

Black Dog Watershed Management Commission

Agenda

Wednesday, May 20, 2020

5:00 P.M.

COMMISSIONERS:

Roger Baldwin, Chairman

Greg Helms, Vice Chairman

Scott Thureen, Secretary/Treasurer

Tom Harmening

Mike Hughes

Curt Enestvedt, Alternate

Rollie Greeno, Alternate

- I. Approval of Agenda
- II. Approval of Minutes – April 15, 2020
- III. Approval of Accounts Payable
- IV. Review Budget Performance Reports
- V. Approval of Liability Coverage Waiver Form
- VI. Approve 2019 Annual Activity Report
- VII. Approval of Draft 2021 Work Plan and Budget
- VIII. Miscellaneous
- IX. 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 Commission

Agenda Background May 20, 2020

I. Approval of Agenda

Agenda enclosed.

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

II. Approval of Minutes from the April 15, 2020 Meeting

Minutes enclosed.

Action Requested: A motion be considered to approve the Minutes of the April 15, 2020 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. Approval of the Liability Coverage Waiver Form

Each year in conjunction with completing the BDWMO's insurance application the Commission is required to complete a Liability Coverage Waiver Form. This form states whether or not the WMO wishes to waive the statutory tort liability limits. Historically, the Black Dog WMO has chosen not to waive the monetary limits on tort liability established by MN statutes.

Action requested: A motion be considered to approve liability coverage waiver form not waiving the monetary limits on municipal tort liability established by MN Statutes 466.04.

VI. Approve the 2019 Annual Activity Report

The Commission is required by the Joint Powers Agreement to generate and distribute an Annual Activity Report. Enclosed is a "Draft" of the 2019 Annual Activity Report for the Commission's review and approval.

Action requested: Consider a motion approving the Annual Activity Report and authorizing staff to distribute it to the appropriate parties.

VII. Approval of Draft 2021 Work Plan and Budget

Enclosed is a "Draft" Work Plan and Budget for 2021. Per the BDWMO Joint Powers Agreement, the Commission is to send out a proposed budget for 2021 by July 1st.

Staff will provide an overview of the work plan and budget at the meeting and answer any questions Commissioners might have.

Action Requested: The Commission consider a motion approving the 2021 Budget and Work Plan for distribution to the member communities.

VIII. Miscellaneous

Black Dog Watershed Management Commission

DRAFT **Meeting Minutes** **April 15, 2020**

MEMBERS PRESENT

Roger Baldwin, Chairman
Greg Helms, Vice-Chairman (*arrived at 5:08 pm*)
Scott Thureen, Secretary/Treasurer
Mike Hughes
Rollie Greeno, Alternate

MEMBERS ABSENT

Tom Harmening
Curt Enestvedt, Alternate

OTHERS PRESENT

Karen Chandler – Barr Engineering
Kevin Menken – Barr Engineering
Karen Wold – Barr Engineering
Roger Knutson – Campbell Knutson
Samantha Berger – City of Apple Valley
Ann Messerschmidt – City of Lakeville
Lindsey Albright – Dakota County Soil and Water Conservation District
Daryl Jacobson – BDWMO Administrator

Roger Baldwin, Chairman, called the April 15, 2020, meeting to order at 5:00pm via WebEx.

I. Approval of Agenda

Motion by Thureen, second by Hughes, to approve the April 15, 2020 Agenda as presented.

Ayes – Hughes, Thureen, Greeno, Baldwin
Nays – None

Motion Carried Unanimously

II. Approval of Minutes from the February 19, 2020 Meeting

Motion by Hughes, second by Thureen, to approve the February 19, 2020 Minutes as presented.

Ayes – Hughes, Thureen, Greeno, Baldwin
Nays – None

Motion Carried Unanimously

III. Approval of Accounts Payable

Motion by Hughes, second by Thureen, to approve payments to Barr Engineering in the amount of \$6,698.00 for services from February 1, 2020 through February 28, 2020, and \$6,350.00 for services from February 29, 2020 through April 3, 2020; and, to Campbell Knutson in the amount of \$273.00 for February 2020 general services, and \$95.00 for March 2020 general services.

Ayes – Hughes, Thureen, Greeno, Baldwin
Nays – None

Motion Carried Unanimously

IV. Review Budget Performance Reports

Daryl Jacobson, BDWMO Administrator, reports the audit is coming to a close.

No Formal Action Required

V. Review Lac Lavon Habitat and Water Quality Monitoring Reports

In 2019 Barr Engineering performed increased water quality and habitat monitoring on Lac Lavon. Staff from Barr Engineering reviewed the reports with the committee. Copies of both reports were provided to the Committee for review prior to tonight's meeting. The technical memo provides beneficial information. The technical reference document provides more detailed information and data.

Samantha Berger, City of Apple Valley, noted a revised program for rain gardens called Rain Water Rewards Program.

Motion by Hughes, second by Helms, to accept the Lac Lavon Habitat and Water Quality Monitoring Reports as presented.

Ayes – Baldwin, Helms, Hughes, Thureen
Nays – None

Motion Carried Unanimously

VI. Approve Draft 2019 Annual Newsletter

A copy of the newsletter was provided to the Committee for review prior to tonight's meeting. Segments about the Keller Lake Alum Treatment and the Use Attainability Analysis of Keller Lake were added to the newsletter. A decade review showing the success of the Landscaping for Clean Water program has also been included in the newsletter.

Motion by Thureen, second by Hughes, to approve the annual newsletter for distribution as presented.

Ayes – Baldwin, Helms, Hughes, Thureen
Nays – None

Motion Carried Unanimously

VII. Miscellaneous

1. The next Black Dog WMO meeting is scheduled for May 20, 2020.
2. Lindsey Albright, Dakota County Soil and Water Conservation District, shared that they working on offering online workshops.

VIII. Adjournment

Motion by Hughes, second by Helms, to adjourn at 6:16pm.

Ayes – Baldwin, Helms, Hughes, Thureen

Nays – None

Motion Carried Unanimously

BLACK DOG WATERSHED MANAGEMENT COMMISSION
100 Civic Center Parkway
Burnsville, MN 55337

Accounts Payable - May 20, 2020 Meeting

Barr Engineering - Services from April 4, 2020 through May 1, 2020

Engineering	\$	7,668.54
Special Projects General Fund - Orchard Lk Water Quality Monitoring	\$	953.45
Special Projects General Fund - Lac Lavon Mgmt Level Monitoring	\$	546.00
Special Projects General Fund Reserve - Watershed Mgmt Plan Update	\$	469.00
Water Quality Monitoring - 2019 Habitat Monitoring (Lac Lavon)	\$	405.00
Water Quality Monitoring - Update Trent Analyses	\$	420.00
Public Education - Watershed Annual Report	\$	167.50
Public Education - Annual Activity Report	\$	1,368.00
		<hr/>
	\$	11,997.49

Campbell Knutson

April 2020 - General Services	\$	595.00
		<hr/>
	\$	595.00

Dakota County Soil & Water Conservation District - Services for January - March 2020

Website Updates & Maintenance	\$	400.00
Website Hosting Fees	\$	75.00
Landscaping for Clean Water Introductory Workshop - March 10, 2020	\$	1,600.00
		<hr/>
	\$	2,075.00

Accounts Payable Total \$ 14,667.49

resourceful. naturally.
engineering and environmental consultants



May 7, 2020

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 April 04, 2020 through May 01, 2020

TOTAL PAYABLE THIS INVOICE:	\$ 11,997.49
Allocation:	
Engineering	\$ 7,668.54
Special Projects General Fund	
• Orchard Lk Water Quality Monitoring	\$ 953.45
• Lac Lavon Mgmt Level Monitoring	\$ 546.00
Special Projects General Fund Reserve	
• Watershed Mgmt Plan Update	\$ 469.00
Water Quality Monitoring	
• 2019 Habitat Monitoring (Lac Lavon)	\$ 405.00
• Update Trend Analyses	\$ 420.00
Public Education	
• Watershed Annual Report	\$ 167.50
• Annual Activity Report	\$ 1,368.00

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

OK
Daryl Jacobson
5-13-20

Karen L. Chandler

Karen L. Chandler
Vice President

BUDGET SUMMARY - 2020 FY
Black Dog Watershed Management Commission
through May 1, 2020

Work Description	Pre-2020 Costs	Barr Budget				Spent This Year	Balance
		Brought Forward	Current Year	Total Barr Budget	Current Invoice		
Engineering	-----						
Special Projects: General Fund		0.00	31,000.00	31,000.00	7,668.54	13,436.42	17,563.58
<i>Orchard Lk Water Quality Monitoring (2020)</i>	-----	0.00	23,000.00	23,000.00	953.45	1,117.45	21,882.55
<i>Lac Lavon Mgmt Level Monitoring (2019)</i>	17,449.62	8,250.38	0.00	8,250.38	546.00	4,113.50	4,136.88
Subtotal -- Special Projects: General Fund	-----	8,250.38	23,000.00	31,250.38	1,499.45	4,113.50	27,136.88
Special Projects: Capital Improvement Fund							
<i>Keller Lake Alum Treatment Feas Study & Impl Planning</i>			7,000.00	7,000.00	0.00	714.00	6,286.00
Subtotal -- Special Projects: Capital Improvement Fund	-----	0.00	7,000.00	7,000.00	0.00	714.00	6,286.00
Special Projects: General Fund Reserve							
<i>Watershed Management Plan Update</i>			10,000.00	10,000.00	469.00	469.00	9,531.00
Subtotal -- Special Projects: General Fund Reserve	-----	0.00	10,000.00	10,000.00	469.00	469.00	9,531.00
Water Quality Monitoring							
<i>2020 Habitat Monitoring (Keller Lake)</i>	-----	0.00	9,600.00	9,600.00	0.00	0.00	9,600.00
<i>2019 Habitat Monitoring (Lac Lavon)</i>	2,023.40	6,476.60	0.00	6,476.60	405.00	6,367.50	109.10
<i>Update Trend Analyses</i>	-----	0.00	2,000.00	2,000.00	420.00	1,620.00	380.00
Subtotal -- W.Q. Monitoring	-----	6,476.60	11,600.00	18,076.60	825.00	7,987.50	10,089.10
Public Education							
<i>Watershed Annual Report</i>	-----	0.00	4,000.00	4,000.00	167.50	3,852.00	148.00
<i>Annual Activity Report</i>	-----	0.00	2,000.00	2,000.00	1,368.00	1,368.00	632.00
Subtotal -- Public Education	-----	0.00	6,000.00	6,000.00	1,535.50	5,220.00	780.00
Total Services	-----	14,726.98	88,600.00	103,326.98	11,997.49	31,940.42	71,386.56



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

May 7, 2020
Invoice No: 23190374.20 - 4

Total this Invoice	\$9,673.04
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Regarding: BDWMO 2020 Engineering Services

Professional Services from March 28, 2020 to May 1, 2020

Job:	2020	2020 Engineering Services
Task:	001	Attend BDWMO Meetings

Labor Charges

	Hours	Rate	Amount
Principal			
Chandler, Karen	1.50	180.00	270.00
Engineer / Scientist / Specialist III			
Wold, Karen	1.50	135.00	202.50
Engineer / Scientist / Specialist II			
Menken, Kevin	1.20	120.00	144.00
	4.20		616.50
Subtotal Labor			616.50

Expense Charges

Communications			
4/30/2020	Level 3 Communications LLC	WEBEX	372.04
Subtotal Expenses			372.04

Task Subtotal \$988.54

Task:	002	Miscellaneous Consulting
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Labor Charges

	Hours	Rate	Amount
Principal			
Chandler, Karen	31.30	180.00	5,634.00
Engineer / Scientist / Specialist IV			
Wilson, Gregory	2.00	170.00	340.00
Engineer / Scientist / Specialist III			
Rattei, Margaret	.20	140.00	28.00
Wold, Karen	1.60	135.00	216.00
Engineer / Scientist / Specialist II			
Menken, Kevin	1.50	120.00	180.00

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.

Project	23190374.20	2020 Engineering Services	Invoice	4
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Support Personnel II

Burt, Deborah	1.30	100.00	130.00
Nypan, Nyssa	1.60	95.00	152.00
	39.50		6,680.00

Subtotal Labor

6,680.00

Task Subtotal

\$6,680.00

Task: 003 Annual BWSR Activity Report

Labor Charges

	Hours	Rate	Amount
Principal			
Chandler, Karen	7.60	180.00	1,368.00
	7.60		1,368.00

Subtotal Labor

1,368.00

Task Subtotal

\$1,368.00

Task: 004 Newsletter/Watershed Report

Labor Charges

	Hours	Rate	Amount
Principal			
Chandler, Karen	.60	180.00	108.00
Support Personnel I			
Kaul (Contracted), Karen	.70	85.00	59.50
	1.30		167.50

Subtotal Labor

167.50

Task Subtotal

\$167.50

Job Subtotal

\$9,204.04

Job: PLAN Plan Update

Task: 001 Plan Update

Labor Charges

	Hours	Rate	Amount
Principal			
Chandler, Karen	1.80	180.00	324.00
Engineer / Scientist / Specialist III			
Williams, Sterling	1.00	145.00	145.00
	2.80		469.00

Subtotal Labor

469.00

Task Subtotal

\$469.00

Job Subtotal

\$469.00

Total this Invoice

\$9,673.04

Invoiced to Date	Current	Prior	Total	Received	A/R Balance
	9,673.04	9,452.38	19,125.42	9,452.38	9,673.04

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.

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FEIN #: 41-0905995 Inc: 1966

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

May 7, 2020

Invoice No: 23190375.19 - 9

Total this Invoice	\$546.00
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Regarding: Lac Lavon 2019 Water Quality Monitoring

Professional Services from April 4, 2020 to May 1, 2020

Job:	LAC	Lac Lavon 2019 Monitoring
Task:	400	Presentation

Labor Charges

	Hours	Rate	Amount	
Principal				
Chandler, Karen	.70	180.00	126.00	
Engineer / Scientist / Specialist II				
Menken, Kevin	3.50	120.00	420.00	
	4.20		546.00	
Subtotal Labor				546.00
		Task Subtotal		\$546.00
		Job Subtotal		\$546.00
		Total this Invoice		\$546.00

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	546.00	21,017.12	21,563.12	21,017.12	546.00

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.

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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

May 7, 2020
Invoice No: 23190375.20 - 2

Total this Invoice	\$953.45
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Regarding: Orchard Lake 2020 Water Quality Monitoring

Professional Services from April 4, 2020 to May 1, 2020

Job:	ORCH	Orchard Lk 2020 Monitoring
Task:	100	Monitoring, Data Mgmt and Proj Mgmt

Labor Charges

	Hours	Rate	Amount
Principal			
Runke, Henry	.20	175.00	35.00
Engineer / Scientist / Specialist III			
Olson, Terri	.30	145.00	43.50
Technician II			
Novack, John	2.00	100.00	200.00
Technician I			
Melmer, David	4.50	90.00	405.00
Support Personnel II			
Treanor, Margaret	.90	115.00	103.50
	7.90		787.00

Subtotal Labor

787.00

Unit Charges

Canoe	0.5 days @ 32.00	16.00
Ice (per bag)	2.0 ea @ 2.50	5.00
Kemmerer Vertical Bottle Sampler	1.0 use @ 33.50	33.50
Turbidimeter	0.5 days @ 25.00	12.50
Vehicle (Mileage)	36.0 miles @ 0.575	20.70
Vehicle - 2WD Field	0.5 days @ 72.50	36.25
Water Quality Meter (YSI 556 MPS)	0.5 days @ 85.00	42.50

Subtotal Units

166.45

Task Subtotal \$953.45

Job Subtotal \$953.45

Total this Invoice \$953.45

Invoiced to Date	Current	Prior	Total	Received	A/R Balance
	953.45	164.00	1,117.45	164.00	953.45

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.

