



Brown's Creek Watershed District

Preserving the integrity of the watershed for future generations

www.bcwd.org | 455 Hayward Ave N, Oakdale, MN 55128 | 651-330-8220

REGULAR MEETING OF THE BOARD OF MANAGERS

Wednesday, March 12, 2025

Regular meeting at 6:30 PM

NOTE NEW MEETING LOCATION

Meeting will be held at
Washington County Government Center
Lower Level Room LL14
14649 62nd St N, Stillwater, MN 55082

- 1) Call Regular Meeting to order @ 6:30PM
- 2) Approve Regular Meeting Agenda and Discussion Agenda -**Board Action**
- 3) Public Comments
- 4) Consent Agenda – **Board Action** *(all items listed under the consent agenda are considered to be routine by the Board of Managers and will be enacted by one motion. There will be no separate discussion on these items unless a Manager removes an item from the consent agenda for discussion or there is a request to remove the item from the consent agenda, in which event the board will consider whether to remove the item from the consent agenda and consider it separately.)*
 - a) Approve Minutes of the February 12, 2025 Workshop & Regular Meeting
 - b) Accept Permit Fee Statement
 - c) Authorize weather station scope
 - d) Authorize staff registration for University of Minnesota stormwater training
- 5) Treasurer's Report
 - a) Review Authorized Funds Spreadsheet
 - b) Revised 2025 Budget with actual carry forward – **Board Action**
 - c) Current Items Payable-**Board Action (Roll Call Vote)**
- 6) Permits
 - a) BCWD Permit #25-04 Kranz Single Family Home Addition– **Board Action**
- 7) Projects
 - a) Stewardship Grant and BMP Maintenance Presentation
 - b) Groundwater Well 2024 Data and 2025 Scope – **Board Action**
 - c) Hydrologic and Hydraulic Model Update Presentation

Managers:

BCWD Board Packet 3-2-2025
Page 1
Kay Egbes, President • Chuck LeRoux, Vice-President • Celia Wirth, Treasurer
Debra Sahulka, Secretary • Larry Odebrecht, Manager

- 8) Old Business
 - a) Meeting Location
 - b) Schedule of Regular and Special 2025 meetings - - **Board Action**

- 9) Discussion Agenda - No Action Required
 - a) Updates
 - (1) Administrator – Belwin Education Collaboration, MS4Front Demonstration, Beaver Study Letters of Support, MSCWMO Management Plan Update, Brown’s Creek Restoration Next Steps
 - (2) Legal
 - (3) Engineer
 - (4) Managers
 - b) April 2025 Regular Meeting BCWD Board Agenda

- 10) Adjournment

Managers:



BROWN'S CREEK WATERSHED DISTRICT

Preserving the integrity of the watershed for future generations

www.bcwd.org | 455 Hayward Ave N, Oakdale, MN 55128 | 651-330-8220

1 DRAFT Minutes of the workshop and regular meeting of the Brown's Creek Watershed District Board of
2 Managers, Wednesday February 12, 2025

3

4 ROLL CALL

Managers Present:	Others Present:
Klayton Eckles, President	Karen Kill, BCWD administrator
Celia Wirth, Treasurer	Hannah Peterson, BCWD staff
Debra Sahulka, Secretary	Michael Welch, Smith Partners, BCWD counsel
Larry Odebrecht, 2nd Vice President	Ryan Fleming, EOR, BCWD engineer
	Alexander Furneaux, EOR, BCWD engineer
Manager Absent:	Griffin Brod, resident
Chuck LeRoux, Vice President	

5 **1) Watershed management plan update workshop**

6 The management plan workshop began at 5:35 p.m. Alexander Furneaux shared draft revisions to
7 text on ecological health and erosion prevention and sediment control. For ecological health, the
8 managers discussed how to learn more about the species in the watershed. For erosion prevention
9 and sediment control, the managers discussed a greater focus on soil health and both regulating and
10 incentivizing native planting versus turf as farming becomes less prevalent in the watershed. Karen
11 Kill noted that the St. Croix River should be included as a prioritized water body. The workshop
12 concluded at 6:31 p.m.

13 **2) Call regular meeting to order**

14 President Klayton Eckles called the regular meeting to order at 6:41 p.m.

15 **3) Approve agenda**

16 **Manager Wirth moved, seconded by Manager Odebrecht, to approve the agenda as presented.**
17 **Motion carried, 4/0.**

18 **4) Public Comments**

19 Griffin Brod introduced himself as a student at the University of Minnesota and member of the City
20 of Stillwater's Energy Action Committee. He shared his interest in getting involved with the
21 watershed district.

22 **5) Consent agenda**

23 Manager Larry Odebrecht requested to pull item 5c, and Michael Welch requested to pull items 5f
24 and 5g for discussion.

- 25 a) Approve Board Meeting Minutes of the November 13, 2024 Regular Meeting
- 26 b) Approve Board Meeting Minutes of the December 11, 2024 Regular Meeting
- 27 d) Accept Permit Fee Statement
- 28 e) Authorize administrator to submit 60-day review comments on the Washington County
29 Groundwater Plan

30 **Manager Wirth moved, seconded by Manager Odebrecht, to approve the consent agenda as**
31 **amended. Motion carried 4/0.**

1 c) Minutes of the January 8, 2025, Meeting

2 **Manager Wirth moved, seconded by Manager Sahulka, to approve the minutes of the January 8,**
 3 **2025, annual and regular meeting. Motion carried 3/0/1, Manager Odebrecht abstaining.**

4 f) Cooperative agreement with City of Stillwater for the Northland Avenue water quality project
 5 Mr. Welch said the proposed agreement has been slightly amended from the version that was in the
 6 packet in that the Stillwater attorney would like to a provision to allow negotiation if the project is
 7 not completed by June 1, 2026, due to extenuating circumstances. He recommended authorizing the
 8 president to sign the agreement with the city’s proposed change.

9 **Manager Wirth moved, seconded by Manager Sahulka, to authorize the president to execute the**
 10 **agreement with the City of Stillwater for the Northland Avenue water quality project upon advice**
 11 **of counsel. Motion carried 4/0.**

12 g) Stream water monitoring purchase

13 Ms. Kill stated that the quote from In-Situ was the only one received because it is the only supplier
 14 for the specific piece of equipment needed. Quotes for alternative equipment were reviewed and
 15 proved to be less cost-effective.

16 **Manager Odebrecht moved, seconded by Manager Sahulka, to approve the purchase of stream**
 17 **water monitoring equipment from In-Situ at not to exceed \$8,775 from account 300-4640. Motion**
 18 **carried 4/0.**

19 **6) Treasurer’s Report**

20 **Manager Wirth moved, seconded by Manager Odebrecht, to accept the authorized funds**
 21 **spreadsheet and authorize the payment of the bills as presented totaling \$166,167.24.**

	Yea	Nay	Abstain	Absent
Manager Eckles	X			
Manager Odebrecht	X			
Manager LeRoux				X
Manager Wirth	X			
Manager Sahulka	X			

22 **Motion carried on a roll call vote 4/0.**

23 **7) Projects**

24 a) **Brown’s Creek Conservation Area agreement with Washington Conservation District**

25 Ms. Kill provided background on a Habitat Enhancement Landscape Program grant from the
 26 Washington Conservation District for a burn planned for spring 2025 and a volunteer native tree
 27 and shrub planting in 2026.

28 **Manager Wirth moved, seconded by Manager Odebrecht, to authorize the president to**
 29 **execute the agreement with the Washington Conservation District upon advice of counsel.**
 30 **Motion carried 4/0.**

1 **b) Wagner video proposal**

2 Ms. Kill gave an update on the artist collaboration with A House Unbuilt, shared the event
3 postcards, and said that the March 6, 2025, reception would be posted as a public meeting,
4 encouraging the managers to attend. She also shared a proposal from a videographer to get
5 footage of the art, artists, and watershed district. The managers discussed the two proposal
6 options and indicated preference to option two with spring stream footage. Mr. Welch
7 recommended against providing a portion of the payment up front, absent justification for
8 doing so that could be accepted by the managers. He recommended a contract for payment for
9 services rendered and recommended the watershed district not obtain the video as a work for
10 hire, but rather would include a perpetual license for use by BCWD with ownership retained by
11 the author.

12 **Manager Odebrecht moved, seconded by Manager Wirth, to authorize the president to enter**
13 **a contract with Wagner not to exceed \$3,500 for proposed option two from account 910-0000.**
14 **Motion carried 4/0.**

15 **8) Old business**

16 **a) Election of officers and board committee appointments**

17 **Manager Wirth moved, seconded by Manager Sahulka, to elect Manager Eckles as president,**
18 **Manager Wirth as treasurer, Manager Sahulka as secretary, Manager LeRoux as vice**
19 **president, and Manager Odebrecht as 2nd vice president, and to appoint Manager Wirth as the**
20 **alternate for the Lower St. Croix One Watershed One Plan subcommittee, Manager Eckles to**
21 **the Best Management Practices Program Committee, Manager Odebrecht as the East Metro**
22 **Water Resources Education Program Liaison, and Manager Eckles and Manager Wirth to the**
23 **engineering pool task force, with all other committees remaining the same as 2024.**

24 **Motion carried 4/0.**

25 **b) Schedule of regular and special 2025 meetings**

26 Ms. Kill shared that Family Means has adopted a new security policy that is not consistent with
27 BCWD's obligations under the Open Meeting Law, and a new meeting location must be selected.
28 Stillwater Township Town Hall and the Eckberg Lammers law office were discussed as possible
29 options. The managers discussed the meeting schedule and indicated preference for completing
30 the remaining management planning workshops on separate dates rather than at the regular
31 meetings. The June regular meeting will be conducted June 25, but the managers elected to
32 postpone approving a full schedule of meetings until a new location is selected.

33 **c) Board training plan**

34 The managers expressed interest in adding a presentation from Mr. Welch on the Open Meeting
35 Law at a future meeting.

36 **d) Bylaws and policies**

37 Ms. Kill shared that the board would need to update the bylaws and policies when a new
38 meeting location is selected.

39 **9) New business**

40 **a) Appoint Minnesota Watersheds special meeting delegates**

41 **Manager Odebrecht moved, seconded by Manager Sahulka, to appoint Manager Eckles and**
42 **Manager Wirth as delegates and Manager LeRoux as alternate delegates for Minnesota**
43 **Watersheds in 2025. Motion carried 4/0.**

1 **10) Discussion Agenda**

2 **a) Updates**

3 **(1) Administrator**

4 **(a) Permitting**

5 Ms. Kill shared that Sundance Townhomes withdrew its permit application and would
6 need to resubmit should it decide to move forward in the future. She also shared that
7 Lakeview Hospital made its permit submittal.

8 **(2) Legal**

9 Mr. Welch said the author of the chloride limited-liability legislation plans to gather all
10 stakeholders for a meeting. He also noted a reuse water-quality standards legislative effort
11 being pursued by landscapers.

12 **11) Adjournment**

13 **Manager Wirth moved, seconded by Manager Odebrecht, to adjourn the regular meeting at 8:10**
14 **p.m. Motion carried 4/0.**

15

16 Respectfully Submitted by

17 Hannah Peterson, BCWD staff and Debra Sahulka, Recording Secretary

APPLICANT/PERMIT NO.	PERMIT DATE	Status/Notes	RULES							Dec on pact ion	TYPE				FEES OWED	
			2	3	4	5	6	7	GOV		SF RES	RES DEV	COM	EXEMPT	AMT DUE	
Bergmann Development/Sanctuary Permit No. 05-12	10/14/2005		X	X	X			X				X				\$0.00
Stillwater Medical Center Parking Permit 13-26		need to verify infiltration with monitoring data	X	X				X					X			\$3,039.10
Brown's Creek Cove Permit 15-07		received as-builts and not built as approved - needs correction	X	X	X			X				X				\$8,238.52
Heifort Hills Permit 16-03		need as-builts	X	X	X	X		X				X				\$1,327.34
Farms of Grant/White Oaks Savannah Permit 17-01			X	X	X			X				X				\$19,272.64
The Lakes of Stillwater Permit 17-04	Extended to 12/31/2025	received as-builts and not built as approved - needs correction	X	X	X			X					X			\$4,473.18
West Ridge Permit 17-17			X	X	X			X	X			X				\$2,154.68
Heifort Hills Estates Permit 18-02			X	X	X			X	X			X				\$41,206.46
Boutwell Farms Permit 18-04A			X	X	X			X	X			X				\$785.69
Hazel Place/Hertiage Ridge Permit 18-05 (Was 17-09)		as of 10/2023 - still two lots to go	X	X	X			X	X			X				(\$2,408.42)
Nottingham Village Permit 18-06		approved (overflow too	X	X	X			X				X				\$1,328.90
Ridgecrest Permit 18-11		waiting for popeyes to be done - one raingardian install at popeyes, one raingarden replanted, need documentation of compost follow up spring 2024	X	X				X	X				X			\$2,296.78
St Croix Valley Recreation Center Expansion Permit 18-14		contact Reabar - last follow up 2021		X				X	X		X				\$6,970.28	
Central Commons Permit 19-05	11/11/2025	Declaration still	X	X	X			X	X				X			(\$4,044.50)
Neal Ave Road Reconstruction Permit 20-05	6/1/2020	contact Reabar	X	X							X				\$19,088.31	
CSAH 15-36 Interchange Permit 20-08	3/24/2021 3 year approval	waiting for as-builts		X			X	X		X					\$22,178.60	
White Pine Ridge Permit 20-12	6/7/2021 ----- 1/12/23			X						X		X			\$	947.34
Maryland Gateway Addition Permit 21-13	9/29/2021	four lots left to build	x	x				x				x				(\$611.00)
Schwartz Residence Permit 21-15	5/6/2021 erosion control only	amendment requested for 2.0	x	x								x				(\$319.38)
Fahey Permit 21-34	11/4/2021			x								x				(\$743.78)
Norell Ave N Improvements Permit 21-45	(Fall 2022 BMP still needs to be finalized fall 2023)	waiting on maintnace agreement	x	x				x			x				\$10,458.63	
Gonyea (8 lots)- White Pine Ridge Permit 22-02				x								x				(\$150.60)
Wetridge (12 lots) - Sharkey/GreenHalo	3/25/2022			x								x				(\$442.71)

