# AGENDA

Wednesday, November 17, 2021 at 5:00pm

Burnsville Maintenance Facility Conference Room
13713 Frontier Court, Burnsville MN 55337

**COMMISSIONERS:**

Curt Enestvedt, Chair
Mike Hughes, Vice-Chair
Scott Thureen, Secretary/Treasurer
Tom Harmening
Rollie Greeno
Frank Boyce, Alternate
Greg Helms, Alternate
Natalie Walker, Alternate

I. Approval of Agenda

II. Approval of Minutes – October 20, 2021

III. Approval of Accounts Payable

IV. Review Budget Performance Reports

V. Review Draft Revisions to Plan Goals and Policies

VI. Miscellaneous

VII. Adjournment

*The City of Burnsville and Black Dog Watershed Management Organization do not discriminate on the basis of race, color, national origin, sex, religion, age, or disability in the admission or access to, or treatment or employment in, its programs, activities, or services. To obtain this information in alternative forms such as braille, large print, audiotape or qualified readers, please contact the City of Burnsville. Telephone (952) 895-4400, TDD (952) 895-4567.*

BLACK DOG
Watershed Management Organization

# Agenda Background
# November 17, 2021

I. Approval of Agenda

Agenda enclosed.

**Action Requested**: A motion be considered to approve the Agenda.

II. Approval of Minutes from the October 20, 2021 Meeting

Minutes enclosed.

**Action Requested**: A motion be considered to approve the Minutes of the October 20, 2021 meeting.

III. Approval of Accounts Payable

Accounts payable list enclosed.

**Action Requested**: A motion be considered to approve the accounts payable list as submitted by staff.

IV. Review of Budget Performance Reports

Current Budget Performance Reports enclosed.

**Action Requested:** No formal action required

V. Review Draft Revisions to Plan Goals and Policies

Draft policies (excluding "Administration" and "Education and Outreach" sections, which will discussed at a later meeting) are presented in the attached PDF documents. One document presents proposed changes from existing Plan policies in "tracked changes" format. A "clean" version with proposed changed accepted is also provided for clarity. Barr Engineering staff will go over the documents at the meeting.

**Action requested:** Review the revised policies, suggest revisions as needed, and authorize Barr to present the draft policies, as revised, to the technical advisory committee for review and comment.

VI. Miscellaneous

BLACK DOG
Watershed Management Organization

# DRAFT
# Meeting Minutes
# October 20, 2021

**MEMBERS PRESENT**
Mike Hughes, Acting Chair
Scott Thureen, Secretary/Treasurer
Rollie Greeno

**MEMBERS ABSENT**
Curt Enestvedt, Chair
Frank Boyce, Alternate
Tom Harmening
Natalie Walker, Alternate
Greg Helms, Alternate

**OTHERS PRESENT**
Karen Chandler – Barr Engineering
Greg Williams – Barr Engineering
Joel Jamnik, Campbell Knutson
Ann Messerschmidt – City of Lakeville
Curt Coudron – Dakota County Soil and Water Conservation District
Daryl Jacobson – BDWMO Administrator
Vickie Martin – BDWMO Secretary

Mike Hughes, Vice Chair, called the October 20, 2021, meeting to order at 5:00pm.

I. Approval of Agenda

**Motion by** Scott Thureen, second by Rollie Greeno, to approve the October 20, 2021 Agenda as presented.

Ayes – Greeno, Hughes, Thureen,
Nays – None

**Motion Carried Unanimously**

II. Approval of Minutes from the September 15, 2021 Meeting

**Motion by** Scott Thureen, second by Rollie Greeno, to approve the September 15, 2021 Minutes as presented.

Ayes – Greeno, Hughes, Thureen,
Nays – None

**Motion Carried Unanimously**

III. Approval of Accounts Payable

**Motion by** Rollie Greeno, second by Scott Thureen, to approve payments to Barr Engineering in the amount of $14,399.18 for services from August 28, 2021 through October 1, 2021; Campbell Knutson in the amount of $459.00 for services from August 27, 2021 through September 15, 2021; and, to HAB Aquatic Solutions in the amount of $110,658.00 for Alum Treatment for Keller Lake Project #21-902.

Discussion: Barr Engineering memo detailed Alum Treatment. Applied approximately 25,047 gallons of Alum and 12,626 gallons of Sodium Aluminate over approximately 46.30 acres within 2.5 days.

Ayes – Greeno, Hughes, Thureen,
Nays – None

**Motion Carried Unanimously**

IV. Review Budget Performance Reports

Daryl Jacobson, BDWMO Administrator – Member contributions are being collected for 2021. BDWMO Administrator and Barr Engineering will work on grant submittal by year end for partial reimbursement for the Alum Treatment expense.

**No Formal Action Required**

V. Approval of Modifications to BDWMO Monitoring Program

**Motion by** Rollie Greeno, second by Scott Thureen, to approve modifications to the BDWMO monitoring program as presented in the Barr Engineering memo.

Ayes – Greeno, Hughes, Thureen,
Nays – None

**Motion Carried Unanimously**

VI. Miscellaneous

Next meeting will be on November 17, 2021. City of Burnsville won 2021 Outstanding Conservationist Award from The Dakota County Soil and Water Conversation District.

**No Formal Action Required**

VII. Adjournment

**Motion by** Scott Thureen, second by Rollie Greeno, to adjourn at 5:20pm.

Ayes – Greeno, Hughes, Thureen,
Nays – None

**Motion Carried Unanimously**

BLACK DOG
Watershed Management Organization

## Accounts Payable - November 17, 2021 Meeting

**Barr Engineering** - Services from October 2, 2021 through October 29, 2021

| | | |
|---|---|---|
| Engineering | $ | 1,062.50 |
| Special Projects General Fund - Crystal Lake Mgmt Level Monitoring | $ | 425.80 |
| Special Projects Capital Improvement Fund - Keller Lake Alum Treatment | $ | 1,050.00 |
| Special Projects General Fund Reserve - Watershed Mgmt Plan Update | $ | 1,311.00 |
| | **$** | **3,849.30** |

**Campbell Knutson**

| | | |
|---|---|---|
| General Services - 10/07/21 - 10/21/2021 | $ | 204.00 |
| | **$** | **204.00** |

**Dakota County Soil & Water**

| | | |
|---|---|---|
| Website Updates & Maintenance | | 400.00 |
| Website Redesign | | 4,000.00 |
| Landscaping for Clean Water Grants Technical x8 | | 2,000.00 |
| Technicial Assistance x8 | | 4,000.00 |
| | **$** | **10,400.00** |

**Accounts Payable Total $ 14,453.30**

resourceful. naturally.
engineering and environmental consultants

BARR

November 9, 2021

Black Dog Watershed Management Commission
City of Burnsville
13713 Frontier Court
Burnsville, MN 55337-4720

Attn: Mr. Daryl Jacobson

**RE: Engineering & Environmental Consulting Services**

**Invoice of Account with**
**BARR ENGINEERING COMPANY**

For professional services during the period of October 2, 2021 through October 29, 2021

| | |
|---|---|
| **TOTAL PAYABLE THIS INVOICE:** | **$ 3,849.30** |
| **Allocation:** | |
| **Engineering** | **$ 1,062.50** |
| **Special Projects: General Fund** | |
| • **Crystal Lk Monitoring** | **$ 425.80** |
| **Special Projects: Capital Improvement Fund** | |
| • **Keller Lk Alum Treatment** | **$ 1,050.00** |
| **Special Projects: General Fund Reserve** | |
| • **Watershed Management Update** | **$ 1,311.00** |

Barr declares under the penalties of law that this account, claim, or demand is just and that no part of it has been paid.

Karen L. Chandler

Karen L. Chandler
Vice President

BUDGET SUMMARY - 2021 FY
Black Dog Watershed Management Commission
through October 29, 2021

| Work Description | Pre-2021 Costs | Barr Budget | | | Current Invoice | Spent This Year | Balance |
|---|---|---|---|---|---|---|---|
| | | Brought Forward | Current Year | Total Barr Budget | | | |
| Engineering | ----- | 0.00 | 31,000.00 | 31,000.00 | 1,062.50 | 20,338.06 | 10,661.94 |
| Special Projects: General Fund | | | | | | | |
| *Reporting on Orchard Lk 2020 Water Quality Monitoring* | ----- | 0.00 | 4,500.00 | 4,500.00 | 0.00 | 4,126.00 | 374.00 |
| *Crystal Lake 2021 Mgmt Level Monitoring* | | | 18,800.00 | 18,800.00 | 425.80 | 13,459.56 | 5,340.44 |
| Subtotal -- Special Projects: General Fund | ----- | 0.00 | 23,300.00 | 23,300.00 | 425.80 | 17,585.56 | 5,714.44 |
| Special Projects: Capital Improvement Fund | | | | | | | |
| *Keller Lake Alum Treatment* [1] | | | 17,000.00 | 17,000.00 | 1,050.00 | 14,413.50 | 2,586.50 |
| Subtotal -- Special Projects: Capital Improvement Fund | ----- | 0.00 | 17,000.00 | 17,000.00 | 1,050.00 | 14,413.50 | 2,586.50 |
| Special Projects: General Fund Reserve | | | | | | | |
| *Watershed Management Plan Update* [2] | 10,905.00 | | 70,000.00 | 70,000.00 | 1,311.00 | 24,479.50 | 45,520.50 |
| Subtotal -- Special Projects: General Fund Reserve | ----- | 0.00 | 70,000.00 | 70,000.00 | 1,311.00 | 24,479.50 | 45,520.50 |
| Water Quality Monitoring | | | | | | | |
| *Reporting on 2020 Keller Lake Habitat Monitoring* | ----- | 0.00 | 8,000.00 | 8,000.00 | 0.00 | 7,983.50 | 16.50 |
| *2021 Kingsley Lake Habitat Monitoring* | | 0.00 | 3,300.00 | 3,300.00 | 0.00 | 3,696.14 | (396.14) |
| *Update Trend Analyses* | ----- | 0.00 | 2,000.00 | 2,000.00 | 0.00 | 2,000.00 | 0.00 |
| Subtotal -- W.Q. Monitoring | ----- | 0.00 | 13,300.00 | 13,300.00 | 0.00 | 13,679.64 | (379.64) |
| Public Education | | | | | | | |
| *Watershed Annual Report* | ----- | 0.00 | 4,300.00 | 4,300.00 | 0.00 | 3,519.00 | 781.00 |
| *Annual Activity Report (BWSR)* | ----- | 0.00 | 2,000.00 | 2,000.00 | 0.00 | 1,461.50 | 538.50 |
| Subtotal -- Public Education | ----- | 0.00 | 6,300.00 | 6,300.00 | 0.00 | 4,980.50 | 1,319.50 |
| Total Services | ----- | 0.00 | 160,900.00 | 160,900.00 | 3,849.30 | 95,476.76 | 65,423.24 |

Notes:

[1] Keller Lake Alum Treatment 2021 budget increased from $10,000 to $17,000, per authorization at 9/15/2021 meeting

[2] Plan Update budget=$98,200 ($97,000 authorized at 11/18/2020 meeting, additional $1,200 authorized at 1/20/2021 meeting), including $10,000 budgeted in 2020

# INVOICE

**Barr Engineering Co.**
**4300 MarketPointe Drive, Suite 200**
**Minneapolis, MN 55435**
**Phone: 952-832-2600; Fax: 952-832-2601**
**FEIN #: 41-0905995 Inc: 1966**

Mr. Daryl Jacobson
Black Dog WMO
City of Burnsville
13713 Frontier Court
Burnsville, MN 55337-4720

November 9, 2021
Invoice No: 23190374.21 - 10

**Total this Invoice $1,062.50**

**Regarding: BDWMO 2021 Engineering Services**

**Professional Services from October 2, 2021 to October 29, 2021**

Job: 2021 Engineering Services

Task: 001 Attend BDWMO Meetings

**Labor Charges**

| | | Hours | Rate | Amount | |
|---|---|---|---|---|---|
| Principal | | | | | |
| Chandler, Karen | | 1.40 | 185.00 | 259.00 | |
| Engineer / Scientist / Specialist III | | | | | |
| Williams, Sterling | | 1.50 | 150.00 | 225.00 | |
| | | 2.90 | | 484.00 | |
| **Subtotal Labor** | | | | | **484.00** |

**Expense Charges**

| | | | | |
|---|---|---|---|---|
| Travel | | | | |
| 10/20/2021 | Chandler, Karen | Mileage | 14.00 | |
| **Subtotal Expenses** | | | | **14.00** |
| | | **Task Subtotal** | | **$498.00** |

Task: 002 Miscellaneous Consulting

**Labor Charges**

| | | Hours | Rate | Amount | |
|---|---|---|---|---|---|
| Principal | | | | | |
| Chandler, Karen | | 1.70 | 185.00 | 314.50 | |
| Support Personnel II | | | | | |
| Nypan, Nyssa | | 2.50 | 100.00 | 250.00 | |
| | | 4.20 | | 564.50 | |
| **Subtotal Labor** | | | | | **564.50** |
| | | | **Task Subtotal** | | **$564.50** |
| | | | **Job Subtotal** | | **$1,062.50** |
| | | | **Total this Invoice** | | **$1,062.50** |

| | Current | Prior | Total | Received | A/R Balance |
|---|---|---|---|---|---|
| **Invoiced to Date** | **1,062.50** | **24,256.06** | **25,318.56** | **24,256.06** | **1,062.50** |

Thank you in advance for the prompt processing of this invoice. If you have any questions, please contact Karen Chandler, your Barr project manager, at (952) 832-2813 or email at kchandler@barr.com.