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

May 7, 2020

Invoice No: 23190375.99 - 3

Total this Invoice	\$420.00
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Regarding: Trend Analysis

Professional Services from April 4, 2020 to May 1, 2020

Job:	2020	2019 Data
Task:	100	Trend Analysis 2019 Data

Labor Charges

	Hours	Rate	Amount	
Engineer / Scientist / Specialist II				
Menken, Kevin	3.50	120.00	420.00	
	3.50		420.00	
Subtotal Labor				420.00
		Task Subtotal		\$420.00
		Job Subtotal		\$420.00
		Total this Invoice		\$420.00

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	420.00	1,200.00	1,620.00	1,200.00	420.00

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.

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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

May 7, 2020
Invoice No: 23190457.19 - 6

Total this Invoice	\$405.00
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Regarding: BDWMO 2019 Lac Lavon Habitat Monitoring

Professional Services from April 4, 2020 to May 1, 2020

Job:	LAC	Lac Lavon Habitat Monitoring
Task:	003	Analysis and Report

Labor Charges

	Hours	Rate	Amount
Engineer / Scientist / Specialist III			
Wold, Karen	3.00	135.00	405.00
	3.00		405.00
Subtotal Labor			405.00
		Task Subtotal	\$405.00
		Job Subtotal	\$405.00
		Total this Invoice	\$405.00

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	405.00	7,985.90	8,390.90	7,985.90	405.00

Thank you in advance for the prompt processing of this invoice. If you have any questions, please contact Karen Wold, your Barr project manager, at (952) 832-2707 or email at kwold@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.

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

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

Page: 1
April 30, 2020
Account # 602-0000G
351

RE: GENERAL SERVICES
RENDERED TO DATE:

			HOURS	
04/01/2020	RNK	Emails from and to Daryl Jacobson.	0.60	102.00
04/08/2020	JJJ	Emails Daryl and staff re: meeting protocols for Black Dog Board meeting.	0.30	51.00
04/09/2020	RNK	Review Board meeting agenda material.	0.50	85.00
04/15/2020	RNK	Telephone calls to and from Daryl Jacobson; email from Daryl.	0.60	102.00
	RNK	WMO meetings.	1.50	255.00
		AMOUNT DUE	3.50	595.00
		TOTAL CURRENT WORK		595.00
		PREVIOUS BALANCE		\$368.00
04/21/2020		Payment - thank you		-273.00
04/21/2020		Payment - thank you		-95.00
		TOTAL PAYMENTS ON ACCOUNT		-368.00
		TOTAL AMOUNT DUE		<u>\$595.00</u>

OK
Daryl
5-13-20

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**

4100 220th Street W., Suite 102

4100 220th Street West, Ste 102

Invoice

DATE	INVOICE #
4/27/2020	2980

BILL TO

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

Reference

TERMS

ITEM CODE	DESCRIPTION	HOURS	RATE	AMOUNT
	January - March 2020			
Black Dog	Website Updates and Maintenance	5	80.00	400.00
Black Dog	Website Hosting Fees (Per Quarter)		75.00	75.00
Black Dog	Landscaping for Clean Water Introductory Workshop March 10		1,600.00	1,600.00
<p>OK Daryl Jacobson 5-5-20</p>				
Thank you.			Total	\$2,075.00

BLACK DOG WATER MANAGEMENT COMMISSION

Budget Performance Report April 30, 2020

	CURRENT MONTH	YEAR TO DATE			
	ACTUAL	GENERAL FUND BUDGET	CAPITAL IMPROVEMENT FUND BUDGET	ACTUAL	VARIANCE FAVORABLE (UNFAVORABLE)
Opening Fund Balance		\$ 415,753	\$ 100,849	\$ 514,787	
REVENUES :					
Member Contributions:					
City of Apple Valley	\$ -	\$ 10,376	\$ 1,734	\$ -	\$ (12,110)
City of Burnsville	-	94,293	16,256	-	(110,549)
City of Eagan	-	568	-	-	(568)
City of Lakeville	-	25,763	4,010	-	(29,773)
Total Member Contributions	-	131,000	22,000	-	(153,000)
Other Revenues:					
Interest	\$ 241	\$ 40	\$ -	\$ 1,894	\$ 1,854
Grant (State of MN BWSR)	-	-	-	-	-
Total Other Revenue	241	40	-	1,894	1,854
Total Revenues	\$ 241	\$ 131,040	\$ 22,000	\$ 1,894	\$ (151,146)
EXPENDITURES :					
General Engineering Support	\$ 4,163	\$ 31,000	\$ -	\$ 5,768	\$ 25,232
Special Projects - General Fund	3,282	46,500	-	3,732	42,769
Special Projects - Capital Improvement Fund	714	-	-	714	(714)
Insurance	-	3,000	-	-	3,000
Legal and Audit	368	8,400	-	1,034	7,366
Administrative Support	-	18,000	-	-	18,000
Public Education	2,547	17,900	-	3,685	14,216
Water Quality Monitoring	2,343	15,400	-	7,163	8,238
Conference/Publications	-	500	-	-	500
Contingency	-	5,000	-	-	5,000
Total Expenditures	13,416	145,700	-	22,095	123,605
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES	(13,175)	(14,660)	22,000	(20,201)	
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES PLUS OPENING FUND BALANCE				494,586	
TOTAL CASH AVAILABLE 4/30/2020	494,586				
Fund Balance 4/30/2020	\$ 494,586				

BLACK DOG WMO
CASH ACTIVITY REPORT 2020

					Expenditures:													
					Monthly	General	Special	Special					Legal	Admin	Public	Water	Conf	Contin-
Date	Description	Deposits	Check #	Check Amount	Cash Balance	Engineering Support	Projects (General)	Projects (Capital)	Insurance	& Audit	Support	Education	Monitoring	Public		gency		
Balance as of 12/31/19					538,405.58													
15-Jan	Barr Engineering Co (2019)		1713	2,283.50		1,875.00	408.50	-					-					
15-Jan	Campbell Knutson (2019)		1714	224.00						224.00								
15-Jan	City of Burnsville (2019)		1715	19,296.23							19,296.23							
31-Jan	Interest Income	625.10																
01/31/20 Balance		625.10		21,803.73	517,226.95	1,875.00	408.50	-	-	224.00	19,296.23	-	-	-	-	-	-	
19-Feb	Barr Engineering Co		1716	8,012.38		1,605.38	449.50	-				1,138.00	4,819.50					
19-Feb	Campbell Knutson		1717	666.40						666.40								
19-Feb	Dakota County Soil & Water (2019)		1718	1,815.00			1,500.00	-				315.00						
29-Feb	Interest Income	532.69																
02/28/20 Balance		532.69		10,493.78	507,265.86	1,605.38	1,949.50	-	-	666.40	-	1,453.00	4,819.50	-	-	-	-	
31-Mar	Interest Income	494.67																
03/31/20 Balance		494.67		-	507,760.53	-	-	-	-	-	-	-	-	-	-	-	-	
15-Apr	Barr Engineering		1719	6,698.00		2,380.00	1,016.00	629.00				765.00	1,908.00					
15-Apr	Campbell Knutson		1720	273.00						273.00								
15-Apr	Barr Engineering		1721	6,350.00		1,782.50	2,266.00	85.00				1,781.50	435.00					
15-Apr	Campbell Knutson		1722	95.00						95.00								
30-Apr	Interest Income	241.36																
04/30/20 Balance		241.36		13,416.00	494,585.89	4,162.50	3,282.00	714.00	-	368.00	-	2,546.50	2,343.00	-	-	-	-	
Total Revenue		1,893.82	Total Expense		45,713.51	7,642.88	5,640.00	714.00	-	1,258.40	19,296.23	3,999.50	7,162.50	-	-	-	-	
Less: 2019 A/R		-	Less: 2019 A/P		(23,618.73)	(1,875.00)	(1,908.50)	-	-	(224.00)	(19,296.23)	(315.00)	-	-	-	-	-	
December LMC insurance reclass		-			-													
Total YTD 2020 Revenue		1,893.82	Total YTD 2020 Exp		22,094.78	5,767.88	3,731.50	714.00	-	1,034.40	-	3,684.50	7,162.50	-	-	-	-	
			2020 Budget		145,700.00	31,000.00	46,500.00	-	3,000.00	8,400.00	18,000.00	17,900.00	15,400.00	500.00	5,000.00			
			Budget Remaining		123,605.00	25,232.00	42,768.50	(714.00)	3,000.00	7,365.60	18,000.00	14,215.50	8,237.50	500.00	5,000.00			

Black Dog Watershed Management Organization

2019 ANNUAL ACTIVITY REPORT



**Prepared for
Black Dog Watershed
Management Commission**

May 2020

2019 BOARD MEMBERS

The Black Dog Watershed Management Organization (WMO) was established by a joint powers agreement. The member cities appoint Board Members (and alternates) to serve three-year terms. The 2019 Black Dog WMO Board Members and the city/cities they represent are listed below:

Board Members:	Term Ending
1. Roger Baldwin (Chair) Representing the City of Burnsville	November 2020
2. Greg Helms (Vice-Chair) Representing the Cities of Apple Valley and Eagan	November 2020
3. Scott Thureen (Secretary/Treasurer) Representing the City of Lakeville	November 2020
4. Tom Harmening Representing the City of Burnsville	November 2020
5. Mike Hughes Representing the City of Burnsville	November 2020

Alternate Board Members:	Term Ending
1. Rollie Greeno Representing the Cities of Apple Valley and Eagan	November 2020
2. Curtis Enestvedt Representing the City of Burnsville	November 2020
3. Vacant Representing the City of Lakeville	November 2020

CONSULTANTS

In accordance with Minnesota Statutes, Section 103B.227, Subdivision 5, the Black Dog Watershed Management Commission solicited interest proposals for engineering consulting, legal services, and auditor services in January 2018. As the statutes require the solicitation to occur every two years, the Black Dog Watershed Management Commission will solicit proposals again in 2020. The Black Dog Watershed Management Commission Board retains services from the following consultants:

Engineering:	Barr Engineering Co. Karen Chandler 4300 MarketPointe Dr. Minneapolis, MN 55435 Phone: (952) 832-2600
Legal:	Campbell, Knutson Attorneys at Law Roger Knutson 317 Eagandale Office Center 1380 Corporate Center Drive Eagan, MN 55121 Phone: (651) 452-5000
Auditor:	MMKR: Certified Public Accountants James Eichten 5353 Wayzata Boulevard Suite 410 Minneapolis, MN 55416 Phone: (952) 545-0424

The Black Dog WMO currently does not employ any staff. Administrative support is provided by the City of Burnsville.

Administrator	City of Burnsville Daryl Jacobson 13713 Frontier Ct. Burnsville, MN 55337 Phone: (952) 895-4574
Website:	www.blackdogwmo.org

PERMITS AND VARIANCES

The Black Dog WMO does not have a permit program.

WETLAND BANKING

The Black Dog WMO does not have a wetland banking program.

STATUS OF LOCAL PLAN ADOPTION AND IMPLEMENTATION

The Black Dog WMO adopted the 2012 Watershed Management Plan in October 2012. The member cities are required to update their local water management plans to conform to the 2012 Black Dog WMO Plan, per Minnesota Statute 103B.235. In 2014, the City of Burnsville updated their Water Resources Management Plan; the Black Dog WMO approved the updated plan at their May 21, 2014 meeting. At their November 16, 2016 meeting, the Black Dog WMO approved the City of Apple Valley's 2007 Surface Water Management Plan and associated city ordinances, finding them in conformance with the 2012 Black Dog WMO Plan. In 2017, the City of Burnsville updated their Water Resources Management Plan; the Black Dog WMO approved the updated plan at their September 20, 2017 meeting. At their July 18, 2018 meeting, the Black Dog WMO approved the City of Apple Valley's Surface Water Management Plan. At their December 19, 2018 meeting, the Black Dog WMO approved the City of Eagan's Storm Water Master Plan Update and Water Quality and Wetland Management Plan. At their February 20, 2019 meeting, the Black Dog WMO approved the City of Lakeville's Water and Natural Resources Management Plan.

2019 Black Dog WMO Activities

- Participated in the Metropolitan Council's Citizen-Assisted Lake Monitoring Program (CAMP) at the following Black Dog WMO-designated strategic water bodies: Crystal Lake, Keller Lake, Kingsley Lake, Lac Lavon, and Orchard Lake. Performed management level monitoring at Lac Lavon (see below). Completed water quality trend analyses on these lakes using the information gathered through CAMP and the more-detailed monitoring on Crystal Lake.
- Performed management level monitoring of Lac Lavon water quality, per guidance in the Black Dog WMO Plan. The monitoring consisted of collecting samples on 11 occasions—ice out and then May through September, twice per month. On each monitoring occasion, samples were collected at the deepest spot in the lake at seven depths, a surface sample (0-2 meters), plus six samples at 1-meter intervals from 3 meters to 8 meters depth. All of the samples were analyzed for total phosphorus; the surface water samples were also analyzed for chlorophyll-a. Secchi disc readings were also taken. Field probe measurements of water temperatures, dissolved oxygen concentrations, pH levels, specific conductivities, and oxidation/reduction potentials were collected at 1-meter depth intervals at the deepest spot in the lake. Field probe measurements of turbidity measurements were also taken on the surface water sample at the monitoring location. The Black Dog WMO also performed aquatic vegetation surveys on two occasions over the monitoring season. The work also included entering data into EQuIS database, and submitting the data to the MPCA. A technical memo summarizing the water quality monitoring results will be completed in 2020 and posted on the Black Dog WMO website.
- Completed the first phase of a two-phase alum treatment of Keller Lake as part of the Keller Lake Alum Treatment project. In December 2018, BWSR awarded the Black Dog WMO a \$230,000 Clean Water Fund grant for the alum treatment project, and executed an agreement with the Black Dog WMO in early 2019. In 2019, this project included preparation of contract documents, permitting, contract administration, treatment oversight, alum treatment expenses, and grant reporting. The project (and grant funding) will continue through 2021.
- Performed habitat monitoring of Lac Lavon, per the redesigned habitat monitoring program, which was implemented beginning in 2011 with Kingsley Lake. The redesigned program includes monitoring of a single water body on a cycle of once every five years. Monitoring included a meandering survey of the entire lake (in the submergent, emergent, and upland buffer zones), rather than only at sample plots, as done in the past. The lake was also evaluated for sedimentation and shoreline erosion problems. A memo summarizing the habitat monitoring results will be completed in 2020 and posted on the Black Dog WMO website.
- Partnered with the Dakota County SWCD by providing funding and support to install 19 water quality improvement projects through the Landscaping for Clean Water program for Black Dog WMO residents, consistent with SWCD cost share policies.