APPLICANT/PERMIT NO.	PERMIT DATE	Status/Notes	RULES							Dec on pact ion	TYPE				FEES OWED	
			2	3	4	5	6	7	GOV		SF RES	RES DEV	COM	EXEMPT	AMT DUE	
Permit 22-03 (Transferred 21-30 and 21-31)																
13290 Boutwell Road N - Sharkey/GreenHalo Permit 22-05	3/25/2022			x								x				(\$590.51)
7125 Lone Oak Trail (WOS L106)-weichman Permit 22-11	9/25/2022 need to amend declaration			x							x					\$8,424.13
Stillwater Oaks Permit 22-18	conditional approval		x	x							x					\$1,925.50
Popeyes OPH Permit 22-20	11/9/2022			x									x			(\$189.62)
Wash Co. CSAH 57 culverts Permit 22-31	2/2/2023			x						x						\$0.00
Cty Rd 61 Re-alignment Permit 23-01	4/12/2023 not yet closable		x	x						x						\$8,147.40
WOS L114 - Cates (7211 Lone Oak Trail Tweden) Permit 23-02	9/26/2023 submittal			x	x			x			x					\$8,627.43
Boutwell Farm Lot 1 (2545 Boutwell Farm Rd) Permit 23-03	5/3/2023 NOPV Board Order Items			x							x					\$3,569.86
Westridge B1L4 (986 Creekside) Permit 23-04	5/3/2023			x							x					(\$656.02)
Rocket Carwash Permit 23-05	conditional approval 4/12/2023		x	x									x			\$4,824.00
7239 Lone Oak Trail (WOS L118) Permit 23-07	5/3/2023			x							x					\$689.54
72nd St Road and Trail Improvements Permit 23-08	5/26/2023									x						\$3,438.36
7273 Lone Oak Trail- WOS Lot 122 - Freiroy Residence Permit 23-11	Conditions not met but started construction 7/27/2023	Need LOC-submitted but not acceptable		x							x					\$1,058.25
The Lakes - Phase III/Sandhill Shores Permit 23-13	6/8/2023			x							x					\$582.82
Wiskow Berm Permit 23-14	6/28/2023			x							x					(\$576.28)
7085 Lone Oak Trail- WOS L102- Mensah Res/Cates Permit 23-15	App recieved 7/10 John reviewing/conditions 7/27/2023			x							x					\$1,305.23
7285 Lone Oak Trl- WOS L124 Permit 23-18	needed			x							x					\$283.00
Liberty Classical Academy Expansion Permit 23-19	Plans submitted 6-12-2024 Fee received 12-21-2023		x	x	x			x					x			\$2,540.25
Take 5 Oil Change Permit 24-01	8/23/2024		x	x				x					x			(\$2,437.16)
Schuster Residence- 122nd St N Permit 24-02	3/12/2024			x							x					\$913.96
WOS L120- 7255 Lone Oak- Hilgert Permit 24-03	3/18/2024			x							x					\$2,006.30
Swager Residence Permit 24-05	3/7/2024			x							x					\$ (645.40)
Rutherford Elementary Permit 24-06	8/29/2024		x	x				x		x				\$	8,379.06	
Elliot Crossing Permit 24-07	8/2/2024 submittal complete		x	x	x			x			x			\$		36,023.97
Allendorfer Residence - 13075 Lynch Rd	5/8/2024			x							x			\$		(853.75)

APPLICANT/PERMIT NO.	PERMIT DATE	Status/Notes	RULES							Dec om pact ion	TYPE				FEES OWED	
			2	3	4	5	6	7	GOV		SF RES	RES DEV	COM	EXEMPT	AMT DUE	
Permit 24-08																
Washington County CSAH 5 - Trails and Bridge Permit 24-09	8/6/2024	submittal complete administrative	x	x		x		x		x					\$	19,971.75
Boutwell Farms lot 1 -Conlin - 2545 Boutwell Farm Rd Permit 24-10		application incomplete 8/29/2024		x							x				\$	(787.14)
7300 Lone Oak Trail - WOS Lot 127 Karr Residence (Cate Permit 24-11		8/29/2024		x							x				\$	602.19
7338 Lone Oak Trail- WOS Lot 130-Carlson Residence Permit 24-12		pre-application - lowest floor alteration request App received 9/24/2024		x							x				\$	(187.12)
8413 Marylane Permit 24-13		10/24/2024		x							x				\$	(926.50)
Pratt Homes - 105th and Jamaca - Wick Residence Permit 24-14		application recieved 8/15 ready to issue		x							x				\$	(730.69)
Lornston Permit 24-15		11/7/24		x	x						x				\$	(1,060.00)
Goodsell Permit 24-16		App received 11/6/2024		x	x						x				\$	(7,403.24)
WOS Lot 129 - Weatherby Permit 24-17		incomplete 11/12/2024		x							x				\$	(7,403.24)
Washington County CSAH 15B/South Frontage Rd Permit 24-18		submittal 11/13/2024	x	x		x	x	x		x					\$	13,222.50
Curve Crest Blvd Utility Extension Permit 25-01		2/19/2025		x						x					\$	1,702.75
Anderson Holdings Mass Grading Permit 25-02		submittal 2/6/2025		x									x		\$	1,120.00
Lakeview Hospital Site Permit 25-03		submittal 2/18/2025	x	x		x		x					x		\$	(1,759.00)
Kranz Home Addition Permit 25-04		submittal 2/20/2025	x									x			\$	(1,824.00)
St. Croix Rec Center Parking Lot Extension Permit 25-05		submittal 2/14/2025?		x						x					\$	1,977.75
CSAH 15 Pavement Preservation Permit 25-06		submittal 2/26/2025		x						x					\$	811.50
TOTAL NON-EXEMPT DUE BCWD:			##	457	44	18	30	177	25	71	153	13	119			\$159,567.06
Total due back to applicants if closed:																(\$231,476.52)

Project Name	Weather Station Monitoring Program	Date	2/04/2025
To / Contact info	BCWD Board of Managers		
Cc / Contact info	Karen Kill, District Administrator		
From / Contact info	Mike Majeski, Conservation Biologist		
Regarding	2024 Weather Summary		

Background

The BCWD Weather Station Monitoring Program was initiated in the spring of 2011 and has been in operation since 2012. Each season, the weather station is installed on top of the vegetated berm at the Stillwater Public Works Facility and collects the following data: precipitation, air temperature, relative humidity, dew point, solar radiation, wind speed, gust speed, and wind direction. The weather station is programmed to collect data from spring through fall each season and is removed during the winter months. This information is being collected to support a variety of District programs such as hydrologic and hydraulic model upgrades and calibration (which require 15-minute precipitation data), thermal modeling efforts, and other projects including the Settlers Glen iron-enhanced sand filter, THPP, and the Biological Monitoring Program. The weather station data is also routinely shared with the Washington Conservation District (WCD).

The objective of this memorandum is to summarize temperature and precipitation data recorded in 2024 and how the data relates to temperatures recorded in Brown’s Creek, particularly in the Brown’s Creek gorge where coolwater and coldwater dependent species occur including rainbow darter, brown trout, and several macroinvertebrate species that have specific thermal and dissolved oxygen requirements to survive (e.g., stoneflies).

2024 Weather Summary

The BCWD weather station was installed at the Stillwater Public Works Facility (latitude: 45°03'49.86", longitude: 92°51'21.05") on April 5, 2024 and was removed on November 6, 2024. During this timeframe, a total of 33.36" of precipitation was recorded, including eight rain events exceeding one inch (Figure 1). Above average monthly precipitation occurred in April (+1.08", total of 3.95"), May (+2.65", total of 6.23"), June (+3.63", total of 8.39"), and August (+2.58", total of 4.92"). Dry periods occurred in July, September, and October and resulted in below average precipitation totals for those months: July (-1.05", total of 3.64"), September (-2.44", total of 1.14"), and October (-0.71", total of 1.89"). Notable dry periods over the course of the monitoring season included: Aug. 30-Sept. 18 (0.27" in 20 days) and Sept. 22-Oct. 23 (0.00" in 32 days).

Air temperatures recorded at the weather station fluctuated above and below the average high and low temperatures throughout the monitoring season, and there were 4 days when the maximum air temperature exceeded 90°F (Table 1 and Figure 2). For the second consecutive year, water temperatures recorded in Brown’s Creek at the WOMP station never exceeded a maximum water temperature of 70°F

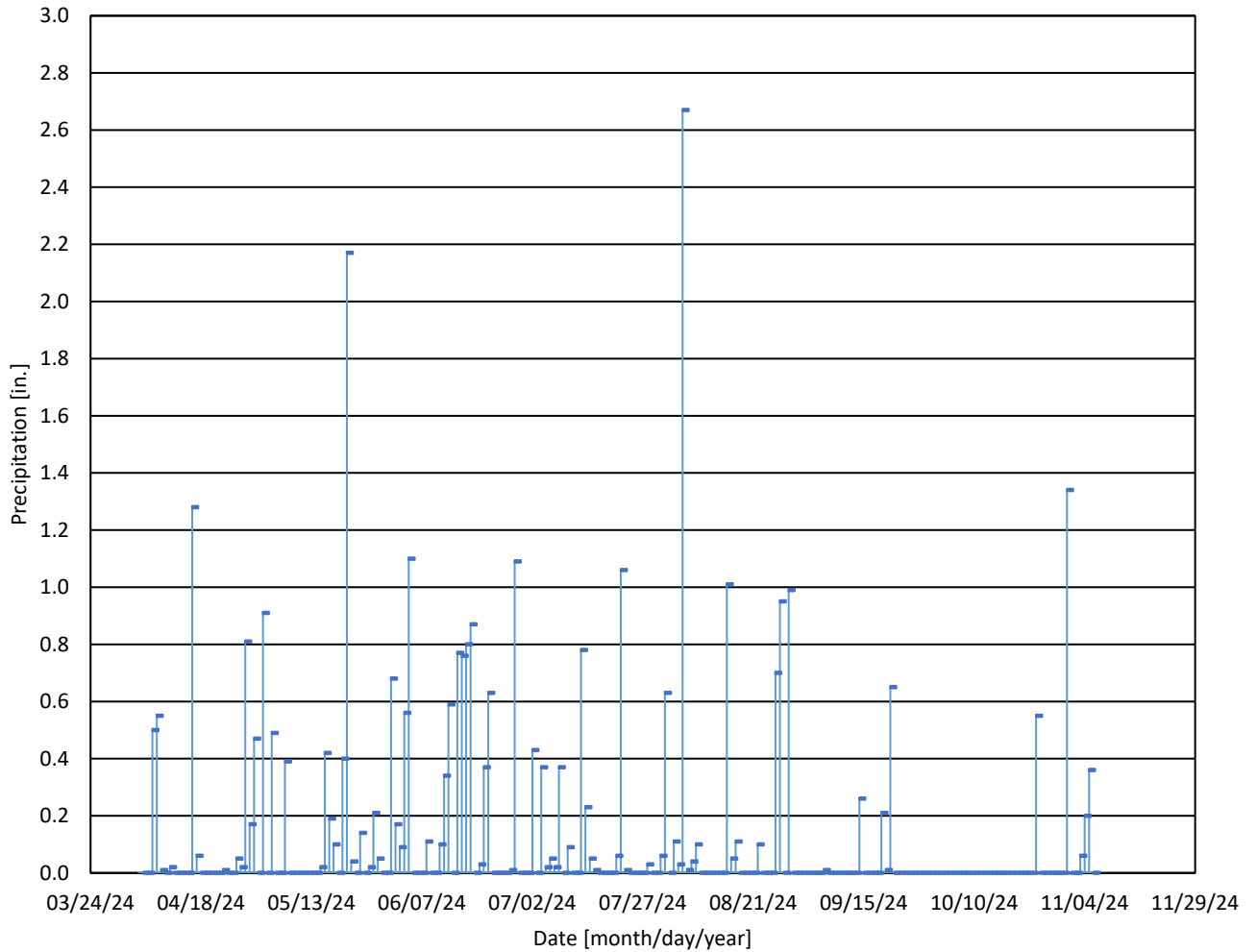


Figure 1. Daily precipitation recorded by the BCWD weather station (April 5 - November 6, 2024).

at any point during the year. This is notable since several aquatic species in Brown’s Creek require cool water temperatures to survive. For example, brown trout can become physiologically stressed when water temperatures exceed 65°F, and young trout may stop feeding when water temperatures exceed 71°F (personal comm. MNDNR Fisheries).

There are multiple factors that influence instream temperatures that require detailed analysis beyond the scope of this project; however, the data summarized in Table 1 suggest that a combination of warm air temperatures with concurrent precipitation events appear to have a greater effect on instream temperatures than warm air temperatures alone. For example, since 2012, 2021 had the greatest number of days above 90°F and the warmest nights (nights when the low air temperature was above the average low), yet there was only one day when water temperatures exceeded 70°F at the WOMP station that year. 2021 was also the second driest year (from May 1-Sept.1) since the weather station was installed in 2012. Conversely, the years that had greater precipitation totals during warm weather periods had the greater

Table 1. Air and water temperature trends for Brown’s Creek during warm weather months (May 1-September 1, 2012-2024)

Year	# days with max. air temp above 90° F	# nights with low air temp above average low [°F]	Average low air temp. above average low [°F]	# days when WOMP water temp. exceeded 70°F	Total precip. May 1-Sept 1 [in.]	Total precip. [in.] on days when WOMP water temp. exceeded 70°F
2012	20	43	5.10	21	17.26	5.28
2013	12	34	4.74	11	17.31	2.12
2014	0	25	4.64	7	21.28	0.10
2015	2	25	3.37	4	21.14	1.55
2016	12	38	3.79	10	20.80	4.96
2017	9	16	3.27	0	17.12	N/A
2018	18	45	4.58	8	15.84	3.10
2019	5	15	2.02	1	22.93	0.83
2020	15	42	4.20	8	21.68	3.14
2021	34	33	7.03	1	12.14	0
2022	16	30	4.69	1	13.30	0
2023	24	34	4.03	0	9.26	N/A
2024	4	29	3.51	0	25.76	N/A

number of days when the WOMP water temperature exceeded 70°F. Since the weather station was installed, 2023 had the second most days above 90°F but was also the driest year (from May 1-Sept.1), and WOMP water temperatures never exceeded 70°F at any point during the monitoring season.

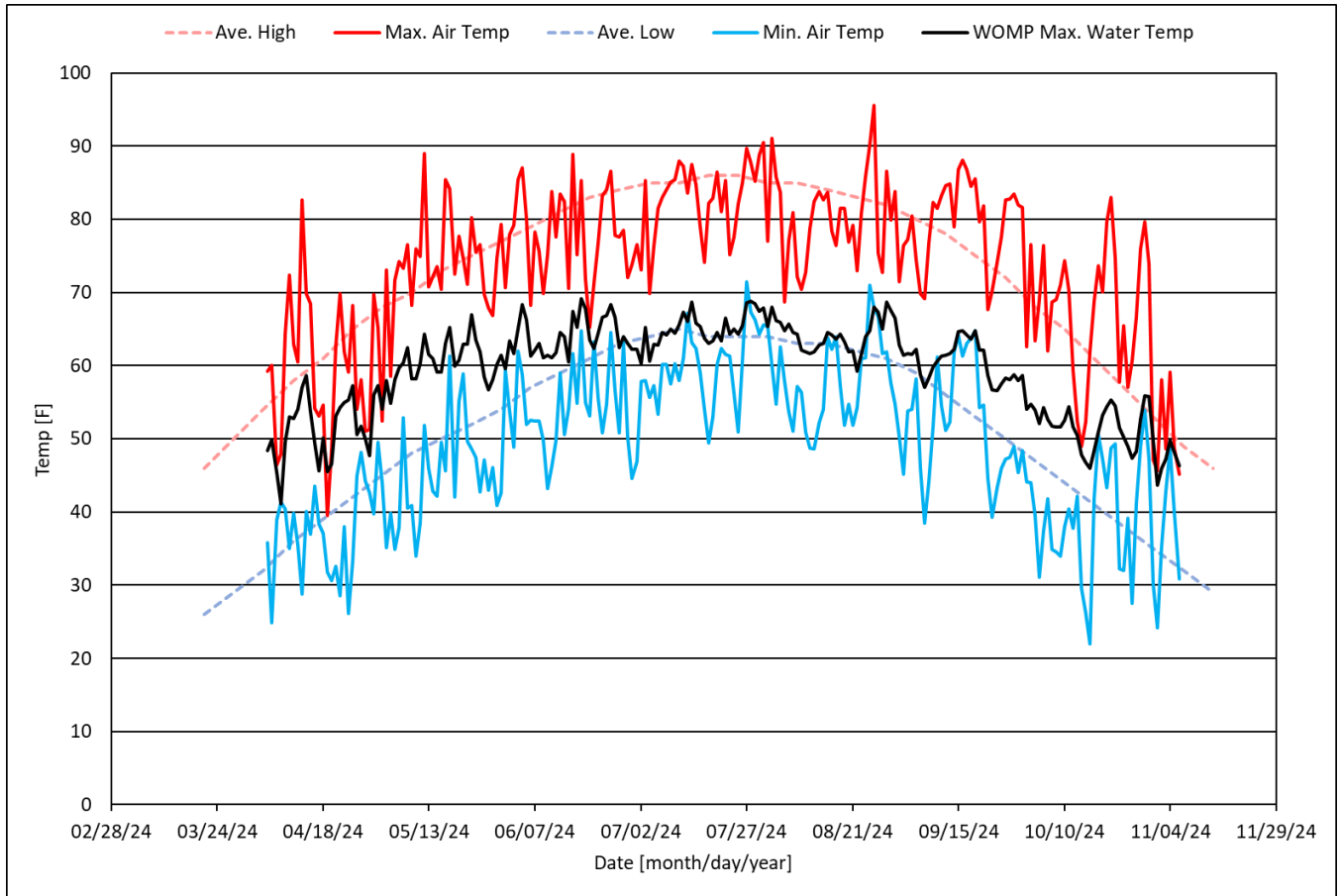


Figure 2. Daily maximum and minimum temperatures recorded by the BCWD weather station and WOMP daily maximum water temperatures recorded by the WCD/ Met Council. Average air temperature data source:

<https://weather.com/weather/monthly/l/45.067273,-92.854033>

Weather Station Maintenance

Prior to equipment installation, the precipitation gauge was calibrated to a simulated one-inch rain event according to the manufacturer’s specifications. During the monitoring season, the weather station was visited periodically to download data and check for sensor fouling. All weather sensors were inspected in the fall of 2024 and no upgrades or replacements are needed at this time.

2025 Scope of Services

The following outlines the costs associated with equipment preparation, precipitation gauge calibration, data collection, and reporting for the 2025 monitoring season (March to November). All data collected will be forwarded to the Washington Conservation District and other entities as requested.

Task	Hours	Estimated Cost
Precipitation Calibration & Installation of Weather Station	5	\$780
Monthly Download of Data (~6 months)	7	\$1092
End of Season Equipment Removal	3	\$468
Data QA/QC & Report, Data Storage, & Distribution to the WCD	8	\$1,248
Expenses	N/A	\$388*
TOTALS	23	\$3,976

* Includes the cost for sensor replacement if needed (temp/ humidity or pyranometer sensor)

Requested Action

1. Approve this scope of services from account number 957-0000 to operate the BCWD weather station in 2025.



Inspection and Maintenance of Permanent Stormwater Treatment Practices

April 22 - 23, 2024

REGISTER BY MARCH 15, 2024

Chaska, MN

Program Description

This two-day course (and one-day recertification) is for personnel who inspect, maintain, or direct maintenance of stormwater control measures, such as urban or rural wet ponds, filtration systems, infiltration systems, including in-line with conveyance systems. Attendees will learn the fundamentals of various stormwater practices processes, mechanics, operations, inspections, and maintenance needs, and how to create and execute a maintenance work plan. An optional certification exam is available at the end of the class for those who wish to be certified. (12 PDHs)

Agenda Topics Include:

- * Fundamentals of stormwater practices maintenance
- * Vegetated and biological stormwater practices maintenance
- * Surface and in-ground stormwater practices maintenance
- * Underground and volume reduction practices maintenance
- * Rules and regulations
- * Stormwater practices maintenance program
- * Case studies
- * Putting it all together
- * Plus ample time for questions, small group, and field work

Who should attend?

This course is for state agency, municipal, or private maintenance staff or managers, who perform or assign maintenance and operations work on drainage systems, stormwater ponds, filtration systems, infiltration systems, or other practices. Engineers or technicians who design stormwater ponds, infiltration systems, or other stormwater control measures and have to create long term operations and maintenance plans for stormwater control measures will also benefit from this course

Speakers

Attendees at this event will hear from University of Minnesota Researchers and state agency staff including:

- John A. Chapman, University of Minnesota, Erosion Program
- John Billotta, Minnesota Sea Grant
- Andy Erickson, University of Minnesota, St. Anthony Falls Lab
- Maggie Karschnia, MN Sea Grant and Water Resources Center

Date and Location

Inspection and Maintenance Certification Course
Monday - Tuesday April 22 - 23, 2024
REGISTER BY MARCH 15, 2024

Fee

Course Registration fee is \$250. The course fee includes a workbook and lunch.

This course will only be offered in-person if 20 or more registrations are received by 3/15/24

Landscape Arboretum
3675 Arboretum Drive
Chaska, MN 55318



Inspection and Maintenance of Permanent
Stormwater Treatment Practices

Registration Form

Check www.erosion.umn.edu or call 800-646-2282 or 612-625-9733 for updated information

NAME _____

COMPANY/ORGANIZATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____ PHONE: _____

PAYMENT OPTIONS CREDIT CARD CHECK, MONEY ORDER OR GOVERNMENT PURCHASE ORDER PAYABLE TO: UNIVERSITY OF MINNESOTA

CARDHOLDER'S NAME (PLEASE PRINT) _____

AMOUNT TO BE CHARGED: \$ 250 CREDIT CARD NUMBER: _____ EXP. DATE: _____

CARDHOLDER'S SIGNATURE : _____



Registration

(Make checks payable to **University of Minnesota**)

Mail with payment or government purchase order to:

Erosion and Stormwater Management Program
University of Minnesota
1390 Eckles Avenue
St. Paul, MN 55108

Or Fax (credit card only) to 612-626-6030

Sponsors

The workshop is presented by the University of Minnesota through the Erosion and Stormwater Management Program.



Erosion and Stormwater Management Program
Bioproducts and Biosystems Engineering Department
University of Minnesota
1390 Eckles Avenue
St. Paul, MN 55108

Brown's Creek Watershed District
2025 Budget Approved 12-11-2024
3-12-2025

		Estimated 2024 Carry Forward	2025 Grants	2025 Levy	2025 Total Budget	Allocated	Available
100-2910	Designated Funds - Management Plan Projects	\$ 841,580			\$ 841,580		\$ 841,580
					\$ -		\$ -
Revenue					\$ -		\$ -
100-3700	Interest Income				\$ -		\$ -
100-3601	Metropolitan Council Outlet Monitoring Grant		\$ 5,000		\$ 5,000		\$ 5,000
100-3630	Washington County Cost-share Applewood Reuse				\$ -		\$ -
100-3631	MPCA Small Watershed Grant 2023-2025				\$ -		\$ -
100-3632	MPCA Small Watershed Grant 2025-2029		\$ 34,800		\$ 34,800		\$ 34,800
100-3100	Tax Levy			\$ 1,207,531	\$ 1,207,531		\$ 1,207,531
TOTAL, ESTIMATED Sources of Funding		\$ 841,580	\$ 39,800	\$ 1,207,531	\$ 2,088,911	\$ -	\$ 2,088,911

ACCT. #	General Expenses	Estimated 2024 Carry Forward	2025 Grants	2025 Levy	2025 Total Budget	Allocated	Available
200-4000	Manager Per Diem and Expense			\$ 10,000	\$ 10,000		\$ 10,000
200-4250	Dues & Subscriptions (MN Watersheds 7200 and LMCIT 2800)			\$ 10,000	\$ 10,000	\$ 10,000	\$ -
200-4270	Bonding & Insurance			\$ 6,500	\$ 6,500	\$ 6,500	\$ -
200-4280	Postage & Delivery			\$ 1,000	\$ 1,000		\$ 1,000
200-4290	Printing & Notices			\$ 1,000	\$ 1,000		\$ 1,000
200-4330	Accounting			\$ 5,000	\$ 5,000	\$ 5,040	\$ (40)
200-4331	Audit			\$ 12,000	\$ 12,000	\$ 11,300	\$ 700
200-4949	Misc., Other Expense			\$ 2,000	\$ 2,000		\$ 2,000
200-4320	Wash. Conservation District--Admin			\$ 65,000	\$ 65,000	\$ 65,000	\$ -
200-4265	Admin Conference Registrations			\$ 3,000	\$ 3,000		\$ 3,000
200-4410	Legal Fees - General			\$ 27,100	\$ 27,100	\$ 26,700	\$ 400
200-4500	Staff Engineer			\$ 31,289	\$ 31,289	\$ 31,289	\$ (0)
	Diversity, Equity and Inclusion Training			\$ 5,000	\$ 5,000		\$ 5,000
	Contingency Reserve			\$ 40,750	\$ 40,750		\$ 40,750
TOTAL GENERAL FUND EXPENSES:		\$ -	\$ -	\$ 219,639	\$ 219,639	\$ 155,829	\$ 63,810

ACCT. #	MANAGEMENT PLAN EXPENSES	Estimated 2024 Carry Forward	2025 Grants	2025 Levy	2025 Total Budget	Allocated	Available
300-4320	Wash. Conservation District--Administrator			\$ 250,000	\$ 250,000	\$ 250,000	\$ -
300-4410	Legal Fees - Mgmt Plan			\$ 60,000	\$ 60,000		\$ 60,000
300-4501	Staff Engineer			\$ 99,522	\$ 99,522	\$ 95,623	\$ 3,899
300-4702	Permitting, Legal Review			\$ 15,750	\$ 15,750		\$ 15,750
300-4703	Permitting, Engineering Review			\$ 75,000	\$ 75,000		\$ 75,000
300-4704	Permitting, Inspection Database			\$ 10,500	\$ 10,500		\$ 10,500
300-4710-1	Baseline Monitoring		\$ 5,000	\$ 145,000	\$ 150,000	\$ 177,465	\$ (27,465)
300-4640	Equip. Maint. and Upgrades	\$ 15,000		\$ 10,000	\$ 25,000	\$ 8,775	\$ 16,225
300-4810	Shared Educator Position			\$ 31,000	\$ 31,000	\$ 24,500	\$ 6,500
300-4950	Management Plan Implementation -future projects				\$ -		\$ -
903-0001	Trout Habitat Preservation Project: Monitoring,	\$ 6,500			\$ 6,500		\$ 6,500
909-0000	Rules Review/Evaluation	\$ 20,000		\$ 10,000	\$ 30,000		\$ 30,000
909-0001	Groundwater Dep Nat Resource Inventory update				\$ -		\$ -
909-0002	Permitting Program Internal Procedure updates	\$ 25,000			\$ 25,000		\$ 25,000
910-0000	Education & Outreach			\$ 103,500	\$ 103,500	\$ 7,350	\$ 96,150
911-0000	Volunteer Stream Monitoring			\$ 4,500	\$ 4,500	\$ 4,909	\$ (409)
914-0000	Homeowner BMP Program			\$ 50,000	\$ 50,000	\$ 25,534	\$ 24,466
922-0000	Plan Reviews - LGU/LWMP				\$ -		\$ -
923-0000	H & H Model Maintenance	\$ 42,500			\$ 42,500		\$ 42,500
923-0003	Long Lake - Flood Risk - Weir Modification Assessment			\$ 30,000	\$ 30,000		\$ 30,000
927-0000	Management Plan Update	\$ 10,000		\$ 15,000	\$ 25,000		\$ 25,000
929-0000	Long Lake Plan Implementation			\$ 103,700	\$ 103,700		\$ 103,700
929-0012	Long Lake - Marketplace Reuse Feasibility	\$ 225,120		\$ (225,120)	\$ -		\$ -
929-0013	Long Lake - Chloride Impairment Assessment			\$ 15,000	\$ 15,000		\$ 15,000
929-0014	Long Lake - Brewer's Pond BMP/LGU cost-share			\$ 25,000	\$ 25,000	\$ 25,000	\$ -
935-0000	Land Conservation Program	\$ 150,000		\$ 50,000	\$ 200,000		\$ 200,000
935-0002	110th Street Property Implementation	\$ 50,000	\$ 5,900		\$ 55,900	\$ 5,900	\$ 50,000
935-0003	Develop Land Conservation Priorities	\$ 20,000			\$ 20,000		\$ 20,000
940-0000	BMP Program - LGU/Community Demonstration Projects				\$ -		\$ -
942-0004	Measuring Trends in GW Elevations & Flow			\$ 4,700	\$ 4,700		\$ 4,700
942-0007	Groundwater - Browns Creek piezometers	\$ 8,960		\$ (8,960)	\$ -		\$ -
942-0011	Groundwater - Coordination with users	\$ 8,500			\$ 8,500		\$ 8,500
947-0017	Brown's Creek Implementation - Ecoli	\$ 10,000		\$ 5,800	\$ 15,800		\$ 15,800
947-0018	Brown's Creek - Biological Survey (Macroinvert)			\$ 4,100	\$ 4,100		\$ 4,100
947-0022	Brown's Creek - Buffer and Stream Restoration	\$ 40,800			\$ 40,800		\$ 40,800
947-0023	Brown's Creek - Golf Course Reuse - Oak Glen				\$ -		\$ -
947-0026	Brown's Creek - Brown's Creek Cove Reach	\$ 23,200	\$ 34,800		\$ 58,000		\$ 58,000
947-0027	Brown's Creek - McKusick Road rock crib feasibility	\$ 26,000			\$ 26,000		\$ 26,000
948-0000	CIP Maintenance	\$ 115,000		\$ 85,000	\$ 200,000		\$ 200,000
953-0000	Fen Management Plan Implementation				\$ -		\$ -
957-0000	Weather Station			\$ 3,900	\$ 3,900		\$ 3,900
959-0004	Resource Assessment - AIS			\$ 15,000	\$ 15,000		\$ 15,000
960-0000	St Croix Phosphorus Reduction	\$ 10,000			\$ 10,000		\$ 10,000
961-0000	Mendel Wetland Restoration Feasibility	\$ 35,000			\$ 35,000		\$ 35,000
TOTAL MANAGEMENT PLAN PROJECT EXPENSES:		\$ 841,580	\$ 45,700	\$ 987,892	\$ 1,875,172	\$ 625,056	\$ 1,250,116
TOTAL, OPERATING EXP. & MGMT. PLAN PROJECTS:		\$ 841,580	\$ 45,700	\$ 1,207,531	\$ 2,094,811	\$ 780,885	\$ 1,313,926

BROWN'S CREEK WATERSHED DISTRICT
 3/12/2025
 CURRENT ITEMS PAYABLE-PAGE 1 of 2

	YES	NO	ABSTAIN	ABSENT
ECKLES	_____	_____	_____	_____
ODEBRECHT	_____	_____	_____	_____
LEROUX	_____	_____	_____	_____
WIRTH	_____	_____	_____	_____
SAHULKA	_____	_____	_____	_____

VENDOR

Emmons & Olivier Resources, Inc.

ACCOUNT #	ITEMS	TOTAL	CK NO
	February 2025 Invoices		
Inv. 41-0000-231	Retainer	300-4500 \$ 7,078.50	
Inv. 41-0000-231	Retainer	200-4500 \$ 2,359.50	
Inv. 41-0001-234	General Permitting	300-4703 \$ 11,011.75	
Inv. 41-0307-95	Permits 2017		
Permit #17-17	West Ridge	300-4703 \$ 183.75	
Inv. 41-0330-78	Permits 2018		
Permit #18-11	Ridgecrest Oak Park Heights	300-4703 \$ 183.75	
Inv. 41-0365-50	Permits 2020		
Permit #20-08	Hwy 36/Manning Avenue Interchange	300-4703 \$ 220.50	
Inv. 41-0402-36	Permits 2022		
Permit #22-11	WOS Lot106	300-4703 \$ 294.00	
Permit #22-18	Stillwater Oaks	300-4703 \$ 147.00	
Inv. 41-0420-25	Permits 2023		
Permit #23-17	Sundance Stillwater	300-4703 \$ 147.00	
Permit #23-19	Liberty Classical Academy Expansion	300-4703 \$ 73.50	
Inv. 41-0438-14	Permits 2024		
Permit #24-07	Elliot Crossing	300-4703 \$ 1,597.50	
Permit #24-09	CSAH 5 Phase 3	300-4703 \$ 36.75	
Permit #24-15	Lornston	300-4703 \$ 36.75	
Permit #24-16	Goodsell Residence	300-4703 \$ 36.75	
Permit #24-18	CSAH 15 Frontage	300-4703 \$ 73.50	
Inv. 41-0461-2	Permits 2025		
Permit #25-01	Curve Crest Utility Extension	300-4703 \$ 1,247.00	
Permit #25-02	Anderson Holdings	300-4703 \$ 2,620.50	
Permit #25-03	Lakeview Hospital	300-4703 \$ 5,241.00	
Permit #25-04	Kranz Residence	300-4703 \$ 1,176.00	
Permit #25-05	St. Croix Rec Center	300-4703 \$ 1,977.75	
Permit #25-06	CSAH 15 Pavement Preservation	300-4703 \$ 811.50	
Inv. 41-0284-34	Education & Outreach	910-0000 \$ 198.00	
Inv. 41-0401-8	Bluff Restoration/Highway Sponsorship	959-0003 \$ 99.00	
Inv. 41-0418-27	Brown's Ck Pk Restoration	947-0022 \$ 545.40	
Inv. 41-0433-13	2024 H&H Model Update	923-0000 \$ 3,098.25	
Inv. 41-0434-7	Mendel Wetland Landowner Engagement	961-0000 \$ 49.50	
Inv. 41-0437-12	2024 OGGC Reuse Maintenance & Monitoring	948-0000 \$ 86.25	
Inv. 41-0442-8	2024 Weather Station	957-0000 \$ 594.00	
Inv. 41-0446-8	Masterman Long Wood Pile Lake Plans	962-0000 \$ 468.00	

EOR Continued	Inv. 41-0447-11 BCWD 2024 WMP Update	927-0000	\$ 3,554.70		
	Inv. 41-0450-8 Coord WQ Improv w/ Member Communities	962-0000	\$ 1,287.00		
	Inv. 41-0453-9 BCWD IESF O&M 2024	948-4500	\$ 159.75		
	Inv. 41-0454-2 2024 Groundwater Monitoring & Management	942-0004	\$ 1,048.50		
	Inv. 41-0458-4 Rule Revision Facilitation	909-0000	\$ 99.00		
	Inv. 41-0463-1 AHGC O&M	929-0010	\$ 808.50	\$ 48,650.10	
Xcel Energy	Inv. 915875195 - Iron Enhanced Sand Filter pump operation	948-4500	\$ 22.86	\$ 22.86	
Washington Conservation District	Inv. 6811 December 2024 Water Monitoring				
	Baseline Water Monitoring - Labor	300-4710	\$ 10,441.25		
	Baseline Water Monitoring - Equipment	300-4640	\$ 14.58		
	Metropolitan Council - Lab	300-4710	\$ 13,973.00		
	Inv. 6825 Volunteer Stream Monitoring Program	911-0000	\$ 389.50		
	Inv. 6827 December 2024 BMP Program	914-0000	\$ 2,405.00		
	Inv. 6852 4th Quarter 2024 Educator - EMWREP	300-4810	\$ 5,120.33		
	Inv. 6884 January 2025 Water Monitoring				
	Baseline Water Monitoring - Labor	300-4710	\$ 12,641.66		
	Baseline Water Monitoring - Equipment	300-4640	\$ 16.67		
	Metropolitan Council - Lab	300-4710	\$ 505.00		
	Inv. 6887 January 2025 BMP Program	914-0000	\$ 2,294.00	\$ 47,800.99	
Smith Partners	February 2025 Invoices				
	Inv. 45564 Retainer - Meetings, Preparation	200-4410	\$ 2,259.33		
	Inv. 45565 General Legal Services	300-4410	\$ 474.30		
	Inv. 45566 Planning	300-4410	\$ 728.01		
	Inv. 45567 Contracts	300-4410	\$ 1,752.25		
	Inv. 45568 Permits	300-4702	\$ 1,625.30		
	Inv. 45569 Lake McKusick Iron-Sand Infiltration	300-4410	\$ 306.90		
	Inv. 45570 Capital Project Development	300-4410	\$ 1,090.98		
	Inv. 45571 Land Conservation	300-4410	\$ 418.50	\$ 8,655.57	
Dave S. McCord, LTD	Inv. 4455 January 2025 Accounting Services	200-4330	\$ 420.00	\$ 420.00	
Elizabeth Carreño	Inv. 2 Regulatory Review	948-0000	\$ 2,500.00	\$ 2,500.00	
Total Amount Disbursed				\$ 108,049.52	

BROWN'S CREEK WATERSHED DISTRICT

3/12/2024

MONTHLY ITEMS DEPOSITED - Page 1 of 1

VENDOR	INVOICE/DESCRIPTION	ACCOUNT #	CK NO	DEPOSIT DATE	TOTAL
4M Fund	Dividend (Interest)	100-3700	Direct Deposit	2/28/2025	\$ 2,998.44
HKS Inc.	#25-03 Permit Fee Deposit	300-4703	417345	2/19/2025	\$ 7,000.00
Wittstock Builders, LLC	#25-04 Permit Fee Deposit	300-4703	30554	2/20/2025	\$ 3,000.00
Washington Conservation District	Refund for overpayment on Inv. 6864	300-4320	18178	3/7/2025	\$ 15,000.00
TOTAL AMOUNT DEPOSITED:					\$ 12,998.44

**Brown's Creek Watershed District
Treasurer's Report
3/12/25**

Total Bank Balance			
4M Fund		\$	858,481.64
USBank			-
Less Accounts Payable			(108,049.52)
Plus Unrecorded Deposits since	02/28/2025		15,000.00
Total Balance		\$	<u>765,432.12</u>

Project Name	BCWD Permit 25-04, Kranz Addition	Date	March 7, 2025
To / Contact info	BCWD Board of Managers		
Cc / Contact info	Tom & Holly Kranz / Applicant		
Cc / Contact info	Karen Kill, Administrator / BCWD		
From / Contact info	Paul Nation, PE; John Sarafolean / EOR		
Regarding	Permit Application No. 25-04 Engineer's Report		

The following review of the above-mentioned project located within the legal jurisdiction of Brown's Creek Watershed District (BCWD) was conducted to determine compliance with the BCWD rules for purposes of the engineer's recommendation to the Board of Managers for its determination of the permit application.

Applicant: Tom & Holly Kranz

Permit Submittal Date: February 18, 2025

Completeness Determination: March 11, 2025

Board Action Required By: April 19, 2025

Review based on BCWD Rules effective April 1, 2020

Recommendation: Approve with Conditions

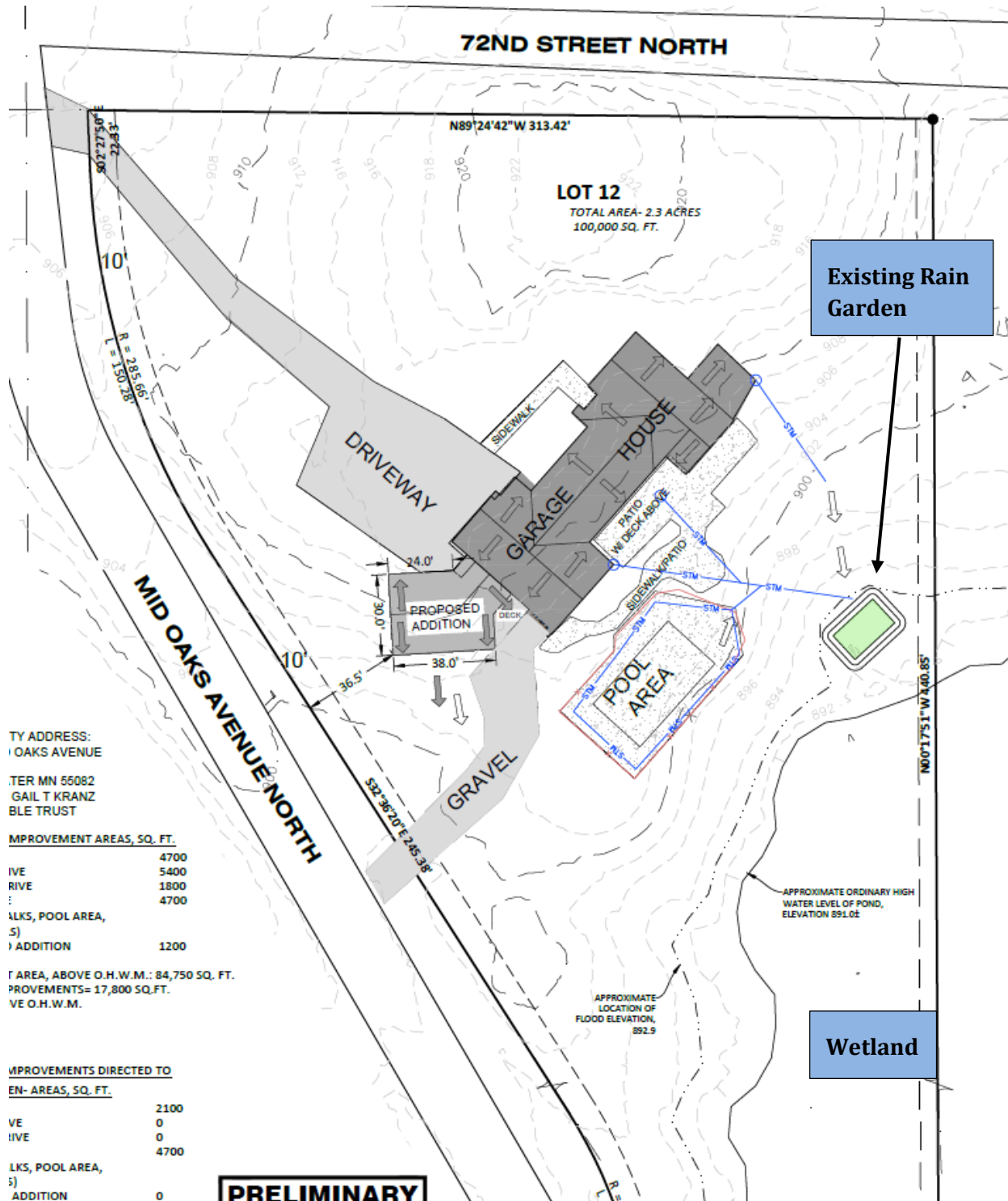
BACKGROUND AND GENERAL COMMENTS

Existing Conditions: The proposed home addition project is located at 7181 Mid Oaks Avenue North in Stillwater. The site is east of Long Lake and south of Interlachen Drive. The property drains to and includes a portion of Public Waters Wetland 82-309W, which connects to Long Lake through a culvert beneath Mid Oaks Avenue. A previous BCWD permit was approved in 2022 for an addition of 1,729 sf of impervious for a pool and patio, for which a rain garden was constructed to treat the regulated impervious surface. The property currently has a home, attached garage, two driveways, sidewalk, patio, and pool which amounts to 16,600 square feet of impervious surface. Because less than 50 percent of the existing impervious surface on the property is to be disturbed, only the new impervious needs to be treated.

Proposed Conditions: The permit applicant is proposing to add 1,200 of impervious surface to the existing site. No new stormwater facility is proposed to be constructed to manage the additional runoff from this impervious; rather the applicant is requesting that BCWD approve the request based on excess management capacity provided by the rain garden constructed in 2022 beyond what was required under BCWD Permit 22-13. Because the BCWD rules do not provide for such a treatment-in-lieu approach, the applicant has requested a variance from compliance with BCWD's stormwater volume criteria for the required treatment of the new impervious surface.

Recommendation: The BCWD engineer recommends that the Board consider the applicant's variance request in light of the analysis provided below and otherwise approve the application with the conditions outlined in the report.

Figure 1: Site Plan



Rule 2.0—STORMWATER MANAGEMENT

The proposed project triggers the application of Rule 2.0 Stormwater Management because the project involves creation of 1,200 square feet of new impervious surface which, aggregated with existing impervious surface, amounts to 17,800 square feet of impervious surface, exceeding the 10,000 square foot threshold in section 2.2(b). Since no disturbance of existing impervious is proposed, the proposed activity will disturb less than 50 percent of existing impervious surface, and the stormwater management standards apply only to net additional impervious surface and all disturbed areas on the project site. The site is within the Diversion Structure Subwatershed, so the stormwater criteria in subsection 2.4.1(b) apply.

The project relies on management of stormwater from existing impervious areas beyond the amounts required under BCWD permit 22-13. Analysis of compliance with the applicable BCWD stormwater requirements is provided in section 10.0 Variances.

Rate Control

According to BCWD Rule 2.4.1(b)(i), an applicant must submit a stormwater-management plan providing no increase in the existing peak stormwater flow rates from the site for a 24-hour precipitation event with a return frequency of two, 10 or 100 years for all points where discharges leave the site.

Rule Requirement Met

An updated version of the 22-13 permit hydrocad model of existing and post-development conditions was used to evaluate the stormwater runoff rate from the site. A comparison of the modeled peak flow rate is included in Table 1. As Table 1 demonstrates, the proposed stormwater runoff rate exceeds the existing conditions for the 2-, 10-, and 100-year, 24-hour events. However, the hydrocad model is measuring the rate exceedance at the point where the runoff enters the wetland. Uniquely, the discharge point from the property is within the wetland and therefore the runoff will be diffuse, meeting the rule requirement.

Table 1 - Peak Discharge Rate

<i>Event</i>	<i>Existing Runoff Rate (cfs)</i>	<i>Proposed Runoff Rate (cfs)</i>
2-year (2.80")	1.8	1.9
10-year (4.16")	4.2	4.3
100-year (7.20")	10.0	10.2

Volume Control

According to BCWD Rule 2.4.2(b), an applicant must submit a stormwater-management plan providing retention onsite of 1.1 inches of stormwater volume from the regulated impervious surface.

Rule Requirement Not Met *See analysis of variance request under Rule 10.0 section below.*

The applicant has proposed no new stormwater best management practices to treat the new impervious surface from the proposed house addition. The required stormwater treatment volume is 110 cf. This was calculated from the following equation.

$$\frac{(1.1 \text{ inches of stormwater} \times 1,200 \text{ square feet of impervious})}{\frac{12 \text{ inches}}{1 \text{ foot}}} = 110 \text{ cf}$$

Lake/Wetland Bounce

According to BCWD Rule 2.4.1(a)(iv), an applicant for a stormwater management permit must demonstrate to the District that the proposed land-altering activity will not increase the bounce in water level or duration of inundation, for a 24-hour precipitation event with a return frequency of two, 10 or 100 years in the subwatershed in which the site is located, for any downstream lake or wetland beyond the limit specified in Appendix 2.1.

Rule Requirement Met

Drainage from the property flows to Public Waters Wetland 82-309W which BCWD has categorized as a Manage 1 wetland. According to Appendix 2.1, Manage 1 wetlands are limited to an increase of 0.5 feet in bounce and to the following inundation periods: existing plus one day for the 2-year event and two days for the 10-year event or greater. For the 100-year event under proposed conditions, an additional 720 cubic feet of runoff will discharge from the property. 720 cubic feet over the surface area of the wetland will equate to .006 ft of bounce, which is less than the required 0.5'. This volume is sufficiently small to have an immeasurable impact on the inundation of the wetland, and therefore, Rule 2.4.1(a)(iv) is met.

Rule 3.0—EROSION CONTROL

According to BCWD Rule 3.2, all persons undertaking any grading, filling, or other land-altering activities which involve movement of more than fifty (50) cubic yards of earth or removal of vegetative cover on five thousand (5,000) square feet or more of land must submit an erosion control plan to the District, and secure a permit from the District approving the erosion control plan. The proposed project triggers the application of Rule 3.0 Erosion Control because the proposed project will involve movement of more than fifty cubic yards of earth.

Rule Requirements Met with Conditions.

The erosion and sediment control plan includes the following:

- *Perimeter control (silt fence) along downgradient edge of disturbed areas*
- *Restoration plan for disturbed soil areas including seeding.*

Rule 3.0 Conditions:

3-1. Provide the contact information for the erosion and sediment control responsible party during construction once a contractor is selected.

- 3-2. Provide the following changes to the erosion control plan: note the stabilization method to be used with the seeding restoration, add a note to sweep tracked sediment from the roadway at the end of each workday, add a note stating that all erosion control will be installed prior to any soil disturbance onsite.

Rule 4.0—LAKE, STREAM, AND WETLAND BUFFER REQUIREMENTS

According to BCWD Rule 4.2.1, Rule 4.0 applies to land that is (a) adjacent to Brown’s Creek; a tributary of Brown’s Creek designated as a public water pursuant to Minnesota Statutes section 103G.005, subdivision 15; a lake, as defined in these rules; a wetland one acre or larger; or a groundwater-dependent natural resource; and (b) that has been either (i) subdivided or (ii) subject to a new primary use for which a necessary rezoning, conditional use permit, special-use permit or variance has been approved on or after April 9, 2007, (for wetlands and groundwater-dependent natural resources other than public waters) or January 1, 2000 (for other waters).

- Rule Not Applicable to Permit

The proposed project lies adjacent to a Manage 1 wetland. However, the property was not subdivided, or subject to a new primary use requiring rezoning, conditional use permit, special-use permit, or variance on or after April 9, 2007.

Rule 5.0—SHORELINE AND STREAMBANK ALTERATIONS

According to BCWD Rule 5.2, no person may disturb the natural shoreline or streambank partially or wholly below the ordinary high water mark of a waterbody, without first securing a permit from the District.

- Rule Not Applicable to Permit. *There are no proposed shoreline or streambank alterations.*

Rule 6.0—WATERCOURSE AND BASIN CROSSINGS

According to Rule 6.2, no person may use the beds of any waterbody within the District for the placement of roads, highways and utilities without first securing a permit from the District.

- Rule Not Applicable to Permit. *There are no proposed watercourse or basin crossings.*

Rule 7.0—FLOODPLAIN AND DRAINAGE ALTERATIONS

Under section 7.2, no person may alter or fill land below the 100-year flood elevation of any waterbody, wetland, or stormwater management basin, or place fill in a landlocked basin, without first obtaining a permit from the District. No person may alter stormwater flows at a property boundary by changing land contours, diverting or obstructing surface or channel flow, or creating a basin outlet, without first obtaining a permit from the District.

- Rule Requirements Met

No fill is proposed within the 100-year flood elevation, but the increase in impervious area on the property will alter stormwater flows at the property boundary (within the public-waters wetland on the site), triggering the requirements of Rule 7.0.

Because no fill is proposed, subsection 7.3.1 does not impose requirements on the project.

Under BCWD rule 7.3.2 all new and reconstructed buildings must be constructed such that the lowest floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed basin. In addition, no stormwater management facility may be constructed at an elevation that brings an adjacent permanent building into noncompliance with this standard.

The following 100-year HWL was calculated using the hydrocad model from BCWD permit 22-13. The addition low floor elevation is more than one foot above the EOF of the existing rain garden, therefore, Rule 7.3.2 is met.

Table 2 - Freeboard Requirement Summary

<i>Stormwater Facility</i>	<i>EOF</i>	<i>100-Year HWL</i>	<i>Allowable Low Floor</i>	<i>Lowest Floor</i>
Rain Garden	901.94	901.56	902.94	904.3

Under BCWD Rule 7.3.5, the District will issue a permit to alter surface flows under paragraph 7.2 only on a finding that the alteration will not have an unreasonable impact on an upstream or downstream landowner and will not adversely affect flood risk, basin or channel stability, groundwater hydrology, stream baseflow, water quality or aquatic or riparian habitat.

Stormwater rate and water quality will not be altered at the property boundary as a result of the project. The proposed project will result in an additional 720 cubic feet of stormwater volume discharging to Public Waters Wetland 82-309W, then conveyed to Long Lake for the 100-year 24-hour event. The volume increase was reviewed using the BCWD hydrologic and hydraulic model and found no change in water level or flow rate at the wetland or Long Lake. Therefore, the BCWD Engineer finds that this project will have no unreasonable impact on upstream or downstream landowners, nor will the project adversely affect flood risk, basin or channel stability, groundwater hydrology, stream baseflow, water quality, or aquatic or riparian habitat.

Rule 8.0—FEES

Fees for this project as outlined below:

- 1. Stormwater management fee \$3,000
- 2. Erosion control fee for grading \$1,000
- **TOTAL FEES** **\$4,000**

Rule 9.0—FINANCIAL ASSURANCES

Financial assurances for this project are as outlined below:

- 1. Grading or Alteration (0.03 acres disturbed x \$2,000/acre) \$0
- 2. Stormwater Management Facilities (125% of facility cost) \$0
- **TOTAL FINANCIAL ASSURANCES** **\$0**
(\$5,000 Minimum Performance Financial Assurance)

Rule 10.0—VARIANCES

According to BCWD Rule 10.0, the Board of Managers may hear requests for variances from the literal provisions of these rules in instances where their strict enforcement would cause undue hardship because of circumstances unique to the property under consideration. The Board of Managers may grant variances where it is demonstrated that such action will be in keeping with the spirit and intent of these rules. Variance approval may be conditioned on an applicant's preventing or mitigating adverse impacts from the activity.

The permit applicant has submitted a request for a variance from the following rule provisions:

1. *BCWD Rule 2.4.1(b)(i & ii) states, "Within the Diversion Structure Subwatershed... an applicant must submit a stormwater-management plan providing: (ii) Retention onsite of 1.1 inches of stormwater volume from the regulated impervious surface."*

As noted above, the applicant does not propose to construct a new stormwater facility to manage the additional runoff from the added impervious surface; rather the applicant is requesting that BCWD approve a variance based on excess management capacity provided by the rain garden constructed in 2022 beyond what was required under BCWD Permit 22-13.

- *Using a gutter and tile system, all water from the pool area, patio decks, and approximately 45% of the home were directed to the raingarden for treatment. This exceeded the requirements equating to 623 cf routed to the rain garden.*

The rain garden built in 2022 needed to manage 158 cf of stormwater runoff to comply with the BCWD volume-control requirement. The applicant oversized the rain garden to manage 340 cf of stormwater runoff and directed 45% of the house roof to the rain garden, providing management of 191 cf beyond what was required. The over-treatment provided exceeds the required 110 cf stormwater runoff of the proposed addition. The runoff from the proposed addition drains to the wetland on the southeast corner of the property by way of the roadside ditch on the southwest side of the property.

The BCWD engineer concurs that the oversized rain garden provides the required treatment volume of the proposed home addition. In addition, the rain garden has been overtreating stormwater runoff from the roof of the house since 2022. Review of the previous 22-13 permit provided documentation that infiltration pre-treatment was provided for the rain garden by a vegetated filter strip removing more than 50 percent of sediment loads. Additionally, a stormwater declaration was filed with the county in 2022.

RECOMMENDED CONDITIONS OF THE PERMIT:

The following is a summary of the remaining tasks necessary to bring the project into compliance with the BCWD Rules in all respects other than where variances are requested as discussed above:

1. Address all erosion control requirements (Condition 3-1 & 3-2).
2. Replenish the Permit fee deposit to \$4,000 (BCWD Rule 8.0). If the permit fee deposit is not replenished within 60 days of receiving notice that such deposit is due, the permit application or permit shall be deemed abandoned and all prior approvals shall be revoked and collection proceedings shall begin on unpaid balances.

STIPULATIONS OF APPROVAL:

1. Note that the permit, if issued, will require that the applicant notify the District in writing at least three business days prior to commencing land disturbance. (BCWD Rule 3.3.1)



WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

BCWD: 2024 Best Management Practices (BMP) Program

Stewardship Grants | Maintenance | Inspections

Brett Stolpestad | *Landscape Restoration Specialist*

Cameron Blake | *Landscape Restoration Senior Technician*



WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

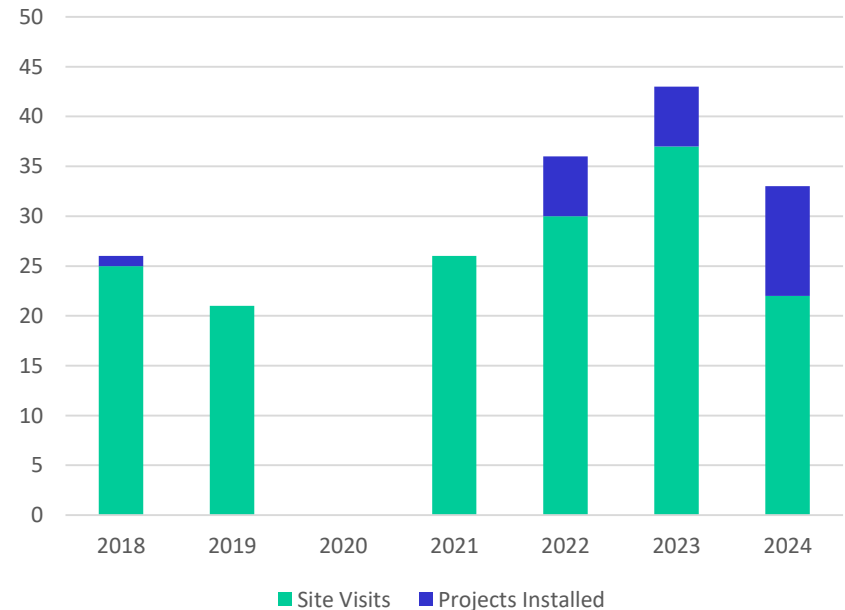
651-330-7747 [FAX]

WWW.MNWCD.ORG

2024 Stewardship Grant Program Summary

- **22** Site visits, **15** Stewardship grant applications in 2024
 - Stillwater and Oak Park Heights (12)
 - Grant and Hugo (3)
- **11** projects completed in 2024 (\$4,795.87 in reimbursement)

BMP Program Summary

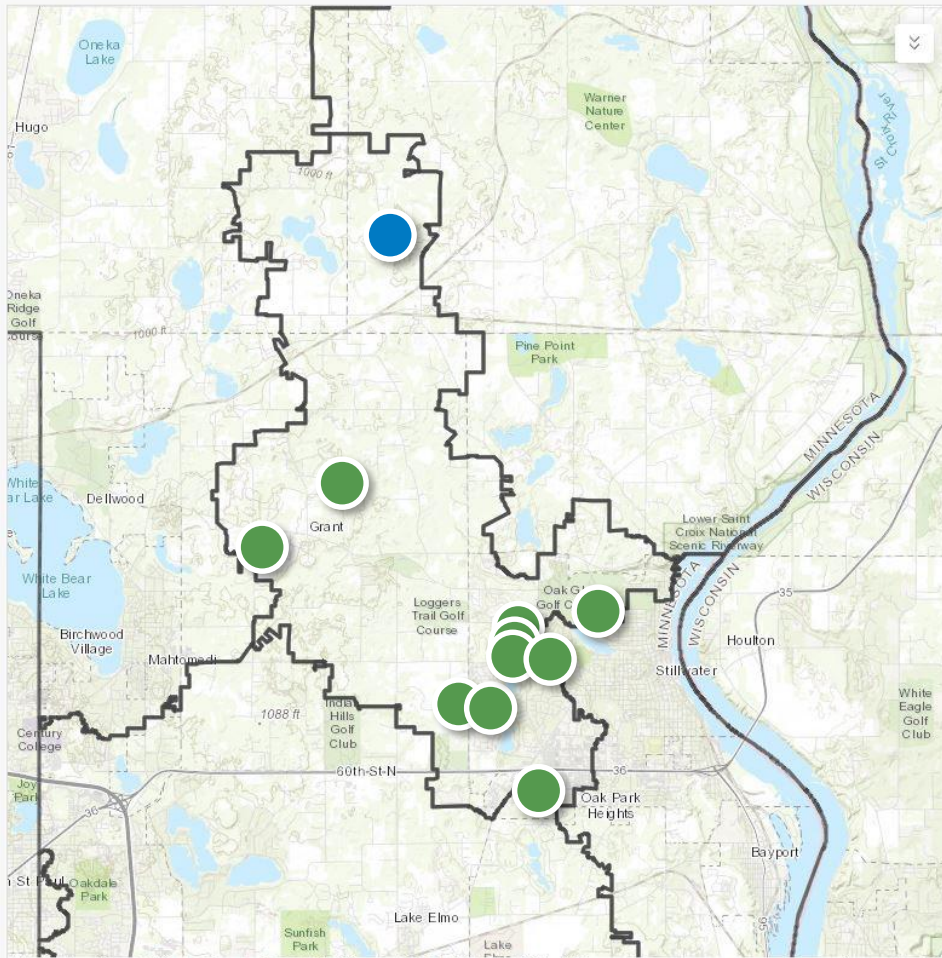




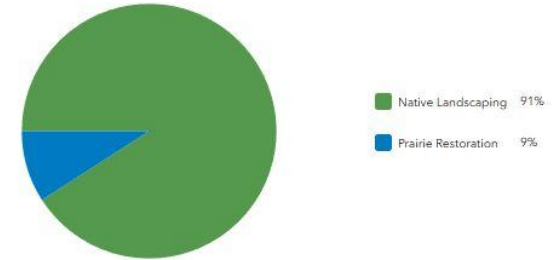
WASHINGTON CONSERVATION DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]
651-330-7747 [FAX]
WWW.MNWCD.ORG



Practice Type - Urban



Practice Type - Agricultural

Practice Type - Urban

11 BMPs



WASHINGTON
CONSERVATION
DISTRICT

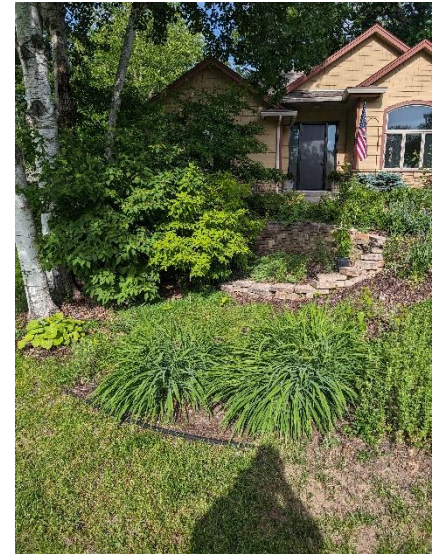
455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

Cota Native Landscaping *Oak Park Heights*





WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

Lopez Native Landscaping *Stillwater*





WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG



Ovre Woodland & Prairie Restoration

Hugo





WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

Tomb Native Landscaping Stillwater





WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]
651-330-7747 [FAX]
WWW.MNWCD.ORG

Haik Woodland Enhancement Stillwater



MNL Minnesota Woodland Mix		QTY		PRICE		TOTAL	
ITEM	DESCRIPTION	QTY	UNIT PRICE	QTY	UNIT PRICE	QTY	UNIT PRICE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100



WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

Stewardship Grant Program

Goals for 2025

- Continue to expand awareness and interest in the program through targeted outreach.
- Continue to advertise design & technical assistance to maximize opportunities for water quality improvement, as well as habitat enhancement.
- Document completed projects for BCWD education & outreach.



WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

Maintenance Activities

- Structural repair
 - Small scale repairs involving edging or blanketing/repositioning riprap
 - Retrofitting rock inlets to paver structures
- Inlet:
 - Clean out of sediment
- Vegetative:
 - Spring cleanout of senescent vegetation
 - If small scale BMP
 - Invasive species, noxious weeds, and aggressive species
 - Enhancement such as seeding or supplemental plugging





WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

BMP Maintenance

- Countryside Auto inlet sweeping
- IESF inspections and surficial raking/tilling of media
- Assistance as needed
 - Purple loosestrife treatments
 - Oak Glen Stormwater Reuse System (OGSRS): monthly data collection
 - Restoration items as identified at the Brown's Creek Conservation Area (BCCA)
 - Fall foliar buckthorn treatment
 - Annual mowing
- 2024: 68.75 Hours, \$3,252.50 spent



WASHINGTON
CONSERVATION
DISTRICT

455 HAYWARD AVE N
OAKDALE, MN 55128

651-330-8220 [PHONE]

651-330-7747 [FAX]

WWW.MNWCD.ORG

Brett Stolpestad

Landscape Restoration Specialist

T: (651) 393-4395

bstolpestad@mnwcd.org

Cameron Blake

Natural Resource Specialist

T: (651) 330-8220

cblake@mnwcd.org

Washington Conservation District

455 Hayward Ave N.

Oakdale, MN 55128

Project Name	Groundwater Monitoring Program	Date	03/03/2025
To / Contact info	BCWD Board of Managers		
Cc / Contact info	Karen Kill, District Administrator		
From / Contact info	Stu Grubb, PG; Dan Heikes, EOR		
Regarding	2024 Groundwater Elevation and Trends		

Background

BCWD has established a network of wells for measuring groundwater levels. The network includes residential wells, golf course wells, and DNR observation wells. Water level measurements are collected annually at the residential wells and golf course wells. Water level measurements are recorded hourly at the DNR observation wells using data loggers.

The data has been collected since 2012. The data is used to identify trends in groundwater levels and changes to groundwater flow over time. Changes to levels and groundwater flow can have significant effects on Brown’s Creek and other groundwater dependent natural resources, flooded areas such as Kimbro Basin, and stormwater infiltration basins.

The well network was established to cover the entire watershed district, and also to monitor each of the major drinking water aquifers in the watershed district. The distribution of wells by aquifer is:

- Quaternary (Glacial) – 7
- St. Peter - 1
- Prairie du Chien – 10
- Jordan/St. Lawrence – 2
- Tunnel City Group – 4
- Multi-Aquifer – 1

See Figure 1 for a cross-section of aquifers (underground layer of water-bearing material, consisting of permeable or fractured rock, or of unconsolidated materials such as gravel, sand or silt) and aquitards (any geological formation that transmits water at slower rates than an aquifer) in the Twin Cities Metro Area.

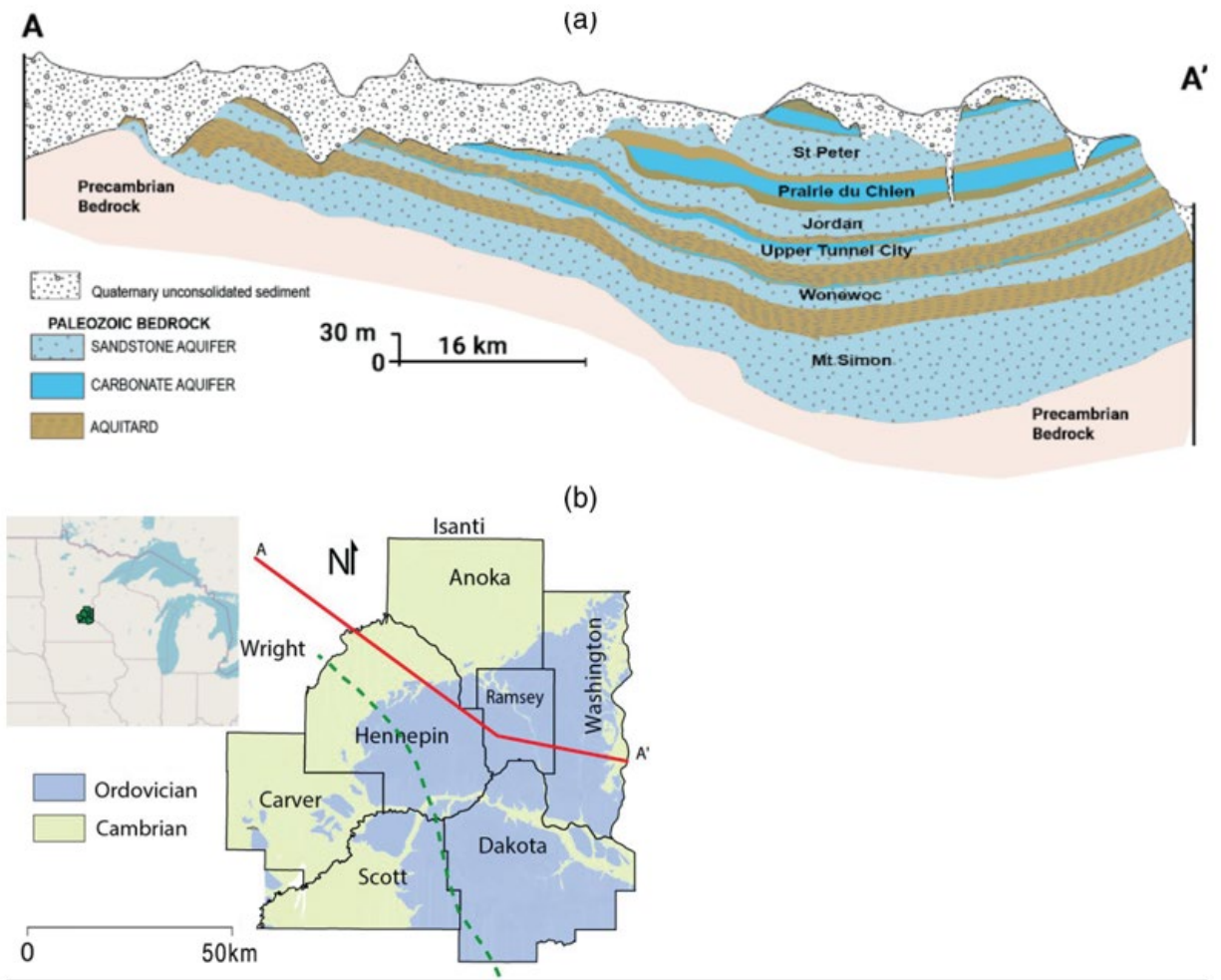


Figure 1. (a) Cross-section of Aquifers and Aquitards in the Twin Cities Metro Area; (b) Location of Cross-section

Analysis

Residential Wells

Groundwater elevation data from the golf course wells, residential wells, and DNR observation wells) are shown in Table 1. Groundwater elevations decreased from 2023 to 2024 with an average decrease of 0.64 feet. The decrease is not surprising considering below average rainfall and snowfall in 2023 and 2024.

DNR Observation Wells

DNR measures water elevations monthly in four observation wells:

- Brown's Creek Park – Deep well completed in the Jordan aquifer
- Brown's Creek Park – Shallow well completed in the Quaternary (glacial) aquifer [abandoned]
- Brown's Creek Park – Middle well completed in a confined Quaternary aquifer
- Withrow School – Well completed in the Prairie du Chien aquifer
- Kimbro – Shallow well completed in the Quaternary (glacial) aquifer

Groundwater elevation data from the DNR observation wells are shown on Figure 2. The data for the Withrow Well shows that the water level has been dropping since reaching a high level of 960.05 in June 2020, but has seen a slight increase over the past year. The Brown's Creek Park – Shallow well was abandoned and sealed in 2021. The Brown's Creek Park – Deep well groundwater elevations can fluctuate by as much as six feet over short time periods. This observation is the result of pumping from a nearby well (probably Oak Glen Golf Course) and will be investigated when the District obtains pumping data from the Oak Glen Golf Course. The Brown's Creek Park – Middle well shows dropping groundwater elevations since the beginning of the observation period in October, 2020, but has increased by 1.71 feet from 2023-2024. The Kimbro – Shallow well became part of the monitoring program in 2021. All the DNR observation wells water levels have increased from 2023 to 2024.

Golf Course Wells

Some of the water levels in the golf course wells did not change much, but there were some notable decreases (See Table 1). Oak Glen Country Club (151581) saw a decrease of 17.45 feet and Logger's trail Golf Course (761112) saw a decrease of 8.83 feet from 2023 to 2024. The reason for the decreases is unclear. It is possible that the wells had not yet recovered from their most recent pumping event. For now, we will use the annual monitoring data to review whether the water levels stabilize or continue to decrease next year.

Change in Water Levels in Each Aquifer

Groundwater levels in each aquifer were compared to identify trends over time. Residential well and DNR observation well levels were used for the analysis. The golf course wells have not been measured for as long, and the water level readings tend to be less reliable due to the large pumping volume.

Quaternary (Glacial) Aquifer

Groundwater levels in the shallow Quaternary aquifer wells are shown on Figure 3. Two of the wells show an increase of about 6 feet since 2012 (slightly up from 2023, but down from 2020). Two of the wells show significantly less increase since 2012, about 0-2 feet. Out of the five Quaternary wells that were measured this year, three showed decreasing water levels and two showed increasing water levels. Variations across the aquifer may indicate a number of influences, including changes to discharge/recharge areas, changes in pumping rates, and variable precipitation and snowmelt rates. It is important to have multiple sampling locations to see not only the general gradient of groundwater flow, but also differences between aquifers (vertical) and areas within the aquifer (horizontal). These local differences can result in challenges that require special solutions as well as larger trends that may warrant changes to watershed management policies.

Prairie du Chien Aquifer

Groundwater levels in the Prairie du Chien aquifer are shown in Figure 4. Most of the wells showed a consistent increase of 8 to 10 feet from 2012 to 2020, a decrease from 2021 to 2023, and an increasing trend from 2023 to 2024.

Other Aquifers

Groundwater levels from the St. Peter, Jordan, and Tunnel City Group aquifers are shown on Figure 5. The wells show similar trends over time, a rise from 2012 to 2020 followed by a drop from 2021

to 2024. Only one well has seen a slight increase in groundwater level, the Brown's Creek Park Well in the Tunnel City Group aquifer. Note that the Olien well was not available for measurement again this year. We will investigate the apparent decline in the water level during future monitoring events.

Recommendations

It is recommended that the BCWD continue to collect groundwater elevation data on an annual basis. The long-term data and analyses are important for understanding groundwater conditions and groundwater/surface water interactions throughout the District. The data will be particularly useful for understanding the thermal impairment of Brown's Creek and water level fluctuations in landlocked areas such as the Kimbro Basin. The addition of well locations in 2025 will be useful in developing a more accurate picture of regional groundwater levels.

Table 1. Groundwater Elevations from 2017 to 2024

Unique Number	Name	2017 Water Elevation	2018 Water Elevation	2019 Water Elevation	2020 Water Elevation	2021 Water Elevation	2022 Water Elevation	2023 Water Elevation	2024 Water Elevation	Change since last measure
Approximate Date		Oct-17	Oct-18	Oct-19	Oct-20	Oct-21	Oct-22	Oct-23	Sep-25	
Golf Course Wells										
515171	Applewood Hills	895.42	894.14		897.65	895.58	891.45	890.67	890.53	-0.14
151580	Oak Glen Country Club	825.88	823.56	826.12	825.63	823.00			844.32	
151581	Oak Glen Country Club	830.12	828.16	828.23	828.78	829.19	827.95	828.41	810.96	-17.45
208038	Stillwater Country Club	>200	>200	>200						
Stillwater Oaks 1	Stillwater Oaks Golf Club	913.42	910.11	912.41						
Stillwater Oaks 2	Stillwater Oaks Golf Club	910.27	909.05	913.60	913.72	909.95				
Stillwater Oaks 3	Stillwater Oaks Golf Club	911.26	910.07	911.90	912.46	911.02				
Stillwater Oaks 4	Stillwater Oaks Golf Club	Artesian	957.69	970.29	970.16	970.81				
566145	Logger's Trail Golf Course	905.62	904.16	905.93	907.20					
667998	Logger's Trail Golf Course	906.28	905.10	907.34	908.40	905.30	905.08	903.48	904.48	1.00
761112	Logger's Trail Golf Course	901.16	900.09	901.94	903.55	900.71	899.18	898.15	889.32	-8.83
Domestic Wells										
428563	Ed and Laurie Francis	902.53	900.91	903.36	906.14	903.71	900.80	898.79	899.46	0.67
410987	Dan and Lori Gunderson	906.98	905.62	907.22	910.22	908.10	905.35	903.18	903.88	0.70
196839	Louis J. Bruno	867.75	866.75	866.40	870.28	868.23	931.72			
Leiser	Craig Leiser	935.11	933.99	935.85	937.65	934.01	932.67	931.34	930.78	-0.56
James	Alan and Molly James	941.71	940.20	942.14	944.20	940.56	938.70	937.55	938.87	1.32
184049	Kirk and Tracy Hillquist		942.48	944.77	945.61	941.11	939.87	939.12	938.99	-0.13
Thatcher	Jyneen Thatcher	955.68	953.19	957.18	958.63	953.89	951.60	950.91	952.35	1.44
138188	Rick Vanzwol	940.02	939.36	941.45	943.96	940.84	937.81	936.11	936.68	0.57
479665	John and Michelle Weaver	907.41	906.86	907.77	908.87	907.23	905.85	907.22	905.91	-1.31
493250	Mark and Sharon Olien	719.97	721.50	721.54	721.89	721.01	711.66		870.87	
525197	James and Marilyn Opp	913.88	913.02	914.69	917.18	914.69	912.42	910.66	909.23	-1.43
505390	Larry J and Pamela J Larson	930.48	929.18	932.29	933.50	932.93	930.09	927.93	927.96	0.03
153485	John P and Carolyn A Rydel	899.51	898.47	899.31	901.08	897.14	896.83		895.76	
138904	Duane and Margaret Burmeister	829.91	828.41	830.33	832.27	828.69	827.62	827.55	825.59	-1.96
406204	Michael and Rita Wiersma	941.38	940.98		942.78	940.28	939.17	938.86	940.98	2.12
Boughten	Larry Boughten	953.73	951.32	954.28	956.81	949.52	948.51	947.53	950.52	2.99
DNR Observation Wells										
595649	Brown's Creek Park - Deep	864.77	865.81	868.11	868.20	866.17	865.21	864.38	866.10	1.72
623066	Brown's Creek Park - Shallow	875.77	875.05	876.84	876.88	875.30	875.01			
551565	Withrow Elementary School	956.88	954.91	958.64	959.50	954.83	951.99	951.10	953.31	2.21
834170	Brown's Creek Park - Middle				875.59	874.15	873.43	873.09	874.8	1.71
281129	Kimbro - Shallow					929.73	926.75	926.82	926.84	0.02
							Average			-0.64

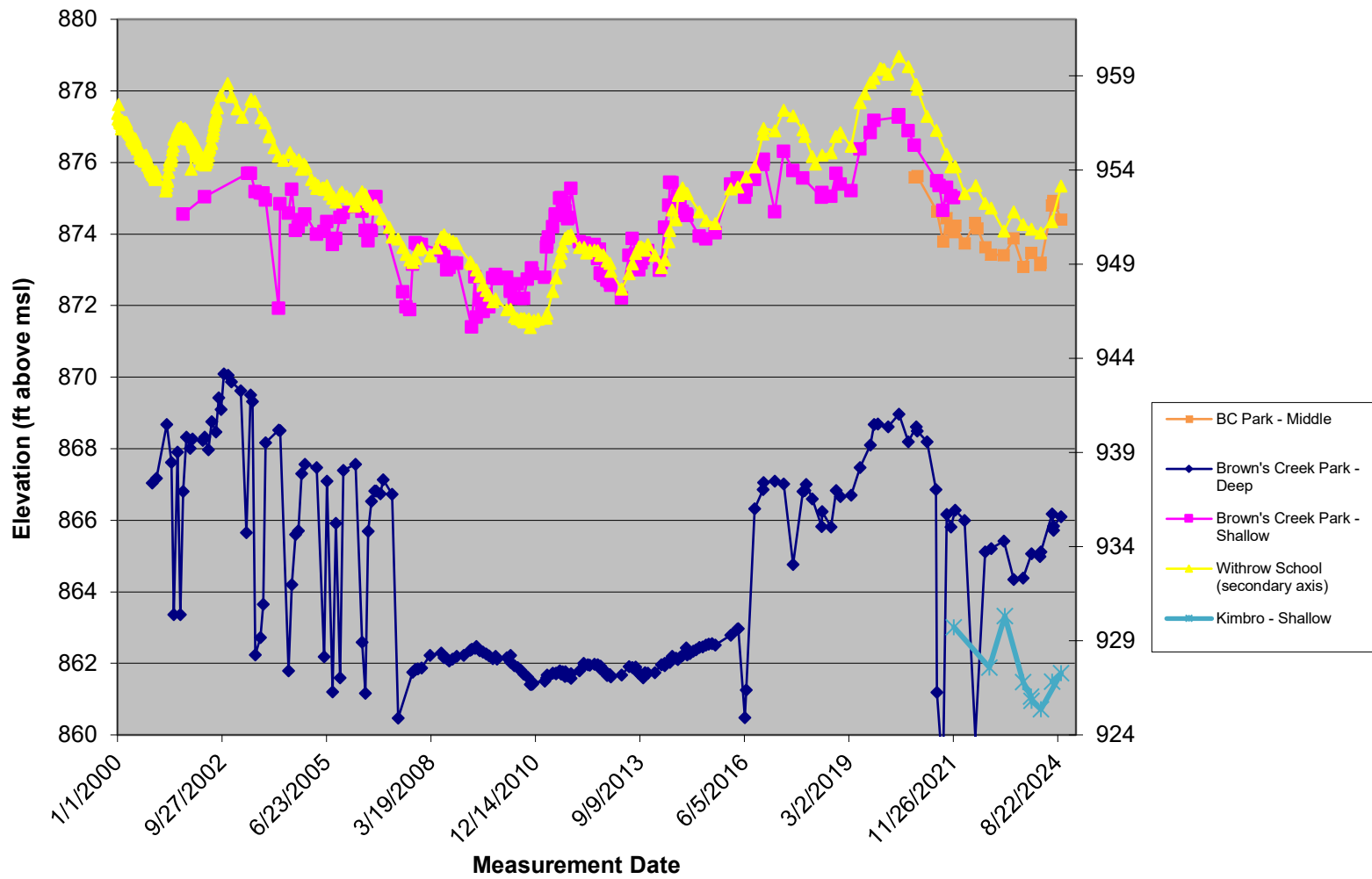


Figure 2. Groundwater Elevations - DNR Observation Wells

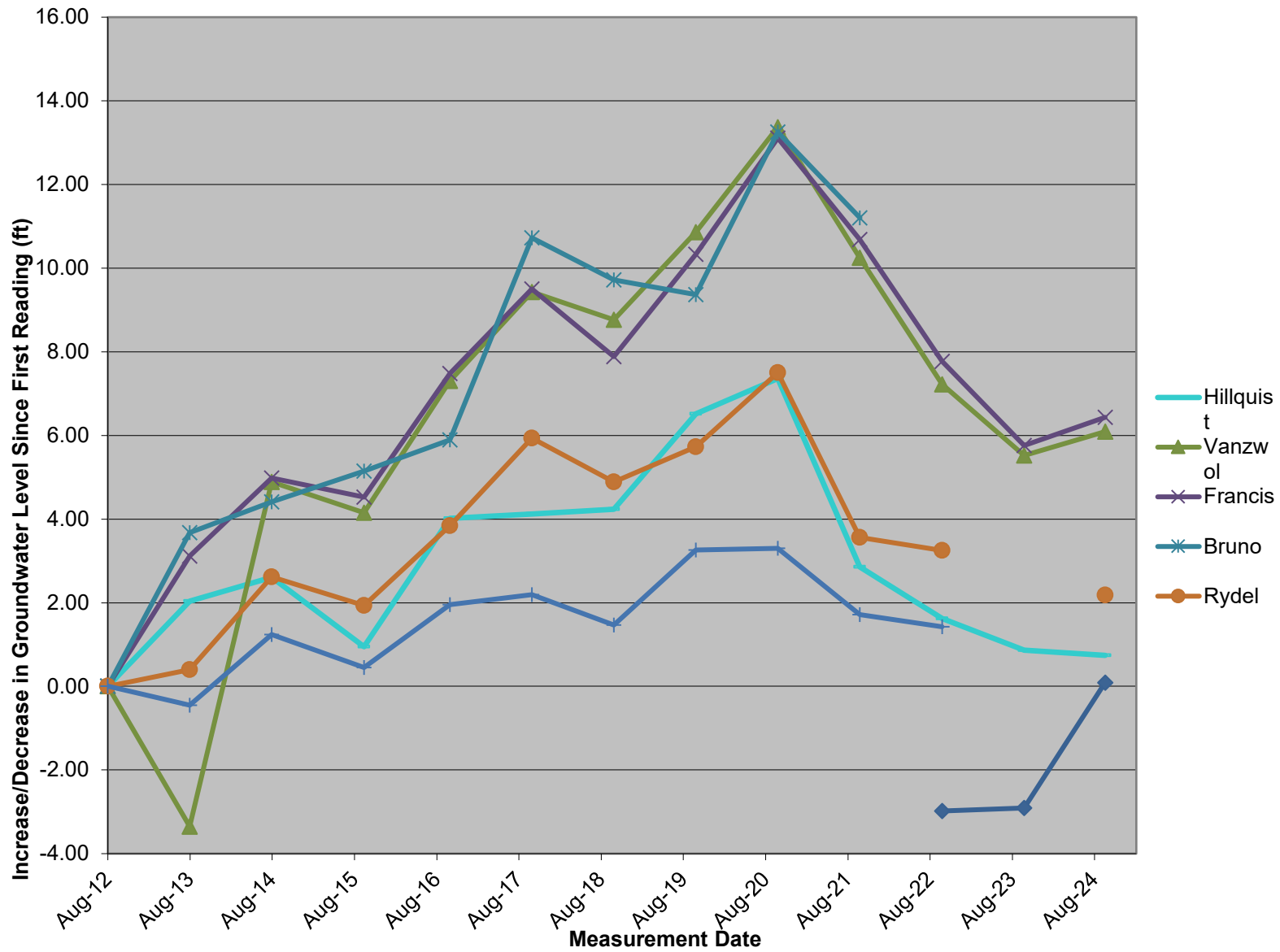


Figure 3. Groundwater Level Change Over Time - Quaternary (Glacial) Aquifer Wells.

