Meeting Minutes
Bois de Sioux and Mustinka Watersheds
1W1P Advisory Committee Meeting
6/6/19 at 9:00 am

Member Organizations	Committee Representative	Designated Alternate
Big Stone County	Danny Tuckett	Darren Wilke **[Absent]**
Big Stone SWCD	Adam Maleski **[Absent]**	Joseph Otto **[Absent]**
Grant County	Greg Lillemon	
Grant SWCD	Joe Montonye	Jared House
West Otter Tail SWCD	Aaron Larsen **[Absent]**	Ben Underhill **[Absent]**
Otter Tail County	Kyle Westergard **[Absent]**	
Stevens County	Bill Kliendl	
Stevens SWCD	Matt Solemsaas	
Traverse County	Lynn Siegel **[Absent]**	Bruce Johnson **[Absent]**
Traverse SWCD	Sara Gronfeld	Bruce Johnson **[Absent]**
Wilkin County	Breanna Koval	
Wilkin SWCD	Craig Lingen	Don Bajumpaa **[Absent]**
Bois de Sioux Watershed	Jamie Beyer	Linda Vavra

Pete Waller, BWSR	
Annette Drewes, DNR	**[by phone]**
Ryan Lemickson, MDA	**[Absent]**
Amanda Strommer, MDH	**[Absent]**
Cary Hernandez, MPCA	

Others Present:

Big Stone & Stevens Co. Hwy	Todd Larson	Grant Co. Hwy	Tracey Von Bargen
Big Stone Co. Hwy	Darwin Karsky	HEI	Kris Guentzel
Bois de Sioux Watershed	Allen Wold	HEI	Jeremiah Jazdzewski
BWSR	Henry Van Offelen	Stevens Co. Hwy	Scott Erickson
City of Graceville	Scott Bauer	Traverse Co. Hwy	Chad Gillespie
City of Herman	Joe Schmidt	Wilkin Co. Highway	Steve Neppl
City of Tintah	Fran Keaveny	Wilkin Co. Highway	Tim Christopher
City of Tintah	Marcia Petermann	WSN	Bryan Bye
City of Wendell	Bob Aune	WSN	Pat Conroy
Grant Co. Hwy	Reed Peterson		
Precision Agriculture	Warren Raguse		

Call to Order: The meeting was called to order at 9:00 am.

Updates (Public Kickoff Meeting; 60-Day Notification): Recap/update provided by HEI.

Minutes. Upon motion by Montonye, seconded by Beyer and carried unanimously, the Minutes of April 4, 2019 were approved.

Input from Subject Matter Experts to Guide Prioritization.
Subject matter experts provided the following comments and discussion.

Groundwater
Aaron Meyer, MN Rural Water provided comments by phone with Jamie
Greg Reinart, Reinart Well Drilling provided comments by phone with Jamie

- Arsenic concerns are spotty
- Well sealing should be the top priority for abandoned/open unused wells
- Recommends adding DWSMA map in Comprehensive Water Plans
- DWSMA's will shrink with decreasing population
- DWSMA's are intended to protect municipal groundwater supplies, but cities may not own the land in the DWSMA, and if the DWSMA is outside of city limits, may not be able to regulate activities within the DWSMA. Counties may have this ability with their zoning ordinances. Can we work on implementing county zoning ordinances to protect DWSMA's, maybe incorporate wellhead protection plans? This could also be covered in Chapter 5, Regulatory Issues
- We have deep aquifers. Most wells are close to 100', but some are as deep as 400'
- Wells can range 30' – 50' around Lake Traverse
- Groundwater is hard to find in place, and a landowner may only have one aquifer option

Committee follow-up question – where is our groundwater recharge area?

WWTF & Stormwater
Bryan Bye, WSN
Bob Aune, City of Wendell
Cary Hernandez, MPCA
Scott Bauer, City of Graceville

- Tintah has 100% noncompliant septic systems because of separation with groundwater; over half pose an imminent threat; a pond system is recommended; septic systems are currently discharging to the Rabbit River. This is a serious health issue, but is not new. Grant awards were not made in the 1980's because administrators thought Tintah would continue to decline in population – but, Tintah has a bigger population today.
- Campbell's sewer ponds are aging, are considering a regional waste water treatment facility with Tintah
- Participants discussed difficulties in keeping phosphorous limits below proposed standards; pontoon + alum or additional pond storage are the primary options. Graceville and Elbow Lake are able to manage phosphorous discharge limits by timing their releases with the season and downstream water conditions.
- Currently, there is no stormwater treatment and towns have varying levels of infrastructure (from none to curb, gutter, storm sewer).
- Impervious surfaces increase and the rate and volume of stormwater
- MPCA issues municipal stormwater permits (MS4's), but small towns are exempt
- The City of Wendell has a need for a stormwater retention pond near their elevator
- Campbell Ponds need improvement; Tintah needs ISTS replaced with ponds; Graceville has older ponds; Herman has older ponds; potential goal: our comprehensive water plans support the funding of these projects

Committee follow-up question – do we want someone to give a presentation on stormwater treatment/MS4 laws and options?

