy)

- Met with Roseau River Watershed and DNR Staff to review/explain DEM hydro-conditioning method.
- Exploring potential funding to expand the PTMAApp data in the Canadian portion of the watershed.

MN Drainage Work Group – GIS/Drainage Assessment.

- Runoff Curve Number and sediment loading method compiled
 - Application of method in three pilot areas underway – compare:
 - Benefited area boundary Vs drainage watershed
 - Parcel charge
 - Assessment method costs
- Project completion/final report end of September/October

RRBDIN

- ARC GIS Server license issue.
- Migrating applications to Amazon Cloud.
- “Spot Elevation” widget not working
 - Update at MN IT
 - MN IT requesting annual fee

BTSAC

- Charlie Anderson – Water storage in soil profile addendum http://www.rrbdin.org/wp-content/uploads/2016/08/FloodStorageCapacityofSoil_160719.pdf.

August 12, 2016

Monthly Report to the RRWMB

Activity

1. **Legislative Update:** It does appear that a special session is likely in order to address the tax bill and the bonding bill. Still trying to get some increase in the amount for FDR and to eliminate the line item appropriations or add other line items so that there is some degree of fairness and equity in the process. Maybe too much to expect when politics is involved. With the current \$11,555,000 amount there should be enough for completing Halstad for \$2.3M and to provide Redpath with a \$1,000,000 to keep the project moving. Also started discussion with River Watch and RRBC on next biennial funding needs. Will also be communicating with individual WDs regarding updating their 5 year plans and legislative project briefings.
2. **July RRWMB Mtg:** Attended and reported on activities and participated in the HR committee discussions relating to my replacement.
3. **DWG:** The DWG met and discussed the market value adjustment bill for public drainage system maintenance and repair. It was a good discussion of what the law currently provides and under what situations does the DA NOT have to stay within the original assessments. The Drainage Manual Draft update relating to this issue would be circulated and see if there is still a need for legislation. IWI also gave an update on the runoff/sediment tool development for maintenance and repair as an alternative to redetermination of benefits. The tool is going to be compared to actual RDO's in three separate watersheds. Final report expected by September.
4. **EQB Mandatory Rule Comments:** I submitted comments on the EQB mandatory categories trying to make the case that the mandatory category thresholds were too low and should be raised or eliminated consistent with the projects following the Mediation Agreement and the permitting rule updates of the past. The EQB rules are antiquated and do not reflect the current public involvement and the rigor of projects under the Mediation Agreement. Will continue to follow the process. Please review my comments and provide additional thoughts and perspectives for the process moving forward.

5. **Buffer Meetings:** Attended the local government buffer meetings in Thief River Falls and Detroit Lakes. The meetings were well attended. The purpose was to inform local governments of the status of the buffers initiative and seek input on policies and guidelines for implementation moving forward. Many of the administrators and managers attended.
6. **RFP for my Replacement:** Worked with the HR committee and drafted an RFP for my replacement. I believe that the HR committee will have a recommendation for the Board to consider. The RFP has two elements; one is for lobbying only and the second is for the RRWMB project coordination and support. Someone can apply for one or both individually or in collaboration with a partner.
7. **Mediation Work Group:** Provided Henry with suggestions regarding the upcoming meeting agenda including: biennial funding needs; TSAC; Priority Wetland Mitigation in the RRV; alternative funding sources through LCCMR; CWF; LSOHC.

That's all for now. See you all next Tuesday.

2016-2017 Work Plan and Budget

International Water Institute

Flood Damage Reduction Project

I. Project Summary

The International Water Institute (IWI) will monitor the inlet and outlet site at three (3) flood impoundments in the Red Basin (Brandt, Angus Oslo #4, and the PL566 project above Warren, MN). Data will be analyzed to determine nutrient and sediment load entering and exiting the impoundments to assess the load-mitigating effects of residency within the impoundment. Water samples will only be drawn from the inlet site when the outlet gate is closed (project fill) and from the outlet site when the gates are open (drawdown) periods. Water samples will be collected during fill and drawdown periods based on estimates of time it takes for each project to fill and drawdown as provided by Watershed District staff in an attempt to sample during a complete hydrograph period (ascending, peak, and receding limb).

IWI staff will lead and facilitate the Red River Basin Monitoring Advisory Committee (MAC) meetings, coordinate annual Water Quality Monitoring Training and Certification provided by the MAC to volunteers and professionals in the Red River Basin, and coordinate the Floristic Quality Assessment (FQA) monitoring on a schedule as directed by TSAC. Staff will also participate in FDR project team meetings to provide technical assistance for project monitoring and development.