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.
Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

# INVOICE

**Barr Engineering Co.**
**4300 MarketPointe Drive, Suite 200**
**Minneapolis, MN 55435**
**Phone: 952-832-2600; Fax: 952-832-2601**
**FEIN #: 41-0905995 Inc: 1966**

Mr. Daryl Jacobson
Black Dog WMO
City of Burnsville
13713 Frontier Court
Burnsville, MN 55337-4720

November 9, 2021
Invoice No: 23190375.21 - 10

**Total this Invoice $425.80**

**Regarding: Management Level Water Quality Monitoring**

**Professional Services from October 2, 2021 to October 29, 2021**

Job: CRY Crystal Lk 2021 Water Quality Monitoring

Task: 100 Monitoring Data Mgmt & Proj Mgmt

**Labor Charges**

| | Hours | Rate | Amount | |
|---|---|---|---|---|
| Engineer / Scientist / Specialist III | | | | |
| Olson, Terri | .10 | 150.00 | 15.00 | |
| Technician I | | | | |
| Schneider, Anna | 1.50 | 75.00 | 112.50 | |
| Support Personnel II | | | | |
| Treanor, Margaret | .70 | 115.00 | 80.50 | |
| | 2.30 | | 208.00 | |
| **Subtotal Labor** | | | | **208.00** |

**Subconsultant Charges**

| | | | |
|---|---|---|---|
| Subconsultants | | | |
| 10/6/2021 | Pace Analytical Services Inc | 217.80 | |
| **Subtotal Subconsultant** | | | **217.80** |
| | **Task Subtotal** | | **$425.80** |
| | **Job Subtotal** | | **$425.80** |
| | **Total this Invoice** | | **$425.80** |

| | Current | Prior | Total | Received | A/R Balance |
|---|---|---|---|---|---|
| **Invoiced to Date** | **425.80** | **17,159.76** | **17,585.56** | **17,159.76** | **425.80** |

Thank you in advance for the prompt processing of this invoice. If you have any questions, please contact Kevin Menken, your Barr project manager, at (952) 832-2794 or email at kmenken@barr.com.

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.
Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

# INVOICE

**Barr Engineering Co.**
**4300 MarketPointe Drive, Suite 200**
**Minneapolis, MN 55435**
**Phone: 952-832-2600; Fax: 952-832-2601**
**FEIN #: 41-0905995 Inc: 1966**

Mr. Daryl Jacobson
Black Dog WMO
City of Burnsville
13713 Frontier Court
Burnsville, MN 55337-4720

November 9, 2021
Invoice No: 23190375.98 - 22

**Total this Invoice $1,050.00**

**Regarding: Keller Lake Alum Treatment**

**Professional Services from October 2, 2021 to October 29, 2021**

Job: 002 Feasibility & implementation planning

Task: 007 Admin/permitting/oversight

**Labor Charges**

| | Hours | Rate | Amount | |
|---|---|---|---|---|
| Engineer / Scientist / Specialist IV | | | | |
| Wilson, Gregory | 5.50 | 175.00 | 962.50 | |
| | 5.50 | | 962.50 | |
| **Subtotal Labor** | | | | **962.50** |
| | | | **Task Subtotal** | **$962.50** |
| | | | **Job Subtotal** | **$962.50** |

Job: 003 BWSR Contract Administration

Task: 001 BWSR Contract Administration

**Labor Charges**

| | Hours | Rate | Amount | |
|---|---|---|---|---|
| Engineer / Scientist / Specialist IV | | | | |
| Wilson, Gregory | .50 | 175.00 | 87.50 | |
| | .50 | | 87.50 | |
| **Subtotal Labor** | | | | **87.50** |
| | | | **Task Subtotal** | **$87.50** |
| | | | **Job Subtotal** | **$87.50** |
| | | | **Total this Invoice** | **$1,050.00** |

| | Current | Prior | Total | Received | A/R Balance |
|---|---|---|---|---|---|
| **Invoiced to Date** | **1,050.00** | **51,046.97** | **52,096.97** | **51,046.97** | **1,050.00** |

Thank you in advance for the prompt processing of this invoice. If you have any questions, please contact Greg Wilson, your Barr project manager, at (952) 832-2672 or email at gwilson@barr.com.

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.
Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

# INVOICE

**Barr Engineering Co.**
**4300 MarketPointe Drive, Suite 200**
**Minneapolis, MN 55435**
**Phone: 952-832-2600; Fax: 952-832-2601**
**FEIN #: 41-0905995 Inc: 1966**

Mr. Daryl Jacobson
Black Dog WMO
City of Burnsville
13713 Frontier Court
Burnsville, MN 55337-4720

November 4, 2021
Invoice No: 23191455.00 - 11

**Total this Invoice $1,311.00**

**Regarding: BDWMO 2022 Watershed Management Plan**

**Professional Services from October 2, 2021 to October 29, 2021**

Job: 100 Stakeholder Engagement

Task: 004 TAC meetings

**Labor Charges**

| | Hours | Rate | Amount |
|---|---|---|---|
| Principal | | | |
| Chandler, Karen | 3.10 | 185.00 | 573.50 |
| Engineer / Scientist / Specialist III | | | |
| Williams, Sterling | 3.50 | 150.00 | 525.00 |
| | 6.60 | | 1,098.50 |

**Subtotal Labor** **1,098.50**

**Task Subtotal** **$1,098.50**

**Job Subtotal** **$1,098.50**

Job: 200 Draft Plan Development

Task: 002 Issues and Goals

**Labor Charges**

| | Hours | Rate | Amount |
|---|---|---|---|
| Principal | | | |
| Chandler, Karen | .50 | 185.00 | 92.50 |
| Engineer / Scientist / Specialist III | | | |
| Williams, Sterling | .80 | 150.00 | 120.00 |
| | 1.30 | | 212.50 |

**Subtotal Labor** **212.50**

**Task Subtotal** **$212.50**

**Job Subtotal** **$212.50**

**Total this Invoice** **$1,311.00**

| | Current | Prior | Total | Received | A/R Balance |
|---|---|---|---|---|---|
| **Invoiced to Date** | **1,311.00** | **24,102.50** | **25,413.50** | **24,102.50** | **1,311.00** |

Thank you in advance for the prompt processing of this invoice. If you have any questions, please contact Greg Williams, your Barr project manager, at (952) 832-2945 or email at gwilliams@barr.com.

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.
Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT

# Invoice

**Dakota County Soil & Water Conservation District**

**4100 220th Street West, Ste 102**
**651-480-7777**
**Farmington, MN 55024**

| DATE | INVOICE # |
|---|---|
| 10/28/2021 | 3130 |

BILL TO

Black Dog WMO
Daryl Jacobson, Administrator
13713 Frontier Court
Burnsville, MN 55337

| Reference | TERMS |
|---|---|
| | |

| ITEM CODE | DESCRIPTION | HOURS | RATE | AMOUNT |
|---|---|---|---|---|
| | July - September - 2021 | | | |
| Black Dog | Website Updates and Maintenance | 5 | 80.00 | 400.00 |
| Black Dog | Website Redesign | | 4,000.00 | 4,000.00 |
| Black Dog | Landscaping for Clean Water Grants<br>Abramson, Henningson, Dillman, Cleveland, Jones, Spaulding, Field, Batz | 8 | 250.00 | 2,000.00 |
| Black Dog | Landscaping for Clean Water Grants Technical Assistance<br>Abramson, Henningson, Dillman, Cleveland, Jones, Spaulding, Field, Batz | 8 | 500.00 | 4,000.00 |

OK
Doug Jacobson
11-2-21

Thank you.

**Total** **$10,400.00**

PROJECT FACTSHEET

# ABRAMSON RESIDENTIAL RAINGARDEN

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT



A raingarden is a shallow depression that captures rainwater, removes pollutants, and soaks the water into the ground.

**PROJECT:** Installation of a 110 square foot residential raingarden.

**COST:** Project materials cost estimated at $1,668

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**
Dana Drive
Burnsville

**PRACTICE:**

- Raingarden

**BENEFITS:**

- Runoff volume reduction
- Improved water quality
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 7/7/2021

PROJECT FACTSHEET

# HENNINGSON
# RESIDENTIAL NATIVE PLANTING

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT


A native planting, also called natural landscaping, uses plants, trees and grasses that are suitable for growth in a particular geographical area


**PROJECT:** Installation of a 500 sq. ft. residential native garden.

**COST:** Project materials cost estimated at $2,360

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**

Kenosha Ave
Burnsville

**PRACTICE:**

- Native Planting

**BENEFITS:**

- Runoff volume reduction
- Slope stabilization
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

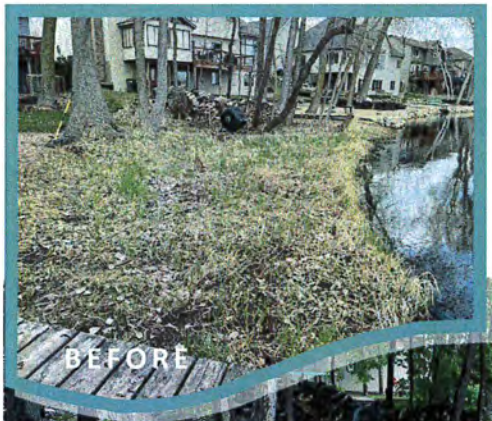
- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 7/7/2021

PROJECT FACTSHEET

# DILLMAN
# NATIVE SHORELINE PLANTING

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT





A native shoreline planting is the use of native vegetation to protect a shoreline from existing or potential erosion.

**PROJECT:** Installation of a 620 square foot Native Shoreline Planting

**COST:** Project materials cost estimated at $1,096

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**

Keller Lake Road
Burnsville

**PRACTICE:**

- Native Shoreline Planting

**BENEFITS:**

- Shoreline stabilization and erosion reduction
- Improved water quality
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 7/7/2021

PROJECT FACTSHEET

# CLEVELAND RESIDENTIAL RAINGARDEN

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT


A raingarden is a shallow depression that captures rainwater, removes pollutants, and soaks the water into the ground.


**PROJECT:** Installation of a 500 square foot residential raingarden.

**COST:** Project materials cost estimated at $2,175.00

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**
Crystal Lake Rd E
Burnsville

**PRACTICE:**

- Raingarden

**BENEFITS:**

- Runoff volume reduction
- Improved water quality
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 8/2/2021

PROJECT FACTSHEET

# JONES

# RESIDENTIAL NATIVE GARDEN

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT



A native garden, also called natural landscaping, uses plants, trees and grasses that are suitable for growth in a particular geographical area

**PROJECT:** Installation of a 150 sq. ft. residential native garden.

**COST:** Project materials cost estimated at $588

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**

Big Oak Drive
Burnsville

**PRACTICE:**

- Native Garden

**BENEFITS:**

- Runoff volume reduction
- Slope stabilization
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 8/2/2021

PROJECT FACTSHEET

# SPAULDING RESIDENTIAL RAINGARDEN

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT



A raingarden is a shallow depression that captures rainwater, removes pollutants, and soaks the water into the ground.

