Black Dog Watershed Management Commission

AGENDA
Wednesday, April 17, 2024
5:00 P.M.

COMMISSIONERS:
Curt Enestvedt, Chair
Mike Hughes, Vice Chair
Scott Thureen, Secretary/Treasurer
Rollie Greeno
Todd Christopherson
Greg Helms, Alternate
Cyndi Bergloff, Alternate

I. Approval of Agenda

II. Approval of Minutes – March 20, 2024

III. Approval of Accounts Payable

IV. Review Budget Performance Reports

V. Approve 2023 Annual Financial Statement

VI. Approve Commitment Letter for Groundwater Conservation Marketing Campaign

VII. Review Revised Annual Newsletter

VIII. Review 2023 Management Level Monitoring for Keller Lake

IX. Miscellaneous

X. Adjournment

BLACK DOG
Watershed Management Organization

Agenda Background
April 17, 2024

I. Approval of Agenda

Agenda enclosed.

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

II. Approval of Minutes from the March 20, 2024 Meeting

Minutes enclosed.

Action Requested: A motion be considered to approve the Minutes of the March 20, 2024 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. Approve 2023 Annual Financial Statement

All 2023 revenues and expenses have been recorded and included in the 2023 year end financial statement. The statement is included in the packet for review.

Action Requested: Approve the 2023 year end financials to be included in our annual report to the Board of Soil and Water Resources.

VI. Approve Commitment Letter for Groundwater Conservation Marketing Campaign

As discussed at the last meeting Vermillion River Watershed was awarded a $50,000 grant to accelerate implementation of groundwater conservation measures. They have asked other watersheds in Dakota County if they would like to participate. The enclosed letter outlines our commitments to the program including providing $7,500 in funding. Staff will discuss this letter and program at the meeting.

Action Requested: Approve submitting a letter of commitment for groundwater conservation marketing campaign and provide $7,500 in funding.

VII. Review Revised 2023 Annual Newsletter

Enclosed in the packet is a final copy of the 2023 Annual Newsletter. Barr staff will go over the newsletter at the meeting.

Action Requested: Consider a motion approving the 2023 Newsletter for distribution.

VIII. Review 2023 Management Level Monitoring for Keller Lake

In 2023 Barr Engineering performed increased monitoring on Keller Lake. Staff from Barr will review the monitoring performed and the results of the monitoring at the meeting. Enclosed in your packet is a copy of the report.

Action Requested: Consider a motion accepting the report with any edits suggested at the meeting.

IX. Miscellaneous

X. Adjournment

BLACK DOG
Watershed Management Organization

DRAFT
Meeting Minutes
March 20, 2024

MEMBERS PRESENT
Curt Enestvedt, Chair
Mike Hughes, Vice Chair
Scott Thureen, Secretary/Treasurer
Rollie Greeno
Todd Christopherson

MEMBERS ABSENT
Cyndi Bergloff, Alternate
Greg Helms, Alternate

OTHERS PRESENT
Greg Williams – Barr Engineering
Jack Brooksbank – Campbell Knutson
Curt Coudron – Dakota County Soil & Water Conservation District
Samantha Berger – City of Apple Valley
Daryl Jacobson – BDWMO Administrator
Tammi Carte – BDWMO Secretary

Curt Enestvedt, Chair, called the March 20, 2024, meeting to order at 5:00 pm.

I. Approval of Agenda

Motion by Thureen, second by Hughes, to approve the March 20, 2024, Agenda as presented.

Ayes – Enestvedt, Hughes, Thureen, Greeno, Christopherson
Nays – None

Motion Carried Unanimously

II. Approval of Minutes from the February 21, 2024, Meeting

Motion by Greeno, second by Hughes, to approve the February 21, 2024, Minutes as presented.

Ayes – Enestvedt, Hughes, Thureen, Greeno, Christopherson
Nays – None

Motion Carried Unanimously

III. Approval of Accounts Payable

Motion by Hughes, second by Thureen, to approve accounts payable to Barr Engineering in the amount of $4,957.50 for services from February 3, 2024, through March 1, 2024; and, to Campbell Knutson in the amount of $261.04 for January 4, 2024, and February 2024 general services.

Ayes – Enestvedt, Hughes, Thureen, Greeno, Christopherson
Nays – None

Motion Carried Unanimously

IV. Review Budget Performance Reports

Daryl Jacobson, BDWMO Administrator, shared that the Commission's budget and finances are performing well. The 2023 yearend financials could be available for review by the April meeting.

No Formal Action Required

V. Approval Lakes for CAMP Monitoring in 2024

Staff proposes the BDWMO sponsor monitoring at four of the strategic water bodies identified in the Watershed Plan. Staff recommends the Commission approves enrolling Crystal Lake, Keller Lake, Orchard Lake, and Lac Lavon in the 2024 CAMP.

Kingsley Lake will not be included this year. There aren't enough volunteers to gather samples and the water levels are too low for boats to launch.

Motion by Hughes, second by Greeno, to approve enrolling Crystal Lake, Keller Lake, Orchard Lake, and Lac Lavon in the 2024 CAMP monitoring program.

Ayes – Enestvedt, Hughes, Thureen, Greeno, Christopherson
Nays – None

VI. Approval of 2023 Watershed Annual Report (Newsletter)

A copy of the draft 2023 Annual Watershed Report was provided to the Commission for review prior to this meeting.

Greg, Barr Engineering, reviewed the report with the Commission. The 2023 report will have a similar format as previous years. The report includes water quality monitoring results. The Commission didn't request additions or deletions to the report.

Motion by Christopherson, second by Thureen, to approve the 2023 Annual Watershed Report as presented.

Ayes – Enestvedt, Hughes, Thureen, Greeno, Christopherson
Nays – None

Motion Carried Unanimously

VII. Miscellaneous

1. The next meeting is scheduled for Wednesday, April 17, 2024.
2. Discussion about partnering with other watersheds on a water conservation public education campaign. This is being led by the Vermillion River Watershed. The Black Dog 2022-2031 Watershed Management Plan includes groundwater monitoring and groundwater quality. It also includes public education and outreach. Staff recommends the partnership, and the Commission supports doing that.
3. The question of funding lake monitoring was asked. The Black Dog WMO funds monitoring lakes evenly through CAMP and Barr Engineering. Lakes are on a rotation schedule for monitoring to ensure all lakes are monitored.
4. Dry winter concerns – it's possible for more water quality issues. Each lake will respond differently. There could be a higher level of weeds earlier in the season due to the lack of snow and rain.
5. Premier Harvesting was approved as a provider of weed control in Crystal lake.
6. Due to the lack of snow removal, cities have increased their street sweeping.

VIII. Adjournment

Motion by Thureen, second by Greeno, to adjourn at 5:21 pm.

Ayes – Enestvedt, Hughes, Thureen, Greeno, Christopherson
Nays – None

Motion Carried Unanimously

BLACK DOG
Watershed Management Organization

Accounts Payable April 17, 2024 Meeting

Barr Engineering - Services from March 2, 2024 through March 29, 2024

Engineering	$	1,119.00
Special Projects: General Fund - Reporting on 2023 Water Quality Monitoring - Keller Lake	$	621.00
Special Projects: General Fund - 2023 Management Level Monitoring - Orchard Lake	$	1,433.91
Water Quality Monitoring: Update Trend Analyses	$	280.00
Public Education: Watershed Annual Report	$	1,640.00
	$	**5,093.91**

Campbell Knutson

General Services - March 2024	$	157.50
	$	**157.50**

Dakota County Soil & Water Conservation District - Services for January 2024 - March 2024

Website Updates & Maintenance	$	522.50
Website Hosting	$	900.00
	$	**1,422.50**

Accounts Payable Total $ 6,673.91

resourceful. naturally.
engineering and environmental consultants

BARR

Remittance address:
Lockbox 446104
PO Box 64825
St Paul, MN 55164-0825

April 9, 2024 - Revised

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 March 2, 2024 through March 29, 2024

TOTAL PAYABLE THIS INVOICE:		**$ 5,093.91**
Allocation:		
Engineering	~~**$ 1,617.00**~~	**$ 1,119.00**
Special Projects: General Fund		
• **Reporting on 2023 Keller Lake Water Quality Monitoring**		**$ 621.00**
• **Orchard Lake 2024 Management Level Monitoring**		**$ 1,433.91**
Water Quality Monitoring		
• **Update Trend Analyses**		**$ 280.00**
Public Education		
• **Watershed Annual Report**		**$ 1,640.00**

OK
9-10-24

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 - 2024 FY
Black Dog Watershed Management Commission
March 2, 2024 through March 29, 2024

Work Description	2024 Barr Budget	Current Invoice	Spent This Year	Balance
Engineering	34,000.00	1,119.00	5,243.50	28,756.50
Special Projects: General Fund				
Reporting on Keller Lake 2023 Water Quality Monitoring	7,500.00	621.00	1,111.00	6,389.00
Orchard Lake 2024 Management Level Monitoring	21,000.00	1,433.91	1,604.41	19,395.59
Subtotal -- Special Projects: General Fund	28,500.00	2,054.91	2,715.41	25,784.59
Water Quality Monitoring				
Update Trend Analyses	2,000.00	280.00	1,820.00	180.00
Subtotal -- W.Q. Monitoring	2,000.00	280.00	1,820.00	180.00
Public Education				
Watershed Annual Report	4,800.00	1,640.00	3,130.00	1,670.00
Annual Activity Report (BWSR)	3,000.00	0.00	0.00	3,000.00
Subtotal -- Public Education	7,800.00	1,640.00	3,130.00	4,670.00
Total Services	72,300.00	5,093.91	12,908.91	59,391.09

INVOICE

91Barr Engineering Co.
4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Phone: 952-832-2600; Fax: 952-832-2601
FEIN #: 41-0905995 Inc: 1966

Remittance address:
Lockbox 446104
PO Box 64825
St Paul, MN 55164-0825

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

April 9, 2024
Invoice No: 23190374.24 - 3

Total this Invoice $2,759.00

Regarding: BDWMO 2024 Engineering Services

This invoice is for professional services related to the above project.

Professional Services from March 2, 2024 to March 29, 2024

Job: 2024 Engineering Services

Task: 001 Attend BDWMO Meetings

Labor Charges

	Hours	Rate	Amount	
Engineer / Scientist / Specialist III				
Williams, Sterling	1.60	170.00	272.00	
	1.60		272.00	
Subtotal Labor				**272.00**
			Task Subtotal	**$272.00**

Task: 002 Miscellaneous Consulting

Labor Charges

	Hours	Rate	Amount	
Vice President				
Chandler, Karen	.70	210.00	147.00	
Engineer / Scientist / Specialist IV				
Wilson, Gregory	.70	195.00	136.50	
Engineer / Scientist / Specialist III				
Williams, Sterling	2.30	170.00	391.00	
Support Personnel II				
Nypan, Nyssa	1.50	115.00	172.50	
	5.20		847.00	
Subtotal Labor				**847.00**
			Task Subtotal	**$847.00**

Task: 004 Newsletter/Watershed Report

Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

Labor Charges

	Hours	Rate	Amount	
Vice President				
Chandler, Karen	1.00	210.00	210.00	
Engineer / Scientist / Specialist III				
Williams, Sterling	4.50	170.00	765.00	
Support Personnel I				
Kaul (Contracted), Karen	7.00	95.00	665.00	
	12.50		1,640.00	
Subtotal Labor				**1,640.00**
			Task Subtotal	**$1,640.00**
			Job Subtotal	**$2,759.00**
			Total this Invoice	**$2,759.00**

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	**2,759.00**	**5,614.50**	**8,373.50**	**5,614.50**	**2,759.00**

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.

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

Remittance address:
Lockbox 446104
PO Box 64825
St Paul, MN 55164-0825

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

April 9, 2024
Invoice No: 23190375.24 - 3
<Draft>

Total this Invoice $2,054.91

Regarding: Management Level Water Quality Monitoring

This invoice is for professional services related to the above project.