Finally, if load monitoring will not occur due to no operation (impoundments not used), IWI will complete project condition reports as directed by the TSAC. The reports will summarize the FDR/NRE projects in the Red River Basin (project features, location, etc.), format, and post all available monitoring data associated with the assigned project to the web.

II. Project Work Plan Detail:

The project goal is to collect data to document nutrient and sediment loads entering and loads leaving the identified flood impoundments during the normal course of operation. Procedures, methods, and schedules are identified in the attached FDR Load Study QAPP.

Objective 1: Monitoring and Data Management

Tasks

- Collect field data (up to 90 samples) for DO, temp, pH, conductivity, secchi tube, field notes, water level, and photos.
- Collect water chemistry (up to 90 samples) for TP, OP, NO₂NO₃, TKN, and TSS.
- Submit water quality data each year by November 1st to EQuIS.
- Review and finalize data with MPCA data manager by December 31st.

- Upload project data to IWI River Watch website by January 30th.
- Calculate fill and drawdown loads. Submit to the FDR Coordinator in February of each year.

Objective 2: Coordination, Training, and Technical Assistance

Tasks

- Lead and facilitate bi-monthly MAC meetings.
- Coordinate with MAC members and provide annual Water Quality Training for basin partners.
- Attend regular FDR project team meetings and provide monitoring planning assistance.
- Lead and facilitate the FQA monitoring planning process. Determine monitoring schedule and reporting details.
- Coordinate vegetative plant community monitoring activities.

Objective 3: Project Condition Reporting (occurs as needed/dictated by load monitoring progress)

Tasks

- Assemble and maintain a central database for all FDRWG projects in the MN Portion of the Red River Basin.
- Complete project condition reports which incorporate all available monitoring data for the projects as assigned by the FDR Coordinator (Henry V.)
- Provide reports in a web-friendly format and post to web.

Table 1: Project Budget

BUDGET ITEM	<u>Objective 1</u>	<u>Objective 2</u>	<u>Objective 3</u>	TOTAL BUDGET
	<i>Load Monitoring</i>	<i>Coordination, Training, Tech</i>	<i>Project Condition Reporting</i>	
Personnel	\$30,738.00	\$34,300.00	\$42,700.00	\$65,038.00
Personnel FQA contract		\$7,000.00		7,000.00
Travel Reimbursement \$0.54/mile (6482 miles)	\$2,500.00	\$1,000.00		\$3,500.00
Shipping	\$360.00			\$360.00
Lab Analysis	\$6,000.00			\$6,000.00
Equipment	\$2,000.00			\$2,000.00
Other Supplies	\$1,102.00			\$1,102.00
COLUMN TOTAL	\$42,700.00	\$42,300.00	\$42,700.00*	\$85,000.00

*Objective 3 activities will occur as an alternative to Objective 1, value not included in total budget.

IWI Contact information:

Address: International Water Institute		
Renaissance Hall #110 650 NP Avenue		
Fargo, ND 58102		
Project Lead:	Danni Halvorson	Phone: 218-280-0515
E-mail address: danni@iwinst.org		
Fiscal Contact:	Donna Kristianson	Phone: 701-231-9734
E-mail address: Donna.Kristianson@ndsu.edu		



2016 Clean Water Fund Research Project Summary

The following is a summary of the research proposals funded through the 2016 Minnesota Department of Agriculture (MDA) Clean Water Fund Request for Proposals, which closed March 4, 2016. A total of 10 projects were submitted totaling \$2.5M in requested funds. The evaluation committee recommends that the top two projects be funded for a total of \$650,223.

Title: **The Cover Crops, Water, and Nitrogen Nexus: How do they impact corn and soybean production and the environment?**

Principal Investigator(s): Axel Garcia y Garcia
Jeff Strock

University of Minnesota
SW Research and Outreach Center

Funds Awarded: \$450,223

Duration: July 2016 – June 2020, 4 years

Summary:

The goal of this project is to assess cover crop strategies in a corn – soybean rotation to increase stability, improve resource use efficiency, and minimize negative impacts to the environment. Specific objectives are to:

- Determine the effect of cover crops on water, N, and P use of corn - soybean rotations.
- Determine the effectiveness of cover crops at reducing N and P losses via leaching.
- Assess the performance of crop models to simulate the water and N balances on corn production in the humid and temperate climate of Minnesota.
- Determine the cost-effectiveness of cover crops in corn - soybean rotations.

The research approach includes a combination of field experiments and modeling to evaluate cover crop strategies that balance corn and soybean production with resources use (water, nitrogen, phosphorus) and the environment (water quality). Results of the project will advance the understanding on the benefits and limitations of cover crops in corn-soybean rotations and their impact on the environment. The multi-location approach of this project will enable the derivation of spatially relevant recommendations for profitable production of corn and soybean that significantly reduce P and P losses and enhance water quality. This comprehensive study will support efforts to design efficient and sustainable corn-soybean cropping systems.

