

2021 ANNUAL ACTIVITY REPORT

Prepared for Black Dog Watershed Management Commission

May 2022

2021 BOARD MEMBERS

The Black Dog Watershed Management Organization (WMO) was established by a joint powers agreement. The member cities appoint Board Members (and alternates) to serve three-year terms. The 2021 Black Dog WMO Board Members and the city/cities they represent are listed below:

Board	Members:	Term Ending
1.	Curtis Enestvedt (Chair) Representing the City of Burnsville	November 2022
2.	Mike Hughes (Vice-Chair) Representing the City of Burnsville	November 2022
3.	Scott Thureen (Secretary/Treasurer) Representing the City of Lakeville	November 2022
4.	Tom Harmening Representing the City of Burnsville	November 2022
5.	Rollie Greeno Representing the Cities of Apple Valley and Eagan	November 2022

Alternate Board Members:		Term Ending
1.	Frank Boyce Representing City of Burnsville [Appointed January 2021]	November 2022
2.	Greg Helms Representing the Cities of Apple Valley and Eagan	November 2022
3.	Natalie Walker Representing the City of Lakeville	November 2022

CONSULTANTS

In accordance with Minnesota Statutes, Section 103B.227, Subdivision 5, the Black Dog Watershed Management Commission solicited interest proposals for engineering consulting, legal services, and auditor services in January 2020. As the statutes require the solicitation to occur every two years, the Black Dog Watershed Management Commission will solicit proposals again in 2022. The Black Dog Watershed Management Commission Board retains services from the following consultants:

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

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

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

PERMITS AND VARIANCES

The Black Dog WMO does not have a permit program.

WETLAND BANKING

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

STATUS OF LOCAL PLAN ADOPTION AND IMPLEMENTATION

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

2021 Black Dog WMO Activities

- Continued work on updating the Black Dog WMO Watershed Management Plan, which expires in September 2022. The planning process usually takes approximately two years to complete; preliminary work began late in 2020. In 2021, work included continued stakeholder engagement, issue identification and prioritization, and drafting of the plan document. The work will extend through much of 2022.
- Completed the Keller Lake Alum Treatment project, by implementing the second phase of a twophase alum treatment of the lake in Fall 2021. Work included preparation of contract documents, permitting, contract administration, treatment oversight, alum treatment expenses, and grant administration. BWSR awarded the Black Dog WMO a \$230,000 Clean Water Fund Grant in December 2018, and executed an agreement with the Black Dog WMO in early 2019. The grant covers 80% of the project cost (grant requires a 20% local share). The grant funding expired in 2021.
- Participated in the Metropolitan Council's Citizen-Assisted Lake Monitoring Program (CAMP) for the BDWMO strategic water bodies:
 - Crystal Lake
 Keller Lake
 Kingsley Lake
 - Lac Lavon
 Orchard Lake

Performed management level monitoring at Crystal Lake (see below). Completed water quality trend analyses on these lakes using the information gathered through CAMP and the more-detailed monitoring on Crystal Lake.

- Prepared memo regarding Orchard Lake 2020 management level water quality monitoring results and presented to the Black Dog WMO at a Commission meeting.
- Performed management level monitoring of Crystal Lake water quality, per guidance in the Black Dog WMO Watershed Management Plan. The monitoring consisted of collecting samples on 11 occasions—ice out and then May through September, twice per month. On each monitoring occasion, samples were collected at the deepest spot in the lake at seven depths, a surface sample (0-2 meters), plus six samples at 1-meter intervals from three to eight meters. All of the samples were analyzed for total phosphorus; the surface water samples were also analyzed for chlorophyll-a. Secchi disc readings were also taken. Field measurements of water temperature, dissolved oxygen, pH, specific conductance, and oxidation/reduction potentials were collected at 1-meter depth intervals at the deepest spot in the lake. Field measurements of turbidity were also taken on the surface water sample at the monitoring location. The City of Burnsville performed aquatic plant surveys on two occasions over the monitoring season and shared the results with the Black Dog WMO. The work also included lab work, QA/QC of lab data (including coordination with lab), entering data into EQuIS database, and submitting the data to the MPCA. A technical

memo summarizing the water quality monitoring results will be completed in 2022 and posted on the Black Dog WMO website.

- Performed habitat monitoring of Kingsley Lake, per the redesigned habitat monitoring program, which was implemented beginning in 2011 with Kingsley Lake. The redesigned program includes monitoring of a single water body on a cycle of once every five years. Monitoring included a meandering survey of the entire lake (in the submergent, emergent, and upland buffer zones), rather than only at sample plots, as done in the past. In 2021, an aquatic vegetation survey was conducted in June within the submergent and emergent zones, and emergent vegetation and upland buffer zone surveys were conducted in July. The lake was also evaluated for sedimentation and shoreline erosion problems. A memo summarizing the habitat monitoring results will be completed in 2022 and posted on the Black Dog WMO website.
- Partnered with the Dakota County SWCD by providing funding and support to install 9 water quality improvement projects through the Landscaping for Clean Water program for Black Dog WMO residents, consistent with SWCD cost share policies.
- Partnered with the Dakota County SWCD to fund Landscaping for Clean Water workshops. The workshops include three programs—Introduction to Clean Water Class, Design Course, and Maintenance Workshop. All programs continued online in 2021 due to the ongoing Covid-19 pandemic. Four live virtual Introduction to Clean Water Class offerings were held in the spring (March through May) and then pre-recorded so others could participate in the classes at their leisure. A total of 123 residents of the BDWMO participated in the Introduction classes through either a live virtual class or through the recordings. A total of 45 participants took part in the virtual Design Course classes which consisted of a series of pre-recorded videos. Project materials for participants were made available online and an "Office Hours" program was used to provide virtual consultations to Design Course class participants. A total of 14 participants took advantage of these virtual consultations with staff in 2021. Participants were thankful for the additional oneon-one design assistance. In 2021, the Maintenance Workshop classes were split into three online sessions. Each workshop focused on maintenance for a given season (Spring, Summer and Fall) allowing for season specific information on how to maintain and promote the health, performance, and beauty of their garden. A total of 26 people registered for the Maintenance classes.
- Continued implementing plan to accrue funds in 1) a Capital Improvement Fund, to be used for completing the current Keller Lake Alum Treatment project, and future Black Dog WMO internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (Crystal Lake, Keller Lake, and Lac Lavon), and 2) in a General Fund Reserve to be used for the Black Dog WMO watershed plan ten-year update.
- Conducted an annual evaluation of the watershed programs and reported the results to member communities via the Watershed Annual Report and Annual Activity Report.

- Formulated and approved the 2022 Work Plan and Budget.
- Completed the 2020 Annual Finance Statement—statute changes allow the Black Dog WMO to perform audits every five years, rather than every year. As the last audit was prepared for year 2019; the next audit needs to be prepared in 2025 for year 2024. In the other years, an annual finance statement is prepared.
- Developed an annual activity report and watershed annual report and distributed them via the Black Dog WMO website and through the member communities (see attached Watershed Annual Report). The annual activity report meets all the State reporting requirements and is submitted to the Minnesota Board of Water and Soil Resources (BWSR).
- Reviewed and responded to any issues and opportunities brought to the attention of the Black Dog WMO.
- Maintained, updated, and redesigned the Black Dog WMO website.

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

2021 Black Dog WMO Expenditures				
	BUDGET	<u>ACTUAL</u>		
General Engineering Support Consulting services for engineering support, such as to prepare for and attend meetings; review/respond to issues and opportunities; assist with BWSR watershed-based implementation funding grant process; apply for grants; review/comment on proposed projects, EAWs, revisions to local water management plans, comprehensive plans, and other plans; communications/meetings with agencies and member cities; track and report on impaired waters and TMDL issues, and other tasks.	\$31,000	\$26,663		
<u> Special Projects – General Fund:</u>	\$36,800	\$25,887		
Crystal Lake Management Level Monitoring Funding to conduct "management level" monitoring of the lake's water quality, per guidance in the Black Dog WMO Plan.	\$18,800	\$15,011		
Dakota County SWCD—Landscaping for Clean Water Program Support Funds to partner with the Dakota County SWCD Landscaping for Clean Water program for Black Dog WMO residents.	\$13,500	\$6,750		
Reporting on 2020 Orchard Lake Management Level Monitoring Prepare the 2020 Orchard Lake technical memo summarizing the monitoring results and a presentation for a Commission meeting.	\$4,500	\$4,126.		
<u> Special Projects – Capital Improvement Fund:</u>				
Keller Lake Alum Treatment Funds to complete the second alum treatment in Fall 2021 (the first alum treatment was in spring 2019). The Black Dog WMO received a \$230,000 BWSR Clean Water Fund Grant (awarded in December 2018, final contract execution in April 2019), which covers 80% of the project cost (grant requires a 20% local share). In 2021, this work includes preparation of contract documents, permitting, contract administration, treatment oversight, alum treatment expenses, and grant administration. All of this work is reimbursable (up to 80%) by the BWSR grant.	\$17,000	\$128,572		
<u> Special Projects – General Fund Reserve:</u>				
Watershed Management Plan Update Continue work on updating the Black Dog WMO Watershed Management Plan, which expires in September 2022. The planning process usually takes approximately two years to complete; preliminary work began later in 2020. In 2021, work	\$70,000	\$30,255		

includes continued stakeholder engagement, issue identification and prioritization, and drafting of the plan document. The work will extend through much of 2022. Budget amount shown is preliminary; the Black Dog WMO set the final budget later in 2020.