Professional Services from March 2, 2024 to March 29, 2024

Job: KEL Keller Lake 2023 Reporting

Task: 100 Report

Labor Charges

	Hours	Rate	Amount	
Technician I				
Palumbo, James	6.90	90.00	621.00	
	6.90		621.00	
Subtotal Labor				**621.00**
		Task Subtotal		**$621.00**
		Job Subtotal		**$621.00**

Job: ORC Orchard Lake 2024 Water Qual Monitorin

Task: 100 Monitoring Data Mgmt & Proj Mgmt

Labor Charges

	Hours	Rate	Amount
Engineer / Scientist / Specialist III			
Olson, Terri	.20	165.00	33.00
Engineer / Scientist / Specialist I			
Kramarczuk, Katie	2.10	105.00	220.50
Technician II			
Melmer, David	5.50	110.00	605.00
Wolf, Matthias	1.30	95.00	123.50

Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

Support Personnel II					
Rasmussen, Kayla		.20	105.00	21.00	
Treanor, Margaret		.60	125.00	75.00	
		9.90		1,078.00	
Subtotal Labor					**1,078.00**
Subconsultant Charges					
Subconsultants					
3/28/2024	RMB Environmental Laboratories Inc			172.92	
Subtotal Subconsultant					**172.92**
Unit Charges					
Barr Owned Vehicle Use		0.5 days @ 115.00		57.50	
Canoe		0.5 days @ 45.00		22.50	
Ice (per bag)		1.0 ea @ 3.10		3.10	
Kemmerer Vertical Bottle Sampler		0.5 days @ 33.50		16.75	
Turbidimeter		0.5 days @ 25.00		12.50	
Vehicle (Mileage)		42.0 miles @ 0.67		28.14	
Water Quality Meter (YSI 556 MPS)		0.5 days @ 85.00		42.50	
Subtotal Units					**182.99**
			Task Subtotal		**$1,433.91**
			Job Subtotal		**$1,433.91**
			Total this Invoice		**$2,054.91**

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	**2,054.91**	**660.50**	**2,715.41**	**660.50**	**2,054.91**

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 952.932.2945, or email gwilliams@barr.com.

INVOICE

29Barr Engineering Co.
4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Phone: 952-832-2600; Fax: 952-832-2601
FEIN #: 41-0905995 Inc: 1966

Remittance address:
Lockbox 446104
PO Box 64825
St Paul, MN 55164-0825

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

April 9, 2024
Invoice No: 23190375.99 - 14

Total this Invoice	**$280.00**

Regarding: Trend Analysis

This invoice is for professional services related to the above project.

Professional Services from March 2, 2024 to March 29, 2024

Job:	2024	2023 Data
Task:	100	Trend Analysis 2023 Data

Labor Charges

	Hours	Rate	Amount	
Engineer / Scientist / Specialist II				
Menken, Kevin	2.00	140.00	280.00	
	2.00		280.00	
Subtotal Labor				**280.00**
			Task Subtotal	**$280.00**
			Job Subtotal	**$280.00**
			Total this Invoice	**$280.00**

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	**280.00**	**7,855.00**	**8,135.00**	**7,855.00**	**280.00**

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.

Terms: Due upon receipt. 1 1/2% per month after 30 days. Please refer to the contract if other terms apply.

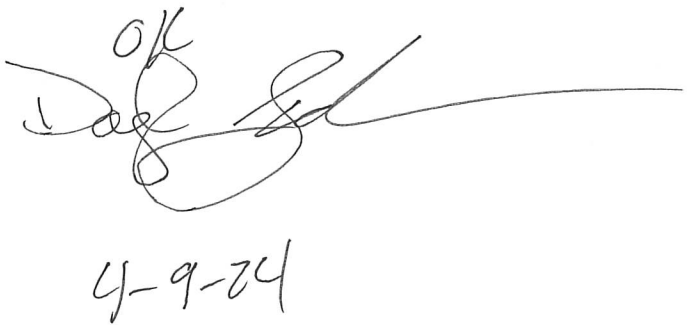
CAMPBELL KNUTSON
Professional Association
Attorneys at Law
Federal Tax I.D. #41-1562130
Grand Oak Office Center I
860 Blue Gentian Rd Ste 290
Eagan, Minnesota 55121
(651) 452-5000

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

March 31, 2024
Account # 602-0000G
394

RE: GENERAL SERVICES
RENDERED TO DATE:

			HOURS	
03/20/2024	JSB	Review agenda, travel to and attend meeting.	0.90	157.50
		AMOUNT DUE	0.90	157.50
		TOTAL CURRENT WORK		157.50
		PREVIOUS BALANCE		$261.04
03/25/2024		Payment - thank you		-261.04
		TOTAL AMOUNT DUE		$157.50



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.

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT

Dakota County Soil & Water Conservation District
4100 220th Street West, Ste 102
Farmington, MN 55024
(651) 480-7777
DakotaSWCD.Accounting@CO.Dakota.MN.US

Invoice

DATE	INVOICE #
4/1/2024	3371

BILL TO

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

AGREEMENT	BILLING PERIOD	TERMS
2024 Agreement	Jan - Mar 2024	Net 30 Days

DESCRIPTION	HRS/COUNT	RATE	AMOUNT
EDUCATION AND ASSISTANCE OUTREACH			
Website Updates and Maintenance	5.5	95.00	522.50
Fee: Website Hosting	1	900.00	900.00
Landscaping for Clean Water Intro Class	0	3,800.00	0.00
Landscaping for Clean Water Design Course	0	7,600.00	0.00
Landscaping for Clean Water Maintenance Workshop	0	1,900.00	0.00
TECHNICAL ASSISTANCE			
Landscaping for Clean Water Technical Assistance	0	600.00	0.00
COST SHARE			
Landscaping for Clean Water Grant:	0	250.00	0.00

OK
4-9-24

It's been a pleasure working with you!

Total $1,422.50

BLACK DOG WMO
CASH ACTIVITY REPORT 2024

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 12/31/23					**563,723.96**											
17-Jan	Barr Engineering Co (2023)			1822	6,289.38		4,969.38	1,320.00									
17-Jan	Campbell Knutson (2023)			1823	595.00							595.00					
17-Jan	Dakota Cnty Soil & Water Cons Dist (2023)			1824	4,815.00			1,500.00						3,315.00			
31-Jan	Interest Income (January 2024)	2,484.79															
	01/31/23 Balance	2,484.79			11,699.38	**554,509.37**	4,969.38	2,820.00	-	-	-	595.00	-	3,315.00	-	-	-
21-Feb	Barr Engineering Co			1825	2,857.50		2,507.50	70.00							280.00		
21-Feb	Campbell Knutson (2023)			1826	245.00							245.00					
21-Feb	Campbell Knutson				477.88							477.88					
21-Feb	City of Burnsville (2023)			1827	23,184.01								23,184.01				
29-Feb	Interest Income	2,318.70															
	02/28/23 Balance	2,318.70			26,764.39	**530,063.68**	2,507.50	70.00	-	-	-	722.88	23,184.01	-	280.00	-	-
20-Mar	Barr Engineering			1828	4,957.50		1,617.00	590.50						1,490.00	1,260.00		
20-Mar	Campbell Knutson			1829	261.04							261.04					
31-Mar	Interest Income	2,389.48															
	03/31/23 Balance	2,389.48			5,218.54	**527,234.62**	1,617.00	590.50	-	-	-	261.04	-	1,490.00	1,260.00	-	-
	Total Revenue	7,192.97	**Total Expense**		43,682.31		9,093.88	3,480.50	-	-	-	1,578.92	23,184.01	4,805.00	1,540.00	-	-
	Less: 2023 A/R	-	**Less: 2023 A/P**		(35,128.39)		(4,969.38)	(2,820.00)	-	-	-	(840.00)	(23,184.01)	(3,315.00)	-	-	-
	December LMC insurance reclass	-			-												
	Total YTD 2024 Revenue	7,192.97	**Total YTD 2024 Exp**		8,553.92		4,124.50	660.50	-	-	-	738.92	-	1,490.00	1,540.00	-	-
			2024 Budget		144,800.00		34,000.00	43,800.00	-	-	2,500.00	5,000.00	24,000.00	24,000.00	6,000.00	500.00	5,000.00
			Budget Remaining		136,246.00		29,876.00	43,139.50	-	-	2,500.00	4,261.08	24,000.00	22,510.00	4,460.00	500.00	5,000.00
	YTD Interest Income	*4,708.18*															

BLACK DOG WATER MANAGEMENT COMMISSION

Budget Performance Report
March 31, 2024

	CURRENT MONTH	YEAR TO DATE			
	ACTUAL	GENERAL FUND BUDGET	CAPITAL IMPROVEMENT FUND BUDGET	ACTUAL	VARIANCE FAVORABLE (UNFAVORABLE)
Opening Fund Balance		$ 412,606	$ 115,989	$ 528,596	
REVENUES :					
Member Contributions:					
City of Apple Valley	$ -	$ 10,562	$ 1,021	$ -	$ (11,583)
City of Burnsville	-	93,822	9,149	-	(102,971)
City of Eagan	-	588	-	-	(588)
City of Lakeville	-	26,028	2,330	-	(28,358)
Total Member Contributions	-	131,000	12,500	-	(143,500)
Other Revenues:					
Interest	$ 2,389	$ 500	$ -	$ 7,193	$ 6,693
Grant (State of MN BWSR)	-	-	-	-	-
Total Other Revenue	2,389	500	-	7,193	6,693
Total Revenues	$ 2,389	$ 131,500	$ 12,500	$ 7,193	$ (136,807)
EXPENDITURES :					
General Engineering Support	$ 1,617	$ 34,000	$ -	$ 4,125	$ 29,876
Special Projects - General Fund	591	43,800	-	661	43,140
Special Projects - Capital Improvement Fund	-	-	-	-	-
Special Projects - General Fund Reserve	-	-	-	-	-
Insurance	-	2,500	-	-	2,500
Legal and Audit	261	5,000	-	739	4,261
Administrative Support	-	24,000	-	-	24,000
Public Education	1,490	24,000	-	1,490	22,510
Water Quality Monitoring	1,260	6,000	-	1,540	4,460
Conference/Publications	-	500	-	-	500
Contingency	-	5,000	-	-	5,000
Total Expenditures	5,219	144,800	-	8,554	136,246
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES	(2,829)	(13,300)	12,500	(1,361)	
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES PLUS OPENING FUND BALANCE				527,235	

TOTAL CASH AVAILABLE 3/34/2024	527,235
Fund Balance 3/31/2024	$ 527,235

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Financial Statements
as of December 31, 2023

Unaudited
Prepared by the City of Burnsville

Contents:

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Statement of Net Position
as of December 31, 2023

	Governmental Activities 2023
Assets	
Cash and investments	563,723.96
Accounts receivable	-
Due from other governmental units	-
Prepaids	-
Capital assets	
Buildings	37,600.00
Equipment	110,138.00
Less accumulated depreciation	(137,398.00)
Total capital assets, net of accumulated depreciation	10,340.00
Total assets	574,063.96
Liabilities	
Accounts payable	7,129.38
Due to other governmental units	27,999.01
Unearned revenue	-
Total liabilities	35,128.39
Net position	
Net investment in capital assets	10,340.00
Restricted for capital improvements	115,989.27
Unrestricted	412,606.30
Total net position	538,935.57
Total liabilities and net position	574,063.96

-

Unaudited
Prepared by City of Burnsville

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Statement of Activities
Year Ended December 31, 2023

	Governmental Activities 2023
Expenses	
General government	
System operations	78,071.10
Administrative services	47,290.51
Depreciation	940.00
Total program expenses	126,301.61
Revenues	
General government	
Charges for services	
Management fees	143,500.00
Grants	
State of MN Board of Water and Soil Resources	-
General revenues	
Interest earnings	24,677.48
Total revenues	168,177.48
Change in net position	41,875.87
Net position	
Beginning of year	497,059.70
End of year	538,935.57