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- Partnered with the Dakota County SWCD to fund two Landscaping for Clean Water workshops and two, two-part design workshops (i.e., two nights) in the Black Dog WMO area attended by homeowners.
 - Continued implementing plan to accrue funds in 1) a Capital Improvement Fund, to be used for the current Keller Lake Alum Treatment project, and future Black Dog WMO internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (Crystal Lake, Keller Lake, and Lac Lavon), and 2) in a General Fund Reserve to be used for the Black Dog WMO watershed plan ten-year update.
 - Conducted an annual evaluation of the watershed programs and reported the results to member communities via the Watershed Annual Report and Annual Activity Report.
 - Formulated and approved the 2020 Work Plan and Budget.
 - Completed the 2018 Annual Finance Statement.
 - Developed an annual activity report and watershed annual report and distributed them via the Black Dog WMO website and through the member communities (see attached Watershed Annual Report). The annual activity report meets all of the State reporting requirements and is submitted to the Minnesota Board of Water and Soil Resources (BWSR).
 - Reviewed and responded to any issues and opportunities brought to the attention of the Black Dog WMO.
 - Maintained, updated, and revised the Black Dog WMO website.

Table 1 shows the Status of Implementation Tasks from the Black Dog WMO Watershed Management Plan

2019 Black Dog WMO Expenditures

	<u>BUDGET</u>	<u>ACTUAL</u>
<u>General Engineering Support:</u>	31,000	\$15,850
Consulting services for engineering support, such as to prepare for and attend meetings, review/respond to issues and opportunities, apply for grants, review/comment on proposed projects, EAWs, revisions to local water management plans, comprehensive plans, and other plans; communications/ meetings with agencies and member cities; track and report on impaired waters and TMDL issues, and other tasks.		
<u>Special Projects – General Fund:</u>	\$39,200	\$34,065
Lac Lavon Management Level Monitoring.	\$25,700	\$17,450
Funding to conduct “management level” monitoring of the lake’s water quality, per guidance in the Black Dog WMO Plan.		
Dakota County SWCD—Landscaping for Clean Water Program Support	\$13,500	\$13,500
Funds to partner with the Dakota County SWCD Landscaping for Clean Water program for Black Dog WMO residents.		
2018 Work Carried into 2019	\$14,504	\$3,115
Finalization of the 2018 Crystal Lake water quality monitoring report and the 2018 Crystal Lake habitat monitoring report.		
<u>Special Projects – Capital Improvement Fund:</u>		
Keller Lake Alum Treatment Feasibility Study & Implementation Planning.	\$96,700	\$100,939
Funding to perform the 2019 Keller Lake alum treatment, including preparation of contract documents, permitting, contract administration, treatment oversight, alum treatment expenses, and grant reporting.		
<u>Insurance:</u>	\$3,000	\$2,557
<u>Legal and Audit:</u>	\$4,400	\$2,256
Consulting fees for legal and annual audit services.		
<u>Administrative Support:</u>	\$18,000	\$19,296
City of Burnsville charges for providing administrative support to the Commission, including staff time, printing and postage.		
<u>Public Education:</u>	\$17,900	\$17,136
Cost to produce and distribute the annual activity report and watershed annual report, funding support for the Dakota County SWCD Landscaping for Clean Water workshop support, and costs to maintain the Black Dog WMO website.		

<u>Water Quality Monitoring:</u> Cost associated with water quality monitoring programs, including the habitat monitoring program, Metropolitan Council's CAMP, and analysis of water quality data.	\$14,900	\$14,616
<u>Conference / Publications:</u> Commissioner training and education materials.	\$500	\$295
<u>Contingency:</u> Funding for unexpected expenses and/or new program opportunities approved by the Commission	\$5,000	\$0
Expenditure Total:	\$230,600	\$207,009

2019 Black Dog WMO Revenues

	<u>BUDGET</u>	<u>ACTUAL</u>
<u>Interest</u>	\$40	\$10,465
<u>Member City Contributions (Fees)</u>	\$131,000	\$131,000
<u>Member City Contributions—Capital Improvement Fund</u>	\$22,000	\$22,000
<u>Grants</u>	\$0	\$100,939*
<u>Fund Balance Utilized</u>	\$0	\$0
Revenue Total:	\$153,040	\$264,404

* Although the grant proceeds received by the Black Dog WMO were \$115,000, the grant revenue earned (spent) in 2019 was \$100,939; therefore, the unspent grant revenue in 2019 was \$14,061.

2019 Black Dog WMO Planned Changes in Fund Balance

	<u>BUDGET</u>	<u>ACTUAL</u>
<u>Capital Improvement Fund:</u> This fund serves as a savings account for future internal load reduction projects stemming from TMDLs.	(\$54,700)	\$22,000
<u>General Fund Reserve:</u> This fund serves as a savings account for the Black Dog WMO watershed plan ten-year update.	(\$22,860)	\$35,395
Planned Changes in Fund Balance Total:	(\$77,560)	\$57,395

2020 Black Dog WMO Goals & Work Plan

1. Participate in Metropolitan Council's Citizen Assisted Water Quality Monitoring Program (CAMP) for the following strategic water bodies:

*Crystal Lake

*Keller Lake

*Kingsley Lake

*Lac Lavon

*Orchard Lake

Complete water quality trend analyses on these lakes using the information gathered through CAMP and the more detailed monitoring on Orchard Lake.

2. Perform additional (management level) monitoring on Orchard Lake, as recommended in the Black Dog WMO Watershed Management Plan. The monitoring will consist of collecting samples on 11 occasions—ice-out and then May through September, twice per month. On each monitoring occasion, samples will be collected at seven depths at the deepest spot in the lake—a surface sample, plus six samples at one-meter intervals from three to eight meters. All of the samples will be analyzed for total phosphorus. In addition, Secchi disc readings will be taken, and the surface samples will be analyzed for chlorophyll-a. Field measurements of temperature, dissolved oxygen, pH, redox potential, and specific conductivity will be taken at one meter intervals at the monitoring location. Turbidity field measurements will also be taken on the surface water sample at the monitoring location. The work includes field work, lab work, QA/QC of lab data (including coordination with lab), entering data into EQuIS database, submitting the data to the MPCA, preparing a technical memo summarizing the monitoring results, and preparing a presentation for a Commission meeting. The City of Lakeville will perform aquatic plant surveys in June and August, and share the results with the Black Dog WMO.
3. Continue implementing the Keller Lake Alum Treatment project. The 2020 work includes grant administration. BWSR awarded the Black Dog WMO a \$230,000 Clean Water Fund Grant in December 2018, and executed an agreement with the Black Dog WMO in early 2019. The grant covers 80% of the project cost (grant requires a 20% local share).
4. Perform habitat monitoring of Keller Lake. Habitat monitoring is performed at one strategic water body per year, such that all five strategic water bodies will be completed over a five-year cycle. Monitoring will include a meandering survey around the entire lake as well as the previously established sample plots (in the emergent and upland buffer zones) and identification of sedimentation and shoreline erosion problems. The City of Apple Valley's and City of Burnsville's 2020 aquatic plant survey results for Keller Lake will be used to evaluate the submergent zone. The work includes analysis and reporting of 2020 data, and preparation of a presentation for a Commission meeting, which may need to be carried over into 2021.
5. Conduct an annual evaluation of the watershed programs and report the results to member communities via a watershed annual report (this report is incorporated into the annual activity report submitted to the Minnesota Board of Water and Soil Resources).

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6. Partner with the Dakota County SWCD by providing funding and support to install up to 18 water quality improvement projects through the Landscaping for Clean Water program for Black Dog WMO residents, consistent with SWCD cost share policies.
 7. Partner with the Dakota County SWCD to fund two Landscaping for Clean Water workshops and two design workshops (four evenings) in the Black Dog WMO area.
 8. Complete the 2019 Financial Audit—statute changes allow the Black Dog WMO to perform audits every five years, rather than every year. Annual finance statements will be prepared in the intervening years between audits.
 9. As budget allows, prepare up to two educational pieces and/or presentations for the Commission regarding new technology (e.g., new stormwater best management practices, new lake treatment technologies, etc.) or aquatic invasive species.
 10. Apply for grants and/or assist member cities with grant applications.
 11. Assist with BWSR watershed-based funding grant application and work plan.
 12. Formulate and approve the year 2021 Work Plan and Budget.
 13. Review and respond to any issues and opportunities brought to the attention of the Black Dog WMO.
 14. Maintain and update web site.
 15. Respond to requests to partner with member communities and Dakota County on educational outreach programs.
 16. Keep abreast of changes to the TMDL program, including additions to/removals from the impaired waters list and the listing criteria.
 17. Review revisions to local water management and comprehensive plans as needed. No reviews are expected in 2020, as the last of the member cities' plans were reviewed and approved in 2019.
 18. Continue implementing plan to accrue funds in 1) a Capital Improvement Fund, to be used for the current Keller Lake Alum Treatment project, and future Black Dog WMO internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (Crystal Lake, Keller Lake, and Lac Lavon) and 2) in a General Fund Reserve to be used for the Black Dog WMO watershed plan ten-year update.
 19. Begin preliminary work on updating the Watershed Management Plan (e.g., scoping, goals, etc.) in the last half of 2020.

—See Attached Watershed Annual Report for information on the 2020 Budget—

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Administrative and Operational—Watershed-wide			
General WMO administration, including reviewing and responding to issues and opportunities (not otherwise described in this table) as they arise. This may include services provided by: <ul style="list-style-type: none"> Administrator (City of Burnsville) Black Dog WMO consulting engineer Black Dog WMO Attorney 	Ongoing	Black Dog WMO continues to perform these actions as needed/requested. In 2019, this included coordinating with BWSR regarding BWSR's final policy for its watershed-based funding program.	Continue to perform as needed/requested.
Revise joint powers agreement (JPA) to allow cost allocation apportionment specified in Section 4.7.4 – Policy 8 of the 2012 Black Dog WMO Plan (funding of internal load reduction projects)	2013	Revision of the JPA not required to develop and implement plan to accrue funds in a Capital Improvement Fund.	None.
Review Burnsville local watershed management plan	2014	Black Dog WMO approval of plan in 2017.	None.
Review Lakeville local watershed management plan	2014	Black Dog WMO approval of plan in 2019.	None.
Review Apple Valley local watershed management plan	2014	Black Dog WMO approval of plan in 2018.	None.
Review Eagan local watershed management plans	2014	Black Dog WMO approval of plan in 2018.	None.
Miscellaneous reviews including, but not limited to: <ul style="list-style-type: none"> Review city comprehensive plan changes that require review by the Metropolitan Council Review projects for consistency with the Black Dog WMO plan, as requested by member cities or other governmental agencies Review and approve any proposed changes to the intercommunity stormwater system that are inconsistent with an approved local plan Review and approve changes to an approved local plan that would cause the local plan to be inconsistent with the Black Dog WMO plan 	Ongoing	Black Dog WMO continues to perform these reviews as needed/requested.	Continue to perform as needed/requested.

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
City technical staff (technical advisor) attendance at Black Dog WMO meetings	Ongoing	City technical staff regularly attend Black Dog WMO meetings	City staff continue to attend Black Dog WMO meetings.
Facilitate intercommunity flood control, stormwater runoff, erosion, and sediment control projects	As needed	No facilitation of intercommunity projects currently planned	Provide facilitation, if needed.
Apply for and/or assist member cities with grant applications	Ongoing	The Black Dog WMO continues to pursue these opportunities as they arise. In December 2018, BWSR awarded the Black Dog WMO a \$230,000 Clean Water Fund Grant (grant agreement executed in early 2019) for the Keller Lake Alum Treatment project..	Continue to apply for grants or assist member cities in their grant applications, as appropriate/requested.
Complete and submit annual audit to BWSR	Ongoing	Submitted annually; per revised statute, the Black Dog WMO is required to perform an audit every 5 years, rather than annually. In the other years, the Black Dog WMO will prepare an annual finance statement. The last audit was prepared for year 2014; the next audit will need to be prepared for year 2019.	Prepare next audit in 2020; prepare annual finance statements in intervening years.
Update Black Dog WMO Watershed Management Plan	2020	Black Dog WMO adopted its latest Watershed Management Plan in 2012.	Planning for an updated Plan will begin in 2020.
Development of TMDL Studies and Implementation Plans	Ongoing	Black Dog WMO will perform these tasks as necessary; there are no TMDL studies or implementation plans currently planned by the Black Dog WMO	Black Dog WMO will perform these tasks as necessary; do not anticipate studies in the near future.
Complete and publish watershed annual report (newsletter) and post on website	Ongoing	Published annually.	Complete annually.

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Complete and submit annual activity report to BWSR and post on website	Ongoing	Completed, published, and submitted annually	Complete annually.
Create, maintain and update web site—put plan, data, meeting agenda and minutes, watershed annual reports, water quality monitoring reports, educational materials, project updates, etc. on the site	Ongoing	Website is hosted by Dakota SWCD and regularly updated as new material is available.	Continue to maintain and update website.
Educational outreach including, but not limited to: exploring social media and email list serves to expand communication with the public, sponsoring workshops in partnership with the Blue Thumb program, the promotion of awareness of groundwater resource issues, and seeking volunteers to participate in water quality and water quantity programs	Ongoing	Provided watershed annual report to member cities and posted to Black Dog WMO website; maintained website (see above); since 2009, Black Dog WMO has partnered with the Dakota SWCD to fund Landscaping for Clean Water (formerly Blue Thumb) Program workshops in the Black Dog WMO area. Black DogWMO funded 4 workshops in 2019 (2 Landscaping for Clean Water Intro Workshops and 2 Landscaping for Clean Water Design Workshops).	Continue providing watershed annual report to member cities and partnering with Dakota SWCD to fund workshops.

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps																										
Implementation of small-scale best management practices on private property to improve water quality	Ongoing	<div>Since 2009, Black Dog WMO has partnered with the Dakota County SWCD by providing funding and support to install water quality improvement projects through the Landscaping for Clean Water Program (formerly Blue Thumb and Community Conservation Cost Share Programs) for Black Dog WMO residents. Projects have included rainwater gardens, native gardens, shoreline improvements, and a bioretention site.</div> <table><thead><tr><th>Year</th><th>Number of projects</th></tr></thead><tbody><tr><td>2009</td><td>9</td></tr><tr><td>2010</td><td>7</td></tr><tr><td>2011</td><td>6</td></tr><tr><td>2012</td><td>18</td></tr><tr><td>2013</td><td>13</td></tr><tr><td>2014</td><td>16</td></tr><tr><td>2015</td><td>18</td></tr><tr><td>2016</td><td>16</td></tr><tr><td>2017</td><td>17</td></tr><tr><td>2018</td><td>18</td></tr><tr><td>2019</td><td>19</td></tr><tr><td>Total</td><td>157</td></tr></tbody></table>	Year	Number of projects	2009	9	2010	7	2011	6	2012	18	2013	13	2014	16	2015	18	2016	16	2017	17	2018	18	2019	19	Total	157	Continue partnering with Dakota SWCD to fund water quality improvement projects.
Year	Number of projects																												
2009	9																												
2010	7																												
2011	6																												
2012	18																												
2013	13																												
2014	16																												
2015	18																												
2016	16																												
2017	17																												
2018	18																												
2019	19																												
Total	157																												
Implement recommended internal phosphorus load reduction projects identified in UAA and/or TMDL for non-strategic waterbodies or strategic waterbodies without inter-community shoreline	As needed	Black Dog WMO will implement these projects when watershed load reduction projects have been implemented and further water quality improvements are needed. See below for Black Dog WMO's Keller Lake implementation project.	Implement when needed (see Keller Lake actions below).																										