**PROJECT:** Installation of a 650 square foot residential raingarden.

**COST:** Project materials cost estimated at $2,214.00

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**
Keating Court
Burnsville

**PRACTICE:**

- Raingarden

**BENEFITS:**

- Runoff volume reduction
- Improved water quality
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 8/2/2021

PROJECT FACTSHEET

# FIELD

# RESIDENTIAL NATIVE GARDEN

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT



A native garden, also called natural landscaping, uses plants, trees and grasses that are suitable for growth in a particular geographical area

**PROJECT:** Installation of a 100 sq. ft. residential native garden.

**COST:** Project materials cost estimated at $293

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**

Ravoux Ave
Burnsville

**PRACTICE:**

- Native Garden

**BENEFITS:**

- Runoff volume reduction
- Slope stabilization
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

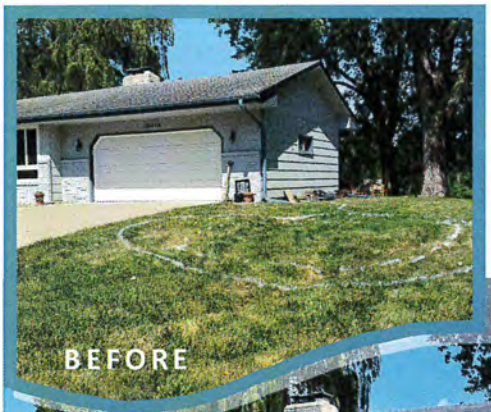
4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 9/7/2021

PROJECT FACTSHEET

# BATZ

# RESIDENTIAL RAINGARDEN

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT





A raingarden is a shallow depression that captures rainwater, removes pollutants, and soaks the water into the ground.

**PROJECT:** Installation of a 250 sq. ft. residential raingarden.

**COST:** Project materials cost estimated at $961

**FUNDING:** Landowners receive a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District

Black Dog
*Watershed Management Organization*

**LOCATION:**
Birchwood Lane
Burnsville

**PRACTICE:**

- Raingarden

**BENEFITS:**

- Runoff volume reduction
- Improved water quality
- Improved wildlife habitat
- Opportunity for public education and outreach
- Improved aesthetics

**PARTNERS:**

- Black Dog Watershed Management Organization

**WATERSHED:**

- Black Dog

**INSTALLATION:**

- Summer 2021

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org Revised: 9/7/2021

**CAMPBELL KNUTSON**
***Professional Association***
**Attorneys at Law**
**Federal Tax I.D. #41-1562130**
**Grand Oak Office Center I**
**860 Blue Gentian Road, Suite 290**
**Eagan, Minnesota 55121**
**(651) 452-5000**


October 31, 2021
Account # 602-0000G
368

Black Dog Watershed Management Organization
Attention: Daryl Jacobson
City of Burnsville
100 Civic Center Parkway
Burnsville MN 55337-3817

RE: GENERAL SERVICES
RENDERED TO DATE:

| | | | HOURS | |
|---|---|---|---|---|
| 10/07/2021 | JJJ | Review agenda. | 0.20 | 34.00 |
| 10/20/2021 | JJJ | Review agenda materials. | 0.30 | 51.00 |
| | JJJ | Board meeting and follow-ups. | 0.70 | 119.00 |
| | | AMOUNT DUE | 1.20 | 204.00 |
| | | TOTAL CURRENT WORK | | 204.00 |
| | | PREVIOUS BALANCE | | $459.00 |
| 10/21/2021 | | Payment - thank you | | -459.00 |
| | | TOTAL AMOUNT DUE | | $204.00 |

11-10-21

Amounts due over 30 days will be subject to a finance charge of .5% per month (or an annual rate of 6%). Minimum charge - 50 cents.

**BLACK DOG WMO**
**CASH ACTIVITY REPORT 2021**

| Date | Description | Deposits | Check # | Check Amount | Monthly Cash Balance | Expenditures: General Engineering Support | Special Projects (General) | Special Projects (Capital) | Special Projects (Gen. Reserve) | Insurance | Legal & Audit | Admin Support | Public Education | Water Quality Monitoring | Conf Public | Contin-gency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Balance as of 12/31/20** | | | | **572,983.92** | | | | | | | | | | | |
| 20-Jan | Barr Engineering Co (2020) | | 1745 | 4,253.50 | | 2,637.50 | 1,508.00 | - | - | | | | | 108.00 | | |
| 20-Jan | Campbell Knutson (2020) | | 1746 | 85.00 | | | | | | | 85.00 | | | | | |
| 20-Jan | Met Council - Environ Services (2020) | | 1747 | 3,040.00 | | | | | | | | | | 3,040.00 | | |
| 31-Jan | Interest Income | 9.67 | | | | | | | | | | | | | | |
| | **01/31/20 Balance** | 9.67 | | 7,378.50 | **565,615.09** | 2,637.50 | 1,508.00 | - | - | - | 85.00 | - | - | 3,148.00 | - | - |
| 17-Feb | Barr Engineering Co | | 1748 | 5,732.00 | | 2,284.00 | 89.50 | 1,155.00 | 1,186.00 | | | | - | 1,017.50 | | |
| 17-Feb | Campbell Knutson | | 1749 | 340.00 | | | | | | | 340.00 | | | | | |
| 17-Feb | City of Burnsville (2020) | | 1750 | 19,101.21 | | | | | | | | 19,101.21 | | | | |
| 17-Feb | Dakota County Soil & Water (2020) | | 1751 | 2,765.00 | | | 2,250.00 | - | - | | | | 515.00 | | | |
| 28-Feb | Interest Income | 8.72 | | | | | | | | | | | | | | |
| | **02/28/20 Balance** | 8.72 | | 27,938.21 | **537,685.60** | 2,284.00 | 2,339.50 | 1,155.00 | 1,186.00 | - | 340.00 | 19,101.21 | 515.00 | 1,017.50 | - | - |
| 17-Mar | Barr Engineering | | 1752 | 11,973.00 | | 1,912.00 | 2,084.00 | 525.00 | 1,232.00 | | - | | 483.50 | 5,736.50 | | |
| 31-Mar | Interest Income | 8.17 | | | | | | | | | | | | | | |
| | **03/31/20 Balance** | 8.17 | | 11,973.00 | **525,720.77** | 1,912.00 | 2,084.00 | 525.00 | 1,232.00 | - | - | - | 483.50 | 5,736.50 | - | - |
| 21-Apr | Barr Engineering | | 1753 | 15,238.00 | | 3,632.50 | 2,141.50 | 350.00 | 2,736.00 | | | | 3,461.00 | 2,917.00 | | |
| 21-Apr | Campbell Knutson | | 1754 | 391.00 | | | | | | | 391.00 | | | | | |
| 30-Apr | Interest Income | 4.22 | | | | | | | | | | | | | | |
| | **04/30/20 Balance** | 4.22 | | 15,629.00 | **510,095.99** | 3,632.50 | 2,141.50 | 350.00 | 2,736.00 | - | 391.00 | - | 3,461.00 | 2,917.00 | - | - |
| 19-May | Barr Engineering | | 1755 | 7,563.04 | | 1,296.00 | 854.54 | - | 4,212.00 | | | | 888.00 | 312.50 | | |
| 19-May | Dakota County Soil & Water Conservation | | 1756 | 680.00 | | - | - | - | - | | | | 680.00 | - | | |
| 31-May | Interest Income | 4.35 | | | | | | | | | | | | | | |
| | **05/31/20 Balance** | 4.35 | | 8,243.04 | **501,857.30** | 1,296.00 | 854.54 | - | 4,212.00 | - | - | - | 1,568.00 | 312.50 | - | - |
| 16-Jun | Barr Engineering | | 1757 | 5,997.32 | | 2,564.50 | 1,830.82 | - | 1,085.00 | | | | 148.00 | 369.00 | | |
| 16-Jun | Campbell Knutson | | 1758 | 238.00 | | | | | | | 238.00 | | | | | |
| 30-Jun | Interest Income | 4.21 | | | | | | | | | | | | | | |
| | **06/30/20 Balance** | 4.21 | | 6,235.32 | **495,626.19** | 2,564.50 | 1,830.82 | - | 1,085.00 | - | 238.00 | - | 148.00 | 369.00 | - | - |
| 21-Jul | Barr Engineering | | 1759 | 9,460.56 | | 1,199.50 | 2,118.90 | - | 4,519.00 | | | | - | 1,623.16 | | |
| 21-Jul | Campbell Knutson | | 1760 | 425.00 | | | | | | | 425.00 | | | | | |
| 31-Jul | Interest Income | 4.31 | | | | | | | | | | | | | | |
| | **07/31/20 Balance** | 4.31 | | 9,885.56 | **485,744.94** | 1,199.50 | 2,118.90 | - | 4,519.00 | - | 425.00 | - | - | 1,623.16 | - | - |
| 18-Aug | Barr Engineering | | 1761 | 10,009.02 | | 1,777.50 | 3,111.04 | 1,330.00 | 2,086.50 | | | | | 1,703.98 | | |
| 18-Aug | Dakota County Soil & Water Conserv Dist | | 1762 | 10,830.00 | | | 750.00 | | - | | | | 10,080.00 | | | |
| 31-Aug | Interest Income | 4.03 | | | | | | | | | | | | | | |
| | **08/31/20 Balance** | 4.03 | | 20,839.02 | **464,909.95** | 1,777.50 | 3,861.04 | 1,330.00 | 2,086.50 | - | - | - | 10,080.00 | 1,703.98 | - | - |

**BLACK DOG WMO**
**CASH ACTIVITY REPORT 2021**

| Date | Description | Deposits | | Check # | Check Amount | Monthly Cash Balance | Expenditures: General Engineering Support | Special Projects (General) | Special Projects (Capital) | Special Projects (Gen. Reserve) | Insurance | Legal & Audit | Admin Support | Public Education | Water Quality Monitoring | Conf Public | Contin-gency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15-Sep | Barr Engineering | | | 1763 | 11,255.34 | | 2,310.94 | 2,252.40 | 3,171.50 | 3,520.50 | | | | - | - | | |
| 15-Sep | League of MN Cities Insurance Trust | | | 1764 | 2,701.00 | | | | | | 2,701.00 | | | | | | |
| 9-Sep | City of Lakeville | 30,101.00 | | | | | | | | | | | | | | | |
| 28-Sep | City of Apple Valley | 12,262.00 | | | | | | | | | | | | | | | |
| 28-Sep | City of Eagan | 580.00 | | | | | | | | | | | | | | | |
| 30-Sep | Interest Income | 4.02 | | | | | | | | | | | | | | | |
| | **09/30/20 Balance** | 42,947.02 | | | 13,956.34 | **493,900.63** | 2,310.94 | 2,252.40 | 3,171.50 | 3,520.50 | 2,701.00 | - | - | - | - | - | - |
| 20-Oct | Barr Engineering | | | 1765 | 14,399.18 | | 2,298.62 | 2,677.06 | 6,832.00 | 2,591.50 | | | | | - | | |
| 20-Oct | Campbell Knutson | | | 1766 | 459.00 | | | | | | | 459.00 | | | | | |
| 20-Oct | HAB Aquatic Solutions | | | 1767 | 110,658.00 | | - | | 110,658.00 | | | | | | | - | |
| 30-Oct | City of Burnsville | 110,057.00 | | | | | | | | | | | | | | | |
| 31-Oct | Interest Income | 4.96 | | | | | | | | | | | | | | | |
| | **10/31/20 Balance** | 110,061.96 | | | 125,516.18 | **478,446.41** | 2,298.62 | 2,677.06 | 117,490.00 | 2,591.50 | - | 459.00 | - | - | - | - | - |
| | **Total Revenue** | 153,056.66 | **Total Expense** | | 247,594.17 | | 21,913.06 | 21,667.76 | 124,021.50 | 23,168.50 | 2,701.00 | 1,938.00 | 19,101.21 | 16,255.50 | 16,827.64 | - | - |
| | **Less: 2020 A/R** | - | **Less: 2020 A/P** | | (29,244.71) | | (2,637.50) | (3,758.00) | - | - | - | (85.00) | (19,101.21) | (515.00) | (3,148.00) | - | - |
| | **Total YTD 2020 Revenue** | 153,056.66 | **Total YTD 2021 Exp** | | 218,349.46 | | 19,275.56 | 17,909.76 | 124,021.50 | 23,168.50 | 2,701.00 | 1,853.00 | - | 15,740.50 | 13,679.64 | - | - |
| | | | **2021 Budget** | | 214,500.00 | | 31,000.00 | 36,800.00 | 10,000.00 | 70,000.00 | 3,000.00 | 5,000.00 | 18,000.00 | 18,100.00 | 17,100.00 | 500.00 | 5,000.00 |
| | | | **Budget Remaining** | | (3,849.00) | | 11,724.00 | 18,890.24 | (114,021.50) | 46,831.50 | 299.00 | 3,147.00 | 18,000.00 | 2,359.50 | 3,420.36 | 500.00 | 5,000.00 |