Title: Optimizing Woodchip Bioreactors to Reduce Nitrogen and Phosphorus in Subsurface Drainage Water

Principal Investigator: Carl Rosen- University of Minnesota, Soil, Water and Climate

Funds Requested: \$200,000

Duration: June 2016 – June 2018, 2 years

Summary:

The overall goal is to demonstrate and evaluate the effectiveness of woodchip bioreactors for treating agricultural tile water. This project will be conducted using a unique replicated field-scale experiment that allows simultaneous analysis of two independent variables (i.e., carbon and bacteria addition) that have the potential to enhance bioreactor performance. This unique system will allow control of the flow rate and addition of carbon and bacteria to optimize bioreactor performance in a manner that was not previously possible. The retention time can be decreased by lowering flow rate, thus pushing the envelope in terms of treating more water on a given footprint. The project is unique in that it will carefully monitor microbial performance using genetic and genomic technologies, and modify reactor properties that facilitate enhance removal of nitrogen and phosphorus removal.

The specific objectives of the project includes:

- Identify the microbial community composition within the bioreactor. It is expected that the results of this section will aid in identifying and isolating the most efficient nitrate and phosphorus removing microbial populations.
- Compare nitrogen and phosphorus removal by bioaugmentation (i.e., addition of rapidly-denitrifying bacteria) and biostimulation (i.e., supplementing additional carbon source of acetate) throughout the growing season. Based on initial studies, this system is expected to reduce nutrient transport from subsurface drainage by 70% or more even when water temperatures are cooler.

This work is important to the health of surface waters of Minnesota because of the need for nutrient removal. Hypotheses include, 1) addition of acetate will enhance nitrate removal due to stimulation of microbial denitrification through addition of labile carbon that is otherwise not readily available under suboptimal growth temperatures, and 2) the addition of microorganisms will enhance nitrate removal due to increasing the microbial populations that contribute to nitrogen and phosphorus removal.

For additional information please visit:

mda.state.mn.us/cleanwaterfund/research

**Minnesota Department of Agriculture
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Financing Wells through the AgBMP Loan Program

The AgBMP Loan Program developed a legislative initiative based on the suggestions of many counties to extend and clarify eligibility for wells. This initiative was included in the Governor's 2016 legislative proposals and was passed by the legislature ([2016 Session Law Chapter 189 Sec. 6](#)).

Privately owned existing wells are eligible for AgBMP loans to finance treatment equipment, repair, or replacement when:

A. The well is a potential source or a pathway to spread a contaminate

OR

B. The project is designed to provide drinking water that is compliant with state and federal standards.

EXAMPLES OF POTENTIALLY ELIGIBLE WELL PROJECTS:

- Wells with cracked casing
- Inadequate set backs
- Frequently flooded wells
- Installation of filtration and treatment equipment such as reverse osmosis and carbon filters.
- Projects designed to achieve primary drinking water standards such as nitrates and arsenic or secondary drinking water standards such as iron, manganese, magnesium, taste, turbidity, and odor. Please review USEPA primary (<https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants>) and secondary drinking water (<https://www.epa.gov/dwstandardsregulations/secondary-drinking-water-standards-guidance-nuisance-chemicals>) standards for a complete listing of qualifying chemicals and parameters.
- Implementing drinking water related advisories issued by the Minnesota Department of Health.
- Repair or replacement of non-compliant wells
- Replacing a non-compliant well with a connection to central water
- Improperly constructed wells

EXAMPLE INELIGIBLE PROJECTS:

- A new well where a well does not exist currently.
- A new well where the current well complies with all drinking water standards.
- Connection to central water when the landowner is not currently using an existing privately owned well.
- Wells not used for drinking water for humans or livestock, such as for irrigation or industrial processing.
- Replacing wells that have gone dry or have inadequate yield.

APPROVAL PROCESS

The approval process is the same as any other AgBMP loan. Local governments may establish their own internal procedures and priorities and may delegate technical approval authority to other appropriate parties.

Wells and drinking water projects started after January 1, 2016 are eligible. In the project description box on the standard application form, include a phase like "replace well to comply with drinking water standards" if addressing a drinking standard or "replace well to resolve potential pollution problem" if it is a pollution problem.

Wells are included in the budget line item for "OTHER". You may adjust your budget at any time by contacting us, but **no changes are required at this time**. We can make adjustments to your existing budget as needed when projects are submitted. If you need additional funds to meet your needs, give us a call to discuss your needs and we may be able to increase your award; however this will require a formal amendment. We currently have about \$300,000 in uncommitted funds available.



GENERAL GUIDANCE

The following guidance addresses many of the issues you may face; however as we gain familiarity with this project area, some items may change.