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps										
Annual CAMP water quality monitoring, performing trend analysis, and establishing action levels for the following strategic waterbodies: <div><div>• Crystal Lake</div><div>• Keller Lake</div><div>• Kingsley Lake</div><div>• Lac Lavon</div><div>• Orchard Lake</div></div>	Ongoing	CAMP monitoring completed annually; trend analysis completed annually.	Continue annual CAMP monitoring and trend analyses of monitoring data.										
Management level water quality monitoring performed at 3-year intervals for the following strategic waterbodies: <div><div>• Crystal Lake</div><div>• Lac Lavon</div><div>• Orchard Lake</div></div>	Ongoing	Performed for one lake annually; most recent monitoring includes Orchard Lake in 2017, Crystal Lake in 2018 and Lac Lavon in 2019.	Continue cycle of monitoring: Orchard Lake in 2020, Crystal Lake in 2021, and Lac Lavon in 2022.										
Habitat monitoring at 5-year intervals for the following strategic waterbodies: <div><div>• Crystal Lake</div><div>• Keller Lake</div><div>• Kingsley Lake</div><div>• Lac Lavon</div><div>• Orchard Lake</div></div>	Ongoing	Implementation of the redesigned program began in 2011; habitat monitoring has been performed as shown below: <table><tr><td>Kingsley Lake</td><td>2011, 2016</td></tr><tr><td>Orchard Lake</td><td>2012, 2017</td></tr><tr><td>Crystal Lake</td><td>2013, 2018</td></tr><tr><td>Lac Lavon</td><td>2014, 2019</td></tr><tr><td>Keller Lake</td><td>2015</td></tr></table>	Kingsley Lake	2011, 2016	Orchard Lake	2012, 2017	Crystal Lake	2013, 2018	Lac Lavon	2014, 2019	Keller Lake	2015	Continue cycle of monitoring: Keller Lake in 2020, Kingsley Lake in 2021, Orchard Lake in 2022, Crystal Lake in 2023, and Lac Lavon in 2024,
Kingsley Lake	2011, 2016												
Orchard Lake	2012, 2017												
Crystal Lake	2013, 2018												
Lac Lavon	2014, 2019												
Keller Lake	2015												
Implement lake water quality management actions recommended in Table 4-1 of the 2012 Black Dog WMO Plan, depending on water quality trends and comparison of recent water quality to action level, for the following strategic waterbodies: <div><div>• Kingsley Lake</div><div>• Lac Lavon</div><div>• Orchard Lake</div></div>	As needed	Black Dog WMO will implement these actions as necessary; there are no actions currently planned.	Continue tracking water quality trends and action levels and take actions as/when necessary.										

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Capital Projects—Crystal Lake			
Implement recommended watershed projects to reduce runoff-borne phosphorus loads, as identified in the TMDL, that may include: <ul style="list-style-type: none"> • Street sweeping • Native shoreline buffers • Public outreach and education 	Ongoing	Projects to be performed by member cities (Lakeville, Burnsville) with possible grant funding from Black Dog MWO. Burnsville performs street sweeping in the watershed twice a year and performs ongoing outreach and education. Beyond website articles and city newsletter information, city staff meet with the Crystal Lake association twice a year. Black Dog WMO also performs ongoing public education.	Cities perform projects as needed; continue to perform public education.
Implement recommended internal phosphorus load reduction projects identified in the TMDL, that may include: <ul style="list-style-type: none"> • In-lake alum treatment • Aquatic macrophyte management • Internal load reduction in upstream Keller Lake 	As needed	The Black Dog WMO began the Keller Lake Alum Treatment project in 2018 and received a BWSR Clean Water Fund grant for the project in 2019. The alum treatment was divided into two phases to increase the long-term effectiveness. Phase 1 occurred in June, 2019 and Phase 2 will occur in spring or fall of 2021. Other potential future projects are listed in Table 5-3 of the 2012 Black Dog WMO Plan; no other projects are currently planned.	Continue implementation of the Keller Lake Alum Treatment project in 2021. Implement other projects when recommended.

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Capital Projects—Keller Lake			
<p>Implement recommended watershed projects to reduce runoff-borne phosphorus loads, as identified in the TMDL, that may include:</p> <ul style="list-style-type: none"> • Construction of a water quality treatment pond in Crystal Beach Park • Construction of a water quality treatment pond on southwest side of Keller Lake • Street sweeping • Native shoreline buffers • Public outreach and education 	<p>Ongoing</p> <p>2013 – 2015 (Crystal Beach Park project)</p> <p>2018 (SW Keller Lake project)</p>	<p>Member cities perform projects, with possible grant funding obtained by Black Dog WMO; Black Dog WMO performs ongoing public education.</p> <p>Crystal Beach Park project: the City of Burnsville completed the project in 2017.</p> <p>SW Keller Lake project: the City of Burnsville will construct this if additional total phosphorus load reductions are required in the watershed. However, if the Crystal Beach Park project meets the city's TMDL load reduction goals for Keller Lake, the city will not construct the SW Keller Lake project.</p> <p>In 2017, the City of Apple Valley conducted a subwatershed assessment for the portions of the city that drain to Keller Lake to target potential projects. The city will construct one of the projects (Redwood Pond) in 2020.</p>	<p>Burnsville will construct SW Keller Lake project if additional load reductions required.</p> <p>Apple Valley will construct the Redwood Pond project in 2020 and implement other projects from the subwatershed assessment as budget and opportunity allows.</p>

Table 1: Status of Implementation Tasks from 2012 Black Dog WMO Watershed Management Plan—through December 31, 2019

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Implement recommended internal phosphorus load reduction projects identified in the TMDL, that may include: <ul style="list-style-type: none"> • In-lake alum treatment • Aquatic macrophyte management 	As needed	The Black Dog WMO began the Keller Lake Alum Treatment project in 2018 and received a BWSR Clean Water Fund grant for the project in 2019. The alum treatment was divided into two phases to increase the long-term effectiveness. Phase 1 occurred in June, 2019 and Phase 2 will occur in spring or fall of 2021. Other potential future projects are listed in Table 5-3 of the 2012 Black Dog WMO Plan; no other projects are currently planned.	Perform second Keller Lake alum treatment in 2021.
Capital Projects—Orchard Lake, Kingsley Lake, and Lac Lavon			
Implement water quality improvement measures in Orchard Lake, Kingsley Lake, and Lac Lavon as identified in future diagnostic feasibility studies, that may include: <ul style="list-style-type: none"> • Watershed projects (e.g., stormwater treatment ponds, rainwater gardens, infiltration basins) • Internal load reduction projects (e.g., in-lake alum treatment, aquatic macrophyte management) 	As needed	Black Dog WMO will implement projects as necessary; no projects are currently planned.	Implement projects as necessary; no projects planned.

2019 Watershed Annual Report

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2019 Water Quality Data

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The Black Dog WMO funds the water quality monitoring of its water bodies designated as “strategic” by the Black Dog WMO. In 2019, the strategic water bodies included:

1. Crystal Lake
2. Keller Lake
3. Kingsley Lake
4. Lac Lavon
5. Orchard Lake

Some of the water quality data for the strategic water bodies is presented on the following pages. First are a series of figures that summarize the historical summer average (June 1 through September 30) total phosphorus, chlorophyll *a*, and Secchi disc transparency data. The figures also display the trend lines for the past 10 years’ water quality data, if a trend was observed. The linear best-fits were determined using a “least squares” regression analysis of the summer averages of the past 10 years (2010—2019) of data. Trend analyses were not performed for Keller Lake because of the alum treatment that was conducted in spring 2019. The 2019 CAMP data provided by the Metropolitan Council were preliminary data at the time this report was prepared.

Second are a series of tables that show the results of the water quality monitoring for each data collection date in 2019.

Water quality monitoring data is also available for other “non-strategic” water bodies in the Black Dog WMO. In 2019, the member cities funded participation in the CAMP program for the following non-strategic water bodies

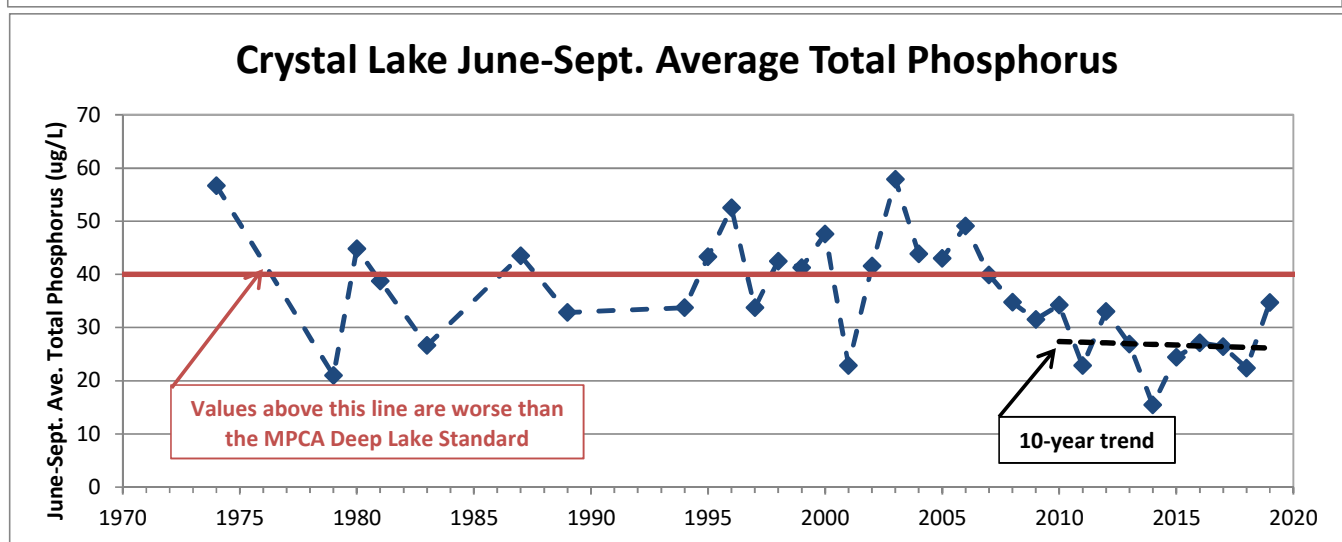
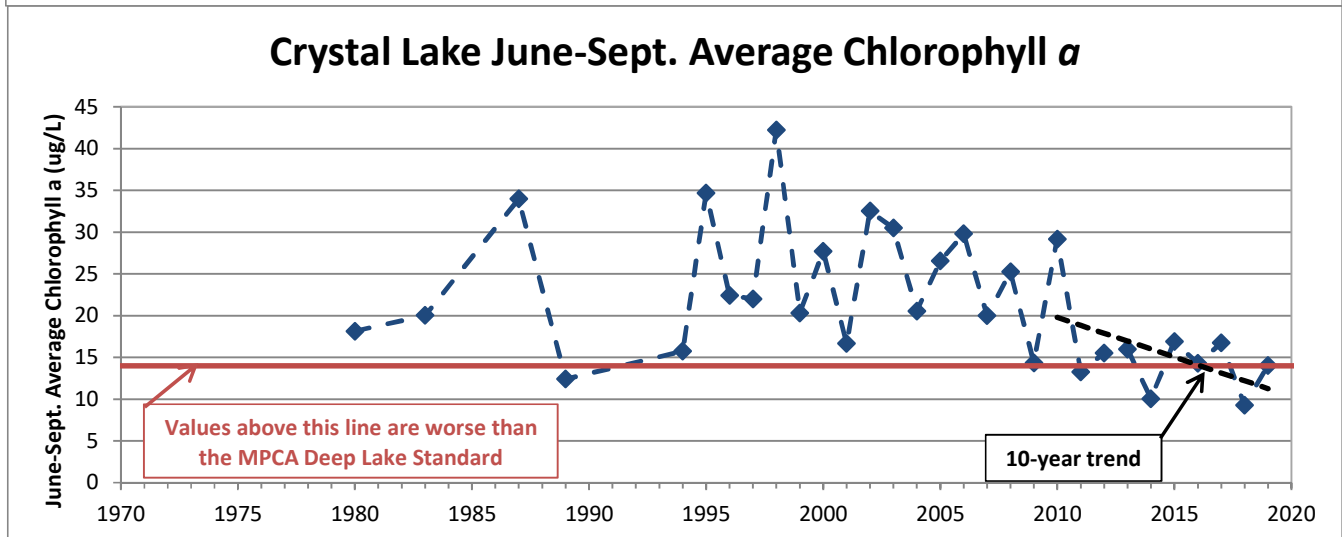
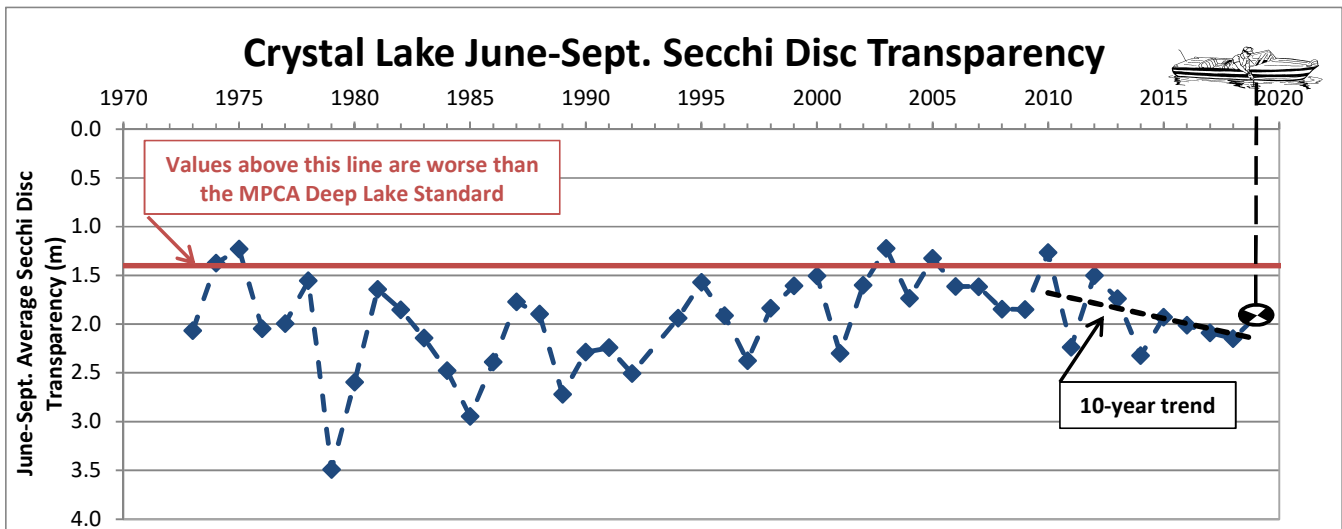
- Earley Lake (City of Burnsville)
- Twin Lake (City of Burnsville)
- Sunset Pond (City of Burnsville)
- Wood Pond (City of Burnsville)
- Lee Lake (City of Lakeville)