Unaudited
Prepared by City of Burnsville

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Balance Sheet
Governmental Funds
Year Ended December 31, 2023

	General Fund	Capital Improvement Fund	Total Governmental Funds 2023
Assets			
Cash and investments	447,734.69	115,989.27	563,723.96
Accounts receivable	0.00	0.00	0.00
Due from other governmental units	0.00	0.00	0.00
Total assets	447,734.69	115,989.27	563,723.96
Liabilities			
Accounts payable	7,129.38	0.00	7,129.38
Due to other governmental units	27,999.01	0.00	27,999.01
Unearned revenue	0.00	0.00	0.00
Total liabilities	35,128.39	0.00	35,128.39
Fund balances			
Restricted for capital improvements	0.00	115,989.27	115,989.27
Assigned for subsequent year's budget deficit	13,300.00	0.00	13,300.00
Unassigned	399,306.30	0.00	399,306.30
Total fund balances	412,606.30	115,989.27	528,595.57
Total liabilities, deferred inflows of resources, and fund balances	447,734.69	115,989.27	563,723.96

Amounts reported for governmental activities in the Statement of Net Position differ because:	
Fund balances – governmental funds	528,595.57
Capital assets used in governmental activities are not financial resources and, therefore, are not reported as assets in governmental funds.	
Cost of capital assets	147,738.00
Less accumulated depreciation	(137,398.00)
Net position of governmental activities	538,935.57

Unaudited
Prepared by City of Burnsville

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Statement of Revenue, Expenditures, and Changes in Fund Balances
Governmental Funds
Year Ended December 31, 2023

	General Fund	Capital Improvement Fund	Total Governmental Funds 2023
Revenue			
Member assessments	131,000.00	12,500.00	143,500.00
Intergovernmental Revenue - Grants	-	-	-
Interest earnings	24,677.48	-	24,677.48
Total revenue	155,677.48	12,500.00	168,177.48
Expenditures			
General government			
System Operations			
Engineering	32,569.95	-	32,569.95
Special Projects	33,135.15	-	33,135.15
Insurance	2,599.00	-	2,599.00
Water quality monitoring	9,767.00	-	9,767.00
Administrative services			
Legal and audit	2,922.50	-	2,922.50
Administrative costs	23,184.01	-	23,184.01
Public education	21,184.00	-	21,184.00
Conferences, publications and reports	-	-	-
Contingency	-	-	-
Total expenditures	125,361.61	-	125,361.61
Expenditures	30,315.87	12,500.00	42,815.87
Other Financing Source (Uses)			
Transfers in	-	-	-
Transfers out	-	-	-
Total other financing sources (uses)	-	-	-
Net change in fund balances	30,315.87	12,500.00	42,815.87
Fund balances			
Beginning of year	382,290.43	103,489.27	485,779.70
End of year	412,606.30	115,989.27	528,595.57

Amounts reported for governmental activities in the Statement of Activities are different because:

Net change in fund balances – governmental funds	42,815.87
Capital outlays are reported as expenditures in governmental funds, but are allocated over the estimated useful lives of the capital assets as depreciation expense in the Statement of Activities.	
Depreciation expense	(940.00)
Change in net position of governmental activities	41,875.87

Unaudited
Prepared by City of Burnsville

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Statement of Revenue, Expenditures, and Changes in Fund Balances
Budget and Actual
General Fund
Year Ended December 31, 2023

	2023		
	Original and Final Budget	Actual	Over (Under) Final Budget
Revenue			
Management fees	131,000.00	131,000.00	-
Intergovernmental Revenue - Grants	-	-	-
Interest earnings	40.00	24,677.48	24,637.48
Total revenue	131,040.00	155,677.48	24,637.48
Expenditures			
General government			
System Operations			
Engineering	43,000.00	32,569.95	(10,430.05)
Special Projects	37,300.00	33,135.15	(4,164.85)
Insurance	2,500.00	2,599.00	99.00
Water quality monitoring	15,200.00	9,767.00	(5,433.00)
Administrative services			
Legal and audit	5,000.00	2,922.50	(2,077.50)
Administrative costs	24,000.00	23,184.01	(815.99)
Public education	25,700.00	21,184.00	(4,516.00)
Conferences, publications and reports	500.00	-	(500.00)
Contingency	5,000.00	-	(5,000.00)
Total expenditures	158,200.00	125,361.61	(32,838.39)
Expenditures	(27,160.00)	30,315.87	57,475.87
Other Financing Source (Uses)			
Transfers in	-	-	-
Transfers out	-	-	-
Total other financing sources (uses)	-	-	-
Net change in fund balances	(27,160.00)	30,315.87	57,475.87
Fund balances			
Beginning of year		382,290.43	
End of year		412,606.30	

Unaudited
Prepared by City of Burnsville

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Statement of Revenue, Expenditures, and Changes in Fund Balances
Budget and Actual
Capital Improvement Fund
Year Ended December 31, 2023

	2023		
	Original and Final Budget	Actual	Over (Under) Final Budget
Revenue			
Management fees	12,500.00	12,500.00	-
Intergovernmental Revenue - Grants	-	-	-
Interest earnings	-	-	-
Total revenue	12,500.00	12,500.00	-
Expenditures			
General government			
System Operations			
Engineering	-	-	-
Special Projects	-	-	-
Insurance	-	-	-
Water quality monitoring	-	-	-
Administrative services			
Legal and audit	-	-	-
Administrative costs	-	-	-
Public education	-	-	-
Conferences, publications and reports	-	-	-
Contingency	-	-	-
Total expenditures	-	-	-
Excess (Deficiency) of Revenues Over (Under) Expenditures	12,500.00	12,500.00	-
Other Financing Source (Uses)			
Transfers in	-	-	-
Transfers out	-	-	-
Total other financing sources (uses)	-	-	-
Net change in fund balances	12,500.00	12,500.00	-
Fund balances			
Beginning of year		103,489.27	
End of year		115,989.27	

Unaudited
Prepared by City of Burnsville

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION				
Accounts Receivable				
12/31/23				
Description			**Amount**	**Deposit Date**
None				
			0.00	

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION				
Due From Other Governmental Units				
12/31/23				
Description			**Amount**	**Deposit Date**
		DFOG		
			0.00	

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION							
Accounts Payable/Due to Other Governments							
12/31/23							
Inv Date	**Vendor Name**		**Amount**	**Description**	**Date Paid**	**Check #**	**Check Amt**
	Barr Engineering	AP	$ 6,289.38	Prof. services Oct.28-Dec.29,2023	01/17/24	1822	$ 6,289.38
	Campbell Knutson	AP	$ 595.00	Oct, Nov 2023 General Services	01/17/24	1823	$ 595.00
	Dakota County Soil & '	DTOG	$ 4,815.00	October - December 2023 (Quarterly fees)	01/17/24	1824	$ 4,815.00
	Campbell Knutson	AP	245.00	Dec 2023 General Services	02/21/24	1826	245.00
	City of Burnsville	DTOG	$ 23,184.01	2023 Support services	02/21/24	1827	$ 23,184.01
	total		$ 35,128.39				
		AP	7,129.38				
		AP-Cap	0.00				
		DTOG	27,999.01				
	total		$ 35,128.39				

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION						
Outstanding checks at year-end						
12/31/2023						
Inv Date	Vendor Name	Amount		Description	Date Paid	Check #
None						
		$ -				

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION		
Management Fees		
12/31/2023		
Management Fees 2023 (General Fund):		
City of Apple Valley	$ 10,412.00	
City of Burnsville	94,014.00	
City of Eagan	586.00	
City of Lakeville	25,988.00	
Total	$ 131,000.00	
Member Fees - Capital Improvement Fund 2023:		
City of Apple Valley	$ 992.00	
City of Burnsville	9,186.00	
City of Eagan	0.00	
City of Lakeville	2,322.00	
Total	$ 12,500.00	
Grand Total	143,500.00	
Total by City 2023:		
City of Apple Valley	$ 11,404.00	
City of Burnsville	$ 103,200.00	
City of Eagan	$ 586.00	
City of Lakeville	$ 28,310.00	
Total	$ 143,500.00	

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION		
Grants		
12/31/2023		
Description	**Amount**	**Deposit Date**
GRANTS	$ -	

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION

CAPITAL ASSETS SUMMARY

YEAR ENDED DECEMBER 31, 2023

Acq Date	Description	Useful Life	Historical Cost 12/31/03	Accumulated Depreciation 12/31/22	Net Value 12/31/22	2023 Depreciation	Balance 12/31/2023
1994	Building	40	37,600	(26,320.00)	11,280.00	(940.00)	10,340.00
1994	Equipment	15	110,138	(110,138.00)	-	-	-
			147,738.00	(136,458.00)	11,280.00	(940.00)	10,340.00
				total accumulated depreciation at YE		(137,398.00)	

Assets	Years
Buildings	40 years
Equipment	15 years

Capital asset activity for the year ended December 31, 2023 was as follows:

	Beginning Balance	Additions	Deletions	Ending Balance
Governmental Activities				
Capital assets, depreciated				
Buildings	$ 37,600	$ -	$ -	$ 37,600
Equipment	110,138	-	-	110,138
Total capital assets, depreciated	147,738	-	-	147,738
Less accumulated depreciation for				
Buildings	26,320	940	-	27,260
Equipment	110,138	-	-	110,138
Total accumulated depreciation	136,458	940	-	137,398
Governmental activities capital assets, net	$ 11,280	$ (940)	$ -	$ 10,340

BLACK DOG WATERSHED
MANAGEMENT ORGANIZATION

Board of Commissioners and Administrators
as of December 31, 2023

BOARD OF COMMISSIONERS

Curtis Enestvedt	Chair
Mike Hughes	Vice Chair
Scott Thureen	Secretary/Treasurer/Commissioner
Rollie Greeno	Commissioner
Lynette Dunsworth	Commissioner
Open	Commissioner (Alternate)
Greg Helms	Commissioner (Alternate)
Natalie Walker	Commissioner (Alternate)

ADMINISTRATORS

Daryl Jacobson	Administrator

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION		
Notes		
12/31/23		
Description	**Amount**	
The last audit was performed for year-end 2019.		
An audit is required every 5 years OR if the revenue thresholds set by the OSA are met/exceeded.		

[Date]

Mike Slavik
Board Chair
Vermillion River Watershed Joint Powers Board

Commissioner Slavik,

On behalf of Black Dog WMO, please accept this letter of commitment to participate in the *Landscaping for Clean Water and Groundwater Conservation Marketing Campaign for Dakota County (Campaign).* We have identified Daryl Jacobson to serve as the primary representative for the effort.

With this commitment, we are expressing our agreement to the following conditions:

- Dakota County and the Vermillion River Watershed will act as the Project Lead for the Campaign, including grant administration, contractor oversight and overall development of the marketing campaign in collaboration with partnering organizations;
- Following the initial Project Kick-off Meeting, the Project Lead will act as the designee for all communications with the Campaign consultants. The Project Lead will regularly report back to partnering organizations, at a frequency agreed upon by all partners;
- Black Dog WMO, acting as a partnering organization, will provide input on Campaign messaging, ensuring materials and messages do not conflict with community goals and objectives for cities and townships located within their respective boundary;
- Black Dog WMO commits $7,500 towards the Campaign. Dollars are to become available May 1, 2024; and
- As a financially contributing partnering organization, Black Dog WMO will have part-ownership of all Campaign created materials for future use, outside of the Campaign timeline.

We are excited to be a part of this effort and look forward to working together on behalf of the Black Dog WMO

Sincerely,

Curt Enestvedt
Chair

BLACK DOG
Watershed Management Organization

2023 WATERSHED ANNUAL REPORT

Published April 2024

Our Vision:

Water resources and related ecosystems are managed to sustain their long-term health and public value to contribute to the well-being of the communities within the watershed.