# BLACK DOG WATER MANAGEMENT COMMISSION

**Budget Performance Report**
**October 31, 2021**

| | CURRENT MONTH | YEAR TO DATE | | | |
|---|---|---|---|---|---|
| | ACTUAL | GENERAL FUND BUDGET | CAPITAL IMPROVEMENT FUND BUDGET | ACTUAL | VARIANCE FAVORABLE (UNFAVORABLE) |
| **Opening Fund Balance** | | $ 421,605 | $ 122,135 | $ 543,739 | |
| **REVENUES :** | | | | | |
| **Member Contributions:** | | | | | |
| City of Apple Valley | $ - | $ 10,489 | $ 1,773 | $ 12,262 | $ - |
| City of Burnsville | 110,057 | 93,924 | 16,133 | 110,057 | - |
| City of Eagan | - | 580 | - | 580 | - |
| City of Lakeville | - | 26,007 | 4,094 | 30,101 | - |
| Total Member Contributions | 110,057 | 131,000 | 22,000 | 153,000 | - |
| **Other Revenues:** | | | | | |
| Interest | $ 5 | $ 40 | $ - | $ 57 | $ 17 |
| Grant (State of MN BWSR) | - | - | - | - | - |
| Total Other Revenue | 5 | 40 | - | 57 | 17 |
| **Total Revenues** | $ 110,062 | $ 131,040 | $ 22,000 | $ 153,057 | $ 17 |
| **EXPENDITURES :** | | | | | |
| General Engineering Support | $ 2,299 | $ 31,000 | $ - | $ 19,276 | $ 11,724 |
| Special Projects - General Fund | 2,677 | 36,800 | - | 17,910 | 18,890 |
| Special Projects - Capital Improvement Fund | 117,490 | - | 10,000 | 124,022 | (114,022) |
| Special Projects - General Fund Reserve | 2,592 | 70,000 | - | 23,169 | 46,832 |
| Insurance | - | 3,000 | - | 2,701 | 299 |
| Legal and Audit | 459 | 5,000 | - | 1,853 | 3,147 |
| Administrative Support | - | 18,000 | - | - | 18,000 |
| Public Education | - | 18,100 | - | 15,741 | 2,360 |
| Water Quality Monitoring | - | 17,100 | - | 13,680 | 3,420 |
| Conference/Publications | - | 500 | - | - | 500 |
| Contingency | - | 5,000 | - | - | 5,000 |
| **Total Expenditures** | 125,516 | 204,500 | 10,000 | 218,349 | (3,849) |
| EXCESS OF REVENUES OVER (UNDER) EXPENDITURES | (15,454) | (73,460) | 12,000 | (65,293) | |
| EXCESS OF REVENUES OVER (UNDER) EXPENDITURES PLUS OPENING FUND BALANCE | | | | 478,446 | |
| TOTAL CASH AVAILABLE 10/31/2021 | 478,446 | | | | |
| **Fund Balance 10/31/2021** | $ 478,446 | | | | |

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
- Proposed edits to policies are shown with changes accepted for clarity; a "tracked changes" copy will also be provided
- *Italic with yellow highlight* indicates a note for Commissioners/staff/TAC consideration

# 4.0 Goals and Policies – Clean Version

This section sets goals and policies that reflect the mission of the BDWMO and the vision for its water resources. The section also sets goals for specific waterbodies, managing stormwater runoff, controlling erosion, preserving wetlands, enhancing wildlife habitat and recreational opportunities, education and public involvement, performance evaluation, and financing of the implementation program. The goals are followed by policies that provide specific methods of achieving the goals and serve as decision making guidelines.

## 4.1 WATER QUALITY

### 4.1.1 Goals

- Maintain or improve water quality in BDWMO strategic waterbodies to meet applicable state standards, including:
    - Keller Lake - achieve applicable state water quality standards (summer average of 60 ug/L total phosphorus and 1.0 m Secchi disc transparency)
    - Crystal Lake – *TBD based on existing WQ data*
    - Kingsley Lake – *TBD based on existing WQ data*
    - Lac Lavon – *TBD based on existing WQ data*
    - Orchard Lake – *TBD based on existing WQ data*
- Cooperate with member cities to achieve stormwater sediment loading goals consistent with member city MS4 permits to protect and improve local water resources and the Minnesota River.
- Cooperate with member cities to achieve stormwater phosphorus loading goals consistent with member city MS4 permits to protect and improve local water resources and the Minnesota River.
- Work with member cities to reduce chloride loading relative to current conditions through practices consistent with the Twin Cities Metropolitan Area Chloride Management Plan (MPCA, 2016).

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
- Proposed edits to policies are shown with changes accepted for clarity; a "tracked changes" copy will also be provided
- *Italic with yellow highlight* indicates a note for Commissioners/staff/TAC consideration

### 4.1.2 Policies

1. The BDWMO and member cities will cooperate to manage strategic waterbodies. The BDWMO identified and will maintain a list of "strategic waterbodies." The BDWMO defined strategic waterbodies as those meeting specific criteria (see Section 1.9 and Table 1-6). As of the development of this Plan, BDWMO strategic waterbodies include:

    a. Crystal Lake,

    b. Orchard Lake,

    c. Keller Lake,

    d. Kingsley Lake, and

    e. Lac Lavon.

2. All waterbodies in the BDWMO will be classified and managed according to either the BDWMO waterbody classification system or the city's wetland classification system (see member city management plans). The BDWMO will classify strategic waterbodies; member cities will classify all other waterbodies. The BDWMO waterbody classification is described in Section 1.9.1 and Table 1-7 and includes the following classifications:

    **Category I –** these water bodies support swimming and other direct contact recreational activities. These waterbodies have the highest/best water quality and are usually the most popular water bodies with the public.

    **Category II –** these water bodies support indirect recreational activities (e.g., boating and fishing). These waterbodies have poorer water quality than Category I waterbodies, but are still popular with the public.

    **Category III –** these water bodies provide wildlife habitat, aesthetic enjoyment, and possibly warm-water fishing.These waterbodies may have poorer water quality than Category I and II waterbodies and typically are not viewed as swimmable

    **Category IV –** water bodies in this category are typically water quality ponds used as nutrient and sediment traps to reduce downstream loading of sediment and/or phosphorus and other nutrients that contribute to degradation of water quality.

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
- Proposed edits to policies are shown with changes accepted for clarity; a "tracked changes" copy will also be provided
- *Italic with yellow highlight* indicates a note for Commissioners/staff/TAC consideration

3. The BDWMO will cooperate with the affected communities and the MPCA in developing TMDLs and associated implementation plans for impaired water bodies within the BDWMO, as needed. BDWMO roles may include financial support, technical assistance, developing the TMDL and/or implementation plan, and other appropriate activities.

4. At least biennially, the BDWMO will discuss water quality issues in the Credit River watershed downstream of the BDWMO with the Scott WMO.

5. The BDWMO will monitor the water quality, algal community, and aquatic vegetation of its strategic waterbodies per the scope and schedule described in Section XX of this Plan *(reference to implementation section)*, as amended. The BDWMO will prepare a report summarizing the results of the previous year's monitoring; the report will include available data regarding other biological indicators, such as fisheries. The BDWMO will post these reports on its website. The BDWMO will make monitoring data publicly available and provide data to the MPCA. *Description of monitoring program will be moved to a subsection of the implementation section or an appendix.*

6. The BDWMO will assess BDWMO and publicly available (e.g., CAMP monitoring) to calculate and annually assess water quality trends for strategic water bodies. When statistically significant trends (see Section X) are identified, the BDWMO will coordinate with member cities to identify appropriate follow-up actions, if needed.

7. The BDWMO may recommend actions or projects for strategic waterbodies, as necessary, following the identification of impairment(s) or statistically significant degrading trends in water quality. These projects will be included or added to the BDWMO CIP. Member cities will perform actions or projects recommended by the BDWMO. If a city does not include a recommended action or project for a strategic resource in its CIP within 18 months, the BDWMO may undertake the recommended action or project. In this situation, the BDWMO will assess the project costs back to the affected member cities, in accordance with the joint powers agreement. In accordance with the joint powers agreement, any member city may appeal cost allocation decisions made by the BDWMO.

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
- Proposed edits to policies are shown with changes accepted for clarity; a "tracked changes" copy will also be provided
- *Italic with yellow highlight* indicates a note for Commissioners/staff/TAC consideration

8. The BDWMO will limit its water quality management roles not explicitly defined in this Plan and associated implementation schedule to those involving intercommunity watersheds, or those requested by the affected member cities. *Consider moving this policy as an addition to policy #9 regarding management activities for strategic waterbodies.*

9. The BDWMO will continue to cooperate with the member cities and other partners, as appropriate, to implement projects to address water quality issues in strategic waterbodies. BDWMO involvement may include assisting in allocating project costs among the member cities, technical assistance/review, public engagement, seeking and managing grants, and other roles, as appropriate.

10. Member cities (or other MS4s) shall be responsible for the implementation of BMPs that will help achieve the wasteload allocations required by TMDLs. The BDWMO will fund and implement internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (see also Section 4.7.4, Policy 8 *– reference to be updated*).

11. The BDWMO will partner with the Dakota County SWCD or other organizations to sponsor and implement small-scale water quality improvement projects through existing cost share and assistance programs (e.g., Dakota County Landscaping for clean water).

12. Member cities are responsible for managing "non-strategic" water bodies. City management of these water bodies may include classifying, monitoring, tracking trends, conducting studies, and implementing water quality management actions. Relevant activities shall be reported in the city's local water management plan.

13. Member cities shall limit chloride use to the extent practicable through implementation of practices recommended in the Twin Cities Metropolitan Area Chloride Management Plan and/or other relevant guidance.

14. Member cities are encouraged to maximize the use of infiltration techniques to address water quality issues, consistent with the guidance and limitations detailed in the MPCA Minimum Impact Design Standards (MIDS), NPDES Construction Stormwater General Permit, and MS4 General Permit.

15. The member cities shall share water quality data and trend analyses with the BDWMO, as available.

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
- Proposed edits to policies are shown with changes accepted for clarity; a "tracked changes" copy will also be provided
- *Italic with yellow highlight* indicates a note for Commissioners/staff/TAC consideration

16. The BDWMO will work with member cities to identify water quality improvement opportunities in redevelopment areas and help secure funding for such projects, as requested.

## 4.2 WATER QUANTITY AND FLOODING

### 4.2.1 Goals

- Achieve no net increase in intercommunity peak stormwater flow rates.
- Reduce the number and/or flood risk of habitable structures within the floodplain in cooperation with member cities.

### 4.2.2 Policies

1. The BDWMO will serve as a facilitator for intercommunity water quantity issues (issues where the tributary watershed spans more than one city or outflows cross city/county/WMO boundaries). As facilitator, the BDWMO will assist in fairly allocating costs among the member cities for intercommunity flood risk reduction projects (see Financing Policies, Section 4.7.4 #5 *– reference to be updated*).

2. The BDWMO encourages cities to promote the use of low impact development (LID) to reduce stormwater runoff volume (including opportunities to reduce impervious surfaces) and amend local development regulations (e.g., zoning/subdivision ordinances) remove/reduce obstacles to LID practices. Examples of methods to reduce impervious surfaces include:
   - Reducing road widths, such as reducing drive and parking lanes widths and allowing parking on only one side of a residential street.
   - Reducing the number and/or size of parking spaces required and the width of parking lot access lanes.
   - Reducing sidewalk widths.
   - Eliminating minimum parking space requirements.
   - Creating a smaller building footprint (e.g., building two-story houses instead of one-story houses). *Consider deleting as this seems less reasonable to implement*
   - Installing semipermeable/permeable paving, where feasible (e.g., overflow parking lots).

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
- Proposed edits to policies are shown with changes accepted for clarity; a "tracked changes" copy will also be provided
- *Italic with yellow highlight* indicates a note for Commissioners/staff/TAC consideration

    - Planting trees.