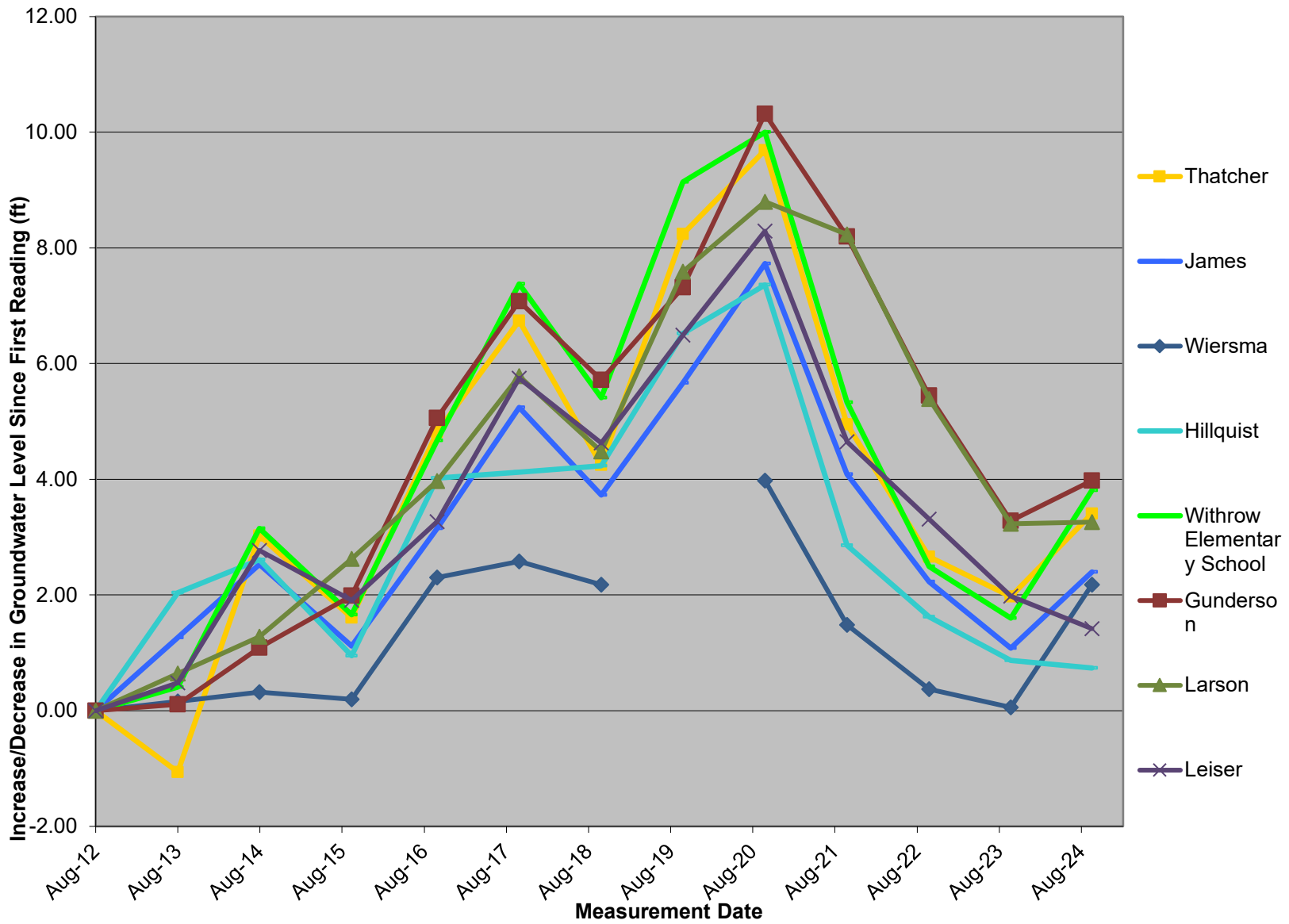


Figure 4. Groundwater Level Change Over Time - Prairie Du Chien Aquifer Wells.

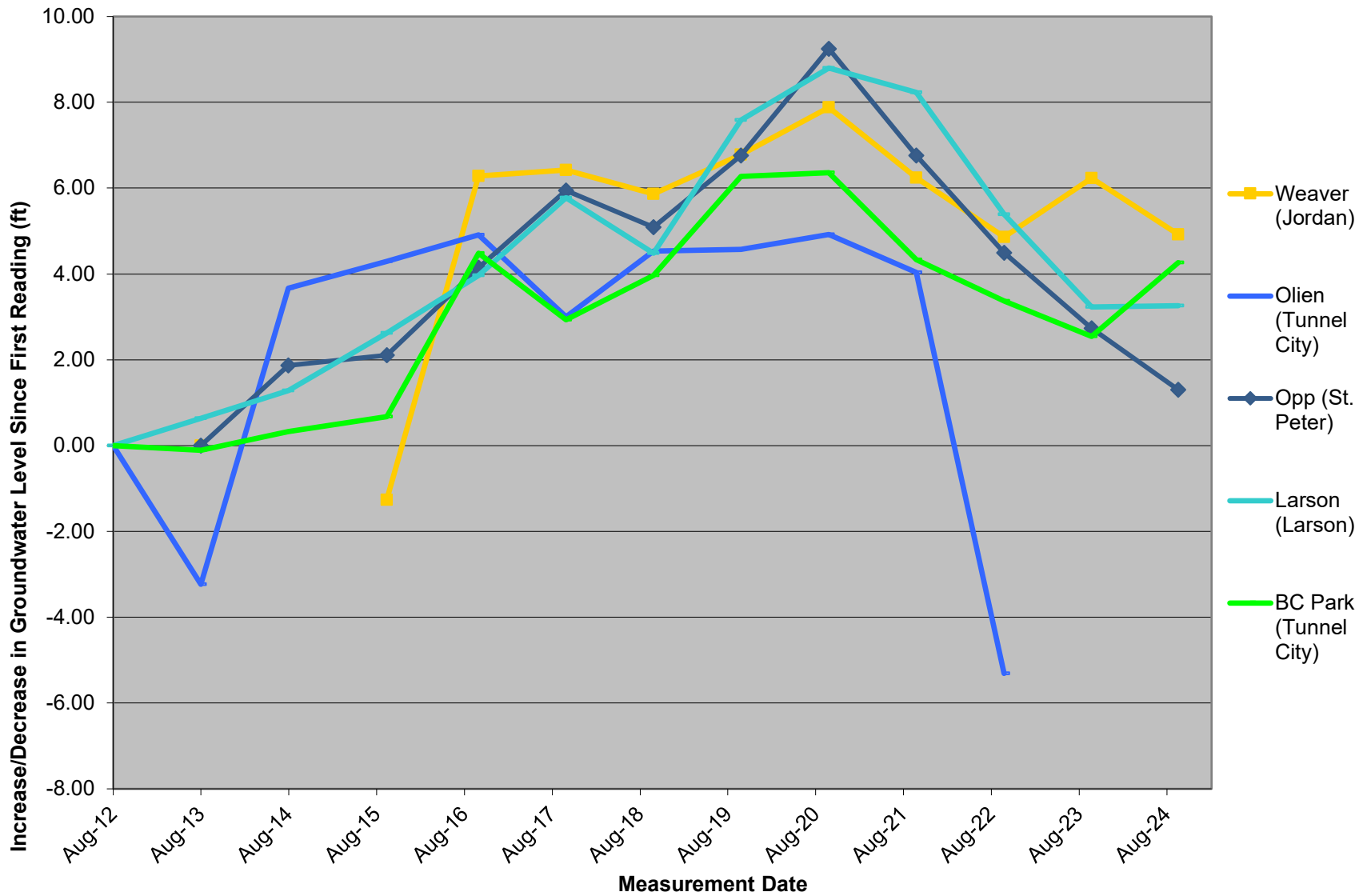


Figure 5. Groundwater Level Change Over Time - Wells in All Other Aquifers

Project Name | Groundwater Monitoring and Program

Date | 03/05/2025

To / Contact info | BCWD Board of Managers

Cc / Contact info | Karen Kill, District Administrator

From / Contact info | Stu Grubb, PG

Regarding | 2025 Groundwater Monitoring Scope of Work

Background

The BCWD has been monitoring groundwater levels in a network of 16 residential wells and 7 golf course wells since 2012. By sponsoring this data collection effort, the BCWD has started to accumulate a significant database of changing groundwater elevations over time in different aquifers and in different parts of the district. This data has been helpful in documenting and understanding the very low baseflow observed in Brown's Creek in 2013 and the extraordinarily high water levels recently observed in the Kimbro Basin. The data has also been useful in calibrating regional groundwater models, such as the model recently produced by consultants for 3M. The key value to this data has been the consistency in data collection and the duration. The data will continue to be useful in the future, but only if BCWD continues to implement its groundwater monitoring program.

Groundwater is a regional resource that requires management on a regional level. Activities outside the watershed can have a significant impact to groundwater resources within the watershed district. State, county, and regional government agencies all have active groundwater management programs that affect the watershed district. In order to effectively manage groundwater within the BCWD, watershed district staff and engineers must be engaged in water management activities outside the watershed district. We recommend that a budget be approved for EOR staff to attend meetings and engage with other groundwater management organizations on behalf of BCWD.

Scope of Services

This scope of services includes both the work related to monitoring groundwater elevations as well as the activities related to management of the District's groundwater resources.

Groundwater Monitoring

It is recommended that the BCWD continue to implement the groundwater monitoring program in 2025. EOR and Washington Conservation District staff will continue to work together on the monitoring and reporting of water levels from the current network. Project costs presented in the table below represent only EOR staff time and do not include Washington Conservation District staff time.

Expanding the Well Network

The BCWD Board of Managers approved the expansion of the well network to include other areas in the district where groundwater data will likely be important in the future. The work was not completed in 2024 but will be completed in 2025. The previously approved budget will be used to complete the work.

As a reminder, the purpose for this expansion of the well network is to collect groundwater level information in those portions of the watershed that are likely more sensitive to flooding due to groundwater under wetter than normal conditions. The BCWD has a long history of dealing with flooding issues in closed basins. Often these basins have a relatively small watershed, and much of the flooding is due to rising groundwater elevations. Addressing these types of flooding issues requires an understanding of past groundwater levels and trends.

The critical monitoring areas were identified using the District's landlocked basin evaluation. Some areas are covered by the current well network, but others could benefit from additional groundwater data. Four to five additional residential wells will be targeted for monitoring. Acceptable wells are located near the areas of interest, have an existing well log, are completed in an aquifer of interest, and have a willing well owner.

EOR has identified 19 candidate wells for expanding the network. WCD mailed letters to the well owners asking if they would consider being part of the monitoring network. EOR will follow up on the letters and work with the willing well owners to get the necessary information and agreements in place so we can begin collecting data on the four to five additional wells.

Groundwater Management

It is recommended that the BCWD approve a budget for EOR staff to attend meetings and participate in regional groundwater management activities on behalf of the watershed district. Most of these activities have not yet been scheduled and are often quickly organized to address new groundwater issues that arise throughout the year. Examples of past BCWD groundwater management activities include:

- Participation in meetings for the North and East Metro Groundwater Management Area sponsored by DNR.
- Contributions to development of the Metro Model groundwater model developed by the Metropolitan Council. This includes gathering information about infiltration and aquifer recharge rates in the watershed. The model is also being used to research the effects of climate change on groundwater resources.
- Engagement with Washington County programs such as the Water Consortium and the Individual Septic Treatment System regulatory program.
- Working with DNR to expand their observation well network in BCWD.
- Scheduling a water quality testing clinic in collaboration with the Minnesota Well Owners Organization.

The following table summarizes the cost for EOR to perform these tasks in 2025.

Task	Hours	Cost
1. Monitoring the existing well network, including coordination with landowners and the WCD and producing a final report	20	\$4,160
2. Expanding the well network to include 4-5 additional wells, including coordination with landowners and the WCD	36	\$5,576*
3. Groundwater management	38	\$8,500

TOTALS	86	\$18,236
---------------	-----------	-----------------

* Budget amount approved previously.

Requested Action

Task 2 was approved in 2024 and will be carried forward to 2025. Approve this scope of services in the amount of \$12,660 for Tasks 1 and 3 as follows: \$4,160 from account number 942-0004 and \$8,500 from account number 942-0011.



BROWN'S CREEK WATERSHED DISTRICT

Preserving the integrity of the watershed for future generations
www.bcwd.org | 455 Hayward Ave N, Oakdale, MN 55128 | 651-330-8220

MEMORANDUM

TO: Brown's Creek Watershed District Board
FROM: Karen Kill
RE: Recommendation for Award of Project – 110th Street Prescribed Burn
DATE: March 12, 2025

Background

The purpose of this memo is to provide the board with recommendation and board action for selecting a contractor to conduct a 0.17 acre prescribed burn at the Brown's Creek Conservation Easement Area/110th Street property owned by BCWD. Funds from the prescribed burn are part of the HELP grant for vegetative restoration.

Quote Summary

Company	Total Cost
Edge Ecosystems	\$1,400.00
Prairie Restorations, Inc.	\$2,170.00
Landbridge Ecological, Inc.	\$2,500.00

A total of three quotes were received and the lowest quote was from Edge Ecosystems with a total of \$1,400.00. The Washington Conservation District's cost estimate for the prescribed burn was \$2,000.00.

Review of Apparent Lowest quote

Review of the submitted quotes was performed by Tara Kelly at the Washington Conservation District. After review of the three submitted quotes, it has been determined that all three contractors are capable of complete the tasks and meeting the insurance requirements outlined in the RFP.

Board Action

Authorize the administrator to contract with Edge Ecosystems not to exceed \$1,400 from account 935-0002 upon advice of counsel to conduct the prescribed burn at the Brown's Creek Conservation Easement Area.

Managers:

Klay Eckles, President • Chuck LeRoux, Vice President • Celia Wirth, Treasurer

BCWD Board Packet 3-12-2025 Harry Odebrecht, 2nd Vice President • Debra Sahulka, Secretary



BROWN'S CREEK WATERSHED DISTRICT

Preserving the integrity of the watershed for future generations

www.bcwd.org | 455 Hayward Ave N, Oakdale, MN 55128 | 651-330-8220

2025 Board Meetings

2025 Remaining Meeting Dates

**Also need to schedule two separate WMP Update Workshops*

- **April 9, 2025** – Regular Meeting – 6:30pm
- **May 14, 2025** – Regular Meeting – 6:30pm
- **June 25, 2025** – Regular Meeting – 6:30pm (NOTE – Fourth Wednesday of Month)
- **July 9, 2025** - 2026 Budget Workshop – 5-6:30pm and Regular Meeting – 6:30pm
- **August 13, 2025** - 2026 Budget Workshop – 5-6:30pm and Regular Meeting – 6:30pm
- **September 10, 2025** – Regular Meeting – 6:30pm
- **September 20, 2025** –2025 Community Event at Brown's Creek Park in Stillwater 10am-1pm
- **October 8, 2025** – Regular Meeting – 6:30pm
- **November 12, 2025** – Regular Meeting – 6:30pm
- **December 10, 2025** – Regular Meeting – 6:30pm

2025 Meeting Location Options

- **Washington County Government Center**, Stillwater, MN
 - a. Free
 - b. Outside of BCWD
- **Washington Conservation District**, Oakdale, MN
 - a. Free
 - b. Outside of BCWD
 - c. BCWD's Office
- **The Lakes at Stillwater** (Upstairs Reflections Room), Stillwater, MN
 - a. Free
 - b. Within BCWD
 - c. Doors lock at 9pm
 - d. Space may be too small for larger public meetings
- **Oak Glen Golf Course**, Stillwater, MN
 - a. \$150/hr
 - b. In BCWD
 - c. Unavailable this year for summer months
- **St Croix Event Center**, Oak Park Heights, MN
 - a. \$150/hr
 - b. Right outside BCWD