

# **Black Dog Watershed Management Commission**

## **AGENDA**

Wednesday, August 18, 2021 at 5:00pm

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

### **COMMISSIONERS:**

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

- I. Approval of Agenda
- II. Approval of Minutes – July 21, 2021
- III. Approval of Accounts Payable
- IV. Review Budget Performance Reports
- V. Discuss Results of Technical Advisory Committee Meeting
- VI. Approve Plans and Authorize Request for Quotes for Keller Lake Alum Treatment
- VII. Miscellaneous
- VIII. Adjournment

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*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.*

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# Black Dog Watershed Management Commission

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## Agenda Background August 18, 2021

I. Approval of Agenda

Agenda enclosed.

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

II. Approval of Minutes from the July 21, 2021 Meeting

Minutes enclosed.

**Action Requested:** A motion be considered to approve the Minutes of the July 21, 2021 meeting.

III. Approval of Accounts Payable

Accounts payable list enclosed.

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

IV. Review of Budget Performance Reports

Current Budget Performance Reports enclosed.

**Action Requested:** No formal action required

V. Discuss Results of Technical Advisory Committee Meeting

Staff held another meeting with the Black Dog WMO Technical Advisory Committee. Enclosed in the packet is a memo summarizing the meeting and items that were discussed related to the plan update. Barr Engineering staff will review the memo at the meeting.

**Action requested:** Provide comments on the revised draft goals.

VI. Approve Plans and Authorize Request for Quotes for Keller Lake Alum Treatment

Enclosed in the packet are the plans for the proposed alum treatment. Barr will review plans at the meeting. This project is scheduled to be completed this fall.

**Action requested:** Approve plans and authorize the request for quotes for the Keller Lake alum treatment.

VII. Miscellaneous

# Black Dog Watershed Management Commission

## **DRAFT** **Meeting Minutes** **July 21, 2021**

### **MEMBERS PRESENT**

Curt Enestvedt, Chair  
Mike Hughes, Vice Chair  
Scott Thureen, Secretary/Treasurer  
Tom Harmening (*left @ 6:08pm*)

### **MEMBERS ABSENT**

Rollie Greeno  
Frank Boyce, Alternate  
Greg Helms, Alternate  
Natalie Walker, Alternate

### **OTHERS PRESENT**

Karen Chandler – Barr Engineering  
Greg Williams – Barr Engineering  
Samantha Berger – City of Apple Valley  
Lindsey Albright – Dakota County Soil and Water Conservation District  
Joel Jamnik, Campbell Knutson (*joined @ 5:02pm*)  
Ann Messerschmidt – City of Lakeville  
Daryl Jacobson – BDWMO Administrator  
Tammi Carté – BDWMO Secretary

Curt Enestvedt, Chair, called the July 21, 2021, meeting to order at 5:00pm via Zoom.

#### I. Approval of Agenda

**Motion by** Hughes, second by Harmening, to approve the July 21, 2021 Agenda as presented.

Ayes – Enestvedt, Hughes, Thureen, Harmening  
Nays – None

**Motion Carried Unanimously**

#### II. Approval of Minutes from the June 16, 2021 Meeting

**Motion by** Thureen, second by Hughes, to approve the June 16, 2021 Minutes as presented.

Ayes – Enestvedt, Hughes, Thureen, Harmening  
Nays – None

**Motion Carried Unanimously**

### III. Approval of Accounts Payable

**Motion by** Hughes, second by Harmening, to approve payments to Barr Engineering in the amount of \$9,460.56 for services from May 29, 2021 through July 2, 2021; and, to Campbell Knutson in the amount of \$425.00 for May and June 2021 general services.

Ayes – Enestvedt, Hughes, Thureen, Harmening

Nays – None

**Motion Carried Unanimously**

### IV. Review Budget Performance Reports

Daryl Jacobson, BDWMO Administrator – the second alum treatment on Keller Lake will take place in the fall.

**No Formal Action Required**

### V. Discuss Plan Goals and Goal Measurability

This discussion opportunity allowed Commissioners to comment and ask questions on the goals and goal measurability for the plan update. A memo from Barr Engineering outlining talking points and potential changes to the goals in the current Watershed Management Plan was provided to the Commission for review prior to tonight's meeting. Barr reviewed each proposed change to plan goals. Commissioners agreed with most of the plan goals as presented. Additional information and discussion are needed before finalizing some of the measurable goals the Commission wants included in the plan update.

Water quality continues to be a priority. A suggested plan goal is to include individual lake quality target loads necessary to meet and/or maintain applicable state standards. Further review and discussion are needed to consider whether this is what the BDWMO should incorporate or if it's a cooperative with each member city's MS4 permits.

Before modifying the wetland and habitat management goals, the Commission would like feedback from the Technical Advisory Committee (TAC) on action specifics needed to measure the goals. Black Dog Commissioners suggest a general goal of supporting wetland management enhancement projects led by member cities. Support could be one or a combination of educational, technical, or financial resources.

As an alternative to committing Black Dog funds towards protecting and increasing recreation opportunities within the BDWMO, the Commission supports member city's individual efforts to enhance these opportunities.

**No Formal Action Required**

### VI. Discuss Updates to the Lake Monitoring Schedules

Barr Engineering led a discussion on potential lake monitoring schedule changes. They presented multiple scenarios attempting to improve efficiency. Commissioners want further review of this before deciding on modifications to the current monitoring schedules.

**No Formal Action Required**

### VII. Miscellaneous

1. Keller Lake – Burnsville and Apple Valley did electro fishing at Keller Lake after receiving many reports of large goldfish in the lake. Goldfish can negatively impact the effectiveness of alum treatments. The large size of the fish attracted national and international media coverage.
2. The next Black Dog meeting is scheduled for August 18, 2021. In-person meetings will resume in August at the Burnsville Public Works Maintenance Facility.

#### VIII. Adjournment

**Motion by** Hughes, second by Thureen, to adjourn at 6:11pm.

Ayes – Enestvedt, Hughes, Thureen

Nays – None

**Motion Carried Unanimously**

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

**Accounts Payable - August 18, 2021 Meeting**

**Barr Engineering** - Services from July 3, 2021 through July 30, 2021

Engineering	\$	1,777.50
Special Projects General Fund - Crystal Lake Mgmt Level Monitoring	\$	3,111.04
Special Projects Capital Improvement Fund - Keller Lake Alum Treatment	\$	1,330.00
Special Projects General Fund Reserve - Watershed Mgmt Plan Update	\$	2,086.50
Water Quality Monitoring - Kingsley Lake Habitat Monitoring	\$	1,703.98
	\$	<u>10,009.02</u>

**Dakota County Soil & Water Conservation District** - Services for April - June 2021

Website Updates & Maintenance	\$	480.00
Landscaping for Clean Water Introductory Workshops (virtual)	\$	3,200.00
Landscaping for Clean Water Design Classes (virtual/Zoom)	\$	6,400.00
Landscaping for Clean Water Grants	\$	250.00
Landscaping for Clean Water Grants Technical Assistance	\$	500.00
	\$	<u>10,830.00</u>

**Accounts Payable Total \$ 20,839.02**

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August 10, 2021

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

Attn: Mr. Daryl Jacobson

**RE: Engineering & Environmental Consulting Services**

**Invoice of Account with  
BARR ENGINEERING COMPANY**

For professional services during the period of July 3, 2021 through July 30, 2021

<b>TOTAL PAYABLE THIS INVOICE:</b>	<b>\$ 10,009.02</b>
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**Allocation:**

<b>Engineering</b>	<b>\$ 1,777.50</b>
<b>Special Projects General Fund</b>	
• Crystal Lk Mgmt Level Monitoring	<b>\$ 3,111.04</b>
<b>Special Projects Capital Improvement Fund</b>	
• Keller Lk Alum Treatment	<b>\$ 1,330.00</b>
<b>Special Projects General Fund Reserve</b>	
• Watershed Mgmt Plan Update	<b>\$ 2,086.50</b>
<b>Water Quality Monitoring</b>	
• Kingsley Lake Habitat Monitoring	<b>\$ 1,703.98</b>

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

A handwritten signature in black ink that reads "Karen L. Chandler".

Karen L. Chandler  
Vice President

Handwritten initials "OK" and a signature, with the date "8-11-21" written below.



BUDGET SUMMARY - 2021 FY  
Black Dog Watershed Management Commission  
through July 30, 2021

Work Description	Pre-2021 Costs	Barr Budget				Current Invoice	Spent This Year	Balance
		Brought Forward	Current Year	Total Barr Budget				
Engineering	-----	0.00	31,000.00	31,000.00		1,777.50	14,666.00	16,334.00
Special Projects: General Fund								
Reporting on Orchard Lk 2020 Water Quality Monitoring	-----	0.00	4,500.00	4,500.00		0.00	4,126.00	374.00
Crystal Lake 2021 Mgmt Level Monitoring			18,800.00	18,800.00		3,111.04	8,104.30	10,695.70
Subtotal -- Special Projects: General Fund	-----	0.00	23,300.00	23,300.00		3,111.04	12,230.30	11,069.70
Special Projects: Capital Improvement Fund								
Keller Lake Alum Treatment			10,000.00	10,000.00		1,330.00	3,360.00	6,640.00
Subtotal -- Special Projects: Capital Improvement Fund	-----	0.00	10,000.00	10,000.00		1,330.00	3,360.00	6,640.00
Special Projects: General Fund Reserve								
Watershed Management Plan Update <sup>1</sup>	10,905.00		70,000.00	70,000.00		2,086.50	17,056.50	52,943.50
Subtotal -- Special Projects: General Fund Reserve	-----	0.00	70,000.00	70,000.00		2,086.50	17,056.50	52,943.50
Water Quality Monitoring								
Reporting on 2020 Keller Lake Habitat Monitoring	-----	0.00	8,000.00	8,000.00		0.00	7,983.50	16.50
2021 Kingsley Lake Habitat Monitoring		0.00	3,300.00	3,300.00		1,703.98	3,696.14	(396.14)
Update Trend Analyses		0.00	2,000.00	2,000.00		0.00	2,000.00	0.00
Subtotal -- W.Q. Monitoring	-----	0.00	13,300.00	13,300.00		1,703.98	13,679.64	(379.64)
Public Education								
Watershed Annual Report	-----	0.00	4,300.00	4,300.00		0.00	3,519.00	781.00
Annual Activity Report (BWSR)	-----	0.00	2,000.00	2,000.00		0.00	1,461.50	538.50
Subtotal -- Public Education	-----	0.00	6,300.00	6,300.00		0.00	4,980.50	1,319.50
Total Services	-----	0.00	153,900.00	153,900.00		10,009.02	65,972.94	87,927.06

Notes:

<sup>1</sup> Plan Update budget=\$98,200 (\$97,000 authorized at 11/18/2020 meeting, additional \$1,200 authorized at 1/20/2021 meeting), including \$10,000 budgeted in 2020





# INVOICE

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

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

August 10, 2021  
Invoice No: 23190374.21 - 7

<b>Total this Invoice</b>	<b>\$1,777.50</b>
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## Regarding: BDWMO 2021 Engineering Services

### Professional Services from July 3, 2021 to July 30, 2021

Job:	2021	Engineering Services
Task:	001	Attend BDWMO Meetings

#### Labor Charges

	Hours	Rate	Amount	
Principal				
Chandler, Karen	1.90	185.00	351.50	
Engineer / Scientist / Specialist III				
Williams, Sterling	1.40	150.00	210.00	
	3.30		561.50	
<b>Subtotal Labor</b>				<b>561.50</b>
		<b>Task Subtotal</b>		<b>\$561.50</b>

Task:	002	Miscellaneous Consulting
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#### Labor Charges

	Hours	Rate	Amount	
Principal				
Chandler, Karen	5.60	185.00	1,036.00	
Support Personnel II				
Nypan, Nyssa	1.80	100.00	180.00	
	7.40		1,216.00	
<b>Subtotal Labor</b>				<b>1,216.00</b>
		<b>Task Subtotal</b>		<b>\$1,216.00</b>
		<b>Job Subtotal</b>		<b>\$1,777.50</b>

<b>Total this Invoice</b>	<b>\$1,777.50</b>
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	Current	Prior	Total	Received	A/R Balance
<b>Invoiced to Date</b>	<b>1,777.50</b>	<b>17,869.00</b>	<b>19,646.50</b>	<b>17,869.00</b>	<b>1,777.50</b>

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](mailto:kchandler@barr.com).

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.

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



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4300 MarketPointe Drive, Suite 200  
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Phone: 952-832-2600; Fax: 952-832-2601  
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Mr. Daryl Jacobson  
Black Dog WMO  
City of Burnsville  
13713 Frontier Court  
Burnsville, MN 55337-4720

August 10, 2021  
Invoice No: 23190375.21 - 7

<b>Total this Invoice</b>	<b>\$3,111.04</b>
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## Regarding: Management Level Water Quality Monitoring

### Professional Services from July 3, 2021 to July 30, 2021

Job:	CRY	Crystal Lk 2021 Water Quality Monitoring
Task:	100	Monitoring Data Mgmt & Proj Mgmt

#### Labor Charges

	Hours	Rate	Amount
Engineer / Scientist / Specialist III			
Menken, Kevin	3.00	125.00	375.00
Olson, Terri	.80	150.00	120.00
Technician II			
Novack, John	4.50	105.00	472.50
Technician I			
Melmer, David	3.70	90.00	333.00
Schneider, Anna	.20	75.00	15.00
Support Personnel II			
Treanor, Margaret	3.80	115.00	437.00
	16.00		1,752.50
<b>Subtotal Labor</b>			<b>1,752.50</b>

#### Subconsultant Charges

Subconsultants		
6/11/2021	Pace Analytical Services Inc	217.80
7/12/2021	Pace Analytical Services Inc	217.80
7/12/2021	Pace Analytical Services Inc	237.60
7/12/2021	Pace Analytical Services Inc	217.80
7/20/2021	Pace Analytical Services Inc	(237.60)
7/20/2021	Pace Analytical Services Inc	217.80
7/22/2021	Pace Analytical Services Inc	217.80
<b>Subtotal Subconsultant</b>		<b>1,089.00</b>

#### Unit Charges

Barr Owned Vehicle Use	1.0 day @ 90.00	90.00
Canoe	1.0 day @ 32.00	32.00
Kemmerer Vertical Bottle Sampler	1.0 day @ 33.50	33.50
Vehicle (Mileage)	34.0 miles @ 0.56	19.04

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4300 MarketPointe Drive, Suite 200  
Minneapolis, MN 55435  
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Mr. Daryl Jacobson  
Black Dog WMO  
City of Burnsville  
13713 Frontier Court  
Burnsville, MN 55337-4720

August 10, 2021  
Invoice No: 23190375.98 - 19

<b>Total this Invoice</b>	<b>\$1,330.00</b>
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## Regarding: Keller Lake Alum Treatment

### Professional Services from July 3, 2021 to July 30, 2021

Job:	002	Feasibility & implementation planning
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Task:	007	Admin/permitting/oversight
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#### Labor Charges

	Hours	Rate	Amount	
Engineer / Scientist / Specialist IV				
Wilson, Gregory	7.60	175.00	1,330.00	
	7.60		1,330.00	
<b>Subtotal Labor</b>				<b>1,330.00</b>
		<b>Task Subtotal</b>		<b>\$1,330.00</b>
		<b>Job Subtotal</b>		<b>\$1,330.00</b>
		<b>Total this Invoice</b>		<b>\$1,330.00</b>

	Current	Prior	Total	Received	A/R Balance
<b>Invoiced to Date</b>	<b>1,330.00</b>	<b>39,713.47</b>	<b>41,043.47</b>	<b>39,713.47</b>	<b>1,330.00</b>

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](mailto:gwilson@barr.com).



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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

August 10, 2021  
Invoice No: 23190457.21 - 6

<b>Total this Invoice</b>	<b>\$1,703.98</b>
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## Regarding: Habitat Monitoring

### Professional Services from July 3, 2021 to July 30, 2021

Job:	KING	Kingsley Lake 2021 Habitat Monitoring
Task:	001	Monitoring Sample Plots

#### Labor Charges

	Hours	Rate	Amount
Engineer / Scientist / Specialist III			
Wold, Karen	10.60	140.00	1,484.00
Support Personnel II			
Hutson, Jeremy	.50	115.00	57.50
	11.10		1,541.50
<b>Subtotal Labor</b>			<b>1,541.50</b>

#### Unit Charges

Barr Owned Vehicle Use	0.5 days @ 90.00	45.00
Differential GPS System (Trimble)	0.5 days @ 110.00	55.00
Kayak	1.0 day @ 44.00	44.00
Vehicle (Mileage)	33.0 miles @ 0.56	18.48
<b>Subtotal Units</b>		<b>162.48</b>

**Task Subtotal** **\$1,703.98**

**Job Subtotal** **\$1,703.98**

**Total this Invoice** **\$1,703.98**

	Current	Prior	Total	Received	A/R Balance
<b>Invoiced to Date</b>	<b>1,703.98</b>	<b>9,975.66</b>	<b>11,679.64</b>	<b>9,975.66</b>	<b>1,703.98</b>

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](mailto:kwold@barr.com).

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.

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

August 10, 2021

Invoice No: 23191455.00 - 8

<b>Total this Invoice</b>	<b>\$2,086.50</b>
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**Regarding: BDWMO 2022 Watershed Management Plan**

**Professional Services from July 3, 2021 to July 30, 2021**

Job:	100	Stakeholder Engagement
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Task:	004	TAC meetings
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**Labor Charges**

	Hours	Rate	Amount
Principal			
Chandler, Karen	.50	185.00	92.50
Engineer / Scientist / Specialist III			
Williams, Sterling	1.50	150.00	225.00
	2.00		317.50
<b>Subtotal Labor</b>			<b>317.50</b>
		<b>Task Subtotal</b>	<b>\$317.50</b>
		<b>Job Subtotal</b>	<b>\$317.50</b>

Job:	200	Draft Plan Development
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Task:	002	Issues and Goals
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**Labor Charges**

	Hours	Rate	Amount
Principal			
Chandler, Karen	3.40	185.00	629.00
Engineer / Scientist / Specialist III			
Williams, Sterling	7.60	150.00	1,140.00
	11.00		1,769.00
<b>Subtotal Labor</b>			<b>1,769.00</b>
		<b>Task Subtotal</b>	<b>\$1,769.00</b>
		<b>Job Subtotal</b>	<b>\$1,769.00</b>
		<b>Total this Invoice</b>	<b>\$2,086.50</b>

	Current	Prior	Total	Received	A/R Balance
Invoiced to Date	2,086.50	15,904.00	17,990.50	15,904.00	2,086.50

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](mailto:gwilliams@barr.com).

PLEASE REMIT TO ABOVE ADDRESS and INCLUDE INVOICE NUMBER ON CHECK.

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





**Dakota County Soil & Water  
Conservation District**

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

# Invoice

DATE	INVOICE #
7/14/2021	3107

BILL TO

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

Reference

TERMS

ITEM CODE	DESCRIPTION	HOURS	RATE	AMOUNT
	April - June 2021			
Black Dog	Website Updates and Maintenance	6	80.00	480.00
Black Dog	Landscaping for Clean Water Introductory Workshops (Virtual)		3,200.00	3,200.00
Black Dog	Landscaping for Clean Water Design Classes (Virtual/Zoom)		6,400.00	6,400.00
Black Dog	Landscaping for Clean Water Grants Kaup	1	250.00	250.00
Black Dog	Landscaping for Clean Water Technical Assistance Kaup	1	500.00	500.00
<p>OK Daryl Jacobson 7-16-21</p>				

Thank you.

**Total** \$10,830.00





# KAUP RESIDENTIAL NATIVE GARDEN



BEFORE

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



AFTER

## PRACTICE:

- Native Garden

## BENEFITS:

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

## PARTNERS:

- Black Dog Watershed Management Organization

## WATERSHED:

- Black Dog

## INSTALLATION:

- Spring 2021

**PROJECT:** Installation of a 340 sq. ft. residential native garden.

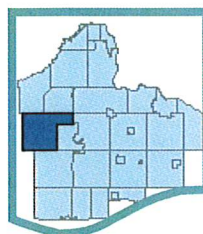
**COST:** Project materials cost estimated at \$964

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

**Black Dog**  
Watershed Management Organization

## LOCATION:

Upper 178th St W  
Lakeville





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

Date	Description	Deposits	Check #	Check Amount	Monthly Cash Balance	Expenditures: General Engineering Support	Special Projects (General)	Special Projects (Capital)	Special Projects (Gen. Reserve)	Insurance	Legal & Audit	Admin Support	Public Education	Water Quality Monitoring	Conf Public	Contingency
<b>Balance as of 12/31/20</b>					<b>572,983.92</b>											
20-Jan	Barr Engineering Co (2020)		1745	4,253.50		2,637.50	1,508.00	-	-					108.00		
20-Jan	Campbell Knutson (2020)		1746	85.00							85.00					
20-Jan	Met Council - Environ Services (2020)		1747	3,040.00										3,040.00		
31-Jan	Interest Income	9.67														
<b>01/31/20 Balance</b>		<b>9.67</b>		<b>7,378.50</b>	<b>565,615.09</b>	<b>2,637.50</b>	<b>1,508.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>85.00</b>	<b>-</b>	<b>-</b>	<b>3,148.00</b>	<b>-</b>	<b>-</b>
17-Feb	Barr Engineering Co		1748	5,732.00		2,284.00	89.50	1,155.00	1,186.00					1,017.50		
17-Feb	Campbell Knutson		1749	340.00							340.00					
17-Feb	City of Burnsville (2020)		1750	19,101.21								19,101.21				
17-Feb	Dakota County Soil & Water (2020)		1751	2,765.00			2,250.00	-	-				515.00			
28-Feb	Interest Income	8.72														
<b>02/28/20 Balance</b>		<b>8.72</b>		<b>27,938.21</b>	<b>537,685.60</b>	<b>2,284.00</b>	<b>2,339.50</b>	<b>1,155.00</b>	<b>1,186.00</b>	<b>-</b>	<b>340.00</b>	<b>19,101.21</b>	<b>515.00</b>	<b>1,017.50</b>	<b>-</b>	<b>-</b>
17-Mar	Barr Engineering		1752	11,973.00		1,912.00	2,084.00	525.00	1,232.00					5,736.50		
31-Mar	Interest Income	8.17														
<b>03/31/20 Balance</b>		<b>8.17</b>		<b>11,973.00</b>	<b>525,720.77</b>	<b>1,912.00</b>	<b>2,084.00</b>	<b>525.00</b>	<b>1,232.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>483.50</b>	<b>5,736.50</b>	<b>-</b>	<b>-</b>
21-Apr	Barr Engineering		1753	15,238.00		3,632.50	2,141.50	350.00	2,736.00					2,917.00		
21-Apr	Campbell Knutson		1754	391.00							391.00					
30-Apr	Interest Income	4.22														
<b>04/30/20 Balance</b>		<b>4.22</b>		<b>15,629.00</b>	<b>510,095.99</b>	<b>3,632.50</b>	<b>2,141.50</b>	<b>350.00</b>	<b>2,736.00</b>	<b>-</b>	<b>391.00</b>	<b>-</b>	<b>3,461.00</b>	<b>2,917.00</b>	<b>-</b>	<b>-</b>
19-May	Barr Engineering		1755	7,563.04		1,296.00	854.54	-	4,212.00					312.50		
19-May	Dakota County Soil & Water Conservation		1756	680.00		-	-	-	-				888.00	680.00		
31-May	Interest Income	4.35														
<b>05/31/20 Balance</b>		<b>4.35</b>		<b>8,243.04</b>	<b>501,857.30</b>	<b>1,296.00</b>	<b>854.54</b>	<b>-</b>	<b>4,212.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,568.00</b>	<b>312.50</b>	<b>-</b>	<b>-</b>
16-Jun	Barr Engineering		1757	5,997.32		2,564.50	1,830.82	-	1,085.00					369.00		
16-Jun	Campbell Knutson		1758	238.00							238.00					
30-Jun	Interest Income	4.21														
<b>06/30/20 Balance</b>		<b>4.21</b>		<b>6,235.32</b>	<b>495,626.19</b>	<b>2,564.50</b>	<b>1,830.82</b>	<b>-</b>	<b>1,085.00</b>	<b>-</b>	<b>238.00</b>	<b>-</b>	<b>148.00</b>	<b>369.00</b>	<b>-</b>	<b>-</b>
21-Jul	Barr Engineering		1759	9,460.56		1,199.50	2,118.90	-	4,519.00					1,623.16		
21-Jul	Campbell Knutson		1760	425.00							425.00					
31-Jul	Interest Income	4.31														
<b>07/31/20 Balance</b>		<b>4.31</b>		<b>9,885.56</b>	<b>485,744.94</b>	<b>1,199.50</b>	<b>2,118.90</b>	<b>-</b>	<b>4,519.00</b>	<b>-</b>	<b>425.00</b>	<b>-</b>	<b>-</b>	<b>1,623.16</b>	<b>-</b>	<b>-</b>
<b>Total Revenue</b>		<b>43.65</b>	<b>Total Expense</b>			<b>15,526.00</b>	<b>12,877.26</b>	<b>2,030.00</b>	<b>14,970.00</b>	<b>-</b>	<b>1,479.00</b>	<b>19,101.21</b>	<b>6,175.50</b>	<b>15,123.66</b>	<b>-</b>	<b>-</b>
<b>Less: 2020 A/R</b>		<b>-</b>	<b>Less: 2020 A/P</b>		<b>(29,244.71)</b>	<b>(2,637.50)</b>	<b>(3,758.00)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(85.00)</b>	<b>(19,101.21)</b>	<b>(515.00)</b>	<b>(3,148.00)</b>	<b>-</b>	<b>-</b>
<b>Total YTD 2020 Revenue</b>		<b>43.65</b>	<b>Total YTD 2021 Exp</b>		<b>58,037.92</b>	<b>12,888.50</b>	<b>9,119.26</b>	<b>2,030.00</b>	<b>14,970.00</b>	<b>-</b>	<b>1,394.00</b>	<b>-</b>	<b>5,660.50</b>	<b>11,975.66</b>	<b>-</b>	<b>-</b>
				<b>2021 Budget</b>	<b>214,500.00</b>	<b>31,000.00</b>	<b>36,800.00</b>	<b>10,000.00</b>	<b>70,000.00</b>	<b>3,000.00</b>	<b>5,000.00</b>	<b>18,000.00</b>	<b>18,100.00</b>	<b>17,100.00</b>	<b>500.00</b>	<b>5,000.00</b>
				<b>Budget Remaining</b>	<b>156,462.00</b>	<b>18,112.00</b>	<b>27,680.74</b>	<b>7,970.00</b>	<b>55,030.00</b>	<b>3,000.00</b>	<b>3,606.00</b>	<b>18,000.00</b>	<b>12,439.50</b>	<b>5,124.34</b>	<b>500.00</b>	<b>5,000.00</b>

# BLACK DOG WATER MANAGEMENT COMMISSION

## Budget Performance Report July 31, 2021

	CURRENT MONTH	YEAR TO DATE			
	ACTUAL	GENERAL FUND BUDGET	CAPITAL IMPROVEMENT FUND BUDGET	ACTUAL	VARIANCE FAVORABLE (UNFAVORABLE)
<b>Opening Fund Balance</b>		\$ 421,605	\$ 122,135	\$ 543,739	
<b>REVENUES :</b>					
<b>Member Contributions:</b>					
City of Apple Valley	\$ -	\$ 10,489	\$ 1,773	\$ -	\$ (12,262)
City of Burnsville	-	93,924	16,133	-	(110,057)
City of Eagan	-	580	-	-	(580)
City of Lakeville	-	26,007	4,094	-	(30,101)
Total Member Contributions	-	131,000	22,000	-	(153,000)
<b>Other Revenues:</b>					
Interest	\$ 4	\$ 40	\$ -	\$ 44	\$ 4
Grant (State of MN BWSR)	-	-	-	-	-
Total Other Revenue	4	40	-	44	4
<b>Total Revenues</b>	<b>\$ 4</b>	<b>\$ 131,040</b>	<b>\$ 22,000</b>	<b>\$ 44</b>	<b>\$ (152,996)</b>
<b>EXPENDITURES :</b>					
General Engineering Support	\$ 1,200	\$ 31,000	\$ -	\$ 12,889	\$ 18,112
Special Projects - General Fund	2,119	36,800	-	9,119	27,681
Special Projects - Capital Improvement Fund	-	-	10,000	2,030	7,970
Special Projects - General Fund Reserve	4,519	70,000	-	14,970	55,030
Insurance	-	3,000	-	-	3,000
Legal and Audit	425	5,000	-	1,394	3,606
Administrative Support	-	18,000	-	-	18,000
Public Education	-	18,100	-	5,661	12,440
Water Quality Monitoring	1,623	17,100	-	11,976	5,124
Conference/Publications	-	500	-	-	500
Contingency	-	5,000	-	-	5,000
<b>Total Expenditures</b>	<b>9,886</b>	<b>204,500</b>	<b>10,000</b>	<b>58,038</b>	<b>156,462</b>
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES	(9,881)	(73,460)	12,000	(57,994)	
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES PLUS OPENING FUND BALANCE				<u>485,745</u>	
TOTAL CASH AVAILABLE 7/31/2021	485,745				
<b>Fund Balance 7/31/2021</b>	<b><u>\$ 485,745</u></b>				

## Memorandum

**To:** Black Dog Watershed Management Organization (BDWMO) Commissioners  
**From:** Greg Williams, PE, Barr Engineering Co.  
**Subject:** Summary of Technical Advisory Committee meeting #2 addressing draft goals  
**Date:** August 10, 2021  
**Project:** 23191455  
**c:** Daryl Jacobson, BDWMO Administrator

### **Requested BDWMO Commission actions:**

1. Review the notes from the second TAC meeting and approve or provide comment on proposed draft goal revisions in response to TAC input (see last page).

## 1.0 Background

The Black Dog Watershed Management Organization (BDWMO) commissioners are in the process of updating the BDWMO Watershed Management Plan (Plan). Establishing measurable goals is a key step in Plan development, as the activities in the 10-year implementation plan will be geared towards making progress towards these goals. The BDWMO commissioners reviewed and commented on draft goals at the July 21, 2021 Commission meeting. Barr Engineering Company (Barr) revised the goals to incorporate commissioner feedback before distributing the draft goals to the Technical Advisory Committee (TAC); the TAC met virtually to discuss the draft goals on August 4, 2021. TAC members in attendance represented:

- City of Apple Valley
- City of Burnsville
- City of Lakeville
- Dakota County (Groundwater Division)
- Dakota Soil and Water Conservation District
- Metropolitan Council
- Minnesota Pollution Control Agency
- Minnesota Department of Natural Resources
- BDWMO (Administrator)

## 2.0 TAC Comments on Draft Goals

TAC comments on draft goals are organized below according to goal/policy section in the 2012 Plan:

### **Water Quality**

- TAC participants support in-lake water quality goals based on current/existing water quality for non-impaired strategic waterbodies, and a goal of achieving shallow lake state standards for Keller Lake.

- TAC participants asked how this goal may be assessed (i.e., how will deviation from current conditions be quantified and what is significant). Barr suggested that these details will be defined in the policies or the Plan narrative.
- City TAC participants support sediment and nutrient loading goals consistent with MS4 permit requirements.
  - There was discussion noting that the Minnesota River TMDL does not include pollutant reduction goals that are directly applicable to the BDWMO. Discussion also noted that the BDWMO does not collect data needed to assess overall pollutant loading to the Minnesota River (or other downstream resources). City staff noted that TMDL-related pollutant reduction goals will ultimately be incorporated into City MS4 permits.
  - Metropolitan Council noted that the recently approved Lake Pepin TMDL may include pollutant reductions for cities, although those reductions may not be included until the next MS4 permit update (in 5 years).
- TAC participants support omitting a separate goal for Black Dog Fen and trout streams due to strong state protections for those resources.
- TAC participants support including a goal related to chloride. Dakota County and MPCA noted that there is forthcoming state-level guidance on chloride management. Future discussion of education and/or implementation items should clarify possible, specific actions to support a chloride management goal.

### **Flooding and Water Quantity**

- City TAC participants asked whether monitoring data exists to support an intercommunity flow goal and how increases would be measured with respect to changing climate.
  - Barr noted that potential increases in intercommunity flows would be assessed by modeling of pre- and post-project conditions under similar climate scenarios, similar to how each City evaluates development projects currently.
- TAC participants generally support the draft goal to reduce the number and/or flood risk of structures within the floodplain.
- Dakota County noted that water conservation and/or water reuse goals could be included among water quantity and flooding goals (draft groundwater goals include a water conservation goal). Dakota SWCD suggested (in a follow-up email) that water conservation be considered as a separate topic area.

### **Erosion/Sedimentation**

- City TAC participants suggested that numeric sediment reduction goals could be included based on the types of projects ultimately included in the implementation program.
  - City TAC participants noted that there are few natural streams and few major erosion/sedimentation issues present within the BDWMO.

## **Wetlands**

- City TAC participants were not aware of immediate wetland enhancement or restoration opportunities within the BDWMO (related to wetland goal to increase or restore wetland acreage to be determined).
  - o Dakota SWCD evaluated wetland restoration opportunities within the county and will look to see if any are located within the BDWMO.
- City TAC participants noted that the “no net loss” of wetlands goal is difficult to achieve due to the absence of wetland banking within the BDWMO, and the difficulties in establishing a new wetland bank. Much of the wetland mitigation required as part of development occurs outside the watershed.
- Metropolitan Council suggested a wetland goal could be based on continued participation in technical evaluation panels and continued City role as the local governmental unit (LGU) responsible for implementing the Wetland Conservation Act (WCA).

## **Shoreland, Habitat and Open Space**

- TAC participants noted that it is difficult to do much in the way of shoreland management beyond education and outreach to private landowners. City shoreline assessments have found a decline in natural shorelines over the past 10-15 years and increased use of hard armoring (riprap). MDNR noted common use of riprap. City ordinances are generally not more stringent than state requirements. City staff noted that shoreline restoration projects don’t align well with Dakota SWCD’s Landscaping for Clean Water grant program.
- City TAC participants noted that habitat and landscape goals would be useful if they could be easily communicated to residents.
- City TAC participants suggested that goal(s) related to invasive species could also incorporate introduction/enhancement of native species.
- TAC participants supported limiting invasive species goals to strategic waterbodies.

## **Groundwater**

- See prior comments regarding water conservation

## **Administration**

- Not addressed during the meeting due to limited time.

## **Education and Outreach**

- Not addressed during the meeting due to limited time. Details of the education and outreach program will be discussed in detail while developing the implementation program.



### **3.0 Lake Monitoring Discussion**

Barr provided brief summaries of the current BDWMO detailed (management level) water quality monitoring and habitat monitoring programs performed on strategic waterbodies in the final minutes of the August 4, 2021 TAC meeting. Limited time prevented a planned discussion about possible and recommended modifications to monitoring activities and reporting. This discussion is planned for a subsequent TAC meeting.

### **4.0 Conclusions and Next Steps**

TAC comments were generally supportive of the draft goals, as revised per commissioner comments. TAC comments were not in conflict with any draft goals but do highlight potential issues in achieving goals related to wetland, habitat, and shoreline areas. Proposed edits to draft goals based on TAC comments are presented on the following page.

Barr will seek further input from the TAC on administrative goals and education and outreach goals, as well as the water quality and habitat monitoring programs, which were not discussed at the August 4, 2021 meeting due to time constraints. Barr will schedule another TAC meeting prior to the September Commission meeting to address these topics.

Board of Water and Soil Resources (BWSR) Board Conservationist Melissa King was unable to attend the August 4, 2021 TAC meeting due to a scheduling conflict. Barr and the BDWMO Administrator will meet separately with the Board Conservationist to discuss draft goals and goal measurability.

## Proposed Changes to Draft Goals in Response to TAC Comments (8/4/2021)

### Formatting notes:

~~Strikethrough~~ = draft goal deletions or omissions in response to TAC comments

Blue text = new or revised language in response to TAC comments

*Italicized, grey highlight* = notes from TAC discussion

### Wetlands

- ~~Support XX wetland enhancement projects led by member cities~~ *(suggest omitting based on limited opportunities unless specific actions are included in the implementation program)*
- ~~Achieve no net loss of wetlands in the BDWMO, while conforming to the Minnesota Wetland Conservation Act (WCA) and associated rules (Minnesota Rules 8420).~~ *(suggest replacing with the following based on TAC input regarding wetland mitigation options)*
  - Pursue no net loss of wetlands in the BDWMO through continued City implementation of the Wetland Conservation Act (WCA), participation in technical evaluation panels (TEPs), and other wetland management roles.

### Shoreland, Habitat and Open Space

- ~~Support XX member city projects to enhance the quality of open spaces.~~ *(suggest omitting based on limited opportunities unless specific actions are included in the implementation program)*
- Support member city and partners actions to increase the amount and/or diversity of native vegetation within BDWMO strategic waterbodies. *(suggested addition from TAC)*

### Groundwater

- Promote groundwater conservation and water reuse through at least XX education and outreach activities per year. *(water reuse added per TAC comments)*

# ***Contract Documents***

## ***2021 Aluminum Treatment for Keller Lake***

***Black Dog Watershed Management Organization  
(BDWMO)***

***August 2021***



*4300 MarketPointe Drive  
Minneapolis, MN 55435  
Phone: (952) 832-2600  
Fax: (952) 832-2601*

## **Division 0 – Bidding and Contract Documents**

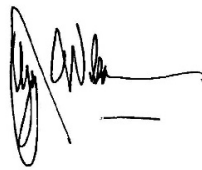
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### ***SECTION 00005 TABLE OF CONTENTS***

<b><u>Division 0</u></b>	<b>Bidding and Contract Documents</b>
<b>00005</b>	Table of Contents
<b>00050</b>	Quote Form
<b>00100</b>	Form of Agreement
<b><u>Division 1</u></b>	<b>General Specifications</b>
<b>01000</b>	Summary of Work
<b>01010</b>	Measurement and Payment
<b>01015</b>	Payment Procedures
<b>01070</b>	Project Meetings
<b>01080</b>	Submittals
<b>01085</b>	Safety
<b>01095</b>	Closeout Procedures
<b>01100</b>	Mobilization and Demobilization
<b><u>Division 2</u></b>	<b>Technical Specifications</b>
<b>02400</b>	Chemical Treatment

**Divisions 3 through 16 – [NOT USED]**

I hereby certify that these specifications were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota.



---

Gregory J. Wilson, P.E.

Reg. No. 25782 Date 8/9/2021

## **SECTION 00050**

### **QUOTE FORM**

#### **2021 Aluminum Treatment for Keller Lake**

Owner: Black Dog Watershed Management Organization  
Class of Work: Chemical Treatment  
Project Location: Burnsville, Minnesota  
**Quotes Close At: 9:00 AM, Friday, August 27<sup>th</sup>, 2021**

To: Greg Wilson (Engineer)  
Barr Engineering Company  
4300 MarketPointe Drive, Suite 200  
Bloomington, MN 55435

Date \_\_\_\_\_, 20\_\_

Proposal of \_\_\_\_\_  
Contractor

\_\_\_\_\_  
Address

Pursuant to the request for quotes for the 2021 Aluminum Treatment for Keller Lake to furnish all necessary machinery, equipment, tools, labor, materials and all necessary means of construction and deliver materials and to do and perform all work set forth below (the "Work") at rates and at a total price or prices as hereinafter set forth, in accordance with the Contract Documents, the Drawings and Specifications, and addenda thereto on file in the office of the Owner and Engineer.

The undersigned Contractor proposes and agrees, if this Quote is accepted, to enter into an Agreement with the Owner in the form included in the Contract Documents, and to perform all work as specified or indicated in the Contract Documents for the prices in this Quote and within the times indicated, in accordance with the terms and conditions of the Contract Documents. Contractor accepts all terms and conditions of the request for Quotes. This Quote will remain subject to acceptance for 30 days after the Quote closing.

In submitting this Quote, the Contractor represents that it has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents, and hereby acknowledges receipt of the following addenda:

Addendum No.	Addendum Date

A pre-Quote meeting may be requested by e-mailing Greg Wilson at [gwilson@barr.com](mailto:gwilson@barr.com) or calling 952-832-2672. Prospective Contractors are strongly encouraged to review this complete document prior to the meeting. It is the Contractor's responsibility to bring all questions and requests for clarification concerning discrepancies, ambiguities, or omissions in the request for quotes to this meeting.

In submitting this Quote, the undersigned Contractor understands and agrees that the Agreement and other Contract Documents referred to therein control and, without limiting the foregoing, that this Quote is based upon the following undertakings:

1. That Contractor to the extent it deems necessary, has inspected the Site of the work and existing construction in the areas of the proposed work, and is informed as to the condition thereof as the same bears on the work to be performed.
2. That Contractor has received and examined the Drawings and Specifications, and is informed of all addenda thereto, and of the forms of the Contract Documents, including but not limited to the Agreement.

The undersigned Contractor further agrees prior to letting of the contract and signing of the Agreement, to provide such catalogs, photographs, drawings, specifications, descriptive information and other details as to special equipment or materials Contractor proposes to furnish for the work, to permit a valuation of the merits thereof and determination whether such special equipment or materials comply with the specifications upon Owner's request.

The Owner will review the completed Quote Form to evaluate that the Contractor has the practical knowledge, experience, available personnel, equipment and financial resources for the timely and professional completion of the Work. The Owner also reserves the right to make inquiries regarding past performance of any Contractor on previous contracts. The object of this review and subsequent inquiries is to provide the Owner with the best available information regarding the capabilities of the Contractor to complete the Work as specified in the Contract Documents, and minimize the risk of awarding work to an unqualified Contractor.

The Owner reserves the right to reject any Proposal where there is insufficient or unsatisfactory evidence to demonstrate the Contractor's ability to perform the work. Failure on the part of any Contractor to have carried out previous contracts satisfactorily, to show adequate experience, or to possess necessary equipment or labor for completion of the work, may be deemed sufficient cause for disqualification of said Contractor.

The Owner will award one contract to the Contractor whose quote price, quality and experience best conform to the overall interests of the Owner and/or provide the best value for aluminum treatment of Keller Lake. The Owner's decisions regarding Contractor qualifications, contract award and contract amount shall be final.

Contractor agrees to complete the Work, or some portion of the Work, for the unit prices and/or lump sum as listed and set forth in the Quote Form that follows. The total costs will be considered in awarding the contract.



Item	Description	Unit	Estimated Quantity	Unit Price	Extension
1.1	Mobilization/Demobilization	L.S.	1		
2.1	Liquid Aluminum Sulfate/Sodium Aluminate Application to Keller Lake	Gallons	37,500		

**GRAND TOTAL OF EXTENSIONS** \_\_\_\_\_

**Dollars (\$**\_\_\_\_\_ **)**

Quantities are not guaranteed. Final payment will be based on actual quantities of work performed as determined by the Engineer in accordance with Section 01010 of the Specifications.

**Firm:** (indicate correct name of proposing entity) \_\_\_\_\_

**By:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

**Attest:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

**Title:** \_\_\_\_\_

**Submittal Date:** \_\_\_\_\_

**Address for giving notices:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Telephone No.** \_\_\_\_\_

**Facsimile No.** \_\_\_\_\_

**Contact Name and Email** \_\_\_\_\_

\_\_\_\_\_

**\*\*END OF SECTION\*\***

***SECTION 00100***

***FORM OF AGREEMENT***

**AGREEMENT**  
**BLACK DOG WATERSHED MANAGEMENT ORGANIZATION**  
**DAKOTA COUNTY, MINNESOTA**  
2021 Aluminum Treatment for Keller Lake

**AGREEMENT** made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, between the **BLACK DOG WATERSHED MANAGEMENT ORGANIZATION**, a Minnesota watershed management organization ("Black Dog WMO"), and \_\_\_\_\_, a \_\_\_\_\_ limited liability company ("Contractor").

**IN CONSIDERATION OF THE MUTUAL UNDERTAKINGS HEREIN  
CONTAINED, THE PARTIES AGREE AS FOLLOWS:**

**1. CONTRACT DOCUMENTS.** The following documents shall be referred to as the "Contract Documents", all of which shall be taken together as a whole as the contract between the parties as if they were set verbatim and in full herein:

- A. This Agreement
- B. Project Description, Specifications, or Proposal dated \_\_\_\_\_.
- C. Quote dated \_\_\_\_\_.

In the event of conflict among the provisions of the Contract Documents, the order in which they are listed above shall control in resolving any such conflicts with Contract Document "A" having the first priority and Contract Document "C" having the last priority.

**2. OBLIGATIONS OF THE CONTRACTOR.** The Contractor shall provide the goods, services, and perform the work in accordance with the Contract Documents and in compliance with federal, state and local laws.

**3. OBLIGATIONS OF THE BLACK DOG WMO.** The Black Dog WMO shall pay the Contractor the sum of \$\_\_\_\_\_ inclusive of sales tax.

**4. ASSIGNMENT.** Neither party may assign, sublet, or transfer any interest or obligation in this Contract without the prior written consent of the other party, and then only upon such terms and conditions as both parties may agree to and set forth in writing.

**5. TIME OF PERFORMANCE.** The Contractor shall complete its obligations on or before \_\_\_\_\_.

**6. PAYMENT.** When the obligations of the Contractor have been fulfilled, inspected, and accepted, the Black Dog WMO will pay the Contractor. Such payment shall be made not later than thirty (30) days after completion, certification thereof, and invoicing by the Contractor.

**7. PROMPT PAYMENT TO SUBCONTRACTORS.** Pursuant to Minnesota Statute § 471.25, Subd. 4a, the Contractor must pay any subcontractor within ten (10) days of the Contractor's receipt of payment from the Black Dog WMO for undisputed services provided by the subcontractor. The Contractor must pay interest of one and one-half percent (1½ %) per month or any part of a month to subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of \$100.00 or more is \$10.00. For an unpaid balance of less than \$100.00, the Contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from the Contractor shall be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

**8. WORKER'S COMPENSATION** Pursuant to Minnesota Statute § 176.182 Contractor must provide acceptable evidence of compliance with the state Workers' Compensation insurance requirements for all its employees and, in case any work is subcontracted, Contractor will require the subcontractor to provide Workers' Compensation insurance or acceptable evidence of compliance in accordance with the statutory requirements of the State of Minnesota.

**9. COMMERCIAL GENERAL LIABILITY.** Contractor shall obtain the following minimum insurance coverage by a single policy or a combination of policies (including umbrella policies) and maintain it at all times throughout the life of the Contract, with the Black Dog WMO endorsed as an additional insured:

Bodily Injury:	\$2,000,000 each occurrence \$2,000,000 aggregate, products and completed operations
Property Damage:	\$2,000,000 each occurrence \$2,000,000 aggregate

The Additional Insured coverage must be primary and non-contributory. Products and Completed Operations Insurance shall be maintained for a minimum period of three (3) years after final payment and Contractor shall continue to provide evidence of such coverage to Black Dog WMO on an annual basis during the aforementioned period; or if any reason Contractor's work ceases before final payment, for a minimum period of three (3) years from the date Contractor ceases work. Coverages must be equivalent to that provided by ISO Forms CG 20 10 04 13 and CG 20 37 04 13.

Property Damage Liability Insurance shall include coverage for the following hazards:

X (Explosion)  
C (Collapse)  
U (Underground)

For any contract involving the repair, maintenance or construction of property that involves the provision of equipment, supplies or materials to the Black Dog WMO for projects greater than \$100,000.00, the Contractor shall obtain and maintain Builder's Risk insurance in an amount not less than the project or contract cost.

Contractual Liability (identifying the contract):

Bodily Injury:	\$2,000,000 each occurrence
Property Damage:	\$2,000,000 each occurrence \$2,000,000 aggregate
Personal Injury, with Employment Exclusion deleted:	\$2,000,000 aggregate

Business Automobile Liability (owned, non-owned, hired):

Bodily Injury and Property Damage:	\$2,000,000 each occurrence \$2,000,000 each accident <u>OR</u> \$2,000,000 Combined single limit
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The Contractor shall submit a Certificate of Insurance to the Black Dog WMO showing proof of the above-required insurance prior to doing any work.

The Black Dog WMO retains the right to revise the insurance requirements depending on the size and risk of the project.

**10. PERMITS AND LICENSES; RIGHTS-OF-WAY AND EASEMENTS.** The Contractor shall procure all permits and licenses, pay all charges and fees therefore, and give all notices necessary and incidental to the construction and completion of the Project. The Black Dog WMO will obtain all necessary rights-of-way and easements. The Contractor shall not be entitled to any additional compensation for any construction delay resulting from the Black Dog WMO's not timely obtaining rights-of-way or easements.

**11. DATA PRACTICES/RECORDS.**

A. All data created, collected, received, maintained, or disseminated for any purpose in the course of this Contract is governed by the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, any other applicable state statute, or any state rules adopted to implement the act, as well as federal regulations on data privacy.

B. All books, records, documents, and accounting procedures and practices of the Contractor and its subcontractors, if any, relative to this Contract are subject to examination by the Black Dog WMO.

**12. WARRANTY.** The Contractor shall be held responsible for any and all defects in workmanship, materials, and equipment which may develop in any part of the contracted service,

and upon proper notification by the Black Dog WMO shall immediately replace, without cost to the Black Dog WMO, any such faulty part or parts and damage done by reason of the same.

**13. DEFENSE OBLIGATION.** To the fullest extent permitted by law, the Contractor shall indemnify, defend, and hold harmless the Black Dog WMO and its officials, employees and agents, against claims, damages, losses and expenses, including reasonable attorneys' fees, arising out of or resulting from performance of the Contractor's work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, other than the work itself, but only to the extent caused by the negligent or wrongful acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable.

**14. WAIVER.** In the particular event that either party shall at any time or times waive any breach of this Contract by the other, such waiver shall not constitute a waiver of any other or any succeeding breach of this Contract by either party, whether of the same or any other covenant, condition, or obligation.

**15. GOVERNING LAW.** The laws of the State of Minnesota govern the interpretation of this Contract.

**16. SEVERABILITY.** If any provision, term, or condition of this Contract is found to be or become unenforceable or invalid, it shall not affect the remaining provisions, terms, and conditions of this Contract, unless such invalid or unenforceable provision, term, or condition renders this Contract impossible to perform. Such remaining terms and conditions of the Contract shall continue in full force and effect and shall continue to operate as the parties' entire contract.

**17. ENTIRE AGREEMENT.** This Contract represents the entire agreement of the parties and is a final, complete, and all inclusive statement of the terms thereof, and supersedes and terminates any prior agreement(s), understandings, or written or verbal representations made between the parties with respect thereto.

**BLACK DOG WMO**

**XXXXXXXXXXXXXXXXXX, L.L.C.**

By: \_\_\_\_\_

By: \_\_\_\_\_  
Its

By: \_\_\_\_\_  
Black Dog WMO



**\*\*END OF SECTION\*\***

# **Division 1 – General Specifications**

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## ***SECTION 01000***

### ***SUMMARY OF WORK***

#### **PART 1: GENERAL**

##### **1.01 CONTRACT DOCUMENTS**

- A. The Contract Documents are as defined in the Agreement. The terms of the Contract Documents apply to these Specifications as fully as though repeated herein.
- B. The format of these Specifications is based upon the CSI MASTERFORMAT, however differences in format and subject matter location do exist. It is the Contractor's sole responsibility to thoroughly read and understand these Specifications and request written clarification of those portions, which are unclear.
- C. Division of the Work as made in these Contract Documents is for the purpose of specifying and describing work, which is to be completed. There has been no attempt to make a classification according to trade or agreements, which may exist, between Contractor, Subcontractors, or trade unions or other organizations. Such division and classification of the Work shall be the Contractor's sole responsibility.

##### **1.02 EXISTING SITE CONDITIONS AND USES**

- A. Work included as part of this project is the application of Aluminum Sulfate and Sodium Aluminate to Keller Lake located in the City of Burnsville, Minnesota.
- B. Project limits are shown on Figure 1.

##### **1.03 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The overall scope of the Work which is more fully described in these Contract Documents includes, but is not necessarily limited to, furnishing all labor, tools, equipment, and materials necessary to:
  - 1. Mobilize and demobilize labor, aluminum sulfate/sodium aluminate treatment equipment, and materials, as needed to gain access to the lake.
  - 2. Maintain and protect existing upland vegetation and groundcover for access routes to the lake.
  - 3. Furnish and apply Aluminum Sulfate and Sodium Aluminate.
  - 4. Demobilize all remaining materials and equipment from the Site.
- B. It is the intent of the Contract Documents to cover all aspects of the Project. Should there be some item or items not shown on Figure 1 or not described in these Specifications which are required for the Work, those items and the furnishing of all labor, materials, and equipment shall be considered incidental to the Work and no additional compensation will be provided.

- C. The Work includes the furnishing of all labor, equipment, tools, machinery, materials, and other items required for aluminum sulfate/sodium aluminate treatment of Keller Lake as specified. Equipment furnished shall be in safe operating condition and of adequate size, capacity, and condition for the performance of the Work.
- D. Contractor shall be solely responsible for the coordination of its activities with regard to the Project and the activities of Subcontractors and Engineer.

1.04 WORK BY Owner

- A. Owner will obtain an aluminum sulfate/sodium aluminate treatment permit from the Minnesota Pollution Control Agency necessary for aluminum sulfate/sodium aluminate treatment of Keller Lake. Contractor shall request such information from Owner a minimum of five days prior to the time when such information is needed.

1.05 Owner FURNISHED PRODUCTS

- A. Owner will not furnish any products for this Project.

1.06 Contractor USE OF PREMISES

- A. Definition of Site: The Site is defined as the area within the approximate Project Limits shown on Figure 1. Owner will provide for Contractor authority to use the area within the Project Limits for ingress/egress and operations, including material and equipment staging and storage. Contractor shall limit ingress/egress and operations, including material and equipment staging and storage, to within those Project Limits. Any disturbance inside or outside the Project Limits shall be fully restored to its original condition at the Contractor's expense. Contractor shall coordinate and finalize staging areas with the Owner prior to beginning the Work to ensure that public access to Keller Lake and traffic access is maintained throughout the duration of the Work.
- B. Hours of Operation: Contractor's operations shall be limited to the hours approved by each governmental unit in accordance with local laws and regulations.
- C. Unfavorable Treatment Conditions: The Engineer will advise Contractor when conditions are unsuitable to apply aluminum pursuant to the criteria of Section 02400 and the judgment of Engineer as necessary to apply those criteria. When Engineer has so advised Contractor, and until Engineer has advised Contractor that conditions again are suitable, Contractor shall confine operations to work which will not be adversely affected by such conditions. No portion of the Work shall occur under conditions which would adversely affect the quality of the Work, unless special means or precautions are taken to perform the Work in a proper and satisfactory manner.

1.07 SEQUENCE OF WORK

- A. Work shall commence within five (5) calendar days of the notice to proceed and shall be completed on or before the time indicated in the Form of Agreement.
- B. Contractor shall determine the sequence of Work required to efficiently progress with the Work.

1.08 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

**PART 2: PRODUCTS [NOT USED]**

**PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01000**

## **SECTION 01010**

### **MEASUREMENT AND PAYMENT**

#### **PART 1: GENERAL**

##### **1.01 GENERAL**

- A. This Section of the Specifications describes the measurement and payment for the Work to be done under the items listed on the Quote Form.
- B. Each unit or lump sum price stated on the Quote Form shall constitute full compensation as herein specified for each item of work completed in accordance with the requirements of the Contract Documents including Figure 1 and Specifications, including all clean up and restoration.
- C. All costs in connection with the Work, including furnishing all materials, supplies and appurtenances; providing all equipment and tools; and performing all necessary labor, coordination, supervision, and management to fully complete the Work shall be included in the unit prices or unit lump sum prices quoted on the Quote Form. All Work not specifically set forth as a separate cost item herein shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the amounts and prices submitted on the Quote Form.

##### **1.02 ESTIMATED QUANTITIES**

- A. All estimated quantities for Unit Price items in the Quote Form are approximate and are to be used only as a basis for determining the initial Contract Price. The actual amount of work to be done or materials to be furnished under the Unit Price items may differ from the estimated quantities. The basis of payment for work or materials furnished or placed will be the actual quantities of work performed or material furnished and placed. The Contractor agrees to make no claim for damages, anticipated profits, or otherwise due to any difference between the quantities of Work actually performed or materials furnished and placed and the estimated quantities included in the Quote Form.

##### **1.03 INTENT OF QUOTE FORM ORGANIZATION**

- A. Payment for all Work shall be in accordance with the terms and conditions set forth elsewhere in the Contract Documents and the Contractor's Quote prices set forth in Contractor's conformed Quote Form. The cost items set forth in the Quote Form subdivide the Project for purposes of measurement and payment only, and are intended to represent the entire and complete Project as set forth in the Contract Documents. The cost items set forth in the Quote Form shall constitute full compensation to Contractor for providing all supervision, labor, materials, equipment, tools and supplies, and overhead and profit to complete the Work in complete accordance with the Contract Documents.
- B. The following paragraphs provide additional descriptions of the Work included in each of the Quote items subject to the provisions of paragraphs 1.01, 1.02, and 1.03 of this Section
  - 1. Some of the Quote items are based on unit lump sum prices. Partial progress payment for those unit lump sum items shall be made in accordance with monthly estimates of

percent completed for each item included in the breakdown in Contractor's approved Schedule of Values.

2. Other Quote items are based on Unit Prices. For those items, progress payments shall be based on the actual quantities of each item of Work completed in accordance with the Contract Documents.

- C. The procedures for submitting and processing progress payments are set forth elsewhere in the Contract Documents.

#### 1.04 QUOTE ITEMS

##### A. Mobilization/Demobilization

1. Method of Measurement: Mobilization/Demobilization will be measured on the basis of a single lump sum (L.S.) unit.
2. Basis of Payment: Contractor will be paid a lump sum (L.S.) price for mobilization/demobilization on completion of the Work. The lump sum price shall be payment in full for the costs of all supervision, labor, materials, equipment, overhead and profit, and performing all operations as are necessary for mobilization to and demobilization from the Work Site, all complete as specified. This item shall include the Contractor's premium for any special insurance obtained for this project; development and maintenance of appropriate health and safety plan; equipment mobilization and demobilization; lake use restrictions signage and control of other watercraft during application; Site restoration not specifically paid for elsewhere in this Specification, Site cleanup; preparing and transmitting the required submittals; obtaining all licenses required of the Contractor to complete all aspects of the Work unless otherwise identified elsewhere in these Specifications; spill protection; public convenience and safety, barricades, lights and warning signals; and all incidentals and other items not specifically paid for but included in the total scope of the Work.

##### B. Application of Aluminum Sulfate and Sodium Aluminate

1. Method of Measurement: Liquid aluminum sulfate and sodium aluminate will be measured as gallons applied to the lake to achieve the specific dose determined by the Engineer as described in Section 02400. At the end of each day, Contractor shall provide Engineer with documentation of total number of gallons applied that day along with percent aluminum in both the liquid aluminum sulfate and the liquid sodium aluminate. Excess aluminum sulfate or sodium aluminate not applied directly to the lake shall not be included in this measurement.
2. Basis of Payment: Contractor will be paid a unit price per gallon of aluminum sulfate and sodium aluminate applied, for aluminum sulfate/sodium aluminate, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and perform all operations necessary to transport, store, and apply the chemicals to selected areas, all complete as specified.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

**PART 2: PRODUCTS [NOT USED]**

**PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01010**

## **SECTION 01015**

### **PAYMENT PROCEDURES**

#### **PART 1: GENERAL**

##### **1.01 DESCRIPTION**

- A. The requirements set forth herein are intended to supplement the procedure described or referred to in the Agreement.

##### **1.02 APPROVAL OF PAYMENT**

- A. The Owner will generally consider the Application for Payment properly and timely if presented to the Owner in accordance with the Agreement.

##### **1.03 SUBMITTALS**

###### **A. Application for Payment**

1. Submit in accordance with the schedule requirements of the Agreement.
2. Submit a tabulation of the items, unit prices, quantities completed, completed values in a form acceptable to Engineer.
3. Submit Application for Payment on a form provided by Engineer.
4. Submit such supplemental documentation in the form of invoices, statements, etc. as may be required by Engineer or Owner, and such other documentation, certificates, and schedules as are otherwise required by the Contract Documents.
5. Only one application for payment shall be made, on completion of the Work.

##### **1.04 BASIS FOR COMPENSATION**

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

#### **PART 2: PRODUCTS [NOT USED]**

#### **PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01015**



## **SECTION 01070**

### **PROJECT MEETINGS**

#### **PART 1: GENERAL**

##### **1.01 TREATMENT PLANNING CONFERENCE**

- A. After Owner issues to Contractor the Notice of Award, Engineer will schedule a treatment planning meeting to be held at either Engineer's offices, project Site or at Owner's offices that shall be attended by Owner, Contractor, Engineer, and others as appropriate. The meeting will be scheduled promptly after the Notice of Award and as far in advance of the commencement date as is practical.
- B. Agenda items may include:
  - 1. Distribution of Contract Documents
  - 2. Designation of responsible personnel for all parties, lines of communication, and lines of authority, including Project Contacts (see Paragraph 1.04 of this Section).
  - 3. Scope of work and the anticipated schedule of operations
  - 4. Critical work sequencing
  - 5. Aluminum storage location and Site access for aluminum distribution to barge or boat
  - 6. Record documents and reporting
  - 7. Site safety and security procedures
  - 8. List of major subcontractors
  - 9. Procedures for processing change orders
  - 10. Use of premises including equipment and material storage
  - 11. Materials deliveries
  - 12. Housekeeping procedures

##### **1.02 PROGRESS PHONE CALLS**

- A. Progress phone calls may be scheduled by the Engineer as needed at a time mutually agreeable to the Contractor and Engineer. A preferred time for these calls is prior to Contractor's submittal of Application for Payment.
- B. Following each phone call, the Engineer will prepare and distribute to Owner and Contractor copies of the notes of the phone call. These will include a brief summary of the progress of the Work since the previous phone call.

1.03 UNSCHEDULED MEETINGS

- A. The Contractor shall attend other unscheduled meetings which may be reasonably requested by Engineer or Owner to discuss unanticipated changes in the Work, or conditions at the Site, or other issues and which must be resolved before progression of work.

1.04 PROJECT CONTACTS

- A. Contractor shall submit to Engineer the name of one person available for ongoing technical support and who is familiar with the Project and is responsible for its completion.
- B. The list should include name, functional title, mailing address, and phone number.
- C. At least two phone numbers shall be furnished which will provide 24-hour answering by a competent technical representative of Contractor in the event of an emergency or other unanticipated condition requiring immediate attention. At least one person shall be available at all times for immediate response to the Site within 2 hours of being called. The responding person shall be the Contractor's representative at the Site and shall have authority to act on behalf of Contractor.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

**PART 2: PRODUCTS [NOT USED]**

**PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01070**

## **SECTION 01080**

### **SUBMITTALS**

#### **PART 1: GENERAL**

##### **1.01 GENERAL SUBMITTAL PROCEDURES**

**A. Contractor shall:**

1. Transmit each submittal labeled with the Project name, name of the submittal, and Section and page number of these Contract Documents in which the submittal was required. Indicate the type or purpose of the submittal as more fully described elsewhere in this section with regard to the Schedule of Submittals. Transmit the correct number of copies as described below for each type of submittal. Each submittal shall be accompanied by a transmittal letter stating the same information.
2. Transmit all submittals to Engineer at the address set forth in the Quote Form and to the attention of the Project Engineer designated by Engineer.
3. Apply Contractor's stamp, signed or initialed certifying that review and coordination of information is in accordance with the requirements of the Work and Contract Documents. Unstamped or unsigned submittals will be returned without action.
4. Schedule submittals to expedite Project and in accordance with the Schedule of Submittals to be prepared by Contractor. Coordinate submission of related items.
5. Identify all variations or deviations from the Contract Documents and identify alternative products or system limitations which may be detrimental to successful performance of the completed Work.
6. Provide space for Engineer review stamps and comments on all submittals.
7. Revise and resubmit submittals as required in a timely manner. Identify all changes made since previous submittal.
8. Promptly distribute copies of reviewed submittals to Subcontractors, suppliers, and other concerned parties. Instruct parties to promptly report any inability to comply with provisions.
9. Not proceed with any Work requiring a submittal, including resubmittal, to Engineer until the submittal has been returned to Contractor without a requirement for resubmittal.

**B.** All submittals that are made that are not specifically required by the Contract Documents will be returned without action.

**C.** All submittals shall come from the Contractor and submittals directly from Subcontractors or vendors will be returned without action.

#### 1.02 PROGRESS SCHEDULE

- A. Contractor shall submit an estimated progress schedule and a finalized progress schedule.
- B. The Contractor shall revise the finalized progress schedule from time to time, as may reasonably be requested by Engineer or Owner, to reflect the current status and progress of the Work and the operations necessary to complete the Work as required.
- C. The progress schedule shall clearly illustrate the sequence of the Work (by locations and other factors as may be appropriate) to be followed by Contractor to efficiently progress with the Work.

#### 1.03 SCHEDULE OF VALUES

- A. If requested by the Owner, Contractor shall submit a preliminary schedule of values and a finalized schedule of values.

#### 1.04 REVIEW OF SUBMITTALS

- A. The Engineer's review of engineering data will cover only general conformity of the data to the Specifications and Contract Documents, external connections, and interfaces with equipment and materials furnished under separate specifications. The Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the equipment, material, device, or item indicated or the accuracy of the information or documentation submitted; nor shall review or approval by the Engineer be construed as relieving the Contractor from any and all responsibility for errors or deviations from the requirements of the Contract Documents.
- B. All engineering data submitted, after final processing by the Engineer shall become a part of the Contract Documents and the work indicated or described thereby shall be performed in conformity therewith unless otherwise required by the Owner.

#### 1.05 SUBMITTAL FOR INFORMATION OR DOCUMENTATION

- A. Submit one copy to Engineer and one copy to Owner.
- B. Submittal shall be made at least 5 days before the subject of the submittal is to be incorporated into the Work.
- C. Submittal is for the purpose of formal verification that the subject of the submittal conforms to the requirements of the Specifications, for formal documentation of the Work, or both.
- D. No action is required by Owner or Engineer. Engineer will generally notify Contractor if deficiencies are identified; however Contractor is solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

#### 1.06 SUBMITTAL FOR REVIEW

- A. Submit two copies to the Engineer and one copy to Owner.
- B. Submittal shall be made at least 10 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.

- C. Submittal is for the purpose of providing opportunity to Engineer for review and comment on the subject of the submittal.
- D. Engineer will respond to the submittal either with a list of comments or indicating no comments.
- E. If Engineer's comments indicate a deficiency with respect to the requirement of the Specifications, Contractor shall amend the submittal and resubmit. Engineer will again respond to the resubmittal.
- F. If Engineer's comments are in regards to an issue which based upon the Contract Documents is at Contractor's discretion, Contractor shall furnish additional information provide justification, and otherwise cooperate in addressing and resolving Engineer's comments.
- G. Contractor shall remain solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

#### 1.07 SUBMITTAL FOR APPROVAL

- A. Submit two copies to the Engineer and one copy to Owner.
- B. Submittal shall be made at least 7 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.
- C. Submittals shall be stamped with Contractor's approval. Contractor's stamp shall be a representation that Contractor has assumed full responsibility for determining the submittal requirements and verifying that the subject of the submittal conforms to the requirements of the Specifications. Submittals not bearing Contractor's stamp will be returned without review or action.
- D. Engineer will review, make notations as appropriate, stamp, and return submittals to Contractor. Engineer's stamp and Contractor's required action are described below:
  - 1. NO EXCEPTIONS TAKEN. Contractor may proceed without further action.
  - 2. RECOMMENDED REVISIONS NOTED. Contractor shall review Engineer's notations and revise subject of submittal as required to conform to the requirements of the Drawings and Specifications before proceeding with the Work. Resubmittal is not required.
  - 3. RESUBMIT. Contractor shall review Engineer's notations, revise subject of submittal as required to conform to the requirements of the Specifications, and resubmit to Engineer for additional action.
  - 4. REVIEW COMPLETE, FURNISH THREE FILE COPIES. Contractor shall furnish the requested number of copies and may proceed without further action.
- E. Work may proceed when submittals have been returned marked RECOMMENDED REVISIONS NOTED, provided the work is performed in accordance with the Engineer's notations, or NO EXCEPTIONS TAKEN.

1.08 ALTERNATE PRODUCT SUPPORTING DATA

- A. If Contractor proposes to use alternate or substitute products, Contractor shall submit written application.
- B. Submit two (2) copies of literature, drawings, and any other data necessary to substantiate that proposed substitute is equivalent or equal to the item named, and otherwise meets the conditions established in the Specifications.
- C. Do not proceed with product installation or use until written approval by Engineer is received.

1.09 RECORD DOCUMENTS

- A. Submit one original copy to Owner and one duplicate to Engineer of all record documents (or clearly legible copies) prior to substantial Completion.
- B. Record documents consist of all Drawings, Specifications, Addenda, Change Orders, and Shop Drawings legibly annotated to reflect all changes made during construction.

1.10 WARRANTY OR GUARANTEE CERTIFICATES

- A. Submit three (3) executed copies prior to Substantial Completion.
- B. All warranty or guarantee certificates shall be signed by Contractor and all other parties as requested in specific sections.

1.11 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

**PART 2: PRODUCTS [NOT USED]**

**PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01080**

## **SECTION 01085**

### **SAFETY**

#### **PART 1: GENERAL**

##### **1.01 GENERAL**

- A. In accordance with generally accepted chemical treatment practices, the Contractor shall be solely and completely responsible for job Site conditions and safety procedures and programs, including safety and health of all persons and property, on those portions of the Site affected by or used by Contractor, Contractor's employees, subcontractors, agents, and others during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. Observation of the Work and Contractor's performance by Owner and Engineer is not intended to include review of the adequacy of the Contractor's safety and health procedures and programs on or near the project Site. The Contractor is solely responsible for the protection of property and the safety and health of its employees, Subcontractors, Suppliers, agents and others on or near the Site before, during and after the treatment, for the duration of the Contract Time.

##### **1.02 SAFETY**

- A. In addition to the requirements of the Agreement, the Contractor shall be responsible for:
  - 1. Furnishing Contractor's employees, as well as any subcontractor's and supplier's employees, with all safety equipment and other protection devices needed to comply with Laws and Regulations or accepted safety practices.
  - 2. Any safety violation and/or fine that may occur because of any neglect by Contractor, Contractor's employees, Contractor's subcontractors, or any third party under Contractor's supervision or direction.

##### **1.03 HAZARD COMMUNICATION PROGRAMS**

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

##### **1.04 EMERGENCIES**

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss.

##### **1.05 BASIS FOR COMPENSATION**

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.



**PART 2: PRODUCTS [NOT USED]**  
**PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01085**

## **SECTION 01095**

### **CLOSEOUT PROCEDURES**

#### **PART 1: GENERAL**

##### **1.01 RECORD DOCUMENTS**

- A. Record information on record documents concurrent with treatment progress. Engineer or Owner may require Contractor to improve its performance with regard to recording information during the treatment process.
- B. Submit record documents and other submittals required by other Sections of these Specifications.

##### **1.02 CLEANUP**

- A. The Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work, and at the completion of the Work, shall remove all waste materials, rubbish and debris from the premises as well as all tools, treatment equipment, and surplus materials. Contractor shall leave the Site clean.

##### **1.03 GUARANTIES AND WARRANTIES**

- A. The Contractor shall guarantee all work and material against all defects as specified in the Agreement or as otherwise required for specific items in these Specifications. The Contractor shall repair or replace any such defective Work and materials to conform to the provisions of the Contract and without expense to the Owner, within one (1) day after notification in writing by the Owner or Engineer of such defective Work or material. If the Contractor does not make said repairs or replacements or have made arrangements for the correction thereof within the period specified above, the Owner may do so and will charge the cost of same to the Contractor. The Contractor shall perform repair work so as to cause the Owner a minimum of inconvenience and interruption of services.

##### **1.04 FINAL SUBMITTALS**

- A. Contractor shall complete all submittals required by these Contract Documents prior to the payment of Contractor's Final Application for Payment by Owner. Final payment shall not become due and payable until 10 days after all submittals have been made acceptable to Engineer.

##### **1.05 BASIS FOR COMPENSATION**

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

**PART 2: PRODUCTS [NOT USED]**  
**PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01095**

## **SECTION 01100**

### **MOBILIZATION AND DEMOBILIZATION**

#### **PART 1: GENERAL**

##### **1.01 MOBILIZATION/DEMOBILIZATION**

- A. The Work covered by mobilization/demobilization consists of, but is not limited to furnishing all labor, equipment, and materials, and performing all operations necessary to move personnel, equipment, supplies, and incidentals to the project Site to establish and maintain project materials and equipment storage areas, parking areas, and other areas necessary for the Work; provide public convenience and safety, barricades, lights and warning signals; provide water and chemical tracking control; perform all work that must be completed before beginning work on the project for which payment is not provided elsewhere in these Specifications, including removal of all equipment, materials and labor from the project Site after it is no longer necessary and restore the Work area; furnish all bonds and insurance certificates obtained specifically for this project, all in accordance with the Contract Documents, and in compliance with all requirements of Division 1 of these Specifications.

##### **1.02 BASIS FOR COMPENSATION**

- A. Compensation for all Work covered under this section of these Specifications shall be in accordance with the provisions set forth in Section 01010, Unit Price Measurement and Payment.

#### **PART 2: PRODUCTS [NOT USED]**

#### **PART 3: EXECUTION [NOT USED]**

**END OF SECTION 01100**

## **Division 2 – Technical Specifications**

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### ***SECTION 02400***

#### ***CHEMICAL TREATMENT***

##### **PART 1: GENERAL**

###### **1.01 DESCRIPTION**

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered by this section includes furnishing all supervision, labor, materials, and equipment required to supply, deliver, store and apply aluminum (both aluminum sulfate and sodium aluminate) to Keller Lake, as shown on Figure 1. The Contractor shall:
  - 1. Furnish, deliver, store and apply liquid aluminum sulfate and liquid sodium aluminate (collectively referred to as aluminum) to the lake to mitigate the internal release of phosphorus from the lake sediment.
  - 2. Treat at appropriate weather, temperature, and flow conditions as directed by the Engineer.
  - 3. Furnish, install and remove all appropriate signage and buoys (if used) in a timely manner.
  - 4. Restore all areas directly or indirectly disturbed by the Work.
  - 5. All other Work required for a completion of the aluminum treatment as a project whole.

###### **1.02 REFERENCES**

- A. AWWA B403-88 American Water Works Association Standard for Aluminum Sulfate.
- B. AWWA B405-06 American Water Works Association Standard for Sodium Aluminate.

###### **1.03 SEQUENCE OF WORK**

- A. Aluminum treatment shall not begin until chemical applicator (Contractor) is approved by Owner. Treatment is to occur once in 2021 (see Quote Form for the specifics on the aluminum application timing).
- B. The Contractor shall be responsible for all labor, aluminum sulfate and sodium aluminate, aluminum application equipment and arrangements for the timely delivery of aluminum sulfate and sodium aluminate required to complete the project.

- C. Aluminum application shall be conducted such that the Work is completed within fifteen (15) Working Days after the notice to proceed. A Working Day is defined as a day, or at least 10 hours thereof, when conditions are suitable for aluminum application.

#### 1.04 SUBMITTALS

- A. The Contractor shall submit a spill prevention and contingency plan to Engineer for review prior to beginning Work on the Project.
- B. The Contractor shall submit certificate(s) indicating all materials meet requirements of these Specifications before treatment occurs. The Contractor shall submit the item, applicable reference specification, class, type, manufacturer, and distributor. The Contractor shall also submit the results of aluminum sulfate and sodium aluminate lot testing of materials delivered to the Site, including an analysis of the metals content of the material, before treatment.
- C. The Contractor shall submit GPS coordinates and corresponding application rates and amounts of aluminum sulfate and sodium aluminate applied to the lake. This data shall be collected by the Contractor in real-time during the application and submitted to Engineer on a daily basis.

#### 1.05 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this section of these Specifications shall be in accordance with the provisions set forth in Section 01010, Unit Price Measurement and Payment.

### PART 2: PRODUCTS

#### 2.01 CHEMICALS

##### A Aluminum Sulfate (Alum)

- 1. Liquid aluminum sulfate supplied shall meet the requirements of AWWA B403-88. The liquid aluminum sulfate  $[\text{Al}_2(\text{SO}_4)_3 \cdot 14.3(\text{H}_2\text{O})]$  shall be of commercial grade appropriate for the application with an aluminum content of **4.4%**  $\text{Al}^{+3}$  (Aluminum) by weight.

##### B Sodium Aluminate

- 1. Sodium aluminate supplied shall meet the requirements of AWWA B405-06. The sodium aluminate  $[\text{Na}_2\text{Al}_2\text{O}_4]$  shall be of commercial grade appropriate for the application with an aluminum content of **10.4%**  $\text{Al}^{3+}$  (Aluminum) by weight.

### PART 3: EXECUTION

#### 3.01 DELIVERY, STORAGE AND HANDLING

- A. The Contractor shall provide the name and location of the proposed chemical supplier with the Quote, and will be responsible for all coordination with the aluminum supplier necessary to insure timely delivery to the project Site. The Contractor shall confine all storage of

equipment and materials within the Project Limits and otherwise in a safe, secure and environmentally sound manner. Conformance to these requirements shall be determined by the Contractor, subject to disapproval of the Engineer, whose failure to disapprove does not, however, constitute any shift of responsibility to properly handle equipment and materials from Contractor to Engineer. Tank truck haul routes and Site access shall be as directed by Owner. If gradual off-loading is required the contractor shall be responsible for all demurrage charges.

- B. The Contractor shall provide notice to Owner of delivery of equipment and materials five days prior to the delivery date.
- C. The Contractor shall maintain a copy of the spill prevention and spill contingency plan described in the Quote on Site for the duration of the project.

### 3.02 UNFAVORABLE TREATMENT CONDITIONS

- A. Application of aluminum shall not occur when wind speeds 6 feet above the lake surface exceed 10 miles per hour.
- B. Application of aluminum shall not occur if it can be reasonably expected (forecast) that a significant precipitation event (greater than 0.25 inches in 24 hours) shall occur during treatment or begin within 24 hours after treatment completion.

### 3.04 LOCATION OF WORK

- A. Project Limits shall be the entire navigable water surface area of Keller Lake, and access areas indicated on Figure 1, except for a 10 foot buffer zone around the shoreline of the lake. Contractor shall not apply aluminum outside the buffer zone inside of the limits shown on Figure 1 in the Drawings.

### 3.05 ALUMINUM APPLICATION

- A. The Contractor shall conduct the aluminum application utilizing a boat or similar vessel with an Engineer approved injection system that allows for uniform application of liquid aluminum. Aluminum application shall be made to the indicated area of the lake, as shown in Figure 1.
- B. The Contractor shall ensure that the aluminum sulfate and sodium aluminate are applied at a ratio of 2:1 (2 gallons of aluminum sulfate for every 1 gallon of sodium aluminate). This ratio must be maintained to ensure that the pH in the lake water is maintained between 6 and 9. The application of the aluminum sulfate and sodium aluminate liquids must occur simultaneously using one boat (or system).
- C. The Contractor shall ensure that the aluminum sulfate is **evenly distributed throughout the treatment area and that the appropriate dose is applied to the navigable water areas shown in Figure 1 (described in Section 3.04A)**. The Contractor shall maintain records to verify the area of coverage (also see Section 1.04C).
- D. Engineer will monitor the ambient pH in the lake during the aluminum treatment application. If at any time during treatment, the depth-averaged ambient pH in the lake falls below 6.5 or



increases above 9 S.U., Contractor will stop the treatment. Treatment will not resume until authorized by the Engineer.

- E. The aluminum treatment shall be made at a sufficient rate to insure long term sediment phosphorus inactivation, as determined by the Engineer. Unless advised otherwise by the Engineer, the Contractor shall apply aluminum sulfate at a treatment dose rate that will require a total of **25,000** gallons of commercial grade (4.4%  $\text{Al}^{3+}$  Aluminum) liquid aluminum sulfate [ $\text{Al}_2(\text{SO}_4)_3$ ] and **12,500** gallons of commercial grade (10.4%  $\text{Al}^{3+}$  Aluminum) sodium aluminate [ $\text{Na}_2\text{Al}_2\text{O}_4$ ] for Keller Lake. It is Contractor's responsibility to ensure that enough material is available to complete the Work in accordance with the dosing requirements stated herein.
- F. The aluminum application must be complete before the surface temperature of the lake falls below 40° F. Application of aluminum shall not occur if it can be reasonably expected that the surface temperature of the lake will rise above 60° F within 24 hours after treatment completion.
- G. The Contractor shall keep daily records acceptable to the Engineer and available for review as a basis for and substantiation of payment. Daily logs shall minimally state the following:
  - a. Hours of aluminum application
  - b. The quantity of aluminum applied
  - c. The approximate acreage and volume treated
  - d. Explanation of any downtime

**END OF SECTION 02400**