1. The statute requires that the proposed well project address a potential pollution problem or compliance to a drinking water standard. This might include environmental impacts such as improper setbacks, periodic flood, pathways to contaminate groundwater, wells with improper construction techniques, improper construction materials, or deteriorating materials, or that the water does not meet primary or secondary drinking water standards. If there is no problem with the existing well, replacing it is not eligible.
2. The program cannot finance construction of a new well where no well currently exists.
3. Wells must be privately owned and used as a water supply for humans or livestock. Wells not used for drinking are ineligible, for example, wells for irrigation and commercial processing.
4. Inadequate yield from a well or a dry well does not qualify the project as eligible; however, if the well does not meet drinking water standards when it does flow, then it would be eligible.
5. The LGU must have sufficient reason to believe that that well is potentially a pollution source or does not comply with drinking water standards; however we do not require the landowner to specifically prove non-compliance. The LGU may use their professional judgment, consider recommendations of well and public health professionals, prior tests from nearby wells, regional inventories and surveys, field assessments, well water analysis, and other local information to determine eligibility. The program does not require the landowner to expend great costs and time to demonstrate eligibility; however the LGU may establish their own requirements to determine eligibility. The simplest way to confirm eligibility is to analyze the water.
6. The program can address both primary (toxic compounds) and secondary (esthetic parameters for taste, odor, and appearance) drinking water standards. Please review the EPA documents for specific details. The project must be designed to theoretically achieve the drinking water standard for the parameter at issue to be eligible.
7. The source of the potential contaminate does not affect eligibility. It may be from naturally occurring conditions or human activity.
8. All costs related to implementing an approved project are eligible for financing, such as preliminary assessments and tests, site assessments, designs, site preparations, utility relocation, materials, supplies, equipment, costs for installation, construction costs, pumps, pressure tanks, treatment and filtration equipment, reasonable housing requirements for the equipment, connection to the existing plumbing system (both outside and inside), reasonable modification of the existing plumbing, electrical, site restoration to pre-existing conditions, initial follow-up tests and analysis after installation, connection fees, and permits.
9. Landowners may receive full financing to replace the existing system with a new system of a different capacity and configuration than the existing system, for example, a landowner may drill a 6 inch well to replace a 4 inch well.
10. The initial expense of consumable supplies at the time of construction or installation is eligible. Additional purchases of these supplies and periodic inspections are considered normal operations and maintenance cost and are not eligible.
11. Connection to central water is an accepted best management practice to remediate well problems; however there must be an issue to be addressed. Connection to central water simply because a city extends service to a new development does not make a project eligible.
12. When a well is replaced, the program does not require that old well be abandoned; however, it must be removed as a drinking water source. The program can finance the cost of disconnecting or sealing old wells.
13. The landowner may combine multiple projects into one, such as replacing a failing septic system, replacing a non-compliant well, and sealing the old well.
14. The borrower is not required to choose the lowest cost option. For example, if a well is subject to periodic flooding, it might be less expensive to increase the height of the riser pipe above the level of inundation. However, the borrower may prefer simply to eliminate all potential problems at greater cost by moving the well to a location not vulnerable to flooding.
15. A new or replacement well used as an alternative water supply in grazing management when livestock are excluded from surface waters is eligible.
16. The AgBMP Loan Program is not regulatory in nature and other rules and regulations will apply.

July 19, 2016

Charles L Anderson PE

Flood Storage Capacity of Soil

A question frequently asked is “how much floodwater could be stored in the soil profile?”.

Red River Basin Soils absorb a large amount of water during flood events. During typical spring floods, only about half of the available moisture (accumulated snow and rainfall) flows into the rivers downstream. Some of the water evaporates, and some is stored in permanently flooded wetlands, lakes, and reservoirs. But most of the lost potential runoff is retained in surface depressions (including seasonally flooded wetlands) or soaks into the ground and is stored during the flooding time frame. This stored water eventually leaves the soil profile and surface depressions as evapotranspiration and ground water recharge.