Insurance:	\$3,000	\$1,407
Legal and Audit: Consulting fees for legal services.	\$5,000	\$2,584
Administrative Services: City of Burnsville charges for providing administrative services to the Commission, including staff time, printing and postage. This also includes City accounting staff time to prepare the annual finance statement in years when an audit not required.	\$18,000	\$24,303
Public Education: Cost to produce and distribute the annual activity report and watershed annual report, funding support for the Dakota County SWCD Landscaping for Clean Water workshop support, and costs to maintain and redesign the Black Dog WMO website.	\$22,100	\$21,421
<u>Water Quality Monitoring:</u> Cost associated with water quality monitoring programs, including the habitat monitoring program, Metropolitan Council's CAMP, and analysis of water quality data.	\$17,100	\$17,480
Conference / Publications: Commissioner training and education materials.	\$500	\$0
Contingency: Funding for unexpected expenses and/or new program opportunities approved by the Commission	\$1,000	\$0

Ex	penditure Total:	\$221,500	\$278,570
2021 Black Dog	5		
		BUDGET	<u>ACTUAL</u>
Interest		\$40	\$65
Member City Contributions (Fees)		\$131,000	\$131,000
Member City Contributions—Capital Improveme	<u>nt Fund</u>	\$22,000	\$22,000
<u>Grants</u>		\$0	\$79,987
Fund Balance Utilized		\$68,460	\$46,518
	Revenue Total:	\$153,040	\$233,052

2021 Black Dog WMO Planned Changes in Fund Balance

	BUDGET	<u>ACTUAL</u>
Capital Improvement Fund: This fund serves as a savings account for future internal load reduction projects stemming from TMDLs.	\$5,000	\$(26,584)
General Fund Reserve: This fund serves as a savings account for the Black Dog WMO watershed plan ten-year update.	(\$73,460)	\$(18,934)
Planned Changes in Fund Balance Total:	(\$68,460)	\$(45,518)

2022 Black Dog WMO Work Plan

- Continue work on updating the Black Dog WMO Watershed Management Plan, which expires in September 2022. The planning process usually takes approximately two years to complete; preliminary work began in 2020. In 2022, work will include finalizing goals and policies, developing a prioritized implementation schedule, completing the draft plan document, navigating the formal plan review process, and obtaining approval from the Minnesota Board of Water and Soil Resources.
- 2. Participate in Metropolitan Council's Citizen Assisted Water Quality Monitoring Program (CAMP) for the following strategic water bodies:
 - Crystal Lake
 Keller Lake
 Kingsley Lake
 - Lac Lavon Orchard Lake

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

- 3. Prepare memo regarding Crystal Lake 2021 management level water quality monitoring results and present to the Black Dog WMO.
- 4. Perform additional (management level) monitoring on Lac Lavon, per guidance in the Black Dog WMO Watershed Management Plan. The monitoring will include water quality monitoring and aquatic vegetation surveys of Lac Lavon. The water quality monitoring will consist of collecting samples on 11 occasions—ice-out and then May through September, twice per month. On each monitoring occasion, analytical samples will be collected at seven depths at the deepest spot in the lake—a surface sample, plus six samples at one-meter intervals from three to eight meters. All of the samples will be analyzed for total phosphorus. In addition, Secchi disc readings will be taken, and the surface samples will be analyzed for chlorophyll-a. Field measurements of temperature, dissolved oxygen, pH, redox potential, and specific conductivity will be taken at one meter intervals at the monitoring location. Turbidity field measurements will also be taken on the surface water sample at the monitoring location. Two aquatic vegetation surveys will be conducted on Lac Lavon (by a qualified subcontractor); one in June and one in August. The work includes field work, lab work, QA/QC of lab data (including coordination with lab), entering data into EQuIS database, submitting the data to the MPCA (per guidance in the Black Dog WMO Watershed Management Plan. In 2023, work will include preparing the technical memo summarizing the monitoring results, and preparing a presentation for a Commission meeting.
- 5. Complete the BWSR Clean Water Fund grant administration and reporting activities to close out the grant for the Keller Lake Alum Treatment project.

- 6. Prepare report regarding Kingsley Lake 2021 habitat monitoring results and present to the Black Dog WMO.
- 7. Perform habitat monitoring of Orchard Lake. Habitat monitoring is performed at one strategic water body per year, such that all five strategic water bodies will be completed over a five-year cycle. Monitoring will include a meandering survey around the entire lake as well as the previously established sample plots (in the emergent and upland buffer zones) and identification of sedimentation and shoreline erosion problems. The City of Lakeville will provide results of their 2022 aquatic vegetation surveys, which will be used to evaluate the submergent zone. In 2023, work will include preparing the report and a presentation for a Commission meeting.
- 8. Conduct an annual evaluation of the watershed programs and report the results to member communities via a watershed annual report (this report is incorporated into the annual activity report submitted to the Minnesota Board of Water and Soil Resources).
- 9. Partner with the Dakota County SWCD by providing funding and support to install up to 18 water quality improvement projects through the Landscaping for Clean Water program for Black Dog WMO residents, consistent with SWCD cost share policies.
- 10. Partner with the Dakota County SWCD to fund two Landscaping for Clean Water workshops and two design workshops (four evenings) in the Black Dog WMO area. Although the initial plan is to hold these workshops virtually, the plan will be evaluated in early spring to see if hosting in-person classes/workshops becomes feasible.
- 11. Complete the 2021 Annual Finance Statement—statute changes allow the Black Dog WMO to perform audits every five years, rather than every year. As the last audit was prepared for year 2019; the next audit needs to be prepared in 2025 for year 2024. In the other years, an annual finance statement is prepared.
- 12. As budget allows, prepare up to two educational pieces and/or presentations for the Commission regarding new technology (e.g., new stormwater best management practices, new lake treatment technologies, etc.) or aquatic invasive species.
- 13. Apply for grants and/or assist member cities with grant applications.
- 14. Assist with BWSR watershed-based funding grant application and work plan.
- 15. Formulate and approve the year 2023 Work Plan and Budget.
- 16. Review and respond to any issues and opportunities brought to the attention of the Black Dog WMO.
- 17. Maintain and update web site.
- 18. Respond to requests to partner with member communities and Dakota County on educational outreach programs.

- 19. Keep abreast of changes to the TMDL program, including additions to/removals from the impaired waters list and the listing criteria.
- 20. Review revisions to local water management and comprehensive plans as needed. No reviews are expected in 2022, as the last of the member cities' plans were reviewed and approved in 2019.
- 21. Continue implementing plan to accrue funds in 1) a Capital Improvement Fund, to be used for future Black Dog WMO internal load reduction projects stemming from TMDLs for lakes with intercommunity shoreline (Crystal Lake, Keller Lake, and Lac Lavon) and 2) in a General Fund Reserve to be used for the Black Dog WMO watershed plan ten-year update.

-See Attached Watershed Annual Report for information on the 2022 Budget-

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

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
City technical staff (technical advisor) attendance at Black Dog WMO meetings	Ongoing	City technical staff regularly attend Black Dog WMO meetings	City staff continue to attend Black Dog WMO meetings.
Facilitate intercommunity flood control, stormwater runoff, erosion, and sediment control projects	As needed	No facilitation of intercommunity projects currently planned	Provide facilitation, if needed.
Apply for and/or assist member cities with grant applications	Ongoing	The Black Dog WMO continues to pursue these opportunities as they arise. In December 2018, BWSR awarded the Black Dog WMO a \$230,000 Clean Water Fund Grant (grant agreement executed in early 2019) for the Keller Lake Alum Treatment project.	Continue to apply for grants or assist member cities in their grant applications, as appropriate/requested.
Complete and submit annual audit to BWSR	Ongoing	Submitted annually; per revised statute, the Black Dog WMO is required to perform an audit every 5 years, rather than annually. In the other years, the Black Dog WMO will prepare an annual finance statement. In 2020, the BDWMO prepared an audit for year 2019; the next audit will need to be prepared for year 2024.	Prepare next audit in 2025; prepare annual finance statements in intervening years.

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Update Black Dog WMO Watershed Management Plan	2020	Black Dog WMO adopted its latest Watershed Management Plan in 2012. In late 2020, the Black Dog WMO began preliminary work on updating the Watershed Management Plan, including developing a stakeholder engagement plan and project scope, sending out the plan notification letters and summarizing responses, and holding and summarizing interviews with Black Dog WMO partners. In 2021, work included continued stakeholder engagement, issue identification and prioritization, and drafting of the plan document.	Continue updating the Plan in 2022, with approval and adoption expected in 2022.
Development of TMDL Studies and Implementation Plans	Ongoing	Black Dog WMO will perform these tasks as necessary; there are no TMDL studies or implementation plans currently planned by the Black Dog WMO	Black Dog WMO will perform these tasks as necessary; do not anticipate studies in the near future.
Complete and publish watershed annual report (newsletter) and post on website	Ongoing	Published annually.	Complete annually.
Complete and submit annual activity report to BWSR and post on website	Ongoing	Completed, published, and submitted annually	Complete annually.
Create, maintain and update web site—put plan, data, meeting agenda and minutes, watershed annual reports, water quality monitoring reports, educational materials, project updates, etc. on the site	Ongoing	Website is hosted by Dakota SWCD and regularly updated as new material is available. Dakota SWCD updated/ redesigned the website in 2021.	Continue to maintain and update website.

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Educational outreach including, but not limited to: exploring social media and email list serves to expand communication with the public, sponsoring workshops in partnership with the Blue Thumb program, the promotion of awareness of groundwater resource issues, and seeking volunteers to participate in water quality and water quantity programs	Ongoing	 Provided watershed annual report to member cities and posted to Black Dog WMO website; maintained website (see above); since 2009, Black Dog WMO has partnered with the Dakota SWCD to fund Landscaping for Clean Water (formerly Blue Thumb) Program workshops in the Black Dog WMO area. In 2021, Black Dog WMO provided funding for workshops in three program areas (all programs continued online in 2021 due to the ongoing Covid-19 pandemic): 1. Introduction to Clean Water Class - four live virtual classes were held in the spring and were pre-recorded so others could participate. 2. Design Course – the virtual classes were a series of pre-recorded videos. Project materials for participants were available online and an "Office Hours" program provided virtual consultations to class participants. 3. Maintenance Workshop – in 2021, the classes were split into three online sessions, focused on maintenance for a given season (Spring, Summer and Fall). 	Continue providing watershed annual report to member cities and partnering with Dakota SWCD to fund workshops.