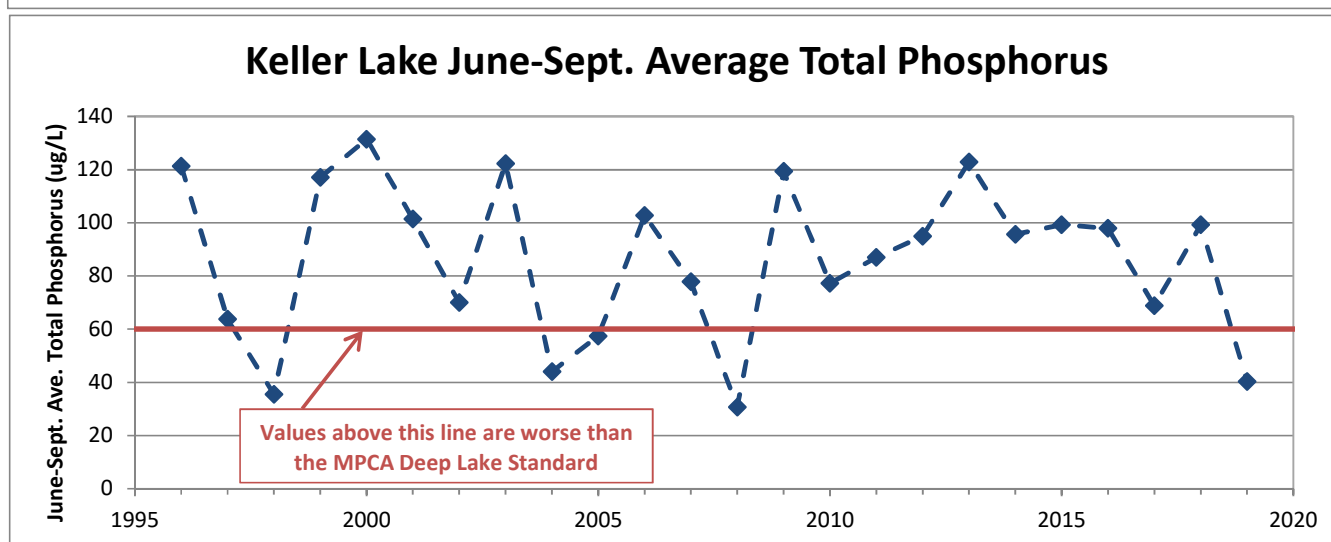
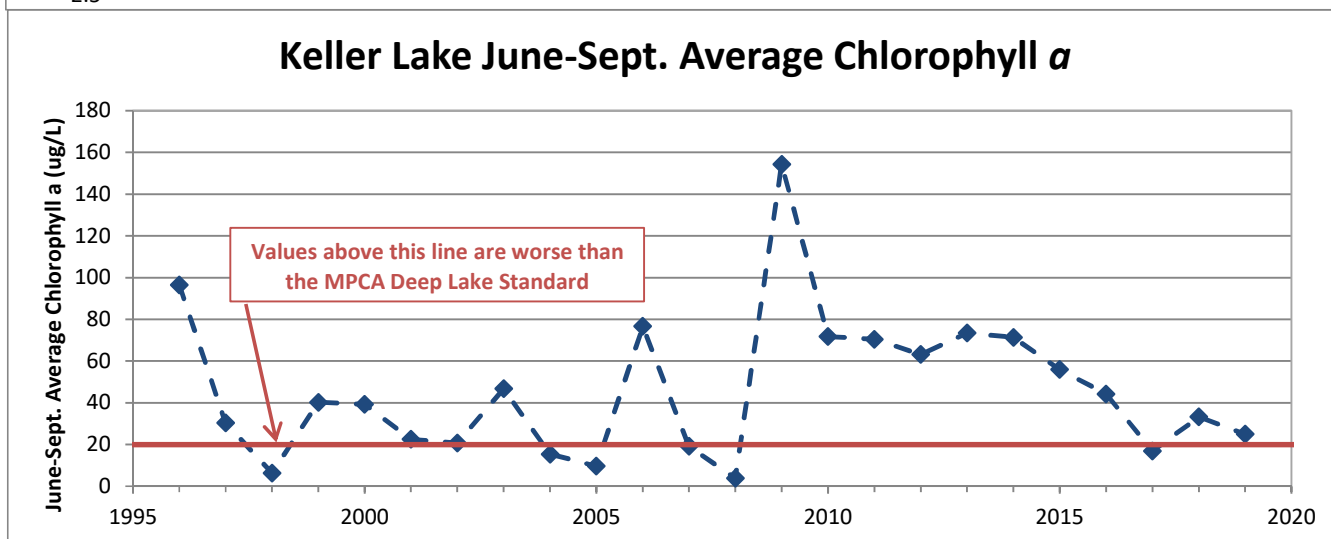
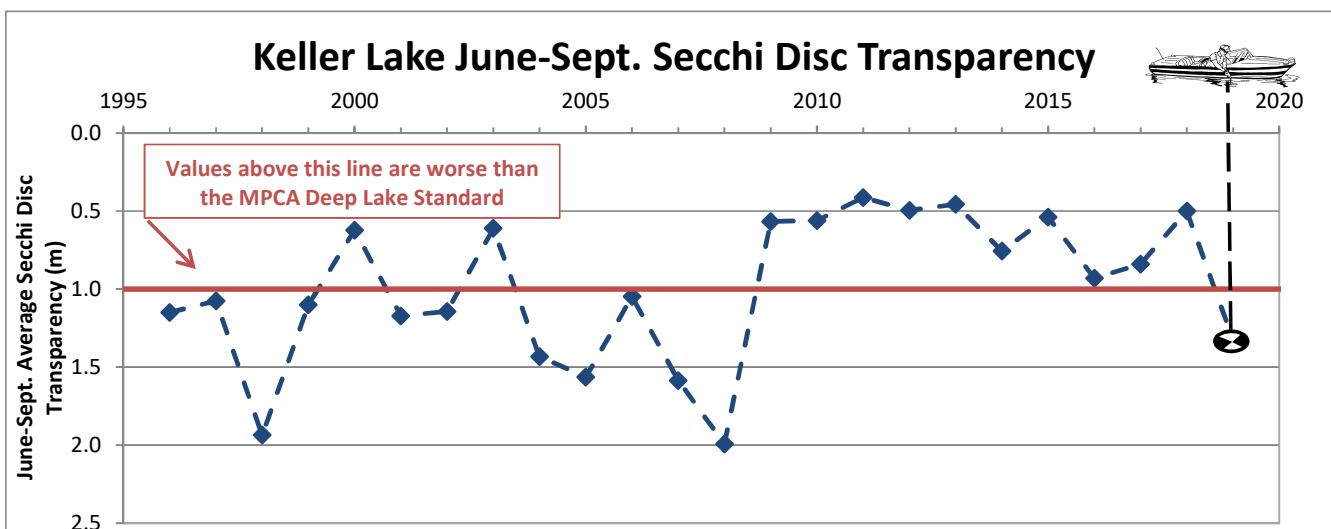
Results of the 2019 water quality monitoring of these water bodies is available from the Metropolitan Council’s CAMP program.

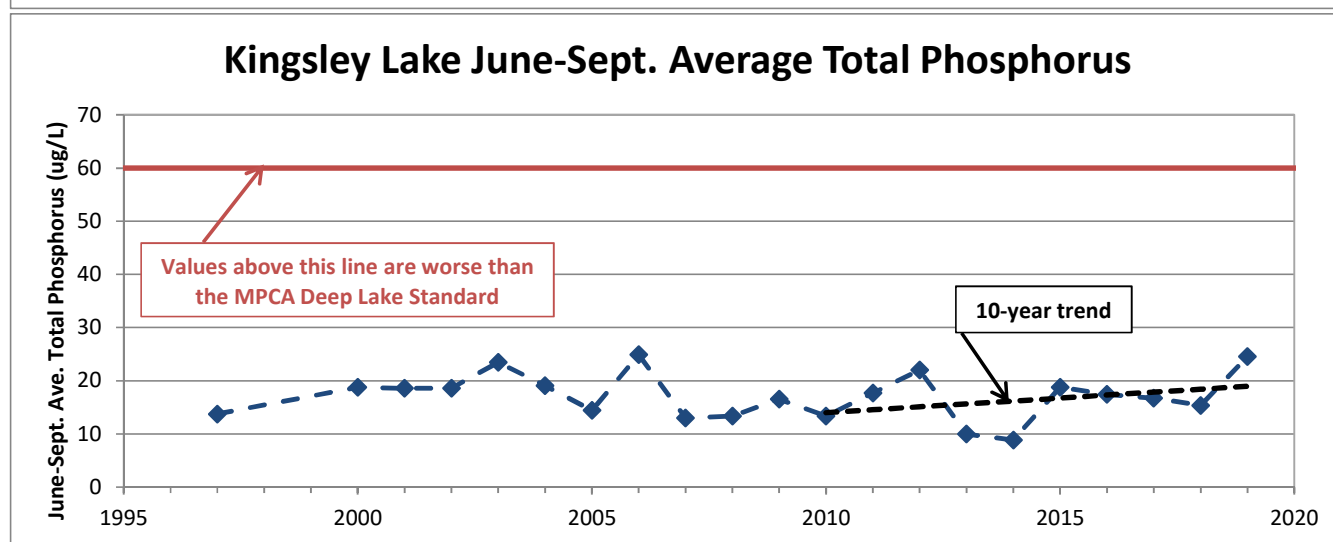
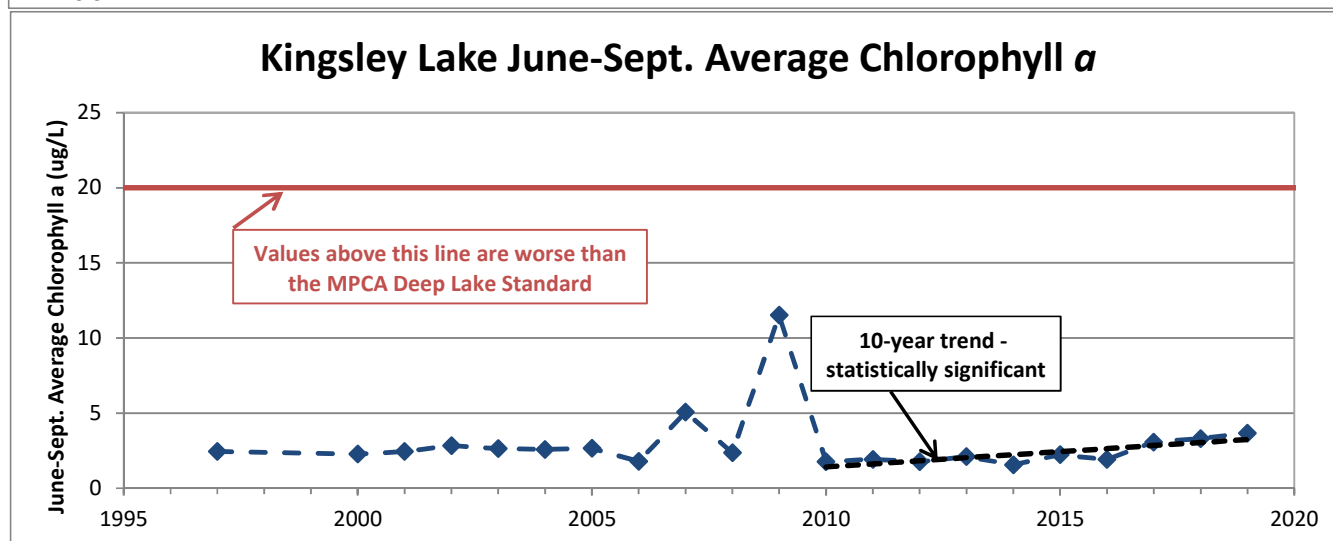
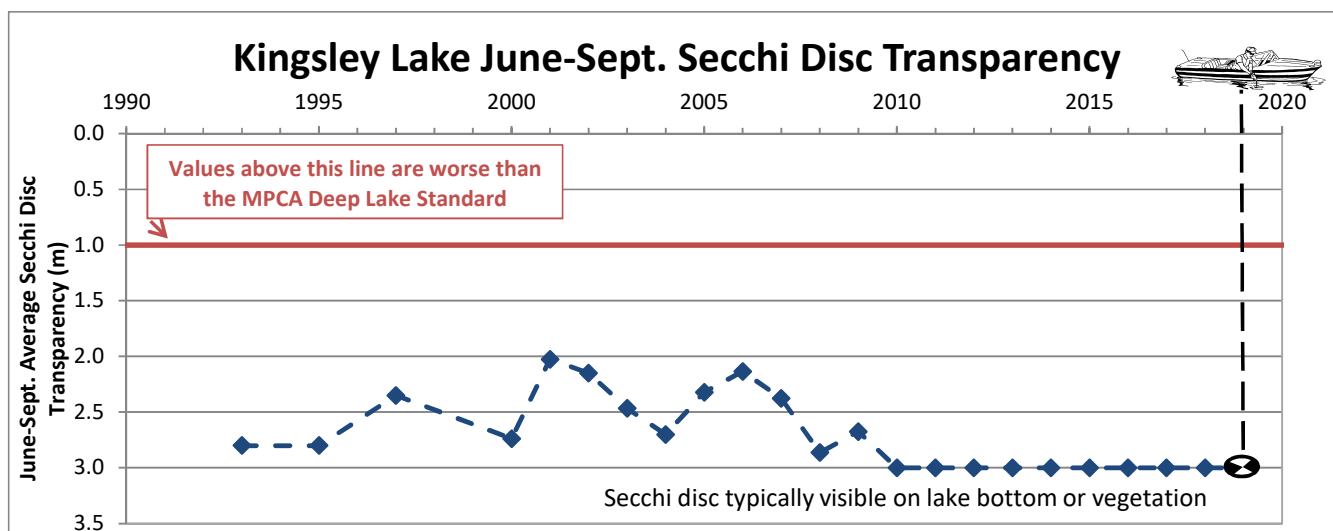
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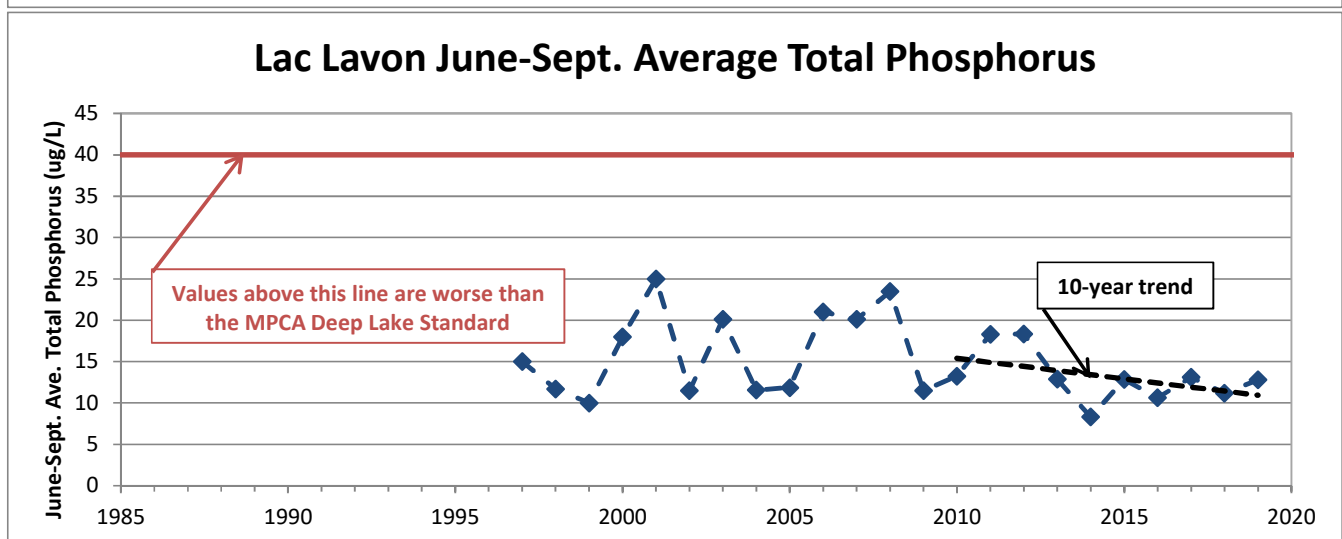
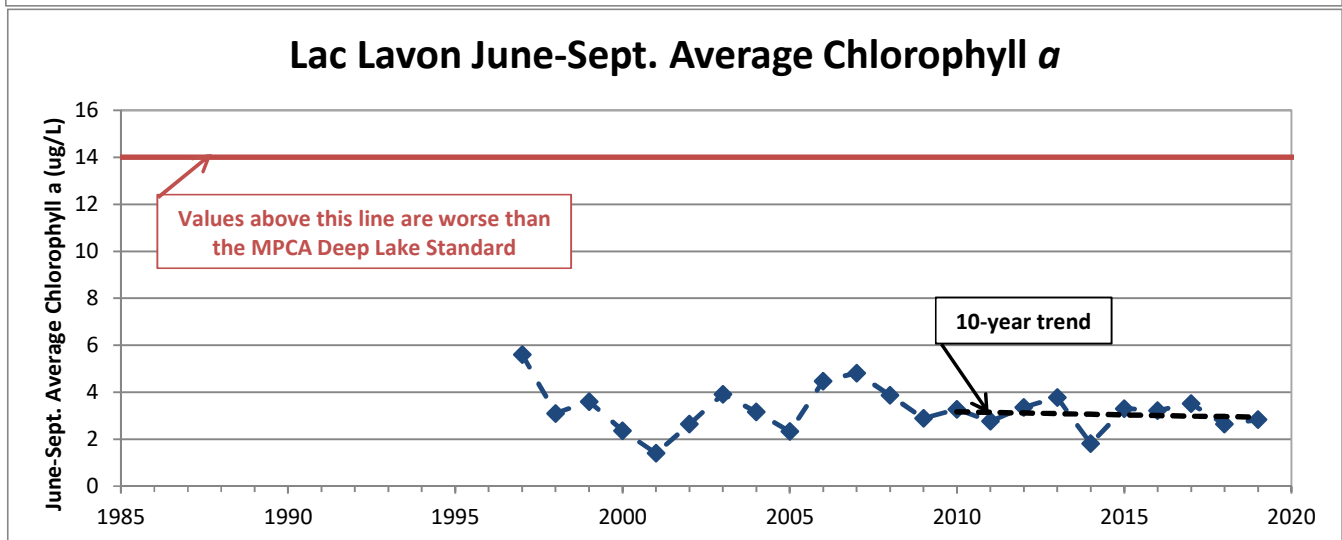
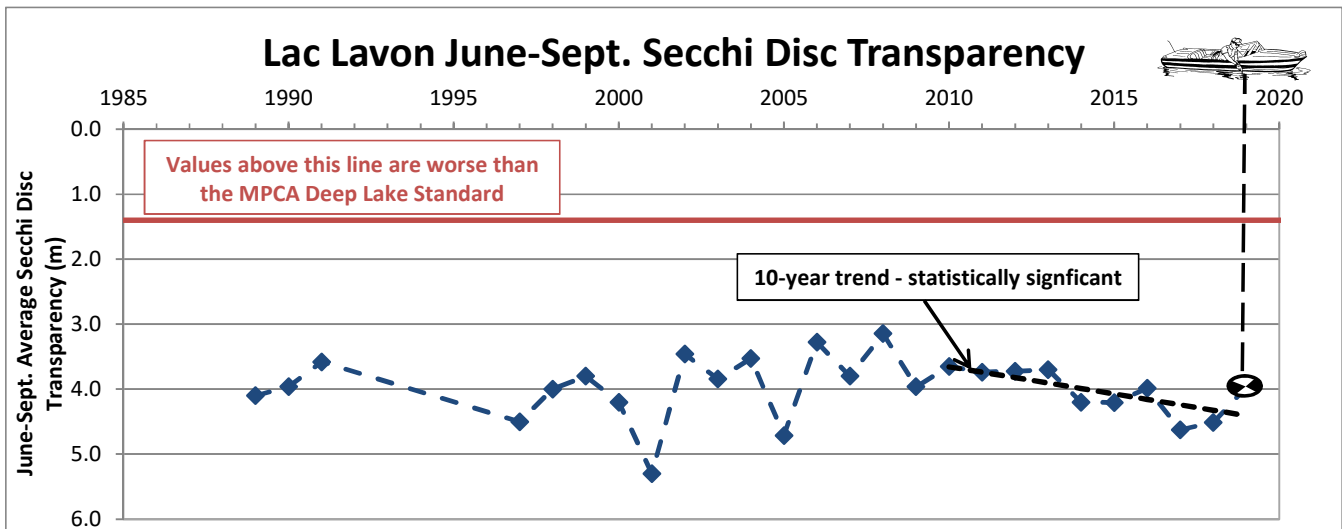
Historical Water Quality Data—Figures