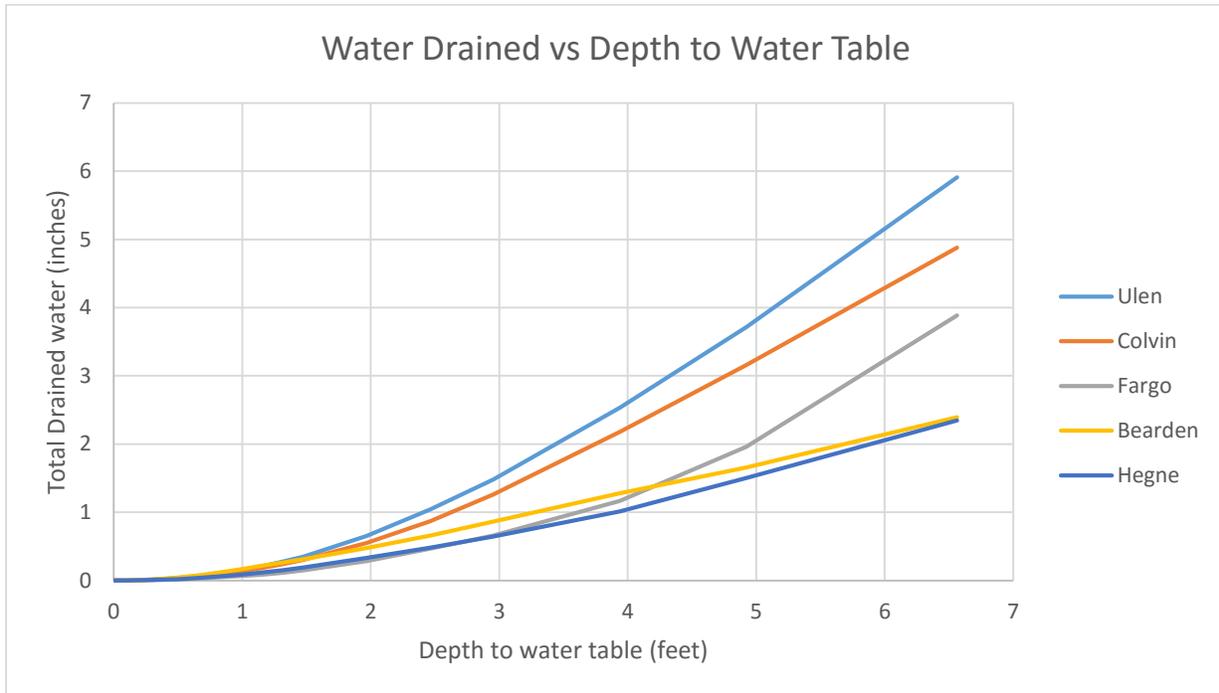
From a flood control perspective, it is critically important to preserve the quantity of flood storage capacity that is currently provided by the soil and surface depressions. It is also constructive to consider ways to increase or enhance this water storage. Recently, subsurface (tile) drainage has garnered much attention concerning both the risk of reducing the existing flood storage benefits and the potential to increase future soil water storage benefits. In any case, it is important to know the quantity of water potentially affected.

Stated opinions of tile drained soil’s capacity to store additional water have varied widely. Some of this variability can be explained by differences between soils. But the differences of opinion are more likely the result of misinterpretation or misapplication of lab test data. The proportion of water within the lab sample volume is reported at three progressively dryer conditions: saturated, field capacity, and wilting point. For a clay loam soil, typical values would be around 0.48, 0.31, and 0.17, respectively. The difference between saturated and field capacity is 0.17 which is equivalent to about 2” of water per foot of soil. That is the amount of water in this soil that can be drained by gravity alone. A common misconception is that tile drains all the soil above it to its field capacity. If that were true, tile placed 4 feet deep would be expected to drain a total of about 8” of water from the saturated soil profile. But that is not what tile does.

Field capacity in the lab is that of a suspended soil sample freely draining through a fine screen. A tiled field does not replicate that condition. The direct effect of tile drainage is to lower the water table. That would be more like placing the base of the soil sample in water. Obviously that sample would be wetter than the suspended sample. This is due to capillary action which draws water into the capillary fringe area above the water table. Therefore, one cannot use field capacity to estimate the amount of water drained by tile.

The amount of water drained by lowering the water table from the soil surface within the broad range of Red River Basin soils is illustrated in the accompanying graph. Soils that contain more clay and organic material, tend to retain the most moisture. For the same soil described above which is similar to Fargo soil, tile placed 4 feet deep would only drain a total of about 1.2 inches of water from the soil profile.

Therefore, 1.2 inches is the flood storage capacity of that drained soil profile. With a 5-foot tile depth, the flood storage capacity would increase to about 2 inches.



Of course, tile drainage not only provides an outlet for excess soil moisture. It also provides an outlet for the water captured in surface depressions. The volume of this storage varies greatly from field to field due to differences in landscape and agricultural practices of ditching, land leveling, and tillage. Estimates range from less than ¼ inch to greater than 1 inch. Thus, from a flooded field following surface drainage 4' deep tile may remove about an additional 2" of water from the surface depressions and the soil profile.