Implementation Task	Original Implementation Date from Plan	Status/Accomplishmer	nts	Next Steps
Implementation of small-scale best management practices on private property to improve water quality	Ongoing	Since 2009, Black Dog WMO has p with the Dakota County SWCD by funding and support to install wate improvement projects through the Landscaping for Clean Water Prog (formerly Blue Thumb and Commu Conservation Cost Share Programs Dog WMO residents. Projects have rainwater gardens, native gardens, improvements, and a bioretention <u>Year</u> Number of proje 2009 9 2010 7 2011 6 2012 18 2013 13 2014 16 2015 18 2016 16 2017 17 2018 18 2019 19 2020 9 2021 9 Total 175	artnered providing er quality ram inity of or Black e included shoreline site. ects	Continue partnering with Dakota SWCD to fund water quality improvement projects.
Implement recommended internal phosphorus load reduction projects identified in UAA and/or TMDL for non-strategic waterbodies or strategic waterbodies without inter-community shoreline	As needed	Black Dog WMO will implement th projects when watershed load redu projects have been implemented a water quality improvements are ne below for Black Dog WMO's Keller implementation project.	lese uction and further eeded. See ' Lake	Implement when needed (see Keller Lake actions below).

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
 Annual CAMP water quality monitoring, performing trend analysis, and establishing action levels for the following strategic waterbodies: Crystal Lake Keller Lake Kingsley Lake Lac Lavon Orchard Lake 	Ongoing	CAMP monitoring completed annually; trend analysis completed annually.	Continue annual CAMP monitoring and trend analyses of monitoring data.
Management level water quality monitoring performed at 3-year intervals for the following strategic waterbodies: Crystal Lake Lac Lavon Orchard Lake	Ongoing	Performed for one lake annually; most recent monitoring includes Lac Lavon in 2019, Orchard Lake in 2020, and Crystal Lake in 2021,	Continue cycle of monitoring: Lac Lavon in 2022, Orchard Lake in 2023, and Crystal Lake in 2024.
Habitat monitoring at 5-year intervals for the following strategic waterbodies: • Crystal Lake • Keller Lake • Kingsley Lake • Lac Lavon • Orchard Lake	Ongoing	Implementation of the redesigned programbegan in 2011; habitat monitoring has beenperformed as shown below:Kingsley Lake2011, 2016, 2021Orchard Lake2012, 2017Crystal Lake2013, 2018Lac Lavon2014, 2019Keller Lake2015, 2020	Continue cycle of monitoring: Orchard Lake in 2022, Crystal Lake in 2023, Lac Lavon in 2024, Keller Lake in 2025, and Kingsley Lake in 2026.
 Implement lake water quality management actions recommended in Table 4-1 of the 2012 Black Dog WMO Plan, depending on water quality trends and comparison of recent water quality to action level, for the following strategic waterbodies: Kingsley Lake Lac Lavon Orchard Lake 	As needed	Black Dog WMO will implement these actions as necessary; there are no actions currently planned.	Continue tracking water quality trends and action levels and take actions as/when necessary.

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Capital Projects—Crystal Lake			
 Implement recommended watershed projects to reduce runoff- borne phosphorus loads, as identified in the TMDL, that may include: Street sweeping Native shoreline buffers Public outreach and education 	Ongoing	Projects to be performed by member cities (Lakeville, Burnsville) with possible grant funding from Black Dog MWO. Burnsville performs street sweeping in the watershed twice a year and performs ongoing outreach and education. Beyond website articles and city newsletter information, city staff meet with the Crystal Lake association twice a year. Black Dog WMO also performs ongoing public education.	Cities perform projects as needed; continue to perform public education.
 Implement recommended internal phosphorus load reduction projects identified in the TMDL, that may include: In-lake alum treatment Aquatic macrophyte management Internal load reduction in upstream Keller Lake 	As needed	The Black Dog WMO began the Keller Lake Alum Treatment project in 2018 and received a BWSR Clean Water Fund grant for the project in 2019. The alum treatment was divided into two phases to increase the long-term effectiveness. Phase 1 occurred in June 2019 and Phase 2 occurred in September 2021. Other potential future projects are listed in Table 5-3 of the 2012 Black Dog WMO Plan; no other projects are currently planned.	Implement other projects when recommended.

Table 1: Status of Implementation	Tasks from 2012 Black Dog	WMO Watershed Manaaement Plan-	-through December 31, 2021
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Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
Capital Projects—Keller Lake			
 Implement recommended watershed projects to reduce runoff- borne phosphorus loads, as identified in the TMDL, that may include: Construction of a water quality treatment pond in Crystal Beach Park Construction of a water quality treatment pond on southwest side of Keller Lake Street sweeping Native shoreline buffers Public outreach and education 	Ongoing 2013 – 2015 (Crystal Beach Park project) 2018 (SW Keller Lake project)	Member cities perform projects, with possible grant funding obtained by Black Dog WMO; Black Dog WMO performs ongoing public education. Crystal Beach Park project: the City of Burnsville completed the project in 2017. SW Keller Lake project: the City of Burnsville will construct this if additional total phosphorus load reductions are required in the watershed. However, if the Crystal Beach Park project meets the city's TMDL load reduction goals for Keller Lake, the city will not construct the SW Keller Lake project. In 2017, the City of Apple Valley conducted a subwatershed assessment for the portions of the city that drain to Keller Lake to target potential projects. The city completed construction of one of the projects (Redwood Pond) in 2021.	Burnsville will construct SW Keller Lake project if additional load reductions required. Apple Valley will implement other projects from the subwatershed assessment as budget and opportunity allows.

Implementation Task	Original Implementation Date from Plan	Status/Accomplishments	Next Steps
 Implement recommended internal phosphorus load reduction projects identified in the TMDL, that may include: In-lake alum treatment Aquatic macrophyte management 	As needed	The Black Dog WMO began the Keller Lake Alum Treatment project in 2018 and received a BWSR Clean Water Fund grant for the project in 2019. The alum treatment was divided into two phases to increase the long-term effectiveness. Phase 1 occurred in June 2019 and Phase 2 occurred in September 2021. Other potential future projects are listed in Table 5-3 of the 2012 Black Dog WMO Plan; no other projects are currently planned.	Implement other projects when recommended.
Capital Projects—Orchard Lake, Kingsley Lake, and Lac Lavon			
 Implement water quality improvement measures in Orchard Lake, Kingsley Lake, and Lac Lavon as identified in future diagnostic feasibility studies, that may include: Watershed projects (e.g., stormwater treatment ponds, rainwater gardens, infiltration basins) Internal load reduction projects (e.g., in-lake alum treatment, aquatic macrophyte management) 	As needed	Black Dog WMO will implement projects as necessary; no projects are currently planned.	Implement projects as necessary; no projects planned.

2021 Watershed Annual Report

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BLACK DOG Watershed Management Organization

2021 WATERSHED ANNUAL REPORT

Published April 2022

Our mission is . . .

To provide leadership in the management and stewardship of the water resources in northwestern Dakota County, Minnesota, through the cooperation of four cities and the involvement of local stakeholders.

Evaluating our Success

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

- **Trend Analysis**—The BDWMO collects water quality information to track water quality trends.
- **Performance Analysis**—The BDWMO will evaluate the member cities' implementation of maintenance plans, capital improvement projects, programs, and other items.
- Habitat Quality Analysis—The BDWMO collects habitat quality data to detect conditions that would trigger a need for management actions.

This annual report outlines the BDWMO's goals, progress toward those goals in 2021, and plans for 2022 and beyond.

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What is the Black Dog Watershed Management Organization?

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

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



Watershed Management Plan Update

The BDWMO is in the process of updating its Watershed Management Plan. The Plan will establish the goals, policies, and activities for managing and protecting the lakes, ponds, creeks, streams, wetlands, drainages, and groundwater in the BDWMO from 2023 through 2032.

State law and rules govern the watershed planning process and require that watershed management plans be updated every 10 years. The BDWMO adopted its current Plan in 2012 and anticipates completing the updated Plan in 2022. The Plan update began with a stakeholder engagement process to collect initial input from cities, residents, and other partners.

Update on Keller Lake Projects

Alum Treatment Complete

In 2019, the BDWMO received a BWSR Clean Water Fund grant for an alum treatment project to improve Keller Lake's water quality. The alum and sodium aluminate treatment was divided into two phases to increase the long-term effectiveness. Phase I occurred in June, 2019, and Phase II was completed in September, 2021 when 37,673 gallons of chemical precipitant were applied to Keller Lake (see page 5 for story on Keller Lake water quality monitoring). It is expected that the in-lake aluminum treatment will reduce the annual average TP (total phosphorus) load to Keller Lake by 80% or 186 lbs/yr. The in-lake aluminum application represents most of the remaining TP load reduction required to ensure that Keller Lake water quality can meet the MPCA's shallow lake standards on a consistent basis.

Electrofishing Survey

In 2021, the cities of Burnsville and Apple Valley arranged for a company, Carp Solutions, to conduct an electrofishing survey on Keller Lake. The survey was designed to assess populations of goldfish, which had previously been observed by staff and residents, but also included a general assessment of the overall fish community in the lake. To get a good assessment of the population, three separate days of electrofishing occurred, with timed transects conducted on each visit. This protocol is similar to assessing common carp populations. An average of 12 goldfish were caught per sampling visit. Goldfish averaged 14 inches in length and 2.37 lbs, but one goldfish as large as 5.4 lbs was caught.

Although the goldfish captured were quite large, the study results suggest that the overall population is at a moderate density level, which is likely below the population threshold that would cause significant ecological damage. Furthermore, no smaller goldfish were captured during the survey, indicating that successful recruitment of new goldfish into the population may be rare. The survey found The BDWMO commissioners considered stakeholder input and available scientific data as they prioritized resources and issues, revised goals, and updated policies and performance standards through 2021. During this process representatives from the member cities and state, regional, and county agencies provided input through a technical advisory committee (TAC). The TAC will continue to meet in 2022 and provide input as part of the process.

In 2022, the BDWMO commissioners will work with its partners to develop a collaborative implementation schedule that outlines activities planned over the next 10 years. With the implementation schedule defined, the updated draft Plan will be submitted to the Board of Water and Soil Resources and other Plan review authorities for formal 60-day review required per state statute and rule.

healthy levels of other native gamefish like largemouth bass and sunfish. These other fish species could then prey on goldfish eggs, larvae, and juveniles—predation that may

be holding the goldfish population in check.

The cities plan to continue periodic fish surveys to assess the heath of the overall fish community and any changes or trends in the goldfish population over time.



Photo credit: Caleb Ashling, City of Burnsville

Redwood Pond Expansion

A recent pond expansion at Redwood Park in Apple Valley will help improve the water quality at Keller Lake. Keller Lake is impaired for nutrients and the City of Apple Valley and the BDWMO have an active shared interest in improving water quality. The City of Apple Valley's

project included the expanding the pond, modifying the existing outlet, removing contaminated sediment, and redesigning the existing park trail and features impacted by the pond modifications. Project funding was leveraged by the Clean Water Land and Legacy amendment in partnership with the BDWMO.





Landscaping for Clean Water—Clean Water Starts at Home

Since most land is privately owned, it is up to each individual landowner to do the right thing on their property to help keep water clean. The Landscaping for Clean Water program makes it easy for residents to turn their yards into a lush and lovely force for clean water rather than a contributor to water pollution.

Are you doing everything possible on your patch of lawn? Attend a Landscaping for Clean Water workshop to find out. Participants in the program attend design workshops to develop landscape plans for their own yards. These plans include creating native gardens, raingardens, or native shorelines that stabilize soil. These planting practices provide habitat for pollinators and birds, reduce watering and require no chemical inputs. On top of that, these practices help water soak into the ground rather than running off and delivering polluted stormwater into lakes, rivers and wetlands.

Who can get a grant?

Participants in the workshops can submit an application, project plan, and cost estimates to the Dakota County SWCD for grant funds of up to \$250.

Adjusting and Accommodating

Due to the ongoing Covid-19 pandemic in 2021, all Landscaping for Clean Water programming was held virtually. Four live virtual Introduction classes were held in the spring (March through May) and then pre-recorded so others could participate in the classes at their leisure. A total of 123 residents of the BDWMO participated in the Introduction classes through either a live virtual class or through the recordings.

A total of 45 participants took part in the virtual Design classes which consisted of a series of pre-recorded videos. Project materials for participants were made available online and an "Office Hours" program was used to provide virtual consultations to Design class participants. A total of 14 participants took advantage of these virtual consultations with staff in 2021. Participants were thankful for the additional one-on-one design assistance.

In 2021, the Maintenance classes were split into three online sessions. Each workshop focused on maintenance for a given season (Spring, Summer and Fall) allowing for season specific information on how to maintain and promote the health, performance, and beauty of their garden. A total of 26 people registered for the Maintenance classes.

The 2022 Landscaping for Clean Water program will be held virtually, although the plan will be evaluated in early spring to see if hosting in-person classes/workshops becomes feasible. For more information, visit https:// dakotaswcd.org/services/landscaping-for-clean-water/.



15 YEARS OF CLEAN WATER ACCOMPLISHMENTS within the BDWMO (2007-2021) Workshop Participants — 1,350 Projects Completed — 175

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

Conservation in Action: Crystal Lake Shoreline Stabilization



Crystal Lake has been a major water quality success story, having been removed from the State's impaired waters list in 2018. A developing erosion issue was detected on the north shore of Crystal Lake around Tyacke Park. To prevent it from getting worse, the City of Burnsville and Dakota County Soil and Water Conservation District (SWCD) developed a plan and undertook a large shoreline stabilization project on the lake in the fall of 2021. To provide the best habitat and keep the natural aesthetics of the parkland, the plan utilized natural materials rather than the more intrusive rock rip rap.

Supported by a Conservation Initiative Funding grant from the SWCD, crews started by installing more than 980 feet of coconut fiber (coir) logs to buffer against the wave action. Invasive buckthorn was removed along the shoreline and native grasses and wildflowers were planted in its place. The deep-rooted native plants will help stabilize the shoreline long term while also providing valuable habitat to pollinators and other wildlife.

Crystal Lake in the Clear

The BDWMO is pleased to report that Crystal Lake continues to have good water quality. The 2021 summer-average Secchi disc transparency in Crystal Lake was 2.5 meters (8.1 feet), which is slightly better than it was in 2020, and better than the MPCA deep-lake water quality standard of 1.4 meters. The water clarity in Crystal Lake has been trending towards better water quality over the past 10-year period (statistically significant trend). The last time summeraverage Secchi disc transparency for Crystal Lake was 2.5 meters or better was 1992. The 2021 summer average of total phosphorus (the nutrient that drives algal growth) was 20 µg/L, one of the best on record for the lake, and better than the MPCA's deep lake standard (40 µg/L). The summeraverage chlorophyll-a (a measure of algal abundance) was 9 μ g/L, which ties 2018 for the best on record for the lake, and better than the MPCA's deep lake standard (14 μ g/L). During the period of 2008 to 2011, the BDWMO, along with its member communities, the Minnesota Pollution Control Agency (MPCA), and other state and local agencies, developed a Total Maximum Daily Load (TMDL) report for Crystal Lake. The TMDL was required because the MPCA added Crystal Lake to its impaired waters list in 2002. Two other lakes in the Crystal Lake watershed—Keller Lake and Lee Lake—were also part of the TMDL report. The TMDL established phosphorus load allocations that would achieve water quality goals for Crystal, Keller, and Lee Lakes. The BDWMO member cities continue to implement water quality improvement measures with the goal of improving water quality in Crystal, Keller and Lee Lakes. Additional

Habitat Monitoring Program

Since 2003, the BDWMO has implemented a program for monitoring the wildlife and fish habitat quality of strategic water resources in the watershed, including biological and physical indicators, such as upland and aquatic vegetation, buffer zones, erosion, sedimentation, and the presence of non-native exotic species. The program also recommends management actions based upon monitoring results.



and plant density. For the upland buffer, quality is based on vegetation density, exotic species, buffer width, and buffer continuity.

In 2021, the BDWMO monitored the habitat quality of Kingsley Lake. Monitoring included transect, plot, and meandering surveys. Photographs were taken to document



information regarding the Three-Lake TMDL can be found on page 2 of the BDWMO's 2011 Watershed Annual Report.

Aquatic plant surveys were performed in May and July of 2021. The May 2021 survey found 11 submerged plant species and one floating-leaf species, with curly-leaf pondweed as the dominant plant. The July 2021 survey found 15 submerged plant species and one floating-leaf species, with coontail as the dominant plant. Eurasian watermilfoil was found during both surveys at numerous sites. Harvesting of curly-leaf pondweed was conducted in Crystal Lake in 2021.

The BDWMO will continue to monitor the water quality of Crystal Lake in 2022, including regularly-scheduled management level monitoring and habitat monitoring.

conditions. Analysis and reporting of the monitoring data includes a floristic quality assessment and a four-tiered rating system (poor, moderate, high, and excellent). Private versus public ownership was identified along the entire shoreline. The survey results, along with parcel data, were used to identify possible locations for restoration and preservation.

Habitat monitoring results showed that Kingsley Lake's submergent zone was rated moderate, but both the emergent and upland buffer zones were rated high. In one specific location in the western portion of Kingsley Lake, curly-leaf pondweed, a dominant species found some years in the lake, was present. Dense coverage of native submergent vegetation, including Robbin's pondweed and largeleaf pondweed in Kingsley Lake helps prevent the spread of curly-leaf pondweed.

See page 7 for additional Kingsley Lake habitat monitoring results. See www.blackdogwmo.org for the full report.

The member cities have provided lakeshore owners with shoreline restoration information since 2004 and continually promote and encourage lakeshore property owners each year to take advantage of the Dakota County SWCD Landscaping for Clean Water shoreline restoration program. (See page 3 for more about this program.)

Water Quality Monitoring Program

The BDWMO and member cities continued to monitor several of its lakes during 2021 through the Metropolitan Council's Citizen-Assisted Monitoring Program (CAMP) to detect any water quality changes that would require management action by the WMO. In addition, the BDWMO conducted more detailed monitoring on Crystal Lake (see page 4). The monitoring focused on three water quality indicators—total phosphorus and chlorophyll-a concentrations, plus Secchi disc transparency. All three variables correlate strongly to the open-water nuisance conditions of lakes (i.e., algal blooms).

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

Crystal Lake (Burnsville & Lakeville)

Water Quality Monitoring—In 2021, the BDWMO performed more detailed management level monitoring on the lake (see story on page 4).

Keller Lake (Burnsville & Apple Valley)

Water Quality Monitoring—An alum and sodium aluminate treatment was conducted on Keller Lake in Spring 2019 and Spring 2021, resulting in improved water quality in recent years (see details on page 2). The 2021 Secchi disc transparency summer average was 1.3 meters (4.2 feet), which is better than the MPCA's shallow lake standard of 1.0 meter (3.3 feet). The summer-average total phosphorus (51 μ g/L) was also better than the MPCA's shallow lake standard of 60 μ g/L. Summer averages of total phosphorus had been consistently worse than the MPCA standard every year for the period 2009-2018, before the alum and sodium aluminate treatment of the lake. The 2021 summer-average of chlorophyll-*a* (15 μ g/L) was also better than the MPCA's shallow lake standard of 20 μ g/L.

Trend analyses were not completed for Keller Lake because of the alum and sodium aluminate treatments that were conducted in 2019 and 2021. The threelake TMDL study and implementation plan identifies the water quality improvement measures needed to achieve the BDWMO and MPCA goals for the lake. The BDWMO will continue to monitor the water quality of Keller Lake in 2022. See page 2 for updates on several Keller Lake projects.



2021 Monitoring Results





Lac Lavon (Apple Valley & Burnsville)

Water Quality Monitoring—Lac Lavon continued to experience excellent water quality in 2021. The 2021 summer-average Secchi disc transparency was 4.4 meters (14 feet), and is much better than the MPCA deep-lake water quality standard of 1.4 meters. The 2021 summer averages of total phosphorus (13 μ g/L) and chlorophyll-a (2.2 µg/L) further indicate excellent water quality for Lac Lavon. Summer averages of Secchi disc transparency show a statistically significant improving trend for the most recent 10-year period of 2012-2021. There was no significant trend in summer averages of total phosphorus or chlorophyll-a for the same period. The BDWMO will continue to monitor the water quality of Lac Lavon in 2022, including regularlyscheduled management level monitoring and habitat monitoring.

Water Quality Improvement Project

The City of Apple Valley leveraged additional BWSR Clean Water Fund dollars to design and construct a new raingarden in the Lac Lavon Park parking lot. Currently, stormwater runoff flows off the parking lot, down a slope, ultimately reaching Lac Lavon. The raingarden, featuring native plants, will serve as a demonstration project for the improvement of water quality within the watershed.



Orchard Lake (Lakeville)

Water Quality Monitoring-Orchard Lake had improved water quality in 2021 compared to the previous three years, but has generally experienced declining water clarity over the past 12 years. The 2021 summer average Secchi disc transparency was 2.5 meters (8.1 feet), which is better than the MPCA deep-lake water quality standard of 1.4 meters. The 2021 summer-averages of total phosphorus (21 µg/L) and chlorophyll-a (6 µg/L) were better than the MPCA's deep-lake water quality standards. There were no statistically significant trends in water quality for the most recent 10-yr period. Summer averages of water quality in Orchard Lake have been consistently better than the water quality standards for the last fourteen years (2008-2021). The BDWMO will continue to monitor the water quality of Orchard Lake in 2022.

2021 Monitoring Results



Kingsley Lake (Lakeville)

Water Quality Monitoring—Water quality monitoring data from 2021 show continued excellent water quality in Kingsley Lake. Water is often clear enough that the Secchi disc used to measure transparency can still be seen when resting on the bottom of the lake.* The 2021 summer averages of total phosphorus (17 µg/L) and chlorophyll-a (2 µg/L) concentrations were better than in 2019, and similar to years 2015-2018. Water quality was not monitored in Kingsley Lake in 2020, but began again in 2021. The 2021 summer averages of total phosphorus and chlorophyll-a were considerably better than the MPCA's shallow lake standards, and have consistently been below the water quality standards since 1997. The BDWMO will continue to monitor the water quality of Kingsley Lake in 2022. * Secchi disc readings in Kingsley Lake are difficult because lake vegetation obscures the Secchi disc, giving false measurements; therefore, there is no trend line in the graph above.

Kingsley Lake Habitat Monitoring Results for 2021

As mentioned in the article on page 4, habitat monitoring was conducted in 2021 on Kingsley Lake. The BDWMO made the following quality ratings, based on the monitoring results:



Submergent zone quality rating = Moderate

Rating based on averaging four criteria:

- 1. excellent total number of native species (19)
- 2. moderate average native plant density (1.7)
- 3. moderate rating for average exotic species density (1.5)
- 4. moderate coefficient of conservatism value (mean C-value) (5.5)

Curly-leaf pondweed, a dominant species found some years in Kingsley Lake, was present in only one specific location in the western portion of Kingsley Lake. The density increased slightly between 2016 and 2021. Dense coverage of native submergent vegetation, including Robbin's pondweed and largeleaf pondweed in Kingsley Lake helps prevent the spread of curly-leaf pondweed. A dense growth of filamentous and nostoc algae were present in the southeast lobe of the lake in 2021.

The BDWMO recommends continued monitoring and consideration of control measures if densities and locations increase to an extent of concern.

- Emergent vegetation zone quality rating = High Rating based on averaging four criteria:

 - 1. excellent number of native wetland plant species (45)
 - 2. high rating for % coverage of exotic species (26-50%)
 - 3. a moderate mean C-value rating (4.0)
 - high rating for total vegetative cover (51-75%)

Non-native species including narrowleaf and hybrid cattail, purple loosestrife, and yellow iris are found in the vegetated emergent zone. Floating mats in the northeastern portion of Kingsley Lake contain diverse native vegetation including sundew, sedges, rushes, burr-reeds, ferns, and bog birch, which provide habitat for green frogs, painted turtles, egrets, green herons, wood ducks, loons, and great blue herons.

The BDWMO recommends continued control and management of purple loosestrife and yellow iris and protection of the floating mat habitat.

Upland buffer zone quality rating = High

- 67 native species and 28 exotic species observed.
- Exotic plant species 15-40% of upland vegetative cover. The mean C-value rating is 2.1 (poor).
- Upland buffer within portions of the shoreline is wide, providing wildlife habitat and shoreline protection. Though some areas with bare soil on steep slopes could cause erosion and sedimentation into the lake and should be vegetated with naturalized vegetation. Other areas with turf grass, gravel, and managed plantings with bare soil could be vegetated with native grasses and wildflowers. The BDWMO recommends control of nonnative common buckthorn, Russian olive, Chinese silver grass, and Siberian elm
- The BDWMO recommends installation of a pretreatment system such as a rain garden, pervious pavement, or sediment trap to collect sediment from a parking lot prior to discharge into the lake.
- Lakeshore property owners are encouraged to apply for funds (see page 3) to assist with implementation of the BDWMO recommendations.



Black Dog Watershed Management Organization

Board of Commissioners

Representing Burnsville:

Curtis Enestvedt, Chair (serving since 2014) Mike Hughes, Vice Chair (serving since 2008) Tom Harmening, Commissioner (serving since 2002) Frank Boyce, Alternate (serving since 2021)

Representing Apple Valley and Eagan:

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

Representing Lakeville:

Scott Thureen, Secretary/Treasurer (serving since 2008) Natalie Walker, Alternate (serving since 2020)

Engineering Consultant: Karen Chandler, P.E., Barr Engineering Co.

Legal Consultant:

Joel Jamnik, Campbell Knutson, P.A.

Regular board meetings...

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

For more information, please contact:

Daryl Jacobson, Administrator Black Dog WMO City of Burnsville 13713 Frontier Court Burnsville, MN 55337 Telephone: 952-895-4574 Fax: 952-895-4531

Website: www.blackdogwmo.org

2022 Budget

\$31,000
\$10,500
\$19,000
\$21,850
\$3,000
\$40,600
\$5,000
\$40,000
\$500
\$17,200
\$5,000
\$193,650



2022 Income

Member Contributions	\$153,000
Interest	\$40
Total Income	\$153.040



2021 Water Quality Data

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The Black Dog WMO funds the water quality monitoring of its water bodies designated as "strategic" by the Black Dog WMO. In 2021, the strategic water bodies included:

- 1. Crystal Lake
- 2. Keller Lake
- Kingsley Lake due to COVID-19, Kingsley Lake was not monitored in 2020, but resumed in 2021
- 4. Lac Lavon
- 5. Orchard Lake

Some of the water quality data for the strategic water bodies is presented on the following pages. First are a series of figures that summarize the historical summer average (June 1 through September 30) total phosphorus, chlorophyll *a*, and Secchi disc transparency data. The figures also display the trend lines for the past 10 years' water quality data, and note if the trend was statistically significant. The linear best-fits were determined using a "least squares" regression analysis of the summer averages of the past 10 years (2012—2021) of data. Trend analyses were not performed for Keller Lake because of the alum treatment that was conducted in spring 2019 and fall 2021. The 2021 CAMP data provided by the Metropolitan Council were final data (i.e., Metropolitan Council laboratory had finished their review of the data) at the time this report was prepared.

Second are a series of tables that show the results of the water quality monitoring for each data collection date in 2021.

Water quality monitoring data is also available for other "non-strategic" water bodies in the Black Dog WMO. In 2021, the member cities funded participation in the CAMP program for the following non-strategic water bodies

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

Results of the 2021 water quality monitoring of these water bodies is available from the Metropolitan Council's CAMP program.

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Historical Water Quality Data—Figures

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2021 Water Quality Data—Tables

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Table 1: Keller Lake 2021 Water Quality DataCitizen-Assisted Monitoring Program

Sample Date	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (μg/L)	Total Phosphorus (μg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)
5/5/2021	0	2.1	2.1	39	0.62	18.2
5/22/2021	0	1.6	13	37	0.82	26.2
6/10/2021	0	1.9	10	46	0.65	28.7
6/17/2021	0	1.1	17	47	0.95	29.6
7/9/2021	0	1.1	17	56	0.98	
7/22/2021	0	1.0	8.3		1.1	
8/10/2021	0	1.4	20	44	0.98	26.8
8/27/2021	0	0.9	24	91	1.1	17.1
9/8/2021	0	0.8	23	61	1.2	19.1
9/26/2021	0	+2.0	2.1	11	0.46	16.7
10/6/2021	0	+1.9	27	21	0.54	13.4
10/18/2021	0	+1.9	4.1	71*	0.56	10.9

<u>Notes</u>

+2.0 Secchi disk was resting on vegetation or lake bottom.
71* Result is suspect

Sample Date	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (μg/L)	Total Phosphorus (μg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)
5/6/2021	0	+1.3	1.6	17	0.42	17.1
5/19/2021	0	+1.7	1.6	28	0.47	22.2
6/4/2021	0	+1.4	1.9	28	0.46	23.3
6/17/2021	0	+2.0	1.3	17	0.55	27.9
6/28/2021	0	>2.2	2.4	13	0.49	25.2
7/13/2021	0	>2.2	2.1	~8	0.44	27.2
7/29/2021	0	>2.05	1.3	13	0.49	27.8
8/11/2021	0	+2.0	1.3	11	0.49	25.5
8/24/2021	0	+1.95	1.1	22	0.45	23.8
9/13/2021	0	+2.0	1.6	20	0.47	21.1
9/23/2021	0	+2.0	<1.0	21	0.45	22.0
10/9/2021	0	+1.9	1.6	48	0.54	22.0

Table 2: Kingsley Lake 2021 Water Quality Data, Citizen-Assisted Monitoring Program Citizen-Assisted Monitoring Program

Notes

< 1.0 Indicates result is below the method detection limit.

+2.0 Secchi disk was resting on vegetation or lake bottom.

~ 8 Indicates result is an estimated value above the method detection limit, but below the method reporting limit.

Table 3: Lac Lavon 2021 Water Quality DataCitizen-Assisted Monitoring Program

Sample Date	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (μg/L)	Total Phosphorus (μg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)
5/4/2021	0	2.4	2.9	15	0.62	14.5
5/25/2021	0	4.4	2.9	32	0.60	22.8
6/19/2021	0	4.6	1.9	23	0.56	24.5
7/6/2021	0	4.7	1.6	~8	0.48	25.1
7/15/2021	0	4.7	2.4	12	0.56	25.0
8/1/2021	0	4.7	2.1	~8	0.46	25.8
8/16/2021	0	4.3	1.9	~9	0.48	25.6
8/29/2021	0	4.0	2.1	~8	0.46	24.5
9/12/2021	0	3.6	3.5	22	0.66	22.1
10/25/2021	0	2.4	14	19	0.61	13.8

<u>Notes</u>

 \sim 9 Indicates result is an estimated value above the method detection limit, but below the method reporting limit.

Sample Date	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (μg/L)	Total Phosphorus (μg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)
4/24/2021	0	2.9	< 1.0	21	0.61	9.4
5/6/2021	0	4.0	1.3	11	0.60	14.3
5/20/2021	0	5.9	1.9	26	0.59	20.1
6/4/2021	0	3.8	1.1	21	0.63	22.8
6/22/2021	0	3.1	6.1	25	0.66	22.8
6/28/2021	0	2.2	6.9	16	0.70	24.5
7/21/2021	0	2.8	6.1	16	0.60	26.7
7/29/2021	0	2.1	5.9	15	0.74	27.8
8/14/2021	0	1.9	9.1	15	0.63	23.8
8/24/2021	0	2.0	7.5	35	0.79	23.9
9/14/2021	0	2.0	4.3	30	0.81	20.3
9/23/2021	0	1.8	11	26	0.67	21.0
10/11/2021	0	1.8	8.3	24	0.79	19.1

Table 4: Orchard Lake 2021 Water Quality Data, Citizen-Assisted Monitoring Program Citizen-Assisted Monitoring Program

<u>Notes</u>

< 1.0 Indicates result is below the method detection limit.

Table 5: Crystal Lake 2021 Water Quality DataCitizen-Assisted Monitoring Program

Sample Date	Sample Depth (m)	Secchi Disc Transparency (m)	Chlorophyll-a, Pheophytin Corrected (μg/L)	Total Phosphorus (μg/L)	Nitrogen, Total Kjeldahl (mg/L)	Temperature (°C)
4/22/2021	0	3.4	5.1	24	0.47	13.5
5/7/2021	0	3.2	5.6	33*	0.60	14.6
5/23/2021	0	3.1	2.9	11	0.60	22.1
6/5/2021	0	4.0	2.7	33*	0.57	22.3
6/18/2021	0	3.6	2.1	14	0.54	27.0
7/3/2021	0	3.1	< 1.0	40*	0.42	27.1
7/14/2021	0	2.3	9.1	20	0.46	25.2
7/27/2021	0	1.8	5.6	14	0.61	27.8
8/9/2021	0	2.1	5.9	18	0.53	24.4
8/27/2021	0	2.1	9.1	18	0.64	25.2
9/12/2021	0	1.7	17	22	0.70	20.4
9/25/2021	0	1.2	9.3	23	0.76	18.5
10/6/2021	0	1.2	15	20	0.66	20.0

Notes

< 1.0 Indicates result is below the method detection limit.

33* Result is suspect.

Table 6Crystal Lake 2021 Water Quality Measured by Barr EngineeringBDWMO

		Field Measurements						Laboratory	y Analyses
				Specific		Secchi		Chloro-	Total
		Diss-		Conduct-	Water	Disc		phyll-a,	Phos-
		olved		ance @	Temper-	Trans-		Pheo.	phorus
Sample	Sample	Oxygen		25 ºC	ature	parency	Turbidity	Corr.	as P
Date	Depth	(mg/L)	рН	(µS/cm)	(℃)	(m)	(NTU)	(µg/L)	(µg/L)
4/14/2021	0 - 2					2.3	2.4	6.8	25
4/14/2021	0	10.7	6.9	676	9.4				
4/14/2021	1	10.3	7.1	676	9.4				
4/14/2021	2	10.3	7.2	676	9.4				
4/14/2021	3	10.3	7.3	675	9.4				31
4/14/2021	4	10.3	7.3	674	9.4				26
4/14/2021	5	10.3	7.4	675	9.4				20
4/14/2021	6	9.1	7.2	680	8.5				20
4/14/2021	7	8.8	7.1	678	8.0				18
4/14/2021	8	7.8	7.0	679	7.1				16
5/13/2021	0 - 2					3.8	2.0	3.2	20
5/13/2021	0	12.1	8.0	664	15.5				
5/13/2021	1	12.2	8.0	666	15.4				
5/13/2021	2	12.3	8.0	667	15.4				
5/13/2021	3	12.4	8.0	662	14.8				32
5/13/2021	4	11.9	7.9	664	14.1				23
5/13/2021	5	11.8	7.8	664	13.1				18
5/13/2021	6	9.8	7.4	665	10.8				17
5/13/2021	7	5.3	7.1	666	10.1				15
5/13/2021	8	3.2	7.0	667	9.7				23
5/26/2021	0 - 2					2.9	2.3	4.0	15
5/26/2021	0	9.6	7.9	656	21.8				
5/26/2021	1	9.6	7.9	653	21.9				
5/26/2021	2	9.6	8.0	653	21.9				
5/26/2021	3	11.4	7.8	669	19.3				15
5/26/2021	4	11.8	7.7	671	16.2				18
5/26/2021	5	10.5	7.7	674	13.7				17
5/26/2021	6	9.2	7.4	674	11.8				18
5/26/2021	7	2.2	7.0	675	10.6				28
5/26/2021	8	0.1	6.8	681	9.8				32
6/08/2021	0 - 2					5.0	0.70	3.4	14
6/08/2021	0	9.2	8.3	646	25.8				
6/08/2021	1	9.3	8.3	647	25.6				
6/08/2021	2	9.5	8.3	647	25.2				
6/08/2021	3	9.5	8.3	648	24.1				16
6/08/2021	4	8.1	7.9	655	19.7				14
6/08/2021	5	7.7	7.7	670	16.3				18
6/08/2021	6	6.2	7.5	675	13.1				28
6/08/2021	7	1.4	7.1	681	11.2				38
6/08/2021	8	0.6	6.9	690	10.5				53

Table 6Crystal Lake 2021 Water Quality Measured by Barr EngineeringBDWMO

		Field Measurements						Laboratory	y Analyses
				Specific		Secchi		Chloro-	Total
		Diss-		Conduct-	Water	Disc		phyll-a,	Phos-
		olved		ance @	Temper-	Trans-		Pheo.	phorus
Sample	Sample	Oxygen		25 ºC	ature	parency	Turbidity	Corr.	as P
Date	Depth	(mg/L)	рН	(µS/cm)	(℃)	(m)	(NTU)	(µg/L)	(µg/L)
6/22/2021	0 - 2					2.7	1.6	8.2	17
6/22/2021	0	8.2	8.1	652	23.0				
6/22/2021	1	8.2	8.1	652	23.0				
6/22/2021	2	8.2	8.2	652	23.0				
6/22/2021	3	8.2	8.2	651	23.0				17
6/22/2021	4	8.0	8.1	651	22.8				20
6/22/2021	5	7.9	7.9	667	19.7				8.4
6/22/2021	6	4.6	7.2	678	14.5				20
6/22/2021	7	0.5	7.0	683	12.0				19
6/22/2021	8	0.1	7.0	700	10.7				63
7/07/2021	0 - 2					2.5	2.2	14.4	23
7/07/2021	0	8.55	8.36	652	26.3				
7/07/2021	1	8.54	8.37	651	26.4				
7/07/2021	2	8.52	8.38	652	26.4				
7/07/2021	3	8.47	8.38	652	26.4				20
7/07/2021	4	9.99	8.44	654	25.0				23
7/07/2021	5	3.60	7.56	663	20.7				30
7/07/2021	6	0.75	7.22	676	16.3				38
7/07/2021	7	0.50	7.08	677	13.0				56
7/07/2021	8	0.38	6.92	728	10.9				260
7/21/2021	0 - 2					2.4	2.0	6.9	19
7/21/2021	0	9.4	8.5	637	26.8				
7/21/2021	1	9.5	8.5	637	26.8				
7/21/2021	2	9.5	8.5	637	26.8				
7/21/2021	3	9.5	8.5	637	26.8				20
7/21/2021	4	9.3	8.4	638	25.4				26
7/21/2021	5	0.9	7.5	647	22.2				45
7/21/2021	6	1.1	7.2	657	16.6				29
7/21/2021	7	0.5	7.0	674	13.1				59
7/21/2021	8	0.4	6.8	710	11.5				300
8/10/2021	0 - 2					2.1	2.5	10.6	23
8/10/2021	0	8.4	8.0	646	25.6				
8/10/2021	1	8.4	8.1	645	25.7				
8/10/2021	2	8.4	8.2	644	25.5				
8/10/2021	3	7.1	8.0	643	25.5				24
8/10/2021	4	4.8	7.7	646	24.6				23
8/10/2021	5	0.5	7.2	653	23.0				24
8/10/2021	6	0.4	6.9	662	17.7				28
8/10/2021	7	0.4	6.6	695	13.2				87
8/10/2021	8	0.3	6.4	737	11.9				470

Table 6Crystal Lake 2021 Water Quality Measured by Barr EngineeringBDWMO

		Field Measurements							y Analyses
		Diss- olved		Specific Conduct- ance @	Water Temper-	Secchi Disc Trans-		Chloro- phyll-a, Pheo.	Total Phos- phorus
Sample	Sample	Oxygen		25 ºC	ature	parency	Turbidity	Corr.	as P
Date	Depth	(mg/L)	рН	(µS/cm)	(℃)	(m)	(NTU)	(µg/L)	(µg/L)
8/25/2021	0 - 2					2.1	2.3	10.0	22
8/25/2021	0	7.9	8.1	650	24.5				
8/25/2021	1	7.8	8.3	650	24.5				
8/25/2021	2	7.8	8.3	650	24.5				
8/25/2021	3	7.5	8.3	648	24.5				28
8/25/2021	4	5.5	8.0	650	24.2				29
8/25/2021	5	4.3	7.8	657	23.8				26
8/25/2021	6	0.4	7.4	665	20.3				30
8/25/2021	7	0.3	7.0	707	14.6				88
8/25/2021	8	0.3	6.7	748	12.9				270
9/09/2021	0 - 2					1.8	4.8	12.4	22
9/09/2021	0	8.4	8.2	639	21.9				
9/09/2021	1	8.3	8.2	639	21.8				
9/09/2021	2	8.1	8.2	639	21.7				
9/09/2021	3	7.9	8.2	639	21.7				23
9/09/2021	4	7.7	8.1	639	21.6				22
9/09/2021	5	7.8	8.2	638	21.6				21
9/09/2021	6	2.8	7.6	643	21.0				19
9/09/2021	7	0.5	7.1	704	16.6				47
9/09/2021	8	0.4	6.9	768	13.0				300
9/21/2021	0 - 2					1.7	4.2	29.7	35
9/21/2021	0	7.2	7.8	650	20.7				
9/21/2021	1	7.1	7.8	650	20.7				
9/21/2021	2	7.0	7.8	650	20.6				
9/21/2021	3	7.0	7.8	649	20.5				33
9/21/2021	4	6.8	7.8	648	20.5				28
9/21/2021	5	5.5	7.7	649	20.4				26
9/21/2021	6	1.2	7.3	654	20.2				29
9/21/2021	7	0.4	7.0	692	18.2				48
9/21/2021	8	0.2	6.8	780	15.1				160

2021 Annual Finance Statement

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Financial Statements as of December 31, 2021

Unaudited Prepared by the City of Burnsville

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Statement of Activities

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Statement of Revenue, Expenditures, and Changes in Fund Balances - Budget and Actual - General Fund

Statement of Revenue, Expenditures, and Changes in Fund Balances - Budget and Actual - Capital Improvement Fund

Statement of Net Position as of December 31, 2021

	Governmental Activities
	2021
Assets	
Cash and investments	522,917.86
Accounts receivable	-
Due from other governmental units	65,926.24
Prepaids	-
Capital assets	
Buildings	37,600.00
Equipment	110,138.00
Less accumulated depreciation	(135,518.00)
Total capital assets, net of accumulated depreciation	12,220.00
Total assets	535,137.86
Liabilities	
Accounts payable	9,375.44
Due to other governmental units	29,382.86
Unearned revenue	-
Total liabilities	38,758.30
Net position	
Net investment in capital assets	12,220.00
Restricted for capital improvements	81,489.27
Unrestricted	402,670.29
Total net position	496,379.56
Total liabilities and net position	535,137.86

-

Statement of Activities Year Ended December 31, 2021

	Governmental Activities
	2021
Expenses	
General government	
System operations	230,263.14
Administrative services	48,307.36
Depreciation	940.00
Total program expenses	279,510.50
Revenues	
General government	
Charges for services	
Management fees	153,000.00
Grants	
State of MN Board of Water and Soil Resources	79,987.44
General revenues	
Interest earnings	64.61
Total revenues	233,052.05
Change in net position	(46,458.45)
Net position	
Beginning of year	542,838.01
End of year	496,379.56

Balance Sheet Governmental Funds Year Ended December 31, 2021

		Capital	
		Improvement	Total Governmental Funds
	General Fund	Fund	2021
Assets			
Cash and investments	441,428.59	15,563.03	456,991.62
Accounts receivable	0.00	0.00	0.00
Due from other governmental units	0.00	65,926.24	65,926.24
Total assets	441,428.59	81,489.27	522,917.86
Liabilities			
Accounts payable	9,375.44	0.00	9,375.44
Due to other governmental units	29,382.86	0.00	29,382.86
Unearned revenue	0.00	0.00	0.00
Total liabilities	38,758.30	0.00	38,758.30
Fund balances			
Restricted for capital improvements	0.00	81,489.27	81,489.27
Assigned for subsequent year's budget deficit	73,460.00	0.00	73,460.00
Unassigned	329,210.29	0.00	329,210.29
Total fund balances	402,670.29	81,489.27	484,159.56
Total liabilities, deferred inflows			
of resources, and fund balances	441,428.59	81,489.27	522,917.86
Amounts reported for governmental activities in th	ne Statement of Net Po	osition differ because:	
Fund balances – governmental funds			484,159.56
Capital assets used in governmental activities are n	not financial resources		

and, therefore, are not reported as assets in governmental funds.147,738.00Cost of capital assets147,738.00Less accumulated depreciation(135,518.00)Net position of governmental activities496,379.56

Statement of Revenue, Expenditures, and Changes in Fund Balances Governmental Funds Year Ended December 31, 2021

		Capital	
		Improvement	I otal Governmental Funds
	General Fund	Fund	2021
Revenue			
Member assessments	131,000.00	22,000.00	153,000.00
Intergovernmental Revenue - Grants	-	79,987.44	79,987.44
Interest earnings	64.61	-	64.61
Total revenue	131,064.61	101,987.44	233,052.05
Expenditures			
General government			
System Operations			
Engineering	26,663.44	-	26,663.44
Special Projects	56.141.56	128.571.50	184,713.06
Insurance	1,407,00	-	1,407,00
Water quality monitoring	17 479 64	-	17 479 64
Administrative services			27) 7 516 1
Legal and audit	2 584 00	_	2 584 00
Administrative costs	2,304.00	_	2/ 302 86
Public education	21,302.80		24,502.80
Conferences, publications and reports	21,420.30	_	21,420.50
Contingency	-	-	-
Total expanditures	140,000,00	120 571 50	278 570 50
Total expenditures	149,999.00	128,571.50	278,570.50
Excess (Deficiency) of Revenues Over (Under)	(18,934.39)	(26,584.06)	(45,518.45)
Other Financing Source (Uses)			
Transfers in	-	-	-
Transfers out	-	-	-
Total other financing sources (uses)		-	-
Net change in fund balances	(18,934.39)	(26,584.06)	(45,518.45)
Fund balances			
Beginning of year	421,604.68	108,073.33	529,678.01
End of year	402,670.29	81,489.27	484,159.56
Amounts reported for governmental activities in the Sta	atement of Activities are c	lifferent because:	
Net change in fund balances – governmental funds			(45,518.45)
Capital outlays are reported as expenditures in governm	nental funds, but are alloca	ated	
in the Statement of Activities	ucpreciation expense		
Depreciation expense			(040.00)
Depreciation expense		-	(940.00)

Change in net position of governmental activities

(46,458.45)

Statement of Revenue, Expenditures, and Changes in Fund Balances Budget and Actual General Fund Year Ended December 31, 2021

	2021					
	Original			Over (Under)		
	Budget	Final Budget	Actual	Final Budget		
Revenue						
Management fees	\$ 131,000.00	\$ 131,000.00	131,000.00	-		
Intergovernmental Revenue - Grants	-	-	-	-		
Interest earnings	40.00	40.00	64.61	24.61		
Total revenue	131,040.00	131,040.00	131,064.61	24.61		
Expenditures						
General government						
System Operations						
Engineering	31,000.00	31,000.00	26,663.44	(4,336.56)		
Special Projects	106,800.00	106,800.00	56,141.56	(50,658.44)		
Insurance	3,000.00	3,000.00	1,407.00	(1,593.00)		
Water quality monitoring	17,100.00	17,100.00	17,479.64	379.64		
Administrative services						
Legal and audit	5,000.00	5,000.00	2,584.00	(2,416.00)		
Administrative costs	18,000.00	18,000.00	24,302.86	6,302.86		
Public education	22,100.00	18,100.00	21,420.50	3,320.50		
Conferences, publications and reports	500.00	500.00	-	(500.00)		
Contingency	1,000.00	5,000.00	-	(5,000.00)		
Total expenditures	204,500.00	204,500.00	149,999.00	(54,501.00)		
Excess (Deficiency) of Revenues Over (Under)	(73,460.00)	(73,460.00)	(18,934.39)	54,525.61		
Other Financing Source (Uses)						
Transfers in	-	-	-	-		
Transfers out	-		-	-		
Total other financing sources (uses)	-		-	-		
Net change in fund balances	\$ (73,460.00)	\$ (73,460.00)	(18,934.39)	54,525.61		
Fund balances						
Beginning of year		-	421,604.68			
End of year		_	402,670.29			

Statement of Revenue, Expenditures, and Changes in Fund Balances Budget and Actual Capital Improvement Fund Year Ended December 31, 2021

	2021					
	Original Budget		Final Budget		Actual	Over (Under) Final Budget
Revenue						
Management fees	\$	22,000.00	\$	22,000.00	22,000.00	-
Intergovernmental Revenue - Grants		-		-	79,987.44	79,987.44
Interest earnings		-		-	-	-
Total revenue		22,000.00		22,000.00	101,987.44	79,987.44
Expenditures						
General government						
System Operations						
Engineering		-		-	-	-
Special Projects		10,000.00		17,000.00	128,571.50	111,571.50
Insurance		-		-	-	-
Water quality monitoring		-		-	-	-
Administrative services						
Legal and audit		-		-	-	-
Administrative costs		-		-	-	-
Public education		-		-	-	-
Conferences, publications and reports		-		-	-	-
Contingency		-		-	-	-
Total expenditures		10,000.00		17,000.00	128,571.50	111,571.50
Excess (Deficiency) of Revenues Over (Under)						
Expenditures		12,000.00		5,000.00	(26,584.06)	(31,584.06)
Other Financing Source (Uses)						
Transfers in		-		-	-	-
Transfers out		-		-	-	-
Total other financing sources (uses)		-		-	-	-
Net change in fund balances	\$	12,000.00	\$	5,000.00	(26,584.06)	(31,584.06)
Fund balances						
Beginning of year				-	108,073.33	
End of year				_	81,489.27	

BLACK DOG WATER MANAGEMENT COMMISSION PBC (Prepared by Client) List - prepare for audit 12/31/2021

			Completion
Item	Workpaper	Responsible	Date
1	Black Dog WMC meeting minutes		
2	List of officers and directors		
3	Copy of 2021 budget and amendments		
4	Copies of all new grants, agreements, contract, etc.		
5	Trial Balance		
6	Bank account reconciliation w/outstanding check list		
7	List of accounts receivable		
8	List of accounts payable		
9	Update capital asset information		

BLACK DOG WAT	ERSHED MANA	GEMENT	ORGANIZATION	
Accounts Receiva	ble			
12/31/21				
Description			Amount	Deposit Date
None				
			0.00	

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION							
Due From Other Governmental Units							
12/31/21							
Description			Amount	Deposit Date			
State of MN Grant		DFOG	65,926.24	1/20/2022			
			65,926.24				

BLACK DOG WA	ATERSHED MANAGEM	ENT ORGAN	IIZAT	TION					
Accounts Payab	ole/Due to Other Gove	ernments							
12/31/21									
Inv Date	Vendor Nam	ne		Amount	Description	Date Paid	Check #	Che	eck Amt
	Barr Engineering	AP	\$	9,154.44	Prof. services Nov 27 - Dec 31, 2021	01/19/22	1774	\$	9,154.44
	Met Council - ES	DTOG	\$	3,800.00	2021 CAMP - Citizen Assist Monitoring Project	01/19/22	1775	\$	3,800.00
	Campbell Knutson	AP	\$	221.00	Dec 2021 services	02/16/22	1777	\$	221.00
	City of Burnsville	DTOG	\$	24,302.86	2021 Support services	02/16/22	1778	\$	24,302.86
	Dakota County Soil &	DTOG	\$	1,280.00	October - December 2021 (Quarterly fees)	02/16/22	1779	\$	1,280.00
	total		\$	38,758.30					
		AP		9,375.44					
		AP-Cap		0.00					
		DTOG		29,382.86					
	total		Ś	38.758.30					
			<u> </u>	,					

BLACK DOG W	ATERSHED MANAGEMENT ORGANI	ZATION			
Outstanding checks at year-end					
12/31/2021					
Inv Date	Vendor Name	Amount	Description	Date Paid	Check #
None					
		\$ -			

BLACK DOG WATERSHED N	IANAGEMENT ORG	ANIZATION
Management Fees		
12/31/2021		
Management Fees 2021 (Ge	eneral Fund):	
City of Apple Valley	\$ 10,489.00	
City of Burnsville	93,924.00	
City of Eagan	580.00	
City of Lakeville	26,007.00	
Total	\$ 131,000.00	
Member Fees - Capital Imp	rovement Fund 202	1:
· ·		
City of Apple Valley	\$ 1,773.00	
City of Burnsville	16,133.00	
City of Eagan	0.00	
City of Lakeville	4,094.00	
Total	\$ 22,000.00	
Grand Total	153,000.00	
	,	
Total by City 2021:		
City of Apple Valley	\$ 12.262.00	
City of Burnsville	\$ 110,057.00	
City of Eagan	\$ 580.00	
City of Lakeville	\$ 30,101.00	
Total	\$ 153,000.00	

BLACK DOG WATERSHED MANAG	EMENT ORGANIZATI	ON
Grants		
12/31/2021		
D	A	Descell Dete
Description	Amount	Deposit Date
	¢ 220.000.00	
Grant Award (2019):	\$ 230,000.00	
First Payment - 50% Advance	115,000.00	received April 12, 2019 - see April 4M bank statement
Grant Eligible Expenses 2019:	100,938.80	
	\$ 14,061.20	grant advance remaining at 12/31/2019 - unearned revenue
Grant Eligible Expanses 2020:	0.00	
Grant Eligible Expenses 2020.	\$ 14.061.20	arant advance remaining at 12/31/2020 - uncarned revenue
	Ş 14,001.20	
Grant Eligible Expenses 2021:	79.987.44	*recognize this much revenue in 2021
0 1	(14,061.20)	previous advance recorded as revenue in 2021
	\$ 65,926.24	reimbursement request
Final (2nd) Payment - Reimb.	65,926.24	received Jan. 20, 2022 - see Jan. 4M/US Bank bank statement
Total Grant Expenses 2019-2021	\$ 180,926.24	
Grantor: State of Minnesota - Boar	d of Water and Soil R	esources
Grant Purpose: Keller Lake Alum Tr	eatment	
Grant Amount: \$230,000		
Grant Approval:		
Grant Approval.	vruary 20, 2019 Board	Meeting Item # VII
	Juary 20, 2015 Board	
VII. Approve Grant Agreement v	vith the Board of Soil	and Water Resources for an Alum Treatment
A copy of the Grant Agreement	with the MN Board o	f Soil and Water Resources for the Alum Treatment on
Keller Lake was provided to the	Commission prior to	tonight's meeting for review. All funds spent before the
grant agreement is fully execute	d will not eligible for	reimbursement.
Total Grant Amount:	\$ 230,000.00	
First Payment - 50% Advance	115,000.00	received April 12, 2019 - see April 4M bank statement
Grant Eligible Expenses 2019:	100,938.80	
	\$ 14,061.20	grant advance remaining at 12/31/2019
Grant Eligible Expenses 2020:	0.00	
	\$ 14,061.20	grant advance remaining at 12/31/2020
The second half of the grant will be	raceived on a reimh	urcomont hasis
BDWMO does not anticipate any a	ctivity on the Keller L	ake Alum Treatment in 2020
The second treatment (and eligible	expenses) will be ne	rformed in 2021
	expenses/ win be pe	
Calculation:		
Grant award (2019) :	\$ 230,000.00	
Grant expenses (2019-2021):	\$ 180,926.00	
Unspent grant award:	\$ 49,074.00	
Grant Advance/reimbursement reque	sts:	
Total Grant Expenses:	\$ 180,926.00	
Less: 50% Advance (2019):	\$ 115,000.00	
Remaining for reimbursement:	\$ 65,926.00	
Davanua / F		
Revenue/Expense recognition:	ć 100.000.00	(nor 2010 sudited financial statemants)
Eligible expenses in 2019:	\$ T00'838'00	(אבו דחדם מתחורמ וווימוורומו צרמרהנווהטובצ)
Eligible expenses in 2020.	- خ 70 ۵۶7 ۸۰	(calculation) – recognize this much revenue in 2021
Total eligible expenses	\$ 180 976 00	
. etal engine expenses.	- 100,920.00	

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION CAPITAL ASSETS SUMMARY YEAR ENDED DECEMBER 31, 2021

Useful Life	Historical Cost 12/31/03	Accumulated Depreciation 12/31/20	Net Value 12/31/20	2021 Depreciation	Balance 12/31/2021
40	37,600	(24,440.00)	13,160.00	(940.00)	12,220.00
15	110,138	(110,138.00)	-	-	-
-	147,738.00	(134,578.00)	13,160.00	(940.00)	12,220.00
	Useful Life 40 15	Historical Useful Cost 12/31/03 40 37,600 15 110,138 147,738.00	Historical Accumulated Useful Cost Depreciation 12/31/03 12/31/20 40 37,600 (24,440.00) 15 110,138 (110,138.00) 147,738.00 (134,578.00)	Historical Accumulated Net Useful Cost Depreciation Value 12/31/03 12/31/20 12/31/20 40 37,600 (24,440.00) 13,160.00 15 110,138 (110,138.00) - 147,738.00 (134,578.00) 13,160.00	Historical Life Accumulated Depreciation Net 2021 12/31/03 12/31/20 12/31/20 Depreciation 40 37,600 (24,440.00) 13,160.00 (940.00) 15 110,138 (110,138.00) - - 147,738.00 (134,578.00) 13,160.00 (940.00)

total accumulated depreciation at YE (135,518.00)

fully depreciated at 2009

Assets	Years
Buildings	40 years
Equipment	15 years

Capital asset activity for the year ended December 31, 2021 was as follows:

	E	Beginning						
		Balance	Additions		Deletions		Ending Balance	
Governmental Activities								
Capital assets, depreciated								
Buildings	\$	37,600	\$	-	\$	-	\$	37,600
Equipment		110,138		-		-		110,138
Total capital assets, depreciated		147,738		-		-		147,738
Less accumulated depreciation for								
Buildings		24,440		940		-		25,380
Equipment		110,138		-		-		110,138
Total accumulated depreciation		134,578		940		-		135,518
Governmental activities								
capital assets, net	\$	13,160	\$	(940)	\$	-	\$	12,220

Board of Commissioners and Administrators as of December 31, 2021

BOARD OF COMMISSIONERS

Curtis Enestvedt Mike Hughes Scott Thureen Rollie Greeno Tom Harmening Frank Boyce Greg Helms Natalie Walker Chair Vice Chair Secretary/Treasurer/Commissioner Commissioner Commissioner (Alternate) Commissioner (Alternate) Commissioner (Alternate)

ADMINISTRATORS

Daryl Jacobson

Administrator

BLACK DOG WATERSHED MANAGEMENT ORGANIZATION				
Notes				
12/31/21				
Description	Amount			
The first half of the grant arrived as an advance. Not all of the advance was spent at the end of 2019.				
No activities eligible for the grant were performed in 2020.				
The grant related activities were completed in 2021. The remainder of the 2019 advance was recognized, and the rest was reimbursed.				
The last audit was performed for year-end 2019.				
An audit is required every 5 years OR if the revenue thresholds set by the OSA are met/exceeded.				