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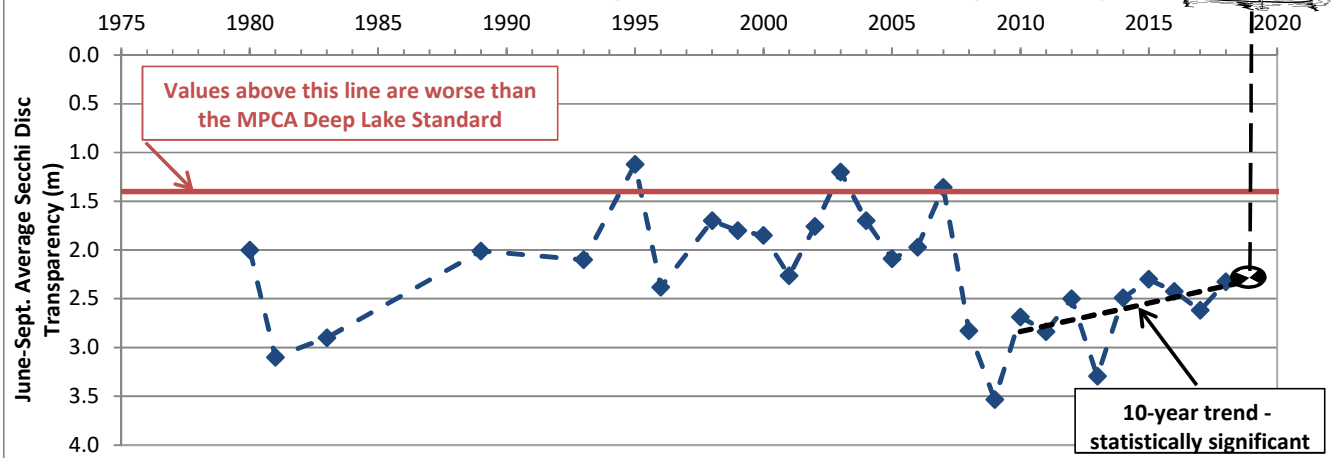




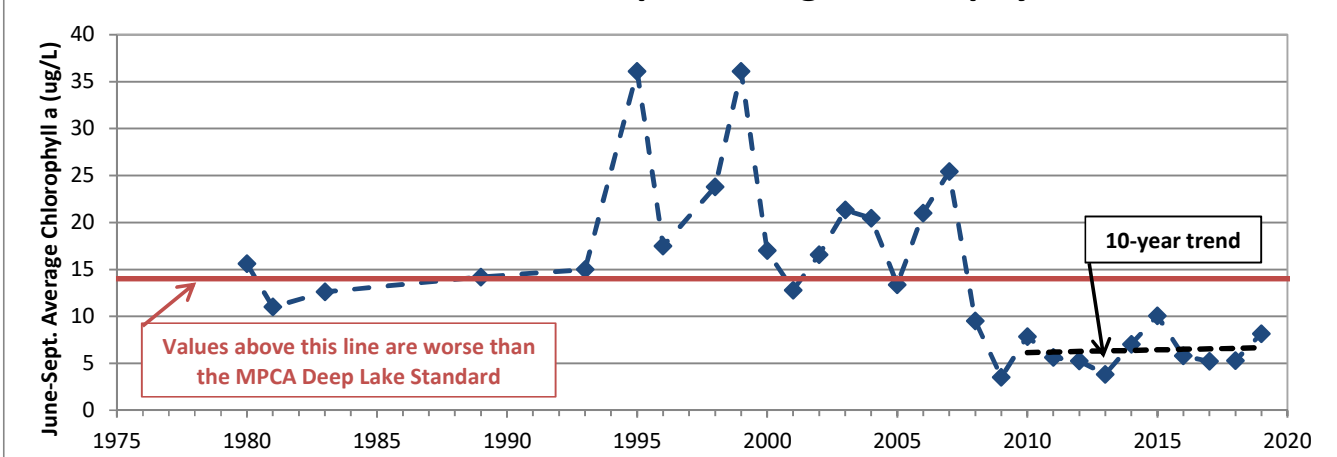




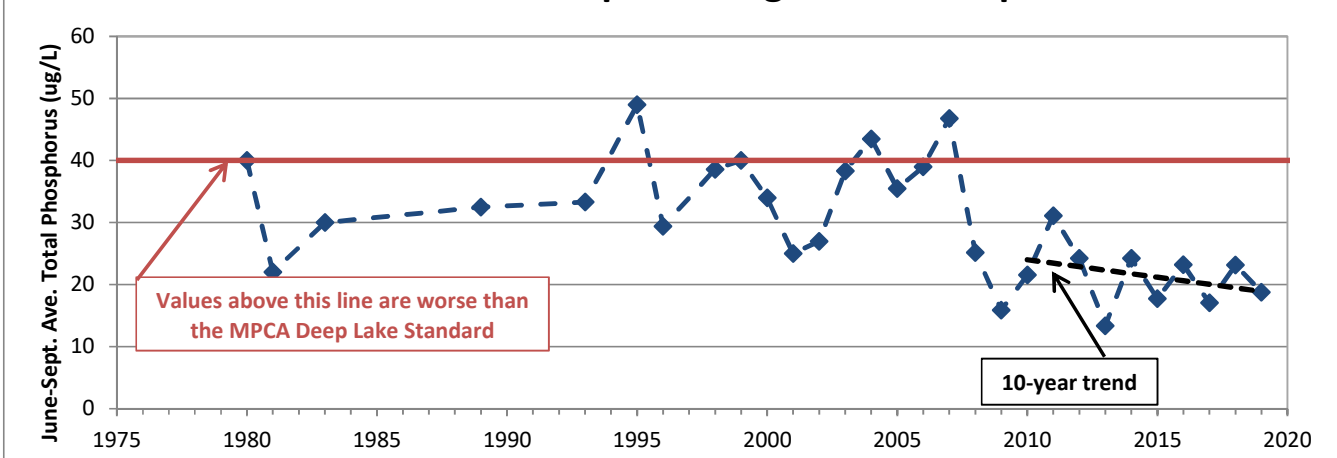
Orchard Lake June-Sept. Secchi Disc Transparency



Orchard Lake June-Sept. Average Chlorophyll *a*



Orchard Lake June-Sept. Average Total Phosphorus



2019 Water Quality Data—Tables

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**Table 1: Crystal Lake 2019 Water Quality Data
Citizen-Assisted Monitoring Program**

Date & Time	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (µg/L)	Total Phosphorus (mg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)	Comment
4/19/2019 9:30	0	3.4	<1.0	0.019	0.57	18.0	
5/2/2019 9:30	0	3.3	2.1	0.022	0.63	18.5	
5/17/2019 9:30	0	3.3	1.5	0.038	0.65	18.9	
5/31/2019 12:04	0	2.4	3.5	0.021	0.60	18.9	
5/31/2019 12:04	0	--	--	0.031	0.46	--	field replicate
6/12/2019 15:00	0	4.0	3.6	0.025	0.81	21.6	
6/26/2019 13:00	0	2.3	3.9	0.025	0.39	21.9	
7/8/2019 15:00	0	2.3	6.8	0.019	0.49	27.3	
7/12/2019 11:38	0	2.0	16	0.018	0.59	26.2	
7/12/2019 11:38	0	--	--	0.027	0.65	--	field replicate
7/24/2019 12:30	0	1.9	17	0.036	0.56	26.0	
8/9/2019 8:30	0	1.4	21	0.043	0.57	25.4	
8/21/2019 13:30	0	1.4	21	0.022	0.68	24.4	
9/4/2019 10:30	0	1.4	18	0.033	0.66	21.2	
9/19/2019 10:30	0	1.3	18	0.089	0.74	21.7	
9/30/2019 13:00	0	1.2	15	0.033	0.69	18.1	
10/17/2019 11:00	0	2.0	16	0.020	0.46	9.8	

Notes

< 1.0 Indicates result is below the method detection limit.

**Table 2: Keller Lake 2019 Water Quality Data
Citizen-Assisted Monitoring Program**

Date & Time	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (µg/L)	Total Phosphorus (mg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)	Comment
5/11/2019 18:30	0	1.1	7.7	0.058	0.80	15.5	
5/11/2019 18:30	0	--	--	0.061	0.98	--	field replicate
5/26/2019 18:30	0	1.2	3.0	0.050	0.78	21.5	
6/13/2019 18:00	0	+2.3	4.4	0.031	0.62	25.7	
6/26/2019 17:00	0	1.5	--	0.041	1.7	26.7	
6/26/2019 17:00	0	--	--	0.046	1.4	--	
7/9/2019 18:30	0	1.1	15	0.046	1.9	27.0	
7/25/2019 19:15	0	1.0	44	0.047	1.9	27.0	
8/6/2019 16:15	0	1.0	38	0.039	1.5	26.1	
9/20/2019 11:00	0	1.0	22	0.039	1.2	--	
9/20/2019 11:15	0	1.1	25	0.032	1.2	23.4	field replicate
10/8/2019 9:00	0	1.3	14	0.042	0.71	12.8	
10/18/2019 12:00	0	2.0	4.7	0.031	0.60	9.1	

Notes

+ 2.8 Secchi disk was resting on vegetation or lake bottom.