The total flood water storage provided is the difference between the volume of water in the soil and surface depressions before the event starts vs after the snowmelt/rainfall ceases. The volume of water in the soil before varies greatly with each event. It is quite likely that tile drainage may significantly reduce the volume remaining after a wet fall, which is a common precursor of major spring floods. However, it is also likely that uncontrolled tile drainage will also reduce the volume remaining after the runoff event and may actually result in less total flood storage than that provided by an undrained soil. The value of the storage depends on when the water is released. Ideally that would not be until the flood is over, which can best be accomplished by control of the outflow.

Discussed above is the reservoir effect of tile drainage. Tile affects hydrology in other ways. From the average annual precipitation of about 22" in the Red River Basin, only about 2" runs off. Most of the remainder is returned to the atmosphere by evapotranspiration, evaporation from the surface and transpiration from growing crops. The amount of water that can be removed from the soil by growing

crops far exceeds the amount that tile can drain. Plant roots can dry the soil beyond field capacity to approach the wilting point, and draw down the water table to well below normal tile depth.

Tile drainage improves plant growth, thereby increasing transpiration. This results in increased water storage capacity in the soil profile. That effect, of course, is seasonal and depends on the types of crops grown. But to the extent that tile facilitates the production of crops with longer growing seasons and increases crop production, soils will tend to contain less moisture and thereby provide greater flood storage capacity.

In conclusion, soil water storage is a huge factor in Red River Basin floods. However, it is difficult to draw definite conclusions as to the effect of tile drainage on that storage factor because of the many variables between flood events, soil types, and surface and subsurface drainage designs. It is likely that widespread conventional tile drainage will tend to reduce small floods but it is also likely that uncontrolled tile drainage may increase large floods. On the other hand, properly designed and operated controlled drainage systems have the potential to significantly reduce all floods.

Additional information regarding the performance of tile and potential effects on flooding in the Red River Basin can be found in the following references: All are available for download at:

<http://www.rrbdin.org/archives/649>

Sands, G.R. and D.J. Canelon. 2013. *Developing optimum drainage design guidelines for the Red River Basin*. University of Minnesota.

BTSAC. 2011. *Briefing Paper #1. Impacts of subsurface agricultural drainage on watershed peak flows*. Red River Retention Authority.

BTSAC. 2012. *Briefing Paper #2. Water management options for subsurface drainage*. Red River Retention Authority.



Red River Watershed Management Board

July 5, 2016

Will Seuffert
Executive Director
Environmental Quality Board
444 Lafayette Road
St. Paul, MN

Dear Director Seuffert

RE: MN EQB ENVIRONMENTAL REVIEW EAW & EIS CATEGORY COMMENTS
SUBMITTED BY THE RED RIVER WATERSHED MANAGEMENT BOARD
(RRWMB)

PREFACE

A little bit of background will be helpful in setting the context for the comments and recommendation being submitted. About 15 years ago there were considerable conflicts related to flood damage reduction projects in the Red River Valley. Moratoriums on permitting and litigation were imminent. To address the issues the state of MN and the Red River Watershed Management Board agreed to enter into facilitated mediation to provide a framework for coordination and cooperation that would result in projects that would be able to be permitted. I would refer you to and by reference attach the documents from the following web site <http://www.rrwmb.org/FDRWG.html> and the LTFS, Long Term Flood Solutions plan, prepared by the Red River Basin Commission (RRBC), Final Report to the States of Minnesota Pursuant to Session Laws (2009 Chapter 93) and North Dakota Pursuant to the 2009 North Dakota Chapter 20, House Bill 1046, section 9, http://www.redriverbasincommission.org/Long_Term_Flood_Solutions/long_term_flood_solutions.html.

In December 1998, an agreement to reduce flood damage and improve natural resources in the Minnesota portion of the Red River Basin was reached by representatives of watershed districts, state and federal agencies, local governments, various special interest organizations, and private landowners. *Please pay special attention to the membership of the Mediation Work Group and its roles and responsibilities and participation.* Based on this Agreement, the related public, private, and citizen engagement we believe that thresholds for EAW and EIS categories can justifiably be significantly raised or eliminated or as an alternative added to the “EXEMPTIONS” of the rule.

Secondly, we would encourage EQB to conduct the rule making process with an integrated approach. While addressing policy issues in one rule making process and



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then address the details in another rule making process may seem to provide for some timing and efficiency advantages, we do not feel that it best serves the purposes of the intended rule making related to the mandatory categories. Separating the policy from the detail creates uncertainty and potential confusion as to what the policy changes will actually mean. Integrating the two processes will provide more effective; transparent; certainty; and in the end a more efficient and understandable process and final rule.

MANDATORY EAW COMMENTS & RECOMMENDATIONS

1. **Subp. 24 Water appropriation & impoundments:** It would seem that separating “appropriation” and “impoundments” into more separate and independent subdivisions. There really is minimal if any relationship between the two activities and it would be good to make the difference clearer by separations rather than just segmenting within the same subdivision.