3. The BDWMO encourages the member cities to reduce peak discharge rates wherever possible, beyond minimum required performance standards (see Section 4.9 – BDWMO Performance Standards).

4. Member cities shall evaluate the impact of increasing the drainage area to landlocked basins, including effects on flooding, as part of project review. Member cities shall consider the effects of water level fluctuations on trees, vegetation, erosion, and public safety when considering proposed changes to the hydrology of landlocked basins.

5. Member cities shall estimate and consider the water quality and flood risk impacts of proposed outlets from landlocked basins on intercommunity flows and/or strategic waterbodies prior to construction of the outlets. If analyses indicate adverse effects on water quality or increased flood risk, the city must consult with the BDWMO prior to construction.

6. Member cities shall consider the effects of events larger than the 100-year event, prolonged periods of wet conditions, high runoff volume events (e.g., snowmelt events that last for many weeks), and potential impacts of climate change when setting minimum building elevations. Higher minimum building elevations should be considered for structures adjacent to ponding areas with large tributary watersheds and for structures adjacent to landlocked basins.

## 4.3 EROSION/SEDIMENTATION

### 4.3.1 Goals

- Limit and/or decrease erosion and sedimentation through continued implementation of local controls consistent with minimum state standards.

- Cooperate with member cities to achieve stormwater sediment loading goals consistent with member city MS4 permits to protect and improve local water resources and the Minnesota River. *Repeat from WQ section*

### 4.3.2 Policies

1. The BDWMO will facilitate intercommunity erosion and sediment control projects by performing studies, preliminary designs, feasibility reports, and calculating the cost apportionment between cities, as requested by the cities.

Formatting Notes:
- Goals have been updated to reflect previously discussed edits
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2. The BDWMO requires conveyance system discharges to be designed so as to prevent or minimize the potential for bank, channel, or shoreline erosion.

3. Member cities shall consider the following in the design and construction of shoreline stabilization measures:

    a. unique or special site conditions,

    b. energy dissipation potential,

    c. preservation of ecological functions and habitat, and

    d. use of natural materials, bioengineering methods, and aesthetics.

4. Member cities shall continue managing erosion and sediment control through local regulatory controls consistent with their NPDES MS4 permit and the NDPES Construction Stormwater General Permit. Procedures for reviewing, approving, and enforcing erosion and sediment control plans shall be described in local water management plans.

## 4.4 WETLAND MANAGEMENT

### 4.4.1 Goals

- Promote improving the ecological function of wetlands for water retention, recharge, soil conservation, habitat, aesthetics, and water quality improvement through XXXX action(s) *(actions could be education related, # of improvement projects, etc.)*

- Pursue no net loss of wetlands in the BDWMO through continued City implementation of the Wetland Conservation Act (WCA), participation in technical evaluation panels (TEPs), and other wetland management roles.

### 4.4.2 Policies

1. The BDWMO defers local governmental unit (LGU) authority for administering the Wetland Conservation Act (WCA) to member cities and MnDOT (which administers the WCA within its right-of-way). The BDWMO will not seek to manage individual wetlands. In compliance with WCA, LGUs must protect wetlands from impacts in the following order: avoid, minimize, mitigate.

2. 2Member cities will maintain local official controls to protect and manage wetlands at least as stringent as current performance standards (see Table XX),

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including wetland buffer widths based on protection level or management classification, but not less than XX feet.

3. Member cities' official controls to protect and manage wetlands shall be based on comprehensive wetland management plans or wetland functions and values assessments.

4. Member cities shall maintain an inventory of wetlands, including assessment of functions and values, either as part of a comprehensive wetland management plan or on an as-needed basis (e.g., as part of development/redevelopment project review).

5. Member cities shall use a wetland classification system similar to MnRAM3for wetland management purposes.

6. The member cities may request that the BDWMO classify and set goals for specific wetlands; the BDWMO commissioners will decide whether to take on the responsibility, if requested.

## 4.5 Shoreland, Habitat and Open Space Management

### 4.5.1 Goals

- Promote improved shoreline integrity and the ecological functions of healthy shorelines through XXXX action(s) *(actions could be education related, # of improvement projects, etc.)*
- Maintain or improve the ecological and habitat quality of BDWMO strategic waterbodies as quantified through the BDWMO habitat monitoring program, with the following targets established: *Individual lake targets TBD*
- Support member city and partner actions to preserve and enhance recreational opportunities within the BDWMO *May be included as policy vs goal.*
- Support member city and partners actions to prevent the increase or reduce the occurrence of aquatic invasive species within BDWMO strategic waterbodies.
- Support member city and partners actions to increase the amount and diversity of native vegetation within BDWMO strategic waterbodies. *May be combined with quantitative goal above if targets include vegetative diversity*

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### 4.5.2 Policies

1. The BDWMO promotes the protection of non-disturbed shoreland areas, restoration of disturbed shorelines, and the establishment of vegetated buffers along shorelines through support of existing cost-share programs, technical assistance for member cities, and pursuit of grant and cost-share funding for shoreline restoration projects.

2. The BDWMO will continue to monitor aquatic vegetation, algal community, and/or additional ecologic factors per the scope and schedule described in Section XX of this Plan *(reference to monitoring section)*, as amended. The BDWMO will prepare a report summarizing the results of the previous year's monitoring; the report will include available data regarding other biological indicators, such as fisheries. The BDWMO will post these reports on its website.

3. The BDWMO will consider publicly available data to identify "reference lakes" in order to establish habitat, fishery, and/or ecological health goals for strategic waterbodies.

4. Member cities shall minimize impacts to and will restore to the extent practicable shoreline vegetation during and after construction projects.

5. The BDWMO will coordinate and colllaborate with member cities, Dakota SWCD, and other partners to encourage public and private landowners to maintain wetlands and open space areas for the benefit of wildlife through education and by providing information on various grant and cost-share programs.

6. The BDWMO encourages member cities to address disturbed shoreland areas in local water management plans. This may include identification, ranking, and mapping of disturbed shoreland areas.

7. Member cities shall maintain and enforce official controls addressing shoreland areas consistent with state requirements.

8. Member cities shall manage all Category I-III waterbodies (see Table 1-7) to preserve and promote biodiversity, habitat quality, end ecological functions. *Consider moving to habitat section*

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9. Member cities shall consider opportunities to maintain, restore, or enhance natural areas, wetlands, and/or habitat functions as part of stormwater infrastructure projects, redevelopment, or other appropriate projects.:

10. Member cities shall consider opportunities to enhance recreational functions of natural areas and waterbodies, where appropriate, as part of stormwater infrastructure projects, redevelopment, or other appropriate projects *New policy specifically noting recreational use added for consideration*

## 4.6 GROUNDWATER

### 4.6.1 Goals

- Promote the protection of groundwater quality and quantity through annual collaboration with Dakota County, Minnesota Department of Natural Resources, and/or other agencies managing groundwater.

- Promote groundwater conservation and water reuse through at least XX education and outreach activities per year.

### 4.6.2 Policies

1. The BDWMO encourages member cities to provide increased green space, grassed waterways, native vegetation, and infiltration facilities wherever such actions are possible consistent with guidance and restrictions of the MPCA's Minimal Impact Design Standards, NPDES Construction Stormwater General Permit, and MS4 General Permit.

2. The BDWMO will work with member cities, Dakota County, and other partners in efforts to promote awareness of groundwater resource issues through public education programs, data sharing, and other information programs.

3. The BDWMO will support Dakota County in the implementation of the Dakota County 2020-2030 Groundwater Plan, through participation in planning efforts, data sharing, technical assistance or other appropriate actions, as requested. .

4. The BDWMO and member cities shall promote groundwater conservation and small-scale water reuse (e.g., rain barrels) through education and outreach and

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support of local cost-share programs (e.g., Dakota SWCD Landscaping for Clean Water).

5. The BDWMO encourages member cities to protect recharge areas and groundwater resources from potential sources of contamination, including contamination associated with the infiltration of stormwater, through appropriate spill and contamination prevention measures and other activities consistent with member city MS4 permits.

6. Member cities shall continue their management programs and ordinances pertaining to subsurface sewage treatment systems (SSTS), consistent with state and local rules and shall follow the Metropolitan Council's Waste Discharge Rules regarding requirements and timing of connections to sanitary sewer service.

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## 4.9 BDWMO PERFORMANCE STANDARDS

The BDWMO requires the policies, standards and criteria presented in this section, or an approved equivalent, to be incorporated into each city's local water management plan during the local plan's next revision. The BDWMO expects that member cities will implement the standards within two years of approval of the BDWMO plan, regardless of the local plan revision schedule.

### 4.9.1 Policies

1. Member cities shall maintain or strengthen stormwater management, erosion and sediment control, wetland, floodplain and shoreland official controls. Member cities shall notify the BDWMO of updates to relevant local controls. The BDWMO reserves the right to review these regulations or other regulations affecting the BDWMO water resources for compliance with this Plan.

2. The BDWMO requires that any project disturbing more than 1 acre (or part of a larger project exceeding 1 acre of land disturbance) shall be subject to/trigger the appropriate member city's local performance standards for rate control, volume control, and permanent water quality treatment, as shown in Table 3-2.

3. The BDWMO requires that all new, reconstructed, or redeveloped stormwater management facilities (e.g., pipes, ponds, treatment facilities) conform to the policies presented in this plan.

4. For new, reconstructed, or redeveloped stormwater discharge points/outfalls, member cities must provide pretreatment of stormwater prior to its discharge to category I-III water bodies and wetlands, the Black Dog Fen, and trout streams.

5. The member cities are encouraged to provide or require (e.g., during redevelopment) pretreatment of stormwater runoff for existing inlets to the stormwater system that receive direct stormwater runoff (i.e., no pretreatment) and are likely to see the greatest benefit from water quality improvement BMPs.

6. The City of Lakeville shall restrict the Orchard Lake outlet to maintain its peak outflow at 65 cfs to help prevent capacity and erosion problems downstream in Credit River Township and the City of Savage.

7. The BDWMO requires that the level of protection along all trunk conveyors, streams, and channels and around all wetlands, ponds, detention basins, and lakes

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resulting from the construction or redevelopment of stormwater management facilities be based on the critical-duration 100-year flood.

8. The BDWMO requires that new or redeveloped non-trunk stormwater facilities provide discharge capacity for the critical-duration runoff event that is not less than a five-year frequency event, preferably a 10-year frequency event (level of service).

9. Where proposed development, redevelopment, and infrastructure projects are unable to meet the performance standards documented in this Plan, member cities shall seek input from BDWMO regarding project acceptability.

    ▪

10. Member cities shall ensure that proposed development, redevelopment, and/or infrastructure projects will not increase downstream flood risk relative to existing conditions.

11. Member cities shall incorporate emergency overflow structures (i.e., swales, spillways), where feasible, into pond outlet structure designs to minimize flood risk resulting from storms larger than the 100-year event or plugged outlet conditions.

12. Member cities shall secure easements or fee title to the stormwater system as areas develop or redevelop.

13. Member cities shall require maintenance agreements for privately owned stormwater facilities that identify maintenance activities and the responsible party.

14. The BDWMO encourages the member cities to incorporate multi-stage outlets into their pond designs to control flows from smaller, less frequent storms and help maintain base flows in downstream open channels. The BDWMO will cooperate with member cities to identify or evaluate designs intended to achieve this goal. *Suggest moving recommendations to other sections and including only requirements in the Performance Standards section.*

15. Member cities shall require minimum building elevations (including basement) at least one foot above the critical 100-year flood elevation for structures adjacent to inundation areas.

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16. The BDWMO requires the following rate control standards:

    - For new development and redevelopment, the peak stormwater runoff rate shall not exceed the existing peak rate for the 2-year, 10-year, and the 100-year storm events. "Subwatershed" may be the project site, or may be an area of greater size for which an approved local water management plan meets this criterion.

    - Analysis of peak stormwater rates shall be performed using a hydrograph method based on sound hydrologic theory and Atlas 14 (or more recent) precipitation data.

    - Rates may be further restricted when the capacity of the downstream conveyance system is limited.

17. Member cities shall be responsible for operating and maintaining city-owned stormwater facilities to achieve the intended water quality improvement, flood risk reduction, and other beneficial functions originally intended.