**Table 3: Kingsley Lake 2019 Water Quality Data
Citizen-Assisted Monitoring Program**

Date & Time	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (µg/L)	Total Phosphorus (mg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)	Comment
5/2/2019 14:34	0	>3.2	1.9	0.012	0.35	11.6	
5/13/2019 9:40	0	+3.3	1.3	~0.007	0.33	15.3	
5/29/2019 14:20	0	+3.5	2.3	0.013	0.33	19.0	
5/29/2019 14:20	0	--	--	0.012	0.35	--	
6/10/2019 12:45	0	>3.4	1.3	0.018	0.40	23.5	
6/28/2019 9:05	0	3.3	4.1	0.026	0.43	23.5	
7/9/2019 9:05	0	3.2	3.6	0.019	0.46	26.9	
7/23/2019 9:00	0	3.8	4.1	0.031	0.45	26.6	
8/8/2019 9:20	0	+3.8	3.2	0.028	0.44	27.0	
8/23/2019 9:45	0	+3.1	4.6	0.030	0.46	24.1	
9/3/2019 9:45	0	3.3	4.8	0.020	0.40	22.3	
9/16/2019 8:45	0	+3.7	--	--	--	20.6	
10/4/2019 14:00	0	+3.5	5.6	0.027	0.40	14.3	

Notes

+ 3.3 Secchi disk was resting on vegetation or lake bottom.

< 1.0 Indicates result is below the method detection limit.

~ 0.007 Indicates result is above the method detection limit, but below the method reporting limit.

Table 4: Orchard Lake 2019 Water Quality Data, Citizen-Assisted Monitoring Program
Citizen-Assisted Monitoring Program

Date & Time	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (µg/L)	Total Phosphorus (mg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)	Comment
4/20/2019 8:40	0	2.0	5.8	0.033	0.62	7.7	
4/20/2019 8:40	0	--	--	0.028	0.63	--	field replicate
5/4/2019 7:30	0	2.2	2.4	0.023	0.68	10.8	
5/22/2019 12:15	0	3.0	3.2	0.027	0.53	13.0	
6/4/2019 15:18	0	4.4	2.2	0.019	0.59	22.3	
6/18/2019 10:11	0	2.6	5.5	0.016	0.64	21.5	
6/29/2019 19:50	0	2.6	4.5	0.012	0.60	26.1	
7/12/2019 13:09	0	--	5.6	0.014	0.57	26.0	
7/23/2019 19:30	0	1.9	11	0.018	0.55	26.0	
8/3/2019 18:45	0	2.1	4.9	0.021	0.94	27.7	
8/10/2019 16:45	0	1.7	14	0.018	0.68	25.3	
8/25/2019 18:00	0	1.4	12	0.026	0.86	22.6	
9/6/2019 18:32	0	1.7	8.9	0.021	0.79	22.0	
9/19/2019 11:00	0	1.9	13	0.023	0.68	21.9	
10/6/2019 13:50	0	2.4	11	0.039	0.81	13.5	
10/14/2019 16:53	0	2.7	9.7	0.025	0.71	9.1	

**Table 5: Lac Lavon 2019 Water Quality Data
Citizen-Assisted Monitoring Program**

Date & Time	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (µg/L)	Total Phosphorus (mg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)	Comment
5/7/2019 12:00	0	3.9	1.6	0.018	0.58	13.1	
5/22/2019 14:30	0	3.5	2.2	0.015	0.55	14.3	
6/2/2019 14:30	0	4.5	2.6	0.014	0.53	25.5	
6/16/2019 11:30	0	4.8	2.5	~0.007	0.59	21.8	
8/27/2019 14:30	0	4.3	3.9	0.010	0.47	22.3	
9/9/2019 15:00	0	3.6	5.2	~0.009	0.48	20.7	
9/22/2019 13:30	0	4.5	2.8	0.011	0.44	21.2	
10/19/2019 13:00	0	2.9	12	0.018	0.60	11.4	

Notes

~ 0.009 Indicates result is above the method detection limit, but below the method reporting limit.

Table 6: Lac Lavon Water Quality Measured by Barr Engineering

Date	Sample Depth	Field Measurements						Laboratory Analyses	
		Dissolved oxygen (mg/L)	pH	Specific conductance @ 25 °C (umhos/cm)	Water Temperature (°C)	Secchi disc (m)	Turbidity (NTU)	Chlorophyll-a, pheophytin-adjusted (ug/L)	Total Phosphorus as P (mg/L)
4/24/2019	0 - 2 m	--	--	--	--	2.1	2.6	5.7	0.021
4/24/2019	0 m	11.8	8.2	572	11.6	--	--	--	--
4/24/2019	1 m	12.0	8.2	573	11.9	--	--	--	--
4/24/2019	2 m	12.2	8.2	573	10.7	--	--	--	--
4/24/2019	3 m	12.3	8.1	572	9.0	--	--	--	0.018
4/24/2019	4 m	11.1	7.9	574	7.5	--	--	--	0.016
4/24/2019	5 m	10.6	7.8	574	6.8	--	--	--	0.020
4/24/2019	6 m	9.0	7.6	574	6.2	--	--	--	0.016
4/24/2019	7 m	8.1	7.5	577	5.9	--	--	--	0.018
4/24/2019	8 m	7.7	7.5	578	5.9	--	--	--	0.020
4/24/2019	9 m	6.9	7.4	580	5.6	--	--	--	0.021
5/08/2019	0 - 2 m	--	--	--	--	2.9	1.7	1.5	0.025
5/08/2019	0 m	11.1	8.2	582	14.3	--	--	--	--
5/08/2019	1 m	11.2	8.2	581	14.3	--	--	--	--
5/08/2019	2 m	11.2	8.3	582	14.3	--	--	--	--
5/08/2019	3 m	11.5	8.3	581	13.8	--	--	--	0.027
5/08/2019	4 m	12.2	8.2	575	10.8	--	--	--	0.019
5/08/2019	5 m	12.3	8.0	571	7.8	--	--	--	0.026
5/08/2019	6 m	9.1	7.7	575	6.7	--	--	--	0.021
5/08/2019	7 m	6.2	7.4	580	6.3	--	--	--	0.030
5/08/2019	8 m	4.4	7.2	580	6.0	--	--	--	0.032
5/08/2019	9 m	0.2	7.1	643	5.9	--	--	--	0.042
5/23/2019	0 - 2 m	--	--	--	--	2.7	2.1	2.1	0.018
5/23/2019	0 m	9.8	8.2	565	13.7	--	--	--	--
5/23/2019	1 m	9.8	8.2	565	13.7	--	--	--	--
5/23/2019	2 m	9.8	8.3	565	13.7	--	--	--	--
5/23/2019	3 m	9.8	8.3	566	13.7	--	--	--	0.025
5/23/2019	4 m	9.8	8.3	566	13.7	--	--	--	0.022
5/23/2019	5 m	9.8	8.3	566	13.6	--	--	--	0.020
5/23/2019	6 m	9.8	8.3	565	13.6	--	--	--	0.030
5/23/2019	7 m	10.6	7.8	580	9.0	--	--	--	0.030
5/23/2019	8 m	1.2	7.5	584	7.1	--	--	--	0.041
5/23/2019	9 m	0.1	7.3	685	6.3	--	--	--	0.038

Table 6: Lac Lavon Water Quality Measured by Barr Engineering

Date	Sample Depth	Field Measurements						Laboratory Analyses	
		Dissolved oxygen (mg/L)	pH	Specific conductance @ 25 °C (umhos/cm)	Water Temperature (°C)	Secchi disc (m)	Turbidity (NTU)	Chlorophyll-a, pheophytin-adjusted (ug/L)	Total Phosphorus as P (mg/L)
6/04/2019	0 - 2 m	--	--	--	--	3.7	1.2	2.8	0.012
6/04/2019	0 m	10.7	8.4	560	20.6	--	--	--	--
6/04/2019	1 m	10.7	8.5	560	20.5	--	--	--	--
6/04/2019	2 m	10.7	8.5	560	20.4	--	--	--	--
6/04/2019	3 m	11.5	8.4	556	18.3	--	--	--	0.0092
6/04/2019	4 m	11.4	8.4	566	16.1	--	--	--	0.014
6/04/2019	5 m	9.8	8.1	571	13.7	--	--	--	0.012
6/04/2019	6 m	9.3	7.7	582	9.8	--	--	--	0.011
6/04/2019	7 m	6.2	7.4	584	7.9	--	--	--	0.017
6/04/2019	8 m	0.8	7.2	598	7.1	--	--	--	0.020
6/17/2019	0 - 2 m	--	--	--	--	4.2	1.8	2.3	0.018
6/17/2019	0 m	9.6	8.5	535	21.7	--	--	--	--
6/17/2019	1 m	9.7	8.5	535	21.7	--	--	--	--
6/17/2019	2 m	9.7	8.5	535	21.6	--	--	--	--
6/17/2019	3 m	9.7	8.5	535	21.5	--	--	--	0.0092
6/17/2019	4 m	11.2	8.4	549	19.4	--	--	--	0.016
6/17/2019	5 m	12.6	8.4	557	15.1	--	--	--	0.018
6/17/2019	6 m	10.0	7.9	566	11.0	--	--	--	0.033
6/17/2019	7 m	4.5	7.6	574	8.9	--	--	--	0.024
6/17/2019	8 m	0.2	7.1	610	7.6	--	--	--	0.038
6/17/2019	9 m	0.1	7.1	666	7.2	--	--	--	0.058
7/01/2019	0 - 2 m	--	--	--	--	3.1	1.6	2.6	0.017
7/01/2019	0 m	9.0	8.4	517	24.2	--	--	--	--
7/01/2019	1 m	9.0	8.4	517	24.2	--	--	--	--
7/01/2019	2 m	9.1	8.4	519	24.2	--	--	--	--
7/01/2019	3 m	9.0	8.4	516	24.1	--	--	--	0.015
7/01/2019	4 m	7.1	7.9	555	21.8	--	--	--	0.016
7/01/2019	5 m	10.4	8.1	574	18.2	--	--	--	0.022
7/01/2019	6 m	8.8	7.6	584	11.7	--	--	--	0.029
7/01/2019	7 m	4.5	7.2	602	9.8	--	--	--	0.027
7/01/2019	8 m	0.08	7.0	638	8.4	--	--	--	0.038
7/01/2019	9 m	0.05	6.9	713	7.7	--	--	--	0.045

Table 6: Lac Lavon Water Quality Measured by Barr Engineering

Date	Sample Depth	Field Measurements						Laboratory Analyses	
		Dissolved oxygen (mg/L)	pH	Specific conductance @ 25 °C (umhos/cm)	Water Temperature (°C)	Secchi disc (m)	Turbidity (NTU)	Chlorophyll-a, pheophytin-adjusted (ug/L)	Total Phosphorus as P (mg/L)
7/22/2019	0 - 2 m	--	--	--	--	3.7	1.8	1.3	0.013
7/22/2019	0 m	8.5	8.5	506	26.0	--	--	--	--
7/22/2019	1 m	8.6	8.6	504	26.1	--	--	--	--
7/22/2019	2 m	8.6	8.6	504	26.0	--	--	--	--
7/22/2019	3 m	8.6	8.6	505	26.0	--	--	--	0.012
7/22/2019	4 m	8.6	8.5	507	26.0	--	--	--	0.014
7/22/2019	5 m	8.2	7.8	533	20.5	--	--	--	0.018
7/22/2019	6 m	9.8	7.8	592	15.3	--	--	--	0.024
7/22/2019	7 m	3.1	7.2	605	11.4	--	--	--	0.020
7/22/2019	8 m	0.2	7.0	652	9.2	--	--	--	0.025
7/22/2019	9 m	0.1	7.0	749	8.2	--	--	--	0.058
8/05/2019	0 - 2 m	--	--	--	--	4.1	0.3	3.0	0.015
8/05/2019	0 m	10.1	8.9	513	26.9	--	--	--	--
8/05/2019	1 m	10.0	8.9	512	27.0	--	--	--	--
8/05/2019	2 m	10.1	8.9	513	27.0	--	--	--	--
8/05/2019	3 m	10.0	8.9	514	27.0	--	--	--	0.015
8/05/2019	4 m	6.9	8.8	570	26.5	--	--	--	0.012
8/05/2019	5 m	8.5	8.0	600	22.0	--	--	--	0.020
8/05/2019	6 m	8.6	7.8	607	16.3	--	--	--	0.034
8/05/2019	7 m	1.7	7.3	628	12.4	--	--	--	0.042
8/05/2019	8 m	0.4	7.2	662	9.8	--	--	--	0.076
8/05/2019	9 m	0.1	7.2	789	8.2	--	--	--	0.17
8/19/2019	0 - 2 m	--	--	--	--	3.6	1.4	2.2	0.017
8/19/2019	0 m	8.6	8.7	504	25.0	--	--	--	--
8/19/2019	1 m	8.7	8.7	504	24.6	--	--	--	--
8/19/2019	2 m	8.6	8.7	504	24.5	--	--	--	--
8/19/2019	3 m	8.4	8.7	502	24.4	--	--	--	0.016
8/19/2019	4 m	6.1	7.8	576	22.9	--	--	--	0.013
8/19/2019	5 m	8.1	7.8	596	17.7	--	--	--	0.014
8/19/2019	6 m	1.2	7.2	621	13.2	--	--	--	0.016
8/19/2019	7 m	0.7	7.0	667	10.5	--	--	--	0.015
8/19/2019	8 m	0.6	7.1	788	8.6	--	--	--	0.030
8/19/2019	9 m	0.4	7.1	804	8.5	--	--	--	0.092

Table 6: Lac Lavon Water Quality Measured by Barr Engineering

Date	Sample Depth	Field Measurements						Laboratory Analyses	
		Dissolved oxygen (mg/L)	pH	Specific conductance @ 25 °C (umhos/cm)	Water Temperature (°C)	Secchi disc (m)	Turbidity (NTU)	Chlorophyll-a, pheophytin-adjusted (ug/L)	Total Phosphorus as P (mg/L)
9/11/2019	0 - 2 m	--	--	--	--	2.8	1.3	3.8	0.017
9/11/2019	0 m	8.4	8.5	515	20.2	--	--	--	--
9/11/2019	1 m	8.3	8.3	515	20.2	--	--	--	--
9/11/2019	2 m	8.3	8.5	515	20.1	--	--	--	--
9/11/2019	3 m	8.1	8.5	515	20.1	--	--	--	0.014
9/11/2019	4 m	8.1	8.5	515	20.1	--	--	--	0.014
9/11/2019	5 m	8.1	8.5	515	20.1	--	--	--	0.015
9/11/2019	6 m	4.6	7.8	545	19.2	--	--	--	0.016
9/11/2019	7 m	0.5	7.4	630	14.6	--	--	--	0.042
9/11/2019	8 m	0.4	7.2	686	11.1	--	--	--	0.036
9/11/2019	9 m	0.4	7.2	814	8.9	--	--	--	0.056
9/24/2019	0 - 2 m	--	--	--	--	4.1	1.6	2.8	0.015
9/24/2019	0 m	9.2	8.6	514	20.9	--	--	--	--
9/24/2019	1 m	9.1	8.7	514	20.9	--	--	--	--
9/24/2019	2 m	9.1	8.7	512	20.9	--	--	--	--
9/24/2019	3 m	9.1	8.6	512	20.8	--	--	--	0.012
9/24/2019	4 m	7.6	8.4	518	19.8	--	--	--	0.013
9/24/2019	5 m	5.8	8.2	518	19.3	--	--	--	0.017
9/24/2019	6 m	2.3	7.7	528	18.5	--	--	--	0.014
9/24/2019	7 m	0.3	7.4	636	15.3	--	--	--	0.032
9/24/2019	8 m	0.2	7.3	684	11.8	--	--	--	0.036
9/24/2019	9 m	0.2	7.4	813	9.4	--	--	--	0.094

2019 Audit

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Black Dog Watershed Management Organization

2021 Goals & Work Plan

1. Continue work on updating the Black Dog WMO *Watershed Management Plan*, which expires in September 2022. The planning process usually takes between one and two years to complete; preliminary work is set to begin later in 2020. The most intense work of the planning process will likely be in 2021 and work will extend through much of 2022. In 2021, work is expected to include stakeholder engagement, issue identification and prioritization, and drafting of the plan document.
2. Participate in Metropolitan Council's Citizen Assisted Water Quality Monitoring Program (CAMP) for the following strategic water bodies:
 - * Crystal Lake * Keller Lake * Kingsley Lake
 - * Lac Lavon * Orchard Lake

Complete water quality trend analyses on these lakes using the information gathered through CAMP and the more detailed monitoring on Crystal Lake.