Evaluating our Success

The BDWMO watershed management plan calls for the organization and its member cities to identify outcome-based goals for specific water bodies found within the watershed and to meet annually to discuss progress toward these goals. The BDWMO uses the following methods to track progress toward goals:

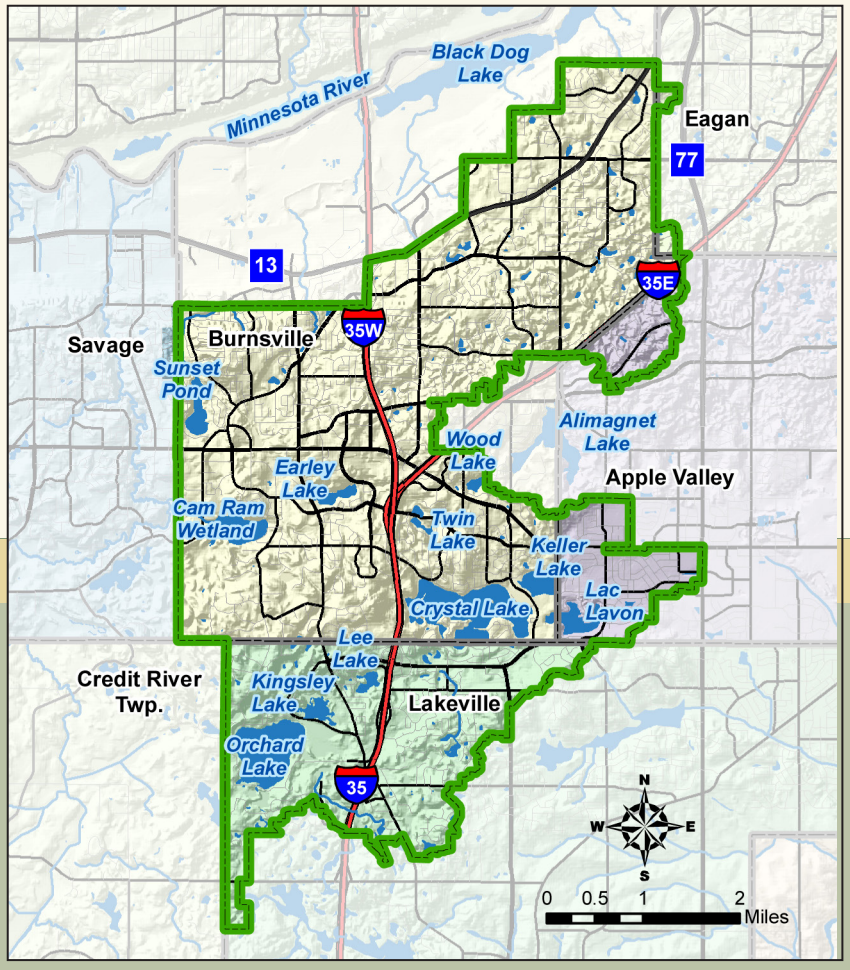
- **Trend Analysis**—The BDWMO collects water quality information and calculates trends to track the health of its strategic waterbodies.
- **BDWMO Goal Tracking**—The BDWMO identified metrics and outcomes associated with each goal included in its watershed management plan. At least biennially, the BDWMO evaluates those metrics to assess progress towards plan goals.

This annual report outlines BDWMO and member city actions relevant to BDWMO goals, progress toward water quality goals in 2023, and plans for 2024 and beyond.

What is the Black Dog Watershed Management Organization?

The Black Dog Watershed Management Organization (BDWMO) actively manages surface water, such as that found in lakes, streams, and wetlands, located in the Black Dog and Credit River watersheds within Dakota County. To effectively manage surface water, the BDWMO develops and implements plans that address water quality, responds to drainage issues that cross multiple municipal boundaries, and assists cities within the watershed to manage surface water runoff. The BDWMO is represented by commissioners who are appointed by the cities within the watershed, which include Burnsville, Lakeville, Apple Valley, and Eagan.

The total area of the Black Dog watershed is 17,500 acres; 70 percent of the watershed lies within the city of Burnsville, 21 percent of the area is within the city of Lakeville, 8 percent is within the city of Apple Valley, and 1 percent is within the city of Eagan.



In this Issue

Developing a Framework to Track Progress Towards Goals

In late 2022, the BDWMO adopted its 2022-2032 Watershed Management Plan—a plan that establishes the vision, policies, and activities for protecting, restoring, and managing the surface water resources within the boundaries of the BDWMO for a 10-year period.

The plan includes 18 goals (Goal A through Goal R) that address a broad range of priority issues, including:

- Water quality
- Water quantity and flooding
- Wetland management
- Shoreland, habitat, and open space management
- Groundwater
- Administration
- Education and public involvement

Minnesota Rules 8410.0150 Sub. 3(E) requires that watershed management organizations like the BDWMO evaluate progress towards goals at least every two years. To support this evaluation, the BDWMO developed "scorecards" to identify metrics or criteria associated with each goal and track progress.

Scorecard Design

Goal tracking scorecards include the following information:

Goal—as defined in the watershed management plan.

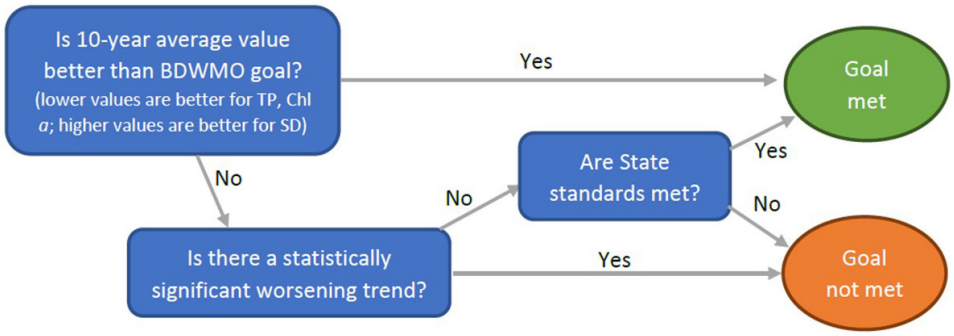
Metrics/Measures—the criteria, actions, or outcomes used to evaluate progress towards each goal. For water quality goals, metrics include numeric criteria. For most other goals, metrics include a combination of actions, outcomes, or conditions achieved or maintained.

Status—a narrative or tabular summary of whether the appropriate metrics have or have not been met and whether the goal has been achieved. Possible outcomes include:

- Achieved
- Mostly Met
- Progress Made

Implementation Actions—actions defined in the watershed management plan that are most directly tied to achieving the goal.

Example 1: Metric/Measures



This flowchart shows how the BDWMO assesses progress towards in-lake water quality goals (Goal A) for strategic waterbodies, using a combination of 10-year average observed data and trend analysis.

Example 2: Goal Status/Tracking

Member City/Partner	2024		Cumulative 2023 – Present		Notes
	Volunteer Events	Small-scale BMPs supported[1]	Volunteer Events	Small-scale BMPs supported[1]	
Apple Valley					
Burnsville					
Eagan					
Lakeville					
Dakota SWCD		--[1]		--[1]	
Dakota County		--		--	

(1) Including Landscaping for Clean Water projects; projects are listed according to physical location.

This table tracks volunteer events and implementation of small-scale stormwater best management practices (BMPs) to assess progress towards a public education and involvement goal (Goal R).

Landscaping for Clean Water—Clean Water Starts at Home

In 2023, Landscaping for Clean Water programming was held in-person and provided in virtual formats. One in-person and four virtual Introduction to Clean Water classes were held in the spring and followed with four in-person Design courses. Virtual learning options of both courses were also made available. A total of 62 residents of the BDWMO participated in the Introduction classes either in-person or virtually.

A total of 158 participants took part in the Design classes in-person or through pre-recorded videos; 36 of whom were BDWMO residents. Project materials for participants were made available online and an "Office Hours" program was used to provide virtual consultations to Design class participants. A total of 20 participants took advantage of these virtual consultations with staff in 2023. Participants were thankful for the additional one-on-one design assistance.

New for 2023, the Landscaping for Clean Water program offered an additional class for residents with shoreline areas to protect or enhance with native plantings. A total of 29 residents participated in the shoreline class.

19 projects were installed in the BDWMO in 2023—10 raingardens, 8 native gardens, and 1 shoreline project.

In 2023, one Maintenance workshop was taught in the spring. Each workshop focused on garden maintenance across all seasons and providing participants with seasonal information on how to maintain and promote the health, performance, and beauty of their garden. A total of 17 people registered for the 2023 Maintenance workshops.

The 2024 Landscaping for Clean Water program will be held in-person with virtual options also available. For more information and to get signed up, visit:

https://dakotaswcd.org/services/landscaping-for-clean-water-2024/

PROJECT
This project involved the installation of a 360 square foot native shoreline planting in Apple Valley.

COST
The project materials cost was estimated at $457.

FUNDING
The landowners received a $250 Landscaping for Clean Water grant as well as technical assistance provided by the Dakota County Soil and Water Conservation District.

Landscaping for Clean Water is one type of cost-sharing program offered by the Dakota County SWCD. For more information, call 651-480-7777 or go to https://dakotaswcd.org/services/landscaping-for-clean-water/.

Local Technical Advisory Committee Meets to Plan for Grant Funds

In October 2023, the BDWMO Administrator and engineer convened a meeting of the local Technical Advisory Committee (local TAC). The local TAC included staff from the following BDWMO partners:

- City of Burnsville
- City of Apple Valley
- City of Lakeville
- Dakota County (Groundwater group)
- Dakota County Soil and Water Conservation District

The local TAC met to discuss how to best align partner implementation activities and capital improvement programs with BDWMO plan implementation and coordinate to use available watershed-based implementation funding (WBIF). WBIF is a dedicated source of grant funding to address primarily water quality issues administered through the Minnesota Board of Water and Soil Resources (BWSR). Local TAC participants shared information about planned projects that address common goals and potential future opportunities including education efforts and capital improvements. Moving forward, the local TAC plans to meet annually in the first quarter to coordinate implementation efforts.

Local Grant Dollars Help Fund Water Quality Improvement Studies and Educational Guidebook

Local grant funding has been instrumental in supporting initiatives aimed at improving water quality in Keller Lake, a shared goal of the Cities of Burnsville and Apple Valley and the BDWMO. Recently, the City of Apple Valley successfully secured a Watershed Based Implementation Fund (WBIF) grant, enabling the completion of two feasibility studies for pond enhancement projects and the development of an educational guidebook for residents.

The feasibility studies focused on evaluating potential projects to expand two ponds within the Keller Lake watershed: Whitney Pond and "Arby's Pond." These projects were initially identified in a comprehensive water quality study conducted in 2017 (Keller Lake Subwatershed Assessment, by Barr Engineering Co.). The feasibility studies provided insight into project design concepts and associated costs, serving as valuable tools for leveraging additional grant funding. Public engagement, particularly for the Whitney Pond expansion, played a crucial role in refining the project's final design. Currently, the City has secured a $313,169 Clean Water Fund grant for the Whitney Pond project and plans to seek additional funding to ensure project completion. The pond expansion project is anticipated to start as early as late 2024. Detailed information regarding the project can be found on the City of Apple Valley website by searching for "Whitney Pond."

Additionally, residents of the Keller Lake watershed have received copies of the "Backyard Watershed: A Clean Water Companion," a guidebook funded by the grant. This resource equips residents with seasonal best practices, information on available grant resources, and guidance on understanding and appreciating the local watershed. The guidebook is designed in a template format, facilitating its adaptation and utilization by other organizations in their respective watersheds.

Attendees at the August 17, 2023, Open House about the potential Whitney Pond expansion project

New Additions to BDWMO Management Level Monitoring

2023 saw some changes to the BDWMO's management level water quality monitoring program as methods prescribed in the 2022-2032 watershed management plan took effect. Management level monitoring, previously performed only on deep lakes—Crystal Lake, Orchard Lake, and Lac Lavon—on a 3-year rotation, will now be performed on all strategic waterbodies, including Keller Lake and Kingsley Lake, on a 5-year rotation. In 2023, the BDWMO performed management level monitoring on Keller Lake for the first time.