- **Subp 24 A.** No comments.

- **Subp 24 B.** The threshold of 160 acres in the Red River of the North river basin is far too small. A more practical and reasonable threshold taking into consideration the Red River Valley Flood Damage Reduction Mediation Agreement (MWG) would be 1000 acres or to not have a threshold at all for projects that are following the Mediation Agreement. The 1000 acres is reasonable threshold when you consider that the Mediation Process already provided a major public process for distributed water retention projects and the LTFS plan of the RRBC calls for a 20% reduction in peak flood flows with allocations to all major watersheds in the RRB to secure 1,000,000 acre feet of storage. Each WD has a comprehensive strategy to achieve their respective allocation and most every project will be far greater than 160 acres. It is an antiquated threshold. See the reference to appropriate documents above. Most of these water retention/detention projects also incorporate various natural resource enhancements for the benefit of fish; wildlife; recreation; birding; etc. The Mediation process provides for extensive involvement of citizens, landowners, state and federal agencies and various diverse interest groups as you can see by the membership on the Mediation Work Group.

- **Subp 24. C.** The threshold for the projects related to the Mediation Agreement should be eliminated or at a minimum the provision relate only to construction of a High Hazard Dam.

Subp. 26 Stream diversion. In the Red River Valley the threshold is really not applicable since the major river systems in the RRV have been channelized by the Federal and State Government efforts in the 50’s and 60’s. Current efforts are restoring the altered and channelized streams to more natural stream corridors and meandering of the river



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systems. These types of restorations should not be required to go through the mandatory EAW process. Another way to address this issue is to interpret these channelized rivers and streams or “altered natural watercourses” as defined in 103G to be exempt from the mandatory EAW process. **103G.005 DEFINITIONS: Subd. 3. Altered natural watercourse.** “Altered natural watercourse” means a former natural watercourse that has been affected by artificial changes to straighten, deepen, narrow, or widen the original channel. We should be encouraging the restoration of these channelized river and stream systems rather than putting unreasonable processes in place that can only make these projects more costly, but also act as a disincentive. The special reference to trout streams is fine.

2. Subp. 27 **Wetlands and public waters.**

- **Subp 27 A.** This provision would require an EAW for any change to the cross section of a public water watercourse. As with the discussion in Subp 26, in the RRV these thresholds may have had some relevance back in the 50’s and 60’s and prevented some of the channelization that took place by State and Federal projects of the time. However, today these thresholds make no sense at all. They only serve to create more administrative process/cost that works to inhibit the restoration of the river systems. Therefore, In the RRV and consistent with the Mediation Agreement these thresholds should not apply or be added to the exempt provisions.
- **Subp 27 B.** OK.

3. Subp. 36 **Land use conversion.**

- **Subp 36 A.** No problem with the golf courses or residential development of this category. However, the permanent conversion of 80 or more acres of agricultural land or natural vegetation is not reasonable or practical for projects that are implemented through and under the terms of the Mediation Agreement in the RRV. In almost all instances the water resources projects implemented through the Mediation Agreement are on agricultural land and involve more than 80 acres. There is significant public engagement and involvement with the project development and implementation. Either change this number to 1000 acres or eliminate the mandatory requirement for those projects implemented under the Mediation Agreement. In addition there should be consistency with other natural resources projects that result in conversion of 80 or more acres of agricultural lands. What about BWSR RIM Reserve program and DNR’s WMA and habitat programs that acquire agricultural lands and convert them to non agricultural land. It is also suggested that the RGU for these projects involving conversion of agricultural lands should be the MN Department of Agriculture.



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- **Subp 36 B.** The same reasoning for raising the threshold to 2000 acres or eliminating the category for all projects implemented consistent with the Mediation Agreement.

4. **Subp. 36a. Land conversions in shoreland.**

Subp 36a A. A requires a mandatory EAW for a project that impacts more than 1320 feet of a shoreline in a nonsensitive shoreland area. This does not make any practical sense when trying to restore an existing channelized public waters watercourse that is also shorelands. This provision should apply ONLY to natural unaltered shoreland watercourses and exempt altered natural watercourses. **103G.005 DEFINITIONS: Subd. 3. Altered natural watercourse.** "Altered natural watercourse" means a former natural watercourse that has been affected by artificial changes to straighten, deepen, narrow, or widen the original channel.

Subp 36a B. Same comments apply to this category as applies to Subp 36 A. For streams the shore impact zone is 50 feet and for stream restoration efforts for an existing channelized shoreland watercourse this mandatory category makes no practical sense and should be clarified to exempt impacts related to channelized/altered watercourses and should apply ONLY to shorelands on natural watercourses and exempt altered natural watercourses. **103G.005 DEFINITIONS: Subd. 13. Natural watercourse.** "Natural watercourse" means a natural channel that has definable beds and banks capable of conducting confined runoff from adjacent land.

Subp 36a C. As with Subps A and B this category is inappropriate for nonsensitive shoreland areas that are channelized watercourses. In many instances you have CRP land or in some instances RIM Reserve easement lands that would be altered with the restoration of the watercourse. In the end you will have far greater buffers and natural vegetation that exists today. Activities for nonsensitive areas in this category should be exempt for channelized shoreland watercourse areas or altered natural watercourses.

MANDATORY EIS COMMENTS & RECOMMENDATIONS

1. **Subp. 18 Water appropriations and impoundments.** For a project that is implemented consistent with the Mediation Agreement it would be appropriate to eliminate this or exempt this category. The Mediation Agreement process the involvement of the regulatory agencies and local interests certainly takes the place of the purposes of the EAW. In addition the DNR's rigor when a Class 1, High Hazard Dam, is proposed. These thresholds were established many years ago and since that time DNR



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rules and regulations have significantly changes also warranting changes to the EIS provisions. Again consider separating the impoundments from the appropriations provisions as separate subdivisions.

2. **Subp. 20 Wetlands and public waters.** OK.
3. **Subp. 23 Water diversions.** OK.
4. **Subp. 27. Land conversion in shorelands.** This mandatory EIS category may be appropriate for sensitive shoreland areas that are lakes or public waters wetlands, however, in the RRV is has very little practical application as it relates to 80 acres or more of nonsensitive shoreland areas that are channelized rivers and streams. This type of provision can deter or be a disincentive for the restoration of altered and channelized stream and river systems back to the natural meandered and buffered conditions that enhance natural resources. These provisions should be clarified to eliminate the application to “altered natural watercourses”.

EXEMPTIONS COMMENTS & RECOMMENDATIONS

1. **Subp. 15 Water impoundments:** This exemption maybe redundant depending on the actions taken with respect to the mandatory categories. May also be appropriate to exempt all water impoundments, which include wetland restorations, of 1000 acres or less when done under the state and federal wetland restoration programs and those impoundment projects implemented consistent with the RRV FDR Mediation Agreement.

Subp. 17 Ditch maintenance or repair: This exemption deserves clarification as it has limitations and constraints that are not consistent with current provisions of 103E and there seems to be a 20 year provision that seems to be trying to reference provisions of the Wetland Conservation Act that applies only to wetlands. It would be appropriate to clarify this exemption to include all maintenance and repair drainage systems period. So the provision would read “Maintenance and repair of a public drainage system under 103E and maintenance and repair of a private drainage system with the limits of its original construction flow capacity.” *“103G.245 WORK IN PUBLIC WATERS: Subd. 2.Exceptions. A public waters work permit is not required for: (1) work in altered natural watercourses that are part of drainage systems established under chapter 103D or 103E if the work in the waters is undertaken according to chapter 103D or 103E; (2) a drainage project for a drainage system established under chapter 103E that does not substantially affect public waters; or (3) culvert restoration or replacement of the same size and elevation, if the restoration or replacement does not impact a designated trout stream.”*

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3. Subp. 21 **Construction projects:**

- **Subp 21 A.** OK.
- **Subp 21 B.** OK.
- **Subp 21 C.** This provision seems to be subject to significant interpretation of when O & M can be done and what constitutes “substantial” impact. If you are doing maintenance and repair to a flood damage reduction project that requires some significant improvements to ensure the long-term sustainability of the structure, who determines if that is substantial or not? It might be more appropriate to just say “Operation, maintenance, or repair work to existing authorized projects and structures is exempt.” Many water resource projects constructed under authorized state and federal permits require that the projects be properly operated and maintained.
- **Subp 21 D.** This provision seems to be missing one element of authorization in the exemption. The provision should include “maintenance and repair” in addition to “Restoration or reconstruction”. It seems that this provision may be appropriate for historic buildings; however, the provision is clearly not appropriate to limit restoration and construction or maintenance and repair to water resources projects that have been lawfully permitted. In addition the permits require that the authorized projects be appropriately maintained.
- **Subp 21 E.** OK.

The Red River Watershed Management Board appreciates the consideration of these recommendations during the final rule making process. If you have any questions please contact Ron Harnack, 651.341.7651, harnackcreek@hotmail.com, RRWMB Project Coordinator. We also ask that we be kept informed of the continuing process and the opportunity to provide testimony at formal public hearings regarding these rules. We do believe that a formal public hearing on the rules should be conducted.

Thank-you
Ron Harnack
Project Coordinator
RRWMB

CC: Courtney Aylers-Nelson
Naomi Goral, Administrator, RRWMB
John Finney, Chair, RRWMB
Henry Van Offelen