18. Structural BMPs that treat stormwater shall conform to standard engineering practices documented in the Minnesota Stormwater Manual or equivalent design standard.

19. Member cities will maintain local official controls to protect and manage wetlands at least as stringent as current performance standards (see Table XX), including wetland buffer widths based on protection level or management classification, but not less than XX feet.

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# 4.0 Goals and Policies – Tracked Changes Version

This section sets goals and policies that reflect the mission of the BDWMO and the vision for its water resources. The section also sets goals for specific waterbodies, managing stormwater runoff, controlling erosion, preserving wetlands, enhancing wildlife habitat and recreational opportunities, education and public involvement, performance evaluation, and financing of the implementation program. The goals are followed by policies that provide specific methods of achieving the goals and serve as decision making guidelines.

## 4.1 WATER QUALITY

### 4.1.1 Goals

- Maintain or improve water quality in BDWMO strategic waterbodies to meet applicable state standards, including:
    - Keller Lake - achieve applicable state water quality standards (summer average of 60 ug/L total phosphorus and 1.0 m Secchi disc transparency)
    - Crystal Lake – *TBD based on existing WQ data*
    - Kingsley Lake – *TBD based on existing WQ data*
    - Lac Lavon – *TBD based on existing WQ data*
    - Orchard Lake – *TBD based on existing WQ data*
- Cooperate with member cities to achieve stormwater sediment loading goals consistent with member city MS4 permits to protect and improve local water resources and the Minnesota River.
- Cooperate with member cities to achieve stormwater phosphorus loading goals consistent with member city MS4 permits to protect and improve local water resources and the Minnesota River.
- Work with member cities to reduce chloride loading relative to current conditions through practices consistent with the Twin Cities Metropolitan Area Chloride Management Plan (MPCA, 2016).

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### 4.1.2 Policies

1. The BDWMO and member cities will cooperate to manage strategic waterbodies. The BDWMO ~~has defined~~identified and will maintain a list of "strategic waterbodies."~~and member cities will continue to manage the "strategic" waterbodies.~~ The BDWMO defined ~~S~~strategic waterbodies ~~are defined~~ as those meeting specific criteria (see ~~Table 2.7~~Section 1.9 and Table 1-6). As of the development of this Plan, BDWMO strategic waterbodies include:

    a. ~~The strategic waterbodies are~~ Crystal Lake,

    b. Orchard Lake,

    c. Keller Lake,

    d. Kingsley Lake, and

    e. Lac Lavon.

~~1.~~2. All waterbodies in the BDWMO will be classified and managed according to either the BDWMO waterbody classification system or the city's wetland classification system (see member city management plans). The BDWMO will classify strategic waterbodies; member cities will classify all other waterbodies. The BDWMO waterbody classification is described in Section 1.9.1~~2.10.2~~ and ~~Table 2.7~~Table 1-7 and includes the following classifications:

**Category I –** these water bodies support ~~Waterbodies in this category are typically used for~~ swimming and other direct contact recreational activities. These waterbodies have the highest/best water quality and are usually the most popular water bodies with the public.

**Category II –** these water bodies support ~~Waterbodies in this category are typically used for~~ indirect ~~contact~~ recreational activities (e.g., boating and fishing) ~~that involve incidental contact with lake water~~. These waterbodies have poorer water quality than Category I water-bodies, but are still popular with the public.

**Category III –** these ~~Waterbodies~~ water bodies ~~in this category serve important functions for~~provide wildlife habitat, ~~and~~ aesthetic enjoyment, and ~~may also provide opportunities for~~ possibly warm-water fishing~~, provided winter kill does not occur~~. ~~–~~These waterbodies may have poorer water quality than

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Category I and II waterbodies and typically are not viewed as swimmable ~~because of lower water quality or the nature of their shorelines.~~

**Category IV – ~~Nutrient & Sediment Traps.~~** ~~W~~water bodies in this category are typically water quality ponds used as nutrient and sediment traps ~~intended~~ to reduce downstream loading of sediment and/or phosphorus and other nutrients that contribute to degradation of water quality. ~~The phosphorus removal efficiency of these ponds will vary by size.~~

~~2.~~3. The BDWMO will cooperate with the affected communities and the MPCA in developing TMDLs and associated implementation plans for impaired water bodies within the BDWMO, as needed. ~~-~~BDWMO roles may include financial support, technical assistance, developing the TMDL and/or implementation plan, ~~activities may include performing the TMDL, funding the TMDL, providing data to inform a TMDL, writing an implementation plan,~~ and other appropriate activities.

~~3.~~4. At least biennially, the BDWMO will discuss water quality issues in the Credit River watershed downstream of the BDWMO with the Scott WMO.

~~4.~~5. The BDWMO will monitor the water quality, algal community, and aquatic vegetation of its strategic waterbodies per the scope and schedule described in Section XX of this Plan *(reference to implementation section)*, as amended. The BDWMO will prepare a report summarizing the results of the previous year's monitoring; the report will ~~-~~include available data regarding other biological indicators, such as fisheries. The BDWMO will post these reports on its website. The BDWMO ~~and~~ will make ~~submit its~~ monitoring data publicly available~~.~~ and provide data to the MPCA~~. for entry into the MPCA's water quality database, EQuIS (Environmental Quality Information System). The type of monitoring recommended for each waterbody varies according to its classification, as shown below:~~ *Description of monitoring program will be moved to a subsection of the implementation section or an appendix.*

| ~~Waterbody Classification~~ | ~~Type of Monitoring (see Section 2.9.1 and Section 2.13.2)~~ |
|---|---|
| ~~Category I~~ | ~~Survey level water quality monitoring (e.g., Metropolitan Council's Citizen Assisted Monitoring Program) and habitat monitoring—minimum requirement~~<br>~~Management level water quality monitoring every 3 years~~ |

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| ~~Waterbody Classification~~ | ~~Type of Monitoring (see Section 2.9.1 and Section 2.13.2)~~ |
|---|---|
| | ~~Intensive water quality monitoring as needed for diagnostic and/or TMDL studies~~ |
| ~~Category II~~ | ~~Survey Level water quality monitoring (e.g., CAMP) and habitat monitoring.~~<br>~~Management level water quality monitoring as needed~~<br>~~Intensive water quality monitoring as needed for diagnostic and/or TMDL studies~~ |
| ~~Category III~~ | ~~Survey Level water quality monitoring (e.g. CAMP) and habitat monitoring.~~<br>~~Management level water quality monitoring as needed~~<br>~~Intensive water quality monitoring as needed for diagnostic and/or TMDL studies~~ |
| ~~Category IV/V~~ | ~~As required by city maintenance plans and policies.~~ |

~~5. The BDWMO will perform habitat monitoring (see Section 2.13.2) of all strategic waterbodies at least once every five years. This program includes monitoring of biological and physical indicators.~~

6. The BDWMO will assess BDWMO and publicly available (e.g., CAMP monitoring) to calculate and annually assess water quality trends for strategic water bodies ~~annually~~. When statistically significant trends (see Section X) are identified, the BDWMO will coordinate with member cities to identify appropriate follow-up actions, if needed.

~~The BDWMO will take actions to protect strategic waterbodies from degradation relative to certain thresholds, or "action levels." Table 4-1 outlines these actions. The BDWMO, with the involvement of member cities, will conduct diagnostic-feasibility studies for strategic waterbodies (see Table 4-1) to determine the needed water quality improvement projects and the estimated costs of the projects. The following "action levels" apply to these waterbodies, and will be updated annually (see Table 2-6):~~

- ~~For lakes with sufficient data, calculate the 25$^{th}$ and 75$^{th}$ percentiles of *average* summer Secchi disk transparency data from the last 10 sampling years to obtain the interquartile range. The action level should be set at the 25$^{th}$ percentile or the MPCA lake eutrophication standards, whichever is more stringent.~~

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~~▪ For lakes with insufficient (or no) water quality data, more data will need to be collected before setting lake-specific action levels. In the meantime, the following action levels would apply:~~

~~*Action level for Category I waterbodies*: if the average summer Secchi disk reading drops below 1.6 meters or more than two individual readings are less than 1.1 meters.~~

~~*Action level for Category II waterbodies*: if the average summer Secchi disk reading drops below 1.0 meters.~~

7. The BDWMO ~~will~~may recommend actions or projects for strategic waterbodies, as necessary, following the identification of impairment(s) or statistically significant degrading trends in water quality~~process outlined in Table 4-1~~. These projects will be included or added to the BDWMO CIP. Member cities will perform actions or projects recommended by the BDWMO. If a city does not include a recommended action or project for a strategic resource in its CIP within 18 months, the BDWMO ~~will consider~~ may undertak~~ing~~e the recommended action or project~~. It may require a plan amendment to add a project to Table 5-1~~. In this situation, the BDWMO ~~would~~will assess the project costs back to the affected member cities, in accordance with the joint powers agreement.~~ For non-strategic resources, the cities are to take the recommended action.~~ In accordance with the joint powers agreement, any member city may appeal cost allocation decisions made by the BDWMO.

~~7.~~8. The BDWMO will limit its water quality management roles not explicitly defined in this Plan and associated implementation schedule to those involving intercommunity watersheds, or those requested by the ~~involved~~ affected member cities. *Consider moving this policy as an addition to policy #9 regarding management activities for strategic waterbodies.*

~~8.1. The BDWMO and member cities will continue to manage the "strategic" waterbodies. Strategic waterbodies are defined as meeting specific criteria (see Table 2-7). The strategic waterbodies are Crystal Lake, Orchard Lake, Keller Lake, Kingsley Lake, and Lac Lavon.~~

~~9.1. The BDWMO will recommend actions or projects for strategic waterbodies as necessary, following the process outlined in Table 4-1. Member cities will perform actions or projects recommended by the BDWMO. If a city does not include a recommended action or project for a strategic resource in its CIP within~~

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~~18 months, the BDWMO will consider undertaking the recommended action or project. It may require a plan amendment to add a project to Table 5-1. In this situation, the BDWMO would assess the project costs back to the cities, in accordance with the joint powers agreement. For non-strategic resources, the cities are to take the recommended action.~~

~~10.~~9. The BDWMO will continue to cooperate with the member cities and other partners, as appropriate, to implement projects to address water quality issues in strategic waterbodies. ~~in resolving issues related to the member cities' implementation of BDWMO-directed or TMDL-recommended water quality improvement projects. The~~ BDWMO~~'s~~ involvement ~~could~~ may include assisting in allocating project costs among the member cities, technical assistance/review, public engagement~~, participating in public informational meetings about the projects~~, ~~obtaining~~ seeking and managing grants, and ~~updating the BDWMO at BDWMO Commission meetings~~other roles, as appropriate. ~~In accordance with the joint powers agreement, any member city may appeal cost allocation decisions made by the BDWMO.~~

~~11.~~10. Member cities (or other MS4s) shall ~~The BDWMO will help facilitate in allocating costs for TMDL implementation tasks aimed at achieving the required load allocations (pollutant loads not assigned to permitted MS4s) outlined in the approved TMDL. MS4s within the BDWMO will~~ be responsible for the implementation of BMPs that will help achieve the ~~required~~ wasteload allocations required by TMDLs. The BDWMO will fund and implement internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (see also Section 4.7.4, Policy 8 ~~–~~ *reference to be updated*).

~~12.~~11. The BDWMO will partner with the Dakota County SWCD or other organizations to sponsor and implement small-scale water quality improvement projects ~~on residential, commercial, or public properties~~ through existing cost share and assistance programs (e.g.~~,~~ Dakota County Landscaping for clean water~~installing residential rain gardens through the Blue Thumb Program~~).

~~13.~~12. ~~The BDWMO m~~Member cities are responsible for managing "non-strategic" water bodies. City management of these water bodies ~~could~~ may include classifying, monitoring, tracking trends, conducting studies, and implementing water quality management actions. ~~Waterbody management actions~~ Relevant activities shall be reported in the city's local water management plan.

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13. Member cities shall limit chloride use to the extent practicable through implementation of practices recommended in the Twin Cities Metropolitan Area Chloride Management Plan and/or other relevant guidance.

14. ~~Member cities will continue to manage all MDNR public waters for nondegradation as required by their MS4 permits.~~

~~15.~~1. ~~All Category I-III waterbodies should be managed to preserve and promote biodiversity and improve habitat quality.~~ *(policy moved to habitat section)*

~~16. In general, the BDWMO supports implementation of in-lake chemical treatments only after watershed load reductions have been considered or implemented.~~

~~17.~~15. Member cities are encouraged to maximize the use of infiltration techniques to address water quality issues, consistent with the guidance and limitations detailed in the ~~explore the outcome of the~~ MPCA Minimum Impact Design Standards (MIDS), NPDES Construction Stormwater General Permit, and MS4 General Permit ~~project study as a source of potential ideas/regulatory tools to manage water quality and address MPCA anti-degradation requirements~~.

~~18.~~16. The ~~BDWMO and~~ member cities ~~will~~ shall share water quality data and trend analyses with the BDWMO, as available.

~~19.~~17. ~~The BDWMO encourages the member cities to take full advantage of redevelopment as an opportunity to achieve water quality improvements.~~ The BDWMO will work with member cities to identify water quality improvement opportunities in redevelopment areas and help secure funding for such projects, as requested.

## 4.2 WATER QUANTITY AND FLOODING

### 4.2.1 Goals

- Achieve no net increase in intercommunity peak stormwater flow rates.
- Reduce the number and/or flood risk of habitable structures within the floodplain in cooperation with member cities.

### 4.2.2 Policies

1. The BDWMO will serve as a facilitator for intercommunity ~~flood control~~water quantity issues (issues where the tributary watershed spans more than one city or

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outflows cross city/county/WMO boundaries). As facilitator, the BDWMO will assist in fairly allocating costs among the member cities for intercommunity ~~flood control~~ flood risk reduction projects (see Financing Policies, Section 4.7.4 #5 – *reference to be updated*).

~~2. The BDWMO will coordinate intercommunity stormwater runoff design and planning with the member communities by:~~

- ~~Reviewing each member city's local water management plan for consistency with the BDWMO goals and intercommunity planning.~~
- ~~Calculating the cost apportionment between cities for water resources projects with intercommunity participation at the request of the cities involved.~~

*Suggest deleting above policy as both elements are addressed in the "Administration" section.*

~~3.~~2. ~~The BDWMO promotes stormwater volume reduction through infiltration practices (e.g., bioretention, porous pavement) on all new development and redevelopment sites where such practices are feasible and do not pose a risk to groundwater resources. The member cities will consider the Minnesota Department of Health's *Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas*, as amended, as guidance in evaluating all proposed infiltration projects within or adjacent to vulnerable portions of the Drinking Water Supply Management Areas (DWSMA) (see Section 3.6). The member cities use infiltration and reductions in impervious surface coverage as methods to achieve TMDL load reductions (i.e., improve water quality). The member cities also use these measures to reduce runoff, especially in areas tributary to landlocked basins.~~ *Consider eliminating this policy in favor of volume control performance standard (consistent with current city practice)*

~~4.~~3. ~~As part of updating local water management plans, member cities will review development regulations (zoning and subdivision ordinances).~~ The BDWMO ~~recommends~~ encourages cities to promote the use of low impact development (LID) to reduce stormwater runoff volume (including opportunities to reduce impervious surfaces) and amend local development regulations (e.g., zoning/subdivision ordinances) ~~as practicable to~~ remove/reduce obstacles to LID practices~~, including opportunities to reduce impervious surfaces. The BDWMO will assist member cities in amending regulations to the extent requested by the member cities~~. Examples of methods to reduce impervious surfaces include:

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- Reducing road widths, such as reducing drive and parking lanes widths and allowing parking on only one side of a residential street.
- Reducing the number and/or size of parking spaces required and the width of parking lot access lanes. ~~Use of maximum parking requirements and required use of pervious pavement for parking spaces that exceed the maximum are encouraged.~~
- ~~Eliminating pavement in the center of cul-de-sacs.~~
- Reducing sidewalk widths.
- Eliminating minimum parking space requirements~~Allowing greater flexibility to encourage shared parking~~.
- Creating a smaller building footprint (e.g., building two-story houses instead of one-story houses). *Consider deleting as this seems less reasonable to implement*
- Installing semipermeable/permeable paving, where feasible (e.g., overflow parking lots).
- ~~Minimizing environmental impacts of street construction and reconstruction and creating streets safe for all ages, abilities, and modes of transportation.~~
- Planting trees.

~~5.~~4. The BDWMO encourages the member cities to reduce peak discharge rates wherever possible, beyond minimum required performance standards ~~with the goal of reducing discharge rates to pre-development levels (or lower)~~ (see Section 4.9 – BDWMO Performance Standards).

~~6. The BDWMO encourages the member cities to recruit volunteers to participate in the MDNR's lake level monitoring program for MDNR public waters. The BDWMO will assist member cities through "call for volunteers" articles in the BDWMO newsletter, on the BDWMO website, or other appropriate means.~~ *Suggest deleting and replacing with a more general policy in education and outreach section*

~~7.~~5. Member cities ~~should~~ shall evaluate the impact of increasing the drainage area to landlocked basins, including effects on flooding, as part of project review. ~~If outlets are needed from landlocked basins, the BDWMO encourages cities to keep outflow rates low to allow for as much infiltration as appropriate, while not causing extended periods of high water levels that may have negative effects.~~

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Member cities shall consider the effects of water level fluctuations on trees, vegetation, erosion, and ~~property values~~ public safety when ~~establishing flood levels~~considering proposed changes to the hydrology of ~~for~~ landlocked basins.

~~8.~~6. ~~The BDWMO requires m~~Member cities ~~to~~ shall estimate and consider ~~analyze~~ the water quality and ~~flooding~~ flood risk impacts of proposed outlets from landlocked basins on intercommunity flows and/or ~~or any downstream~~ strategic waterbodies prior to construction of the outlets. If analyses indicate adverse effects on water quality or increased flood ~~potential~~risk, the city must ~~notify~~ consult with the BDWMO prior to construction.

~~9.~~7. ~~The m~~Member cities shall consider the effects of events larger than the 100-year ~~flood~~ event, prolonged periods of wet conditions, high runoff volume events (e.g., snowmelt events that last for many weeks), and potential impacts of climate change when setting minimum building elevations. Higher minimum building elevations should be considered for structures adjacent to ponding areas with large tributary watersheds and for structures adjacent to landlocked basins.

~~10. Member cities shall consider the possibility of long duration events, such as multiple-year wet cycles and high runoff volume events (e.g., snowmelt events that last for many weeks) when establishing high water elevations and the need for outlets from landlocked basins.~~ *Policy combined with above policy regarding minimum building elevations*.

## 4.3 EROSION/SEDIMENTATION

### 4.3.1 Goals

- Limit and/or decrease erosion and sedimentation through continued implementation of local controls consistent with minimum state standards.
- Cooperate with member cities to achieve stormwater sediment loading goals consistent with member city MS4 permits to protect and improve local water resources and the Minnesota River. *Repeat from WQ section*

### 4.3.2 Policies

1. The BDWMO will facilitate intercommunity erosion and sediment control projects by performing studies, preliminary designs, feasibility reports, and calculating the cost apportionment between cities, as requested by the cities.

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2. The BDWMO requires conveyance system discharges to be designed so as to prevent or minimize the potential for bank, channel, or shoreline erosion.

3. Member cities shall consider the following ~~for~~ in the design and construction of shoreline stabilization measures~~, in addition to standard engineering and economic criteria~~:

   a. unique or special site conditions,

   b. energy dissipation potential,

   ~~adverse effects,~~

   c. preservation of ~~natural processes~~ecological functions and habitat, and

   ~~a.~~d. use of natural materials, bioengineering methods, and aesthetics.

~~3.~~4. Member cities shall continue managing erosion and sediment control ~~permitting programs and ordinances as~~through local regulatory controls consistent with ~~required by~~ their NPDES MS4 permit and the NDPES Construction Stormwater General Permit. ~~-~~Procedures for reviewing, approving, and enforcing erosion and sediment control plans shall be described in local water management plans.

## 4.4 WETLAND ~~AND HABITAT~~ MANAGEMENT

### 4.4.1 Goals

- Promote improving the ecological function of wetlands for water retention, recharge, soil conservation, habitat, aesthetics, and water quality improvement through XXXX action(s) *(actions could be education related, # of improvement projects, etc.)*

- Pursue no net loss of wetlands in the BDWMO through continued City implementation of the Wetland Conservation Act (WCA), participation in technical evaluation panels (TEPs), and other wetland management roles.

### 4.4.2 Policies

1. The BDWMO defers local governmental unit (LGU) authority for administering the Wetland Conservation Act (WCA) to member cities and MnDOT (which administers the WCA within its right-of-way). The BDWMO will not seek to manage individual wetlands. In compliance with WCA, LGUs must protect wetlands from impacts in the following order: avoid, minimize, mitigate.

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~~2.~~ 2. Member cities will maintain local official controls to protect and manage wetlands at least as stringent as current performance standards (see Table XX), including wetland buffer widths based on protection level or management classification, but not less than XX feet. ~~continue to enforce wetland management standards as defined by each member city (see Table 3-1), but including at a minimum:~~

- ~~Buffer strip width requirements depending on protection level or management classification (no less than 16.5 feet).~~
- ~~Limits on water level bounce during storm events depending upon wetland protection level or management classification.~~ *Consider deleting bounce standard as the BWSR guidance document this is based on is outdated*

~~3.~~1. ~~The BDWMO defers local governmental unit (LGU) authority for administering the Wetland Conservation Act (WCA) to member cities and MnDOT (which administers the WCA within its right-of-way). The BDWMO will not seek to manage individual wetlands. In compliance with WCA, LGUs must protect wetland from impacts in the following order: avoid, minimize, mitigate.~~

~~4.~~2. ~~The BDWMO requires m~~Member cities' official controls to protect and manage wetlands ~~to maintain wetland protection ordinances~~shall be based on comprehensive wetland management plans or wetland functions and values assessments.

~~5.~~3. ~~The BDWMO requires m~~Member cities ~~to~~ shall maintain an inventory of wetlands, including assessment of functions and values, either as part of a comprehensive wetland management plan or on an as-needed basis (e.g., as part of development/redevelopment project review).

~~6.~~4. Member cities ~~will continue to use wetland management systems to effectively manage the wetlands within the BDWMO. A~~shall use a wetland classification system similar to MnRAM3 ~~is recommended~~for wetland management purposes.

~~7.~~5. The member cities may request that the BDWMO classify and set goals for ~~certain~~ specific wetlands; the BDWMO commissioners will decide whether to take on the responsibility, if requested.

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## 4.5 Shoreland, Habitat and Open Space Management

### 4.5.1 Goals

- Promote improved shoreline integrity and the ecological functions of healthy shorelines through XXXX action(s) *(actions could be education related, # of improvement projects, etc.)*
- Maintain or improve the ecological and habitat quality of BDWMO strategic waterbodies as quantified through the BDWMO habitat monitoring program, with the following targets established: *Individual lake targets TBD*
- Support member city and partner actions to preserve and enhance recreational opportunities within the BDWMO *May be included as policy vs goal.*
- Support member city and partners actions to prevent the increase or reduce the occurrence of aquatic invasive species within BDWMO strategic waterbodies.
- Support member city and partners actions to increase the amount and diversity of native vegetation within BDWMO strategic waterbodies. *May be combined with quantitative goal above if targets include vegetative diversity*

### 4.5.2 Policies

1. The BDWMO ~~will~~ promote<u>s</u> ~~and encourage~~ <u>the</u> protection of non-disturbed shoreland areas, restoration of disturbed shorelines, and the ~~creation~~ <u>establishment</u> of <u>vegetated</u> buffer<u>s</u> ~~zones~~ along shorelines <u>through support of existing cost-share programs, technical assistance for member cities, and pursuit of grant and cost-share funding for shoreline restoration projects</u>~~. This will be done by sponsoring shoreline management and restoration workshops through the Blue Thumb Program or other similar programs, as opportunities allow~~.

2. <u>The BDWMO will continue to monitor aquatic vegetation, algal community, and/or additional ecologic factors per the scope and schedule described in Section XX of this Plan *(reference to monitoring section)*, as amended. The BDWMO will prepare a report summarizing the results of the previous year's monitoring; the report will include available data regarding other biological indicators, such as fisheries. The BDWMO will post these reports on its website.</u>

3. <u>The BDWMO will consider publicly available data to identify "reference lakes" in order to establish habitat, fishery, and/or ecological health goals for strategic waterbodies.</u>

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~~2.~~4. Member cities shall minimize impacts to and will restore to the extent practicable ~~lakeshore~~ shoreline vegetation during and after construction projects.