Other changes to the management level monitoring program include the addition of chloride monitoring and phytoplankton sampling:

Chloride monitoring—Chloride concentrations in area lakes have increased since the early 1990s due to increased use of road salt in winter. Because high chloride concentrations can harm fish and plant life, the MPCA has established maximum and chronic chloride standards. There is little existing information about chloride concentrations in BDWMO strategic waterbodies. Beginning in 2023, the BDWMO will analyze water quality samples collected as part of its ongoing management level monitoring for chlorides to assess baseline conditions and allow tracking of trends in the future.

Phytoplankton monitoring—Phytoplankton, or algae, are small aquatic plants naturally present in lakes. Phytoplankton derive energy from the sun through photosynthesis and provide food for several types of aquatic organisms, including zooplankton (microscopic animals), which are, in turn, eaten by fish. Excess phytoplankton can reduce water clarity while low numbers of phytoplankton can negatively impact zooplankton, and consequently, fish populations. Starting in 2023, the BDWMO added phytoplankton monitoring to its ongoing management level monitoring to help interpret water quality data and better understand the ecological health of its strategic waterbodies.

See page 5 for water quality monitoring results. See **www.blackdogwmo.org** for the full report.

Water Quality Monitoring Program

The BDWMO and member cities continued to monitor several of their lakes during 2023 through the Metropolitan Council's Citizen-Assisted Monitoring Program (CAMP) to detect any water quality changes that would require management action by the WMO. In addition, the BDWMO conducted more detailed "management-level" monitoring on Keller Lake which included monitoring of phytoplankton (see page 7). The monitoring focused on three water quality indicators—total phosphorus and chlorophyll-*a* concentrations, plus Secchi disc transparency. All three variables correlate strongly to the open-water nuisance conditions of lakes (i.e., algal blooms).

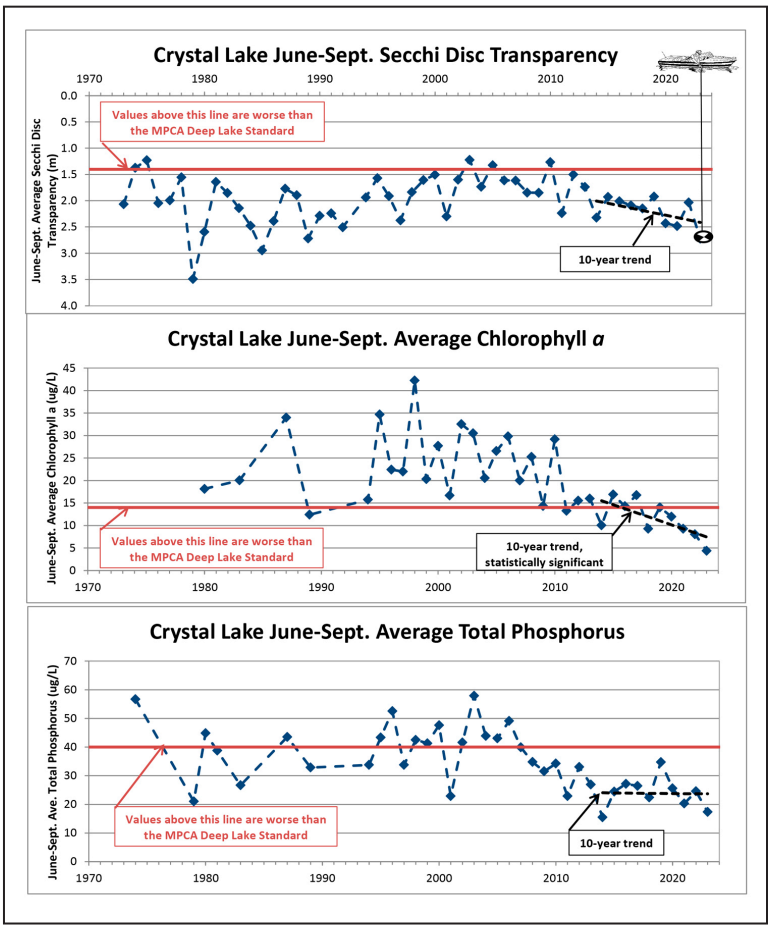
Long-term monitoring is important because lakes can change from year to year. Only when several years of data are compiled do trends become apparent. The MPCA periodically evaluates water quality data from the most recent ten-year period to determine if a lake exceeds applicable water quality standards. The BDWMO has adopted the same time convention for conducting its annual trend analyses. Graphs on this page and subsequent pages show historic trends in water quality.

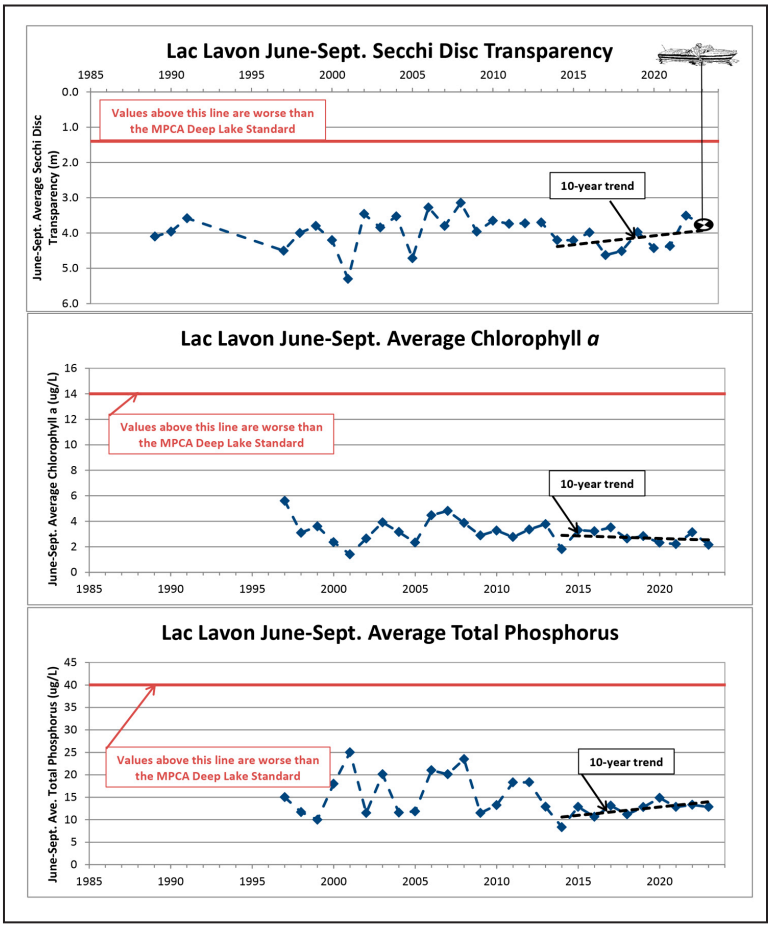
Crystal Lake (Burnsville & Lakeville)

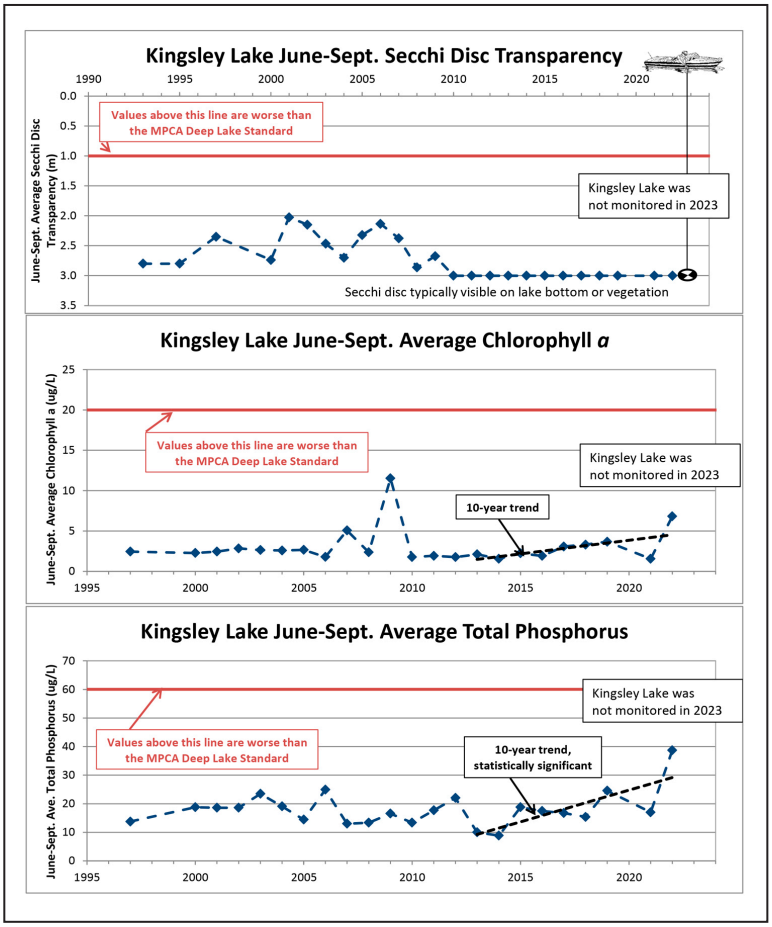
Water Quality Monitoring—Crystal Lake continued to experience good water quality in 2023. The 2023 summer-average Secchi disc transparency was 2.7 meters (8.9 feet), which is better than the MPCA deep-lake water quality standard of 1.4 meters. The 2023 summer average of total phosphorus (24 µg/L) was better than the deep lake standard (40 µg/L). The summer average of chlorophyll-*a* (4 µg/L) was also better than the deep lake standard (14 µg/L), and was the best on record for Crystal Lake. There was a statistically significant trend of improving water quality in summer averages of chlorophyll-*a* for the period 2014-2023; there were not statistically significant trends in summer averages of Secchi disc transparency or total phosphorus. The BDWMO will continue to monitor the water quality of Crystal Lake in 2024.

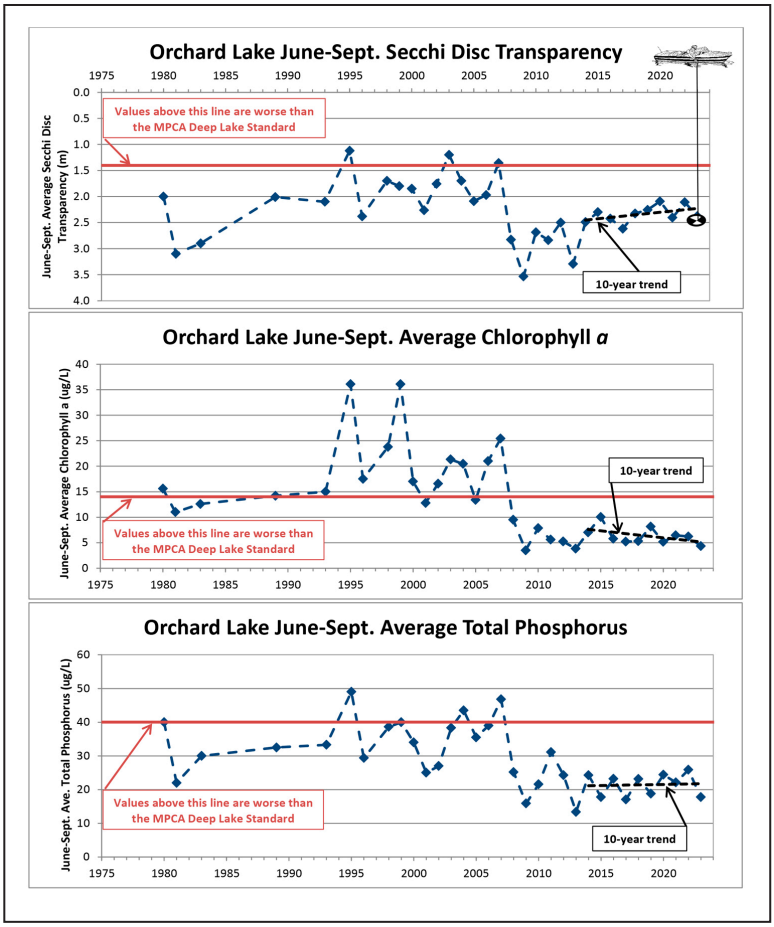
Lac Lavon (Apple Valley & Burnsville)

Water Quality Monitoring—Lac Lavon continued to experience excellent water quality in 2023. The 2023 summer-average Secchi disc transparency was 3.7 meters (12 feet), and is much better than the MPCA deep-lake water quality standard of 1.4 meters. The 2023 summer averages of total phosphorus (13 µg/L) and chlorophyll-*a* (2 µg/L) further indicate excellent water quality for Lac Lavon. There were no statistically significant trends in summer averages of water quality for the most recent 10-year period of 2014-2023. The BDWMO will continue to monitor the water quality of Lac Lavon in 2024.