Agricultural Land Protection and Productivity
Warren Raguse, Precision Agriculture

- Tile is the most important tool to protect and improve our farmland, to reduce surface erosion and runoff, and to protect the land from flooding.
- Some fall banding of nitrogen in the fall is better than a 100% broadcast surface application in the spring.
- **When you apply nutrients isn't as important as how you apply nutrients.**
- Some of the University of Minnesota soil fertility recommendations are grossly outdated – up to 30 years old. Today's plant varieties have different nutrient needs than those used thirty years ago, but MN Department of Ag and CSP policies are based on University nutrient recommendations, which puts growers in a difficult position, where they exceed the recommendations because the recommendations are not relevant.
- Nitrogen fertilizer: the different forms of nitrogen have different vulnerabilities. Volatization potential varies. Volatization and leaching stabilization products can be added. Soil application depth also affects volatization potential. Humidity and soil moisture movement also move nitrogen.
- When soil sampling was initially promoted, it was sometimes marketed as a means to identify poor yielding field areas and improve them, to convert them into higher yielding field areas. Some farmers who paid major soil sampling expenses were burned by that somewhat misguided claim. Some areas of a field are just low and prone to flooding or saturation and have salt/sodium issues and never will be the high yield areas. On the other end of the scale, the best zones may have opportunity to be fertilized according to what they are – when fertilized properly, these areas can have greater yield potentials.
- Red River Valley farmers have a less urgent topsoil loss attitude than outside of the Valley, because they have more topsoil in general – but this abundance may distract from actual topsoil loss conditions and rates.
- Cover crop goals need to be clearly understood, in the context of what problem is trying to be solved in a field. A cover crop system needs to be discussed as a team, taking into account the perspectives and knowledge of the farmer, the agronomist, soil health and fertility, etc. Are you scavenging nutrients or dealing with compaction? For eg, if you are dealing with field crusting, recreational tillage for limited weed control and fertilizer rates may be problems – and cover crops may fit in as a solution, but all of the relationships of these factors must be understood.
- Deep banding and strip-tilling would place nutrients more optimally, but timing and qualified labor to run equipment are barriers.
- One farmer is strip-tilling nutrients in the Johnson area; subsequently, soil required less phosphorous and potassium with better resulting yields.
- With strip-till, the operator needs to understand soil conditions to select the proper equipment configuration…for eg, there are a dozen different shoes that can be used. If you are considering strip-till, you may need to decide between contracting with a custom business like Soil Warrior/Khun Kraus, etc. vs. taking 3 years to figure it out for yourself. We must remember that equipment must be fluid and change as soil moisture conditions change. Whatever equipment a grower uses needs to be easily changed to match conditions from field to field, if need be.
- The learning curve for new equipment and cropping systems costs real dollars - you are asking a farmer to give-up income the first few years. If strip-till is done right, a farmer won't give up anything and will actually gain from day 1. If done wrong then the farmer will likely give up

some yield. For no-till systems, a farmer will likely give up some yield until the soil life is brought into balance, which might be 3-5 years of getting it right.

- **Education should be done grower-to-grower.** Doug Jahnke and Craig Lingen have grower contacts who may be able to provide some mentorship.
- A successful SWCD service was purchasing seed drilling equipment that was rented-out at an extremely low cost – this encouraged farmers to try a new or perceived riskier practice. Some equipment requires an experienced individual to operate.

Drainage Inspectors

Big Stone & Stevens Co. Hwy	Todd Larson	Stevens Co. Hwy	Scott Erickson
Big Stone Co. Hwy	Darwin Karsky	Traverse Co. Hwy	Chad Gillespie
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Grant Co. Hwy	Tracey VonBargen		

- County infrastructure is deteriorating faster than it can be replaced.
- Counties process landowner requests for clean-outs; clean-outs are coordinated and paid-for by landowners.
- Existing culvert sizing is far from today's design standards; some culverts are shockingly under or over sized in comparison to the rest of the culverts on the same system or the corresponding drainage area. The Watershed District's culvert inventories are used frequently by county employees to determine appropriate replacement culvert sizing – especially following a significant flood, where culverts were damaged and will be replaced.
- $50,000 - $70,000 may be added to a highway project to meet MPCA NPDES requirements – this can prevent a project from happening altogether. These requirements were geared towards developed areas, and don't make sense in an agricultural setting.
- Grant County Highway Department is specifically interested in opportunities for funding where a ditch project design could be modified to achieve habitat goals – for eg, meander channels or two-stage ditches
- Stevens County has had some recent pressure to repair ditches; they are working on a two-stage ditch and water retention site.
- The progress of ditch projects and ditch maintenance are heavily influenced upon the health of the local farm economy. For eg, the need for repetitive ditch clean-outs is alleviated by installing side inlets to prevent swales. Side inlets may cost $3,500 to install, and a farmer may need 4 of them. Cost share is around 50% of the cost. So, either the swales are repaired with up-front costs, reducing clean-out costs, or the clean-outs continue over time.
- Redeterminations are occurring across both watersheds, but take years. Sometimes the inability to make repairs (due to low, out-of-date benefit levels) will create pressure that leads to an improvement or major repair project. In Stevens County, they are tackling a $5 million ditch project.
- Grant County has surveyed where all their buffers are supposed to be.
- Stevens County has a public GIS layer of benefitted acres tagged to the parcel map.
- Highway engineers decide if they are going to use a 10-, 50-, or 100-year design standard, depending on cost and the availability of other roads if there is an event that will exceed the current road's design standard.

Committee follow-up – collect flood damage sites map by county.

Issue Prioritization by Planning Region. With the above information in-mind, the Advisory Committee reviewed the Issues Prioritization tables and made corresponding changes.

Land and Water Resources Inventory. Advisory Committee members should send changes to Kris or Jamie.

Planning Section 1: Introduction. Advisory Committee members should send changes to Kris or Jamie.

Summer Bus Tour. Details will be sent soon. Tour will be held at the end of August.

NEXT MEETING AUGUST 1, 2019 AT 9 OR 9:30 AM