~~3.~~5. The BDWMO will coordinate and colllaborate with member cities, Dakota SWCD, and other partners to encourage public and private landowners to maintain wetlands and open space areas for the benefit of wildlife through education and by providing information on various grant and cost-share programs.

~~4.~~6. The BDWMO encourages member cities to address disturbed shoreland areas in local water management plans~~, including lakeshore areas~~. ~~-~~This may include identification, ranking, and mapping of disturbed shoreland areas. ~~The BDWMO will provide member cities with results from the BDWMO habitat monitoring program and information on various grant programs to assist with these activities.~~

~~5.~~7. ~~The m~~Member cities ~~are to~~ shall maintain and enforce official controls addressing shoreland areas ~~and responsibility for shoreland regulation according~~consistent with ~~to~~ state requirements~~and local regulations~~.

8. Member cities shall manage ~~A~~all Category I-III waterbodies (see Table 1-7) ~~should be managed~~ to preserve and promote biodiversity, ~~and improve~~ habitat quality, end ecological functions. *Consider moving to habitat section*

~~6.~~9. Member cities shall consider opportunities to maintain, restore, or enhance~~, or provide new open spaces~~ natural areas~~-~~, wetlands, and/or habitat functions as part of ~~wetland modification, stormwater facility construction~~stormwater infrastructure projects, redevelopment, or other appropriate projects ~~that~~.:

~~Increase beneficial habitat, wildlife and recreational uses; promote infiltration and vegetative water use; and~~

~~Decrease detrimental wildlife uses (such as beaver dams, goose overabundance) that damage water control facilities, shoreline vegetation, water quality, or recreational facilities.~~

~~7.~~10. Member cities shall consider opportunities to enhance recreational functions of natural areas and waterbodies, where appropriate, as part of stormwater infrastructure projects, redevelopment, or other appropriate projects *New policy specifically noting recreational use added for consideration*

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## 4.6 GROUNDWATER

### 4.6.1 Goals

- Promote the protection of groundwater quality and quantity through annual collaboration with Dakota County, Minnesota Department of Natural Resources, and/or other agencies managing groundwater.

- Promote groundwater conservation and water reuse through at least XX education and outreach activities per year.

### 4.6.2 Policies

1. The BDWMO encourages member cities to provide increased green space, grassed waterways, native vegetation, and infiltration facilities wherever such actions are possible ~~and do not pose a risk to groundwater resources, to allow for the infiltration of stormwater runoff and promote groundwater recharge~~consistent with guidance and restrictions of the MPCA's Minimal Impact Design Standards, NPDES Construction Stormwater General Permit, and MS4 General Permit.

2. The BDWMO will work with ~~and encourage member cities to join~~member cities, Dakota County, and~~or~~ other ~~entities~~partners in efforts to promote awareness of groundwater resource issues through public education programs, data sharing, and other information programs.

3. The BDWMO will support Dakota County in the implementation of the Dakota County 2020-2030 Groundwater Plan, through participation in planning efforts, data sharing, technical assistance or other appropriate actions, as requested. ~~all the policies in the Dakota County groundwater plan and will cooperate with Dakota County, Minnesota Department of Health, and the MDNR to protect sensitive groundwater areas. Cooperation may include providing education to member cities and residents, collaborating with agencies or cities on activities and events, and/or providing data, as requested~~.

4. The BDWMO and member cities shall promote groundwater conservation and small-scale water reuse (e.g., rain barrels) through education and outreach and support of local cost-share programs (e.g., Dakota SWCD Landscaping for Clean Water).

~~4.~~5. The BDWMO encourages member cities to protect recharge areas and groundwater resources from potential sources of contamination, including contamination associated with the infiltration of stormwater, through ~~. This can~~

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~~be accomplished by enforcing~~ appropriate spill and contamination prevention ~~procedures~~measures and other activities consistent with member city MS4 permits~~, analyzing effects of infiltration BMPs prior to their construction, and other appropriate activities (see MDH guidance document *Evaluation Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas*, as amended)~~.

~~5.~~6. Member cities shall continue their management programs and ordinances pertaining to subsurface sewage treatment systems (SSTS), consistent with state and local rules and shall follow the Metropolitan Council's Waste Discharge Rules regarding requirements and timing of connections to sanitary sewer service.

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## 4.9 BDWMO Performance Standards

The BDWMO requires the policies, standards and criteria presented in this section, or an approved equivalent, to be incorporated into each city's local water management plan during the local plan's next revision. The BDWMO expects that member cities will implement the standards within two years of approval of the BDWMO plan, regardless of the local plan revision schedule.

### 4.9.1 Policies

1. Member cities shall maintain or strengthen stormwater management, erosion and sediment control, wetland, floodplain and shoreland ~~regulations~~official controls. ~~The BDWMO website shall contain links to the city's regulations.~~ Member cities shall notify the BDWMO of updates to relevant local controls. The BDWMO reserves the right to review these regulations or other regulations affecting the BDWMO water resources for compliance with this Plan.

2. The BDWMO requires that any project disturbing more than ~~project (development or redevelopment of land) that results in~~ 1 acre (or part of ~~the~~ a larger project exceeding 1 acre of land disturbance) ~~or more of disturbance~~ shall be subject to/trigger the appropriate member city's ~~stormwater management standards~~local performance standards for rate control, volume control, and permanent water quality treatment, as shown in Table 3-2.

3. The BDWMO requires that all new, reconstructed, or redeveloped stormwater management ~~systems~~ facilities (e.g., pipes, ponds, treatment facilities) ~~or stormwater management systems replaced as part of redevelopment~~ conform to the policies presented in this plan.

4. For new, ~~redesigned~~reconstructed, or redeveloped ~~replaced~~ stormwater discharge points/outfalls, member cities must provide pretreatment ~~(at least grit removal)~~of stormwater prior to its discharge to category I-III water bodies and wetlands, the Black Dog Fen, and trout streams.

5. The member cities are encouraged to provide or require (e.g., during redevelopment) pretreatment of stormwater runoff for existing inlets to the stormwater system that receive direct stormwater runoff (i.e., no pretreatment) and are likely to see the greatest benefit from water quality improvement BMPs.

6. The City of Lakeville ~~will~~ shall restrict the Orchard Lake outlet to maintain its peak outflow at 65 cfs to help prevent capacity and erosion problems downstream

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in Credit River Township and the City of Savage. *Consider moving all "recommendations" to other sections (e.g., water quality) and include only requirements in "Performance Standards" section.*

7. The BDWMO requires that the level of protection along all trunk conveyors, streams, and channels and around all wetlands, ponds, detention basins, and lakes resulting from the construction or redevelopment of stormwater management facilities be based on the critical-duration 100-year flood.

8. The BDWMO requires that new or redeveloped non-trunk stormwater ~~systems~~ facilities provide discharge capacity for the critical-duration runoff event that is not less than a five-year frequency event, preferably a 10-year frequency event (level of service).

9. Where proposed development, redevelopment, and infrastructure projects are unable to meet the performance standards documented in this Plan, member cities shall seek input from BDWMO regarding project acceptability. ~~The BDWMO allows that where the planned level of service would cause hardship in operation of a downstream system, the owner may design for a lesser level of service if the following circumstances are present:~~

   - ~~The proposed new or replacement system will not have a longer life than that of the existing downstream system~~.
   - ~~It is not practical to incorporate temporary measures into the new system to mitigate the effects of the new system on the downstream system.~~

10. ~~The BDWMO requires m~~Member cities shall ~~to~~ ensure that proposed development, redevelopment, and/or infrastructure projects will not ~~overtax the existing downstream stormwater drainage system capacity in terms of rate and volume.~~increase downstream flood risk relative to existing conditions.

11. ~~The BDWMO requires that m~~Member cities shall incorporate emergency overflow structures (i.e., swales, spillways), where feasible, into pond outlet structure designs to ~~prevent undesired flooding~~minimize flood~~r~~ risk resulting from storms larger than the 100-year ~~(one percent)~~ event or plugged outlet conditions.

12. ~~The BDWMO requires that the m~~Member cities shall secure easements or fee title ~~(or maintenance agreements for private systems)~~ to the stormwater system as areas develop or redevelop.

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~~12.~~13. Member cities shall require maintenance agreements for privately owned stormwater facilities that identify maintenance activities and the responsible party.

~~13.~~14. The BDWMO encourages the member cities to incorporate multi-stage outlets into their pond designs to control flows from smaller, less frequent storms and help maintain base flows in downstream open channels. The BDWMO will cooperate with member cities to identify or evaluate designs intended to achieve this goal. *See above comment regarding recommendations versus requirements.*

~~14.~~15. ~~The BDWMO requires c~~Member cities ~~to~~ shall require ~~set~~ minimum building elevations (including basement) at least one foot above the critical 100-year flood elevation for structures adjacent to inundation areas.

~~15.~~16. The BDWMO requires the following rate control standards:

- For new development~~, peak runoff rates will be maintained at or below pre-development rates for all events up to and including the 100-year storm event.~~ and redevelopment, ~~T~~the peak ~~rate of~~ stormwater runoff rate ~~from the developed subwatershed of the site~~ shall not exceed the existing peak rate ~~of runoff~~ for the 2-year, 10-year, and the 100-year storm events. ~~For new development, peak runoff rates will be maintained at or below pre-development rates for all events up to and including the 100-year storm event.~~ "Subwatershed" may be the project site, or may be an area of greater size for which an approved local water management plan meets this criterion.

- Analysis of peak stormwater rates shall be performed using a hydrograph method based on sound hydrologic theory and Atlas 14 (or more recent) precipitation data.

- Rates may be further restricted when the capacity of the downstream conveyance system is limited.

~~16. The BDWMO requires member cities to limit runoff rates to levels that allow for safe and stable conveyance of flow through the watersheds in the BDWMO. To this end, the BDWMO requires the following:~~

- ~~A hydrograph method based on sound hydrologic theory shall be used to analyze stormwater runoff for the design or analysis of flows in conveyors, streams, and channels and flows to ponds and wetlands.~~

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~~▪ Reservoir routing procedures and critical duration 100-year runoff events shall be used for design of detention basins and outlets.~~

~~17. The BDWMO encourages member cities to limit runoff volumes by using designs that limit impervious surfaces and/or incorporate volume control practices such as infiltration to protect surface water quality and provide recharge to groundwater, except in cases where site-specific investigation suggests negative impacts resulting from limiting runoff or increasing infiltration. The BDWMO will cooperate with member cities to identify or evaluate designs intended to achieve this goal.~~ *Suggest deleting as similar policy is included in water quality section.*

~~18. Member cities shall encourage reduced connectivity of impervious surfaces through education (e.g. Blue Thumb workshops and newsletter articles), developer agreements, or other appropriate methods.~~ *Suggest deleting as this is not a requirement and is generally covered elsewhere.*

~~19. The BDWMO requires member cities to limit nutrient loading into waterbodies to prevent them from impairment and/or to improve water quality so they are no longer impaired, to the extent practicable.~~ *Suggest deleting as water quality standards to avoid impairment are already included in the goals.*

17. Member cities shall be responsible for operating and maintaining city-owned stormwater facilities ~~in order~~ to achieve the intended water quality improvement, flood risk reduction, and other beneficial functions originally intended.

~~20. The BDWMO requires member cities to protect and maintain downstream drainage systems to provide permanent and safe conveyance of stormwater, and to reduce the frequency and/or duration of downstream flooding.~~

~~21. All projects disturbing one acre or more must submit an Erosion Control Plan to the MPCA that conforms to the MPCA's NPDES Construction Stormwater General Permit and shall incorporate the appropriate BMPs described in *Protecting Water Quality in Urban Areas* (MPCA, 2000).~~

~~22.~~18. Structural BMPs that treat stormwater shall conform to ~~must conform to~~ standard engineering practices documented in the Minnesota Stormwater Manual or equivalent design standard.

~~23.~~19. Member cities will maintain local official controls to protect and manage wetlands at least as stringent as current performance standards (see Table XX), including wetland buffer widths based on protection level or management

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classification, but not less than XX feet. ~~continue to enforce wetland management standards as defined by each member city (see Table 3-1), but including at a minimum:~~

- ~~Buffer strip width requirements depending on protection level or management classification (no less than 16.5 feet).~~
- ~~Limits on water level bounce during storm events depending upon wetland protection level or management classification.~~