3. Perform more detailed (management level) monitoring on Crystal Lake, as recommended in the Black Dog WMO Watershed Management Plan. The monitoring will consist of collecting samples on 11 occasions—ice-out and then May through September, twice per month. On each monitoring occasion, analytical samples will be collected at seven depths at the deepest spot in the lake (in the main basin)—a surface sample, plus six samples at one-meter intervals from three to eight meters. All of the samples will be analyzed for total phosphorus. In addition, Secchi disc readings will be taken, and the surface samples will be analyzed for chlorophyll-a. Field measurements of temperature, dissolved oxygen, pH, redox potential, and specific conductivity will be taken at one meter intervals at the monitoring location. Turbidity field measurements will also be taken on the surface water sample at the monitoring location. In 2021, the work includes field work, lab work, QA/QC of lab data (including coordination with lab), entering data into EQulS database, and submitting data to the MPCA (per guidance in the BDWMO Plan). The City of Burnsville will perform aquatic plant surveys in June and August, and share the results with the Black Dog WMO. In 2022, work will include preparing the technical memo summarizing the monitoring results, and preparing a presentation for a Commission meeting.
4. Prepare the 2020 Orchard Lake technical memo summarizing the more detailed (management level) monitoring results and a presentation for a Commission meeting.
5. Continue implementing the Keller Lake alum treatment project, including completion of the second alum treatment in spring or fall 2021 (the first alum treatment was in spring 2019), and grant administration. In 2021, this work will include preparation of contract documents, permitting, contract administration, treatment oversight, alum treatment expenses, and grant administration. Keller Lake CAMP monitoring data will be used to understand the project impacts, with the collection of additional field data (temperature and dissolved oxygen) during each monitoring event, if possible. The Black Dog WMO received a \$230,000 BWSR Clean Water Fund Grant (awarded in December 2018, final contract execution in April 2019), which covers 80% of the project cost (grant requires a 20% local share).

6. Perform habitat monitoring of Kingsley Lake. Monitoring is performed at one strategic water body per year, such that all five strategic water bodies will be completed over a five-year cycle. Monitoring includes a meandering survey around the entire lake as well as the previously established sample plots (in the emergent and upland buffer zones). Barr staff, on behalf of the Black Dog WMO, will perform a meandering aquatic plant survey in late May by canoe, followed by a later, additional meandering survey by kayak with City of Lakeville staff to evaluate the submergent zone and document the presence of additional species observed later in the growing season. In 2022, work will include preparing the report and a presentation for a Commission meeting.
7. Prepare the 2020 Keller Lake habitat monitoring report and a presentation for a Commission meeting.
8. Conduct an annual evaluation of the watershed programs and report the results to member communities via a watershed annual report (this report is incorporated into the annual activity report submitted to the Minnesota Board of Water and Soil Resources).
9. Partner with the Dakota County SWCD by providing funding and technical support to install up to 18 water quality improvement projects through the Landscaping for Clean Water program for Black Dog WMO residents, consistent with SWCD cost share policies.
10. Partner with the Dakota County SWCD to fund two Landscaping for Clean Water workshops and two Landscaping for Clean Water Design Workshops (four evenings) in the Black Dog WMO area. Due to COVID-19, the SWCD held virtual workshops in 2020; in 2021, in-person or virtual workshops could be held.
11. Complete the 2020 annual finance statement—statute changes allow the Black Dog WMO to perform audits every five years, rather than every year. As the last audit was prepared for year 2019; the next audit needs to be prepared in 2025 for year 2024. In the other years, an annual finance statement is prepared.
12. As budget allows, prepare up to two educational pieces/presentations for the Commission regarding new technology (e.g., new stormwater best management practices, new lake treatment technologies, etc.) and/or aquatic invasive species.
13. Apply for grants and/or assist member cities with grant applications.
14. Assist with BWSR watershed-based funding.
15. Formulate and approve the year 2022 Work Plan and Budget.
16. Review and respond to any issues and opportunities brought to the attention of the Black Dog WMO.
17. Maintain and update web site.
18. Respond to requests to partner with member communities and Dakota County on educational outreach programs.
19. Keep abreast of changes to the TMDL program, including additions to/removals from the impaired waters list and the listing criteria.
20. Review revisions to local water management and comprehensive plans as needed. No reviews are expected in 2021, as all member cities' plans have been reviewed and approved.
21. Continue implementing plan to accrue funds in 1) a Capital Improvement Fund, to be used for the current Keller Lake alum treatment project, and future BDWMO internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (Crystal

Lake, Keller Lake, and Lac Lavon) and 2) a General Fund Reserve to be used for the BDWMO watershed plan ten-year update.

Black Dog Watershed Management Organization

2021 Budget

(For discussion at the 5/20/2020 BDWMO Meeting)

<u>ITEM</u>	<u>AMOUNT</u>
1. <u>ENGINEERING</u>	\$31,000
<p>Projected cost of engineering consulting fees required for the general operation of the Black Dog WMO. Includes funding for engineering consultant to prepare for and attend meetings (additional meetings anticipated as part of watershed planning process); review/respond to issues and opportunities; apply for grants; assist with BWSR watershed-based funding; review/ comment on proposed projects, EAWs, revisions to local water management plans, comprehensive plans, and other plans; communications/ meetings with agencies and member cities; track and report on impaired waters and TMDL issues; and other miscellaneous consulting/reviews. As budget allows, this also includes the preparation of up to two educational pieces/presentations for the Commission regarding new technology (e.g., new stormwater best management practices, new lake treatment technologies, etc.) and/or aquatic invasive species.</p>	
2. <u>SPECIAL PROJECTS – GENERAL FUND</u>	\$36,800
(A) <u>Crystal Lake Management Level Monitoring</u>	\$ 18,800
<p>2021 costs to conduct management level monitoring of the lake's water quality, per guidance in the BDWMO Plan. The monitoring will consist of collecting samples on 11 occasions—ice-out and then May through September, twice per month. On each monitoring occasion, analytical samples will be collected at seven depths at the deepest spot in the lake (in the main basin)—a surface sample, plus six samples at one-meter intervals from three to eight meters. All of the samples will be analyzed for total phosphorus. In addition, Secchi disc readings will be taken, and the surface samples will be analyzed for chlorophyll-a. Field measurements of temperature, dissolved oxygen, pH, redox potential, and specific conductivity will be taken at one meter intervals at the monitoring location. Turbidity field measurements will also be taken on the surface water sample at the monitoring location. The work does not include performing aquatic plant surveys, as the City of Burnsville will perform aquatic plant surveys in June and August, and share the results with the Black Dog WMO. The 2021 budget covers field work, lab work, QA/QC of lab data (including coordination with lab), entering data into EQulS database, and submitting data to the MPCA (per guidance in the BDWMO Plan. In 2022, work will include preparing the technical memo summarizing the monitoring results, and preparing a presentation for a Commission</p>	

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<u>ITEM</u>	<u>AMOUNT</u>
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meeting. The 2022 work is estimated to be \$4,500, bringing the total project cost to \$23,300.

<u>(B) Dakota County SWCD –Landscaping for Clean Water Implementation</u>	\$13,500
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Funds to partner with the Dakota County SWCD to provide cost share and technical assistance to landowners for up to 18 Landscaping for Clean Water projects including raingardens, native plantings and shoreline stabilization projects, consistent with SWCD cost share policies.

<u>(C) Reporting on 2020 Orchard Lake Management Level Monitoring</u>	\$4,500
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Prepare the 2020 Orchard Lake technical memo summarizing the monitoring results and a presentation for a Commission meeting.

<u>3. SPECIAL PROJECTS – CAPITAL IMPROVEMENT FUND</u>	\$10,000
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<u>(A) Keller Lake Alum Treatment</u>	\$10,000
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Complete the second alum treatment in spring or fall 2021 (the first alum treatment was in spring 2019). The Black Dog WMO received a \$230,000 BWSR Clean Water Fund Grant (awarded in December 2018, final contract execution in April 2019), which covers 80% of the project cost (grant requires a 20% local share). In 2021, this work will include preparation of contract documents, permitting, contract administration, treatment oversight, alum treatment expenses, and grant administration. All of this work is reimbursable (up to 80%) by the BWSR grant.

The budget does not include the needed water quality monitoring for Keller Lake, as the CAMP monitoring data should be sufficient. However, it would be helpful if the CAMP volunteer or City of Apple Valley staff could collect additional field data (temperature and dissolved oxygen) during each monitoring event.

<u>4. SPECIAL PROJECTS – GENERAL FUND RESERVE</u>	\$70,000
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<u>(A) Watershed Management Plan Update</u>	\$ 70,000
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Continue work on updating the Black Dog WMO *Watershed Management Plan*, which expires in September 2022. The planning process usually takes

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<u>ITEM</u>	<u>AMOUNT</u>
between one and two years to complete; preliminary work is set to begin later in 2020. The most intense work of the planning process will likely be in 2021 and work will extend through much of 2022. In 2021, work is expected to include stakeholder engagement, issue identification and prioritization, and drafting of the plan document. Budget amount shown is preliminary; the Black Dog WMO will set the final budget later in 2020.	
5. <u>INSURANCE</u>	\$3,000
Cost of insurance policy for WMO. Cost is net of any rebates anticipated.	
6. <u>LEGAL AND AUDIT</u>	\$5,000
This represents legal consultant fees (\$4,400).	
7. <u>ADMINISTRATIVE SERVICES</u>	\$18,000
This represents charges from the City of Burnsville for providing administrative services to the Commission. It includes the Administrator's time, secretarial time, and accounting staff time (including preparing the annual finance statement in years when an audit not required), as well as postage and printing.	
8. <u>PUBLIC EDUCATION</u>	\$18,100
(A) <u>Watershed Annual Report (Newsletter)</u>	\$4,300
Funds to prepare draft and final versions of annual report/newsletter, and to produce annual report/newsletter. Electronic distribution only of draft and final report.	
(B) <u>Dakota County SWCD Landscaping for Clean Water Workshop Support</u>	\$9,600
Funds to partner with the Dakota County SWCD to conduct two Landscaping for Clean Water Intro Workshops (two evenings) and to conduct two Landscaping for Clean Water Design Workshops (four evenings) in the BDWMO area. Due to COVID-19, the SWCD held virtual workshops in 2020; in 2021, workshops could be held in-person or virtual.	
(C) <u>Maintain Web Site</u>	\$2,200
Funds paid to Dakota County SWCD to maintain and update the BDWMO web site.	

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<u>ITEM</u>	<u>AMOUNT</u>
(D) <u>Annual Activity Report (to BWSR)</u> Funds for engineering consultant to prepare draft and final annual activity report (submitted to BWSR), including coordination with BDWMO administrator and updating water quality summaries in the appendices.	\$2,000
9. WATER QUALITY MONITORING	\$17,100
(A) <u>Metropolitan Council Lake Monitoring (CAMP)</u> Black Dog WMO payment for local communities to enroll all strategic water bodies in the Metropolitan Council's Citizen Assisted (lake) Monitoring Program (CAMP) - 5 sites @ \$760. The strategic water bodies are Crystal Lake, Keller Lake, Kingsley Lake, Lac Lavon, and Orchard Lake.	\$3,800
(B) <u>Habitat Monitoring</u>	\$11,300
1. <u>2021 Kingsley Lake Habitat Monitoring</u> 2021 costs to perform habitat monitoring of Kingsley Lake. Monitoring includes a meandering survey around the entire lake as well as the previously established sample plots (in the emergent and upland buffer zones. In 2021, Barr (on behalf of the Black Dog WMO) will conduct one meandering aquatic plant survey by canoe in late May, followed by a later, additional meandering survey by kayak with City of Lakeville staff to evaluate the submergent zone and document the presence of additional aquatic species observed later in the season. In 2022, work will include preparing the report and a presentation for a Commission meeting. The 2022 work is estimated to be \$8,900, bringing the total project cost to \$12,200.	\$3,300
2. <u>Reporting on 2020 Keller Lake Habitat Monitoring</u> Prepare the 2020 Keller Lake habitat monitoring report and a presentation for a Commission meeting.	\$8,000
(C) <u>Update Trend Analysis on Strategic Water Bodies</u> Funding to analyze 2020 data, coordinate with Metropolitan Council regarding CAMP data, and update tables and figures for inclusion in annual activity report and water quality monitoring report.	\$2,000
10. CONFERENCE/ PUBLICATIONS	\$500
Funds allocated to reimburse Commissioners for training, education, etc.	

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<u>ITEM</u>	<u>AMOUNT</u>
11. <u>CONTINGENCY</u>	\$5,000
These funds are not allocated to a particular project and can be used for unexpected expenses and/or new program opportunities that may come up during the course of the year which the WMO wishes to pursue.	
TOTAL EXPENSES	\$214,500

REVENUES	
INTEREST	\$40
MEMBER CONTRIBUTIONS	\$131,000
MEMBER CONTRIBUTIONS - CAPITAL IMPROVEMENT FUND	\$22,000
GRANTS	\$0
TOTAL REVENUES	\$153,040

Anticipated Fund Balance at the end of 2021 = **\$462,521**

PLANNED CHANGES IN FUND BALANCE	
1. <u>Capital Improvement Fund</u>	\$12,000
The cities of Apple Valley, Burnsville, and Lakeville pay into this fund (established in 2016). The accrued funds are allocated for the current Keller Lake alum treatment project, and future projects including BDWMO internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (Crystal Lake, Keller Lake, and Lac Lavon).	
2. <u>General Fund Reserve</u>	(\$73,460)
Use of fund balance in the general fund.	
TOTAL PLANNED INCREASE IN (USE OF) FUND BALANCE	(\$61,460)