Kingsley Lake (Lakeville)

Water Quality Monitoring—Water quality monitoring was not performed on Kingsley Lake in 2023, due to low water levels which made accessing open water difficult. The following discussion is based on data through 2022. Water quality monitoring data from 2022 show continued good water quality in Kingsley Lake. Water is often clear enough that the Secchi disc used to measure transparency can still be seen when resting on the bottom of the lake.* The 2022 summer average of total phosphorus (39 µg/L) was the worst on record, and double the 2021 summer average, but still much better than the shallow lake standard (60 µg/L). However, there is a statistically significant trend of degrading total phosphorus concentration for the 10-year period of 2013–2022. chlorophyll-*a* (7 µg/L) concentrations were the worst they have been since 2009, but also still much better than the shallow lake standard (20 µg/L). The 2022 summer averages of total phosphorus and chlorophyll-*a* were better than the MPCA's shallow lake standards, and have consistently been better than the water quality standards since 1997. Water quality was not monitored in Kingsley Lake in 2020. The BDWMO will continue to monitor the water quality of Kingsley Lake in 2024 if water levels allow. **Secchi disc readings in Kingsley Lake are difficult because lake vegetation obscures the Secchi disc, giving false measurements; therefore, there is no trend line in the graph at left.*

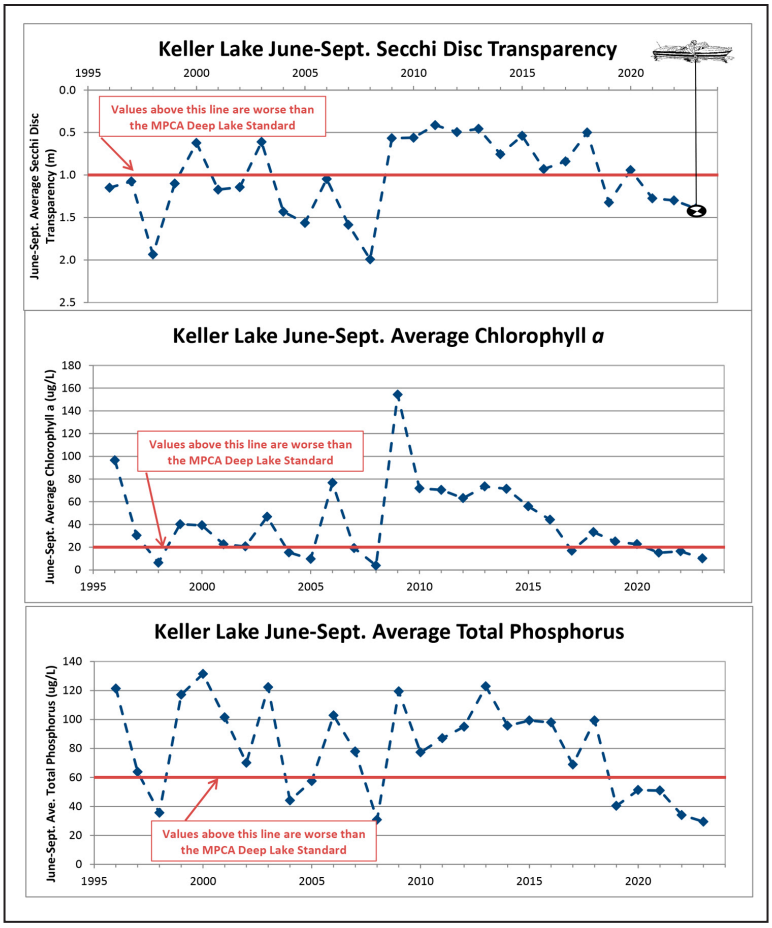
Orchard Lake (Lakeville)

Water Quality Monitoring—Orchard Lake's water quality in 2023 was similar to other recent years. The 2023 summer average Secchi disc transparency was 2.4 meters (7.9 feet), which is better than the MPCA deep-lake water quality standard of 1.4 meters. The 2023 summer-averages of total phosphorus (18 µg/L) and chlorophyll-*a* (4 µg/L) were better than the MPCA's deep-lake water quality standards as well; the 2023 summer average chlorophyll-*a* was the 3rd best on record for the lake. There were no statistically significant trends in summer averages of water quality parameters for the most recent 10-year period. Summer averages of water quality in Orchard Lake have been consistently better than the water quality standards for the last sixteen years (2008-2023). The BDWMO will perform "management level" monitoring of Orchard Lake in 2024, including chloride and phytoplankton monitoring in addition to monitoring for phosphorus, chlorophyll, and water clarity.

Keller Lake (Burnsville & Apple Valley)

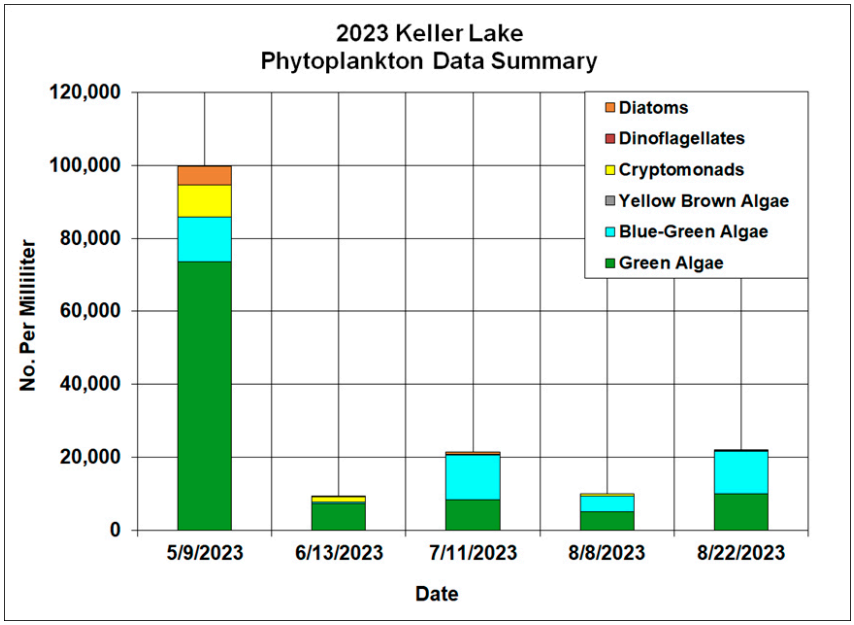
Water Quality Monitoring—An alum and sodium aluminate treatment was conducted on Keller Lake in Spring 2019 and Spring 2021, resulting in improved water quality in recent years. The 2023 Secchi disc transparency summer average was 1.4 meters (4.6 feet), which is better than the MPCA's shallow lake standard of 1.0 meter (3.3 feet), and the best it has been since 2008. The summer-average total phosphorus (29 µg/L) was also better than the MPCA's shallow lake standard of 60 µg/L, and the best on record for Keller Lake. Summer averages of total phosphorus had been consistently worse than the MPCA standard every year for the period 2009-2018, before the alum and sodium aluminate treatment of the lake. The 2023 summer-average of chlorophyll-*a* (10 µg/L) was also better than the MPCA's shallow lake standard of 20 µg/L, and the best it has been since 2008.

Trend analyses were not completed for Keller Lake because of the alum and sodium aluminate treatments that were conducted in 2019 and 2021. The three-lake TMDL study and implementation plan identifies the water quality improvement measures needed to continue to achieve the BDWMO and MPCA goals for the lake. The BDWMO will continue to monitor the water quality of Keller Lake in 2024.



Keller Lake 2023 Phytoplankton Monitoring

Samples of phytoplankton, microscopic aquatic plants, were collected from Keller Lake to evaluate water quality and the quality of food available to zooplankton (microscopic animals). Phytoplankton numbers were high in May and declined to low to moderate levels from June through September, reflecting the lake's good water quality. Green algae, a good source of food for the lake's zooplankton, were present throughout the monitoring period (see figure at right) although their percentage of the overall phytoplankton community declined later in the summer.



Blue-green algae, which are associated with water quality problems and can be a source of health concerns (if certain species are present in significant numbers), were present from May through August and dominant in July and late August. Not all blue-green algae produce toxins and laboratory testing is necessary to determine the presence and concentration of algal toxins in lake water.

BLACK DOG
Watershed Management Organization

www.blackdogwmo.org

WANTED: Lakeville Alternate Commissioner

The City of Lakeville is seeking an alternate commissioner to represent the City on the Black Dog Watershed Management Commission through 2025. Alternates serve as an acting member but vote only during the absence of a regular commissioner. The Commission meets the third Wednesday of each month. The position is open to Lakeville residents ages 18 and older who live within the Black Dog Watershed. Those interested in this volunteer position should send a letter of interest to the Lakeville City Engineer Zach Johnson. The City will interview interested qualifying candidates.

Email Zach Johnson at:
zjohnson@lakevillemn.gov

Board of Commissioners

Representing Burnsville:

Curtis Enestvedt, Chair
(serving since 2014)
Mike Hughes, Vice Chair
(serving since 2008)
Todd Christopherson, Commissioner
(serving since 2023)
Cyndi Bergloff, Alternate
(serving since 2023)

Representing Apple Valley and Eagan:

Rollie Greeno, Commissioner
(serving since 2018)
Greg Helms, Alternate
(serving since 2011)

Representing Lakeville:

Scott Thureen, Secretary/Treasurer
(serving since 2008)
Alternate — Open position

Engineering Consultant:

Greg Williams, P.E., Barr Engineering Co.

Legal Consultant:

Cole Birkeland, Campbell Knutson, P.A.

