

March 27, 2018

Tiffany Determan, District Manager
Isanti Soil and Water Conservation District
110 Buchanan St. N.
Cambridge, MN 55008

RE: Response to request for priority issues and plan expectations for the Lower St. Croix One Watershed, One Plan

Dear Ms. Determan,

Thank you for providing the opportunity to provide priority issues and plan expectations for the development of the Lower St. Croix (LSC) One Watershed One Plan (plan) under Minnesota Statutes Section 103B.101, Subd. 14. We appreciate all of the partners' willingness to participate in the development of a comprehensive watershed-based plan.

The Board of Water and Soil Resources (BWSR) has the following overarching expectations for the plan:

Process

The planning process must follow the requirements outlined in the One Watershed, One Plan – Operating Procedures document, adopted by the BWSR Board on March 23, 2016 and available on the BWSR website: www.bwsr.state.mn.us/planning/1W1P/index.html. It is particularly important that the planning process:

- Involve a broad range of stakeholders to ensure an integrated approach to watershed management.
- Reassess the agreement established for planning purposes when finalizing the implementation schedule and programs in the plan, in consultation with the Minnesota Counties Intergovernmental Trust and/or legal counsel of the participating organizations, to ensure implementation can occur efficiently and with minimized risk. This step is critical if the plan proposes to share services and/or submit joint grant applications.
- Consider identifying knowledge and data gaps related to social networks, as part of the process leading up to the development of the implementation schedule. For example, there may be changing demographics, communities of interest, a patchwork of attitudes and beliefs surrounding environmental issues etc. that would all play a role in the successful implementation of any watershed planning and implementation activity.

Plan Content

The plan must meet the requirements outlined in the One Watershed, One Plan – Plan Content Requirements document, adopted by the BWSR Board on March 23, 2016 and available on the BWSR website: www.bwsr.state.mn.us/planning/1W1P/index.html. More specifically the plan needs to:

- Be science-based in the selection of priority resource concerns, building off of all of the existing water plans, data, and modeling that has been completed for the LSC Watershed.
- Have a set of measurable goals and targeted implementation actions that clearly convey expected changes to water resources in the Lower St. Croix Watershed in the next 10 years. During the prioritization process your partnership should select the critical issues and actions that need to be accomplished in the first few years of plan implementation.
- Consider emerging threats (e.g. harmful algal blooms, chloride), actions that may provide multiple benefits (e.g. climate adaptation, pollinator habitat, soil health), and identify data gaps.
- Consider multiple sources of local, state, federal and private funding available in developing comprehensive implementation actions. This effort should also address the local economics to determine the availability or capacity of local funding to realistically support implementation efforts (i.e. local match for grant funds for implementation activities)
- Provide a thorough description of the programs and activities required to administer, coordinate, and implement the actions in the implementation schedule; including work planning (i.e. shared services, collaborative grant-making, decision making as a watershed group and not separate entities) and evaluation.

BWSR has the following specific priority issues:

- The State’s Nonpoint Priority Funding Plan (NPPF) outlines a criteria-based process to prioritize Clean Water Fund investments—if planning partners are intending to pursue the Clean Water Fund as a future source of funding, partners are strongly encouraged to consider the high-level state priorities, keys to implementation, and criteria for evaluating proposed activities in the NPPF.
- The restoration of impaired lakes and streams. Several Total Maximum Daily Load (TMDL) Studies and Watershed Restoration and Protection Strategies (WRAPS) along with statewide nutrient and sediment strategies have been completed for the LSC Watershed. Consider the NPPF priority of restoring waters closest to meeting state water quality standards.
- Protection of high quality lakes, streams, and wetlands. The LSC Watershed contains many high value waters such as the St. Croix River, trout streams, and lakes with exceptional water quality that are important for public use and habitat. Consider the NPPF priority of protecting those high-quality unimpaired waters at greatest risk of becoming impaired and restoring/protecting water resources for public use. Analysis and discussion of water quality trends can take place in many areas of the LSC Watershed where there is plentiful data and should inform plan discussions.
- Groundwater and groundwater dependent natural resources are important issues in the LSC Watershed. Groundwater is also the drinking water source for all of the area’s population and the NPPF identifies protecting water resources for public health, including drinking water, as a priority. The Groundwater Restoration and Protection Strategies (GRAPS) report for the Lower St. Croix Watershed will be available this coming April from the Minnesota Department of Health (MDH).

The report will incorporate the available groundwater data and identify issues and strategies to consider incorporating into the plan.

- The drainage authorities within the planning boundary must be invited to participate as stakeholders in the plan development process. Additionally, the planning partners are strongly encouraged to include projects and activities consistent with multipurpose drainage criteria outlined in Minnesota Statutes §103E.011, Subd. 1a and §103E.015, Subd. 1. Refer to the attached document “Chapter 103E Drainage System Consideration for 1W1P” for additional information on 103E Drainage Authority responsibility, authority and opportunity for participating in the planning of conservation practices involving public drainage systems.
- The state is embarking on a wetland prioritization plan that will guide wetland mitigation in the future. Wetland, mitigation, restoration and preservation priorities in this plan may be eligible for inclusion in this statewide plan. Additionally, the Lower St. Croix Watershed has also been identified by BWSR as a priority area to pursue wetland restoration. BWSR analysis comparing hydric soil data to the National Wetlands Inventory (NWI) suggests that 47% of the historically present wetlands have been lost. A similar result emerged when we assessed the quality of the remaining wetlands by examining hydrologic alteration via drainage using the NWI. The BWSR Wetland Section is currently in the process of preparing a Compensation Planning Framework (CPF) for the St. Croix River Watershed to establish an in-lieu fee mitigation program for this bank service area. The attached internal BWSR Memo provides additional information on the CPF and opportunities for wetland restoration and conservation work in the LSC Watershed.
- The State’s Re-Invest in Minnesota (RIM) Reserve easement program considers several site specific and landscape scale factors when funding applications. Though it is dependent on specific program terms, the State does consider local prioritization of areas for easement enrollment.
- BWSR has recently entered into a contribution agreement with NRCS for the Watershed Conservation Planning Initiative (WCPI). This initiative establishes a partnership framework for cooperation between NRCS, BWSR and SWCDs that involves activities to support conservation planning on eligible lands in the priority watershed project areas to get landowners ready to implement conservation projects. The LSC Watershed has been selected as one of the priority project areas and the planning initiative has recently started, with the Chisago SWCD as the host SWCD. We encourage the LSC Watershed partners to incorporate the WCPI and resulting conservation projects into their 1W1P. Feel free to contact Mary Peterson (BWSR Watershed Conservation Planner and Project Coordinator) at 651-296-0874 for additional information.
- Include data collection and monitoring activities necessary to support planning for the targeted implementation schedule and to reasonably assess and evaluate plan. These efforts should be coordinated with partner and other data collection and monitoring efforts. For example future plan activities should take into consideration the results of the MPCA’s 2019 to 2020 Monitoring and Assessment efforts in the LSC Watershed.
- Planning partners are strongly encouraged to consider the potential for more extreme weather events and their implications for the water and land resources of the watershed in the analysis and prioritization of issues. At a minimum Atlas 14 should be used for planning and design of local stormwater management facilities so they are more resilient to extreme weather events.

We commend the partners for their participation in the planning effort. We look forward to working with you through the rest of the plan development process. If you have any questions or would like to request participation from other BWSR resource experts (i.e. wetlands, RIM, Buffers etc.), please feel free to contact me at 651-332-0786 or dan.fabian@state.mn.us.

Sincerely,



Daniel A. Fabian
BWSR Board Conservationist
520 Lafayette Road North
St. Paul, MN 55155

cc:

Jason Carlson, DNR (via email)
Margaret Wagner, MDA (via email)
John Freitag, MDH (via email)
Juline Holleran, MPCA (via email)
Eric Alms, MPCA (via email)
Judy Sventek, Metropolitan Council (via email)
Jennifer Kostrzewski, Metropolitan Council (via email)
Kevin Bigalke, BWSR (via email)
Barb Peichel, BWSR (via email)

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**Chapter 103E Drainage Systems Considerations
for
One Watershed, One Plan**

3-20-18

As the 1W1P plan is formulated, BWSR suggests the following:

- Chapter 103E drainage authorities (who are also water planning authorities) be fully engaged from the early stages of the planning process. Use Section 103E.015 *CONSIDERATIONS BEFORE DRAINAGE WORK IS DONE*. and other provisions of drainage law identified below to capture both the extent and limitations of drainage authority responsibility, authority and opportunity for participating in the planning and implementation of conservation practices involving public drainage systems and their associated drainage areas.
- Prioritization within the watershed include identification of Chapter 103E drainage systems and their drainage areas.
- Multipurpose drainage management be included in the approach for targeting best management practices (BMPs) within the drainage area of Chapter 103E drainage systems, considering the five purposes outlined in Section 103E.015, Subdivision 1. *Environmental, land use, and multipurpose water management criteria.*, clause (2).
- Measurable outcomes for erosion and sediment reduction, nutrient reduction, improved instream biology, and detention storage to assist those outcomes, should include correlation to Chapter 103E drainage systems.
- Lay out a coordinated approach for how implementation of multipurpose drainage management practices identified in the plan can be coordinated with, and/or integrated early into Chapter 103E processes and proceedings. When projecting funding needs for BMP implementation along, or within the drainage area of, public drainage systems, incorporate use of the following Sections of Chapter 103E.
 - 103E.011, Subd. 5. *Use of external sources of funding.*;
 - 103E.015, Subd. 1a. *Investigating potential use of external sources of funding and technical assistance.*;
 - 103E.227 *Impounding, rerouting and diverting drainage system waters.*;
 - 103E.701, Subd. 6. *Wetland restoration and replacement; water quality protection and improvement.*; and
 - 103E.715, Subd. 6. *Repair by resloping ditches, incorporating multistage ditch cross-section, leveling spoil banks, installing erosion control, or removing trees.*

These provisions enable public-private funding partnerships involving Chapter 103E drainage systems.

- Drainage authorities consider the permissive authority in Section 103E.021 Subd. 6 *Incremental implementation of vegetated ditch buffer strips and side inlet controls*. to establish permanent buffer strips of perennial vegetation and/or side inlet controls, where necessary to control erosion and sedimentation, improve water quality, or maintain the efficiency of the drainage system.
- Note that in accordance with Section 103E.021, Subdivision 1. *Spoil banks must be spread and permanent vegetation established.*, a drainage authority shall order minimum 16-1/2 ft. wide ditch buffer strip(s) of perennial vegetation approved by drainage authority for any proceeding to establish, construct, improve or do any work affecting a public drainage system under any law that appoints viewers to assess benefits and damages.

Internal Memo

Date: 3/26/2018

To: D. Fabian

From: T. Smith

RE: Lower St. Croix River 1W1P Wetland Comments

The Wetland Section of the Board of Water and Soil Resources is in the process of preparing a Compensation Planning Framework (CPF) for the St. Croix River Watershed to establish an in-lieu fee mitigation program in this bank service area (BSA). We recently submitted our Prospectus level document to the U.S. Army Corps of Engineers in accordance with the requirements in the federal mitigation rule (33 CFR 332) which is the regulation that sets the standards and requirements for in-lieu programs. The Prospectus is currently available for public review until April 18, 2018. A copy of the document and our State Register notice is available on the wetlands page of the BWSR website.

The CPF will be used to select, secure, and implement wetland restoration, establishment, enhancement, and/or preservation activities in the BSA and must support a watershed approach to compensatory mitigation. The current version of the CPF contains a summary of baseline conditions, a comparative condition assessment, identification of threats, and the proposed framework for prioritizing and selecting wetland mitigation sites. Although the CPF addresses the entire St. Croix River Watershed in Minnesota, our baseline condition assessment was completed at the major watershed scale so it does not contain specific information on the Lower St. Croix watershed (referred to as the Stillwater watershed in the CPF). I have summarized some of this information in the following paragraphs.

Wetland Quantity and Quality. Our analysis indicated that the Stillwater watershed has experienced the highest cumulative wetland loss of the four major watersheds in the BSA. Using data from the Anderson and Craig study completed in 1985 we estimated that 31% of the wetlands in this watershed have been lost. A comparison of hydric soil data to wetlands mapped on the National Wetland Inventory (NWI) suggests that 47.1% of the historically present wetlands have been lost. A similar result emerged when we assessed the quality of the remaining wetlands by examining hydrologic alteration via drainage using the NWI. We identified the acreage of wetlands with the "d" (ditched) modifier and represented that as a percentage of the total acreage in the watershed. In the St. Croix River basin, approximately 31% of the wetlands mapped on the NWI are identified as ditched suggesting that these wetlands have been altered and may have lost some of their ability to perform functions that benefit the watershed. The next closest major watershed in the basin is the Snake River watershed with approximately 18% of the remaining wetlands identified as ditched.

Permitting. Based on Clean Water Act Section 404 permitting data from 2011 to 2016 the Stillwater watershed had the highest number of permit actions (96) which amounts to 47% of the total number of permits issued in the St. Croix basin during this time period. The Stillwater watershed's southern region has the highest number of permits and wetland impact. Since this area has the highest population and more intense development pressure and associated infrastructure, these results were not unexpected.

Wetland Banking Analysis. As part of the CPF development, BWSR conducted an analysis of wetland banking in the BSA to assess how this form of wetland replacement was being used to offset wetland impacts authorized under the Wetland Conservation Act and Section 404. The analysis relied on data obtained from the State of Minnesota Wetland Bank from 1996 through 2017 primarily through the processing of wetland bank transactions. From the date the wetland banking program was created in 1996 to the present day, seventeen wetland banks have been established in the BSA. Together, these banks have resulted in the deposit of 769.3 wetland credits. They are generally concentrated near the metro area with 15 of the 17 located in the Stillwater Watershed and the remaining two located in the southern portion of the Snake River Watershed. As of November 2017, the balance of wetland credits from banks in the BSA was 73, which includes 29.9 federally approved credits and 43.1 state only approved credits. The total amount of federally approved credits includes 3.8 credits in BWSR's Local Government Road Wetland Replacement Program accounts and 17.7 credits that have been purchased and placed in a transfer account but not yet applied towards a mitigation requirement. Removing these credits from the pool of federally approved credits leaves approximately 8.4 federally approved credits that are potentially available for sale on the private banking market. The 8.4 federally approved credits are spread amongst six different banks and include the following types and amounts: 3.17 shallow marsh, 2.6043 sedge meadow, 1.5091 deep marsh, 0.7381 fresh (wet) meadow, 0.18 open bog, 0.101 hardwood swamp, and 0.0891 upland buffer.

Data from the Minnesota Wetland Bank (MWB) also were used to assess the degree to which impacts that occurred in the BSA were offset with wetland credits from banks located within the BSA. The data represents the number of credits withdrawn from bank accounts located in the BSA in order to satisfy a mitigation requirement and does not take into consideration project specific mitigation. Our analysis shows that that, with respect to wetland bank activity, the in-place requirement is being met in this BSA approximately less than half the time (47%). Put another way, the majority of wetland impacts that have been mitigated through the use of wetland bank credits have used credits that come from outside of the St. Croix River basin in Minnesota.

Major Watershed Condition Assessment. We completed a relative condition assessment for the four major watersheds in the BSA as a first step towards prioritizing mitigation opportunities. The analysis conducted for the BSA utilized seven criteria: Wetland Loss, Altered Water Courses, Perennial Cover, Population Density, Ditched Wetlands, Wetland Impacts per Year, Impaired Streams, and Impaired Lakes. These criteria were assessed for each major watershed using publicly available GIS data obtained by BWSR with the exception of the wetland loss estimate which was obtained from extrapolating the Anderson and Craig report. The data was normalized based on a comparison of the worst-case scenario (wetland loss for each watershed was divided by the maximum loss documented for the major watersheds). The normalized result was then put into the appropriate "bin" using ten possible categories equally distributed across a scale from 1 to 100 and given the score assigned to that range of values. A score of 1 indicated a higher quality or more intact condition while a score of 10 represented a lower quality or more degraded condition. The score for each assessment criteria was then summed by watershed to produce an overall assessment score. Consistent with the information obtained and evaluated in the baseline condition section of the CPF, there is a significant difference in condition between

the major watersheds in the BSA. The Stillwater watershed, with the highest population density and greatest degree of human disturbance, was identified as the most degraded in every category except impaired streams where it is second to the Snake River watershed. With a maximum score of 80 and higher scores representing the worst condition, the Stillwater watershed received a score of 76. The three other watersheds (Snake, Kettle, and Upper St. Croix watersheds) scored 61, 41, and 10 in our assessment.

If you have any questions or if you need additional information please contact me. In addition, if you or the local partners have an interest in discussing how our wetland mitigation planning efforts can complement the 1W1P effort in this watershed please let me know.

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