



DATE: September 14, 2015

TO: Board of Water and Soil Resources' Members, Advisors, and Staff

FROM: John Jaschke, Executive Director 

SUBJECT: BWSR Board Meeting Notice – September 23, 2015

The Board of Water and Soil Resources (BWSR) will meet on Wednesday, September 23, 2015, beginning at 9:00 a.m. The meeting will be held in the lower level Board Room at 520 Lafayette Road N., St. Paul. Parking is available in the lot directly in front of the building (see hooded parking area).

The following information pertains to agenda items:

**COMMITTEE RECOMMENDATIONS**

***Central Region Committee***

1. **Elm Creek Watershed Management Commission Revised Watershed Management Plan** – The Elm Creek Watershed Management Commission was formed in 1973 and adopted their first Watershed Management Plan in 1983. The plan builds upon past success through the incorporation of the current WRAPS study as well as an enhanced Capital Improvement Plan. The Metro Region Committee met earlier this month to discuss the plan and recommends approval per the attached draft Order. **DECISION ITEM**
  
2. **Middle St. Croix Watershed Management Organization Revised Watershed Management Plan** – The Middle St. Croix Watershed Management Organization (MSCWMO) was established by a joint powers agreement in 1984 between the following ten member communities: Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, and West Lakeland Township. The first Watershed Management Plan was approved by the Board in 1987 in accordance with the Metropolitan Surface Water Management Act of 1982. The revised plan builds upon the successful implementation of the previous plan with a new implementation program designed to meet the MSCWMO's established goals. In addition to the identification of the actions that the MSCWMO will take, the plan requires specific actions by member communities. The Metro Region Committee met earlier this month to discuss the plan and recommends approval per the attached draft Order. **DECISION ITEM**
  
3. **Valley Branch Watershed District Revised Watershed Management Plan** – The Valley Branch Watershed District (VBWD) was established on November 14, 1968 to address existing flooding problems and prevent future flooding problems in the watershed. This plan will be the fifth VBWD Plan approved by the Board or its predecessor under the Watershed Act, Minnesota Statutes Chapter 103D and the fourth since passage of the 1982 Metropolitan Surface Water Management Act, Minnesota Statutes Chapter 103B. The VBWD covers approximately 70 square miles and lies primarily within Washington County, but includes approximately one square mile in Ramsey County. The VBWD 2015-2025 Watershed Management Plan

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(Plan) documents the Managers' guidelines and proposed tasks for managing the water resources within the boundaries of the VBWD to achieve their vision. The Metro Region Committee met earlier this month to discuss the Plan and recommends approval per the attached draft Order. **DECISION ITEM**

#### **Northern Region Committee**

1. **Thirty Lakes Watershed District Revised Overall Plan** – The final draft of the Thirty Lakes Watershed District (TLWD) Revised Overall Plan was filed with the Board on September 9, 2015. The District revised their original draft Plan (dated December 27, 2014) to address comments raised by the Department of Natural Resources and BWSR staff. The Northern Region Committee met on September 2, 2015 to review the Revised Plan and recommends approval contingent upon the TLWD incorporating an additional action item in the Plan. The District's activity associated with projects and programs has declined, the Committee recommended that the District conduct an evaluation of the purpose and need for the District, addressing both original purposes and current needs. The District has since incorporated the Committee's recommendation in the latest version of the Plan. The Committee's recommendation will be presented in detail to the full Board for review and action. **DECISION ITEM**
2. **Morrison County Local Water Management Plan Extension** – Morrison County submitted a resolution requesting a two year extension of their County water plan on August 6, 2015. The Morrison County Local Water Management Plan expires on May 26, 2020, with the Goals, Objectives and Actions due to be updated by May 26, 2015. The Northern Region Committee recommended approval of the Morrison County extension request at its September 2, 2015 meeting. **DECISION ITEM**

#### **NEW BUSINESS**

1. **Pheasant Summit Action Plan** – Governor Mark Dayton injected new energy into pheasant conservation efforts when he convened a Pheasant Summit in December 2014 in Marshall, MN. His challenge was clear, to develop an action plan that would restore Minnesota's pheasant populations and restore its hunting tradition. The Pheasant Summit Action Plan is a major step forward, turning goals identified from the Summit attendees into action. Kevin Lines, DNR Pheasant Action Plan Coordinator, and Greg Hoch, DNR Prairie Habitat Team Supervisor, will present the pheasant plan. **INFORMATION ITEM**
2. **Technical Training and Certification Strategy** – This document is excerpted from the Technical Training and Certification Strategy (final draft, 08-31-15). This contains the keys steps recommended for the Minnesota's approach to technical training. **INFORMATION ITEM**

If you have any questions regarding the agenda, please feel free to call me at 651-296-0878. The Board meeting will adjourn about noon. I look forward to seeing you on September 23<sup>rd</sup>!

**BOARD OF WATER AND SOIL RESOURCES  
520 LAFAYETTE ROAD N.  
LOWER LEVEL CONFERENCE ROOM  
ST. PAUL, MINNESOTA 55155  
WEDNESDAY, SEPTEMBER 23, 2015**

**PRELIMINARY AGENDA**

**9:00 AM CALL MEETING TO ORDER**

**PLEDGE OF ALLEGIANCE**

**ADOPTION OF AGENDA**

**MINUTES OF AUGUST 27, 2015 BOARD MEETING**

**PUBLIC ACCESS FORUM** (10-minute agenda time, two-minute limit/person)

**INTRODUCTION OF NEW BOARD MEMBER**

- Patty Acomb, Metro City Elected Official

**INTRODUCTION OF NEW EMPLOYEES** (*NOTE: to accommodate schedules this item will be after 10:30 AM*)

- Ryan Hughes, Northern Region Manager, Duluth
- Ed Lenz, Board Conservationist, Marshall
- Jennifer Mocol-Johnson, Board Conservationist, Mankato
- Barbara Radke, Training Coordinator, Mankato

**REPORTS**

- Chair & Administrative Advisory Committee – Brian Napstad
- Audit & Oversight Committee – Brian Napstad
- Executive Director – John Jaschke
- Dispute Resolution Committee – Gerald Van Amburg
- Grants Program & Policy Committee – Steve Sunderland
- RIM Reserve Committee – Gene Tiedemann
- Water Management & Strategic Planning Committee – Jack Ditmore
- Wetland Conservation Committee – Gerald Van Amburg
- Buffers, Soils & Drainage Committee – Brian Napstad
- Drainage Work Group – Tom Loveall/Al Kean

**COMMITTEE RECOMMENDATIONS**

***Central Region Committee***

1. Elm Creek Watershed Management Commission Revised Watershed Management Plan – Steve Christopher – ***DECISION ITEM***

2. Middle St. Croix Watershed Management Organization Revised Watershed Management Plan – Dan Fabian – **DECISION ITEM**
3. Valley Branch Watershed District Revised Watershed Management Plan – Dan Fabian – **DECISION ITEM**

**Northern Region Committee**

1. Thirty Lakes Watershed District Revised Overall Plan – Dan Steward – **DECISION ITEM**
2. Morrison County Local Water Management Plan Extension – Dan Steward – **DECISION ITEM**

**NEW BUSINESS**

1. Pheasant Summit Action Plan – Kevin Lines and Greg Hoch, DNR – **INFORMATION ITEM**
2. Technical Training and Certification Strategy – Angie Becker Kudelka – **INFORMATION ITEM**

**AGENCY REPORTS**

- Minnesota Department of Agriculture – Matt Wohlman
- Minnesota Department of Health – Chris Elvrum
- Minnesota Department of Natural Resources – Tom Landwehr
- Minnesota Extension Service – Faye Sleeper
- Minnesota Pollution Control Agency – Rebecca Flood

**ADVISORY COMMENTS**

- Association of Minnesota Counties – Jennifer Berquam
- Minnesota Association of Conservation District Employees – Tiffany Determan
- Minnesota Association of Soil & Water Conservation Districts – LeAnn Buck
- Minnesota Association of Townships – Sandy Hooker
- Minnesota Association of Watershed Districts – Ray Bohn
- Natural Resources Conservation Service – Cathee Pullman

**UPCOMING MEETINGS**

- BWSR Academy, October 27-29, 2015, Pequot Lakes
- BWSR Board Meeting, October 28, 2015, St. Paul

Noon     **ADJOURN**

**BOARD OF WATER AND SOIL RESOURCES  
ST. JAMES HOTEL  
406 MAIN STREET, LAURENTINE ROOM  
RED WING, MINNESOTA 55066  
THURSDAY, AUGUST 27, 2015**

**BOARD MEMBERS PRESENT:**

Joe Collins, Jill Crafton, Jack Ditmore, Chris Elvrum, MDH; Doug Erickson, Rebecca Flood, MPCA; Kathryn Kelly, Tom Landwehr, DNR; Tom Loveall, Brian Napstad, Tom Schulz, Rob Sip, MDA; Faye Sleeper, MES; Steve Sunderland, Gene Tiedemann, Gerald Van Amburg, Paige Winebarger

**BOARD MEMBERS ABSENT:**

Sandy Hooker  
Neil Peterson

**STAFF PRESENT:**

Mary Jo Anderson, Angie Becker Kudelka, Tom Gile, Tim Gillette, Jim Haertel, John Jaschke, Al Kean, Jeff Nielsen

**OTHERS PRESENT:**

Ian Cunningham, MASWCD  
Sheila Vanney, MASWCD  
Terri Peters, Wabasha SWCD

**CALL MEETING TO ORDER** – Chair Napstad called the meeting to order at 9:01 a.m.

### **PLEDGE OF ALLEGIANCE**

Chair Napstad thanked Goodhue and Rice SWCDs and their staff for hosting the tour in the southeast; he thanked the Cannon River Watershed Partnership; and thanked Mary Jo Anderson and Tom Gile for planning an excellent tour.

**ADOPTION OF AGENDA** – Chair Napstad stated that Ed Lenz, Board Conservationist in Marshall, will be introduced at a later date. Moved by Tom Schulz, seconded Doug Erickson, to adopt the agenda as amended. **Motion passed on a voice vote.**

**MINUTES OF June 24, 2015 BOARD MEETING** – Moved by Tom Schulz, seconded by Kathryn Kelly, to approve the minutes of June 24, 2015 as circulated. **Motion passed on a voice vote.**

**PUBLIC ACCESS FORUM** – Jill Crafton distributed information and briefly commented on the Great Lakes-St. Lawrence River Basin Water Resources Compact, and the City of Waukesha, Wisconsin, request for an exception to the ban on diversions of Great Lakes water under the Compact. Under the Compact, any diversion application must be approved by all eight Great Lakes states and two Canadian provinces. Joe Collins recommends that Minnesota take a stance on this issue. Chair Napstad stated that the DNR may consider asking BWSR to review the diversion application.

### **CONFLICT OF INTEREST DECLARATION**

Chair Napstad explained that the conflict of interest disclosure process is being used today on agenda items:

- Reallocation of FY2013 Targeted Drainage Water Management Grants Funds
- Grey Cloud Slough Restoration Grant
- FY2016 Buffer Law and MN Ag Water Quality Certification Funding Allocations

Chair Napstad read the statement:

*“A conflict of interest, whether actual, potential, or perceived, occurs when someone in a position of trust has competing professional or personal interests and these competing interests make it difficult to fulfill professional duties impartially. At this time, members are requested to declare conflicts of interest they may have regarding today’s business.”*

### **INTRODUCTION OF NEW BOARD MEMBER**

Chair Napstad introduced and welcomed newly appointed citizen member Paige Winebarger. Ms. Winebarger provided some information on her past experiences.

### **REPORTS**

**Chair’s Report** – Brian Napstad reported that he attended the EQB meeting last week; discussion included the 111D Rule; which includes the clean power plant update; rules in reduction of emissions; and integrated resource plan.

Chair Napstad distributed the final draft of BWSR Committees that he and John Jaschke reviewed and recommend restructuring the RIM Reserve Soil Conservation Committee, and the Wetlands & Drainage Committee, creating the Buffers, Soil & Drainage Committee. Chair Napstad appointed board members to the Committees and requested board members let him know of any additional considerations. MPCA

will be added to the newly created BSDC. John stated that BWSR staff have been and will be assigned to committees.

**Audit & Oversight Committee** – Brian Napstad reported that the Audit & Oversight Committee will meet immediately following the September 23<sup>rd</sup> Board meeting.

**Executive Director's Report** – John Jaschke reiterated Chair Napstad's comments regarding the tour yesterday; and thanked those involved. John will meet with Cathee Pullman, NRCS; and LeAnn Buck, MASWCD, regarding infrastructure of SWCD and NRCS offices.

John is working with MMB requesting human resources assistance regarding staffing including the buffers initiative. BWSR will communicate with SWCDs in the next few months when MMB approves positions. John reported that he has been conducting meetings statewide with landowners, SWCDs, citizens, officials, regarding the buffer initiative. John reported that BWSR is working on guidance to address the questions that have come up and may pursue a cost-share incentive for establishing the required buffers under the new buffer law.

John briefly commented on the wetland banking program and 1W1P. John reviewed information in the board members' packets. Discussion followed regarding the new buffer implementation, how does the current CWF policy apply or not apply; what form of contract agreement will be required between the SWCD and landowner; and SWCD services funding in relation to cost share payments for establishing required buffers. Chair Napstad stated that BWSR will be working with DNR on mapping; the newly established Buffers, Soils & Drainage Committee will make recommendations.

**RIM Reserve Committee** – Gene Tiedemann reported that the Committee had not met but that the packet contains a proposed CREP summary:

**Dispute Resolution Committee** – Gerald Van Amburg provided a brief overview of the appeals filed with BWSR. A DRC hearing is scheduled for October 28.

**Grants Program & Policy Committee** – Steve Sunderland reported that the Grants Program & Policy Committee met on August 10; recommendations are on the agenda later today. The next Grants Program & Policy Committee meeting is scheduled for September 22, at 3:30 PM.

**Water Management & Strategic Planning Committee** – Jack Ditmore welcomed Paige as a member of the Water Management & Strategic Planning Committee. The next Water Management & Strategic Planning Committee meeting is scheduled for September 22, at 5:30 PM.

**Wetlands & Drainage Committee** – Gerald Van Amburg reported that the Committee has not met; but has a name change, the Wetlands Conservation Committee.

**Drainage Work Group (DWG)** – Tom Loveall reported that the DWG met on July 9 and August 13; he provided an overview of the meetings. The next DWG meeting is September 10. Al Kean stated that high priority is buffers, benefited areas, and common ways to define issues. Chair Napstad thanked Tom and Al for the report.

## **COMMITTEE RECOMMENDATIONS**

### ***Metro Committee***

**Carnelian-Marine-St. Croix Watershed District (District) Plan Amendment** – Jim Haertel reported that the final draft Amendment to the Carnelian-Marine-St. Croix Watershed District Plan was filed with the Board on July 1, 2015. The District added or revised information regarding aquatic invasive species, groundwater,

wetlands, capital projects, cost-share programs, budgets and updates to data found in the Lake and Stream Management Plans. It also included revisions to District management and prioritization strategies. The Metro Committee met on August 4, 2015 and unanimously recommends approval of the Plan Amendment. Joe Collins acknowledged the focused watershed management and stated that Jim Schaffer recognized

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15-51 Mary Peterson's efforts. Moved by Joe Collins, seconded by Rebecca Flood, to approve the Carnelian-Marine-St. Croix Watershed District Plan Amendment. **Motion passed on a voice vote.**

**Bassett Creek Watershed Management Commission Comprehensive Watershed Management Plan –** Jim Haertel reported that the Bassett Creek Watershed Management Commission was originally created as a flood control organization in the late 1960's. The ten-year Plan Revision is the Third Generation Watershed Management Plan for the organization. The Plan continues to build on the organization's past success by continuing to move forward with an extensive implementation program. The Metro Region Committee met earlier this month to discuss the Plan and unanimously recommends approval.

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15-52 Moved by Joe Collins, seconded by Rebecca Flood, to approve the Bassett Creek Watershed Management Commission's Watershed Management Plan. Discussion followed. **Motion passed on a voice vote.**

Kathryn Kelly thanked John Jaschke for coming to Renville to meet with local officials. She also thanked Jeff Nielsen, for his efforts to support the Southern Region Committee. Kathryn also thanked those involved in the tour planning yesterday.

#### **Southern Region Committee**

**Buffalo Creek Watershed District (BCWD) Watershed Management Plan Amendment –** Kathryn Kelly reported that the final draft Amendment to the Buffalo Creek Watershed District Plan was filed with the Board on August 7, 2015. The primary purpose of this Amendment is to establish a Water Management District for the Marsh Water Project pursuant to Minn. Stat. §§ 104D.411 and 103D.729. The Southern Region Committee met on July 28, 2015 and recommends approval of the Plan Amendment. Moved by Kathryn Kelly, seconded by Steve Sunderland, to approve the 2014 Revised Watershed Management Plan for the Buffalo Creek Watershed District. The Buffalo Creek Watershed District must include an evaluation of the use and effectiveness of the water management district in the next ten-year plan revision. Discussion followed. **Motion passed on a voice vote.**

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15-53

**Freeborn County Comprehensive Local Water Management Plan (CLWMP) Extension –** Kathryn Kelly reported that the Freeborn County's Comprehensive Local Water Management Plan is set to expire on December 31, 2015. The County has submitted a request for extension. The request has been reviewed and recommended for approval by BWSR staff, and was considered by the Southern Region Committee at their July 28 meeting; the Committee recommends approval. Moved by Kathryn Kelly, seconded by Chris Elvrum, to approve the extension of the Freeborn County Comprehensive Local Water Management Plan until December 31, 2016. Freeborn County will submit to BWSR an amendment to the current Plan, in an effort to synchronize water management efforts between partners in order to develop and complete watershed-based plans through One Watershed, One Plan. The amendment will revise the executive summary and implementation section of the Plan, including prioritized, targeted and measurable goals; with an expiration date no later than December 31, 2020.

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15-54 Jack Ditmore stated that the BWSR's extension approval is not to be used as an excuse to extend; he appreciated Jeff Nielsen's work on this effort. Jeff Nielsen stated that the extension request must include prioritized, targeted and measurable goals. **Motion passed on a voice vote.**

**Redwood County Comprehensive Local Water Management Plan (CLWMP) Extension** – Kathryn Kelly reported that the Redwood County’s Comprehensive Local Water Management Plan is set to expire in January 2016. On April 27, 2015, Redwood County approved and submitted a formal request for an extension of their current Plan. The request has been reviewed and recommended for approval by BWSR staff, and was considered by the Southern Region Committee at their June 24, 2015 meeting. The Committee recommends approval. The state’s expectations for the extension request must be sent to Redwood County. Moved by Kathryn Kelly, seconded by Rob Sip, to approve the Redwood County Comprehensive Local Water Management Plan Extension. Jeff Nielsen stated that prioritized, targeted, and measureable outcomes will be included in the implementation. **Motion passed on a voice vote.**

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15-55

Chair Napstad called for a break in the meeting at 10:48 a.m. The meeting reconvened at 11:14 a.m.

**Wabasha County Comprehensive Local Water Management Plan Update** – Kathryn Kelly reported that Wabasha County submitted their Local Water Management Plan Update, a record of the public hearing, and copies of all written comments pertaining to the update to the Board for final State review on June 3, 2015. On July 28, 2015, the Southern Region Committee reviewed the recommendation of the state review agencies regarding final approval of the Wabasha County Local Water Management Plan Update; the Committee recommends approval of the Wabasha County Comprehensive Local Water Management Plan Update. Moved by Kathryn Kelly, seconded by Chris Elvrum, to approve the update of the Wabasha County Comprehensive Local Water Management Plan 2015-2025. Jeff Nielsen introduced Terri Peters, Wabasha SWCD Manager and County Water Planner; and Tom Gile, Board Conservationist. Terri briefly commented on the water management approach in Wabasha County. Jack Ditmore requested a consistent date on the Plan and Order; 2015-2025. **Motion passed on a voice vote.**

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15-56

**Area II Minnesota River Basins Project Inc. FY 2016 & FY2017 Biennial Work Plan and Grant** – Kathryn Kelly reported that the Southern Region Committee met on June 24, 2015 to review the Area II Work Plan and recommends approval of the plan and execution of the FY 2016 grant. The 2015 Minnesota Legislature appropriated administrative funding for Area II Minnesota River Basins Project Inc., resulting in a fiscal year 2016 grant of \$140,000. Moved by Kathryn Kelly, seconded by Joe Collins, to approve the Area II Minnesota River Basins Project Inc. FY 2016 & FY2017 Biennial Work Plan and Grant. **Motion passed on a voice vote.**

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15-57

**Area II Minnesota River Basins Project Inc. FY 2016 Bonding Work Plan and Grant** – Kathryn Kelly reported that the Southern Region Committee met on June 24, 2015 to review the Area II Bonding Work Plan and recommends approval of the plan and execution of the FY 2016 grant. BWSR oversees the Bonding appropriation related to the efforts of the Area II Minnesota River Basins Project Inc. (Area II) for construction of floodwater retarding and retention structures. The 2015 Minnesota Legislature appropriated Bonding funding for Area II Minnesota River Basins Project Inc. resulting in a fiscal year 2016 grant of \$1,000,000. Moved by Kathryn Kelly, seconded by Steve Sunderland, to approve the Area II Minnesota River Basins Project Inc. FY 2016 Bonding Work Plan and BWSR will enter into a grant agreement for these funds. Discussion followed. **Motion passed on a voice vote.**

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15-58

#### **Grants Program & Policy Committee**

**Cooperative Weed Management Area Program Request for Proposal (RFP)** – Jim Haertel reported that approval of the FY2014 and FY2015 BWSR Cooperative Weed Management Area (CWMA) Program Request for Proposal (RFP) is requested. The Board was appropriated \$100,000 of cost-share grant funds in each year of the biennium for FY2016 and FY2017 (\$200,000 total) for “county cooperative weed

management programs and to restore native plants in selected invasive species management sites". Staff developed a request for proposal to make these funds available to qualified cooperative weed management groups. The Grants Program and Policy Committee met earlier this month and

\*\* recommends approval of the RFP. Moved by Kathryn Kelly, seconded by Steve Sunderland, to authorize staff to proceed with the FY2016 & FY2017 Cooperative Weed Management Area Program Request for Proposal. **Motion passed on a voice vote.**

15-59

**FY 2016 Multipurpose Drainage Management Grant Program Request for Proposal (RFP)** – Tim Gillette reported that the 2015 Legislative Session appropriated funds for a Multipurpose Drainage Management Grant Program. Tim distributed a revised draft page 7 of the BWSR Multipurpose Drainage Management Grants. Al Kean reported that the purpose of the program is to facilitate multipurpose drainage management practices to reduce erosion and sedimentation, reduce peak flows and flooding, and improve water quality, while protecting drainage system efficiency and reducing drainage system maintenance for priority Chapter 103E drainage systems. Practices include eligible on-field, on-farm, and on-drainage system practices within the benefited area or the watershed of a priority Chapter 103E drainage system. A Request for Proposal was reviewed by the Grants Program and Policy Committee earlier this month and the Committee recommends approval. Moved by Tom Loveall, seconded by Faye Sleeper, to authorize staff to finalize, distribute and promote an RFP for the FY2016 CWF Multipurpose Drainage Management Grant Program consistent with the provisions of appropriations enacted in 2015.

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Discussion followed. **Motion passed on a voice vote.**

15-60

Chair Napstad stated that board members have submitted their completed Conflict of Interest Disclosure forms; the documents will be filed for the grant decision items. All board members are eligible to vote on the following three items.

**Reallocation of FY2013 Targeted Drainage Water Management Grant Funds** – Tim Gillette reported that some FY 2013 Targeted Drainage Water Management Grant Funds have been returned. The SWCDs returning the funds are in the Red River basin. Staff made a recommendation to reallocate the returned funds to other SWCDs in the Red River basin. The Grants Program and Policy Committee met earlier this month and recommend the reallocation be approved. Moved by Steve Sunderland, seconded by Rob Sip, to direct BWSR staff to reallocate \$95,336.52 of BWSR Targeted Drainage Water Management Grant Funds to the Wilkin and Traverse SWCDs. Discussion followed. **Motion passed on a voice vote.**

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15-61

**Grey Cloud Slough Restoration Grant** – John Jaschke reported that the 2015 Legislative Session resulted in an appropriation of a \$520,000 grant from the FY 2016 Clean Water Fund to Washington County for the Grey Cloud Slough Restoration Project. The project would reconnect the slough to the Mississippi River resulting in an improvement to water quality and restoration of an essential backwater aquatic area. The Grants Program and Policy Committee recommends the grant be approved. Moved by Joe Collins, seconded by Jill Crafton, authorizes staff to allocate \$520,000 of the BWSR FY2016 Clean Water Fund to Washington County for the Grey Cloud Slough Restoration Grant, consistent with the provisions of appropriations enacted in 2015. Jack Ditmore asked if the Grey Cloud Slough project is named in a local Water or Watershed Plan. John Jaschke will check on this. **Motion passed on a voice vote.**

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15-62

**FY2016 Buffer Law and MN Ag Water Quality Certification Funding Allocations** – John Jaschke reported that in conjunction with the buffer policy enacted in the 2015 Legislative Session and amendments to the existing soil loss limits law, funding was appropriated to BWSR to support local implementation of the new buffer law and to MDA to implement the Agricultural Water Quality Improvement Program state-wide. BWSR and MDA staff developed formulas to allocate the funds. The Grants Program and

Policy Committee recommends approval. Discussion followed. Jack Ditmore questioned the no match of funds; the lump sum payment; and reporting. John clarified the buffer statute language covers the requirements and consequences related to SWCD implementation. Kathryn Kelly stated that the funding to SWCDs will be tracked and appropriately used. Rob Sip stated that MDA appreciates the MAWQCP funding being bundled for efficiency. Moved by Joe Collins, seconded by Rob Sip, to authorize staff to execute grant agreements with individual SWCDs after receipt and approval of a request for funding not to exceed grant allocation amounts identified. ***Motion passed on a voice vote.***

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15-63

#### **AGENCY REPORTS**

**Minnesota Department of Agriculture (MDA)** – Rob Sip distributed the following information :

- The 'MDA Update' newsletter on Pesticide and Fertilizer Management
- 'Save the Date' - March 23-24, 2016 for the 2016 Annual Conference of the Red River Watershed Management Board and the MN Flood Damage Reduction Work Group
- Factsheet for the Drainage Demonstration Site, Wilkin County
- Factsheet on MN Agricultural & Rural Leadership (MARL) Investing in People.

**Minnesota Department of Health (MDH)** – Chris Elvrum reported that MDH is teaming up with BWSR and DNR to work on a Groundwater Restoration Assistance Program (GRAP) to provide LGUs assistance on groundwater plans. Chris would like to provide a more detailed presentation of the program at an upcoming Board meeting.

**Minnesota Department of Natural Resources (DNR)** – Tom Landwehr reported that DNR will be providing opportunities for public comment in the next few weeks on the EIS for flood lands upstream of Fargo. Tom stated that DNR is working with BWSR and MDA on the Pheasant Plan, to be released in a few weeks; he requested that the Plan be presented at an upcoming Board meeting. Tom reported that a \$1.67 million, three-year federal grant that funds Minnesota's Walk-In Access (WIA) program has been awarded by the U.S. Department of Agriculture. The grant allows hunters in western and south central Minnesota continued access to more than 22,000 acres of existing WIA hunting land, and will get at least 8,000 additional WIA acres over the next three years.

#### **ADVISORY COMMENTS**

**Minnesota Association of Soil & Water Conservation Districts (MASWCD)** – Ian Cunningham, President of MASWCD, introduced Sheila Vanney, MASWCD Assistant Director. Ian reported on MASWCD training: Governance 101 Conference to be held September in St. Cloud; MASWCD and DNR are sponsoring a groundwater workshop for SWCDs; he attended the MASWCD Leadership Training. Ian briefly commented on the buffer initiative. Chair Napstad thanked Ian and Sheila for attending the meeting today.

#### **UPCOMING MEETINGS**

- BWSR Board Meeting, September 23, 2015, St. Paul

Chair Napstad adjourned the meeting at 12:47 PM.

Respectfully submitted,

Mary Jo Anderson  
Recorder



# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:** Dispute Resolution Committee Report

**Meeting Date:** September 23, 2015

**Agenda Category:**  Committee Recommendation  New Business  Old Business

**Item Type:**  Decision  Discussion  Information

**Section/Region:** Central Office

**Contact:** Travis Germundson

**Prepared by:** Travis Germundson

**Reviewed by:** \_\_\_\_\_ Committee(s)

Travis Germundson/Gerald

**Presented by:** VanAmburg

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**  Resolution  Order  Map  Other Supporting Information

**Fiscal/Policy Impact**

- None
- Amended Policy Requested
- New Policy Requested
- Other:
- General Fund Budget
- Capital Budget
- Outdoor Heritage Fund Budget
- Clean Water Fund Budget

**ACTION REQUESTED**

None

**LINKS TO ADDITIONAL INFORMATION**

**SUMMARY** *(Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation)*

The report provides a monthly update on the number of appeal filed with BWSR.

Dispute Resolution Report  
September 11, 2015  
By: Travis Germundson

There are presently **ten** appeals pending. All of the appeals involve WCA. There has been **one** new appeal filed since the last report, dated August 27<sup>th</sup> (Board Meeting).

Format note: New appeals that have been filed since last report to the Board.  
~~Appeals that have been decided since last report to the Board.~~

File 15-8 (8-7-15) This is an appeal of a Restoration Order in St. Louis County. The appeal regards the unauthorized placement of fill in a wetland for lake access. No decision has been made on the appeal.

File 15-7 (7-20-15) This is an appeal of a Restoration Order in Olmsted County. The appeal regards the unauthorized placement of drain tile in a purported wetland. Applications for exemption and no-loss determinations have been submitted to the local unit of government concurrently with the appeal. No decision has been made on the appeal.

~~File 15-5 (6-1-15) This is an appeal of a replacement plan decision in Crow Wing County. The appeal regards the approval of a replacement plan application for wetland impacts associated with the construction of a residential driveway and structure within the Shoreland Management District of South Long Lake. At issue are environmental factors associated with the impact site. The appeal was remanded for technical and administrative proceedings. A decision was made under remand by the LGU denying the replacement plan application.~~

File 15-2 (1-16-15) This is an appeal of an exemption and no-loss decision in Otter Tail County. The appeal regards the denial of after-the-fact wetland applications for an exemption and no-loss that resulted from issuance of a Restoration Order. The Restoration Order was appealed and placed in abeyance until there is a final decision on the applications (Appeal File 14-7). The appeal has been granted. Following months of discussion the parties have reached a tentative agreement. The briefing schedule is stayed to allow additional time to work towards finalizing an agreement.

~~File 15-1 (1-8-15) This is an appeal of a Restoration Order in Morrison County. The appeal regards 5,000 square feet of alleged wetland impact associated with a residential building pad. The petitioners have filed after the fact wetland applications for an exemption and no-loss with the LGU concurrently with the petition. The appeal has been placed in abeyance and the restoration order stayed until there is a final decision on the wetland applications. The appeal has been dismissed. The Restoration Order has been complied with and a Certificate of Satisfactory Restoration has been issued.~~

File 14-9 (12-3-14) This is an appeal of multiple exemption and no-loss decisions in McLeod County. The appeal regards the approval of three exemption and no-loss decisions. At issue is the LGU's assessment that the applications were approved by operation of law under Minn. Stat. §15.99 (60 day rule). The after-the-fact applications were submitted in conjunction with an appeal of a restoration order (File 14-4). The appeal has been granted. A pre-hearing conference was held on March 11, 2015 and there was agreement among the parties to continue settlement discussions. Settlement discussions have ceased. The briefing schedule was extended to allow the parties time to develop a complete and accurate record. In addition a tentative date has been scheduled for a DRC Hearing (October 28<sup>th</sup> (following the Board Meeting)).

File 14-7 (6-23-14) This is an appeal of duplicate restoration orders in Otter Tail County. The appeal regards the alleged drainage alterations to a Type 4 wetland. The petitioners have filed after-the-fact wetland applications for an exemption and no-loss with the LGU concurrently with the petition. The appeal has been placed in abeyance and the restoration orders stayed until there is a final decision on the wetland applications. Those decisions were appealed (File 15-2).

File 14-6 (5-28-14) This is an appeal of a replacement plan decision by DNR Land and Minerals involving the Hibbing Taconite Mine and Stockpile Progression and Williams Creek Wetland Mitigation. The appeal regards the approval of a wetland replacement plan application for mining related activities. A similar appeal was also filed simultaneously with DNR under procedures required for permit to mine. The appeal has been placed in abeyance for completion of DNR's contested case proceedings. The hearing is tentatively scheduled to take place during the week of October 5<sup>th</sup>.

File 14-4 (4-28-14) This is an appeal of a restoration and replacement order in McLeod County. The appeal regards alleged drainage improvements associated with the excavation of a private drainage system. At issue is a prior exemption determination. The appeal was placed in abeyance and the restoration and replacement orders stayed for the LGU to make a final decision on the after-the-fact wetland applications. The applications were determined to be approved by operation of law under Minn. Stat. §15.99. That decision has been appealed (File 14-9). The appeal will continue to be held in abeyance.

File 12-12 (7-16-12) This is an appeal of an exemption determination in Renville County. The appeal regards the denial of an agricultural drainage exemption associated with a 1.5 acre wetland. At issue is the wetland type determination. A previous appeal (File 12-5) was remanded for further technical evaluation and administrative proceedings, and now the current approval is being appealed. A verbal settlement agreement has since been reached that includes submittal of a replacement plan application. The appeal has been placed in abeyance by mutual agreement to determine the viability of a wetland replacement plan application.

File 11-1 (1-20-11) This is an appeal of a restoration order in Hennepin County. The appeal regards the filling of approximately 1.77 acres of wetland and 0.69 acres of excavation. The appeal has been placed in abeyance and the restoration order stayed until there is a final decision on an after-the-fact wetland application and confirmation of required mitigation.

File 09-10 (7-9-09) This is an appeal of a banking plan application in Aitkin County. The appeal regards the LGU's denial of a banking plan application to restore 427.5 acres of wetlands through the use of exceptional natural resource value. The appeal has been accepted and pre-hearing conferences convened on October 13 and 30, and December 14, 2009. Settlement discussions are on hold while the appellant addresses permitting issues with the Corps of Engineers. The appeal has been placed in abeyance by mutual agreement. A revised wetland bank plan application has been approved with conditions. Those conditions require the approval of partial ditch abandonment along with a Conditional Use Permit for alterations in the floodplain.

### Summary Table

Type of Decision	Total for Calendar Year 2014	Total for Calendar Year 2015
Order in favor of appellant		
Order not in favor of appellant	2	3
Order Modified		
Order Remanded	1	1
Order Place Appeal in Abeyance	3	2
Negotiated Settlement	2	
Withdrawn/Dismissed	2	1

**COMMITTEE RECOMMENDATIONS**

***Central Region Committee***

1. Elm Creek Watershed Management Commission Revised Watershed Management Plan – Steve Christopher – ***DECISION ITEM***
  
2. Middle St. Croix Watershed Management Organization Revised Watershed Management Plan – Dan Fabian – ***DECISION ITEM***
  
3. Valley Branch Watershed District Revised Watershed Management Plan – Dan Fabian – ***DECISION ITEM***



## BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:** Elm Creek Watershed Management Plan

**Meeting Date:** September 23, 2015

**Agenda Category:**  Committee Recommendation  New Business  Old Business

**Item Type:**  Decision  Discussion  Information

**Section/Region:** Central Region

**Contact:** Steve Christopher

**Prepared by:** Steve Christopher

**Reviewed by:** Metro Region Committee(s)

**Presented by:** Steve Christopher

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**  Resolution  Order  Map  Other Supporting Information

### Fiscal/Policy Impact

None  General Fund Budget

Amended Policy Requested  Capital Budget

New Policy Requested  Outdoor Heritage Fund Budget

Other:  Clean Water Fund Budget

### ACTION REQUESTED

Approval of Elm Creek Watershed Management Commission Revised Watershed Management Plan

### LINKS TO ADDITIONAL INFORMATION

Link to entire plan:

<https://wenck.filetransfers.net/downloadFilePublic.php?filePassId=3db08981d95d9da1bdc922892beb0a6b>

### SUMMARY (Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation)

#### Background

The Elm Creek Watershed Management Commission (Commission) was formed on February 1, 1973, through a Joint Powers Agreement (JPA) with all or part of the following eight communities: Champlin, Corcoran, Dayton, Hassan Township, Maple Grove, Medina, Plymouth, and Rogers. The City of Rogers recently annexed Hassan Township. The Commission adopted their first Watershed Plan in 1983. Their current watershed management plan was approved in October 2004.

The Commission is located exclusively in Hennepin County in the west/northwest portion of the Minneapolis – St. Paul seven county metropolitan area. It is bound by the Mississippi and Crow Rivers to the north, on the east by the West Mississippi and Shingle Creek Watershed Management Organizations, on the south by Bassett Creek WMC and Minnehaha Creek Watershed District, and on the west by the Pioneer-

Sarah Creek WMC. The Elm Creek watershed covers approximately 130.5 square miles. There are 21 lakes and four major streams in the Elm Creek watershed. The watershed predominantly drains directly to the Mississippi River with a small portion immediately tributary to the Crow River. The watershed continues to be heavily influenced by agriculture and rural residential development, with some high density housing, commercial, and townhouse developments in the cities of Maple Grove, Plymouth, and Rogers.

### **Plan Summary**

During the development of the Third Generation Management Plan (Plan), the Commission identified the following issues as areas to address:

- **Water Quality:** numerous lake and stream impairments with multiple parameters, impact of land use change on water quality, continued stream stability issues.
- **Agricultural Impacts on Water Quality:** need to increase agricultural BMPs in the watershed, develop effective mechanisms to encourage voluntary adoption, more effective outreach
- **Funding Needs:** maintaining a sustainable funding level, funding capital projects.
- **Other Issues:** lack of information and knowledge of water quality issues and actions by multiple stakeholders, need to be realistic and prioritize actions, increase member city involvement, and foster collaboration with other agencies.

In addressing the above concerns, the Commission has created the following priorities:

1. Begin implementing priority projects and actions in 2015, providing cost-share to member cities to undertake projects to help achieve WRAPS lake and stream goals.
2. Use the results of the WRAPS study to establish priority areas, and complete subwatershed assessments to identify specific Best Management Practices that feasibly and cost-effectively reduce nutrient and sediment loading to impaired water resources. Convene a Technical Advisory Committee of agencies specializing in agricultural outreach to help guide assessments in agricultural subwatersheds.
3. Develop a model manure management ordinance to regulate the placement of new small nonfood animal operations using the City of Medina ordinance as a guide, and require member cities to adopt that ordinance or other ordinances and practices to accomplish its objectives.
4. Partner with other organizations to complete a pilot project for targeted fertilizer application and to increase and focus outreach to agricultural operators.
5. Continue participating in joint education and outreach activities with WMWA and other partners.

### **Implementation Program**

The Plan will build upon previous success through the continuation of several activities and introduction of new activities. The Commission recently adopted new Rules and Standards to be consistent with State guidelines and recommendations such as NPDES and MIDS. Other programs include an enhanced monitoring program, expanded education and outreach, funding for Best Management Practice Assessments, and feasibility studies. The Plan also includes key findings and actions as identified in the Draft Elm Creek Watershed Restoration and Protection Strategies (WRAPS) study.

### **Third Generation Management Plan Priorities**

1. Begin implementing priority projects and actions in 2015, providing cost-share to member cities to undertake projects to achieve WRAPS lake and stream goals.
2. Use the results of the WRAPS study to establish priority areas, and complete subwatershed assessments to identify specific Best Management Practices that feasibly and cost-effectively reduce nutrient and sediment loading to impaired water resources. Convene a TAC of agencies specializing in ag outreach to help guide assessments in agricultural subwatersheds.
3. Develop a model manure management ordinance regulating the placement of new small nonfood animal operations using the City of Medina ordinance as a reference, and require member cities to adopt that ordinance or other ordinances and practices that will accomplish its objectives.
4. Partner with other organizations to complete a pilot project for targeted fertilizer application and to increase and focus outreach to agricultural operators.
5. Continue participating in joint education and outreach activities with WMWA and other partners.

**Discussion**

The Commission has included actions in the Plan for agricultural outreach which will better address the loading from the watershed. There is also increased commitment towards Capital Improvement Projects by the cities and Commission.

The Commission received letters from the Board of Water and Soil Resources, the Pollution Control Agency, Hennepin County, the Department of Natural Resources, Metropolitan Council, the Department of Agriculture, and the City of Champlin. The Commission has addressed all of the other concerns within their 60-day response to comments and did not receive any additional comments.

**Recommendation**

The Metro Region Committee met on September 3, 2015 to review the Plan, comments received and the BWSR staff recommendation. The Metro Region Committee unanimously voted to recommend approval of the Plan to the full Board per the attached draft Order.

**Attachments**

1. Draft Order for approval of the Elm Creek Watershed Management Commission's Plan
2. ECWMC 3<sup>rd</sup> Generation Plan Executive Summary
3. Table 4.5 ECWMC 2014-2024 CIP
4. Map of the Elm Creek Watershed Management Commission

**Minnesota Board of Water and Soil Resources**  
520 Lafayette Road North  
Saint Paul, Minnesota 55155

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**In the Matter** of the review of the Watershed Management Plan for the **Elm Creek Watershed Management Commission**, pursuant to Minnesota Statutes Section 103B.231, Subdivision 9.

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**ORDER  
APPROVING  
WATERSHED  
MANAGEMENT PLAN**

**Whereas**, the Board of Commissioners of the Elm Creek Watershed Management Commission (Commission) submitted a Watershed Management Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to Minnesota Statutes Section 103B.231, Subd. 9, and;

**Whereas**, the Board has completed its review of the Plan;

**Now Therefore**, the Board hereby makes the following Findings of Fact, Conclusions and Order:

**FINDINGS OF FACT**

1. **WMO Establishment.** The Elm Creek Watershed Management Commission (Commission) was formed on February 1, 1973, through a Joint Powers Agreement (JPA) with all or part of the following eight communities: Champlin, Corcoran, Dayton, Hassan Township, Maple Grove, Medina, Plymouth, and Rogers. The City of Rogers recently annexed Hassan Township. The Commission adopted their first Watershed Plan in 1983. Their current watershed management plan was approved in October 2004.
2. **Authority to Plan.** The Metropolitan Surface Water Management Act requires the preparation of a watershed management plan for the subject watershed area which meets the requirements of Minnesota Statutes Sections 103B.201 to 103B.251. The watershed management plan may be amended according to Minnesota Statutes Section 103B.231, subd. 11. The second generation plan was approved by the Board in August 2004. Subsequently, the Commission completed five major and four minor amendments between 2005 and 2015.
3. **Nature of the Watershed.** The Commission is located exclusively in Hennepin County in the west/northwest portion of the Minneapolis – St. Paul seven county metropolitan area. It is bound by the Mississippi and Crow Rivers to the north, on the east by the West Mississippi and Shingle Creek Watershed Management Organizations, on the south by Bassett Creek Watershed Management Commissions and Minnehaha Creek Watershed District, and on the west by the Pioneer–Sarah Creek Watershed

Management Commission. The Elm Creek watershed covers approximately 130.5 square miles. There are 21 lakes and four major streams in the Elm Creek watershed. The watershed predominantly drains directly to the Mississippi River with a small portion immediately tributary to the Crow River. The watershed continues to be heavily influenced by agriculture and rural residential development, with some high density housing, commercial, and townhouse developments in the cities of Maple Grove, Plymouth, and Rogers.

4. **Plan Development and Review.** The Commission delayed the final draft of the Plan in order to incorporate the information provided by the Draft WRAPS and the Plan includes that information. The draft revised Plan was submitted to the Board, other state agencies, and local governments for the 60-day review on April 22, 2015. A public hearing was held on July 8, 2015. On July 16, the final draft of the revised Plan was received by the Board and other state agencies for the final 90-day period.
5. **Local Review.** The Commission circulated a copy of the draft Plan to local units of government for their review pursuant to Minnesota Statutes Section 103B.231, subd. 7. Hennepin County and the City of Champlin provided comments which were addressed by the Commission.
6. **Metropolitan Council Review.** The Metropolitan Council stated that the Plan is consistent with Council policies.
7. **Department of Agriculture Review.** The MDA provided guidance on drainage as well as offered their assistance in the Commission's outreach to agricultural producers.
8. **Department of Health Review.** The MDH did not comment on the Plan.
9. **Department of Natural Resources Review.** The DNR stated that the Commission should consider its role in the new 'Buffer Initiative' as well as groundwater. The Commission has addressed these comments.
10. **Pollution Control Agency Review.** The PCA comments were largely focused on TMDLs and WRAPS and their inclusion into the Plan, both in reference and in actions. They also asked for clarification of several projects. The Commission has addressed these comments.
11. **Department of Transportation Review.** The DOT did not comment on the Plan.
12. **Board Review.** Board staff commended the Commission on updating their rules and stressed the importance of the agricultural load reductions through actions. The Commission has addressed these comments.
13. **Plan Summary.** The Plan will build upon previous success through the continuation of several activities and introduction of new activities. The Commission recently adopted

new Rules and Standards to be consistent with State guidelines and recommendations such as the National Pollutant Discharge Elimination System (NPDES) and the Stormwater Minimal Impact Design Standards (MIDS). Other programs include an enhanced monitoring program, expanded education and outreach, funding for Best Management Practice (BMP) Assessments, and feasibility studies. The Plan also includes key findings and actions as identified in the Draft Elm Creek Watershed Restoration and Protection Strategies (WRAPS) study.

### **Third Generation Management Plan Priorities**

- Begin implementing priority projects and actions in 2015, providing cost-share to member cities to undertake projects to achieve WRAPS lake and stream goals.
- Use the results of the WRAPS study to establish priority areas, and complete subwatershed assessments to identify specific Best Management Practices that feasibly and cost-effectively reduce nutrient and sediment loading to impaired water resources. Convene a TAC of agencies specializing in agricultural outreach to help guide assessments in agricultural subwatersheds.
- Develop a model manure management ordinance regulating the placement of new small nonfood animal operations using the City of Medina ordinance as a reference, and require member cities to adopt that ordinance or other ordinances and practices that will accomplish its objectives.
- Partner with other organizations to complete a pilot project for targeted fertilizer application and to increase and focus outreach to agricultural operators.
- Continue participating in joint education and outreach activities with WMWA and other partners.

14. **Metro Region Committee Meeting.** On September 3, 2015, the Board's Metro Region Committee and staff met in St. Paul to review and discuss the Plan. Those in attendance from the Board's Committee were Jill Crafton, Jack Ditmore, Faye Sleeper, Rebecca Flood, and Joe Collins as chair. Board staff in attendance were Central Region Manager Jim Haertel. The Commission representatives included Chair Doug Baines and Commission Engineer Diane Spector. Following a presentation by the Commission, Board staff recommended approval of the Plan. After discussion, the Committee unanimously voted to recommend approval of the Plan to the full Board.

## CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Watershed Management Plan for the Elm Creek Watershed Management Commission pursuant to Minnesota Statutes § 103B.231, Subd. 9.
3. The Elm Creek Watershed Management Commission Watershed Management Plan attached to this Order defines water and water-related problems within the Commission's boundaries, possible solutions thereto, and an implementation program.
4. The attached Watershed Management Plan is in conformance with the requirements of Minnesota Statutes §§ 103B.201 to 103B.251.

## ORDER

The Board hereby approves the attached Watershed Management Plan dated July 2015, as the Watershed Management Plan for the Elm Creek Watershed Management Commission.

Dated at St. Paul, Minnesota this 23<sup>rd</sup> day of September 2015.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

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BY: Brian Napstad, Chair

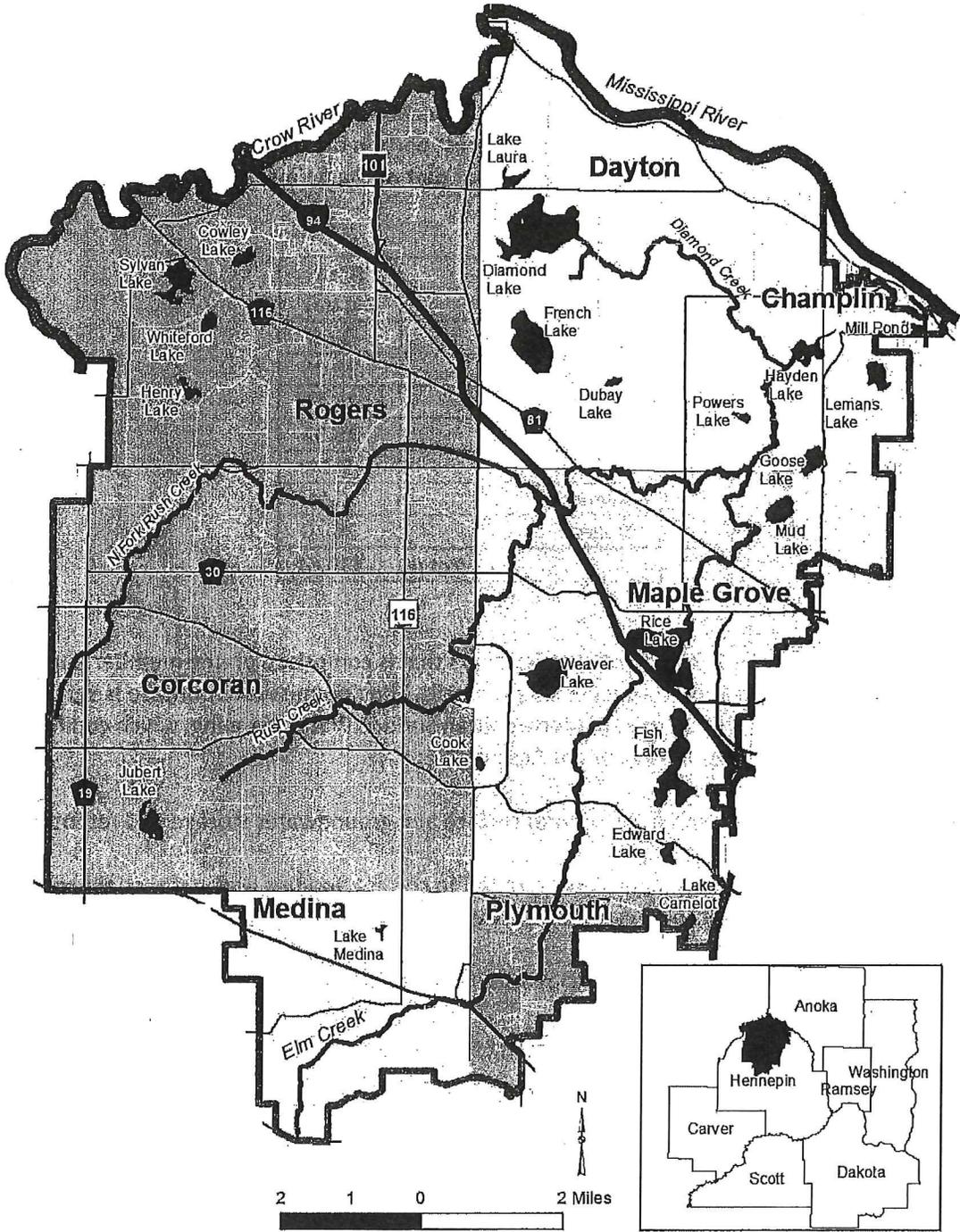
This watershed management plan describes how the Elm Creek Watershed Management Commission (EC WMC) will manage activities in the watershed in the ten year period 2015-2024.

The Elm Creek Watershed Management Commission is a Watershed Management Organization (WMO) formed in 1973 using a Joint Powers Agreement (JPA) developed under authority conferred to the member communities by Minnesota Statutes Sections 471.59 and 103B.201 through 103B.251. The watershed is located in the northwest portion of the Minneapolis-St. Paul seven county Metropolitan Area and is comprised of all or part of the following cities in Hennepin County:

Cities	Area (sq mi)
Champlin	3.08
Corcoran	36.06
Dayton	25.17
Maple Grove	26.32
Medina	9.34
Plymouth	4.44
Rogers	26.20
<b>Total</b>	<b>130.61</b>

The WMO is governed by a Board of Commissioners that is comprised of one member appointed from each community by their respective City Councils. The Commission's purpose is set forth in the JPA and Minnesota Statutes 103B.210, Metropolitan Surface Water Planning, which codified the Metropolitan Surface Water Management Act of 1982:

- (1) protecting, preserving, and using natural surface and groundwater storage and retention systems;
- (2) minimizing public capital expenditures needed to correct flooding and water quality problems;
- (3) identifying and planning for means to effectively protect and improve surface and groundwater quality;
- (4) establishing more uniform local policies and official controls for surface and groundwater management;
- (5) preventing erosion of soil into surface water systems;
- (6) promoting groundwater recharge;
- (7) protecting and enhancing fish and wildlife habitat and water recreational facilities; and
- (8) securing the other benefits associated with the proper management of surface and ground water.



**Figure E.1.1. Cities in the Elm Creek watershed.**  
Source: Minnesota DNR. Watershed Boundary: Hennepin County Environmental Services.

### Third Generation Watershed Management Plan

The Elm Creek Watershed Management Commission initiated work on the Third Generation Plan in January 2013. The Plan includes information required in Minnesota Administrative Rules Chapter 8410, Local Water Management: an updated land and water resources inventory, goals and policies; an assessment of problems and identification of corrective actions; an implementation program; and a process for amending the Plan. This Plan also incorporates information and actions identified in the Elm Creek Watershed Total Maximum Daily Load study (TMDL) and Watershed Restoration and Protection Strategy study (WRAPS) completed between 2009 and 2015.

The Commission and Citizen and Technical Advisory Committees identified the following issues and issue areas during the planning process:

- Water Quality: numerous lake and stream impairments with multiple parameters, impact of land use change on water quality, continued stream stability issues.
- Agricultural Impacts on Water Quality: need to increase agricultural BMPs in the watershed, develop effective mechanisms to encourage voluntary adoption, more effective outreach
- Funding Needs: maintaining a sustainable funding level, funding capital projects.
- Other Issues: lack of information and knowledge of water quality issues and actions by multiple stakeholders, need to be realistic and prioritize actions, increase member city involvement, and foster collaboration with other agencies.

### Management Plan Priorities and Goals

Through the identification of issues in the watershed, the ECWMC developed the following priorities and goals to guide water resources planning and management functions:

#### Priorities:

1. Begin implementing priority projects and actions in 2015, providing cost-share to member cities to undertake projects to help achieve WRAPS lake and stream goals.
2. Use the results of the WRAPS study to establish priority areas, and complete subwatershed assessments to identify specific Best Management Practices that feasibly and cost-effectively reduce nutrient and sediment loading to impaired water resources. Convene a TAC of agencies specializing in ag outreach to help guide assessments in agricultural subwatersheds.
3. Develop a model manure management ordinance to regulate the placement of new small non-food animal operations using the City of Medina ordinance as a guide, and require member cities to adopt that ordinance or other ordinances and practices to accomplish its objectives.
4. Partner with other organizations to complete a pilot project for targeted fertilizer application and to increase and focus outreach to agricultural operators.
5. Continue participating in joint education and outreach activities with WMWA and other partners.

Goals:

Goal Area A. Water Quantity

- Goal A. 1. Maintain the post-development 2-year, 10-year, and 100-year peak rate of runoff at pre-development level for the critical duration precipitation event.
- Goal A. 2. Maintain the post-development annual runoff volume at pre-development volume.
- Goal A. 3. Prevent the loss of floodplain storage below the established 100-year elevation.
- Goal A. 4. Reduce peak flow rates in Elm, Diamond, and Rush Creeks and tributary streams to the Crow and Mississippi and preserve conveyance capacity.

Goal Area B. Water Quality

- Goal B. 1. Improve Total Phosphorus concentration in the impaired lakes by 10% over the 2004-2013 average by 2024.
- Goal B. 2. Maintain or improve water quality in the lakes and streams with no identified impairments.
- Goal B. 3. Conduct a TMDL/WRAPS progress review every five years following approval of the TMDLs and WRAPS study.
- Goal B. 4. Use information in the WRAPS to identify high priority areas where the Commission will partner with cities and other agencies to provide technical and financial assistance.

Goal Area C. Groundwater

- Goal C. 1. Promote groundwater recharge by requiring abstraction/infiltration of runoff from new development and redevelopment.
- Goal C. 2. Protect groundwater quality by incorporating wellhead protection study results into development and redevelopment Rules and Standards.

Goal Area D. Wetlands

- Goal D. 1. Preserve the existing functions and values of wetlands within the watershed.
- Goal D. 2. Promote the enhancement or restoration of wetlands in the watershed.

Goal Area E. Drainage Systems

- Goal E. 1. Continue current Hennepin County jurisdiction over the county ditches in the watershed.

Goal Area F. Commission Operations and Programming

- Goal F. 1. Identify and operate within a sustainable funding level that is reasonable to member cities.
- Goal F. 2. Foster implementation of priority TMDL and other implementation projects by sharing in their cost and proactively seeking grant funds.
- Goal F. 3. Operate a public education and outreach program to supplement the NPDES Phase II education requirements for the member cities.

- Goal F. 4. Operate a monitoring program sufficient to characterize water quantity, water quality, and biotic integrity in the watersheds and to evaluate progress toward meeting goals.
- Goal F. 5. Maintain rules and standards for development and redevelopment that are consistent with local and regional TMDLs, federal guidelines, source water and wellhead protection requirements, nondegradation, and ecosystem management goals.
- Goal F. 6. Serve as a technical resource for member cities.

### **Implementation**

This Third Generation Watershed Management Plan continues a number of activities that have been successful in the past and introduces some new activities, including modified development rules and standards and an enhanced monitoring program.

#### *Rules and Standards*

In developing this Plan the Commission updated policies from the Second Generation Plan and developed new standards based on the 2013 Minnesota NPDES General Permit for Municipal Separate Storm Sewer Systems (MS4s), the 2013 Minnesota NPDES Construction Stormwater General Permit, and the MPCA's Minimal Impact Design Standards and State Stormwater Manual. These were compiled and codified into a Rules and Standards document. The Commission chose to adopt those new standards in advance of the Third Generation Plan, effective January 1, 2015. In general, the new Rules and Standards apply to all development and redevelopment one acre or more in size; require at a minimum no increase in pollutant loading or stormwater volume; require no increase in the peak rate of runoff from the property; require the abstraction/infiltration of 1.1 inches of runoff from impervious surfaces; and clarify the wetland buffer requirements. This Plan also provides a method by which member cities can take on review responsibilities for smaller projects; reducing the regulatory burden for small developers.

#### *Monitoring Program*

The monitoring program continues the partnership with the USGS for routine flow and water quality monitoring on Elm Creek, with periodic monitoring on additional Elm Creek sites, and on Rush, North Fork Rush, and Diamond Creeks on a rotating or as-needed basis. Four lakes – Weaver, Fish, Rice, and Diamond Lakes – have been classified as “Sentinel Lakes,” and will be monitored every year. Other lakes will be monitored on a rotating basis.

#### *Education and Outreach*

The Citizens Advisory Committee (CAC) for the Plan developed a recommended Education and Outreach program that identifies stakeholder groups and key education messages. This Plan expands

education and outreach activities to key stakeholders and continues collaborative partnerships such as the West Metro Water Alliance (WMWA), Blue Thumb, and Watershed Partners.

*Other Activities*

The Implementation Plan includes funding for BMP assessments and special studies such as feasibility studies and special monitoring that will identify the most cost-effective practices and projects.

*WRAPS Implementation*

This Plan includes key findings and actions identified in the Elm Creek Watershed Restoration and Protection Strategies (WRAPS) study, which includes TMDLs for the impaired waters and improvement and protection strategies and activities for all waters.

**Local and Watershed Plan Amendments**

On final approval of the Plan, cities will have 2 years to update their Local Stormwater Management Plan (LWMP). These updates will be expected to include:

- Updated land use, hydrologic, and hydraulic data, and existing or potential water resource related problems that may have changed since the last LWMP.
- An explanation of how the member city will help to implement the actions set forth in the Commission's Plan, including a focus on ensuring that both public and private water quality and other Best Management Practices are properly installed and maintained as well as a plan for adopting and enforcing a City of Medina-like manure management ordinance.
- A detailed explanation of how the member city will take action to achieve the load reductions and other actions identified in and agreed to in TMDL Implementation Plans.
- An updated Implementation Plan identifying specific structural, nonstructural, and programmatic solutions to the problems and issues identified in the LWMP; their costs; and funding.
- An implementation program including a description of adoption or amendment of official controls and local policies necessary to implement the Rules and Standards; programs; policies; a capital improvement plan; and estimates of cost and funding mechanisms.

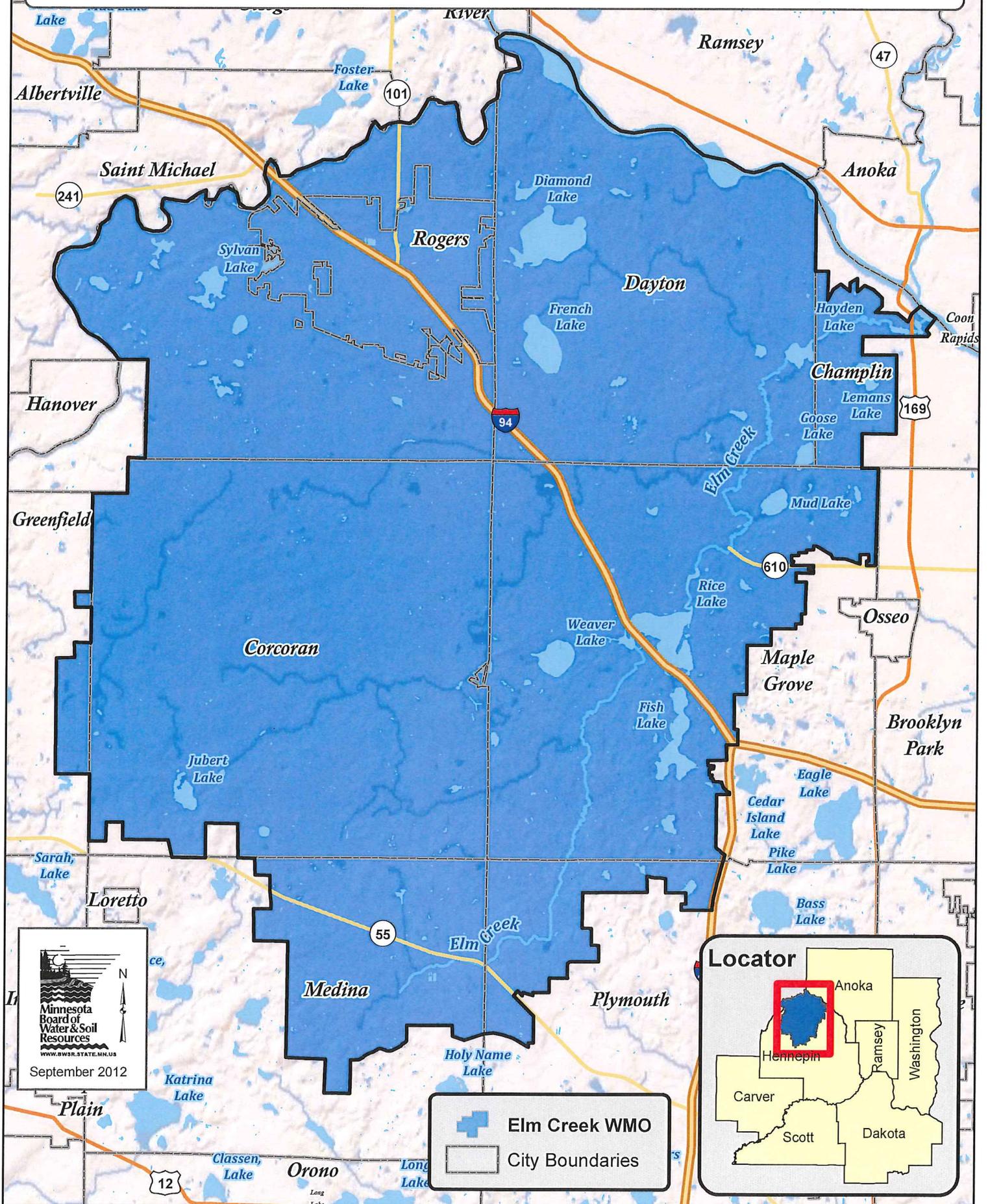
This Plan provides direction for EC WMC activities through the year 2024. The Commissioners intend the Plan to be a flexible framework and, as such, may initiate amendments to this plan at any time. The Commission will annually review the Capital Improvement Program and may adopt major or minor plan amendments adding or revising proposed capital improvement projects.

Table 4.5. Elm Creek Third Generation Plan Capital Improvement Program.  
See Appendix G for project descriptions.

Description	Location	Priority	Estimated Project Cost	Partners	Funding Source(s)	Estimated Commission Cost					
						2015	2016	2017	2018	2019	2020-2024
<b>Special Studies</b>											
TMDL implementation special study	Watershed	H	50,000	Cities, HCEED	Operating budget	0	25,000	25,000	25,000	25,000	125,000
Stream segment prioritization	Watershed	H	10,000	Cities, HCEED, TRPD	Operating budget	10,000	0	0	0	0	0
<b>High Priority Stream Restoration Projects</b>											
Elm Cr Reach E	Plymouth	H	1,086,000	Cities, TRPD	Cities, TRPD, county levy, grants	250,000	0	0	0	0	0
Fox Cr, Creekview	Rogers	H	150,000			0	37,500	0	0	0	0
Mississippi Point Park Riverbank Repair	Champlin	M	300,000			0	75,000	0	0	0	0
Elm Creek Dam	Champlin	H	7,001,220			0	187,500	0	0	0	0
Tree Thinning and Bank Stabilization Project	Watershed	H	50,000			0	50,000	0	50,000	50,000	250,000
Fox Cr, Hyacinth	Rogers	M	360,000			0	0	90,000	0	0	0
Fox Cr, South Pointe, Rogers	Rogers	M	90,000			0	0	22,500	0	0	0
Other High Priority Stream Project	Watershed	H	500,000			0	0	0	125,000	125,000	250,000
<b>High Priority Wetland Improvements</b>											
DNR #27-0437	Maple Grove	L	75,000	Cities	Cities, commission	0	0	0	0	0	18,750
Stone's Throw Wetland	Corcoran	M	450,000			0	0	112,500	0	0	0
Other High Priority Wetland Projects	Watershed	L	100,000			0	0	0	0	0	25,000
<b>Lake TMDL Implementation Projects</b>											
Mill Pond Fishery and Habitat Restoration	Champlin	H	5,000,000	Cities, lake assns.	Cities, Commission, grants, owners	0	0	250,000	0	0	0
Other Priority Lake Internal Load Projects	Watershed	M	100,000			0	0	0	0	0	25,000
<b>Urban BMPs</b>											
Stonebridge	Maple Gr	M	200,000	Cities, HCEED	Cities, commission	0	50,000	0	0	0	0
Rain Garden at Independence Avenue	Champlin	L	300,000			0	75,000	0	0	0	0
Mill Pond Rain Gardens	Champlin	M	400,000			0	0	100,000	0	0	0
Other Priority Urban BMP Projects	Watershed	L	200,000			0	0	0	0	0	50,000
<b>Other</b>											
Livestock Exclusion, Buffer & Stabilized Access	Watershed	M	50,000	Cities, owners, Extension, NRCS	Cities, owners, commission, NRCS	0	0	0	50,000	0	50,000
Agricultural BMPs Cost Share	Watershed	H	50,000	Cities, owners, Extension, NRCS	Cities, owners, commission, NRCS	0	50,000	50,000	0	50,000	100,000
Hydrologic & Hydraulic Modeling	Watershed	L	25,000	HCEED	Commission	0	0	0	25,000	0	0
Fourth Generation Plan	Watershed	H	70,000		Commission	0	0	0	0	0	\$70,000
<b>TOTAL</b>			<b>\$16,617,220</b>			<b>\$260,000</b>	<b>\$550,000</b>	<b>\$875,000</b>	<b>\$275,000</b>	<b>\$260,000</b>	<b>\$963,750</b>

Note: Plan amendment(s) will be required to provide more detail for the 2020-2024 period, and for the projects titled "Other Projects."

# Elm Creek Watershed Management Organization





# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:** Middle St. Croix Watershed Management Organization Revised Watershed Management Plan

**Meeting Date:** September 23, 2015

**Agenda Category:**  Committee Recommendation  New Business  Old Business

**Item Type:**  Decision  Discussion  Information

**Section/Region:** Central Region

**Contact:** Dan Fabian

**Prepared by:** Dan Fabian

**Reviewed by:** Metro Region Committee(s)

**Presented by:** Dan Fabian

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**  Resolution  Order  Map  Other Supporting Information

**Fiscal/Policy Impact**

- None
- Amended Policy Requested
- New Policy Requested
- Other:
- General Fund Budget
- Capital Budget
- Outdoor Heritage Fund Budget
- Clean Water Fund Budget

## ACTION REQUESTED

Approval of the Middle St. Croix Watershed Management Organization Revised Watershed Management Plan

## LINKS TO ADDITIONAL INFORMATION

Link to entire plan:  
[http://www.mscwmo.org/wp-content/2015 WatershedPlan/2015 MSCWMO WatershedManagementPlan 90Day Revisions.pdf](http://www.mscwmo.org/wp-content/2015%20WatershedPlan/2015%20MSCWMO%20WatershedManagementPlan%2090Day%20Revisions.pdf)

## SUMMARY *(Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation)*

### Background

The Middle St. Croix Watershed Management Organization (MSCWMO) was established by a joint powers agreement in 1984 between ten St. Croix Valley communities under Minnesota Statutes Chapter 103B to cooperatively manage the water resources within the watershed. The ten member communities of Afton, Bayport,

Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, and West Lakeland Township appoint members of the Organization's Board.

The WMO's mission statement is that *"The Middle St. Croix Watershed Management Organization jointly and cooperatively manages the water resources of the Middle St. Croix Watershed. The ten member communities do so to collectively protect, manage and improve the quality of water resources in an efficient and effective manner"*.

The Middle St. Croix watershed encompasses approximately 19.8 square miles and is located in the east-central part of Washington County. As shown on the attached map, the WMO is bounded by the St. Croix River on the east, the Valley Branch Watershed District on the west and south, and the Browns Creek Watershed District to the north. A distinction exists between the Middle St. Croix watershed and the other watersheds of Washington County in that the Middle St. Croix watershed has many small, parallel watersheds that all flow to the St. Croix, whereas the other watersheds in the County generally have one major drainage with a headwaters and an outlet. Land use in the watershed is evenly distributed between agricultural uses, rural residential and high-density residential/commercial land uses.

## Plan Summary

The revised Plan was developed with input from various stakeholder groups including the MSCWMO member communities, lake associations, citizens, technical agencies, and MSCWMO board members. All existing local ordinances of the ten member communities, Washington County, and the rules of the adjoining watershed districts pertaining to stormwater management, erosion and/or sediment control, and wetlands were reviewed during the development of the Plan. The result was the development of a wide ranging list of issues for the management of the water and natural resources in the watershed. Major topic areas included administration, education, erosion and sediment control, water quality and monitoring, groundwater, water quantity, development reviews, wetlands, and prioritization and tracking. Many of these issues are interconnected as they are impacted by development in the watershed. In order to address the issues identified by stakeholders, the following goals were developed:

- Protect and improve water quality in the Middle St. Croix watershed through the treatment and control of stormwater runoff.
- Minimize existing and future potential damages to property, public safety, and water resources due to flood events.
- Prevent erosion and subsequent sedimentation from surface runoff within the watershed on construction sites; agricultural lands; and along stream banks, lakeshores, and roadsides.
- Collect monitoring data needed to understand the quality of major water bodies, identify problems and determine appropriate practices.
- Manage the quantity and quality of wetlands, in conformance with the Minnesota Wetland Conservation Act (WCA) and Water Quality Standards Rules (Minnesota Rules 8420 and 7050).
- Collaborate to protect the quantity and quality of groundwater resources.
- Maintain or improve habitats by implementing protection or restoration measures that consider ecological functions as well as recreation, human health, safety, and welfare.
- Increase the knowledge and understanding of watershed residents, government officials and staff, consultants and developers on water quality, water quantity, wetlands and natural resource protection.
- MSCWMO is an efficient, well organized, and proactive organization that collaboratively prioritizes and manages water resources with member communities and other government jurisdictions.

To accomplish these goals a total of 67 strategies and 20 policies were developed. The strategies and policies are specific and measurable and include strategies the MSCWMO will take, along with policies that **require** actions by member communities. The MSCWMO will review its (and its member communities) success in implementing these strategies as part of a biannual evaluation of its progress towards meeting its established goals.

## **Implementation Program**

The MSCWMO intends this plan to be an implementation document and put significant effort into the development of its Implementation Program which includes an information and education program, a purpose driven data collection program for resource inventories and water quality monitoring, and a best management practices technical assistance / cost share program for encouraging water quality improvement and protection. Additionally the Implementation Program identifies specific MSCWMO and member community responsibilities, contains a concise but detailed implementation plan that identifies project funding mechanisms (including grants), expected pollutant load reductions needed to reach goals and a detailed schedule for the WMO to follow as it continues to build on its past successes as it works to achieve its goals.

The Plan relies heavily on member community dues to fund the basic WMO programs and day to day operations. The Plan then relies primarily on grants to implement prioritized water quality improvement projects included in the CIP that were previously identified by the WMO's basic programs and completed subwatershed assessment studies. The WMO has a history of being very successful in obtaining grants to implement Water Quality Improvement projects needed to make progress towards its goals.

## **Discussion**

The MSCWMO received comment letters from the City of Oak Park Heights, Bayport, Lakeland, Lakeland Shores, Lake St. Croix Beach, St. Mary's Point, Washington County, Metropolitan Council, Minnesota Department of Agriculture, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Department of Transportation and the Minnesota Board of Soil and Water Resources as part of the 60-day and 90-day review periods. The MSCWMO has addressed all of the concerns within their 60-day response to comments and in the most recent draft version of the Plan.

## **Recommendation**

The Metro Region Committee met on September 3, 2015 to review the Plan, comments received and the BWSR staff recommendation. Staff recommended approval of the Middle St. Croix WMO Revised Watershed Management Plan. The Metro Region Committee unanimously voted to recommend approval of the Plan to the full Board per the attached draft Order.

## **Attachments**

1. Draft Order for approval of the Middle St. Croix WMO Watershed Management Plan
2. MSCWMO 2015 Plan Revision Executive Summary
3. MSCWMO Implementation Program
4. Map of the MSCWMO

# Minnesota Board of Water and Soil Resources

520 Lafayette Road North  
Saint Paul, Minnesota 55155

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**In the Matter** of the review of the Watershed Management Plan for the **Middle St. Croix Watershed Management Organization**, pursuant to Minnesota Statutes Section 103B.231, Subdivision 9.

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**ORDER  
APPROVING  
WATERSHED  
MANAGEMENT PLAN**

**Whereas** the Board of Managers of the Middle St. Croix Watershed Management Organization (MSCWMO) submitted a Watershed Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to M.S. Section 103B.231, Subd. 9, and;

**Whereas**, the Board has completed its review of the Plan;

**Now Therefore**, the Board hereby makes the following Findings of Fact, Conclusions and Order:

## FINDINGS OF FACT

1. **WMO Establishment.** The MSCWMO was established by a joint powers agreement in 1984 between the following ten member communities: Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, and West Lakeland Township. The first Watershed Management Plan was approved by the Board in 1987, and amended in November 1988 and April 1991 in accordance with the Metropolitan Surface Water Management Act of 1982.

According to the Plan, "The mission of the Middle St. Croix Watershed Management Organization is to jointly and cooperatively manage the water resources of the watershed. The ten member communities will do so to conserve and protect the water resources in an efficient and effective manner."

2. **Authority to Plan.** The Metropolitan Surface Water Management Act requires the preparation of a watershed management plan for the subject watershed area which meets the requirements of Minnesota Statutes Sections 103B.201 to 103B.251. The watershed management plan may be amended according to Minnesota Statutes Section 103B.231, subd. 11. The current "Second Generation Plan" was approved by the Board in April of 2006. Subsequently two minor plan amendments, related to policies and performance standards, were approved in 2007.
3. **Nature of the Watershed.** The Middle St. Croix watershed encompasses approximately 19.8 square miles and is located in the east-central part of Washington County. The

WMO is bound by the St. Croix River on the east, the Valley Branch Watershed District on the west and south, and the Browns Creek Watershed District to the north. A distinction exists between the Middle St. Croix watershed and the other watersheds of Washington County in that the Middle St. Croix watershed has many small, parallel watersheds that all flow to the St. Croix, whereas the other watersheds in the County generally have one major drainage with a headwaters and an outlet. Land use in the watershed is evenly distributed between agricultural uses, rural residential and high-density residential/commercial land uses.

4. **Plan Development and Review.** The plan development process began with the establishment of a Plan Update Subcommittee whose initial meeting was on June 7, 2012. On November 27, 2012 an initial stakeholders meeting was held. Following that an up-front request was made for input from review agencies, communities and other stakeholders. In addition to typical TAC/CAC type meetings and open houses/workshops, the process included one-on-one meetings with local stakeholders such as city councils, city staff, planning commissions, lake associations and the Stillwater Prison. These meetings and input opportunities continued throughout the entire plan development process. Incorporated into the plan development was the Organization's work to have all of its member communities adopt Stormwater Minimal Impact Design Standards (MIDS). This work culminated with the completion of the draft plan which was approved by the Organization's Board of Managers on February 12, 2015 and then distributed to individuals, communities, Plan Review Authorities and other stakeholders for the 60-day review and comment period. The MSCWMO provided a written response to all comments. A public hearing was held on June 11, 2015 at which no additional comments were received. The Plan was revised to incorporate suggested changes and additions from the partners and Plan Review Authorities. The final draft Plan was received by the Board of Water and Soil Resources (BWSR) on June 18, 2015 for the official 90-day final review.
5. **Local Review.** The MSCWMO submitted a copy of the draft Plan to local units of government for their review pursuant to Minnesota Statutes Section 103B.231, subd. 7. The City of Oak Park Heights and Washington County provided comments during the 60-day review period. The Cities of Bayport, Lakeland, Lakeland Shores, Lake St. Croix Beach and St. Mary's Point provided comments during the 90-day review period. The MCWMO addressed all of the local review comments received.
6. **Metropolitan Council Review.** The Metropolitan Council commended the MSCWMO on their preparation of a comprehensive and thorough plan. They also suggested that the WMO include information on how progress towards each goal will be measured and documented. The Plan was revised to address the comment.
7. **Department of Agriculture Review.** The MDA provided several suggested references, during the 90-day review period, which could be included in the plan. MSCWMO provided a response to those suggestions and included appropriate references in the Plan.

8. **Department of Health Review.** The MDH did not have any comments on the Plan.
9. **Department of Natural Resources Review.** The DNR provided comments suggesting changes to various resource related figures and tables as well as information on Rare Species. The suggested changes and information were included in the Plan.
10. **Pollution Control Agency Review.** The PCA did not have any comments during the formal review process. PCA did note that the MSCWMO had fully addressed PCA suggestions and comments that had been provided during the early input process, stakeholder input meetings and informal opportunities to comment on the draft plan.
11. **Department of Transportation Review.** The DOT comments focused largely on the Standards and clarification of certain permit requirements. The Plan was revised to address these comments.
12. **Board Review.** Board staff comments requested clarification of wording of some sections and revisions to be consistent with the current rules. Comments were also made requesting additional clarification on Plan priorities, measurability of goals and the process which the MSCWMO will use to evaluate their progress towards achieving those goals. Additional descriptions and clarification of the items included in the implementation program were also requested. All comments and suggestions were addressed to the staff's satisfaction.
13. **Plan Summary.** This Plan was developed with input from various stakeholder groups including the MSCWMO member communities, lake associations, citizens, technical agencies, and MSCWMO board members. All existing local ordinances of the ten member communities, Washington County, and the rules of the adjoining watershed districts pertaining to stormwater management, erosion and/or sediment control, and wetlands were reviewed during the development of this plan. The result was the development of a wide ranging list of issues for the management of the water and natural resources in the watershed. Major topic areas included administration, education, erosion and sediment control, water quality and monitoring, groundwater, water quantity, development reviews, wetlands, and prioritization and tracking. Many of these issues are interconnected as they are impacted by development in the watershed. In order to address the issues identified by stakeholders, the following goals were developed:
  - Protect and improve water quality in the Middle St. Croix watershed through the treatment and control of stormwater runoff.
  - Minimize existing and future potential damages to property, public safety, and water resources due to flood events.

- Prevent erosion and subsequent sedimentation from surface runoff within the watershed on construction sites; agricultural lands; and along stream banks, lakeshores, and roadsides.
- Collect monitoring data needed to understand the quality of major water bodies, identify problems and determine appropriate practices.
- Manage the quantity and quality of wetlands, in conformance with the Minnesota Wetland Conservation Act (WCA) and Water Quality Standards Rules (Minnesota Rules 8420 and 7050).
- Collaborate to protect the quantity and quality of groundwater resources.
- Maintain or improve habitats by implementing protection or restoration measures that consider ecological functions as well as recreation, human health, safety, and welfare.
- Increase the knowledge and understanding of watershed residents, government officials and staff, consultants and developers on water quality, water quantity, wetlands and natural resource protection.
- MSCWMO is an efficient, well organized, and proactive organization that collaboratively prioritizes and manages water resources with member communities and other government jurisdictions.

To accomplish these goals a total of 67 strategies and 20 policies were developed. The strategies and policies are specific and measurable and include strategies the MSCWMO will take, along with policies that **require** actions by member communities. The MSCWMO will review its (and its member communities) success in implementing these strategies as part of biannual evaluation of its progress towards meeting its established goals.

Finally the MSCWMO intends this plan to be an implementation document and put significant effort into the development of its Implementation Program which includes an information and education program, a purpose driven data collection program for resource inventories and water quality monitoring, and a best management practices technical assistance and cost share program for encouraging water quality improvement and protection. Additionally, the Implementation Program identifies specific MSCWMO and member community responsibilities, a concise but detailed implementation plan that identifies project funding mechanisms including grants, needed pollutant load reductions and a detailed schedule for the WMO to follow as it continues to build on its past successes as it works to achieve its goals.

14. **Metro Region Committee Meeting.** On September 3, 2015, the Board's Metro Region Committee and staff met in St. Paul to review and discuss the Plan. Those in attendance from the Board's Committee were Jill Crafton, Jack Ditmore, Rebecca Flood, Faye Sleeper, and Joe Collins as chair. Board staff in attendance were Metro Region Supervisor Jim Haertel and Board Conservationist Dan Fabian. The MSCWMO representative included Administrator Mike Isensee from the Washington Conservation District. Following a presentation by the MCWMO, Board staff recommended approval

of the Plan. After discussion, the Committee unanimously voted to recommend approval of the Plan to the full Board.

### CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Watershed Management Plan for the Middle St. Croix Watershed Management Organization pursuant to Minnesota Statutes § 103B.231, Subd. 9.
3. The Middle St. Croix Watershed Management Organization Watershed Management Plan attached to this Order defines water and water-related problems within the WMO's boundaries, possible solutions thereto, and an implementation program.
4. The attached Watershed Management Plan is in conformance with the requirements of Minnesota Statutes §§ 103B.201 to 103B.251.

### ORDER

The Board hereby approves the attached Watershed Management Plan dated August 2015, as the Watershed Management Plan for the Middle St. Croix Watershed Management Organization.

Dated at St. Paul, Minnesota this 23<sup>th</sup> day of September 2015.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

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BY: Brian Napstad, Chair

## Executive Summary

The Middle St. Croix Watershed Management Organization (MSCWMO) is a Joint Powers Watershed Management Organization composed of ten St. Croix Valley communities that was established under State Statute 103B to cooperatively manage water resources within the watershed. The member municipalities and townships of the MSCWMO appoint members of the MSCWMO Board. The ten member communities of the MSCWMO are: Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, and West Lakeland Township (Figure 1.1).

The specific purposes of a watershed management organization according to the Minnesota Surface Water Management Act and Minnesota Statutes 103B.201 are to:

- Protect, preserve, and use natural surface and groundwater storage and retention systems;
- Minimize public capital expenditures needed to correct flooding and water quality problems;
- Identify and plan for means to effectively protect and improve surface and groundwater quality;
- Establish more uniform local policies and official controls for surface and groundwater management;
- Prevent erosion of soil into surface water systems;
- Promote groundwater recharge; and
- Protect and enhance fish and wildlife habitat and water recreational facilities.

The MSCWMO has developed the following additional purposes to help guide its goals and policies:

- Cooperatively manage water resources;
- Inventory and assess the resources;
- Monitor the water quality of lakes and streams;
- Provide education on water related issues;

The Middle St. Croix watershed encompasses approximately 19.8 square miles and is located in the east-central part of Washington County. The watershed is unique when compared to other watersheds in Washington County in that it lacks a major perennial stream channel and has a minimal number of surface water features: Lily Lake, McKusick Lake, Perro Pond, and Perro Creek. Lake St. Croix (the lower 25 miles of the St. Croix River) lies adjacent to the MSCWMO and receives drainage directly from many of the subwatersheds within the MSCWMO.

Water quality monitoring is performed by the MSCWMO in the major water bodies. A few of these water bodies are considered "impaired" as they do not meet State water quality standards and are thus placed on the impaired waters list. Lily Lake, considered a deep lake, does not meet State water quality standards due to excess nutrients which impacts its aquatic recreation use. McKusick Lake was added to the Impaired Waters List for excess nutrients in 2006 but was subsequently removed from the list (delisted) in 2012 after improvements in the watershed were installed and new monitoring data indicated the lake is now meeting water quality standards.

Brick Pond, ~~while classified as eutrophica~~ **clear water, vegetation dominated wetland**, is not considered impaired because its high phosphorus levels do not result in high amounts of algae. Perro Creek is on the State's Impaired Waters List for high bacteria (*Escherichia coli*) levels.

Lake St. Croix, the lower 25 miles of the St. Croix River between Stillwater, MN and Prescott, WI, was designated as impaired in 2008 for excess phosphorus. The Lake St. Croix Nutrient TMDL was completed in 2012 by the MPCA and the Wisconsin Department of Natural Resources. The TMDL Implementation Plan was completed in February 2013.

This Plan was developed with input from various stakeholder groups including the MSCWMO member communities, lake associations, citizens, technical agencies, and MSCWMO board members. A wide ranging list of issues for the management of the water and natural resources in the watershed was developed (Section 3.2). Major topic areas included administration, education, erosion and sediment control, water quality and monitoring, groundwater, water quantity, development reviews, wetlands, and prioritization and tracking. Many of these issues are interconnected as they are impacted by development in the watershed. Section 3 provides specific issues statements and further discussion of the input process.

All existing local ordinances of the ten member communities, Washington County, and the rules of the adjoining watershed districts pertaining to stormwater management, erosion and/or sediment control, and wetlands were reviewed during the development of this plan. A summary of existing federal and state rules and authorities is located in Section 4 of this plan. There are varying degrees of local controls and ordinances among the member cities in the MSCWMO pertaining to stormwater management, erosion and/or sediment control, and wetlands. Member communities currently enforce State regulations in these areas while the MSCWMO reviews developments and projects for conformance with its watershed management plan policies and performance standards. In order to address the issues identified by stakeholders, the following goals were developed (Section 5):

- Protect and improve water quality in the Middle St. Croix watershed through the treatment and control of stormwater runoff.
- Minimize existing and future potential damages to property, public safety, and water resources due to flood events.
- Prevent erosion and subsequent sedimentation from surface runoff within the watershed on construction sites; agricultural lands; and along stream banks, lakeshores, and roadsides.
- Collect monitoring data needed to understand the quality of major water bodies, identify problems and determine appropriate practices and management practices.
- Manage the quantity and quality of wetlands, in conformance with the Minnesota Wetland Conservation Act (WCA) and Water Quality Standards Rules (Minnesota Rules 8420 and 7050).
- Collaborate to protect the quantity and quality of groundwater resources.
- Maintain or improve habitats by implementing protection or restoration measures that consider ecological functions as well as recreation, human health, safety, and welfare.
- Increase the knowledge and understanding of watershed residents, government officials and staff, consultants and developers on water quality, water quantity, wetlands and natural resource protection.
- MSCWMO is an efficient, well organized, and proactive organization that collaboratively prioritizes and manages water resources with member communities and other government jurisdictions.

A total of 67 strategies and 20 policies were developed to reach these goals. The strategies and policies are specific and measurable and include strategies the MSCWMO will take, along with policies that require actions by member communities (Section 5.0). The most notable of these strategies include:

- Work with local governments and state agencies to implement Minimal Impact Design Standards (S5)
- Develop and adopt a simplified review process and guidance and application materials to meet performance standards for minor subdivisions (S6)
- Inventory and evaluate outlets directly discharging to Lake St. Croix to further identify and prioritize practices to meeting the Lake St. Croix TMDL (S2)
- Require that new development and redevelopment areas be limited to the predevelopment or existing rate of runoff or to a rate within the capacity of downstream conveyance systems (S12)
- Require that project applicants secure any flowage easements that would be required to accommodate the stormwater management facilities. These easements shall be granted up to the 100-yr flood level (S14)
- Require and inspect proper temporary and permanent erosion and sediment control throughout the watershed to prevent nuisance conditions, erosion in receiving channels or on down slope properties, and inundation of wetlands (S21)
- Require vegetated buffers for projects adjacent to water bodies (S22)
- Require buffers and prohibit construction on steep slopes and bluffs (S23)
- Require thorough consideration and documentation of alternatives presented to justify wetland impacts; all projects shall be designed with minimal wetland impact (S32)
- Require wetland buffers based on wetland categories in the MSCWMO Performance Standards (S37)
- Collaborate with member communities, Washington County and other agencies on the development and adoption of policies on the quantity of water used in areas where existing wells and/or groundwater dependent natural resources could be negatively impacted by overuse of groundwater (S43)
- Promote the protection and restoration of natural and native shoreland areas, including the preservation of lakeshore and stream bank vegetation, and the establishment and maintenance of buffers adjacent to priority water bodies (S49)
- Provide training and education to local land use councils and staff on how they can accommodate growth while protecting and improving local water resources (S55)
- Maintain efficient water management programs where existing local units of governments remain the primary regulators and refer projects to the MSCWMO for investigation, comments and recommendations based on the MSCWMO's performance standards of this Plan (S58)
- Biennially evaluate this Plan's implementation by the MSCWMO and member communities and present the implementation of strategies and policies in a report (S64)

The MSCWMO Performance Standards (outlined in Section 7.0) will apply to new and re development within the Middle St. Croix watershed and will focus on stormwater management, erosion and sediment control, and wetland protection. The standards will also apply whenever a variance, grading, or building permit is required. Each member community will be responsible for incorporating the performance standards of this plan into their existing processes, and will refer projects to the MSCWMO for full review when triggered by the activities listed below.

- Any project undertaking grading, filling, or other land alteration activities which involve movement of earth or removal of vegetation on greater than 10,000 square feet of land.
- Any project that creates or fully reconstruct 6,000 square feet or more of impervious surface.
- All major subdivisions. Major subdivisions are defined as subdivisions with 4 or more lots.

- Any project with wetland impacts and any project with grading within public waters, the wetland buffer as identified in the plan, or within 40-feet of the bluff line.
- Development projects that impact 2 or more of the member communities.
- New or redevelopment projects that require a building permit that add 500 square feet of additional impervious surface.
- Any project requiring a variance from the current local impervious surface zoning requirements for the property.

The MSCWMO Implementation Program (Section 6.0) includes an information and education program, a data collection program for resource inventories and water quality, and a best management practices technical assistance and cost share program for encouraging water quality improvement and protection. Additionally, Section 6.0 provides information on MSCWMO and member community responsibilities, specifics of the MSCWMO review process, funding mechanisms (including grants), the process for amending this plan, if needed, and a description of this Plan's impact on member communities, and a list of past accomplishments.

## 6.8 Implementation Program

Table 6.4 identifies the projects, programs, and activities that comprise the WMO implementation program. The WMO developed these activities through reviewing existing information (Section 2) and public input and agency coordination (Section 3), developing goals, strategies, and policies (Section 5), and then assessing the need for programs, studies or projects. Each row shows estimated cost, proposed year of implementation, and proposed financing method for each element of the implementation program. The proposed dates listed to complete the projects, programs, and activities are estimates and highly dependent upon many variables. The implementation plan will be reviewed biennially and updated as necessary based on past progress, emerging issues, partner priorities, new/better data and external funding priorities and availability.

The activities listed in table 6.4 are the specific means by which the WMO achieves its strategies which are the measurable activities used to evaluate the WMOs progress towards meeting each of the following goals listed in Section 5:

- 5.1. Protect and improve water quality in the Middle St. Croix watershed through the treatment and control of stormwater runoff.
  - 5.2. Minimize existing and future potential damages to property, public safety, and water resources due to flood events.
  - 5.3. Prevent erosion and subsequent sedimentation from surface runoff within the watershed on construction sites; agricultural lands, and along stream banks, lakeshores, and roadsides.
  - 5.4. Collect monitoring data needed to understand the quality of major water bodies, identify problems and determine appropriate practices and management practices.
  - 5.5. Manage the quantity and quality of wetlands, in conformance with the Minnesota Wetland Conservation Act (WCA) and Water Quality Standards Rules (Minnesota Rules 8420 and 7050).
  - 5.6. Collaborate to protect the quantity and quality of groundwater resources.
  - 5.7. Maintain or improve habitats by implementing protection or restoration measures that consider ecological functions as well as recreation, human health, safety, and welfare.
  - 5.8. Increase the knowledge and understanding of watershed residents, government officials and staff, consultants and developers to encourage actions which improve water quality, water quantity, wetlands and natural resource protection.
  - 5.9. The MSCWMO is an efficient, well organized, and proactive organization that collaboratively prioritizes and manages water resources with member communities and other government jurisdictions.
- Implementation items with grant funding sources will only be completed if grant funds or other stakeholder funding is received.



16	Maintain MSCWMO website for public access to documents and information (S64)	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	Member Dues
<b>Administration</b>														
17	Conduct annual financial audit (S60)	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	Member Dues
18	Maintain MSCWMO operation (accounting, legal, insurance, clerical, supplies)	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	Member Dues
19	Perform general MSCWMO administration (Administrator) (S58 - S67)	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	Member Dues
20	Evaluate plan implementation (S64)	Included in general MSCWMO administration												
21	Support the implementation of the Washington County Groundwater Plan (S38-S43)	Included in general MSCWMO administration												
22	Collaborate to prevent spread of aquatic invasive species (S47)	Included in general MSCWMO administration												
23	Develop and adopt simplified review process and guidance and application materials minor subdivisions (S6, S20)	\$2,000												Member Dues
24	Assist communities to integrate MIDS into local controls (S5)	\$60,000	\$45,000											Grants*
25	Water Monitoring Equipment Savings	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	Member Dues
26	Water Mgmt Plan (set aside for future plan)	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	Member Dues
<b>Total MSCWMO Budget</b>		\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	\$109,000	Member Dues
<b>Total Grants Targets</b>		\$227,000	\$225,000	\$105,000	\$250,000	\$200,000	\$65,000	\$347,750	\$97,500	\$54,000	\$213,000	\$213,000	\$213,000	Grants*
<b>Total Potential Budget (in 2015 dollars)</b>		\$336,000	\$364,000	\$214,000	\$359,000	\$174,000	\$456,750	\$206,500	\$163,000	\$322,000	\$322,000	\$322,000	\$322,000	

\*Grant match dollars are provided through multiple sources including the MSCWMO technical and financial assistance funds, member communities, private landowners, and Washington County.

Table 6.5 Implementation Program Narrative

Project Review		Member Dues and Project Review Fees
1	Conduct project reviews and inspections to ensure implementation of MSCWMO performance standards (S3, S4, S11 – S19, S21 – S24, S45)	Member Dues
2	Review projects to protect groundwater quality/quantity (S42, S45)	Member Dues
3	Promote habitat preservation when reviewing projects (S46)	Member Dues
4	Review WCA applications and projects for MSCWMO wetland requirements (S29 – S37)	Member Dues
<b>Technical and Financial Assistance</b>		
5	Provide technical assistance to member communities and landowners (S7 – S10, S46)	Member Dues
6	Update the 2006 Gully Inventory (S25)	Member Dues
7	Identify, evaluate, prioritize, and seek funding stabilize gullies. (S1, S25)	Member Dues
8	Promote voluntary BMPs through cost share assistance (S8, S9, S17, S25, S44, S46, S49, S50, S51, S52)	Member Dues
9	Install prioritized and targeted projects in Lily, McKusick and Perro Creek subwatersheds (S1)	Member Dues
10	Assist Lake St. Croix TMDL implementation w/ installation of targeted and prioritized BMPs (S1)	Member Dues
11	Assist communities to track, inspect and maintain water quality improvement practices (S10)	Grants*
12	Inventory and evaluate outlets directly discharging to Lake St.	Member Dues

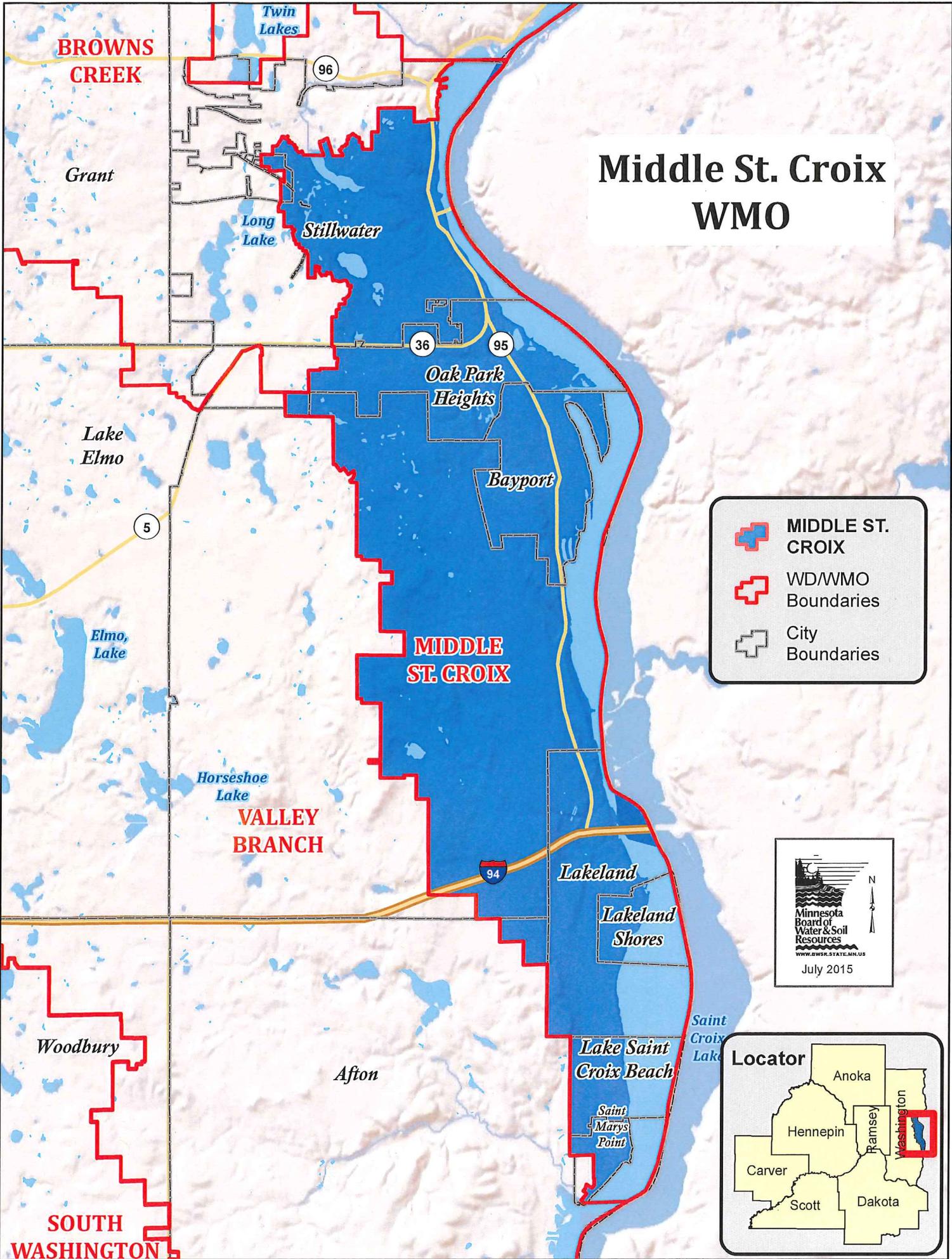
Croix (\$2)	drainage information that can be used in combination with an inventory of stormwater outfalls to more accurately identify stormwater outflow points. Evaluating the outfalls to the St. Croix river with this new data will provide more precise information for high priority areas for meeting the Lake St. Croix TMDL. Table 6.4 and Table 6.5 identify the estimated implementation schedule*	Grant*
13 Provide technical assistance to member communities to integrate MIDS into local ordinance (\$5 S7)	The Middle St. Croix was awarded a Clean Water Fund Grant in 2014 to work with up to 13 communities in the St. Croix River Basin to adopt Minimal Impact Design Standards into local ordinance. All 10 member communities of the MSCWMO have passed resolutions to integrate MIDS into local ordinance or have adopted MIDS standards for stormwater quality and volume standards for new development and redevelopment. Ordinance and code updates are anticipated to be completed and adopted by member communities by November 2016.	Grant*
<b>Water Quality Monitoring</b>		
14 Monitor water quality and quantity in lakes and streams (\$26, S27, S28)	The MSCWMO conducts water quality monitoring in cooperation with municipalities, Washington County, and state agencies as appropriate to establish water quality goals, target the implementation of best management practices and improvement projects, and evaluate progress toward water quality goals. These monitoring efforts include working with the lake and stream volunteer monitoring program. Section 6.2 outlines the 10 year monitoring strategy and table 6.1 identifies the anticipated monitoring plan. The MSCWMO will continue annual condition monitoring of Lily Lake and Lake McKusick. Additionally the MSCWMO will implement problem investigation monitoring to more effectively target and size best management practices. Problem investigation monitoring will be conducted on the following areas in order of priority as funding is available: 1. Lily Lake outfalls, 2. Perro Pond and Perro Creek outfalls, 3. Lake St. Croix outfalls.	Member Dues
<b>Education and Outreach</b>		
15 Educate all sectors, provide training/ workshops, publish messages and articles through support of EMMWREP (\$44, S51 – S57)	The MSCWMO participates in the shared East Metro Water Resource Educator Program (EMWREP) to increase the knowledge and understanding of watershed residents, government officials and staff, consultants and developers to encourage actions which improve water quality, water quantity, wetlands and natural resource protection. (Section 5.8). Education efforts include groundwater quality and quantity, the use of native plants, raingardens and shoreline plantings to reduce runoff pollution and conserve groundwater resources; tailored outreach to commercial, residential, and rural landowners to facilitate project implementation in priority areas; technical workshops for staff from local units of government; training and education to local land use councils and staff; published water education related blogs; social media and newspaper articles; and educational messaging for public projects in public spaces.	Member Dues
16 Maintain MSCWMO website for public access to documents and information (\$64)	The MSCWMO will continue to maintain a website that contains meeting agendas, minutes, the watershed management plan, annual reports, annual water quality monitoring reports, contact information of WMO staff, a list of the managers, cost share program information, notifications, plan amendments and time and location of MSCWMO public meetings.	Member Dues
<b>Administration</b>		
17 Conduct annual financial audit (\$60)	The MSCWMO will continue to conduct and submit an audit report for the previous fiscal year within 180 days of the end of the MSCWMO fiscal year.	Member Dues
18 Maintain MSCWMO operations (accounting, legal, insurance, clerical, supplies)	Maintain MSCWMO base operational functions.	Member Dues
19 Perform general MSCWMO administration (Administrator) (\$58 – S67)	The MSCWMO maintains efficient water management programs where existing local units of governments remain the primary regulators and refer projects to the MSCWMO for investigation, comments and recommendations based on the MSCWMO's performance standards of this Plan. Administration of the MSCWMO requires the following actions: regularly review and revise project review fees, application materials and guidance, meet or exceed the requirements of BSWR and the Metropolitan Surface Water Management Act regarding the management of a watershed management organizations. The MSCWMO also meets or exceeds the criteria of the Washington County Governance Study; biennially evaluate this Plan's implementation by the MSCWMO and member communities and present the implementation of strategies and policies in a report; maintain a website with MSCWMO meeting agendas, minutes, Watershed Management Plan, and focused articles on MSCWMO activities; represent the MSCWMO at state, county and city meetings, as requested, to maintain collaborative and efficient governance; and keep member communities informed of water related issues and programs.	Member Dues

20	Evaluate plan implementation (S64)	<p>The MSCWMO will continue to collaborate with Washington County to implement the actions of the 2014-2024 Groundwater Plan including considering well head protection areas and separation of infiltration areas during project reviews and enforcing State required setbacks; identifying, prioritizing and addressing failing septic systems; encouraging member communities to adopt well head protection programs; identifying and sealing abandoned wells; identifying and prohibiting activities during the review process that may negatively impact groundwater; developing and adopting policies on the quantity of water used in areas where existing wells and/or groundwater dependent natural resources could be negatively impacted by overuse of groundwater; educating citizens and public officials on the inter-relation of surface and groundwater quality and quantity, the value of and need to protect groundwater recharge areas and wetlands, and implementation of best management practices and low-impact development and redevelopment strategies to protect groundwater resources. In addition the MSCWMO will require infiltration of stormwater per MSCWMO performance standards to promote low impact development that mimics natural hydrology and recharges groundwater.</p>	Member Dues
21	Support the implementation of the Washington County Groundwater Plan (S38-S43)	<p>The MSCWMO will continue to collaborate with Washington County to implement the actions of the 2014-2024 Groundwater Plan including considering well head protection areas and separation of infiltration areas during project reviews and enforcing State required setbacks; identifying, prioritizing and addressing failing septic systems; encouraging member communities to adopt well head protection programs; identifying and sealing abandoned wells; identifying and prohibiting activities during the review process that may negatively impact groundwater; developing and adopting policies on the quantity of water used in areas where existing wells and/or groundwater dependent natural resources could be negatively impacted by overuse of groundwater; educating citizens and public officials on the inter-relation of surface and groundwater quality and quantity, the value of and need to protect groundwater recharge areas and wetlands, and implementation of best management practices and low-impact development and redevelopment strategies to protect groundwater resources. In addition the MSCWMO will require infiltration of stormwater per MSCWMO performance standards to promote low impact development that mimics natural hydrology and recharges groundwater.</p>	Member Dues
22	Collaborate to prevent spread of aquatic invasive species (S47)	<p>Collaborate with other entities (e.g., agencies, lake associations, cities, Washington County) to manage and prevent the spread of aquatic invasive species. MSCWMO services may include point-intercept surveys of aquatic vegetation, feasibility studies, technical analysis, education, exploring funding options, and applying for grants. The MSCWMO will not manage increased growths of native aquatic vegetation resulting from improved water quality.</p>	Member Dues
23	Develop and adopt simplified review process and guidance and application materials minor subdivisions (S6, S20)	<p>Assist member communities to develop and adopt a simplified review process, guidance and application materials to meet performance standards for minor subdivisions undertaking grading, filling, or other land alteration activities that are less than one acre and which trigger a review by the MSCWMO.</p>	Member Dues
24	Assist communities to integrate MIDS into local controls (S5)	<p>Work with local governments and state agencies to implement Minimal Impact Design Standards in order to provide clear, flexible and consistent new development and redevelopment stormwater standards.</p>	Grants*
25	Water Monitoring Equipment Savings	<p>Set aside funding to maintain or purchase water quality monitoring equipment when necessary.</p>	Member Dues
26	Water Mgmt. Plan (set aside for future plan)	<p>The MSCWMO will begin saving for the 2025 Watershed Management Plan update.</p>	Member Dues

Table 6.6 Targeted Implementation Plan

Implementation Item	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		
	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	Grant	Match	
7											\$30,000	\$7,500	\$120,000	\$42,500	\$30,000	\$10,000	\$120,000	\$40,000					
9							\$45,000	\$15,000			\$75,000	\$25,000			\$75,000	\$25,000	\$97,500	\$32,500	\$30,750	\$10,250			
9			\$90,000	\$22,500	\$36,500	\$9,500			\$112,500	\$37,500	\$75,000	\$25,000											
9	\$30,000	\$3,000																					
10	\$100,000	\$12,500	\$107,250	\$35,750	\$56,250	\$18,750	\$56,250	\$18,750	\$75,000	\$25,000			\$65,000	\$16,250	\$185,800	\$61,950			\$9,750	\$3,250	\$160,000	\$53,000	
Total	\$130,000	\$15,500	\$197,250	\$58,250	\$92,750	\$28,250	\$56,250	\$33,750	\$187,500	\$62,500	\$180,000	\$57,500	\$185,000	\$58,750	\$290,800	\$96,950	\$217,500	\$72,500	\$40,500	\$13,500	\$160,000	\$53,000	
Estimated Phosphorous Load Reduction (lb/yr)		19.1	20	15	15	25	20	25	20	28	20	20	28	15	15	40	12.3	13					
Applications	Lake St. Croix Direct Discharge SD-13 \$143,000		Lake St. Croix Direct SD-13, SD-11, SD-3, SD-36 \$150,000		Lily feasibility and design based on Monitoring Results \$50,000 /Perro PC-4 \$60,000		Lily Phase IV \$250,000 Lake St. Croix Direct SD-36 and SD-30 \$100,000		Perro Creek PC-3 \$100,000/St. Croix Gully Stabilization \$200,000		Lake St. Croix Direct Discharge SD-14 \$329,000		Perro Creek PC-5 \$230,000/ Gully Stabilization \$200,000				Lake St. Croix Direct SD-30, SD-2, SD-6 /Perro Creek PC-7						

# Middle St. Croix WMO



- MIDDLE ST. CROIX
- WDMWO Boundaries
- City Boundaries

Minnesota Board of Water & Soil Resources  
WWW.BWR.STATE.MN.US  
July 2015

### Locator

The locator map shows the following counties: Anoka, Hennepin, Ramsey, Washington, Carver, Scott, and Dakota. Washington county is highlighted with a red border.



# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:**

**Valley Branch Watershed District  
Revised Watershed Management Plan**

**Meeting Date:**

September 23, 2015

**Agenda Category:**

Committee Recommendation     New Business     Old Business

**Item Type:**

Decision     Discussion     Information

**Section/Region:**

Central Region

**Contact:**

Dan Fabian

**Prepared by:**

Dan Fabian

**Reviewed by:**

Metro Region    Committee(s)

**Presented by:**

Dan Fabian

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**     Resolution     Order     Map     Other Supporting Information

**Fiscal/Policy Impact**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> None          | <input type="checkbox"/> General Fund Budget          |
| <input type="checkbox"/> Amended Policy Requested | <input type="checkbox"/> Capital Budget               |
| <input type="checkbox"/> New Policy Requested     | <input type="checkbox"/> Outdoor Heritage Fund Budget |
| <input type="checkbox"/> Other:                   | <input type="checkbox"/> Clean Water Fund Budget      |

## ACTION REQUESTED

Approval of the Valley Branch Watershed District Revised Watershed Management Plan

## LINKS TO ADDITIONAL INFORMATION

Link to entire plan and responses to 60-day comments:

<http://www.vbwd.org/WMP2015/90day/index.html>

**SUMMARY** (*Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation*)

## Background

The Valley Branch Watershed District (VBWD) covers approximately 70 square miles and lies primarily within Washington County, but includes approximately one square mile in Ramsey County. The VBWD encompasses all or parts of the following 14 cities and townships: *Ramsey County Communities:* City of Maplewood, City of North St. Paul, City of White Bear Lake; *Washington County Communities:* City of Afton, City of Mahtomedi, City of St. Mary's Point, Baytown Township, City of Oak Park Heights, City of Woodbury, City of Grant, City of Oakdale, West Lakeland Township, City of Lake Elmo, City of Pine Springs.

The VBWD was originally created in 1968 with the focus of addressing existing flooding problems within the watershed. Since that time, the VBWD's role has expanded to address all facets of water resources management. VBWD has no central office and no full-time staff. All services, including engineering, legal, accounting, inspection and secretarial services are provided by consultants. The VBWD maintains a website ([www.vbwd.org](http://www.vbwd.org)), which includes permitting information, manager and consultant contact information, agendas and minutes from managers' meetings, annual reports, lake level and water quality data, BMP Cost Share Program and other information.

**The VBWD mission is:** *To manage and protect our water resources within the limits of VBWD jurisdiction: lakes, ponds, creeks, streams, wetlands, drainages, and groundwater by:*

- A. *Promoting communication and collaboration with our residents, communities, and pertinent governmental units.*
- B. *Improving and protecting the quality of surface water and groundwater resources.*
- C. *Managing the quantity of water and minimizing the negative impact on the VBWD from floods, high flows, and droughts.*
- D. *Understanding and responding to the effects of community growth and related activities on groundwater and surface water resources.*
- E. *Preserving and enhancing the quantity and quality of wetlands.*
- F. *Educating and inspiring our residents, communities, and governmental units to participate in the protection and improvement of water resources.*

## **Plan Summary**

The VBWD revised Watershed Management Plan (Plan) documents the Managers' guidelines and proposed tasks for managing the water resources within the boundaries of the VBWD to achieve their vision. The Plan provides data and other background information, outlines the applicable regulations, assesses watershed-wide and resource-specific issues, establishes goals and policies for the VBWD and its cities and townships, and identifies implementation tasks to be performed to achieve the VBWD goals. The Plan is organized into six major sections, including:

- Section 1 – Executive Summary
- Section 2 – Introduction
- Section 3 – Land and Water Resources Inventory
- Section 4 – Issues, Goals and Policies
- Section 5 – Subwatershed Management Plans
- Section 6 – Implementation

The plan development process began in August of 2013 with the preparation of a stakeholder involvement process plan followed by a self-assessment of success in addressing issues identified in the 2005 and an identification of remaining issues to be carried over to the 2015 Plan. Following that an up-front request was made for input from plan review authorities and other stakeholders as required by the recently revised Minnesota Rule Chapter 8410. Once these initial issues were identified, the VBWD Managers held a successful plan workshop with stakeholders on October 30, 2013 to identify and prioritize issues. Workshop input was compiled, and analyzed with results summarized in a report to the Managers for their use in prioritizing issues to be addressed in the Plan. While preparing the preliminary draft of the Plan the VBWD conducted additional outreach to gather feedback on the draft plan from Plan review authorities and public stakeholders. Incorporated into the Plan is the information and implementation activities identified as part of the development of the VBWD's WRAPS on impaired District Lakes. The issues identified during the development

of the plan are grouped into the following nine subsections and associated priority issues for which the VBWD then established the various policies, strategies and actions it will follow and included in its implementation program, to address these issues during the life of the plan:

- **Water Quality:** *Water quality degradation, aquatic invasive species control and management, Water quality monitoring and reporting, Implementation and maintenance of water quality improvement projects, and Collaboration with other entities to reduce pollutant loading and improve water quality.*
- **Groundwater Management:** *Surface water-groundwater interaction, Groundwater quality, Groundwater quantity, Participation in local/regional groundwater management planning.*
- **Public Education and Public Involvement:** *Awareness of the VBWD, its role, and its accomplishments (e.g., flood control projects stream improvements, etc.), Education and awareness of property owners regarding their impact on water resources, Expanded educational programs targeting specific topics or groups, and Continued involvement of the Citizen Advisory Committee.*
- **Stream Management and Restoration:** *Management of high and low water levels, Stream monitoring and reporting, and Stream degradation and restoration.*
- **Stormwater Runoff Management:** *Planning for sustainable infrastructure, Quality of stormwater runoff, Quantity of stormwater runoff, Maintenance of stormwater best management practices (BMPs), and VBWD stormwater runoff management standards.*
- **Wetland, Habitat, and Shoreland Management:** *Maintaining ecological functions of wetland and shoreland areas (e.g., hydrology, water quality, connectivity, and habitat), Wetland and shoreland buffers, Native and invasive vegetation, and Education.*
- **Water Level and Floodplain Management:** *Management of high and low water levels, Development and management of landlocked basins, Floodplain management, and Design events and precipitation data (i.e. Atlas 14).*
- **Erosion prevention and Sediment Control:** *Managing the impact of erosion and sedimentation due to increased urbanization, and Identifying and addressing erosion and sedimentation problem areas.*
- **Administration and Funding:** *Eliminating redundancy with city, county, and other agency roles, Equitably funding projects and programs using appropriate methods, and Demonstrating accountability as spenders of public resources.*

## Implementation Program

The Implementation section describes the responsibilities of the Valley Branch Watershed District (VBWD), the VBWD Plan review and approval process, updating of the VBWD Plan, and the revision/amendment process for the VBWD Plan. The section also includes guidance for when plan amendments are required, based on the type of VBWD Plan revision. It delineates the water resource management responsibilities of cities and townships within the VBWD as well as briefly discussing the roles and responsibilities of the various other agencies having jurisdiction within the VBWD relevant to the management of water resources. One of the most important components of the plan is the VBWD's aggressive implementation program that is contained in this section. It includes capital improvements and other implementation responsibilities (e.g., studies, project 1007 maintenance, local water management plan review, etc.) the District will undertake to achieve the goals of the plan. The implementation program tables identify the estimated costs, plan reference, project partners, funding sources and the proposed implementation year. The majority of implementation program activities are funded by VBWD Ad Valorem tax over the entire watershed although there are activities funded by permit fees and special assessments. Grant funding is also proposed for some projects. The District has an established funding policy that projects under \$500,000 are funded through Ad Valorem tax over the entire

District. Projects over \$500,000 are funded through a combination of Ad Valorem, Special Assessment, Water Management District (Stormwater Utility Fees) and grants. The exact funding mix is based on resource priority and project type.

During the first five years of the plan the VBWD estimates it will spend an average of about \$1,200,000/yr. on planned implementation activities.

### **Discussion**

The VBWD received comment letters from the Cities of Afton, Grant, Mahtomedi, North St. Paul, Ramsey and Washington and Ramsey Counties, Metropolitan Council, Minnesota Department of Agriculture, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Department of Transportation and the Minnesota Board of Soil and Water Resources as part of the 60-day and 90-day review periods. The VBWD has addressed all of the comments received in the most recent draft version of the plan.

### **Recommendation**

The Metro Region Committee met on September 3, 2015 to review the Plan, comments received and the BWSR staff recommendation. Staff recommended approval of the Valley Branch Watershed District Watershed Management Plan. The Metro Region Committee unanimously voted to recommend approval of the Plan to the full Board per the attached draft Order.

### **Attachments**

1. Draft Order for approval of the Valley Branch Watershed District Revised Watershed Management Plan
2. Executive Summary
3. Table 6-1 & Table 6-2 VBWD 2015-2025 Implementation Program
4. Map of the Valley Branch Watershed District

# Minnesota Board of Water and Soil Resources

520 Lafayette Road North  
Saint Paul, Minnesota 55155

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**In the Matter** of the review of the Watershed  
Management Plan for the **Valley Branch**  
**Watershed District**, pursuant to Minnesota  
Statutes Section 103B.231, Subdivision 9.

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**ORDER  
APPROVING  
WATERSHED  
MANAGEMENT PLAN**

**Whereas** the Board of Managers of the Valley Branch Watershed District (VBWD) submitted a Watershed Plan (Plan) to the Minnesota Board of Water and Soil Resources (Board) pursuant to Minnesota Statutes Section 103B.231, Subd. 9, and;

**Whereas**, the Board has completed its review of the Plan;

**Now Therefore**, the Board hereby makes the following Findings of Fact, Conclusions and Order:

## FINDINGS OF FACT

1. **Watershed District Establishment.** The VBWD was established on November 14, 1968 to address existing flooding problems and prevent future flooding problems in the watershed. This plan will be the fifth VBWD Plan approved by the Board or its predecessor under the Watershed Act, Minnesota Statutes Chapter 103D and the fourth since passage of the 1982 Metropolitan Surface Water Management Act, Minnesota Statutes Chapter 103B.

The VBWD mission is: *To manage and protect our water resources within the limits of VBWD jurisdiction: lakes, ponds, creeks, streams, wetlands, drainages, and groundwater by:*

- A. *Promoting communication and collaboration with our residents, communities, and pertinent governmental units.*
- B. *Improving and protecting the quality of surface water and groundwater resources.*
- C. *Managing the quantity of water and minimizing the negative impact on the VBWD from floods, high flows, and droughts.*
- D. *Understanding and responding to the effects of community growth and related activities on groundwater and surface water resources.*
- E. *Preserving and enhancing the quantity and quality of wetlands.*
- F. *Educating and inspiring our residents, communities, and governmental units to participate in the protection and improvement of water resources.*

2. **Authority to Plan.** The Metropolitan Surface Water Management Act requires the preparation of a watershed management plan for the subject watershed area which meets the requirements of Minnesota Statutes Sections 103B.201 to 103B.251. The watershed management plan may be amended according to Minnesota Statutes Section 103B.231, subd. 11. The current Plan was approved by the Board on October 26, 2005. Subsequently the plan was amended three times for the purpose of adjusting boundaries with neighboring watersheds to add and remove areas related to the former St. Croix Watershed Management Organization.
3. **Nature of the Watershed.** The VBWD covers approximately 70 square miles and lies primarily within Washington County, but includes approximately one square mile in Ramsey County. The VBWD encompasses all or parts of the following 14 cities and townships: *Ramsey County Communities*; City of Maplewood, City of North St. Paul, City of White Bear Lake, *Washington County Communities*; City of Afton, City of Mahtomedi, City of St. Mary's Point, Baytown Township, City of Oak Park Heights, City of Woodbury, City of Grant, City of Oakdale, West Lakeland Township, City of Lake Elmo, City of Pine Springs. The district is bounded on the north by the Rice Creek and the Brown's Creek Watershed Districts, on the west by the Ramsey Washington Watershed District, on the south by the South Washington Watershed District and on the east by the Middle St. Croix Watershed district and the St. Croix River. Prominent land covers present within the VBWD include agricultural land cover (22 percent) and forest (17 percent). Developed areas with imperviousness greater than 10 percent occupy approximately 21 percent of the VBWD, with the majority of the development located in the northwest portion of the watershed. Additional proposed development and redevelopment areas are scattered throughout the watershed.
4. **Plan Development and Review.** The plan development process began in August of 2013 with the preparation of a stakeholder involvement process plan followed by a self-assessment of success in addressing issues identified in the 2005 and an identification of remaining issues to be carried over to the 2015 Plan. Following that an up-front request was made for input from plan review authorities and other stakeholders as required by the recently revised Rule 8410. Once these initial issues were identified the VBWD Managers held a successful plan workshop on October 30, 2013 to identify and prioritize issues. The workshop included participation by local residents, city officials, state agency staff and other stakeholders. Workshop input was compiled, and analyzed with results summarized in a report to Managers for their use in prioritizing issues to be addressed in the 2015 Plan. Once the priority issues were established the Managers reviewed and revised the VBWD vision and mission statements for use in the 2015 Plan. While preparing the preliminary draft of the Plan the VBWD conducted additional outreach to gather feedback on the draft plan from Plan review authorities and public stakeholders. Incorporated into the plan was the information and implementation activities identified as part of the development of the VBWD's WRAPS on impaired District Lakes.

This work culminated with the completion of the draft plan which was approved by the District's Board of Managers and then distributed to individuals, communities, Plan Review Authorities and other stakeholders on March 13, 2015 for the 60-day review and comment period. The VBWD provided a written response to all comments received. A public hearing was then held on July 9, 2015 at which no additional comments were received. The Plan was revised to incorporate suggested changes and additions from the partners and Plan Review Authorities. The final draft Plan was received by the Board of Water and Soil Resources (BWSR) on August 3, 2015 for the official 90-day final review and approval period.

5. **Local Review.** The VBWD submitted a copy of the draft Plan to local units of government for their review pursuant to Minnesota Statutes Section 103B.231, subd. 7. Comments were received from two local watershed residents; the Cities of Afton, Grant, Mahtomedi and North St. Paul as well as from Ramsey and Washington Counties. The various city comments included technical, prioritization and specific project related recommendations. Ramsey County pointed out that their 2009 groundwater Plan had not been approved by its County Board, that it also is an MS4, and had questions on the implementation table and indicated its strong support for the Silver lake WMP. Washington County's comments pertained to its Groundwater Management Plan and Washington County Parks Department indicated a desire to partner with the District on a water quality project related to the Lake Elmo Park Reserve. The VBWD addressed all of the local review comments received.
6. **Metropolitan Council Review.** The Metropolitan Council commended the VBWD on their preparation of a comprehensive and through plan. The District was also commended for its mission statement, inclusion of groundwater concerns, the requirement for maintenance agreements for permitted best management practices, the adoption of the Minimal Impact Design Standards (MIDS) for stormwater runoff volume and several other items. Other comments included suggested revisions to identify the Metropolitan Council's various roles depicted in Table 4.1-2, reference to the Metropolitan Council's CAMP and WOMP water monitoring programs. All comments were addressed by the VBWD.
7. **Department of Agriculture Review.** The MDA comments provided several suggested Ag related references, which could be included in the plan. These comments were addressed by the VBWD.
8. **Department of Health Review.** The MDH did not have any comments on the Plan.
9. **Department of Natural Resources Review.** The DNR provided comments correcting the Plan's language regarding the DNR's work with Groundwater Management Areas. DNR comments were also provided to clarify Plan language on shoreland ordinances. The suggested changes were included in the Plan. During the 90-day review the DNR had one additional comment pertaining to its concern about the Plan's proposed strategy to reduce phosphorus in a given lake through herbicide treatments for curly-leaf

pondweed and Eurasian watermilfoil. The DNR stated that its experience is that the evidence that either plant has a “*demonstrated negative effect on water quality*” is lacking and they requested that the VBWD put in place an adequate monitoring plan to document nutrient reductions long term. The VBWD addressed this comment by including the additional monitoring.

10. **Pollution Control Agency Review.** The PCA expressed its appreciation to the VBWD on its willingness to partner with them on the WRAPS study for the VBWD and its commitment to include in the Plan implementation strategies identified in the WRAPS. They also commended the VBWD for updating its infiltration standards to be consistent with the PCA’s Minimal Impact Design Standards (MIDS). A link to the VBWD TMDL and WRAPS were suggested to be included in the plan rather than the detailed summary provided. The VBWD responded that the summary was needed but they added the requested link along with a link to the Lake St. Croix TMDL as requested by PCA. The PCA encouraged the VBWD to submit water quality data to PCA’s EQUIS data base, to perform five year review of TMDL and WRAPS studies to evaluate progress toward meeting water quality goals, and to include chloride in the suite of parameters collected during supplemental monitoring. The PCA also provided technical comments on standards, references, and biological Indicators including language updates and corrections. In their 90-day review comments the PCA expressed thanks to the VBWD for incorporating plan revisions based on their 60-day comments and identified an additional need to update sections to be consistent with the newest draft TMDL, which the District did.
11. **Department of Transportation Review.** The DOT commented to correct a reference to roadways in the VBWD. The Plan was revised to address this comment.
12. **Board Review.** Board staff had the following primary comments: requested clarification on the link between established prioritization process/triggers and the selection of projects identified in the implementation program, expressed concern about the size of the plan at 1621 pages and suggested including the various individual watershed management plans by reference rather than as part of the actual plan, complimented the VBWD on its presentation of Section 4.0 Overall Issues, Goals and Policies, identified the need to define the details of the District’s various incentive programs in the plan or on the website, suggested that the VBWD outline the procedures it will follow in its biannual evaluation of progress towards established goals, requested revisions to language pertaining to plan amendment process to be consistent with the revised 8410, suggested that the VBWD review the proposed implementation program table in consideration of past spending history to ensure that it is consistent with District capacity, and additional clarifications of the implementation program where requested. The remainder of the staff comments were related to language clarifications and corrections. All 60-day comments and suggestions were addressed to the staff’s satisfaction. During the 90-day comment period staff noted the following additional comments: for the annual evaluation of local plan implementation suggested that the VBWD add a step that calls for the District to first communicate any inconsistencies in

local plan implementation with the local community involved prior to other actions, requested revisions clarifying when plan amendments are required and their processing and distribution. The VBWD addressed these comments by making the suggested revisions.

13. **Plan Summary.** The Plan documents the Managers' guidelines and proposed tasks for managing the water resources within the boundaries of the VBWD to achieve their vision. The Plan provides data and other background information, outlines the applicable regulations, assesses watershed-wide and resource-specific issues, establishes goals and policies for the VBWD and its cities and townships, and identifies implementation tasks to be performed to achieve the VBWD goals.

The issues identified during the development of the plan are grouped into the following nine subsections and associated priority issues for which the VBWD then established the various policies, strategies and actions it will follow and include in its implementation program, to address these issues during the life of the plan:

- **Water Quality:** *Water quality degradation, aquatic invasive species control and management, Water quality monitoring and reporting, Implementation and maintenance of water quality improvement projects, and Collaboration with other entities to reduce pollutant loading and improve water quality.*
- **Groundwater Management:** *Surface water-groundwater interaction, Groundwater quality, Groundwater quantity, Participation in local/regional groundwater management planning.*
- **Public Education and Public Involvement:** *Awareness of the VBWD, its role, and its accomplishments (e.g., flood control projects stream improvements, etc.), Education and awareness of property owners regarding their impact on water resources, Expanded educational programs targeting specific topics or groups, and Continued involvement of the Citizen Advisory Committee.*
- **Stream Management and Restoration:** *Management of high and low water levels, Stream monitoring and reporting, and Stream degradation and restoration.*
- **Stormwater Runoff Management:** *Planning for sustainable infrastructure, Quality of stormwater runoff, Quantity of stormwater runoff, Maintenance of stormwater best management practices (BMPs), and VBWD stormwater runoff management standards.*
- **Wetland, Habitat, and Shoreland Management:** *Maintaining ecological functions of wetland and shoreland areas (e.g., hydrology, water quality, connectivity, and habitat), Wetland and shoreland buffers, Native and invasive vegetation, and Education.*
- **Water Level and Floodplain Management:** *Management of high and low water levels, Development and management of landlocked basins, Floodplain management, and Design events and precipitation data (i.e. Atlas 14).*

- **Erosion prevention and Sediment Control:** *Managing the impact of erosion and sedimentation due to increased urbanization, and Identifying and addressing erosion and sedimentation problem areas.*
- **Administration and Funding:** *Eliminating redundancy with city, county, and other agency roles, equitably funding projects and programs using appropriate methods, and Demonstrating accountability as spenders of public resources.*

14. **Metro Region Committee Meeting.** On September 3, 2015, the Board's Metro Region Committee and staff met in St. Paul to review and discuss the Plan. Those in attendance from the Board's Committee were Jill Crafton, Jack Ditmore, Rebecca Flood, Faye Sleeper, and Joe Collins as chair. Board staff in attendance were Metro Region Supervisor Jim Haertel and Board Conservationist Dan Fabian. The VBWD representatives included Engineer John Hanson), VBWD President David Buccheck and Engineer Greg Williams. Following a presentation by the VBWD, Board staff recommended approval of the Plan. After discussion, the Committee unanimously voted to recommend approval of the Amendment to the full Board.

## CONCLUSIONS

1. All relevant substantive and procedural requirements of law and rule have been fulfilled.
2. The Board has proper jurisdiction in the matter of approving a Watershed Management Plan for the Valley Branch Watershed District pursuant to Minnesota Statutes § 103B.231, Subd. 9.
3. The Valley Branch Watershed District Watershed Management Plan attached to this Order defines water and water-related problems within the Watershed District's boundaries, possible solutions thereto, and an implementation program.
4. The attached Watershed Management Plan is in conformance with the requirements of Minnesota Statutes §§ 103B.201 to 103B.251.

## ORDER

The Board hereby approves the attached Watershed Management Plan dated September 2015, as the Watershed Management Plan for the Valley Branch Watershed District.

Dated at St. Paul, Minnesota this 23<sup>th</sup> day of September 2015.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

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BY: Brian Napstad, Chair

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# 1.0 Executive Summary

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The Valley Branch Watershed District (VBWD) Board of Managers established the following vision to provide strategic direction to its work:

*Always be careful stewards of the water resources within our watershed boundaries through the coordinated efforts of the district, its communities, and residents.*

The VBWD 2015-2025 Watershed Management Plan (Plan) documents the Managers' guidelines and proposed tasks for managing the water resources within the boundaries of the VBWD to achieve their vision. The Plan provides data and other background information, outlines the applicable regulations, assesses watershed-wide and resource-specific issues, establishes goals and policies for the VBWD and its cities and townships, and identifies implementation tasks to be performed to achieve the VBWD goals. The Plan is organized into six major sections, including:

Section 1 – Executive Summary

Section 2 – Introduction

Section 3 – Land and Water Resources Inventory

Section 4 – Issues, Goals, and Policies

Section 5 – Subwatershed Management Plans

Section 6 – Implementation

The general content and highlights of each section are described in this Executive Summary.

## 1.1 Section 2 – Introduction

Section 2 of the Plan summarizes the VBWD's location, history, and management structure. Section 2 also provides background information about watershed districts and lists the general authorities of watershed management organizations (WMOs) like the VBWD.

The VBWD is a local unit of government that manages water resources within the Valley Branch watershed per authorities given in Minnesota Statutes 103B, 103D, and Minnesota Rules 8410. The VBWD covers approximately 70 square miles and lies primarily within Washington County, but includes approximately one square mile in Ramsey County. The VBWD includes 14 cities and townships:

Ramsey County Communities	Washington County Communities		
City of Maplewood	City of Afton	City of Mahtomedi	City of St. Mary's Point
City of North St. Paul	Baytown Township	City of Oak Park Heights	City of Woodbury
City of White Bear Lake	City of Grant	City of Oakdale	West Lakeland Township
	City of Lake Elmo	City of Pine Springs	

The VBWD was originally created in 1968 with the focus of addressing existing flooding problems within the watershed. Since that time, the VBWD's role has expanded to address all facets of water resources management. The VBWD is governed by a Board of Managers consisting of five individuals; four Managers are appointed by Washington County and one by Ramsey County. The VBWD Managers meet twice a month. Meetings are currently held on the second and fourth Thursday of each month at Lake Elmo City Hall. VBWD has no central office and no full-time staff. All services, including engineering, legal, accounting, inspection and secretarial services are provided by consultants. The VBWD has a website ([www.vbwd.org](http://www.vbwd.org)), which includes VBWD permitting information, manager and consultant contact information, agendas and minutes from managers' meetings, annual reports, lake level and water quality data, and other information.

Watershed districts within the Twin Cities metropolitan area come under the guidance of both the Watershed Act (Minnesota Statutes 103D) and the Metropolitan Surface Water Management Act (Minnesota Statutes 103B). The purposes of watershed districts, as listed in Minnesota Statutes, are included in Section 2. The VBWD Board of Managers has established a mission to guide its actions in achieving its vision and fulfilling the responsibilities of watershed districts as identified in Minnesota Statutes. The VBWD mission includes:

*To manage and protect our water resources within the limits of VBWD jurisdiction: lakes, ponds, creeks, streams, wetlands, drainages, and groundwater by:*

- A. Promoting communication and collaboration with our residents, communities, and pertinent governmental units.*
- B. Improving and protecting the quality of surface water and groundwater resources.*
- C. Managing the quantity of water and minimizing the negative impact on the VBWD from floods, high flows, and droughts.*
- D. Understanding and responding to the effects of community growth and related activities on groundwater and surface water resources.*
- E. Preserving and enhancing the quantity and quality of wetlands.*

*F. Educating and inspiring our residents, communities, and governmental units to participate in the protection and improvement of water resources.*

## **1.2 Section 3 – Land and Water Resources Inventory**

Section 3 provides information describing the physical environment of the watershed, including drainage patterns, climate and precipitation, land use and land cover, topography, soils, , geology, hydrogeology and groundwater, surface water systems, water quality, water quantity and flooding, natural communities and rare species, fish and wildlife habitat, scenic and recreational areas, and pollutant sources. This section also includes a number of maps and summary tables. This important information describes the condition of the watershed and is used to guide decisions about infrastructure, development, and ecological preservation. By way of summary, some of the most notable information in Section 2 follows:

**Climate and precipitation:** The climate of the Minneapolis-St. Paul area is a humid continental climate characterized by moderate precipitation, wide daily temperature variations, large seasonal variations in temperature, warm humid summers, and cold winters with moderate snowfall. Average weather imposes little strain on the typical drainage system; however, extremes of precipitation and snowmelt are important for design of flood control systems. The National ~~Oceanographic~~-[Oceanic](#) and Atmospheric Administration (NOAA) published data on extreme precipitation events (now called Atlas 14) that can be used to aid in the design of flood control systems. This data indicates increased precipitation depths for more extreme storm events relative to previously published values.

**Land use/land cover:** Prominent land covers present within the VBWD include agricultural land cover (22 percent) and forest (17 percent). Developed areas with imperviousness greater than 10 percent occupy approximately 21 percent of the VBWD, with the majority of the development located in the northwest portion of the watershed. The amount of imperviousness within the VBWD varies greatly by subwatershed; impervious surfaces greatly increase the rate of runoff from precipitation and can impact downstream water resources. Proposed development and redevelopment areas are scattered throughout the watershed. The comprehensive plans for the VBWD cities and townships contain more information about these future development and redevelopment areas.

**Topography and soils:** The topographic relief within the VBWD watershed is generally modest, with the western side of the watershed about 400 feet higher than the east. Areas of steep slopes are concentrated on the east side of the watershed (in West Lakeland Township and Afton). Topography within the VBWD is characterized by numerous local depressions that are land-locked with respect to surface water runoff. Hydrologic soil groups identified in the watershed include primarily hydrologic soil group B (37%), group A (25%), and group C soils (18%). Soils exhibiting high (group A) or moderately high (group B) infiltration are well distributed throughout the watershed. Lower infiltration soils occur mostly in the southern part of the watershed district, in the South Valley Branch and Kelle's Creek subwatersheds.

**Groundwater:** The most widely used bedrock groundwater aquifers within the VBWD include the Prairie du Chien-Jordan, Tunnel City-Wonewoc (formerly known as the Franconia-Ironton-Galesville

aquifer), and Mt. Simon aquifers. In addition, many residential wells are located in the quaternary (i.e., surficial, or water table) aquifer. This layer is not uniform in thickness, is not homogeneous, and discharges into the St. Croix River. Surface water-groundwater connections exist throughout the VBWD; most wetlands in VBWD are surface exposures of the water table aquifer. The VBWD monitors water levels in the water table aquifer through a series of monitoring wells.

**Surface water systems:** Surface waters in the VBWD include numerous streams, creeks, lakes, ponds, and wetlands. The watershed is subdivided into 38 subwatersheds based on the drainage areas tributary to its major surface water resources. The majority of these subwatersheds ultimately drain to Valley Creek or Project 1007, both of which are tributary to the St. Croix River. The Minnesota Department of Natural Resources (MDNR) classifies 11 lakes within the VBWD as public waters: Acorn (Mud) Lake, Lake DeMontreville, Eagle Point Lake, Lake Edith, Lake Elmo, Horseshoe Lake, Lake Jane, Long Lake, Lake Olson, Silver Lake, and Sunfish Lake. Major MDNR public waters watercourses include Valley Creek and a number of its tributaries, Kelle's Creek, and Raleigh Creek.

**Water quality:** The VBWD performs many actions to preserve or improve water quality, including classifying specific waterbodies with respect to type and management priority, collecting water quality data (including chemical, macrophyte, and biological data), and establishing water quality goals for its major water resources. In compliance with the Clean Water Act (CWA), the Minnesota Pollution Control Agency (MPCA) maintains a list of impaired waters. VBWD waterbodies included on the impaired waters list include: Downs Lake, Echo Lake, Lake Elmo, Goose Lake, Lake Jane, Sunfish Lake, and Kelle's Creek. [The St. Croix River downstream of the VBWD is also impaired.](#)

**Water quantity and flooding:** The VBWD has implemented several capital improvement projects to address flooding issues within the district, including Project 1007, constructed outlets for Echo Lake, Weber Pond, and Olson Lake Estates, and the Downs Lake Flood Duration Reduction project. Project 1007 is a major flood-relief project that links the major lakes in the northwest and central portions of VBWD to an outlet pipe owned by the Minnesota Department of Transportation (MnDOT) along Interstate Highway 94, eventually discharging to the St. Croix River. In addition to capital projects, the VBWD performs lake level monitoring for several waterbodies and cooperates with other agencies to perform flow monitoring on Valley Creek, Kelle's Creek, and the Rest Area Pond outlet.

**Natural areas and rare species:** Prior to settlement, the VBWD land cover included primarily brushland – oak openings and barrens (scattered trees and groves of oaks of scrubby form, with some brush and thickets), with smaller areas of hardwood forests (Big Woods), and grassland (prairie). Presently, the VBWD contains 48 distinct types of natural communities noted in the MDNR's Natural Heritage Information System (NHIS) database, including 17 terrestrial communities, 12 plants, and 19 animals. Many of these communities are associated with protected natural areas such as Lake Elmo Regional Park.

**Pollutant sources:** There are many MPCA-permitted sites, hazardous waste generators, and contaminated sites within the VBWD. In contrast to sites with known hazards, non-point source pollution cannot be traced to a single source or pipe. Instead, pollutants are carried from land to

water in stormwater or snowmelt runoff, in seepage through the soil, and in atmospheric transport. These pollutants include nutrients, bacteria, sediment, chlorides, pesticides, solvents, and chemicals.

### 1.3 Section 4 – Issues, Mission, and Policies

Section 4 presents the issues, goals, and policies that pertain generally to VBWD. Section 4 contains one introductory section (Section 4.0), and nine subsections organized around major topics, as follows:

4.1 Water Quality	4.6 Wetland, Habitat, and Shoreland Management
4.2 Groundwater Management	4.7 Water Level and Floodplain Management
4.3 Public Education and Public Involvement	4.8 Erosion Prevention and Sediment Control
4.4 Stream Management and Restoration	4.9 Administration and Funding
4.5 Stormwater Runoff Management	

Each of these nine subsections is organized in the same manner, starting with a summary table that describes: (1) the importance of the topic area, (2) general issues related to the topic area, (3) relation of the VBWD mission to the topic area, and (4) the policies the VBWD will implement to accomplish its mission.

Following the summary table, the remainder of each subsection covers the following topics (in the following order): (1) history, (2) identified issues, and (3) policies, strategies, and actions to be implemented to address the identified issues. All of the actions identified in each of Sections 4.1 through 4.9, are included in the table of implementation tasks (Table 6-1).

The major issues, policies, and proposed actions in each of the nine subsections (Sections 4.1 – 4.9) are summarized in the following paragraphs.

#### 1.3.1 Section 4.1 Water Quality

Water quality is commonly defined by its physical, chemical, biological and aesthetic (e.g., appearance and smell) characteristics. Water quality may be used to describe a water’s suitability for specific and diverse purposes (i.e., drinking water, recreation, aquatic life). Good water quality results in a waterbody fulfilling its collective intended uses in a sustainable manner.

The lakes, ponds, streams and wetlands in VBWD are an important asset providing many functions for both human and natural communities. These resources supply recreational and aesthetic benefits, enhance property values, serve as sources or sinks for groundwater exchange, provide nutrient removal, provide wildlife habitat and provide fishery resources. The high quality of the watershed’s natural resources, especially its waterbodies, makes the VBWD an attractive place for people to live. Preserving the high quality of the watershed’s waterbodies is critical to the existence of a high quality of life among the citizens residing in the watershed and in the larger metropolitan region.

Major water quality issues discussed in Section 4.1 include:

1. Water quality degradation
2. Aquatic invasive species (AIS) control and management
3. Water quality monitoring and reporting
4. Implementation and maintenance of water quality improvement projects
5. Collaboration with other entities to reduce pollutant loading and improve water quality

Policies, strategies, and actions related to water quality identified in Section 4.1 are described as follows:

- The VBWD will maintain a classification of major waterbodies as high priority, medium priority, low priority, or stormwater ponds based on a series of criteria identified in Section 4.1.7.1.
- The VBWD will manage waterbodies according to their classification to maintain or improve their existing water quality (non-degradation) as well as to promote biodiversity and aesthetics. The VBWD will manage impaired waterbodies with the ultimate goal of removing them from the impaired waters list.
- The VBWD will regularly monitor the major waterbodies in the VBWD with the objective of detecting changes or trends in the water quality or habitat over time, thereby determining the impact of changing land use patterns in the watershed (i.e., pollutant loading), internal loading, and the effectiveness of the VBWD's efforts to protect or improve water quality.
- The VBWD will summarize water quality, macrophyte, phytoplankton/zooplankton, and stream monitoring results for all waterbodies monitored. The summary will include data analysis, a narrative data summary, and calculation of water quality trends. The VBWD will compare water quality to action levels determined for VBWD waterbodies.
- The VBWD will identify, evaluate, and implement water quality management actions for waterbodies, as necessary, as described in Section 4.1.7.6 of the Plan. This may include diagnostic-feasibility studies for the watershed, additional monitoring, projects, or other actions. Section 4.1.7.6 generally describes treatment options to improve water quality.
- The VBWD will collaborate with other governmental units to manage and prevent the spread of AIS, and encourage lake associations, homeowner associations, and land owners to lead AIS management efforts. The VBWD will continue to perform macrophyte (aquatic plant) surveys of high priority waters and provide technical assistance to lake associations and other groups in their efforts to manage aquatic plants.

- The VBWD will identify additional opportunities to cooperate with other entities in water quality protection efforts, as they arise. Cooperative efforts may include water quality monitoring, or the development and implementation of educational programs targeting water quality.

### 1.3.2 Section 4.2 Groundwater Management

Most-All VBWD residents obtain their drinking water from groundwater. This makes ensuring that these aquifers are uncontaminated, protected from future contamination and provide adequate supplies especially important. Several VBWD water bodies also are groundwater-dependent and need an adequate supply of clean groundwater. Groundwater quality and quantity are closely linked to the aboveground environment, since they are dependent on the infiltration of surface water/rainfall through the soil. Maintaining clean, safe groundwater supplies is critical to human and environmental health and to the economic and social vitality of VBWD communities.

Section 4.2 of the Plan describes the roles of the VBWD and other agencies with respect to groundwater management. The Plan also discusses three locations in the VBWD where groundwater contaminants have been found: (1) Lakeland/Lakeland Shores Special Well and Boring Construction Area (SWBCA), (2) Baytown/West Lakeland Township Groundwater Contamination Site/SWBCA, and (3) Lake Elmo/Oakdale (Washington County Landfill) SWBCA

Major groundwater management issues discussed in Section 4.2 include:

1. Surface water-groundwater interaction
2. Groundwater quality
3. Groundwater quantity
4. Participation in local/regional groundwater management planning

Policies, strategies, and actions related to groundwater management identified in Section 4.2 are described as follows:

- The VBWD will continue to collect and report groundwater level data to assist in managing the water levels and floodplains of the VBWD's water resources and report the data. The VBWD will periodically review its groundwater monitoring program and consider opportunities to improve it.
- The VBWD will cooperate with Washington County, the MDH, and others to address groundwater quality issues (e.g., subsurface sewage treatment systems). The VBWD will cooperate with the MPCA and MDH to address impaired waters demonstrating surface water-groundwater interaction. The VBWD continues to support Washington County's SSTS regulations.

- The VBWD will seek opportunities to participate in regional groundwater planning efforts, including the North and East Metro Groundwater Management Area (GWMA) and the development of the GWMA Plan.
- VBWD will prevent negative quality and quantity impacts (e.g., reduced flow to surface waterbodies, lowering lake or wetland levels, well interference) to groundwater and groundwater-dependent resources through permit review, community plan review, and education efforts.

### **1.3.3 Section 4.3 Public Education and Public Involvement**

Public education and public involvement are critical to the VBWD accomplishing its mission to protect and manage its water resources. The collective behavior of an informed, engaged, and environmentally conscientious public will contribute to the protection of the watershed and its natural resources.

The VBWD has used various methods to involve and inform the public, such as its website ([www.vbwd.org](http://www.vbwd.org)), citizen monitoring efforts, use of a Citizen Advisory Committee and Technical Advisory Committee, and targeted outreach programs.

Public education and public involvement issues discussed in Section 4.3 include:

1. Awareness of the VBWD, its role, and its accomplishments (e.g., flood control projects stream improvements, etc.)
2. Education and awareness of property owners regarding their impact on water resources
3. Expanded educational programs targeting specific topics or groups, including:
  - a. best management practices for builders/developers
  - b. public works stormwater facility maintenance training
  - c. helping cities achieve MS4 (Municipal Separate Storm Sewer System) compliance
4. Continued involvement of the Citizen Advisory Committee

Policies, strategies, and actions related to public education and public involvement identified in Section 4.3 are described as follows:

- The VBWD will continue communication and advertising efforts that seek to increase awareness of the VBWD's presence, its role in managing water resources, and its accomplishments. The VBWD will do this through expanded communications efforts, utilizing new forms of media where appropriate. This will include continued participation in the East Metro Watershed Resource Education Program (EMWREP).

- The VBWD seeks to increase public interest in, and support of, the VBWD and its projects through participation in EMWREP, participation in open houses and other forums, and collaboration with cities, townships, and other organizations.
- The VBWD will seek opportunities to incorporate public education and public involvement into all of its projects through notices to residents, press releases to city newsletters, updates about projects or events via social media, and other means.
- The VBWD will continue to recruit volunteers and provide financial support for monitoring efforts (e.g., stream sampling, lake level monitoring) and involvement in other VBWD programs and projects.
- The VBWD will maintain its Citizen Advisory Committee and seek to develop meaningful responsibilities for the committee and opportunities for engagement. Committee members will be appointed by the Managers.
- The VBWD seeks to raise awareness of the positive and negative impacts that behaviors of individuals and businesses can have on the watershed's water resources, through dissemination of education materials to targeted groups and through other public information efforts.

### **1.3.4 Section 4.4 Stream Management and Restoration**

The streams in the VBWD are important community assets that provide many benefits. These resources supply aesthetic (and sometimes recreational) benefits, enhance property values, provide wildlife habitat and may provide fishery resources. Preserving the high quality of the watershed's streams is critical to maintaining a high quality of life among the citizens residing in the watershed and in the larger metropolitan region. .

VBWD's responsibilities with respect to streams include those related to water level and floodplain management, water quality, erosion and sediment control, and habitat and shoreland management. The VBWD's past stream management actions have included floodplain management, stream monitoring (physical condition, water quality, quantity of flow, and biological), water quality data analysis, streambank and gully erosion assessments, and stream channel restoration capital projects.

Stream management and restoration issues discussed in Section 4.4 include:

1. Management of high and low water levels
2. Stream monitoring and reporting
3. Stream degradation and restoration

Policies, strategies, and actions related to stream management and restoration identified in Section 4.4 are described as follows:

- The VBWD will regularly monitor biological indicators, chemical water quality, and streamflow of its perennial streams (Valley Creek and Kelle's Creek). The VBWD may monitor the chemical water quality of intermittent streams on an as-needed basis.
- The VBWD will attempt to monitor the physical condition of MDNR public water streams as access allows, including the identification of streambank and gully erosion sites.
- The VBWD seeks to prevent stream degradation problems through its permit review program, review of community plans, and education efforts. The VBWD rules and regulations (2013, as amended) address the protection of ~~VWBD~~-VBWD streams, including specific requirements for Valley Creek and watersheds draining to trout streams.
- The VBWD will implement stream management and stream restoration/stabilization projects and actions to address identified streambank erosion, gully erosion, and other stream degradation problems. VBWD will prioritize projects according to the size of the affected area, the threat to public health, safety, or welfare, the damage/potential damage to the stream, and the downstream impacts of the problem.
- Through the implementation of the VBWD permit program, the VBWD will not permit new buildings to be constructed within the 100-year floodplain of a stream and will continue to require a VBWD permit for all work within the waters and floodplain of the VBWD, including streams. The VBWD will consider solutions to existing stream flooding problems.

### **1.3.5 Section 4.5 Stormwater Runoff Management**

Stormwater runoff greatly influences the quality and quantity of surface water. To accomplish the VBWD's goals for maintaining and improving water quality and managing water quantity, stormwater runoff must be carefully and closely managed. The VBWD manages stormwater runoff by carrying out its permit program, which includes preventive measures so that the negative effects of stormwater runoff are addressed at the time of development or redevelopment, and not after problems develop. VBWD also actively encourages developers to use new, innovative stormwater management technologies.

Stormwater runoff management issues discussed in Section 4.5 include:

1. Planning for sustainable infrastructure
2. Quality of stormwater runoff
3. Quantity of stormwater runoff
4. Maintenance of stormwater best management practices (BMPs)
5. VBWD stormwater runoff management standards

Policies, strategies, and actions related to stormwater runoff management identified in Section 4.5 are described as follows:

- The VBWD will continue to manage stormwater and snowmelt runoff rates as specified in the VBWD rules and regulations, including requiring no increase in peak discharge relative to the existing condition and requiring volume control. The VBWD requires that all stormwater discharges and related improvements do not degrade the water quality in VBWD waters. The VBWD enacted revised rules in 2013 with a stronger water quality treatment requirement; the VBWD requires infiltration practices where such activities do not threaten the water quality of groundwater resources. The VBWD Rules and Regulations document is included as Appendix A-4.5 of this Plan.
- Through its permit program, the VBWD will continue to review proposed projects, developments and redevelopments to evaluate compliance with VBWD stormwater quality management standards.
- The VBWD will be responsible for maintenance of stormwater runoff management facilities constructed by the VBWD. For all new projects requiring a permit from VBWD, the VBWD will require a maintenance agreement.
- The VBWD will continue to conform to the National Pollutant Discharge Elimination System (NPDES) MS4 requirements (see Appendix B-4.5 for current VBWD Storm Water Pollution Prevention Program, or SWPPP) that apply to VBWD's stormwater system. The VBWD will update its MS4 SWPPP as necessary to incorporate requirements of future total maximum daily load (TMDL) studies or other permit requirements implemented by the MPCA.
- The VBWD will continue to operate a permit program that regulates the use and development of land in the watershed. Activities that require a VBWD permit under the current VBWD rules and regulations are summarized in Section 4.5.

### **1.3.6 Section 4.6 Wetland, Habitat, and Shoreland Management**

Wetlands are an abundant resource within the VBWD that provide value to the community and perform a variety of physical, chemical, and ecological functions. A healthy watershed is one in which wetlands are an integral part of the ecosystem. These resources serve as habitat and support an immense variety of species of microbes, plants, insects, amphibians, reptiles, birds, fish, and mammals. Shoreland areas provide many of the same environmental functions as wetlands, including nutrient removal, flood reduction, and wildlife habitat. Well-planned wetland, habitat, and shoreland protection and management efforts can improve water quality and wildlife habitat, improve property values, and provide recreational and educational opportunities for the public. Preservation of wetlands is controlled by various local, state, and federal laws. Effective wetland management depends on an accurate inventory and classification of wetland resources, especially in areas expected to develop soon, and administration of a wetland management program. Similar practices

are necessary to effectively manage shoreland areas, although most shoreland areas in the VBWD are already developed, which can limit management options.

Past VBWD wetland management activities include adoption of revised rules and regulations regarding wetland protection (prior to the Wetland Conservation Act, or WCA), and administration of the WCA as the local government unit (LGU).

Wetland, habitat, and shoreland management issues discussed in Section 4.6 include:

1. Maintaining ecological functions of wetland and shoreland areas (e.g., hydrology, water quality, connectivity, and habitat)
2. Wetland and shoreland buffers
3. Native and invasive vegetation
4. Education

Policies, strategies, and actions related to wetland, habitat, and shoreland management identified in Section 4.6 are described as follows:

- The VBWD will continue to implement its wetland management standards as documented in its rules and regulations. The VBWD requires evaluation of all wetlands within a property and subsequent classification according to the VBWD's wetland classification method.
- The VBWD will continue to serve as the local government unit (LGU) responsible for administering the WCA throughout the VBWD, as long as the cities and townships in VBWD continue to designate the VBWD as the LGU.
- The VBWD will consider developing an inventory of shoreland areas, focusing on VBWD high priority waterbodies and utilizing data from past and present VBWD monitoring programs. The VBWD will consider the value of developing a shoreland management classification system based on applicable elements of MNRAM 3.4.
- The VBWD will establish an invasive species education program to better inform its residents of the extent and impact of invasive species.
- The VBWD will consider the positive and negative impacts to wildlife habitat when designing projects and in its review of projects proposed by others. The VBWD will also seek opportunities to incorporate wildlife and habitat benefits into VBWD projects not expressly designed for these purposes.

### **1.3.7 Section 4.7 Water Level and Floodplain Management**

Flood protection was the first responsibility of the VBWD. Addressing flooding issues continues to be a high priority because of the potential for causing damages to property and infrastructure and the risk to human health. This means the VBWD Managers need to address existing flooding problems, prevent future flooding problems that can be avoided, and minimize the impact of future flooding problems that cannot be prevented.

Maintaining adequate flows/water levels in the watershed's water resources is important for human enjoyment of the water resources, and maintaining ecological benefits (e.g., wildlife habitat and fishery resources). The VBWD will seek to manage the stormwater and water resources in the watershed to maintain adequate quantities of water in the water resources, allowing for natural fluctuations in the hydrologic cycle (e.g., drought).

Section 4.7 provides a detailed history of the VBWD's past water level and floodplain management activities. Highlights include construction of the Project 1007 outlet system, construction of the Olson Lake Estates Pond outlet, modifications to the Lake Elmo outlet, construction of the Downs Lake flood duration reduction projects, completion of a number of studies exploring flood relief options for the Sunnybrook Lake area, determination of flood levels in various locations, studies of Fahlstrom Pond flooding, and water level monitoring.

Water level and floodplain management issues discussed in Section 4.7 include:

1. Management of high and low water levels
2. Development and management of landlocked basins
3. Floodplain management
4. Design events and precipitation data (i.e., Atlas 14)

Policies, strategies, and actions related to water level and floodplain management identified in Section 4.7 are described as follows:

- The VBWD will continue to collect data (e.g., lake levels, precipitation records, snowpack monitoring, groundwater levels) that is useful in assisting VBWD with managing the water levels and floodplains of the VBWD's water resources.
- The VBWD will determine its level of involvement in addressing the remaining flooding problems on a case-by-case basis, and in response to requests from cities, townships, and VBWD residents. If determined necessary by the Managers, the VBWD will take the appropriate water level and floodplain management actions to address flooding problems in the VBWD.

- The VBWD will ~~evaluate the feasibility of work towards~~ developing a watershed-wide hydrologic/hydraulic model (e.g., an XP-SWMM model) incrementally by subwatershed to determine the 100-year flood elevations (as well as other purposes).
- The VBWD will assist property owners in FEMA unnumbered A zones in obtaining Letters of Map Amendment (LOMAs) or Letters of Map Revision (LOMRs), on a case-by-case basis.
- The VBWD will operate, maintain, repair, and, if necessary, replace all current and future VBWD flood control systems to ensure they provide the designed benefits. This means VBWD will inspect its systems and perform (or contract for the performance of) any needed maintenance and/or repairs.
- The VBWD will prevent flooding problems through its permit review program, review of community plans, and education efforts.

### **1.3.8 Section 4.8 Erosion Prevention and Sediment Control**

Erosion prevention and sediment control is a major responsibility of the VBWD. Erosion and sedimentation have a high potential to cause damages, property loss, and adverse ecological impacts. Erosion prevention and sediment control will remain a high priority as the watershed continues to urbanize, which increases the potential for erosion and sedimentation problems. Although erosion and sedimentation are natural processes, they are often accelerated because of human activities.

The VBWD's past involvement in erosion prevention and sediment control has primarily been through implementation of its rules and regulations/permit program. The VBWD has also identified, inventoried, and monitored erosion and sedimentation problems in the watershed, including Valley Creek, Raleigh Creek, Long Lake, and other areas.

Erosion prevention and sediment control issues discussed in Section 4.8 include:

1. Managing the impact of erosion and sedimentation due to increased urbanization, and
2. Identifying and addressing erosion and sedimentation problem areas

Policies, strategies, and actions related to erosion prevention and sediment control identified in Section 4.8 are described as follows:

- The VBWD will implement soil protection and sedimentation controls on all VBWD projects to prevent impacts to stormwater infrastructure and water resources, consistent with the VBWD rules and regulations.
- The VBWD will identify, inventory, prioritize, and monitor erosion and sedimentation problems within the watershed, including those not associated with VBWD-permitted projects.

- The VBWD will administer and enforce its permit program regulating land use and development to prevent erosion and sedimentation impacts to stormwater infrastructure and VBWD waterbodies.
- The VBWD will continue to inspect its projects and VBWD-permitted projects to monitor compliance with and enforce VBWD rules and regulations and VBWD permit conditions.
- The VBWD will assist cities, townships, and counties within VBWD in developing, adopting, implementing, and enforcing erosion prevention and sediment control ordinances, as requested.
- The VBWD will encourage the use of agricultural best management practices and will collaborate with other agencies to implement such measures.

### **1.3.9 Section 4.9 Administration and Funding**

Clear administrative processes and available funding are essential for the VBWD to implement its mission and policies. Minnesota Statutes 103B and 103D list authorities given to watershed districts, which include, among others, the authority to: construct improvements, levy taxes, adopt rules to regulate water resources, acquire property, and incur debts, liabilities, and obligations. Minnesota Statutes give all watershed districts, including the VBWD, various methods of obtaining funds to implement their watershed management plans and to finance their basic operations. For particular projects, it can be a challenge to develop funding methods that the public views as fair.

In the past, the VBWD has funded projects using special assessments and ad valorem tax levies over the entire VBWD and/or subwatersheds of the VBWD.

Administration and funding issues discussed in Section 4.9 include:

1. Eliminating redundancy with city, county, and other agency roles
2. Equitably funding projects and programs using appropriate methods
3. Demonstrating accountability as spenders of public resources

Policies, strategies, and actions related to administration and funding identified in Section 4.9 are described as follows:

- The VBWD will continue to update its watershed management plan at 10-year intervals, performing minor and major plan updates in the interim, as required. VBWD will update its legal boundary on an as-needed basis.
- The VBWD requires cities and townships to complete and submit local water management plans for review and approval. Local watershed management plans must be consistent with the policies and standards presented in the VBWD watershed management plan.

- Each year, the VBWD will review all of their allowable options for funding administration, programs, studies, projects, and maintenance. Planned funding sources are described in this section and summarized in Table 4.9-2. The VBWD may reconsider the funding sources for various VBWD activities, if such changes are warranted.
- The VBWD will evaluate the relative cost of hiring staff versus the cost of hiring consultants to perform engineering, administrative, secretarial, and other tasks.
- The VBWD will continue to implement its permit review program. The VBWD will continue to charge an application fee to defray the costs of its permit program, including review, inspection, enforcement and administration costs.

## 1.4 Section 5.0 Individual Watershed Management Plans

[The VBWD is divided into 38 watersheds covering the entirety of the VBWD.](#) Section 5 presents information on the following 38 specific water bodies and watersheds within the VBWD in Sections 5.1 through 5.38:

5.1 Silver Lake	5.14 Downs Lake	5.27 Legion Pond
5.2 Acorn (Mud) Lake	5.15 Horseshoe Lake	5.28 Bay Lake
5.3 Echo Lake	5.16 West Lakeland Storage Site	5.29 Goose Lake
5.4 Weber Pond	5.17 Rest Area Pond	5.30 Clear Lake
5.5 Long Lake	5.18 Fahlstrom Pond	5.31 Goetschel Pond
5.6 Capaul's Pond	5.19 Lake Edith	5.32 Mergens Pond
5.7 Lake DeMontreville	5.20 Valley Creek	5.33 Rose Lake
5.8 Lake Olson	5.21 Sunnybrook Lake	5.34 Kramer Pond
5.9 Lake Jane	5.22 Klawitter Pond	5.35 Barton Pit
5.10 Beutel Pond	5.23 Cloverdale Lake	5.36 St. Croix River
5.11 Raleigh Creek	5.24 McDonald Lake	5.37 Kelle's Coulee
5.12 Eagle Point Lake	5.25 Sunfish Lake	5.38 Swede Hill Creek
5.13 Lake Elmo	5.26 Friedrich's Pond	

[The selection of these watersheds during development](#) ~~The VBWD initially selected these 38 watersheds for inclusion in Section 5~~ of the 2005-2015 VBWD Plan (as amended) [was](#) based on VBWD's knowledge of the following:

- Water quality issues and data
- Past or possible future flooding problems
- Intercommunity drainage problems
- Revisions to previously-published flood elevations
- Existing or possible future impacts to VBWD's Project 1007 drainage system
- Outstanding water resources

Each of the 38 individual watershed management plans includes the following:

- General information
- Water quality management plan, with supporting information summarizing:
  - Water chemistry data, and
  - Biological data, including information on fisheries, macrophytes (large aquatic plants), phytoplankton (non-rooted, floating plants – algae), and zooplankton (microscopic aquatic animals)
- Water quantity management plan, which typically includes supporting information on drainage patterns, flood levels, and flooding issues
- Other noteworthy information (e.g., groundwater pollution sites, groundwater-surface water interactions, etc.)

Section 5 is only available in digital format (on CD or via the VBWD website) due to its very large size. A CD containing Section 5 is included in a pocket in printed copies of the 2015-2025 VBWD Plan. Although the Executive Summary does not summarize each of the 38 individual watershed plans, all of the implementation tasks are included in Table 6-1.

## **1.5 Section 6.0 Implementation Program**

Section 6 provides information regarding the major VBWD responsibilities, the VBWD Plan review and approval process, updating the VBWD Plan, and the revision/amendment process for the VBWD Plan. The section includes guidance for when plan amendments are required, based on the type of VBWD Plan revision.

Section 6 also presents the implementation program. Table 6-1 incorporates all of the implementation activities (studies, monitoring, rules, projects, etc.) called for in other sections of the VBWD Plan (especially Sections 4 and 5) into one table. The activities in Table 6-1 are organized according to the following activity types as follows:

EA – Engineering administration activities

ED – Public education activities

MM – Maintenance and management activities

MON – Lake, stream, wetland and groundwater monitoring activities

WQL – Water quality programs, studies, and projects

WQT – Water quantity programs, studies, and projects

Table 6-1 includes a description of the activity, a VBWD Plan reference, [the](#) VBWD's involvement in the activity, the estimated costs of the implementation activities, the potential funding source(s), and the proposed year of implementation. Table 6-2 reorganizes all of the projects in Table 6-1 to show the year-by-year estimated costs of the implementation program and the total annual costs from [20052015-20152025](#).

Section 6 also discusses the VBWD and Minnesota requirements for local watershed management plans and the VBWD review process for local watershed management plans. This section also discusses the steps necessary for a community to assume the permitting authority for all land alteration activities.

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
<b>Engineering Administration Activities (EA)</b>						
EA-1	Maintain VBWD advisory committees and seek opportunities to engage them	Section 4.3.7	VBWD performs	\$2,000 per year	VBWD Ad Valorem	Annually
EA-2	Investigate option of hiring a district administrator	Section 4.9.7	VBWD performs	\$2,000	VBWD Ad Valorem	2016
EA-3	Review and comment on MPCA's draft impaired waters (303(d)) list	Section 4.1.7	VBWD performs	\$2,000 every other year	VBWD Ad Valorem	Every other year
EA-4	Cooperate with other units of government to address groundwater quality issues	Section 4.2.7	VBWD performs, with other units of government (e.g., MDH, Washington County)	\$2,000 per year	VBWD Ad Valorem	Annually
EA-5	Seek input from Technical Advisory Committee	Section 4.3.7	VBWD performs	\$1,000 per meeting (\$2,000 per year)	VBWD Ad Valorem	Annually
EA-6	Revise individual water body classifications	Section 4.1.7	VBWD performs	Variable, less than \$5,000	VBWD Ad Valorem	2020 (or as needed)
EA-7	Cooperate with the MDNR and other groups on fisheries issues	Section 4.2.7	MDNR and other groups perform, VBWD assists	\$2,500 every 3 years	VBWD Ad Valorem	As requested (assumed every 3 years)
EA-8	Assist the MDNR, as needed, in implementing the North and East Metro Groundwater Management Plan	Section 4.2.7	VBWD participates in collaboration with others	\$5,000	VBWD Ad Valorem	2016
<b>Public Education Activities (ED)</b>						
ED-1	Contract with a watershed educator to assist in VBWD education efforts	Section 4.3.7	VBWD performs	\$25,000 per year	VBWD Ad Valorem	Annually
ED-2	Respond to information requests/provide information	Section 4.3.7	VBWD performs	\$21,000 per year	VBWD Ad Valorem	Annually

**Table 6-1 VBWD 2015-2025 Implementation Program**

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
ED-3	Regularly update VBWD website	Section 4.3.7	VBWD performs	\$5,000 per year	VBWD Ad Valorem	Annually
ED-4	Hold tours, events, and/or orientation meetings for interested citizens	Section 4.3.7	VBWD performs	\$2,500 per year (\$1,000-\$5,000 per event)	VBWD Ad Valorem	Annually
ED-5	General education activities: <ul style="list-style-type: none"> <li>· Increase awareness and support of VBWD through VBWD actions and coordinated education efforts with other entities (e.g., signage, watershed tours)</li> <li>· Promote positive behaviors through education and other public information efforts</li> </ul>	Section 4.3.7	VBWD performs and will coordinate with potential partners where appropriate (e.g., EMWREP)	\$6,000 per year	VBWD Ad Valorem	Annually
ED-6	Implement VBWD volunteer recognition program	Section 4.3.7	VBWD performs	\$1,000 every other year	VBWD Ad Valorem	As needed (assumed every other year)
ED-7	Publish and distribute VBWD annual report	Section 4.3.7	VBWD performs	\$8,000 per year	VBWD Ad Valorem	Annually
ED-8	Continue to update and implement an invasive vegetation education program	Section 4.6.7	VBWD performs in collaboration with MDNR, cities and townships	\$3,000 per year	VBWD Ad Valorem	Annually
ED-9	Promote Washington County financial assistance program for non-compliant SSTS	Section 4.2.7	VBWD performs in collaboration with Washington County	\$1,000 per year	VBWD Ad Valorem	Annually
ED-10	Cooperate with cities and other public water suppliers in education efforts regarding preventing contamination of groundwater supplies	Section 4.7.7	VBWD performs, with cities and others	\$1,000 per year	VBWD Ad Valorem	As needed (assumed annually)

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
ED-11	Cooperate with the MDA and other agencies to encourage agricultural best management practices, including participation in MDA programs	Section 4.8.7	VBWD performs	\$500 per year	VBWD Ad Valorem	As needed (assumed annually)
ED-12	Install information signs at current and future VBWD projects	Section 4.3.7	VBWD performs	\$5,000 per sign	VBWD Ad Valorem	As needed (assumed every five years)
ED-13	Host stormwater management trainings for city and township staff and assist cities with MS4 compliance	Section 4.3.7	VBWD performs with assistance through EMWREP	\$1,000 per year	VBWD Ad Valorem	As needed (assumed every other year)
ED-14	Partner with others to promote educational, financial, and technical assistance for pasture management	Section 4.3.7 and Section 5.37	VBWD in collaboration with University of Minnesota, Washington County, and Washington Conservation District	\$1,000 per year	VBWD Ad Valorem	As needed (assumed every year)
<b>Maintenance and Management Activities (MM)</b>						
MM-1	Conform to NPDES MS4 requirements, implement VBWD's Stormwater Pollution Prevention Program (SWPPP); update MS4 permit as required	Section 4.5.7	VBWD performs	\$3,000 per year, \$10,000 in 2018 and 2023 to update MS4	VBWD Ad Valorem	Annually (update in 2018, 2023)

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MM-2	Administer VBWD permit program	Section 4.5.7	VBWD performs	\$25,000 per year	VBWD permit fees, or VBWD Ad Valorem (for non-escrow projects or projects with waived fee)	Annually
MM-3	Review and comment on all MDNR public waters work permit applications	Section 4.7.7	VBWD performs	\$1,000 per year (\$500 per permit)	VBWD Ad Valorem	Annually
MM-4	Administer Wetland Conservation Act (VBWD is Local Government Unit)	Section 4.6.7	VBWD performs	\$21,500 per year	VBWD permit fees or VBWD Ad Valorem (for non-escrow projects or projects with waived fee)	Annually
MM-5	Inspect VBWD-permitted projects & enforcement (or defer to cities & townships)	Section 4.8.7	VBWD performs or cities and townships perform at request of VBWD	Varies (estimated \$5,000 per year)	VBWD permit fees or by cities and townships	Annually (as needed)
MM-6	Operate, inspect, maintain, modify, and repair all existing and future VBWD water quality improvement systems	Section 4.1.7	VBWD performs or contracts with others to perform	Inspection: \$1,000 per year Minor repairs: \$5,500 per year	VBWD Ad Valorem	Annually

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MM-7	Operate, inspect, maintain, modify, and repair all existing and future VBWD flood control systems (e.g. Project 1007, Rest Area Dam, Eagle Point Lake Dam, Olson Lake Estates Outlet, Echo Lake Outlet, Downs Lake Outlet, Weber Pond Outlet)	Section 4.7.7	VBWD performs; for Rest Area Dam, VBWD performs with MnDOT; for Echo Lake and Weber Pond Outlet, VBWD works with the City of Mahtomedi and/or adjacent landowners to make repairs or VBWD will contract for repairs	Annual inspection: \$4,000 per year; Operation, maintenance, and minor repairs: \$20,000 per year	VBWD Ad Valorem; for Rest Area Dam, VBWD responsible for 80% of repair, reconstruction and maintenance costs	Inspections: Annually; Operation and maintenance: Annually; Minor repair: as needed (assumed annually)
MM-8	Detailed inspection of Project 1007, Olson Lake, and Downs Lake systems, (televising and NASSCO rating of pipes and structures)	Section 4.7.7	VBWD performs	\$110,000 per inspection	VBWD Ad Valorem	Every 3 to 5 years (2018, 2022)
MM-9	Review local water management plans	Section 4.9.7, Section 6.3.3	VBWD performs	\$125,000 (Varies from \$5,000 to \$15,000 per plan)	VBWD Ad Valorem	2017-2019
MM-10	Review community comprehensive land use plans, proposed revisions and zoning changes	Section 4.7.7,	VBWD performs	\$28,000 (\$2,000 per plan)	VBWD Ad Valorem	As needed (estimated 2018)
MM-11	Review environmental assessments (e.g., EAW, EIS, AUAR)	Section 4.7.7	VBWD performs	\$2,000 per assessment	VBWD Ad Valorem	As needed (estimated one assessment every other year)
MM-12	Review community floodplain and shoreland management ordinances	Section 4.7.7	VBWD performs	\$7,000 (\$500 per ordinance)	VBWD Ad Valorem	As needed (estimated 2018)

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MM-13	Review revisions to community wellhead protection plans	Section 4.2.7	VBWD performs	\$1,000 per plan	VBWD Ad Valorem	As needed (estimated one plan every 3 years)
MM-14	Update VBWD legal boundary	Section 4.9.7	VBWD performs in cooperation with adjacent water management organizations	Varies, estimated \$5,000 - \$10,000	VBWD Ad Valorem	2025
MM-15	Begin updating VBWD Watershed Management Plan	Section 6.5	VBWD performs	\$300,000	VBWD Ad Valorem	2023 - 2025
MM-16	Perform VBWD Plan amendment to update implementation program in response to WRAPS five year assessment (see WQL-26)	Section 6.5	VBWD performs	\$10,000	VBWD Ad Valorem	2021
MM-17	Long Lake Outlet operation- Communication with property owners	Section 5.5	VBWD performs	\$500 every other year	VBWD Ad Valorem	As needed, estimated every other year
MM-18	Revise VBWD Rules and Requirements (last updated 2013)	Section 4.5.7	VBWD performs	\$20,000	VBWD Ad Valorem	As needed (estimated 2022-2023)
MM-19	Work with local government units to adopt/revise land use ordinances to allow for runoff prevention methods (narrower streets smaller parking lots, etc.)	Section 4.5.7	VBWD performs	\$5,000 per year	VBWD Ad Valorem	2016-2017
MM-20	Eagle Point Lake watershed - Work with Washington County Parks to protect oak forest areas and upland buffers	Section 5.12	Washington County Parks performs with help from VBWD	\$1,000 per year	VBWD Ad Valorem	2016 - 2020

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MM-21	Identify, inventory, prioritize, and monitor erosion and sedimentation problems that arise outside of VBWD permit program	Section 4.8.7	VBWD performs	\$15,000 per year	VBWD Ad Valorem	As identified (assumed annually)
MM-22	Sunnybrook Lake – Work with Grant on raising low roads	Section 5.21	City of Grant performs with VBWD assistance	\$10,000	VBWD Ad Valorem	Estimated 2021-2025
<b>Lake, Stream, Wetland and Groundwater Monitoring (MON)</b>						
MON-1	Recruit and train volunteers for monitoring and other programs/projects	Section 4.3.7	VBWD performs with assistance from Metropolitan Council	\$2,000 per year	VBWD Ad Valorem	Annually
MON-2	Water quality monitoring of major VBWD lakes and ponds	Section 4.1.7, Subwatershed management plans (Section 5) and Table 4.1.3	VBWD performs Intensive and Supplemental water quality monitoring, if triggered Volunteers perform Survey Level Monitoring through the Metropolitan Council's CAMP (paid by VBWD); if no volunteers found, VBWD performs	Varies by year, likely range \$40,000-\$85,000 per year (excluding Intensive Monitoring)	VBWD Ad Valorem	Annually
MON-3	Analyze and report lake and pond water quality monitoring results, including trend analysis and assessment relative to triggers	Section 4.1.7	VBWD performs	\$12,000 per year	VBWD Ad Valorem	Annually

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MON-4	Stream water quality and streamflow monitoring of perennial streams (Valley Creek and Kelle's Creek) and Rest Area Pond Outlet, and associated annual reporting	Sections 4.1.7, 5.20, 5.37	VBWD performs or contracts for performance, with involvement of Metropolitan Council (WOMP), and volunteers perform	WOMP: \$26,000 per year; \$7,000 per year; \$8,000 per year (VBWD portion of cost for Valley Creek, Kelle's Creek, and Rest Area Pond outlet, respectively)	VBWD Ad Valorem or grant funds	Annually
MON-5	Biological monitoring of perennial streams (Valley Creek and Kelle's Creek) and associated annual reporting	Sections 4.4.7, 5.20, and 5.37	VBWD performs	\$8,000 per year	VBWD Ad Valorem	Annually
MON-6	Continue volunteer stream monitoring program at Valley Creek	Section 5.20	VBWD funds	\$6,000 per year	VBWD Ad Valorem	Annually
MON-7	Assess feasibility of volunteer stream monitoring program for Kelle's Creek	Section 5.37	VBWD funds	\$1,500	VBWD Ad Valorem	2016
MON-8	Physically monitor MDNR public waters watercourses and report results: Valley Creek- Raleigh Creek- Kelle's Creek	Sections 4.4.7, 5.11, 5.20, and 5.37	VBWD performs	\$12,000 every 3 years	VBWD Ad Valorem	As needed (assume every 3 years)

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MON-9	Monthly lake and pond water level monitoring and reporting (waterbodies listed in Section 4.7.7).	Sections 4.7.7, and various subwatershed management plans (Section 5)	VBWD performs through volunteers	\$2,000 per year	VBWD Ad Valorem	Annually
MON-10	Daily precipitation monitoring and monthly reporting	Section 4.7.7	VBWD performs through volunteer(s)	\$100 per year	VBWD Ad Valorem	Annually
MON-11	Snowpack monitoring	Section 4.7.7	VBWD performs	\$3,000 every 3 years	VBWD Ad Valorem	As needed (estimated every 3 years)
MON-12	Groundwater level monitoring & reporting (up to 15 monitoring wells)	Section 4.2.7 and 4.7.7	VBWD performs	\$2,000 per year	VBWD Ad Valorem	At least semi-annual monitoring, annual reporting
MON-15	Goose Lake—complete aquatic plant surveys to determine change in early leaf pondweed extent	Section 5.20.2, Item 4	VBWD performs	\$5,000 every 3 years	VBWD Ad Valorem	Every 3 years (2015, 2018, 2021, 2024)
MON-13	Fish survey of Silver Lake	Section 5.1	VBWD coordinates with MDNR to perform	\$5,000	VBWD Ad Valorem	2017
MON-14	Fish survey of Horseshoe Lake	Section 5.15	VBWD coordinates with MDNR to perform	\$5,000	VBWD Ad Valorem	2018
MON-15	Point intercept macrophyte surveys of high priority waterbodies	Section 4.1.7	VBWD performs or contracts with others to perform	\$20,000 per year	VBWD Ad Valorem	Annually
MON-16	Monitor fisheries of Valley Creek in cooperation with the MDNR or other entities.	Section 5.20	VBWD collaborates with the MDNR to perform	\$10,000 every 3 years	VBWD Ad Valorem	Three year intervals (planned 2016, 2019, 2022, 2025)

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
MON-17	Monitor water quality of Raleigh Creek and other VBWD intermittent streams	Sections 4.4.7 and 5.11.2	VBWD performs	Varies up (estimated \$5,000 every 5 years)	VBWD Ad Valorem	As needed, in response to identified or suspected problem (estimated every 5 years)
MON-18	Monitor physical condition of non-priority VBWD streams	Section 4.4.7	VBWD performs	Varies up (estimated \$5,000 every 5 years)	VBWD Ad Valorem	As needed, in response to identified or suspected problem (estimated every 5 years)
MON-19*	Collect sediment core samples from Downs Lake, Echo Lake, and Goose Lake to evaluate phosphorus availability (see WRAPS study)	Section 4.1.7	VBWD performs in cooperation with MPCA	\$100,000	VBWD Ad Valorem	2021-2025
<b>Water Quality Programs, Studies and Projects (WQL)</b>						
WQL-1	Implement various cost share programs encouraging implementation of best management practices in the watershed; the programs target residents, businesses, developers, and others.	Section 4.3.7	VBWD performs, possible cooperation with other units of government	\$105,000 per year for awards; \$48,000 for program administration (\$45,000 for WCD, \$3,000 for RCD)	VBWD Ad Valorem	Annually
WQL-2	Spring and erosion inventory - locate springs in areas of karst geology and identify erosion problems in Kelle's Creek and Swede Hill subwatersheds	Sections 4.8.7, 5.37, and 5.38	VBWD performs	\$10,000	VBWD Ad Valorem	2017

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
WQL-3	Kelle's Creek streambank stabilization	Section 5.37	VBWD performs	\$20,000	VBWD Ad Valorem	<del>2018-2019</del>
WQL-4	Evaluate opportunities for enhanced treatment of wetland discharge in subwatershed SLV-10	Section 5.1	VBWD performs	<del>\$25,000</del>	VBWD Ad Valorem or grant funds	<del>2017</del>
WQL-5	Complete inventory of erosion sites along the ravine to Sunfish Lake	Section 5.25	VBWD performs	<del>\$40,000</del>	VBWD Ad Valorem or grant funds	2016
WQL-6	Assist cities, townships, and other entities to implement projects to address aquatic invasive species (e.g., surveys, treatment design, and other technical support). Waterbodies may include: Long Lake, Silver Lake, Lake DeMontreville	Section 4.1.7	VBWD performs in collaboration with cities, townships, and others	\$20,000 per year	VBWD Ad Valorem	As needed (assume annually)
WQL-7	Long Lake – Assess sedimentation at Highway 36 crossing following 2011 work performed by MnDOT	Section 5.5	VBWD performs in collaboration with Mn/DOT	\$5,000	VBWD Ad Valorem	<del>2016-2017</del>
WQL-8	Provide technical assistance to Washington County Parks in their efforts to eradicate reed canary grass from Eagle Point Lake wetlands –	Section 4.1.7 and 5.12	VBWD partners with Washington County Parks	\$10,000	VBWD Ad Valorem	2016
WQL-9	Perform feasibility study to evaluate enhanced stormwater treatment or infiltration in EPL-9 subwatershed	Section 5.12	VBWD in collaboration with Washington County Parks	\$50,000	VBWD (see Table 4.9-2) and grant funds	2017-2018
WQL-10	Install enhanced stormwater treatment or infiltration in EPL-9 subwatershed	Section 5.12	VBWD in collaboration with Washington County Parks	To be determined	VBWD (see Table 4.9-2) and grant funds	2021-2025

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
WQL-11	Evaluate opportunities for enhanced treatment in Raleigh Creek subwatersheds (RLE-1, RLE-2, RLE-3)	Section 5.11	VBWD in collaboration with 3M, Lake Elimo, and/or Washington County Parks	\$50,000	VBWD Ad Valorem or grant funds	2016 – 2017
WQL-12	Install enhanced treatment in select Raleigh Creek subwatersheds (RLE-1, RLE-2, RLE-3), see item S-7	Section 5.11	VBWD in collaboration with 3M, Lake Elimo, and/or Washington County Parks	\$500,000	VBWD (see Table 4.9-2) and grant funds	2019-2021
WQL-13	Inspect and replace (or fund through cost-share) non-functioning or non-compliant SSTS systems in the Kelle's Creek watershed	Section 5.37	VBWD in collaboration with Washington County	\$50,000	VBWD (see Table 4.9-2) and Clean Water Fund grant funds	2016-2017
WQL-14	Assess progress towards meeting outcomes of WRAPS and TMDL studies in cooperation with cities, townships, and counties	Section 4.1.7	VBWD in collaboration with WRAPS/TMDL partners	\$20,000	VBWD Ad Valorem	2020
WQL-15	Assist Washington County Parks in implementing a project to redesign and reconstruct the Farney Creek Berm	Section 4.3.7 and Section 5.12	VBWD in collaboration with Washington County Parks	\$100,000	VBWD Ad Valorem	2017-2018
WQL-16	Swede Hill Creek – Slope/bluff stabilization feasibility study	Section 5.38	VBWD performs	\$15,000	VBWD Ad Valorem	2016
WQL-17	Implement one to two stream management and stream restoration projects to address identified stream degradation problems in Valley Creek	Section 4.3.7, Section 5.20	VBWD performs, possibly partnering with other organizations	\$500,000 for 1 to 2 Valley Creek projects between 2016-2020	VBWD Ad Valorem (see funding breakdown in Table 4.9-3 and Table 4.9-4)	2016-2020

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
	<p><del>Identified projects:</del></p> <ul style="list-style-type: none"> <li><del>— Valley Creek: stream management, stream stabilization, and watershed management</del></li> <li><del>— Kelle's Creek: stream stabilization and watershed management</del></li> <li><del>— Swede Hill Creek: slope and bluff stabilization</del></li> </ul>	<p><del>Section 5.20</del></p> <p><del>Section 5.37</del></p> <p><del>Section 5.38</del></p>	-	-	-	-
WQL-18	Perform aquatic invasive species (AIS) management projects where diagnostic studies have indicated negative water quality impacts from AIS	Section 4.1.7	VBWD performs	Varies (\$15,000 to \$300,000; estimated \$50,000 every 3 years)	VBWD Ad Valorem, Utility, and grant funds (see Table 4.9-5)	As needed, pending study results
WQL-19	Eagle Point Lake – Curlyleaf pondweed management	Section 5.12	VBWD performs in collaboration with Washington County Parks	\$300,000	VBWD Ad Valorem	2021-2025
WQL-20	<del>Divert runoff from development east of Sunfish Lake when development occurs</del>	<del>Section 5.25</del>	<del>City of Lake Elmo and/or developers perform in collaboration with the VBWD</del>	<del>Up to \$200,000 of VBWD funds</del>	<del>City of Lake Elmo funds, developer costs, and/or VBWD sources (see Table 4.9-2)</del>	<del>2016-2021</del>
WQL-20	In-lake alum treatment of Sunfish Lake	Section 5.25	VBWD or Lake Elmo performs	\$250,000	Varies, see Table 4.9-2	2016-2018
WQL-21	Projects to control nutrient release from sediment in Eagle Point Lake (dredging, alum)	Section 5.12	VBWD in collaboration with Washington County Parks	To be determined	VBWD (see Table 4.9-2) and grant funds	2021-2025

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
WQL-22	Cooperate with MPCA to develop future TMDLs or WRAPS studies (e.g., Echo Lake, Downs Lake, Goose Lake); actively participate in TMDL or WRAPS process	Section 4.2.7	MPCA performs in collaboration with the VBWD	\$100,000	VBWD Ad Valorem	2021-2025
WQL-23	Evaluate potential to expand water reuse in Tartan Park	Section 5.15	VBWD in collaboration with 3M or future landowner	To be determined	VBWD Ad Valorem or grant funds	2021-2025
WQL-24*	Complete diagnostic-feasibility studies, when recommended, to determine needed water quality improvement projects	Section 4.1.7	VBWD performs	\$200,000 per study	VBWD Ad Valorem	As recommended based on water quality data (estimated every 5 years)
WQL-25*	Develop a workplan to improve native plant communities in cooperation with the MDNR and other groups	Section 5.1	VBWD assists the MDNR and other groups	\$10,000	VBWD Ad Valorem	2017-2018
WQL-14	Implement projects recommended in future TMDL studies and WRAPS	Section 4.1.7	VBWD performs with other agencies/groups likely involved	\$500,000 to \$1,000,000	VBWD Ad Valorem	As required
WQL-26*	Implement measures to correct future identified erosion and sedimentation problems	Section 4.8.7	VBWD performs or requires other units of government to perform	Varies (up to \$200,000 depending on waterbody)	VBWD Ad Valorem (See Table 4.9-2 for projects more than \$500,000)	As needed (estimated 2021-2025)
WQL-27*	Water quality improvement projects recommended in future water quality diagnostic feasibility studies, WRAPS, or TMDL studies	Section 4.1.7	VBWD performs with other agencies/groups likely involved	Varies (\$500,000 to \$1,000,000 per project)	VBWD Ad Valorem (See Table 4.9-2 for projects more than \$500,000)	As needed (estimated 2021-2025)

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
WQL-28*	In-lake alum treatment of Silver Lake (if water quality does not improve; see WRAPS study)	Section 5.1	VBWD performs	\$40,000	VBWD Ad Valorem	As needed (estimated 2021-2025)
WQL-29*	In-lake alum treatment of Lake Edith (if quality continues to decline; see WRAPS study)	Section 5.19	VBWD performs	\$250,000	VBWD Ad Valorem (See Table 4.9-2 for projects more than \$500,000)	As needed (estimated 2021-2025)
WQL-30*	Perform carp inventory of Lake Edith (if quality continues to decline; see WRAPS study)	Section 5.20	VBWD performs	\$50,000	VBWD Ad Valorem	As needed (estimated 2021-2025)
WQL-31*	Implement stream restoration and stabilization projects in Raleigh Creek	Section 5.11	VBWD performs	\$60,000	VBWD Ad Valorem	2021-2025
WQL-32*	Implement stream bluff and slope stabilization projects in the Swede Hill Creek watershed (see item WQL-6)	Section 5.38	VBWD performs	\$25,000	VBWD Ad Valorem	2021-2025
<b>Water Quantity Programs, Studies and Projects (WQT)</b>						
WQT-1	Assist property owners in FEMA unnumbered A zones in obtaining Letters of Map Amendment or Letters of Map Revision	Section 4.7.7	VBWD performs	\$5,000 per instance	VBWD Ad Valorem	As needed (assumed every other year)
WQT-2	Rest Area Pond – Investigate feasibility and benefits of restricting outlet	Section 5.17.3	VBWD performs study in cooperation with MnDOT	\$10,000	VBWD Ad Valorem	2017
WQT-3	Perform hydrologic modeling of target watersheds and update 100-year VBWD water levels per current precipitation data.	Section 4.7.7.2 and Section 5	VBWD performs	\$300,000 over 5 years	VBWD Ad Valorem	2016-2020

Table 6-1 VBWD 2015-2025 Implementation Program

Item Number	Item Description	Plan Reference	VBWD and other Government Involvement	Estimated Cost	Potential Funding Sources/Authority	Proposed Implementation Year
WQT-4	<del>Long Lake Outlet Debris Removal</del>	<del>Section 5.5</del>	<del>VBWD performs</del>	<del>\$5,000</del>	<del>VBWD Ad Valorem</del>	<del>As needed</del>
WQT-4	Assist the City of Afton in implementing flood control and other improvements in areas draining to Kelle's Creek and the St. Croix River	Section 5.37	VBWD collaborates with the City of Afton to perform	\$50,000 per year	VBWD Ad Valorem	2016-2025
WQT-5	Rest Area Pond – implement, if approved, restricting outlet (see item WQT03)	Section 5.17.3	VBWD performs	\$30,000	VBWD Ad Valorem	2018
WQT-6	Sunnybrook Lake – Implement flood-proofing of affected homes	Section 5.21	VBWD performs	\$1,700,000	Special Assessments (about 5%), Subwatershed (about 20%), and Ad Valorem (about 70%)	2016-2018

\* - denotes potential future projects not yet planned, but that may result from future monitoring and/or targeted studies

Table 6-2 YBWD Implementation Plan (summarized by year)

Item Number	Year									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Engineering Administration	EA-1	\$2,000		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	EA-2		\$2,000							
	EA-3		\$2,000							
	EA-4	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	EA-5	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
	EA-6		\$2,500							
	EA-7		\$6,000							
	TOTAL EA (Scheduled)	\$4,000	\$6,000	\$4,000	\$6,000	\$4,000	\$6,000	\$4,000	\$6,000	\$4,000
	TOTAL EA (As Needed)	\$2,000	\$4,500	\$2,000	\$2,000	\$9,500	\$2,000	\$2,000	\$4,500	\$2,000
	TOTAL EA	\$6,000	\$10,500	\$6,000	\$8,000	\$13,500	\$8,000	\$6,000	\$10,500	\$6,000
Public Education	ED-1	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
	ED-2	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000
	ED-3	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
	ED-4	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
	ED-5	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
	ED-6		\$1,000							
	ED-7	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
	ED-8	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
	ED-9	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
	ED-10	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
ED-11	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	
ED-12		\$1,000								
ED-13	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
ED-14	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	
TOTAL ED (Scheduled)	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	
TOTAL ED (As Needed)	\$74,000	\$75,000	\$74,000	\$75,000	\$79,000	\$75,000	\$74,000	\$75,000	\$74,000	
TOTAL ED	\$129,000	\$130,000	\$129,000	\$130,000	\$134,000	\$130,000	\$129,000	\$130,000	\$129,000	
Monitoring	MM-1	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
	MM-2	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
	MM-3	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
	MM-4	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500
	MM-5	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
	MM-6	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500
	MM-7	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
	MM-8		\$110,000							
	MM-9	\$42,000	\$42,000	\$42,000	\$42,000	\$42,000	\$42,000	\$42,000	\$42,000	\$42,000
	MM-10	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000
MM-11	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	
MM-12		\$1,000								
MM-13		\$1,000								
MM-14										
MM-15										
MM-16										
MM-17	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	
MM-18	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	
MM-19	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	
MM-20	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
MM-21	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
MM-22		\$15,000								
TOTAL MM (Scheduled)	\$63,000	\$105,000	\$135,000	\$100,000	\$58,000	\$67,000	\$57,000	\$64,000	\$157,000	
TOTAL MM (As Needed)	\$26,500	\$25,000	\$143,500	\$40,000	\$26,500	\$27,000	\$148,500	\$36,000	\$44,500	
TOTAL MM	\$89,500	\$130,000	\$278,500	\$140,000	\$84,500	\$94,000	\$205,500	\$200,000	\$201,500	
MON-1	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	
MON-2	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	
MON-3	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	
MON-4	\$41,000	\$41,000	\$41,000	\$41,000	\$41,000	\$41,000	\$41,000	\$41,000	\$41,000	
MON-5	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	
MON-6	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	
MON-7	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	
MON-8		\$12,000								
MON-9	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	
MON-10	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	

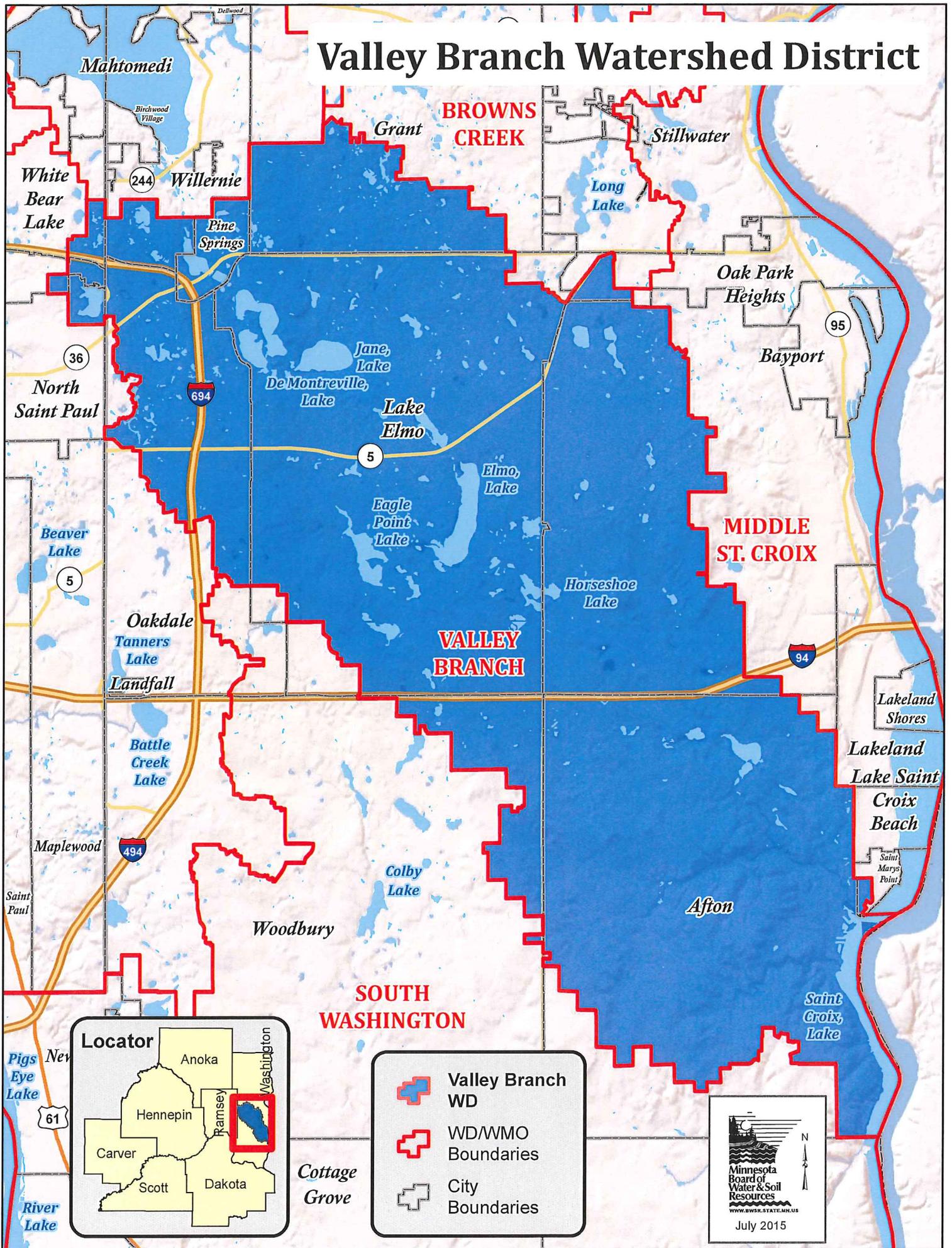
Note: Items in red are performed on an as needed basis; year of implementation is an estimate of future need.

Table 6-2 VBWD Implementation Plan (summarized by year)

Item Number	Year										
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
MON-11	\$3,000			\$3,000				\$3,000			\$3,000
MON-12	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
MON-13	\$5,000										
MON-14	\$20,000	\$20,000	\$5,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
MON-15	\$10,000	\$10,000	\$5,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
MON-16											
MON-17											
MON-18											
MON-19											
TOTAL MON (Scheduled)	\$164,600	\$164,600	\$184,600	\$169,600	\$159,600	\$179,600	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
TOTAL MON (As Needed)	\$3,000	\$12,000	\$5,000	\$3,000	\$17,000	\$0	\$3,000	\$17,000	\$0	\$179,600	\$179,600
TOTAL A	\$172,600	\$176,600	\$189,600	\$172,600	\$176,600	\$179,600	\$192,600	\$196,600	\$179,600	\$179,600	\$187,600
WQL-1	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000
WQL-2	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
WQL-3											
WQL-4	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
WQL-5	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
WQL-6	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
WQL-7	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
WQL-8	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
WQL-9											
WQL-10											
WQL-11	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
WQL-12	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
WQL-13											
WQL-14											
WQL-15	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
WQL-16	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
WQL-17											
WQL-18											
WQL-19											
WQL-20	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000	\$83,000
WQL-21											
WQL-22											
WQL-23											
WQL-24											
WQL-25	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
WQL-26											
WQL-27											
WQL-28											
WQL-29											
WQL-30											
WQL-31											
WQL-32											
TOTAL WQL (Scheduled)	\$425,500	\$470,500	\$393,000	\$401,000	\$411,000	\$401,000	\$425,500	\$425,500	\$425,500	\$425,500	\$425,500
TOTAL WQL (As Needed)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL WQL	\$425,500	\$470,500	\$393,000	\$401,000	\$411,000	\$401,000	\$425,500	\$425,500	\$425,500	\$425,500	\$425,500
WQT-1	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
WQT-2	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
WQT-3	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
WQT-4	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
WQT-5											
WQT-6	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000	\$575,000
WQT-7	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000	\$895,000
TOTAL WQL (Scheduled)	\$1,400,000	\$1,370,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000
TOTAL WQL (As Needed)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL WQL	\$1,400,000	\$1,370,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000	\$1,440,000
YEARLY TOTAL (Scheduled)	\$1,363,100	\$1,395,100	\$1,345,600	\$755,600	\$753,600	\$755,600	\$755,600	\$755,600	\$755,600	\$755,600	\$755,600
YEARLY TOTAL (As Needed)	\$41,500	\$52,500	\$25,900	\$51,000	\$168,000	\$0	\$51,000	\$168,000	\$0	\$168,000	\$168,000
YEARLY TOTAL	\$1,404,600	\$1,447,600	\$1,371,500	\$806,600	\$921,600	\$755,600	\$806,600	\$923,600	\$755,600	\$923,600	\$923,600

Note: Items in red are performed on an as needed basis; year of implementation is an estimate of future need.

# Valley Branch Watershed District



- Valley Branch WD
- WD/WMO Boundaries
- City Boundaries

Minnesota Board of Water & Soil Resources  
www.bwsr.state.mn.us  
July 2015

**COMMITTEE RECOMMENDATIONS**

***Northern Region Committee***

1. Thirty Lakes Watershed District Revised Overall Plan – Dan Steward – ***DECISION ITEM***
2. Morrison County Local Water Management Plan Extension – Dan Steward – ***DECISION ITEM***



# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:** Thirty Lakes Watershed District Revised Overall Plan

**Meeting Date:** September 23, 2015

**Agenda Category:**  Committee Recommendation  New Business  Old Business

**Item Type:**  Decision  Discussion  Information

**Section/Region:** Northern Region

**Contact:** Dan Steward, Travis Germundson

**Prepared by:** Dan Steward

**Reviewed by:** Northern Region Committee(s)

**Presented by:** Dan Steward

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**  Resolution  Order  Map  Other Supporting Information

**Fiscal/Policy Impact**

- None
- Amended Policy Requested
- New Policy Requested
- Other:
- General Fund Budget
- Capital Budget
- Outdoor Heritage Fund Budget
- Clean Water Fund Budget

**ACTION REQUESTED**

Approval of the Thirty Lakes Watershed District Revised Overall Plan.

**LINKS TO ADDITIONAL INFORMATION**

**SUMMARY** (*Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation*)

The Thirty Lakes Watershed District has submitted a revised overall plan (Plan). Comments from the Department of Natural Resources have been received and responded to. A notice of filing was published. No requests for hearing were received. The Northern Region Committee met to review the Plan on September 2. Discussion included the purposes the district has served since its establishment, and changing conditions and capacity for water resource protection with Crow Wing County and SWCD. The Committee recommends approval contingent on the Plan including a provision that adds an evaluation of the District's purposes and need as an action item. The District will meet prior to the board meeting to review the evaluation provision. The proposed action item can be found starting on page eight of the attached Plan goals, objectives and actions.

Minnesota Board of Water and Soil Resources  
520 Lafayette Road North  
Saint Paul, MN 55155

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**In the Matter** of prescribing a Revised  
Watershed Management Plan for the  
Thirty Lakes Watershed District  
Pursuant to Minnesota Statutes Section 103D.405

**ORDER  
PRESCRIBING  
WATERSHED MANAGEMENT  
PLAN**

**Whereas**, the Thirty Lakes Watershed District (TLWD) filed a proposed Revised Watershed Management (Plan) dated December 27, 2014 with the Board of Water and Soil Resources (Board) on March 26, 2015. The Board received revisions to the draft Plan on August 19, 2015, with a final revised Plan dated September 9, 2015, pursuant to Minn. Stat. § 103D.405, and;

**Whereas**, the Board has completed its review of the Plan;

**Now Therefore**, the Board hereby makes the following Findings of Fact, Conclusions, and Order.

**FINDINGS OF FACT**

1. **District Establishment.** The District was established on May 18, 1971 by Order of the Minnesota Water Resource Board. The District is located in central Minnesota and distributed entirely within Crow Wing County and covers approximately 70 square miles. The general purpose of the District includes: 1) Water Quality Management, 2) Erosion and Sediment Control, 3) Natural Resource and Land Use Protection, and 4) Education and Public Involvement.
2. **Requirement to Plan.** A watershed district is required to revise their watershed management plan at least once every ten years pursuant to Minnesota Statutes Section 103D.405, Subd. 1 (a). The latest Plan of the District was prescribed by the Board on May 28, 2003. The Plan includes an inventory of the District's physical features and water resources, describes water-related problems and possible solutions, describes activities that the District has completed, and states objectives for current and future water resource management.
3. **Nature of the Watershed.** The TLWD area lies across a watershed divide, with a portion of the area contributing flows to the Pine River Watershed, and a majority of the area draining to the Gull River/Crow Wing River Watershed. The geology of the area consist of primarily glacial outwash resulting in the formation of numerous lakes. Nearly 40% of the land cover in the district is compiled of open water (lakes, wetlands, and

watercourses) with a high percentage of the remaining land cover classified as forested. Soils types throughout the area tend to consist of sandy loam having a moderate to high infiltration rate.

Recreation and tourism are a major factor within the District resulting in a high number of seasonal residents. This increases in population and demand on the resources has the potential to cause water degradation.

4. **Territory.** The TLWD is approximately 70 square miles in size and is located in central Minnesota entirely within Crow Wing County.
5. **Local Review.** The TLWD sent a copy of the draft Plan to local units of government for their review pursuant to Minn. Stat. § 103D.405.
6. **Department of Natural Resource Resources Review.** Comments received from the DNR generally pertain to incorporating more detail throughout the plan specifically on targeting priority areas. Concerns were expressed regarding the District's perceived interest in dredging shallow lakes. Identifying the lack of justification along with the various regulatory requirements that need to be met. However, the plan does not specifically identify lake dredging as action item in the plan.

A majority of DNR's recommendations have been incorporated into the plan as detailed in the District's August 19, 2015 response letter.

7. **Highlight of the Plan.** The previous plan consisted primarily of monitoring water quality and quantity data throughout the District in an effort to establish trends. The 2015 TLWD management plan expands upon the role of data collection and proposes to implement targeted practices to address water quality problems throughout the District. Particularly non-point pollution sources. Collaborating and partnering with Crow Wing County, Lake Associations, and other entities in an effort to educate and implement affective programs to protect water resources. With a focus on stormwater, shoreland, landuse, and other conservation programs and regulations to protect water resources throughout the District.
8. **Hearing Notice.** The Legal Notice of Filing on the Plan, pursuant to Minn. Stat. § 103D.105 Subd. 2, was published in the Brainerd Dispatch on May 25, and June 1, 2015. Further, a copy of the notice of filing was mailed to several addresses notifying them of the legal notice of filing, including the Crow Wing County Auditor, Administrator, and Soil and Water Conservation District; all of the cities within the district; and a representative for the Watershed District.

9. **Public Hearing.** The Legal Notice of Filing was published pursuant to Minn. Stat. § 103D.105 Subd. 2, which requires within 30 days of the last date of publication of the Notice of Filing of the Revised Water Management Plan that a least one request for hearing be received by the Board before a hearing will be held. No request for hearing and no comments from the public were received during the specified period of time and no hearing was held.
10. **Board Staff Report.** Staff participated with the District through the revision process, providing guidance, comments, and recommendations. The final revised plan does conform to the requirements of Minnesota Statute 103D and guidance developed by BWSR. Therefore, staff recommends approval of the 2015 TLWD Management Plan and look forward to assisting the District in its implementation.
11. **North Region Committee.** The committee met on Wednesday, September 2, 2105, in the upper level DNR conference room, at 1601 Minnesota Drive, Brainerd, MN. Committee members present were Tom Schulz, Brian Napstad, Gene Tiedemann, Neil Peterson and Gerald Van Amburg by phone. Board staff present were Doug Thomas, Ryan Hughes, Dan Steward and Jason Weinerman. Based on the record, the Plan meeting the requirements of Minn. Stat. §103D.405, and staff recommendation to approve the Plan, the committee unanimously recommended approval of the TLWD Revised Plan, with the contingency that the District add an additional action item to conduct an evaluation of the purpose and need for the District, including both original purposes and current water management needs.

## CONCLUSIONS

1. The proposed Revised Plan is valid in accordance with Minn. Stat. § 103D.405.
2. Proper notice of filing was given in accordance with applicable laws.
3. All relevant, substantive and procedural requirements of law and rule have been fulfilled.
4. The Board has proper jurisdiction in the matter of prescribing a Revised Plan for the TLWD pursuant to Minn. Stat. § 103D.405.
5. The attached Revised Plan of the TLWD dated September 9, 2015 would be for the public welfare and public interest and the purpose of Minn. Stat. Chapter 103D would be served.

**ORDER**

The Board hereby prescribes the attached Plan dated September 9, 2015 as the Revised Watershed Management Plan for the Thirty Lakes Watershed District

Dated at Saint Paul, Minnesota this 23<sup>rd</sup> day of September, 2015.

MINNESOTA BOARD OF WATER AND SOIL RESOURCES

By: \_\_\_\_\_  
Brian Napstad, Chair

# **Chapter 4.0**

## **Goals, Objectives and Actions**

### **Thirty Lakes Watershed District**

#### **Watershed Management Plan**

Context Statement: Thirty Lakes Watershed District has authority for water quality and water quantity management of surface and groundwater resources throughout the entire district including all riparian and non-riparian lands within its jurisdictional boundary. In addition, the Crow Wing County Local Water Management Plan in its most current form is hereby adopted by reference and shall be utilized by the TLWD Managers to the greatest extent possible to accomplish the 10 Year Plan.

#### **4.1 Water Quality Management**

**Goal 4.1.1 – Identify high quality water resources and detect downward trends in water quality of surface water and groundwater resources within the TLWD.**

**Objective A – Monitor water quality and other priority information on a recurring basis according to a prioritized schedule.**

**Actions may include the following:**

1. Collect water quality samples using established, scientifically valid methodologies.
2. Collect lake elevation data during the open water season for priority lakes within the district.
3. Compile data into a central database, produce summary reports, and make water quality data available to the public, the Minnesota Pollution Control Agency, and other interested parties.

**Goal 4.1.2 – Encourage and implement practices to address current water quality problems, and to maintain or improve the quality of surface waters in TLWD.**

**Objective A – Develop and support the use of BMPs relating to improving the quality of surface water for land uses and activities in the watershed.**

**Actions may include the following:**

1. Support the development of a coordinated and comprehensive program with partnering agencies for administering and implementing BMPs on residential, commercial, and public land.

2. Partner with other Federal, State and local government units to discourage the improper spreading/application of sewage.
3. Ensure municipalities and counties comply with stormwater management BMPs for road and land development projects.
4. Implement targeted water quality projects relating to point and non-point pollution sources consistent with this plan.

**Objective B** – Eliminate or minimize the discharge of untreated stormwater to water bodies and streams in the TLWD.

**Actions may include the following:**

1. Support efforts by local units of government in the TLWD to develop, adopt and administer performance standards and regulations that protect water resources.
2. Develop a program that encourages communities, landowners, and other road authorities to eliminate or minimize the discharge of untreated stormwater runoff to the surface water resources in the TLWD.
3. MPCA shall be asked to notify TLWD of all new direct discharges (including tile systems) to water resources.

**Objective C** – Maintain high water quality and reduce the loading of pollutants in surface waters of the TLWD showing declining water quality trends.

**Actions may include the following:**

1. Provide monitoring support to MPCA and other programs for lakes, streams, and public wetlands in the watershed.
2. Cooperate and contribute to MPCA watershed assessment projects occurring in whole or in part within major watersheds (Crow Wing River, Mississippi River – Brainerd, Pine River) of the TLWD.

## **4.2 Erosion and Sediment Control**

**Goal 4.2.1 – Minimize erosion and its effects on water quality.**

**Objective A** – Support the construction of sediment ponds, basins, and other erosion and sediment control throughout the watershed.

**Actions may include the following:**

1. Continue partnering with Crow Wing County to provide review and design recommendations for erosion and sediment control plans prepared for all major construction and roadway projects.
2. Investigate and implement measures that address controlling the movement of, and removal of, sediment once it has entered a lake, river or stream system.

**Objective B** – Develop and implement programs that protect sensitive fish habitat areas from erosion.

**Actions may include the following:**

1. Partner with local lake associations, fishing organizations, and lakeshore land owners to protect and enhance fish habitat and spawning areas.
2. Investigate and encourage the development, restoration, and enhancement of winter habitat for fisheries in the watershed.

**Goal 4.2.2 – Encourage and implement practices to address current stormwater runoff problems, and to maintain or improve the quality of stormwater runoff in TLWD.**

**Objective A** – Support the use of Best Management Practices (BMPs) relating to improving the quality of stormwater runoff water for land uses and activities in the watershed.

**Actions may include the following:**

1. Partner with Crow Wing County to provide review and design recommendations for erosion and sediment control plans prepared for all major construction and roadway projects and for stormwater runoff from residential and commercial buildings.
2. Investigate and implement measures that address controlling the movement of sediment before it enters wetlands, lakes and waterways and the minimization of bank erosion.

**Objective B** – Develop and implement programs that protect sensitive areas from storm water runoff.

**Actions may include the following:**

1. Work with Crow Wing County, Breezy Point and Nisswa to adopt common storm water management plan requirements.

**Goal 4.2.3 – Encourage and implement practices to address current shoreline erosion problems along lakes and streams.**

**Objective A** - Develop and support the use of Best Management Practices (BMPs) relating to protecting, stabilizing and repairing existing shoreline in TLWD.

**Actions may include the following:**

1. Protect undisturbed natural shorelines.
2. Partner with Crow Wing County and the SWCD to provide design recommendations and technical assistance for shoreline repair and stabilization.
3. Provide support and assistance for the construction of buffers within the riparian shoreline zone resulting from storm water runoff.
4. Work with partnering agencies for implementing BMPs in riparian/shoreland areas, including a program that supports the design, installation and maintenance of riparian/shoreland vegetation in riparian/shoreland areas. The program should encourage landowners to maintain and enhance natural vegetation on their property.
5. Other projects that address root cause of shoreline erosion.

### **4.3 Wetlands and Natural Resources**

**Goal 4.3.1 – Promote forested lands within the TLWD for the long term benefit of water quality and groundwater recharge.**

**Objective A** – Promote forest stewardship and forestry Best Management Practices (BMPs) on public and private lands within the TLWD.

**Actions may include the following:**

1. Identify high-value forest lands that provide water quality protection and sustain groundwater recharge.
2. Work with public forest land managers to ensure long-term protection of their working forest lands in the district.
3. Participate on working groups of federal, state and local councils such as the Minnesota Forest Resources Council to influence policy and project priorities affecting TLWD high-value forest lands.

## **4.4 Land Use**

**Goal 4.4.1 – Protect water resources from impacts associated with land use and land development in the TLWD.**

**Objective A** – Support the development and implementation of local land use plans and policies that are based on sound water and land resource principles.

**Actions may include the following:**

1. Provide historical information to communities regarding surface water, and land conservation priorities of the TLWD.
2. Review and comment on goals and policies proposed in county and municipal plans as they are being prepared.

**Goal 4.4.2 – Encourage water resource protection in the Thirty Lakes watershed through land conservation programs.**

**Objective A** – Promote forest stewardship planning for riparian and non-riparian private lands within the TLWD.

**Actions may include the following:**

1. On an annual basis work with SWCD, Crow Wing County, and MN DNR to provide trees to landowners within the watershed at a significantly reduced price.
2. Provide private landowners having “high-value forest lands” within the TLWD financial incentives to encourage implementation of forest stewardship plans to protect these High Value Forest Lands.

**Goal 4.4.3 – Identify high-value lands within the district for protecting surface water quality and groundwater recharge among other beneficial attributes.**

**Objective A** – Develop an Open Space and Greenbelts map of high-value lands within the district.

**Actions may include the following:**

1. Develop a map highlighting high-value lands within the TLWD that provide water quality protection, groundwater recharge, and other services consistent with the purposes of the TLWD.

## **4.5 Recreation, Habitat, and Shoreland Management**

**Goal 4.5.1 – Attain a high degree of recreational use of the surface water resources in the Thirty Lakes watershed.**

**Objective A** – Coordinate with responsible agencies for the benefit of fish, wildlife, and other recreational resources.

**Actions may include the following:**

1. Work with DNR (Divisions of Fish and Wildlife and Ecological and Water Resources) to develop and implement management programs.
2. Support the inventory of fish and wildlife resources.
3. Support the identification and protection of critical water bodies and wetlands for fish and wildlife.

**Objective B** – Support increased opportunities for the safe and sustainable use of surface water resources in the TLWD.

**Actions may include the following:**

1. Support the design and construction of public access facilities to surface water features in the TLWD, where appropriate.

**Goal 4.5.2 – Protect and restore habitats that provide sustainable recreational and water quality benefits.**

**Objective A** – Collaborate with other entities and coordinate efforts to prevent and manage terrestrial and aquatic invasive species affecting water quality and recreational surface water uses in the TLWD.

**Actions may include the following:**

1. Collaborate with lake associations, local governments and MDNR to develop invasive species management plans.
2. Apply the principles of “Integrated Pest Management” to invasive species management activities conducted with funding from TLWD.

**Objective B** – Protect designated sensitive shoreland, designated wild rice lakes, and designated tullibee lakes in the TLWD.

**Actions may include the following:**

1. Acquire conservation easement interest for priority designated sensitive shoreland, shoreland along wild rice lakes, and forested parcels within the watershed of tullibee lakes.
2. Promote or develop conservation incentive programs for priority parcels.

**Objective C** – Restore habitat quality.

**Actions may include the following:**

1. Implement habitat restoration projects that return key habitat functions at priority sites within TLWD.
2. Remove beavers dams and trapping of beaver for the passage of fish, drainage and water level consistency in collaboration with the DNR

**Goal 4.5.3** – Protect and restore water quality through wise shoreland management.

**Objective A** – Support the establishment of a riparian buffer zone on riparian lands.

**Actions may include the following:**

1. Collaborate with other local governments to incorporate riparian buffer requirements into local land use ordinances.
2. Create programs to establish riparian buffers.

**Objective B** – Promote the application of conservation design standards for residential shoreland development proposals in the TLWD.

**Actions may include the following:**

1. Encourage local governments to incorporate conservation design standards into local land use ordinances.

## **4.7 Administration**

**Goal 4.7.1** – Apply statutory authorities in ways that protect and enhance safety, commerce, and natural resources.

**Objective A** – Develop rules to implement the goals, objectives, and actions of this plan.

**Actions may include the following:**

1. Develop, adopt, and implement TLWD rules in accordance with Minnesota Statutes 103D.341.

**Objective B** – Provide training for board managers and advisory committee members to assist them in dealing with the complexities of managing a watershed district.

**Actions may include the following:**

- 1) Prepare a handbook that provides managers and advisory committee members with the basic procedures and processes involved in TLWD operations. Include a copy of the *Watershed District Handbook* prepared by the Minnesota Association of Watershed Districts, the adopted TLWD Plan, annual work programs and budgets, TLWD rules and by-laws, phone directory and meeting calendar.

**Objective C** – Investigate and remain informed of new studies and research on emerging surface water issues, contaminants, and technologies.

**Actions may include the following:**

1. Seek opportunities such as conferences and publications to learn about emerging issues regarding surface water and integrate this information into watershed management goals.

**Objective D** – Monitor the effectiveness and efficiency of TLWD programs and services.

**Actions will include the following:**

1. Evaluate the purpose and need of TLWD pursuant to the following items
  - a. Review the original purpose of the District regarding water quality, stormwater, septic systems and garbage issues for which it was originally established.
  - b. List and review current water resource needs including continued water quality data collection, on-going project maintenance, coordination with Crow Wing County, Nisswa and Breezy Point regarding stormwater and septic along with maintaining forest cover.
  - c. Identify existing water management authorities including but not limited to Breezy Point, Nisswa, Crow Wing County, Crow Wing SWCD, MPCA, DNR, and COE.

- d. Perform a GAP analysis on items a-c above and determine if there are any gaps in water quality management responsibilities. If gaps are identified, determine if any existing water management authorities can effectively manage the water quality responsibility previously handled by the District.
- e. Conduct an effective communication plan regarding the analysis of a-d above to the citizens of the District including the following:
  - i. Multiple written communications mailed directly to each citizen or property owner, providing for both on-line and paper surveys/comment period to gauge citizen feedback, hold published and legally noticed public meetings.
  - f. The District will complete a written report of the analysis with findings to support the conclusion to include recommendations regarding the future role and purpose of the District.
- 2. Annually evaluate TLWD performance in relation to the District's established mission and goals and prepare an annual report for distribution to the county, BWSR and the MN DNR, in accordance with Minnesota Statutes 103D.351. The annual report will incorporate the annual audit.

**Goal 4.7.2 – Develop and maintain successful interagency working relationships to effectively implement the TLWD Plan.**

**Objective A** – Build and maintain cooperative working partnerships with local, state, and government agencies.

**Actions may include the following:**

- 1. Provide a financial and regulatory link between local and state authorities where programs or projects are missing.
- 2. Maintain direct, on-going relationships with the cities, townships, county, and SWCD in the TLWD to optimize the joint implementation of TLWD, city, township, county and SWCD goals.
- 3. Develop effective cooperative agreements with local, state, and governmental agencies, including utilizing their assistance, activities, and expertise to implement the TLWD goals.

**Objective B** – Develop a “chain of authority” to identify roles and responsibilities integral to plan implementation.

**Actions may include the following:**

1. Monitor state and federal changes to water policy and programs in order to ensure that the TLWD Plan and plan implementation remain consistent with changing policy and avoid inherent conflicts of interest.
2. Identify key players and the unique roles they play, or could play, in resolution of issues or plan implementation.
3. Identify overlapping roles between players and identify groups that contribute in a support capacity to reduce duplication of effort, streamline programs, and provide efficient and cost effective delivery of service.

#### **4.8 Education and Public Involvement**

**Goal 4.8.1** – Maximize awareness and understanding of the value of water resources by all resident and non-resident citizens living, working, and recreating in the Thirty Lakes Watershed.

**Objective A** – Support and coordinate the development and dissemination of educational programs and materials on water and land related resource issues and management throughout the watershed.

**Actions may include the following:**

1. Coordinate educational programs on surface water resources.
2. Support youth education events and programs in school districts within the watershed.
3. Support the implementation of volunteer water resource projects.
4. Develop a public information package that can be distributed to landowners that explains what a watershed is and how they might impact water resources
5. Partner with local school districts, vocational/technical schools, community colleges (e.g., Central Lakes College) and the University of Minnesota Extension Service to provide educational programs.

**Objective B** – Develop a comprehensive public relations program.

**Actions may include the following:**

1. Prepare and distribute to all households in the watershed an annual TLWD newsletter via technologically appropriate media.
2. Contact media on a frequent basis to update contact information and activities.
3. Attend lake association meetings within the district to report TLWD activities and priorities and to understand the concerns and priorities of lake groups in the district.

**Objective C** – Educate the citizens of the TLWD on surface water management.

**Actions may include the following:**

1. Distribute the results of the surface water monitoring program to the official TLWD website.
2. Coordinate and disseminate information regarding University of Minnesota Extension Service, MPCA, BWSR or other workshops on surface water management topics.

**Objective D** – Maintain and update the TLWD website.

**Actions may include the following:**

1. Maintain the TLWD website and update as needed to post meeting agendas and minutes, publications, data, etc.
2. Post this plan and future plan amendments/updates on the TLWD website.

**Objective E** – Increase interest in and support of TLWD programs and projects.

**Actions may include the following:**

1. Maintain an advisory committee to advise and assist the managers on all matters affecting the interests of the TLWD and to make recommendations to the managers on all proposed projects and improvements within the TLWD (per Minnesota Statutes 103D.331).
2. Seek to develop meaningful responsibilities for the advisory committee. These responsibilities could include: identification of water resource issues; assisting in establishing program goals; assisting the board in considering issues; serving as a “sounding board” for the board; communicating between the TLWD and the community; carrying out watershed information and education activities; collecting

information and data; generating new ideas and approaches and carrying out delegated board of manager responsibilities.

**Objective F** – Develop an outreach program to promote the recreational use of surface water resources in the TLWD.

**Actions may include the following:**

1. Develop and distribute a Thirty Lakes watershed recreational map to chambers of commerce, the Minnesota Department of Trade and Economic Development and other tourism organizations.
2. Support the distribution of MDNR public access maps for lakes, rivers and streams within the TLWD.
3. Distribute maps locating public hunting lands within the watershed.

## **4.9 Funding**

**Goal 4.9.1 – Achieve fair and fiscally responsible management of the affairs of the TLWD.**

**Objective A** – Develop an annual TLWD budget and implementation program.

**Actions may include the following:**

1. Adopt the TLWD annual budget after holding a public hearing and meeting other statutory requirements.
2. Update the TLWD's implementation program at least every two years, including the capital improvement program (CIP).

**Objective B** – Develop enhanced funding mechanisms to enable the TLWD to pursue the projects needed to improve water resources.

**Actions may include the following:**

1. Use the statutory tools provided to watershed districts to fund the implementation of this plan.
2. Use the water quality and habitat priorities of this plan to leverage constitutional funding from the state (Environment and Natural Resources Trust Fund; Clean Water Fund; Outdoor Heritage Fund) to implement TLWD projects.
3. Continue to apply for grants from the Minnesota Pollution Control Agency (MPCA), Minnesota Board of Water and Soil Resources (BWSR), Environment and Natural

Resources Trust Fund; Clean Water Fund; Outdoor Heritage Fund other state and federal agencies, private foundations, and other sources.

4. Seek additional opportunities including grants, partnerships, loans, and other measures whenever possible and cost effective to reduce the TLWD's share of project costs.

**Objective C** – Ensure the financial solvency and accountability of the TLWD and the efficient and effective use of TLWD funds.

**Actions may include the following:**

1. Complete an annual audit of the books and accounts of the TLWD, as required by Minnesota Statutes 103D.355. The audit will be included with the TLWD annual report.



**Thirty Lakes Watershed District**  
**Watershed Management Plan**  
**Chapter 1: Executive Summary**

**Table of Contents**

- 1.0 Executive Summary
  - 1.1 Location and History
  - 1.2 Purpose and Scope
  - 1.3 Plan Organization and Summary of Issues, Goals, Objectives and Potential Solutions.

## 1.0 Executive Summary

The Thirty Lakes Watershed District (TLWD) Watershed Management Plan (Plan) sets the vision, guidelines and proposed tasks for managing the water resources within the boundaries of the TLWD. This Executive Summary summarizes the highlights of this first TLWD Plan, including introductory information, the TLWD vision and mission, goals, policies and implementation tasks.

### 1.1 History and Location

The Thirty Lakes Watershed District (TLWD) was established on May 18, 1971 and has realized the need to develop a plan that can cover the need of TLWD as the issues change. In the early 1960's, Colonel Carl Junge (Pelican Lake, Lincoln Point), Neva Hubbell (Pelican Lake) and Eleanor Nolan (Pelican Lake) formed the Coalition of Lakes Association. Colonel Junge's original intent was to control the water level of lakes in the Pelican Lake area through the construction of a ditch system.

Neva Hubbell subsequently conducted a study of the ditch system constructed between Pelican and Ossawinnamakee Lake in the 1940's to evaluate the feasibility of Junge's proposed ditch system. Through much debate it was determined that the data generated by Hubbell supported a plan to manage lakes by existing structures rather than controlled by the proposed series of ditches. In 1968 the Coalition of Lakes Association began petitioning for the establishment of a Watershed District to manage the area lakes. The boundaries of the District were originally taken from the map but through the petitioning process were revised to those presented in the original Watershed District map shown in Figure 1.

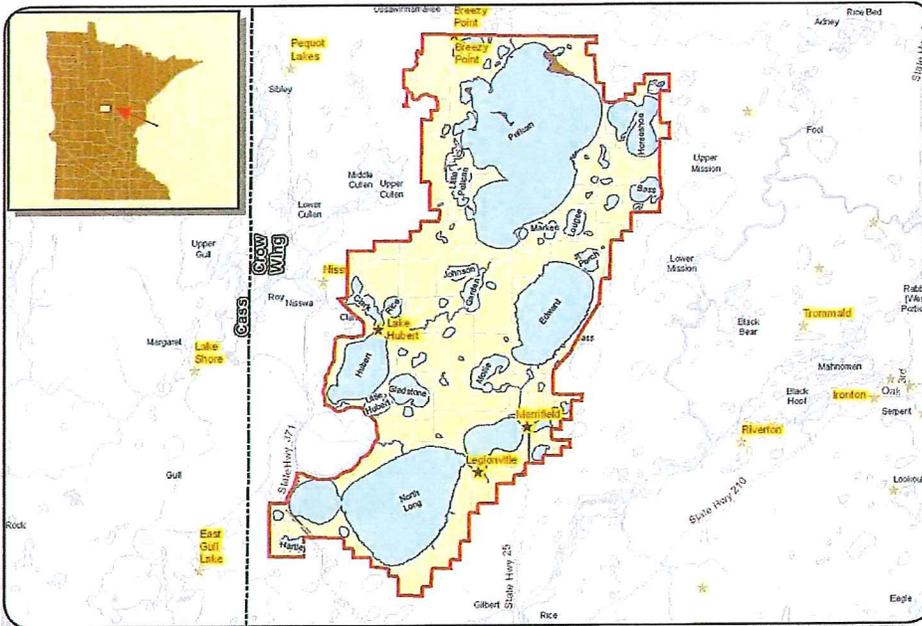
The Thirty Lakes Watershed District was established by Order of the Minnesota Water Resources Board on May 18, 1971 in response to two nominating petitions. One petition, signed by 316 freeholders, was filed with the Minnesota Water Resources Board on August 7, 1970. A similar petition, signed by the Board of Commissioners of Crow Wing County, was filed with the Minnesota Water Resources Board on August 17, 1970.

The nominating petition indicated the need for a Watershed District to address lake water quality concerns, realizing that increased lakeshore development could negatively impact the water resources; and as a way to conserve and make wise use of the water and natural resources within the Watershed District.

The District is located in west central Crow Wing County (figure 1) and covers approximately 70 square miles; approximately 60% is covered by surface water. The District's major watersheds include: Clark, Edward, Gladstone, Horseshoe, Hubert, North Long and Pelican Lakes. The following communities and townships lie partially or wholly in the District: the Cities of Breezy Point and Nisswa, and First Assessment, Lake Edward, Center, Pelican and Mission Townships.

Recreation and tourism are the most important industries within the District. The beautiful lakes in the area attract visitors and encourage the construction of seasonal and permanent residences. The population of the District has increased substantially during the past 20 years. From 1980 to 2010 the population has increased 42%; however, these U.S. Census totals do not include seasonal residents.

Fig.1



## 1.2 Purpose and Scope

Like all watershed districts, the TLWD is a special purpose unit of local government that manages water resources on a watershed basis (a watershed is an area of land that drains to a given lake, river, stream or wetland). Watershed district boundaries generally follow natural watershed divides, rather than political boundaries.

Recognizing that water does not follow political boundaries, the State of Minnesota established the Watershed Act (Minnesota Statutes 103D) in 1955, which provided for the creation of watershed districts anywhere in the state and requires watershed districts to prepare watershed management plans. There are 46 watershed districts in the state (as of 2009).

As given in statute (Minnesota Statutes 103D.201), the general purposes of a watershed district are:

*To conserve the natural resources of the state by land use planning, flood control, and other conservation projects by using sound scientific principles for the protection of the public health and welfare and the provident use of the natural resources.*

Watershed districts may be formed for a number of specific purposes, including protection or enhancement of water quality, prevention and alleviation of flood damage, prevention and alleviation of soil erosion and sedimentation, regulation of streams, lakes and water courses for domestic, recreational and public use, and protection and regulation of groundwater uses (Minnesota Statutes 103D.201).

Minnesota statutes (103D.335 in particular) give watershed districts a number of broad authorities, including the authority to:

- Collect data
- Conduct studies and investigations
- Construct improvements
- Levy property taxes and assess properties for benefits received
- Adopt rules to regulate, conserve, and control the use of water resources
- Contract with private and public entities for the construction, maintenance, and operation of projects and other activities
- Hire staff and consultants
- Acquire property
- Incur debts, liabilities, and obligations
- Acquire, operate, construct and maintain dams, dikes, reservoirs, and water supply systems
- Enter lands for surveying and other investigations

See Minnesota Statutes 103D for additional authorities.

As required by law (Minnesota Statutes 103D.401), the TLWD Managers must adopt a watershed management plan for any or all of the purposes for which a watershed district may be established.

### **Accomplishments**

The following is a summary of accomplishments for the Watershed District for the years 2001 and 2002 and 2007-2014. Annual reports were not completed from 2003-2006.

- Crow Wing County, Nisswa and Breezy Point – Stormwater Permit Administration
- Water Quality Testing and Flyover
- Ditch 13 – Beaver Control
- Stormwater Permits
- Participated in Educational Opportunities
- Lake Gauge Monitoring
- Projects
  - Clow Stamping SSTS
  - Deacon's Lodge Golf Course Water Quality Monitoring
  - Amended District Boundaries to Include BIR
  - Boy Scout Camp Stormwater Improvements
  - Pelican Lake /Breezy Point Resort Stormwater Project
  - Elks Camp Shoreline Protection
  - Cost Share Program – Shoreline (started in 2008 - discontinued 2014)
  - Septic System Upgrade Cost Share Program (started in 2012 – discontinued 2014)
  - Bass Lake Water Quality Project
  - North Long Lake Culvert Sampling
  - Little Pelican Lake Vegetation Control
  - North Long Lake Vegetation Control
  - AIS Inspection Assistance
  - Pelican Lake Access Stormwater Plan

## **1.3 Plan Organization and Summary of Issues, Goals, Objectives, and Potential Solutions**

The Plan sets the TLWD's water resource goals and objectives, provides data and other background information, outlines the applicable regulations, assesses watershed-wide and specific issues, and lists implementation tasks to achieve the goals. The Plan also provides information regarding the funding of the implementation program.

### **1.3.1 Plan Organization**

The Plan is organized into four major chapters as follows:

#### **Chapter 1: Executive Summary**

Chapter 1 is the Executive Summary, which provides background information about the TLWD and summarizes the highlights of the Plan, including the Plan purpose and scope, goals, objectives, and implementation tasks.

#### **Chapter 2: Physical Environment Inventory**

Chapter 2 provides technical information describing the surface and subsurface conditions of the TLWD. Most of Chapter 2 presents a watershed-wide inventory, including climate and precipitation, topography, soils, geology, groundwater, Minnesota Department of Natural Resources (MDNR) public waters, wetlands, surface water resource monitoring information, floodplain information, unique features and scenic areas, pollutant sources, and major watersheds.

Chapter 2 also includes a number of maps, such as watershed-wide maps of land cover, MDNR public waters, impaired waters, wetlands, and watersheds. This chapter also includes a number of tables, such as precipitation information, and water quality information.

#### **Chapter 3: Assessment of Issues**

Chapter 3 assesses the issues, challenges, and problems the TLWD faces in managing water resources on behalf of the public. Watershed-wide and specific issues are presented and discussed under a number of topic areas, including flood control, water quality, erosion and sediment control, etc.

#### **Chapter 4: Goals, Objectives, and Actions**

Chapter 4 presents the TLWD's goals, objectives, and actions that will guide the TLWD in accomplishing its mission over the 10-year life of the Plan. The goals, objectives and actions are presented under a number of topic areas, including flood control, water quality, agricultural and urban drainage systems, erosion and sediment control, etc. New to this 10 year plan includes an analysis of the purpose and

future need of TLWD as a local government unit. Both managers and citizens have long questioned the need for the District in light of the strong county, city and SWCD programs.



# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:** Morrison County CLWM Plan Extension

**Meeting Date:** September 23, 2015

**Agenda Category:**  Committee Recommendation     New Business     Old Business

**Item Type:**  Decision     Discussion     Information

**Section/Region:** Northern Region

**Contact:** Ryan Hughes

**Prepared by:** Dan Steward

**Reviewed by:** Northern Region    Committee(s)

**Presented by:** Dan Steward

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**     Resolution     Order     Map     Other Supporting Information

**Fiscal/Policy Impact**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> None          | <input type="checkbox"/> General Fund Budget          |
| <input type="checkbox"/> Amended Policy Requested | <input type="checkbox"/> Capital Budget               |
| <input type="checkbox"/> New Policy Requested     | <input type="checkbox"/> Outdoor Heritage Fund Budget |
| <input type="checkbox"/> Other:                   | <input type="checkbox"/> Clean Water Fund Budget      |

**ACTION REQUESTED**

Approval to extend the Morrison County Comprehensive Local Water Management Plan until September 23, 2017.

**LINKS TO ADDITIONAL INFORMATION**

**SUMMARY** *(Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation)*

Morrison County has submitted a request for an extension of the Morrison County Comprehensive Local Water Management Plan (Plan). The existing Plan will expire on May 26, 2020, with the Goals, Objectives and Actions due for update by May 26, 2015. The extension is needed to facilitate Morrison County's interests in synchronizing water management efforts with the Morrison County Comprehensive Land Use Plan Update, and water management planning across the eight county Mississippi Headwaters region.

Minnesota Board of Water and Soil Resources  
520 Lafayette Road North  
St. Paul, Minnesota 55155

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In the Matter of Extending the Comprehensive  
Local Water Management Plan for Morrison  
County, pursuant to Minnesota Statutes, Section  
103B.3367.

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**ORDER  
EXTENDING  
COMPREHENSIVE  
LOCAL WATER  
MANAGEMENT PLAN**

**Whereas**, on May 26, 2010, the Minnesota Board of Water and Soil Resources (Board), by Board Order, approved the Morrison County Comprehensive Local Water Management Plan (Plan) that is effective until May 26, 2020, with the Goals, Objectives and Actions being updated by May 26, 2015 ; and

**Whereas**, the Board has authorization to grant extensions pursuant to Minnesota Statutes Section 103B.3367; and

**Whereas**, the Board adopted Resolution #14-76 *Local Water Plan Extensions Policy* on December 17, 2014;

**Now Therefore**, the Board hereby makes the following Findings of Fact, Conclusions, and Order:

**FINDINGS OF FACT**

1. On August 6, 2015, the Board received a petition from Morrison County requesting an extension to update the goals, objectives and actions of their Comprehensive Local Water Management Plan from the current date of May 26, 2015, until a new date of September 23, 2017. The following are the reasons for the request.
2. Morrison County intends to update their comprehensive land use plan in 2016. The Morrison SWCD is responsible for updating the water plan and will be a participant in the comprehensive land use planning process and wants to make sure the two plans are complimentary and that the goals and objectives of land use decisions reflect the protection and restoration goals of the water plan.
3. **North Regional Committee.** On September 2, 2015, the North Regional Committee (Committee) of the Board reviewed the Extension request. Those in attendance from the Board's Committee were Tom Schulz, Brian Napstad, Keith Mykleseth, Gene Tiedemann, Neil Peterson, and Gerry Van Amburg participating by phone. Board staff in attendance were Doug Thomas, Assistant Director, Ryan Hughes, Regional Supervisor and Board Conservationists Dan Steward and Jason Weinerman. There were no representatives from the County. North regional staff provided its recommendation of approval of the request to the Committee. After discussion, the Committee's decision was to present a recommendation of approval of the Extension request to the full Board.

## CONCLUSIONS

1. All relevant substantive and procedural requirements of law have been fulfilled.
2. The Board has proper jurisdiction in the matter of extending Comprehensive Local Water Management Plans, pursuant to Minnesota Statutes, Section 103B.3367.
3. The Morrison County extension request is in conformance with the requirements of Minnesota Statutes, Section 103B.3367 and the Board's *Local Water Plan Extensions Policy* dated December 17, 2014.

## ORDER

The Board hereby approves the extension of the Morrison County Comprehensive Local Water Management Plan Goals, Objectives and Actions until September 23, 2017.

Dated at St. Paul, Minnesota, this 23rd date of September, 2015.

## MINNESOTA BOARD OF WATER AND SOIL RESOURCES

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BY: Brian Napstad, Chair

**NEW BUSINESS**

1. Pheasant Summit Action Plan – Kevin Lines and Greg Hoch, DNR – ***INFORMATION ITEM***
2. Technical Training and Certification Strategy – Angie Becker Kudelka – ***INFORMATION ITEM***



# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:**

**Pheasant Summit Action Plan**

**Meeting Date:**

September 23, 2015

**Agenda Category:**

Committee Recommendation     New Business     Old Business

**Item Type:**

Decision     Discussion     Information

**Section/Region:**

**Contact:**

John Jaschke

**Prepared by:**

John Jaschke

**Reviewed by:**

John Jaschke    Committee(s)

**Presented by:**

Greg Hoch & Kevin Lines, DNR

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**     Resolution     Order     Map     Other Supporting Information

**Fiscal/Policy Impact**

- None
- Amended Policy Requested
- New Policy Requested
- Other:
- General Fund Budget
- Capital Budget
- Outdoor Heritage Fund Budget
- Clean Water Fund Budget

## ACTION REQUESTED

Information

## LINKS TO ADDITIONAL INFORMATION

## SUMMARY *(Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation)*

In December 2014 Governor Mark Dayton displayed bold leadership and injected new energy into pheasant conservation efforts when he convened a Pheasant Summit in Marshall, MN. His challenge was clear – to develop an action plan that would restore Minnesota’s pheasant populations and its pheasant hunting tradition.

The Pheasant Summit Action Plan is a major step forward, turning goals identified by Summit attendees into action. The actions described in this plan capture those immediate and achievable steps that will make the greatest difference in improving pheasant habitat and hunting opportunities. A key component of this plan is the development of an annual “report card,” which agencies and stakeholders we will review each year to measure and track progress over time.

The signatory agencies are committed to working collaboratively across the Executive Branch and with the Legislature to accomplish these actions in tandem with farmers, landowners, local governments, communities, and conservation and other organizations to make this plan a reality.

# 2015 MINNESOTA PHEASANT SUMMIT ACTION PLAN





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Minnesota Department of Natural Resources  
500 Lafayette Rd.  
St. Paul, MN 55155-4040.  
651-296-6157

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Cover photos: Scott Roemhildt and Carrol Henderson. Inside front cover photo: Pheasants Forever.

This document is available in alternative formats to individuals with disabilities.

# Letter from the Agencies

Pheasant hunting is a long-standing Minnesota tradition. At one time, one out of every twelve Minnesotans hunted pheasants. Unfortunately, since 1961 when 270,000 Minnesotans hunted pheasants, this tradition has been experienced by fewer and fewer Minnesotans. In 2014 there were fewer than 58,000 pheasant hunters participating in the sport.

Not surprisingly, this decline in hunter participation reflects a decline in pheasant habitat and in the birds themselves. Much good work has been done to counter these trends – from the promotion and adoption of voluntary conservation programs in agricultural areas, development of state and federal public hunting land programs, the founding of an organization dedicated to pheasants, the passing of the Legacy Amendment in 2008, to the development of a statewide pheasant plan. These efforts, however, have not been fast enough or extensive enough to stem the precipitous decline in recent decades in pheasants, other grassland birds such as meadowlarks, as well as monarch butterflies and other pollinators. The loss of grassland habitat on the landscape has also been tied to water quality and other environmental issues across the pheasant range of the state.

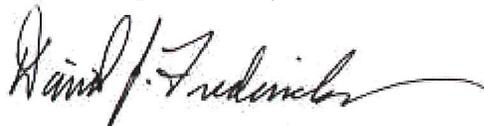
In 2014 Governor Mark Dayton displayed bold leadership and injected new energy into pheasant conservation efforts when he convened a Pheasant Summit in Marshall, MN. His challenge was clear – to develop an action plan that would restore Minnesota's pheasant populations and its pheasant hunting tradition.

The Pheasant Summit Action Plan is a major step forward, turning goals identified by Summit attendees into action. The actions described in this plan capture those immediate and achievable steps that will make the greatest difference in improving pheasant habitat and hunting opportunities. A key component of this plan is the development of an annual “report card,” which agencies and stakeholders we will review each year to measure and track progress over time.

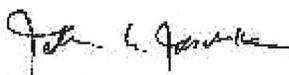
As agency leaders, we are committed to working collaboratively across the Executive Branch and with the Legislature to accomplish these actions. We also know that public engagement is key to the success of this plan. We greatly appreciate the work of the attendees of the Pheasant Summit and the Pheasant Summit Steering Committee and look forward to working with farmers, landowners, communities, and conservation and other organizations to make this plan a reality.



Tom Landwehr, Commissioner  
Minnesota Department of Natural Resources



Dave Frederickson, Commissioner  
Minnesota Department of Agriculture



John Jaschke, Director  
Minnesota Board of Water and Soil Resources



"For almost 60 years, I have enjoyed pheasant hunting in Minnesota. But the decisions we make today will determine whether future generations of Minnesotans will have those same opportunities. I look forward to convening this Minnesota Pheasant Summit, and developing strategies to improve the pheasant population in our state."

—Governor Mark Dayton, September 26, 2014

# Introduction

On December 13, 2014, Gov. Mark Dayton convened a Pheasant Summit in Marshall. Attendees included the governor; the commissioners of the Department of Natural Resources and Department of Agriculture; elected officials and their representatives; staff from multiple federal and state agencies; and 250 hunters, conservationists, farmers and ranchers. It was Gov. Dayton's desire that this group, representing a diversity of interests in Minnesota, help forge a plan to restore pheasant populations in the state and ensure that future generations can participate in Minnesota's rich pheasant hunting tradition.

Summit attendees viewed presentations on historical pheasant habitat and population summaries. They also were presented with the results of an online survey of 750 Minnesotans, which solicited suggestions on restoring pheasant habitat and populations and enhancing hunting

opportunity. With that information in hand, summit attendees brainstormed and developed action items. A Pheasant Summit Steering Committee, comprised of leaders from agricultural and conservation groups, refined those action items and provided input into the plan.

This resultant Pheasant Summit Action Plan presents those ideas and establishes an aggressive set of short- and long-term steps to increase and improve habitat for pheasants and opportunities for hunting. This action plan includes measurable goals for a four-year time frame, recognizing that habitat conservation will need to continue far into the future.

A state pheasant plan completed in 2005 focused primarily on statewide goals for acres to be protected and restored. This 2015 action plan identifies the specific steps to accomplish those goals. This landscape approach, which combines both optimal



Scott Roemhildt

acres and optimal location, borrows heavily from the Minnesota Prairie Conservation Plan.

Private lands in the pheasant range account for more than 95 percent of the land base. Increases in pheasant populations will require a significant investment in private land habitat management; enrollment in voluntary, incentive-based conservation programs and easements; and some public land acquisitions. In many cases, wildlife objectives can be achieved on the least productive agricultural acres. This is often why landowners are eager to enroll their lands in conservation programs or sell their land to agencies for new public hunting areas. Using a “working lands” model, some production agriculture practices such as conservation grazing and haying also can be integrated into public lands habitat management where appropriate.

Agricultural production and conservation can readily coexist. Adding pollinator habitat will increase the productivity of dozens of crops.

**In many cases, wildlife objectives can be achieved on the least productive agricultural acres.**

Reducing soil erosion and keeping surface water clean will maintain field fertility, reduce algal blooms in lakes, and reduce the need for expensive water filtration equipment to downstream towns. Finally, expenditures for outdoor recreation diversify and benefit economies of local communities. Hunters spend \$1.32 billion in Minnesota annually, much of this in the rural parts of the state.

Actions defined in this plan are explicitly designed to increase pheasant habitat and pheasant populations. Because pheasants are dependent upon grassland habitat, they serve as indicator species for grassland conservation. Those grasslands also will provide habitat for waterfowl, songbirds, pollinators and hundreds of grassland-dependent wildlife species. ■

# Summary

**1. Target habitat enhancement and protection in complexes at least 9 square miles in size where we can meet a goal of 40 percent permanent protection within the timeframe of this plan.**

Large blocks of habitat increase reproductive success, which is the most important limiting factor for pheasant populations. Using a Geographic Information System (GIS) and current land cover data, we will identify the best places for pheasant production and focus protection efforts on those areas to create permanent habitat complexes. This analysis will be repeated every two years to help monitor progress and refine goals.

**2. Increase the rate of enrollment and retention in short-term conservation programs and the enrollment of permanent conservation easements by private landowners.**

With 95 percent of the pheasant range in private ownership, increasing pheasant populations will depend on maximizing private land habitat. Demand for conservation programs such as the Conservation Reserve Program (CRP) and Re-invest In Minnesota

(RIM) Reserve far exceeds available program acres. Significant additional funding must be secured for practices and technical assistance to increase enrollment.

**3. Increase education and marketing of private lands conservation programs through the Farm Bill Assistance Partnership (FBAP).**

The best tool for promoting Farm Bill and state conservation programs is the FBAP, which puts staff dedicated to private lands conservation into county offices. FBAP staff work with landowners to explain the full range of state and federal conservation programs and help landowners determine which program(s) are best suited to their land.

**4. Increase management of habitat on both public and private lands.**

Without periodic natural disturbances to prairie grasslands, diversity and productivity declines. Prescribed burning, tree removal, conservation grazing and haying are tools that can increase the quality of pheasant habitat.

Pheasants Forever

Carrol Henderson



**5. Accelerate acquisition of public lands open to hunting across the pheasant range including state Wildlife Management Areas (WMAs) and federal Waterfowl Production Areas (WPAs).**

Increasing the amount of public wildlife land will create more habitat for grassland wildlife and provide more places and opportunities for hunting and other outdoor recreation pursuits.

**6. Develop and implement a comprehensive riparian buffer program.**

Buffers are permanent vegetation adjacent to waterways. They are important tools to prevent erosion. Buffers also can provide habitat benefits for wildlife. Working with landowners to develop the best buffers in terms of width, plant species mix and management practices can multiply the beneficial outcomes for all grassland wildlife.

**7. Improve roadside management to optimize pheasant habitat.**

While driver safety has to be the primary concern, roadsides can be improved for pheasants by increasing the diversity of the native plant community; using mowing practices that leave standing vegetation; and planting living snow fences that serve as winter cover.

Carmelita Nelson



**8. Secure federal funding to sustain the Walk-In Access program in Minnesota's pheasant range.**

Minnesota has been using a one-time legislative appropriation and competitive grants from the National Resource Conservation Service (NRCS) to support and fund the Walk-In Access program. Without additional federal funding, the program cannot be sustained and public hunting opportunities may be lost.

**9. Expand public education about grassland and pheasant conservation issues and support hunter recruitment and retention.**

Citizens who are knowledgeable about the values and needs of grassland habitat will be supportive in taking action and securing resources to conserve and manage these habitats. By providing information and opportunities for new potential users, we can help create a new generation of hunter conservationists.

**10. Expand monitoring and research capacity for both habitat and population studies of grassland wildlife and clearly communicate these results to the public.**

There are more stressors on habitat and wildlife in Minnesota's pheasant range than ever before.

Minnesota needs to continue and expand habitat-based research and monitoring on pheasants and other grassland wildlife to ensure long-term sustainability. ■

# Action Items

1. Target habitat enhancement and protection in complexes at least 9 square miles in size where we can meet a goal of 40 percent permanent protection within the timeframe of this plan.

Biologists know that life cycle needs of pheasants and other grassland wildlife species are best met in landscapes that are at least 9 square miles in size with 40 percent or more grass cover. This action item creates a strategic framework for the implementation of the following items. Additionally, provision of winter cover and winter food in these areas creates “complexes” that will optimize pheasant population success. This effort will build upon and enhance past work by focusing future land enhancement and protection in areas where there is already a significant public investment in conservation lands. Specific tasks include:

- Identify areas that are 15-40 percent grassland where the goal of 40 percent permanent protection can be reached within 10 years.
- Prioritize other public and private land habitat protection and enhancement efforts identified in Actions 2, 3, 4 and 5 in these habitat complexes.
- Establish complexes across the pheasant range to maintain pheasant populations as well as provide good hunting opportunities across the region.

## Background

Studies have shown greater nest success among ground nesting grassland birds where there are larger patches of grassland. Nest success reaches a critical point for population expansion when 40 percent of a landscape is in grassland. Pheasants also need winter cover and winter food in close proximity in order to meet key life cycle needs. Optimal conditions for pheasant survival and population expansion can be fostered by providing 40 percent nesting cover, adequate winter cover and emergency winter food in a landscape of 9 square miles or larger—so called “habitat complexes.”



Carrol Henderson

Permanent protection of grasslands is critical to ensure these complexes exist into the future. Permanent protection is achieved via fee-title or easement acquisition through programs including: DNR Wildlife Management Areas (WMA), DNR Scientific and Natural Areas (SNA), United States Fish and Wildlife Service (USFWS) Waterfowl Production Areas (WPA), USFWS National Wildlife Refuge (NWR), and perpetual conservation easements acquired through programs like the DNR Prairie Bank or Board of Water and Soil Resources (BWSR) RIM Reserve. Unprotected private pastures, hayfields, and lands in short-term programs like the CRP can be identified in these areas for permanent protection. By distributing these complexes across the state it will also distribute hunting pressure more evenly and create more hunting opportunities near population centers.

Regular maintenance activities (prescribed burning, woody vegetation control, etc.) need to be employed to keep these complexes in optimal condition. These large complexes are also ideal for conservation grazing on both public and private lands where livestock can be rotated around the landscape, simulating the patterns of native grazers and providing additional management options.

**2. Increase the rate of enrollment and retention in short-term conservation programs and the enrollment of permanent conservation easements by private landowners.**

Ninety-five percent of land in the pheasant range is privately owned, and a large percentage of the annual pheasant population is sustained here. Increases in pheasant populations will require a significant investment in private land conservation programs. Demand for conservation programs such as CRP and RIM Reserve far exceeds available dollars. Private conservation lands make a strong contribution to wildlife populations and water quality improvement but remain in private ownership and stay on the county and township tax rolls. Specific tasks include:

- Obtain approval for and implement a Conservation Reserve Enhancement Program (CREP) proposal to the Farm Service Agency

**Ninety-five percent of land in the pheasant range is privately owned...**

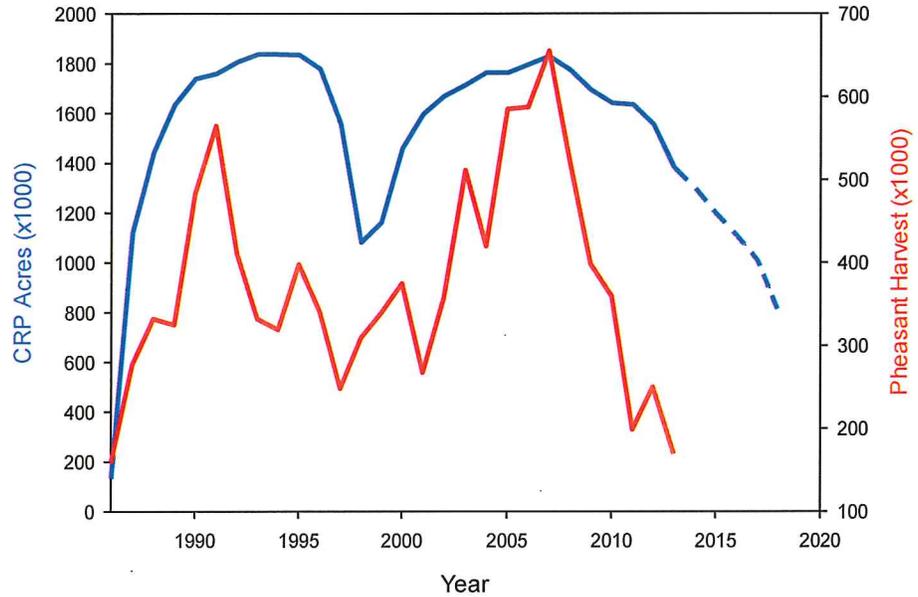
(FSA) that would permanently protect 100,000 acres of habitat in the pheasant range.

- Work with private landowners to retain as much as possible of the 501,000 CRP acres slated to expire in the next four years within the pheasant range. Re-enroll these acres in any new general CRP sign-up or Continuous-CRP (CCRP) practices when applicable.
  - Request an increase to existing acreage caps for MN State Acres for Wildlife Enhancement (SAFE) CP38e “Back Forty Pheasant Practice” of 20,000 acres per year and CP23a (wetland restoration practice) of 20,000 acres per year.
  - Sustain recent funding levels for RIM of \$20 million/year and work to increase this annual allocation to \$40 million per year.
  - Prioritize perpetual conservation easements into habitat complexes identified in Action Item 1.



As CRP acres increase and decrease on the landscape, pheasants follow the same trends. The dashed line on the right represents expiring CRP acres assuming no re-enrollment or new sign-ups.

**Nesting habitat is the key to pheasant numbers.**



**Background:**

No other program has had as profound an impact on Minnesota’s landscape and grassland wildlife populations as the Conservation Title of the Federal Farm Bill. In Minnesota, acres in conservation programs peaked in 2007 at 1.99 million acres with CRP making up 1.75 million of those acres. Despite growth in several land conservation programs, the state dropped to 1.53 million acres in 2014. This is largely due to the high losses in the largest program, CRP. Over the next four years, an additional 501,000 CRP acres will expire.

Minnesota’s highly successful RIM Reserve Program is a critical component of the state’s private lands conservation efforts. To date more than 6,200 permanent conservation easements totaling over 254,000 acres have been enrolled in the program.

**3. Increase education and marketing of private lands conservation programs through the Farm Bill Assistance Partnership (FBAP).**

Minnesota conservation agencies and organizations have developed a collaborative approach for promoting Farm Bill and state conservation programs called the Farm Bill Assistance Partnership (FBAP). FBAP staff work with landowners to explain the full range of state and federal conservation programs and help them determine which program(s) are best suited to the landowner and land. Staff can also discuss management options with landowners to improve the existing habitat on their lands. Current funding provides for approximately 35 full time equivalents in 49 counties. Specific tasks include:

- Develop a marketing plan to ensure staff is aware of landowner contacts and that landowners get needed information at the right times.
- Secure funding to add 10 additional FBAP staff in the pheasant range.
- Identify funding sources to continue this \$3 million annual staffing effort from federal, state and local partners.

## Background:

The FBAP is a joint effort between BWSR, DNR, Pheasants Forever (PF), Minnesota Association of Soil and Water Conservation Districts (MASWCD), the Environmental and Natural Resources Trust Fund (ENRTF), and the Natural Resources Conservation Services (NRCS). The FBAP program works with SWCDs to accelerate local staff capacity by placing additional staff in the local USDA Service Center, with a primary focus to actively engage landowners and encourage them to enroll environmentally sensitive lands into voluntary conservation programs like the RIM Reserve program and CRP. This outreach connects landowners with the proper conservation program and practice that meets the landowner's goals and addresses the resource concern. Since its beginning in 2002, staff in the FBAP has enrolled 554,963 acres into state and federal conservation programs. Securing stable, long-term funding for this program will ensure that these staff can continue to provide outreach to landowners.



## 4. Increase management of habitat on both public and private lands.

Without periodic management to simulate natural disturbances (prescribed fire and conservation grazing), plant diversity declines, trees invade the grasslands, and productivity is reduced. Optimizing pheasant habitat also requires management activities such as food plots and winter cover (including cattails and native shrubs). When conducted with private cattle producers, grassland management can include rotational grazing, helping both wildlife and livestock. Specific tasks include:

- Secure Outdoor Heritage Fund (OHF) appropriations to increase public land habitat enhancement for nesting, brood-rearing, and winter habitat in the pheasant range.
- Implement a Working Lands approach to grassland conservation in key areas, integrating agricultural practices such as prescribed grazing and haying into habitat management. Develop program to increase private land prescribed burning and habitat management capacity.
- Work with partners to secure Farm Bill conservation program or North American Wetland Conservation Act (NAWCA) grants to increase management.

## Background:

Using OHF, there has already been an increased capacity to do habitat management on public lands to enhance nesting, brood-rearing, and winter cover for pheasants and other grassland wildlife. Three good examples are the DNR Roving Crews, The Nature Conservancy's (TNC) Prairie Recovery Project, and the DNR Conservation Partnership Legacy (CPL) grant program. These efforts and acres are all additive to what existing agency staff is doing for habitat work. However, there are still many acres of public land in need of more active management.

Because management practices are often labor-intensive (and staff, equipment and trained contractors are limited) there is not enough capacity to maintain the health of Minnesota's grasslands.



This is especially challenging on private lands. For example, while many agency staff are trained to use prescribed fire on public lands, few private landowners have basic fire training and little equipment. New approaches are needed.

A remaining challenge is to secure funds to conduct habitat management/enhancement work on private lands. The DNR's Working Lands Initiative has funded some projects and there are NRCS programs for similar private lands work. Again, the demand is far greater than the resources for these programs.

Grazing and haying, when done with wildlife in mind, can be important habitat management tools on both public and private lands. The use of livestock to manage habitat on WMAs, WPAs, and NWR lands is increasing. This integrates public lands, habitat management, and production agriculture showing how all can benefit from these practices and demonstrate how multiple objectives can be met from one parcel of land.

**5. Accelerate acquisition of public lands open to hunting across the pheasant range including DNR Wildlife Management Areas (WMA) and USFWS Waterfowl Production Areas (WPA).**

In the pheasant range, publicly accessible habitat often accounts for less than two percent of the landscape. This significantly restricts hunter opportunities and forces a large number of hunters into small areas. Accelerating the rate of public land acquisition, often low productivity acres and always from willing sellers, will both help increase the habitat base for grassland wildlife and create more opportunities for hunting and other forms of outdoor recreation. Specific tasks include:

- Seek state bonding, Environmental and Natural Resource Trust Fund (ENRTF), or federal dollars of up to \$10 million per year for public land acquisition.
- In cooperation with partners, seek \$40 million from the OHF for WMA and WPA acquisition.
- Target acquisitions into the habitat complexes identified in Action Item 1.

## Background:

Most of the large public land holdings in Minnesota—WMAs, state forests, county lands and National Forests—are located in the northern and northeastern part of the state, outside the pheasant range. As grassland and wetland habitat has been lost in portions of western and southwestern Minnesota, demand for additional habitat and public hunting areas has increased. State and federal agencies have been purchasing public hunting areas from willing sellers since the 1950s. These acres have been used to create new DNR WMAs and USFWS WPAs. Additionally, funds have been used to purchase DNR SNAs and USFWS NWRs from willing sellers in the pheasant range.

These lands are acquired after extensive review and landscape modeling by both the DNR and USFWS through a comprehensive scoring process to identify the most critical tracts for wildlife purposes. These areas are often the least productive agricultural soils, which is why the landowner is interested in selling the land for habitat conservation.



Pheasants Forever

Local units of government subsequently receive Payment in Lieu of Taxes (PILT) and Revenue Sharing for lands acquired for WMAs and WPAs/NWRs, respectively, to compensate local units of government for property taxes lost when lands are acquired for a public purpose.

## 6. Maximize the benefits of buffers for pheasants and other grassland wildlife.

Riparian buffers help keep surface waters clean by protecting them from erosion and runoff pollution. Buffers can also provide benefits for wildlife and pollinators with appropriate vegetation management. Landowners can optimize benefits of buffers by planting the appropriate species, increasing the size and width of the buffer, and with appropriate vegetation management. Specific tasks include:

- Implement the 2015 Buffer Initiative, which expands the scope of waters required to have buffers, sets timelines for implementation, provides for enforcement, and appropriates funding.
- Secure ongoing funding to work with SWCDs on enhancing existing and new buffers for pheasants.
- Develop and implement incentive programs to increase payments for landowners who improve buffers for wildlife beyond minimum requirements.

## Background:

Minnesotans are proud of the lakes and rivers found here. However, in recent years, those waters have faced significant problems. A Minnesota Pollution Control Agency (MPCA) study from the southwest corner of the state found that only one of 93 stream sections studied were safe for human recreation and none of the lakes in that area met the safety standard. Surface water quality in much of Minnesota is impaired because of unchecked non-point runoff that carries sediment and other pollutants.

In 2015, Governor Dayton proposed, and the legislature approved, a new buffer requirement.

While the focus will be on water quality benefits, there are significant potential benefits for wildlife also.

For wildlife habitat, wider buffers are better. Buffers planted to a more diverse native grass and wildflower mix are better than grass monocultures. Landowners can be encouraged to enroll buffers in programs that will pay for these enhancements. Wider buffers can also be targeted on the landscape where they are most needed, such as at the base of steeper slopes with higher erosion rates.

Enhanced buffers will also be more suitable as pollinator habitat. The long narrow shapes of buffers and roadsides make them natural travel corridors allowing pollinators and wildlife to move around the landscape.

#### 7. Improve roadside management to optimize pheasant habitat.

Roadsides represent a significant acreage of grassland across the pheasant range when federal, state, county, and township roads are all considered. While driver safety has to be the primary concern with roadsides, there are numerous ways to make roadsides more wildlife friendly. This can include increasing the diversity of the native plant community, using mowing practices that leave standing vegetation for nesting and brood rearing cover, and establishing living snow fences that could serve as winter cover. Specific tasks include:

- Revitalize the Interagency Roadsides for Wildlife Task Force and Roadsides for Wildlife Program.
- Use the task force to reinforce existing statutes related to roadsides conservation and identify new approaches to improving roadside habitat.
- Secure funding for county programs that integrate roadside vegetation.

**“As a farmer, I have a 100-acre lake buffered, plus three-quarters of a mile of Redwood River buffered 120 feet. I’ve had this for more than 20 years and it hasn’t hurt my bottom line as I’m paid for the land in the buffer by CRP.”**

**—Russ Pilegaard,  
Ruthon, Outdoor News,  
April 24, 2015**



Redwood SWCD

#### Background:

Due to their long narrow shape, nesting success in roadsides (and buffers) usually will not be as high as in large blocks of habitat. However, roadsides can be good brood rearing habitat and travel corridors for wildlife. State and federal highways offer the widest buffers and should be prioritized for attention. Also, these roadsides tend to have the greatest public ownership, so statutory restrictions on mowing are most stringent.

Currently many roadsides have relatively low levels of native plant diversity. Additionally, they are often mown or hayed multiple times each summer and often the entire ditch is mown/hayed. This can be most damaging when the first mowing occurs during the nesting season. By mowing the entire width of the ditch, no nesting or escape cover is left. While some mowing can maintain or alter the vegetation to benefit wildlife, mowing too much, too often, and too early can potentially be quite damaging to wildlife.

Iowa offers a model program for roadside management incorporating native grasses, wildflowers, and shrubs. A review of Iowa and other state’s roadsides programs may give Minnesota insights into how to improve roadside management for wildlife while still treating public safety as the primary concern.

## 8. Secure federal funding to sustain the Walk-In Access (WIA) program in the pheasant range in Minnesota.

Minnesota has been using a one-time legislative appropriation as well as competitive grants from the USDA Natural Resources Conservation Service to support and fund the WIA program. Without additional federal funding, continuing the program would require a charge on hunters—something that surveys show won't work. Specific tasks include:

- Seek federal funds to expand the WIA program to 30,000 acres and/or more counties in the pheasant range.
- Explore other funding options if federal funds are not secured.

### Background:

The Walk-In Access program (WIA) has been popular in its initial years. The state has gone from 6,039 acres enrolled in 2011/12 to 21,100 acres in 2014/15. Landowner participation has increased from 62 to 181 landowners over that time. In 2013/14, the DNR estimates that 18,460 hunters used the WIA program. SWCD offices and the FBAP are key to the implementation of the WIA program as they are almost always the first contact with landowners and do much of the mapping and contracting.

**“Pheasants are farm game birds ... few other game birds are more intimately associated with agriculture.”**

**—Farris, Klonglan and Nomsen, The ring-necked pheasant in Iowa, 1977**

WIA has been partially funded through an NRCS grant. In 2015, 23 states submitted funding requests to NRCS for a WIA program. At least \$29 million was requested from the \$20 million available through this program. With this competitive process, the success of funding cannot be guaranteed and, if awarded, only guarantees funding in three year increments. Permanent funding is needed to secure the long-term future of the program or the program will be discontinued.

## 9. Expand public education about grassland and pheasant conservation issues and support hunter recruitment and retention.

Informed and engaged people make the best decisions. The Minnesota conservation community will continue to work to explain the complexities of management and conservation issues as they relate to habitat and wildlife. There is also a need to provide information on pheasant hunting opportunities that is easy to access and to develop programs directed towards new or first-time hunters to encourage participation. Specific tasks include:

- Survey hunters to identify information needs and develop mobile apps, websites, and social media to inform and connect people with hunting and other outdoor recreational opportunities.
- Work with partners to develop a four-year communication strategy focused on educating and informing the public, hunters, and lawmakers on issues affecting pheasant hunting and habitat.
- Implement the Commissioner's Task Force recommendations on Hunter Recruitment and Retention.
- Develop a Pheasant Action Plan Scorecard to monitor and report progress on implementing strategies and actions and to inform the public on progress.



**Background:**

Multiple audiences (i.e., landowners, conservationists, consumers, businesses, citizens, community residents, etc.) have differing levels and topics of interest, and different concerns regarding grassland conservation. To promote grassland conservation we need to tailor messages to each group.

The DNR as well as Pheasants Forever and other conservation organizations frequently publish articles on different aspects of grassland conservation and these efforts will be accelerated. We will also work with events such as the State Fair, Farm Fest, Game Fair, etc., to communicate conservation messages to the public.

Hunters can already find maps of WMAs, WPAs, WIA sites on the web, at many locations in their local community, as well as agency offices. The WIA booklets provide maps with WMA, WPA, and WIA all on the same page. The DNR continues to work with social media to improve information and hunting guides.

**Two factors affect pheasant numbers above all others—habitat and weather. While we can't do much about the weather, we can control the quantity and quality of grassland habitat on the landscape.**

**10. Expand monitoring and research capacity for both habitat and population studies of grassland wildlife and clearly communicate these results to the public.**

Minnesota needs to continue and expand research on grassland habitats and wildlife population responses. Monitoring the effects of restoration and enhancement activities is also critically important. Specific tasks include:

- Identify a four-year priority list of research and monitoring needs and secure additional funding for work on pheasant and prairie wildlife habitat.
- Identify needed management strategies in the face of climate change.
- Further cultivate relationships between agencies and universities to coordinate and sustain research.
- Clearly communicate the results of these activities with hunters and the public.

**Background:**

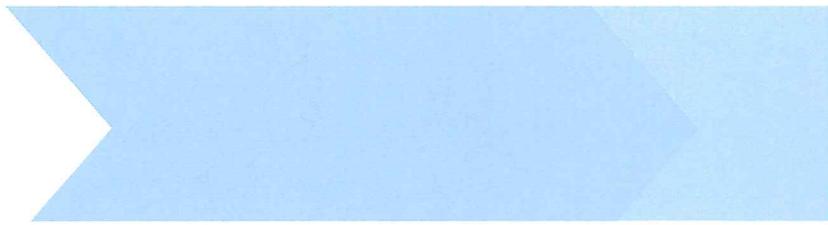
Although the DNR and others have been conducting habitat restoration, enhancement, and management projects for decades, many practitioners feel that we are just beginning to understand some of the complex processes we are attempting to replicate (restoration) or affect (enhancement/management). Every habitat project is an opportunity to learn and those lessons should be applied to future projects. In many cases we have a good general understanding, but many of the details are still unknown. Further, increasing intensity of land use by humans is having profound and often unmeasured impacts on wildlife populations.

The USFWS has developed a formal model for integrating monitoring and research into habitat management activities and landscape planning called Strategic Habitat Conservation (SHC). This is a more formal version of the older process of adaptive management.

The DNR's population research and habitat monitoring programs should be integrated with efforts of the USFWS and Minnesota colleges and universities. ■

Nicole Davros





# Report Card

The DNR and partners are working to develop an annual “Report Card” for the actions listed above. The report card will be presented each year at the annual Governor’s Pheasant Opener as well as the DNR Roundtable. The Report Card will allow us to keep track of successes and determine where more efforts need to be focused.

“Conservation is a state of harmony between men and land.”

—Aldo Leopold

# Acronym List

BWSR	Board of Water and Soil Resources
CCRP	Continuous Conservation Reserve Program
CPL	Conservation Partnership Legacy
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
DNR	Department of Natural Resources
ENRTF	Environmental and Natural Resources Trust Fund
FBAP	Farm Bill Assistance Partnership
FSA	Farm Service Agency
GIS	Geographic Information System
MASWCD	Minnesota Association of Soil and Water Conservation Districts
MPCA	Minnesota Pollution Control Agency
NAWCA	North American Wetland Conservation Act
NRCS	National Resource Conservation Service
NWR	National Wildlife Refuge
PILT	Payment in Lieu of Taxes
RIM	Reinvest in Minnesota
SHC	Strategic Habitat Conservation
SNA	Scientific and Natural Area
SWCD	Soil and Water Conservation District
TNC	The Nature Conservancy
USFWS	United States Fish and Wildlife Service
WIA	Walk-In Access
WMA	Wildlife Management Areas
WPA	Waterfowl Production Areas



The Office of the Governor



*Something to crow about.*

**For more information and updates, visit:  
[mndnr.gov/pheasantsummit](http://mndnr.gov/pheasantsummit)**



# BOARD MEETING AGENDA ITEM

**AGENDA ITEM TITLE:** Technical Training and Certification Strategy

**Meeting Date:** September 23, 2015

**Agenda Category:**  Committee Recommendation     New Business     Old Business

**Item Type:**  Decision     Discussion     Information

**Section/Region:** Organizational Effectiveness

**Contact:** Angie Becker Kudelka

**Prepared by:** Angie Becker Kudelka

**Reviewed by:** \_\_\_\_\_ Committee(s)

**Presented by:** Angie Becker Kudelka

**Audio/Visual Equipment Needed for Agenda Item Presentation**

**Attachments:**     Resolution     Order     Map     Other Supporting Information

**Fiscal/Policy Impact**

- |   |   |
|---|---|
| <input type="checkbox"/> None                     | <input type="checkbox"/> General Fund Budget                |
| <input type="checkbox"/> Amended Policy Requested | <input type="checkbox"/> Capital Budget                     |
| <input type="checkbox"/> New Policy Requested     | <input type="checkbox"/> Outdoor Heritage Fund Budget       |
| <input type="checkbox"/> Other:                   | <input checked="" type="checkbox"/> Clean Water Fund Budget |

**ACTION REQUESTED**

None, Information item

**LINKS TO ADDITIONAL INFORMATION**

**SUMMARY** *(Consider: history, reason for consideration now, alternatives evaluated, basis for recommendation)*

The purpose of the Technical Training and Certification Strategy is to provide a framework for the development of technical skills (engineering and ecological practices) for local conservation professionals in Minnesota.

An agreement signed in December 2014 between BWSR, NRCS, MASWCD, and MACDE\* committed to developing the framework and recommendations for next steps. Between January and September 2015, an inter-organization team, with representatives from each agency and association researched and developed key strategies and recommendations for technical training and credentialing of local staff through a robust conservation delivery program in Minnesota.

This strategy document also articulates the partnering agencies' and associations' dedication to provide resources and leadership toward achieving these goals. The next step will be to have each organization sign the strategy document as a commitment to collaborate on the implementation of the strategy.

\*The technical training partnership includes: Natural Resources Conservation Service (NRCS), Minnesota Board of Water and Soil Resources (BWSR), Minnesota Association of Soil and Water Conservation Districts (MASWCD), and Minnesota Association of Conservation District Employees (MACDE).

## Recommended Minnesota Model for Technical Training

This recommended model does not negate any existing policy and/or procedures that are required internally by partner agencies. This is intended to enhance existing policy and coordinate partnership efforts. This model is illustrated in a linear pattern; however, this is a dynamic process with exchanges and 'check backs' between steps in the process. The partnership endorses this as the Minnesota Model for technical training and certification.