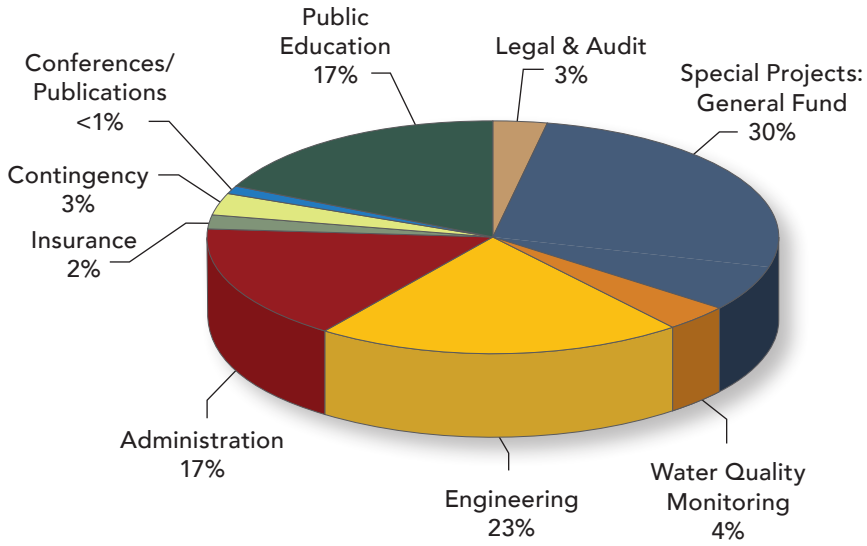
For more information, please contact:

Daryl Jacobson, Administrator
Black Dog WMO

City of Burnsville
13713 Frontier Court | Burnsville, MN 55337
Phone: 952-895-4574
Daryl.Jacobson@burnsvillemn.gov

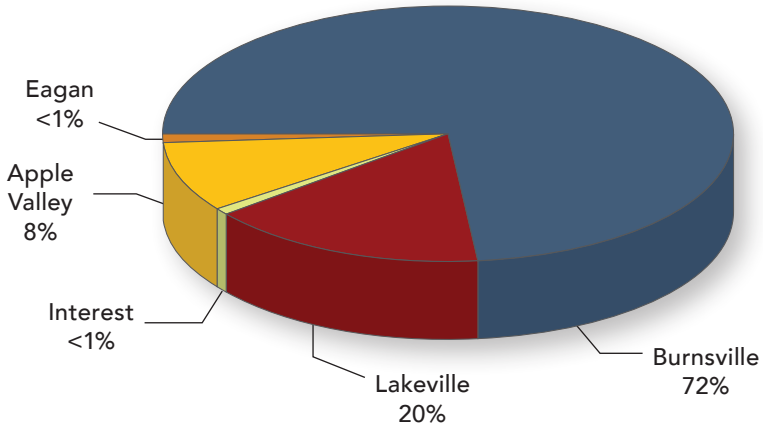
2024 Budget

Engineering	$34,000
Legal and Audit	$5,000
Administrative Services	$24,000
Public Education	$24,000
Insurance	$2,000
Special Projects – General Fund	$43,800
Conference/Publications	$500
Water Quality Monitoring	$6,000
Contingency	$5,000
Total Expenditures	**$144,800**



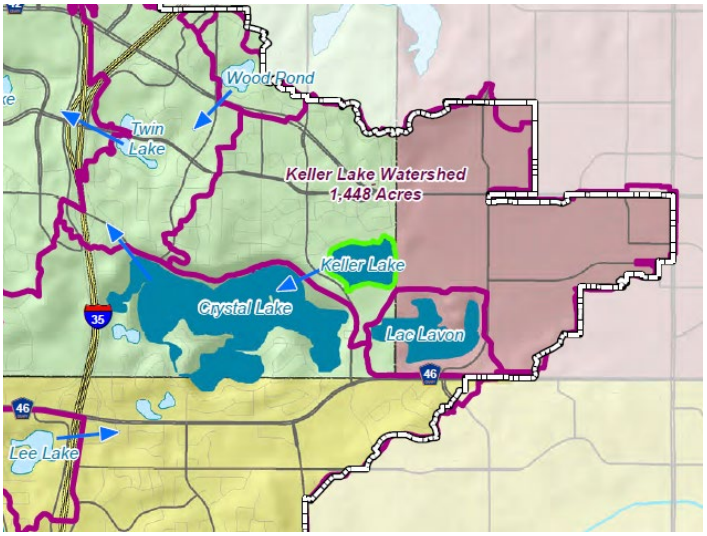
2024 Income

Member Contributions	$143,500
Interest	$500
Total Income	**$144,000**



Regular board meetings...

are held at 5:00 p.m. on the third Wednesday of the month at the Burnsville Maintenance Facility at 13713 Frontier Court.



The Black Dog Watershed Management Organization (BDWMO) performs monitoring of its strategic waterbodies on a 5-year rotating basis. BDWMO monitored Keller Lake in 2023. Monitoring results presented in this report include:

- Water chemistry:
  - Phosphorus
  - Chlorophyll-*a*
  - Secchi Disc Transparency
  - Chloride
- Phytoplankton (algae)
- Water levels
- Aquatic Plants (data collected in 2020)

About Keller Lake

BDWMO Classification	Strategic waterbody
MDNR ID number	19-0025P
Watershed Area	1,447 acres
Lake Area	50 acres
Average Depth	4.8 feet
Maximum Depth	8 feet
Ordinary High Water Level	--
Normal Water Level	934.3 feet
100-year Flood Level	938.6 feet
Downstream Resource	Crystal Lake
Location (city)	Apple Valley, Burnsville
Public Access	Park on south shore
MPCA Classification	Shallow lake
MPCA Impairments	Nutrients
Aquatic Invasive Species *(based on 2020 data)*	Curly-leaf pondweed Eurasian watermilfoil

Summary and Recommendations

- Continued good water quality; phosphorus, chlorophyll-*a*, and Secchi disc transparency better than MPCA standards
- Recency of alum treatments (2018, 2021) prevent accurate trend analysis
- Chloride below Minnesota Standard
- Low amount of phytoplankton (algae) in summer; algal community includes desirable green algae
- Submergent plant community is poor and dominated by invasive curlyleaf pondweed (2020 data)
- Recommend continued water quality monitoring and implementation of stormwater best management practices in the watershed as opportunities allow

Introduction

Keller Lake is a shallow lake that lies on the border of Burnsville and Apple Valley. Keller Lake receives runoff from both cities. Keller Lake's outlet discharges to Crystal Lake to the west.

The Keller Lake watershed land use is low density residential and park. Keller Lake is used for wildlife habitat and a variety of recreational purposes, including fishing, swimming, and aesthetic viewing. Burnsville and Apple Valley both have public parks on the south shore of the lake. The City of Apple Valley park has access for launching canoes on the lake. There is no public boat ramp for launching trailered boats on Keller Lake.

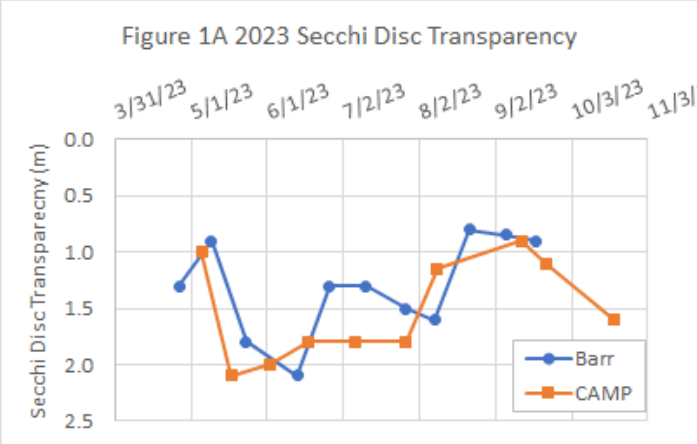
Keller Lake received an in-lake aluminum treatment (aluminum sulfate and sodium aluminate) in Spring 2019 to reduce internal loading of phosphorus from lake sediments. During the years of 2003-2008, a ferric chloride phosphorus removal system pumped deep water from Crystal Lake, treated it with ferric chloride to remove phosphorus, and discharged the treated water (i.e. phosphorus removed) to a stormsewer that ran to Keller Lake.

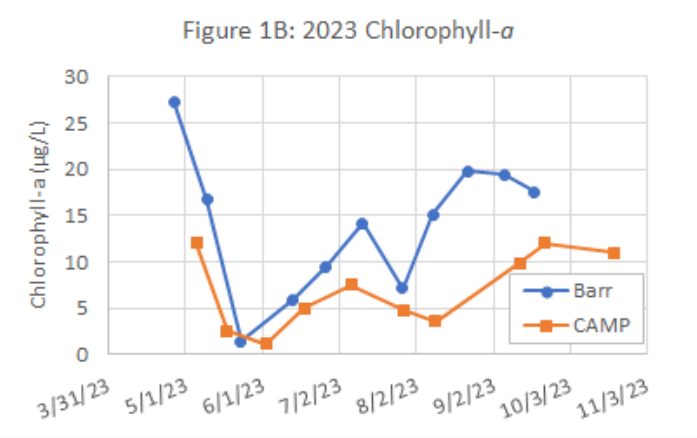
2023 Water Quality Monitoring

Water quality monitoring performed by BDWMO in 2023 included eleven sampling events between April and September. Measured parameters included:

- Secchi disc transparency
- Chlorophyll-*a*
- Total phosphorus
- Chloride
- Field parameters including:
    - Temperature
    - Dissolved oxygen
    - Specific conductivity
    - pH

A volunteer also collected water samples in 2023 through the Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). Results of 2023 Barr and CAMP water quality monitoring events are presented in Figure 1A through 1C. Data collected in 20203 show high concentrations of total phosphorus and chlorophyll-*a* in April. Conditions improved from mid-May through July. Concentrations of phosphorus and chlorophyll-*a* increased in August and September (as is common). The CAMP data is generally consistent with data collected by Barr.





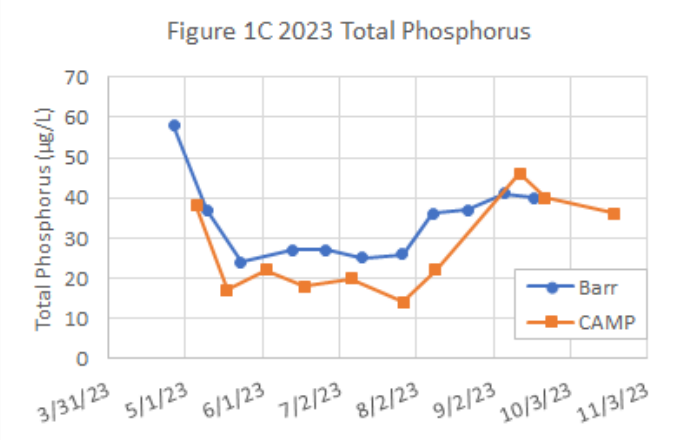


Figure 2A Keller Lake June-Sept. Secchi Disc Transparency

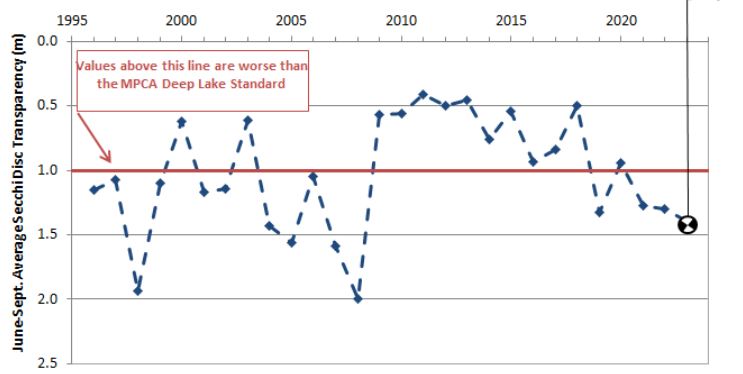


Figure 2B Keller Lake June-Sept. Average Chlorophyll *a*

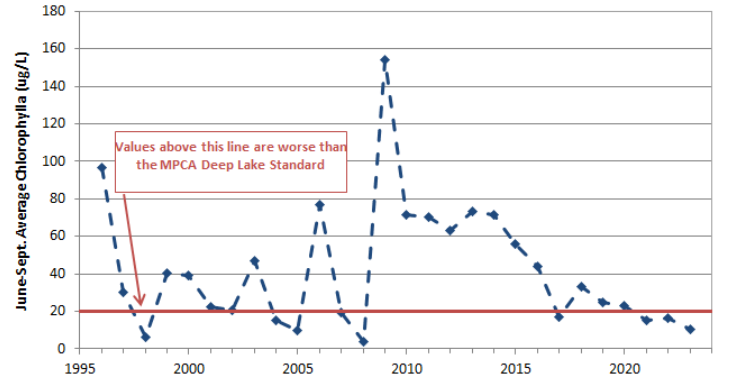
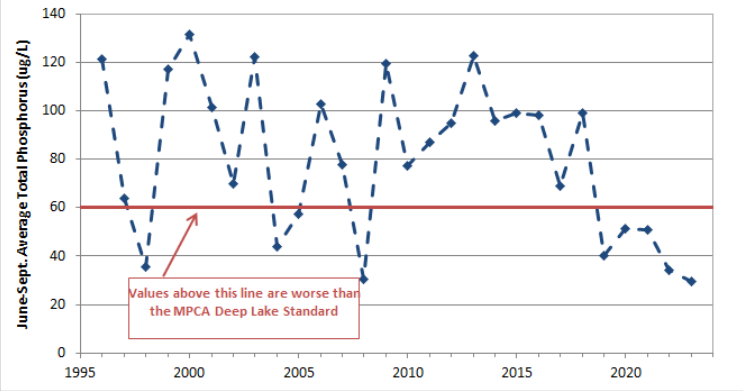


Figure 2C Keller Lake June-Sept. Average Total Phosphorus



Parameter	MPCA Standard	BDWMO Goal	2014-2023 June-Sept Average
Secchi Disc Transparency (m)	1.0	1.0	1.0*
Chlorophyll *a* (ug/L)	20	20	31
Total Phosphorus (ug/L)	60	60	67

* Secchi disc resting on lake bottom or submerged vegetation during some measurements.

Summer Averages of Water Quality

The 2023 summer (June-September) averages of water quality parameters were calculated for Keller Lake and plotted with previous years' summer averages (see Figure 2). Note that Keller Lake is a shallow lake with submerged vegetation throughout, and it is sometimes not possible to get a Secchi disc reading that isn't obscured by vegetation. Therefore, individual SDT and summer average SDT presented in figures may indicate worse water clarity than actual conditions.

Due to the alum treatment conducted in Keller lake in Spring 2019 that resulted in an immediate change in water quality conditions compared to years prior, trend analyses were not performed for Keller Lake water quality. Water quality of Keller Lake has improved following the alum treatment. Prior to the alum treatment, summer averages of total phosphorus were worse than the standard 10 years in a row. In years following the alum treatments (2019-2023), summer-average total phosphorus has been better than standards for all 5 years. Summer averages of SDT were worse than standards in 2020, but better than standards in 2019, and 2021-2023. Summer average chlorophyll-*a* were worse than the standard 2019-2020, and better than the standard 2021-2023.

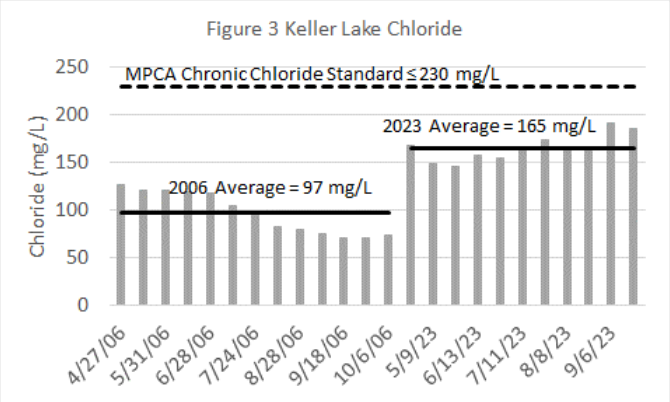
The alum treatment conducted in year 2019 and 2021 has led to summer average total phosphorus being better than the shallow lake standard. Summer averages of SDT and chlorophyll-*a* have been more variable over the same period, with 2021-2023 meeting water quality standards for all three parameters.

Trend analyses were not completed for Keller Lake in 2023 because of the recency of the alum and sodium aluminate treatments conducted in 2019 and 2021. While the most recent water quality data meet MPCA standards and BDWMO goals, the 10-year summer average total phosphorus and chlorophyll-*a* concentrations still exceed MPCA standards.

Additional years of data may be needed before the BDWMO or cities can petition the MPCA to remove Keller Lake from the impaired waters list due to excess nutrients. The BDWMO will continue to monitor the water quality of Keller Lake in 2024.

Chlorides

Chloride concentrations in area lakes have increased since the early 1990s due to increased use of road salt in winter. The ferric chloride phosphorus removal system operated 2003-2008 would have contributed chloride to Keller Lake during that period as well. Because high chloride concentrations can harm fish and plant life, the MPCA has established maximum and chronic chloride standards. A lake is considered impaired if two or more measurements exceed the chronic standard (230 mg/L) within a 3-year period or if one measurement exceeds the maximum standard (860 mg/L).

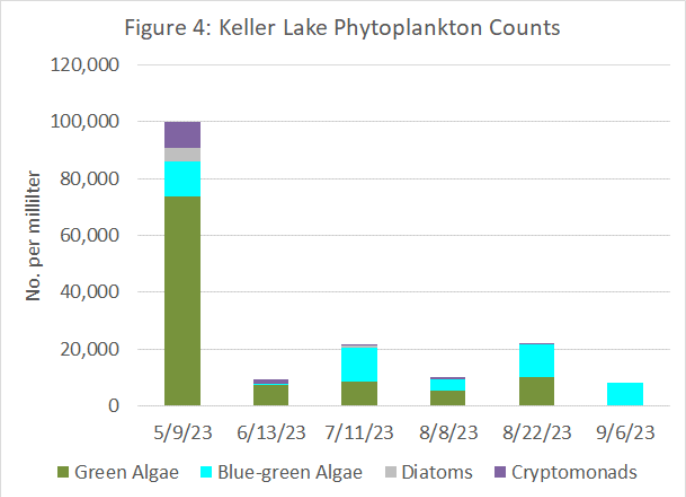


Chloride was measured in Keller Lake in 2023, and previously in 2006 (Figure 3). Chloride remained below the chronic standard in all samples. The annual average increased from 97 mg/L in 2006 to 165 mg/L in 2023.

Phytoplankton (Algae)

Phytoplankton, or algae, are small aquatic plants naturally present in lakes. Phytoplankton derive energy from the sun through photosynthesis and provide food for several types of aquatic organisms, including zooplankton (microscopic animals), which are eaten by fish. Excess phytoplankton can reduce water clarity while low numbers of phytoplankton can negatively impact zooplankton, and consequently, fish populations.

Figure 4 summarizes the number and major groups of phytoplankton in Keller Lake in 2023. Green algae were most dominant during the May sampling event, when overall algal density was greatest. Green algae are a good source of food for zooplankton and are indicative of healthy aquatic ecosystems. Blue-green algae, diatoms, and cryptomonads were also present in smaller numbers.



Blue-green algae numbers exceeded all other algae types during the July, late-August, and September sampling events. Blue-green algae thrive in warm, nutrient-rich water and can grow rapidly under certain conditions, causing "blooms." Blue-green algae can produce algal toxins that may be harmful to humans and animals and are also a poor-quality food for zooplankton.

Harmful Algal Blooms

During algal blooms, some blue-green algae (cyanobacteria) can produce toxins that can be harmful to humans and animals if ingested. Such algal blooms can occur rapidly under specific aquatic conditions (e.g., high temperatures). Not all blue-green algae produce toxins and laboratory testing is necessary to determine the presence and concentration of algal toxins in lake water.

Lake with a thick blue-green algal bloom (MPCA).

BDWMO residents should look to their respective Cities for information and communications regarding harmful algal blooms and associated public health guidance (such as beach closures or bodily contact warnings). Additional information is available from the MPCA and MDH.

Macrophytes (Aquatic Plants)

A diverse aquatic plant community is a sign of a healthy lake.

The BDWMO assess health of a lake's submerged aquatic plant community based on the number of species present and the "quality" of the species as measured by the Floristic Quality Index (FQI). The FQI considers the number of different species and the sensitivity of each species to disturbance (referred to as a "C-value"). Higher C-values and FQI indicate better lake health. The BDWMO established goals for the number of native species and FQI of strategic waterbodies.

Parameter	BDWMO Goal	2020 Results
Floristic Quality Index (submergent zone)	≥17.8	3.0
Native Species (submergent zone)	≥11	2

A total of four aquatic plant species were identified in the submergent zone in 2020, including only two native species and two non-native aquatic invasive plants.

Aquatic Invasive Species

Curly-leaf pondweed (CLP) is the dominant submerged plant in Keller Lake. CLP was found at 43% of sampling points in April, 2020. In July 2020, after treatment of CLP, no plants were observed. CLP often out-competes native vegetation early in the growing season and dies off in early to mid-summer, which creates a sudden loss of habitat and releases nutrients into the water that can produce algal blooms and create turbid water conditions. The presence of CLP in Keller Lake is a factor in the lake's the poor native submerged vegetation and water quality.

Eurasian watermilfoil can create dense, nuisance growths at the lake surface, and have a negative impact on recreational activities and may also crowd out native plant species. Eurasian watermilfoil was found at 14% of sampling points in April 2020, and 19% of sampling locations in July 2020.

Native Species (2020)

Only two native species were identified in the submergent zone of Keller Lake in 2020:

Coontail (*Ceratophyllum demersum*)

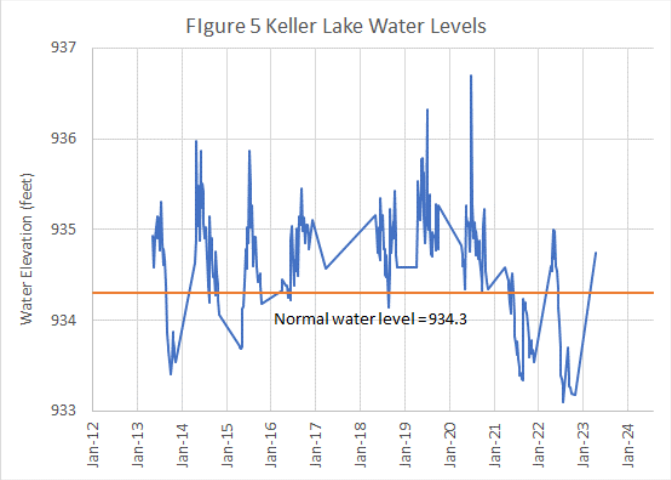
Elodea (*Elodea canadensis*)

Fisheries

Fish surveys have been conducted on Keller Lake in recent years (2019 and 2021) by contractors hired by City of Apple Valley. Bluegill sunfish were the dominant fish species. Largemouth bass, which prey on bluegill, were also present. The 2021 survey included removal of invasive goldfish present in Keller Lake. Goldfish are not native to Minnesota and can have negative impacts on water quality if present in high numbers due to disturbance of lake sediments and uprooting of aquatic vegetation while feeding. Reducing the number of bottom feeding fish, including goldfish and non-native carp, can lead to improved water quality for shallow lakes like Keller Lake.

Water Levels

Keller Lake discharges to Crystal Lake over a weir structure, at an elevation of 934.3 feet (NGVD29). Water elevations have been measured at varying frequencies since 1957, with several years without measurements. Water elevation data has been collected each year 2013-present. Only one elevation reading was available for Keller Lake in 2023 (April 19, 2023). Lake elevations for years 2013-2023 are plotted in Figure 5.



During the period of 2013-2023, the lake elevation has fluctuated from a high of 936.7 feet in 2020 to a low of 933.1 feet in 2022, a difference of 3.6 feet. Record-breaking precipitation occurred in years 2019-2020 (as measured at MSP airport), while recent years have had below average precipitation.

Management Recommendations

Keller Lake continues to demonstrate improved water quality following the in-lake alum treatments performed in 2018 and 2021. Based on the 2023 monitoring results, Barr Engineering Co. (Barr) staff recommend that the BDWMO and/or member cities perform the following management actions:

- Continue CAMP water quality monitoring annually.
- Perform BDWMO management level monitoring in 2028.
- Continue aquatic vegetation monitoring and curlyleaf pondweed management.
- Continue management of non-native goldfish.
- Implement watershed stormwater best management practices as opportunities allow.

Ways to Get Involved

Because stormwater runoff can be generated anywhere, anyone in the watershed can help protect ponds and lakes!

The Dakota County Soil and Water Conservation District also offers the Landscaping for Clean Water program which includes free educational classes, garden design courses, natural shoreline and garden maintenance workshops, and grants for homeowners that install a raingarden, native garden, or native shoreline planting.

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT