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, May 14, 2025
Regular meeting at 6:30 PM

NOTE NEW MEETING LOCATION
Stillwater Township Hall
13636 90th Street North, 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 April 9, 2025 Regular Meeting
   b) Accept Permit Fee Statement
   c) Approve revised 2025 budget and accept Authorized Funds Spreadsheet
   d) Authorize the payment of bills in the amount of $222,923.50
   e) Authorize the iron enhanced sand filter operation and maintenance scope not to exceed $25,064 with Emmons and Olivier Resources
   f) Authorize the vegetative maintenance scope not to exceed $17,800 with Emmons and Olivier Resource, including $17,300 as a subcontract with Natural Shores Technology
   g) Authorize the Brown's Creek fishing access and trail construction oversight scope not to exceed $6,839 with Emmons and Olivier Resources
   h) Authorize the 2025 macroinvertebrate assessment scope not to exceed $4,058 with Emmons and Olivier Resources, including a subcontract with RMB Labs for $1,600
   i) Accept the 2024 Macroinvertebrate monitoring report
   j) Approve the revised watershed management plan development schedule
   k) Approve the minor amendment to the Lower St. Croix (LSC) Watershed Management Plan as recommended by the LSC Policy Committee and authorize administrator to notify the LSC Partnership
   l) Approve the LSC Partnership FY23 watershed-based implementation funding work plan and budget revision as recommended by the LSC Policy Committee
   m) Appoint Dennis Gervais to the BCWD citizen advisory committee
   n) Accept regulatory partner meeting report

o) Authorize Administrator to send Marketplace reuse letter to city of Stillwater

5) Permits
   a) BCWD Permit #25-03 Lakeview Hospital– **Board Action**

6) Projects
   a) Hydrologic and Hydraulic Model – Presentation by Ryan Fleming, EOR
   b) Flood Vulnerability Assessment – **Board Action**

7) Old Business
   a) Resolution 25-02 Principal Place of Business – Schedule Public Hearing June 2025 – **Board Action (Roll Call)**

8) Discussion Agenda - No Action Required
   a) Updates
      (1) Administrator – Board survey results
      (2) Legal
      (3) Engineer – Permit Inspection Memo
      (4) Managers
   b) June 2025 Regular Meeting BCWD Board Agenda

9) Adjournment

DRAFT Minutes of the regular meeting of the Brown's Creek Watershed District Board of Managers, Wednesday April 9, 2025

ROLL CALL

Managers Present:	**Others Present:**
Klayton Eckles, President	Karen Kill, BCWD administrator
Debra Sahulka, Secretary	Hannah Peterson, BCWD staff
Chuck LeRoux, Vice President	Michael Welch, Smith Partners, BCWD counsel
Larry Odebrecht, 2nd Vice President	Camilla Correll, EOR, BCWD engineer
	Julia Lau, EOR, BCWD engineer
Manager Absent:	Ryan Fleming, EOR, BCWD engineer
Celia Wirth, Treasurer	Paul Nation, EOR, BCWD engineer
	Mike Majeski, EOR, BCWD engineer
	Aaron DeRusha, Washington Conservation District staff
	Tyler See, Abdo, BCWD auditor
	Ryan Hoefs, Washington County engineer
	Jeremy Nielson, SRF Consulting Group

1) Call regular meeting to order

President Klayton Eckles called the regular meeting to order at 6:33 p.m.

2) Approve agenda

Karen Kill requested the addition of outreach materials printing approval to the end of the agenda. The managers discussed Manager Odebrecht's role now that he has resigned and clarified that he would remain in his position until the vacancy is filled.

Manager Sahulka moved, seconded by Manager LeRoux, to approve the agenda as amended. Motion carried 4/0.

3) Public comments

There were no public comments.

4) Consent agenda

Manager Debra Sahulka requested removing item 4e, authorization to replace monitoring equipment, and Manager Eckles requested removing item 4f, approval of draft flood- and groundwater-management sections of the watershed plan, for discussion.

a) Approve Minutes of the March 12, 2025 Regular Meeting

b) Accept Permit Fee Statement

c) Authorize administrator to distribute 2024 annual report and 2025 annual plan

d) Approve the 2025 scope of work for the trout habitat preservation project

g) Authorize printing and mailing newsletter from Stillwater Printing

h) Authorize payment to Geomorphic Restoration for pay application #5

Manager Sahulka moved, seconded by Manager LeRoux, to approve the consent agenda as amended. Motion carried 4/0.

e) Authorize purchase of monitoring equipment replacement from Tech Sales Co

In response to a question from Manager Sahulka, Ms. Kill clarified that the Middle St. Croix Watershed Management Organization and South Washington Watershed District are contributing to payment for replacement of monitoring equipment. Washington Conservation District does water monitoring for all three organizations.

Manager Odebrecht moved, seconded by Manager Sahulka, to authorize the purchase of the replacement equipment for not to exceed $2,450. Motion carried 4/0.

f) Approve watershed management plan update language for the flood management and groundwater management sections for inclusion in the draft plan

Manager Eckles suggested that further discussion of the activities included in the draft flood- and groundwater-management section of the watershed plan. Ms. Kill noted that implementation items will be discussed at an upcoming workshop. After discussion, the managers concurred in delaying action on the matter.

5) Treasurer's Report

a) 2024 audit presentation

Tyler See presented on the 2024 audit report. The managers discussed the one finding in the audit, noting long-outstanding checks. Ms. Kill said she would work with the accountant to ensure checks are timely managed. Michael Welch noted that Smith Partners has just received the request from Abdo for an audit-opinion letter.

Manager Sahulka moved, seconded by Manager Odebrecht, to accept the 2024 audit, contingent on submission of the attorney's audit opinion letter, and authorize the administrator to submit the final audit to the state in accordance with legal requirements. Motion carried 4/0.

b) Review authorized funds spreadsheet

c) Revised 2025 budget with actual carry forward

Ms. Kill shared the revised budget based on what had changed between the estimated and actual carry-forward amounts, as shown in the budget materials in the meeting packet. She stated that it had also been reviewed by Manager Celia Wirth prior to the meeting.

Manager Sahulka moved, seconded by Manager LeRoux, to approve the revised 2025 budget as proposed. Motion carried 4/0.

d) Current items payable

Manager LeRoux moved, seconded by Manager Sahulka, to accept the authorized funds spreadsheet and authorize the payment of the bills as presented, totaling $159,686.

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

Manager Sahulka	**X**			

Motion carried on a roll call vote 4/0.

6) Permits

a) BCWD Permit 25-05 St. Croix Recreation Center Parking Lot

Julia Lau presented the engineer's report on a permit application for the expansion of the existing parking lot at the St. Croix Valley Recreation Center, including removing the existing skate park. Manager Eckles asks for clarification on what the "extent practicable" means regarding volume control, and Mr. Welch clarified that it is based on the engineer's professional opinion. The managers discussed opportunities for the City of Stillwater to partner on future Marketplace reuse options to better manage stormwater.

Manager Eckles moved, seconded by Manager LeRoux, to approve Permit 25-05 with the conditions and stipulations stated in the engineer's report and to direct the administrator to work with legal counsel to draft a letter to the City of Stillwater to recommend a future Marketplace reuse partnership to be approved at the May board meeting. Motion carried 4/0.

b) Washington County Highway 15B Phase 2

Ryan Hoefs and Jeremy Nielson presented on the county's proposed road project and requested feedback from the managers prior to submitting their final plans for a BCWD permit approval. They explained that because of groundwater-quality concerns related to a new drinking water well in Oak Park Heights, the county will not be able to infiltrate onsite, which could lead to a 1/8-inch increase of runoff volume flowing to Long Lake. They stated that Lakeview Hospital's proposed infiltration volume would offset the increase in addition to meeting its requirements. They asked whether the increase would be considered significant such that the county would need to request a variance. Manager Eckles stated that it would be considered significant considering the existing flood risk to Long Lake and would like to see a formal agreement between the county and Lakeview for an offset as described. The managers also discussed alternative options including Applewood Golf Course reuse and removing the weir at Long Lake, since Lakeview doesn't yet have approved plans proposing infiltration.

Mr. Hoefs and Mr. Nielson also shared that Central Commons plans to build a basin that would meet the requirements for part of the county road, but the county has a basin in its plans that the county will build if Central Commons doesn't get its built on time. They asked whether the county's plans will need to be presented for approval if Central Commons gets its basin built first, or a permit amendment could be administratively approved. The majority of the managers in attendance wanted to learn more and have changes brought back for approval.

Manager Odebrecht left the meeting at 8:35 p.m.

7) Projects

a) 2024 lake and steam monitoring summary

Aaron DeRusha presented the 2024 water monitoring data. Manager Eckles asked about the impact of beavers, and Mr. DeRusha said they help clean the water.

b) Chloride assessment scope

Camilla Correll shared the scope for assessing chloride in the Long Lake watershed.

Manager Sahulka moved, seconded by Manger LeRoux, to approve the scope of services and additional funds not to exceed $3,932 for Emmons and Olivier Resources Task 3 Data Analysis and Report from account 929-0013. Motion carried 3/0.

c) Hydrologic and hydraulic model update and flood vulnerability assessment
Discussion was postponed to a later meeting.

d) Minnesota Department of Natural Resources shore structure agreement.
Ms. Kill shared that an agreement needs to be signed for the accessible fishing access on state property and that the watershed is working to receive grant funding for the actual construction.
Manager Sahulka moved, seconded by Manager LeRoux, to authorize the administrator to enter an agreement, on the advice of counsel, with the State of Minnesota for construction of the fishing structure. Motion carried 3/0.

e) Brown's Creek Cove reach stream assessment
Ms. Kill said Brown's Creek Cove is part of the work plan for the next round of Minnesota Pollution Control Agency 319 funding, and that numbers are needed by May 1 to secure funding. She stated that this stream assessment needs to be done right away to get the cost figures into the plan.
Manager LeRoux moved, seconded by Manager Sahulka, to approve Task 2 for $6,528 from account 947-0022 to advance geomorphic survey and assessment of the Brown's Creek Cove restoration project. Motion carried 3/0.

f) Lake vegetation surveys
Ms. Kill shared the scope for vegetation surveys on South School, Goggins, Long, and Benz lakes to be completed this summer to learn more about both the good and invasive plants present. She noted that residents of Long Lake specifically expressed interest in learning more about the vegetation. Manager Eckles recommended outreach on vegetation management and the improving water quality despite the weeds to help educate landowners.
Manager Eckles moved, seconded by Manager LeRoux, to approve the scope of work for Emmons and Olivier Resources' involvement in the 2025 Aquatic Vegetation Point Intercept Surveys in the amount of $11,158 with District Staff assistance from account 959-0004. Motion carried 3/0.

8) Old business

a) Meeting location
Ms. Kill said that Stillwater Township has updated its policy to include a fee structure and will reconsider BCWD's application. She recommended meeting there for $120/meeting.

b) Schedule of regular and special 2025 meetings
Manager LeRoux moved, seconded by Manager Sahulka, to adopt the schedule of meetings for 2025 as presented and change the principal place of business to Stillwater Township Town Hall for $120 per meeting. Motion carried 3/0.

9) Discussion Agenda

a) Updates

(1) Administrator
No Updates

(2) Legal
Mr. Welch said the chloride limited-liability legislation is not moving through the legislature.

(3) Engineer
No updates

(4) Managers

No updates

10) Outreach material printing

Ms. Kill shared a request for activity books for Earth Day and requested board approval of printing.

Manager Eckles moved, seconded by Manager Sahulka, to approve printing up to 800 activity books not to exceed $1,531.31 total and 100 CAC recruitment brochures not to exceed $109.19 total with Minuteman Press from account 910-0000.

11) Adjournment

Manager Sahulka moved, seconded by Manager LeRoux, to adjourn the regular meeting at 9:13 p.m. Motion carried 3/0.

Respectfully Submitted by
Hannah Peterson, BCWD staff and Debra Sahulka, Recording Secretary

APPLICANT/PERMIT NO.	PERMIT DATE	Status/Notes	RULES							TYPE				FEES OWED	
			2	3	4	5	6	7	Decompaction	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			$19,861.35
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			$2,189.16
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				$7,406.28	
Central Commons Permit 19-05	NOT ISSUED - term until 11/11/2025	Financial Assurance and Declaration still outstanding	X	X	X			X	X				X		$61,005.34
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				$22,259.60	
White Pine Ridge Permit 20-12	6/7/2021 surety redution request 1/12/23			X					X			X			$ 1,420.42
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 maintnance agreement	x	x				x		x				$10,458.63	
Gonyea (8 lots)- White Pine Ridge Permit 22-02				x								x			($150.60)

APPLICANT/PERMIT NO.	PERMIT DATE	Status/Notes	RULES							TYPE				FEES OWED	
			2	3	4	5	6	7	Decomp action	GOV	SF RES	RES DEV	COM	EXEMPT	AMT DUE
Wetridge (12 lots) - Sharkey/GreenHalo Permit 22-03 (Transferred 21-30 and 21-31)	3/25/2022			x								x			($442.71)
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			x				x			$3,548.50
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				$1,082.50
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				($492.72)
7085 Lone Oak Trail- WOS L102- Mensah Res/Cates Permit 23-15	9/6/2023			x							x				$1,413.04
7285 Lone Oak Trl- WOS L124 Permit 23-18	needed			x							x				$307.25
Liberty Classical Academy Expansion Permit 23-19	Plans submitted 6-12-2024 Fee received 12-21-2023		x	x	x			x					x		$3,406.25
Take 5 Oil Change Permit 24-01	8/23/2024		x	x				x					x		($2,226.53)
Schuster Residence- 122nd St N Permit 24-02	3/12/2024			x							x				$1,111.50
WOS L120- 7255 Lone Oak- Hilgert Permit 24-03	3/18/2024			x							x				$2,141.51
Swager Residence Permit 24-05	3/7/2024			x							x				$ (537.72)
Rutherford Elementary Permit 24-06	8/29/2024		x	x				x		x				$ 8,379.06	
Elliot Crossing Permit 24-07	permit issued 4/29/2025		x	x	x			x				x			$ (4,391.52)
Altendorfer Residence - 13075 Lynch Rd Permit 24-08	5/8/2024			x							x				$ (695.01)

APPLICANT/PERMIT NO.	PERMIT DATE	Status/Notes	RULES							TYPE				FEES OWED	
			2	3	4	5	6	7	Decompaction	GOV	SF RES	RES DEV	COM	EXEMPT	AMT DUE
Washington County CSAH 5 - Trails and Bridge Permit 24-09	1/28/2025		x	x		x		x		x				$ 20,085.73	
Boutwell Farms lot 1 -Conlin - 2545 Boutwell Farm Rd Permit 24-10	application incomplete 8/29/2024			x							x				$ (679.46)
7300 Lone Oak Trail - WOS Lot 127 Karr Residence (Cates) Permit 24-11	8/29/2024			x							x				$ 791.00
7338 Lone Oak Trail- WOS Lot 130-Carlson Residence Permit 24-12	pre-application - lowest floor alteration request App recived 9/24/2024			x							x				$ (76.16)
8413 Marylane Permit 24-13	10/24/2024			x							x				$ (818.82)
Pratt Homes - 105th and Jamaca - Wick Residence Permit 24-14	9/16/2024			x							x				$ (559.65)
Lornston Permit 24-15	11/7/24			x	x						x				$ (1,060.00)
Goodsell Permit 24-16	12/10/2024			x	x						x				$ (7,110.95)
WOS Lot 129 - Weatherby Permit 24-17	12/3/2024			x							x				$ (7,110.95)
Washington County CSAH 15B/South Frontage Rd Permit 24-18	4/9/2025		x	x		x	x	x		x				$ 18,398.92	
Curve Crest Blvd Utility Extension Permit 25-01	2/19/2025			x						x				$ 1,702.75	
Anderson Holdings Mass Grading Permit 25-02	5/1/2025			x									x		$ 2,444.93
Lakeview Hospital Site Permit 25-03	submittal 2/18/2025		x	x		x		x					x		$ 29,590.75
Kranz Home Addition Permit 25-04	submittal 2/20/2025		x									x			$ 282.00
St. Croix Rec Center Parking Lot Extension Permit 25-05	submittal 2/14/2025?			x						x				$ 11,386.00	
CSAH 15 Pavement Preservation Permit 25-06	3/18/2025			x						x				$ 973.50	
WOS Lot 121 - 7238 Lone Oak Trail (Castillo) Permit 25-07	Submittal 3/7/25			x							x				$ 1,368.00
Marylane Lot 4 - Dockter Residence Permit 25-09	Submittal 4/8/25			x							x				$ (177.50)
Wick Stormwater Permit 25-10	Submittal 4/24/25		x	x							x				$ (3,230.50)
Stillwater Wellhead 10 PFAS Treatment Permit 25-11	Submittal 4/15/25		x	x						x				$ 2,844.75	
TOTAL NON-EXEMPT DUE BCWD:			##	457	45	18	30	178	25	71	153	13	119		**$221,377.25**
Total due back to applicants if closed:															**($230,953.33)**

Brown's Creek Watershed District
2025 Budget - Approved 4/9/2025
5-14-2025

		Revised Carry Forward for Approval	2025 Grants	2025 Levy	2025 Total Budget	Allocated	Available
100-2910	Designated Funds - Management Plan Projects	*$ 977,324.51*			$ 977,325		$ 977,325
					$ -		$ -
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	*$ 66,800*			$ 66,800		$ 66,800
100-3631	MPCA Small Watershed Grant 2023-2025	*$ 320,706*			$ 320,706		$ 320,706
100-3400	Permits				$ -		$ -
100-3632	MPCA Small Watershed Grant 2025-2029		$ 34,800		$ 34,800		$ 34,800
100-3633	WCD HELP Grant 2025-2026		$ 5,900		$ 5,900		$ 5,900
100-3100	Tax Levy			$ 1,207,531	$ 1,207,531		$ 1,207,531
TOTAL, ESTIMATED Sources of Funding		**$ 1,364,831**	**$ 45,700**	**$ 1,207,531**	**$ 2,618,061**	**$ -**	**$ 2,618,061**

ACCT. #	General Expenses	Revised Carry Forward for Approval	2025 Grants	2025 Levy	2025 Total Budget	Allocated	Available
200-4000	Manager Per Diem and Expense			$ 10,000	$ 10,000		$ 10,000
200-4210	Meeting Space			$ 1,060	$ 1,060	$ 1,060	$ -
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	$ 250	$ 2,750
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	*$ -*		$ 33,162	$ 33,162		$ 33,162
TOTAL GENERAL FUND EXPENSES:			**$ -**	**$ 213,111**	**$ 213,111**	**$ 157,139**	**$ 55,972**

ACCT. #	MANAGEMENT PLAN EXPENSES	Revised Carry Forward for Approval	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	$ 11,225	$ 13,775
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,	*$ 6,914*			$ 6,914	$ 6,914	$ -
909-0000	Rules Review/Evaluation	*$ 24,465*		$ 10,000	$ 34,465	$ 11,231	$ 23,234
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	$ 12,587	$ 90,913
911-0000	Volunteer Stream Monitoring			$ 4,500	$ 4,500	$ 4,909	$ (409)
914-0000	Homeowner BMP Program	*$ 10,000*		$ 50,000	$ 60,000	$ 35,534	$ 24,466
922-0000	Plan Reviews - LGU/LWMP				$ -		$ -
923-0000	H & H Model Maintenance	*$ 65,334*			$ 65,334	$ 22,834	$ 42,500
923-0003	Long Lake - Flood Risk - Weir Modification Assessment			$ 30,000	$ 30,000		$ 30,000
927-0000	Management Plan Update	*$ 110,575*		$ 15,000	$ 125,575	$ 100,575	$ 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 Impairement Assessment			$ 15,000	$ 15,000	$ 3,932	$ 11,068
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	*$ 5,036*		$ 4,700	$ 9,736	$ 9,736	$ -
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	*$ 98,600*		$ 6,528	$ 105,128	$ 104,928	$ 200
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	*$ 44,275*		$ 85,000	$ 129,275		$ 129,275
953-0000	Fen Management Plan Implementation				$ -		$ -
957-0000	Weather Station	*$ 2,846*		$ 3,900	$ 6,746	$ 5,361	$ 1,385
959-0004	Resource Assessment - AIS			$ 15,000	$ 15,000	$ 11,158	$ 3,842
960-0000	St Croix Phosphorus Reduction	*$ 10,000*			$ 10,000		$ 10,000
961-0000	Mendel Wetland Restoration Feasiblity	*$ 35,000*			$ 35,000		$ 35,000
962-0000	District-Wide Pond Management Planning/Implementation				$ -		$ -
963-0000	District-Wide Vegetation Surveys				$ -		$ -
964-0000	District-Wide Chloride Source Assessment	*$ 2,500*			$ 2,500		$ 2,500
960-0001	DNR Gully Stabilization				$ -		
TOTAL MANAGEMENT PLAN PROJECT EXPENSES:		**$ 977,325**	**$ 45,700**	**$ 994,420**	**$ 2,017,444**	**$ 927,912**	**$ 1,089,532**
TOTAL, OPERATING EXP. & MGMT. PLAN PROJECTS:		***$ 977,325***	***$ 45,700***	***$ 1,207,531***	***$ 2,230,555***	***$ 1,085,051***	***$ 1,145,504***

BROWN'S CREEK WATERSHED DISTRICT
5/14/2025
CURRENT ITEMS PAYABLE-PAGE 1 of 2

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

VENDOR		**ACCOUNT #**	ITEMS	TOTAL	**CK NO**
Emmons & Olivier Resources, Inc.	April 2025 Invoices				
	Inv. 41-0000-233 Retainer	300-4500	$ 7,932.00		
	Inv. 41-0000-233 Retainer	200-4500	$ 2,644.00		
	Inv. 41-0001-236 General Permitting	300-4703	$ 10,924.56		
	Inv. 41-0307-97 Permits 2017				
	Permit #17-01 Grant Holdings Subd	300-4703	$ 505.15		
	Inv. 41-0330-79 Permits 2018				
	Permit #18-14 St Croix Valley Rec Center 2018	300-4703	$ 436.00		
	Inv. 41-0350-45 Permits 2019				
	Permit #19-05 Central Commons	300-4703	$ 763.84		
	Inv. 41-0365-52 Permits 2020				
	Permit #20-08 Hwy 36/Manning Avenue Inte	300-4703	$ 81.00		
	Inv. 41-0402-38 Permits 2022				
	Permit #22-18 Stillwater Oaks	300-4703	$ 243.00		
	Inv. 41-0420-27 Permits 2023				
	Permit #23-11 WOS Lot 122	300-4703	$ 24.25		
	Permit #23-15 WOS Lot 102	300-4703	$ 24.25		
	Permit #23-18 WOS Lot 124	300-4703	$ 24.25		
	Permit #23-19 Liberty Classical Academy Expansion	300-4703	$ 218.00		
	Inv. 41-0438-16 Permits 2024				
	Permit #24-01 Take 5 Oil Change	300-4703	$ 96.65		
	Permit #24-03 WOS Lot 120 Hilgert Residence	300-4703	$ 51.65		
	Permit #24-05 Swager Residence	300-4703	$ 107.68		
	Permit #24-07 Elliot Crossing	300-4703	$ 1,408.48		
	Permit #24-08 Altendorfer Residence	300-4703	$ 75.18		
	Permit #24-09 CSAH 5 Phase 3	300-4703	$ 113.98		
	Permit #24-10 Boutwell Farm Lot 1	300-4703	$ 107.68		
	Permit #24-11 WOS Lot 127 Karr Residence	300-4703	$ 105.25		
	Permit #24-12 WOS Lot 130 Carlson Residence	300-4703	$ 27.40		
	Permit #24-13 8413 Marylane	300-4703	$ 107.68		
	Permit #24-16 Goodsell Residence	300-4703	$ 121.25		
	Permit #24-17 WOS Lot 129 Weatherby Residence	300-4703	$ 24.25		
	Permit #24-18 CSAH 15 Frontage	300-4703	$ 788.84		
	Permit #24-18 CSAH 15B (Invoiced under 25-08)	300-4703	$ 4,220.60		
	Inv. 41-0461-4 Permits 2025				
	Permit #25-02 Anderson Holdings	300-4703	$ 1,284.43		
	Permit #25-03 Lakeview Hospital	300-4703	$ 24,086.50		

EOR Continued	Permit #25-05 St. Croix Rec Center	300-4703	$ 1,713.75	
	Permit #25-07 WOS Lot 121 Castille Residence	300-4703	$ 838.00	
	Permit #25-09 Dockter Residence	300-4703	$ 822.50	
	Permit #25-10 Wick Residence Pole Barn	300-4703	$ 769.50	
	Permit #25-11 Stillwater PFAS Treatment	300-4703	$ 2,844.75	
	Inv. 41-0205-88 CIP Operation and Maintenance	948-4500	$ 654.50	
	Inv. 41-0284-35 BCWD Education & Outreach	910-0000	$ 4,439.60	
	Inv. 41-0433-15 2024 H&H Model Update	923-0000	$ 3,799.00	
	Inv. 41-0434-8 Mendel Wetland Landowner Engagement	961-0000	$ 2,926.00	
	Inv. 41-0437-14 2024 OGGC Reuse Maintenance & Monitoring	948-0000	$ 689.50	
	Inv. 41-0447-13 BCWD 2024 WMP Update	927-0000	$ 11,733.70	
	Inv. 41-0449-2 Brown's Creek Cove	947-0022	$ 6,194.25	
	Inv. 41-0451-5 2024 Bio Survey	947-0018	$ 1,990.50	
	Inv. 41-0453-11 BCWD IESF O&M 2024	948-4500	$ 900.15	
	Inv. 41-0457-4 Diversion Water Quality Assessment	927-0000	$ 3,684.37	
	Inv. 41-0458-5 Rule Revisions Facilitation	909-0000	$ 974.30	
	Inv. 41-0464-2 2025 Weather Station	957-0000	$ 218.00	
	Inv. 41-0467-1 2025 Aquatic Plant PI Surveys	959-0004	$ 202.50	
	Inv. 41-0468-1 Grant Assistance 2025	912-0000	$ 2,737.75	$ 104,680.42
Xcel Energy	Inv. 924174436 - Iron Enhanced Sand Filter pump operation	948-4500	$ 35.27	$ 35.27
Washington Conservation District	Inv. 6923 March 2025 Water Monitoring			
	Baseline Water Monitoring - Labor	300-4710	$ 12,641.66	
	Baseline Water Monitoring - Equipment	300-4640	$ 16.67	
	Baseline Water Monitoring - Expenses	300-4640	$ 1,352.81	
	Inv. 6936 March 2025 BMP Program	914-0000	$ 1,570.75	
	Inv. 6940 Q1 2025 Volunteer Stream Monitoring Program	911-0000	$ 443.94	
	Inv. 6943 Q1 2025 Administration			
	Administration (1/3)	200-4320	$ 25,666.67	
	Administration (2/3)	300-4320	$ 51,333.33	
	Admin Training Expense	200-4265	$ 250.00	
	Miscellaneous Expenses	200-4949	518.68	
	Inv. 6945 Q1 2025 Educator - EMWREP	300-4810	$ 6,125.00	
	Inv. 6993 April 2025 BMP Program	914-0000	$ 832.50	$ 100,752.01
Smith Partners	April 2025 Invoices			
	Inv. 45719 Retainer - Meetings, Preparation	200-4410	$ 2,262.08	
	Inv. 45720 General Legal Services	300-4410	$ 469.34	
	Inv. 45721 Planning	300-4410	$ 1,128.74	
	Inv. 45722 Permits	300-4702	$ 2,755.28	
	Inv. 45723 Sureties	300-4410	$ 1,992.49	
	Inv. 45724 Lake McKusick Iron-Sand Infiltration	300-4410	$ 439.50	
	Inv. 45725 Capital Project Development	300-4410	$ 468.98	
	Inv. 45726 Brown's Creek Restoration	300-4410	$ 28.89	$ 9,545.30

Dave S. McCord, LTD	Inv. 4650 March 2025 Accounting Services	200-4330	$ 420.00	$ 420.00
Abdo LLP	Inv. 505478 2024 Audit	200-4331	$ 3,000.00	$ 3,000.00
Minuteman Press	Inv. 34511 Activity Book and CAC Brochure Printing	910-0000	$ 1,640.50	$ 1,640.50
Stillwater Township	May-December 2025 Meeting Space Fee	200-4210	$ 960.00	$ 960.00
Elizabeth Carreño	Inv. 3 Regulatory Review	909-0000	$ 1,890.00	$ 1,890.00
Total Amount Disbursed				**$ 222,923.50**

BROWN'S CREEK WATERSHED DISTRICT
5/14/2025
MONTHLY ITEMS DEPOSITED - Page 1 of 1

VENDOR	INVOICE/DESCRIPTION	ACCOUNT #	CK NO	DEPOSIT DATE	TOTAL
4M Fund	Dividend (Interest)	100-3700	Direct Deposit	4/30/2025	$ 3,446.83
Main Street Builders	#25-09 Permit Fee Deposit	300-4703	5714	4/8/2025	$ 1,000.00
Katherine E W Desprez	#25-10 Permit Fee Deposit	300-4703	203	4/24/2025	$ 4,000.00
MOR Development LLC	#24-07 Permit Fee Replenishment	300-4703	5023	4/24/2025	$ 42,621.47
Minnesota Management & Budget, State of Minnesota	MPCA 319 Grant Payment	100-3631	Direct Deposit	5/9/2025	$ 11,248.00
TOTAL AMOUNT DEPOSITED:					**$ 62,316.30**

Brown's Creek Watershed District
Treasurer's Report
5/14/25

Total Bank Balance			
4M Fund		$	909,066.40
USBank			-
Less Accounts Payable			(222,923.50)
Plus Unrecorded Deposits since	04/30/2025		11,248.00
Total Balance		$	697,390.90

memo

Project Name |	Settlers Glen Iron Enhanced Sand Filter	**Date** |	5/8/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	John Sarafolean; Ryan Fleming, PE / EOR		
Regarding |	2025 Maintenance & Operations Scope of Services		

Background

The purpose of this memorandum is to outline maintenance and reporting tasks for operation of the Settlers Glen Iron Enhanced Sand Filter (IESF) in 2025. This was the first application of its kind using stream stage to control a pump that charges the filter (Stormwater "Pump-and-Treat"). The District has been operating and monitoring the project performance since installation in 2014.

A major change is that beavers have settled in the tributary that the pump draws water from (Pump harvest pond). Their activity is enhancing wetland hydrology, restoring the historic sedge meadow by raising water levels and removing early succession tree species so attempts are being made to co-exist. Beavers built a 100-foot dam at the harvest pond outlet in 2024, raising water levels and inundating pump system flow meter components. To mitigate this, a Clemson beaver leveler was installed in fall 2024. In 2025, beavers built additional dams downstream, further raising water levels along the tributary, making continued efforts to co-exist necessary.

2025 Scope of Services

Task 1 – System Status: Remote and in-person pump operation, inspections, and reporting

- **On-going operation and maintenance** of the project involves remote desktop monitoring and adjustment of the pump settings based on stream stage and weather conditions, site visits to check operation, vegetation, sediment accumulation, erosion, beaver activity, Clemson leveler operation, and filter surface condition.
- EOR will coordinate with a contractor to conduct the **lift station performance inspection** in 2025. It is recommended that a qualified technician inspect the pump station every two years, based on the mild conditions for the type of pump installed at the IESF (Intermittent pump duty cycle and relatively low abrasiveness of the water being pumped). The pump system was thoroughly inspected in 2023 by Tri-State Pump and Control, Inc., therefore it is due to be inspected in 2025. Contractor costs to perform the inspection is not included in EOR's scope (estimated at $1,000 and will be invoiced directly to BCWD).

Task 2 – Site Maintenance: Filter maintenance, Clemson Leveler Installation, Outfall Maintenance

- The **filter surface** should be aerated and raked monthly during the growing season to loosen the upper portion of the sand and encourage movement of water into, rather than across, the filter. EOR will coordinate with Washington Conservation District seasonal BMP maintenance staff to continue to conduct this maintenance.

- EOR will install two additional **Clemson levelers** in the additional beaver dams to keep the water level from rising above the pump components, but preserving the benefits of the beaver dams on the surrounding wetlands. All levelers will be inspected and maintained throughout the year.
- EOR will install **additional armor at the filter outfall** where the stream has widened and eroded the bank with class 1 riprap. The stream location where the filter drain tile discharges widened significantly over the past year and began destabilizing the area around the outfall. This work was to be completed last year, but the pipe outlet was inundated for most of the year due to beaver dam influence. With the planned Clemson leveler work, it is expected that the water level will return to normal, exposing this area, making access possible for installation.

Scope

The following table outlines the cost and hours anticipated for the 2025 season.

Task	Description	Hours	Cost
1. System Status	Remote desktop monitoring & pump setting adjustments, Monthly site visits, special Clemson leveler/beaver visits, mileage, system operation, and documentation	47	$8,458
2. Site Maintenance	Filter surface maintenance coordination, lift station inspection contractor coordination, riprap armor placement at outfall, Clemson leveler installation	39	$7,986
3. Performance Report, O&M Manual Update	Review of 2025 monitoring data, system performance evaluation, and reporting. Update project Operation & Maintenance Manual	50	$8,620
Total		**136**	**$25,064**

*Given the weather-dependent nature of the work, the costs are estimates only. Additional project needs will be brought to the attention of the District Administrator and outlined in a separate scope of work. Vegetation maintenance of this project is included in a separate, District-wide vegetation maintenance scope. Contractor fee for lift station inspection is not included in this scope.

Requested Action

Consider approval of this scope of services for an estimated cost of $25,064 from account 948-0000.

Project Name |	Multiple Projects: Vegetative Maintenance	**Date** |	5/1/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	Pat Conrad; Ryan Fleming, PE; Mike Majeski		
Regarding |	2025 Vegetative Maintenance Scope of Services		

Background

Brown's Creek WD has committed to doing maintenance on vegetation at a number of sites throughout the watershed. The maintenance is conducted to preserve existing high value naturally occurring native vegetation (as is the case for the Grant Fen), to assist in the establishment of native vegetation of recently constructed projects (Brown's Creek Trail, Long Lake Shoreline, Morgan Ave. Sand Filter), or to control invasive and woody vegetation that has sprouted up at previously constructed project sites (THPP and Kismet Basin).

Scope of Services

The following summarizes the work proposed at each project site for 2025. The maintenance work will be conducted by Natural Shores Technologies. Refer to attached map for site locations.

Grant Fen 2025 Maintenance Estimate

Monitoring has been conducted at this site since: 2010

Spring Mowing

3-4 Maintenance visits throughout season including:

- Spot herbicide treatments of reed canary grass, thistle, and other non-native weeds
- Regular weed whipping or mowing to prevent weeds from going to seed
- Re-seeding areas with on-site seed sources
- Buckthorn or other undesirable tree removal (ex. Amur maple)

Long Lake Shoreline 2025 Maintenance

Monitoring has been conducted at this site since: 2015

Spring Mowing

3-4 Maintenance visits throughout season including:

- Spot herbicide treatments of Reed Canary Grass, Thistle, Cattail, and other non-native weeds
- Regular weed whipping or mowing to prevent weeds from going to seed
- Buckthorn or other undesirable tree removal (ex. Amur Maple)
- Re-seed or re-plant areas where weeds have been removed in sections

Brown's Creek Trail 2025 Maintenance
Monitoring has been conducted at this site since: 2015

Spring Mowing

3-4 Maintenance visits throughout season including:

- Spot herbicide treatments of reed canary grass, thistle, sweet clover, and other non-native weeds
- Regular weed whipping or mowing to prevent weeds from going to seed
- Re-seed or re-plant areas where weeds have been removed

THPP 2025 Maintenance
Monitoring has been conducted at this site since construction was completed in 2001, under this contract since 2019

Spring Scouting/Assessment

3-4 Maintenance visits throughout the season including:

- Spring and fall spot herbicide treatments of reed canary grass, purple loosestrife, Canada thistle, and other invasive weed species
- Regular weed whipping or mowing to prevent weeds from going to seed

Morgan Ave. Sand Filter 2025 Maintenance
Monitoring has been conducted at this site since: 2017

Spring Mowing

4-5 Maintenance visits throughout the season including:

- 2 herbicide treatments (minimum)
- Prevention of seed maturation by hand pulling or weed whipping
- Removal of volunteer tree species

Kismet Basin 2025 Maintenance
Monitoring has been conducted at this site since construction in 2002, under this contract since 2019
Spring Mowing

3-4 Maintenance visits throughout the season including:

- Spring and fall spot herbicide treatments of reed canary grass, spotted knapweed, and other invasive weeds
- Regular weed whipping or mowing to prevent weeds from going to seed

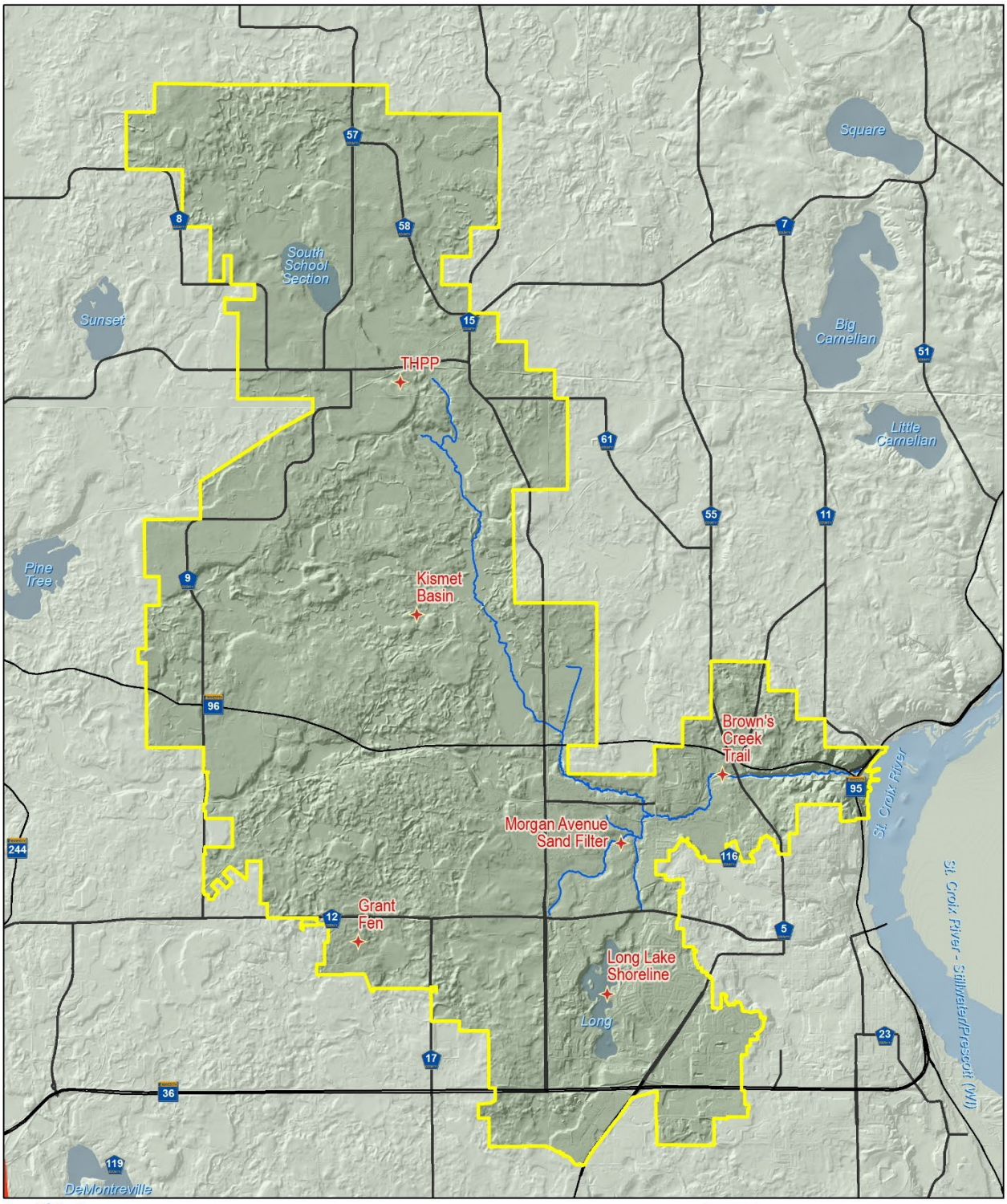
Site Progress Reports
Detailed progress reports for each site will be completed following the maintenance season. Reports will summarize work done during 2025, progress being made toward restoration goals and maintenance recommendations for 2026.

Requested Action

Approve vegetative maintenance for the projects as follows:

Tasks	Estimated Cost	Account Number
Brown's Creek Trail	$2,100	948-0000
Long Lake Shoreline	$2,800	948-0000
THPP	$4,200	948-0000
Kismet	$2,300	948-0000
Morgan Avenue Sand Filter	$2,100	948-0000
Grant Fen	$3,200*	953-0000
Site Progress Reports	$1,100	953-0000
TOTALS	**$17,800**	

** Includes $500 contractor coordination time and reporting*



EOR water ecology community

Legend

- Jurisdiction 2017
- Site
- Lake, Pond or Reservoir
- River or Stream (polygon)

BCWD

Vegetation Maintenance Site

Miles

0 1

Project Name |	Brown's Creek Park Restoration Project	**Date** |	5/06/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	Mike Majeski, Dan Mossing, P.E.		
Regarding |	ADA Trail Construction Management		

Background

Survey and design of the north ADA trail access and south stone steps access has been completed. The DNR has recently reviewed and approved the trail access construction plan and is currently advancing an agreement with BCWD staff.

Scope of Work

Construction Management

As shown in Table 1, Tasks 1-3 have been completed. The following scope of services is to complete Task 4 (Construction Management) and includes construction oversight, final inspection, and preparation of pay applications. Construction of the south stone steps access is scheduled for the first week of June 2025, and a final pay application will be submitted by June 20, 2025 to meet the grant reporting deadline of June 30, 2025. Construction of the north ADA trail will be completed by July 15, 2025.

Cost Estimate

Table 1. Cost estimate for the Brown's Creek Restoration ADA Trail Design & Construction Management.

TASK	HOURS	ESTIMATED COST
1. Topographic Survey & Field Meeting with DNR Staff	N/A	Completed
2. Design, Engineer's Opinion of Probable Cost, SWPPP, Final Construction Plans & Specifications	N/A	Completed
3. Permitting (WCA / Local Permits / WD Review)	N/A	Completed
4. Construction Management (Bidding, Trail Staking, Construction Oversight, Project Closeout & Pay Applications)	44	$6,839
TOTAL	**44**	**$6,839**

Board Action

1. Approve this scope of services for $6,839 from account 947-0022 to complete Task 4 Construction Management for the south stone steps and north ADA trail access locations.

memo

Project Name |	Brown's Creek Biological Assessments	**Date** |	4/28/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, BCWD Administrator		
From / Contact info |	Mike Majeski, Conservation Biologist		
Regarding |	2025 Macroinvertebrate Assessment Proposed Scope of Services		

Background

The BCWD has been conducting routine fish and macroinvertebrate assessments since 2015 to monitor changes in the biological community of Brown's Creek following implementation of numerous water quality projects in the watershed (see implementation activity under Stream Management, Goal A of the 2017-2026 Watershed Management Plan). The goals of BCWD's routine fish and macroinvertebrate assessments are to develop a more robust understanding of the variability of species composition over time and to develop a long-term trend analysis of changes to the biological community in Brown's Creek in response to on-going water quality projects implemented in the watershed. Macroinvertebrate assessments have been conducted annually as populations and species diversity can change quickly due to changes in their environment, in part due to their short life spans and sensitivities to changes in water quality. Conversely, fish have longer lifespans and populations are generally slower to respond to changes in their environment compared to macroinvertebrates. Moving forward, the MNDNR will be conducting fish surveys on a 3-year cycle, with the next survey to be conducted in 2027.

Scope of Services

This scope of services is to continue annual sampling of macroinvertebrates at the three historical sites along Brown's Creek (Headwaters, Middle Reach and Gorge). Macroinvertebrate sampling will occur in September of 2025, and specimens will be sent to RMB Labs for taxonomic identification. The results of the assessments will be summarized in a brief technical memo that will include a comparison of the 2025 data to previously collected data (2015-2024).

Deliverables

- Macroinvertebrate assessment technical memorandum and data submission to MPCA

Estimated Hours and Cost

EOR - 11 hours: $2,398

EOR - mileage and sample shipments: $60

RMB - macroinvertebrate specimen ID & report: $1,600

Total: $4,058

Board Action

1. Approve this Scope of Services in the amount of $4,058 from account number 947-0018 to conduct the 2025 Macroinvertebrate Assessment.

Project Name |	Brown's Creek Biological Assessments	**Date** |	04/28/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	Mike Majeski, Conservation Biologist		
Regarding |	Macroinvertebrate Data Summary_2015-2024		

Background

The BCWD has been conducting routine fish and macroinvertebrate assessments since 2015 to monitor changes in the biological community of Brown's Creek following implementation of numerous water quality projects in the watershed (see implementation activity under Stream Management, Goal A of the 2017-2026 Watershed Management Plan). The goals of BCWD's routine fish and macroinvertebrate assessments are to develop a more robust understanding of the variability of species composition over time and to develop a long-term trend analysis of changes to the biological community in Brown's Creek in response to on-going water quality projects implemented in the watershed. Macroinvertebrate assessments have been conducted annually as populations and species diversity can change quickly due to changes in their environment, in part due to their short life spans and sensitivities to changes in water quality. Conversely, fish have longer lifespans and populations are generally slower to respond to changes in their environment compared to macroinvertebrates. The last fish survey was conducted in 2021 by DNR fisheries staff, and DNR plans to conduct routine fish surveys on a 3-year basis moving forward.

The Minnesota Pollution Control Agency (MPCA) has been using this data to assess the watershed's water quality impairments and designated uses as part of their long-term Intensive Watershed Monitoring Plan. As part of MPCA's biological assessment, fish and macroinvertebrate-based indices of biological integrity (IBI) have been developed to track long-term trends in the biological community of each watershed studied in Minnesota. Fish and macroinvertebrate IBI's are based on the number and diversity of fish and macroinvertebrate species present in a stream compared to what the stream is expected to support. The following is a summary of macroinvertebrate data collected from 2015-2024.

2024 Macroinvertebrate Assessment

Macroinvertebrates were sampled from three sites along Brown's Creek including the Headwaters, Middle Reach, and Gorge (Figure 1). As in 2023, sampling was only conducted in the fall (September) based on input and recommendations from MPCA staff. The fall season is the recommended sampling period since the overall macroinvertebrate community is better represented in the fall (e.g., more species are present in the fall compared to the spring).

Macroinvertebrate specimens were sent to RMB Environmental Laboratories for taxonomic identification to the genus level, and a subsequent report was completed summarizing the macroinvertebrate IBI scores and results from the 2015-2024 surveys (Appendix A). Findings and trends from the macroinvertebrate surveys are provided below.

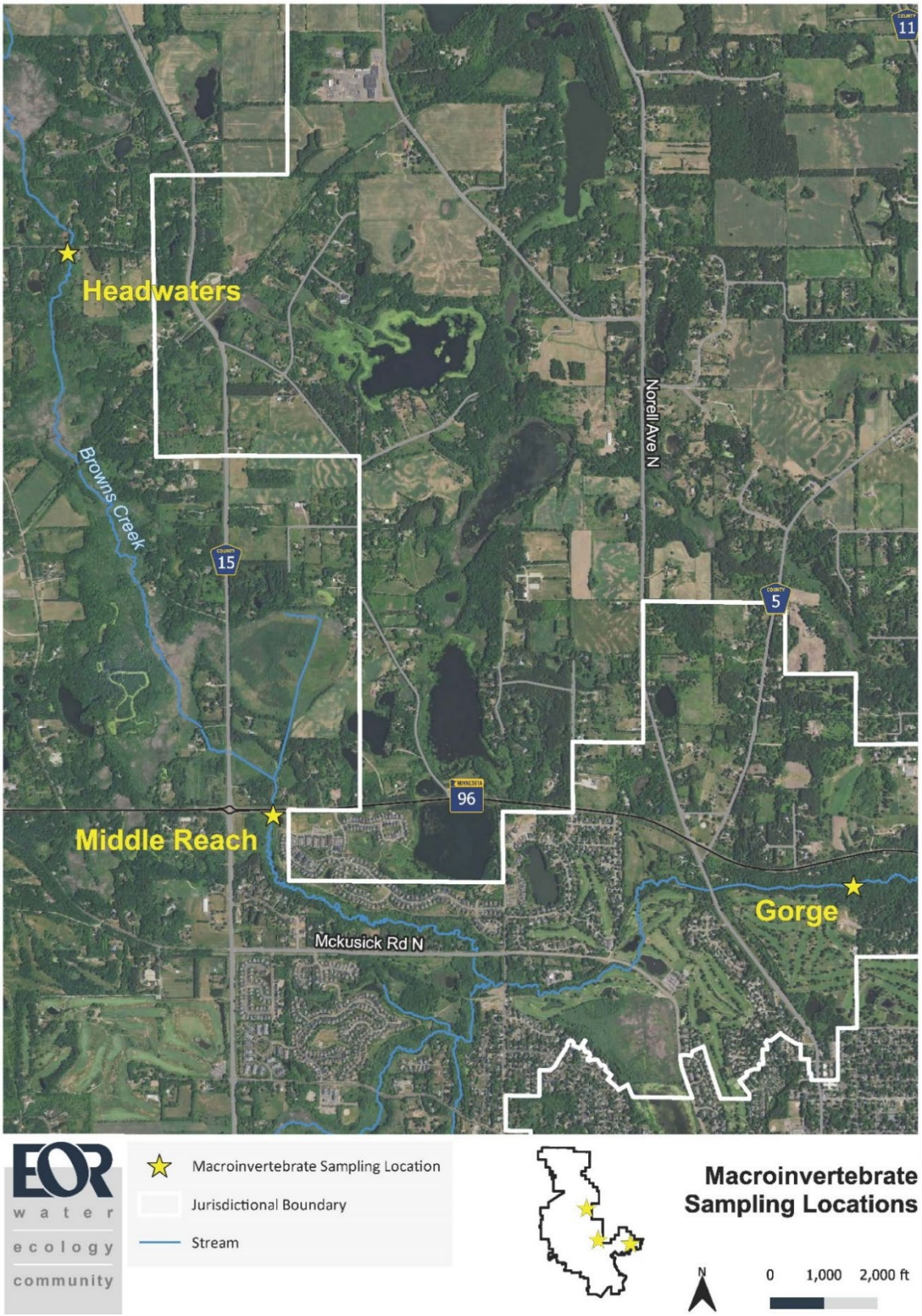


Figure 1. Macroinvertebrate sampling locations in the BCWD, 2015-2024.

Findings & Trends

- Data collected from 2015-2024 indicates an overall upward (improving) trend in stream health and macroinvertebrate community quality.

- The calculated IBI scores from all 3 sites from 2015-2024 indicate an improving macroinvertebrate community since 2015, with most macroinvertebrate IBI scores occurring between the General Use and Exceptional Use thresholds for the Southern Coldwater Streams region (Figure 2). In particular, the Gorge IBI scores have improved the most during the study and have remained above the Exceptional Use threshold since 2019. Of the 19 samples that have scored above the Exceptional Use Threshold over the course of the project, 16 of those samples have occurred since 2019. Most notably, all three fall 2019 samples were above the Exceptional Use Threshold.

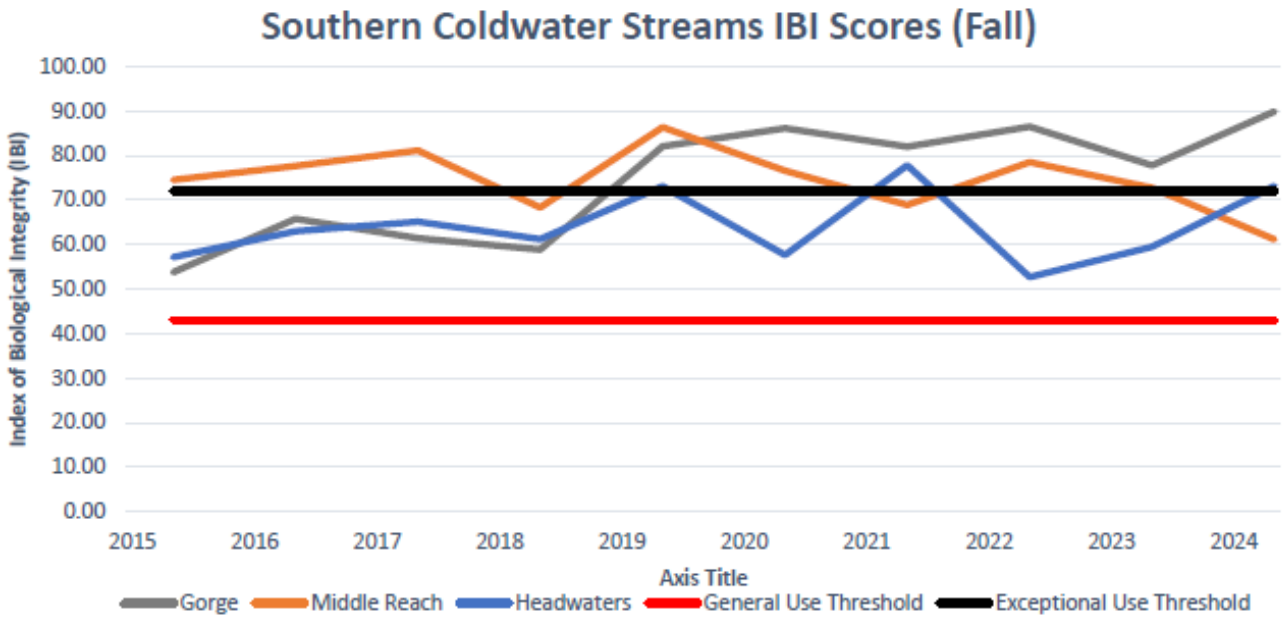


Figure 2. Fall season IBI scores from Brown's Creek and associated General Use and Exceptional Use thresholds. Source: RMB Macroinvertebrate Stream Monitoring Assessment 2015-2024 (Figure 6, Appendix A).

- The total number of taxa (a unique group of organisms) sampled from 2015-2023 indicates a diversity of macroinvertebrates present across all 3 sites (161 unique taxa to date), with the three most dominant taxa having a medium-level tolerance to pollution. However, good numbers of intolerant taxa (groups intolerant of pollution) are also present which indicates the stream provides ample habitat and water quality to support these sensitive taxa.

- Perlodid stoneflies have been collected every year from the Gorge site, indicating the creek provides ample habitat and high oxygen levels to support this pollution intolerant group. Perlodid stoneflies were also collected from the Middle Reach in 2020 and from 2022-2024.

- The average pollution tolerance score has decreased since 2015, indicating the creek is supporting a greater number of taxa that are considered intolerant to pollution (Figure 3). This trend is also reflective in the population size of intolerant taxa, with the total number of pollution intolerant taxa increasing since 2015 (Figure 4). Pollution intolerant taxa are present in good numbers at all 3 sampling sites and suggest Brown's Creek is providing suitable habitat and water quality at these monitoring locations.

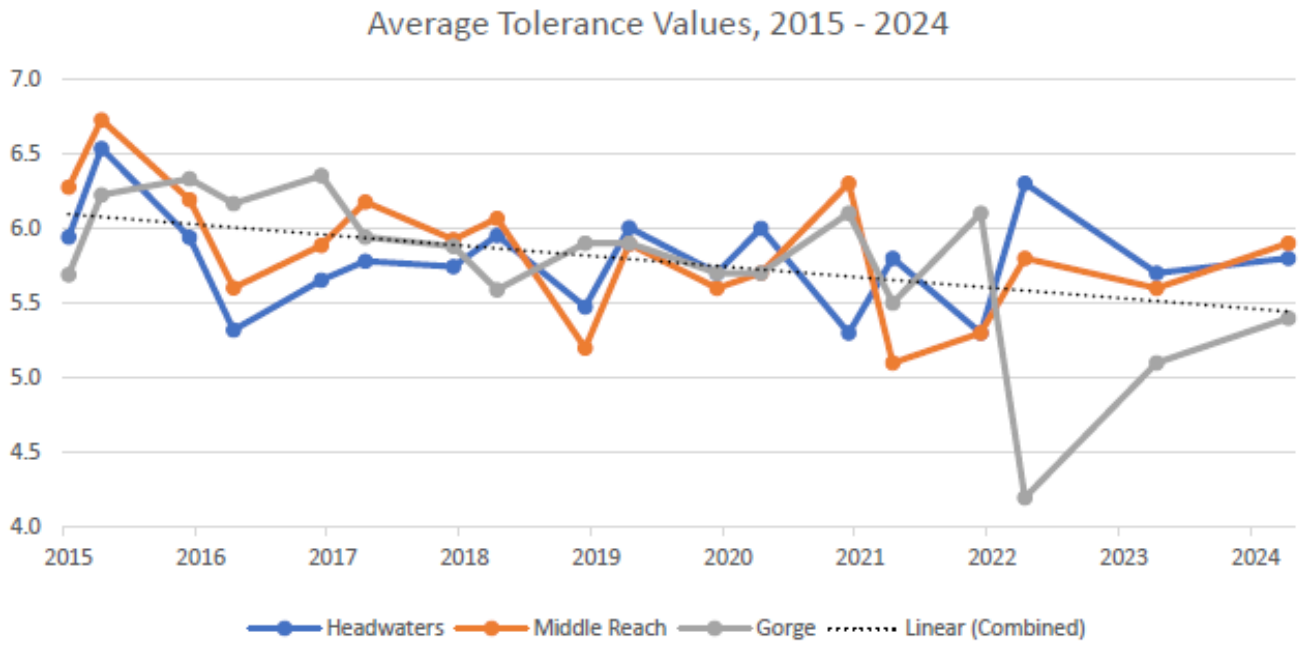


Figure 3. Average pollution tolerance values for Brown's Creek macroinvertebrates from 2015-2024. Source: Source: RMB Macroinvertebrate Stream Monitoring Assessment 2015-2023 (Figure 4, Appendix A).

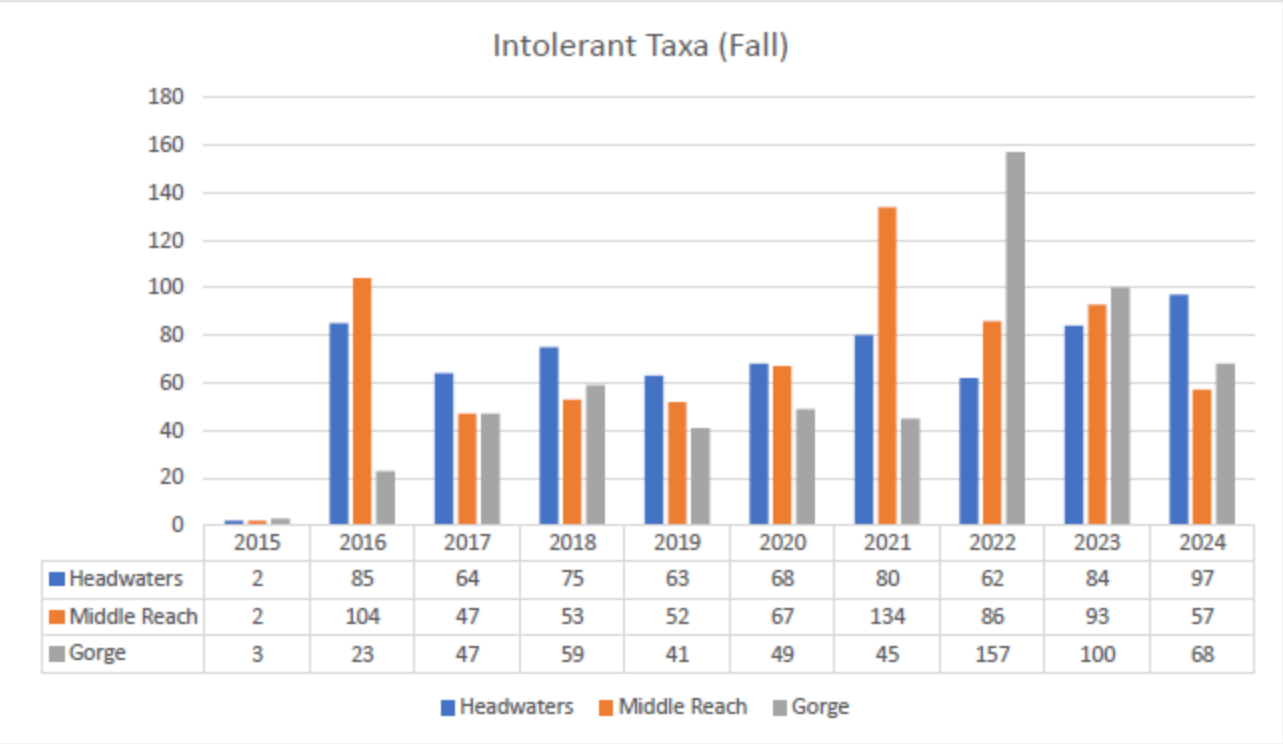


Figure 4. Comparison of total numbers of intolerant taxa collected in Brown's Creek from 2015-2024 (Fall samples only). Source: RMB Macroinvertebrate Stream Monitoring Assessment 2015-2024 (Figure 9, Appendix A).

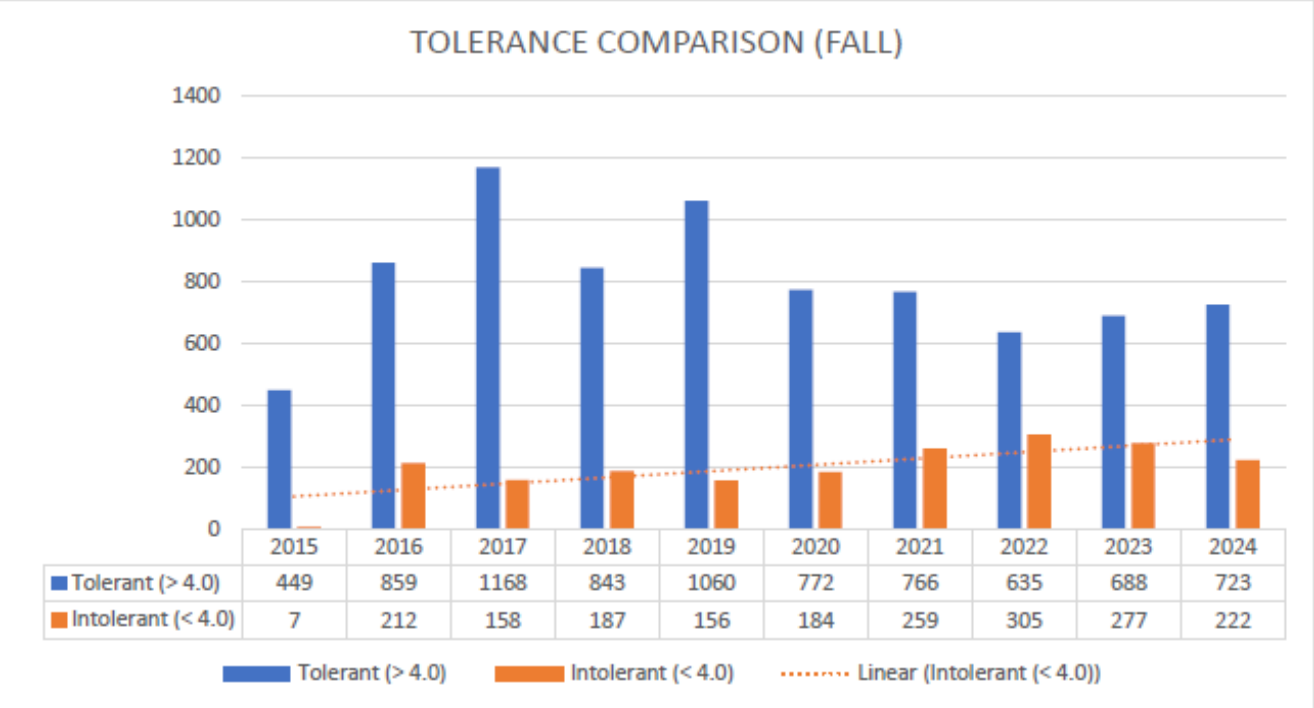


Figure 5. Comparison of tolerant and intolerant taxa in Brown's Creek. Source: RMB Macroinvertebrate Stream Monitoring Assessment 2015-2024 (Figure 11, Appendix A).

Appendix A

RMB Report: Macroinvertebrate Stream Monitoring Assessment 2015-2024

Macroinvertebrate Stream Monitoring Assessment 2015 – 2024

Emmons & Olivier Resources, Inc.

April 9th, 2025

RMB Environmental Laboratories
Authored by: Jefferey Kasowski

RMB Environmental Laboratories
22796 County Highway 6
Detroit Lakes, MN 56501
(218) 846-1465
www.rmbel.info

Report Date: April 9th, 2025

To: Mike Majeski
Emmons & Olivier Resources, Inc.
1919 University Ave W Suite 300,
St. Paul, MN 55104

Subject: Macroinvertebrate Assessment of Brown's Creek

From: Jefferey Kasowski
RMB Environmental Laboratories, Inc
22796 County Highway 6
Detroit Lakes, MN 56501
218-846-1465
Jefferey.kasowski@rmbel.info
www.rmbel.info

Authors: Jefferey Kasowski, RMB Environmental Laboratories, Inc: taxon identification, metric calculations, and report

Acknowledgements: Barbara Hayford, Aquatic Biology Associates, Inc: taxon identification and taxon quality control verification

Joel Chirhart, Minnesota Pollution Control Agency: IBI calculations

Kaira Kamke: Report

Moriya Rufer: Report

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Introduction

Macroinvertebrates provide a valuable insight into the health of a stream ecosystem since most taxa require specific conditions to survive and thrive. Stream parameters like temperature, flow speed, substrate type, dissolved oxygen, and pollution inputs can all impact which invertebrates will be found at a site. Evaluating the invertebrate community in a stream or river can reveal impacts to the aquatic ecosystem and trends in the water quality.

From 2015 – 2022, aquatic macroinvertebrates were collected in May or June and September from Brown's Creek in Washington County, Minnesota. In 2023 and 2024, aquatic macroinvertebrates were collected in September only. The Minnesota Pollution Control Agency (MPCA) Index of Biotic Integrity (IBI) was calculated for all stream sites to assess the water quality and compare sites. Samples were collected along the stream reach at the Headwaters, Middle Reach, and Gorge sites to evaluate how the quality changes along the gradient (Figure 1). Brown's Creek is located within the Southern Coldwater Streams invertebrate class (Figure 2). Samples were repeated each year beginning in 2015 to evaluate changes over time. The collection of this data is essential for compiling

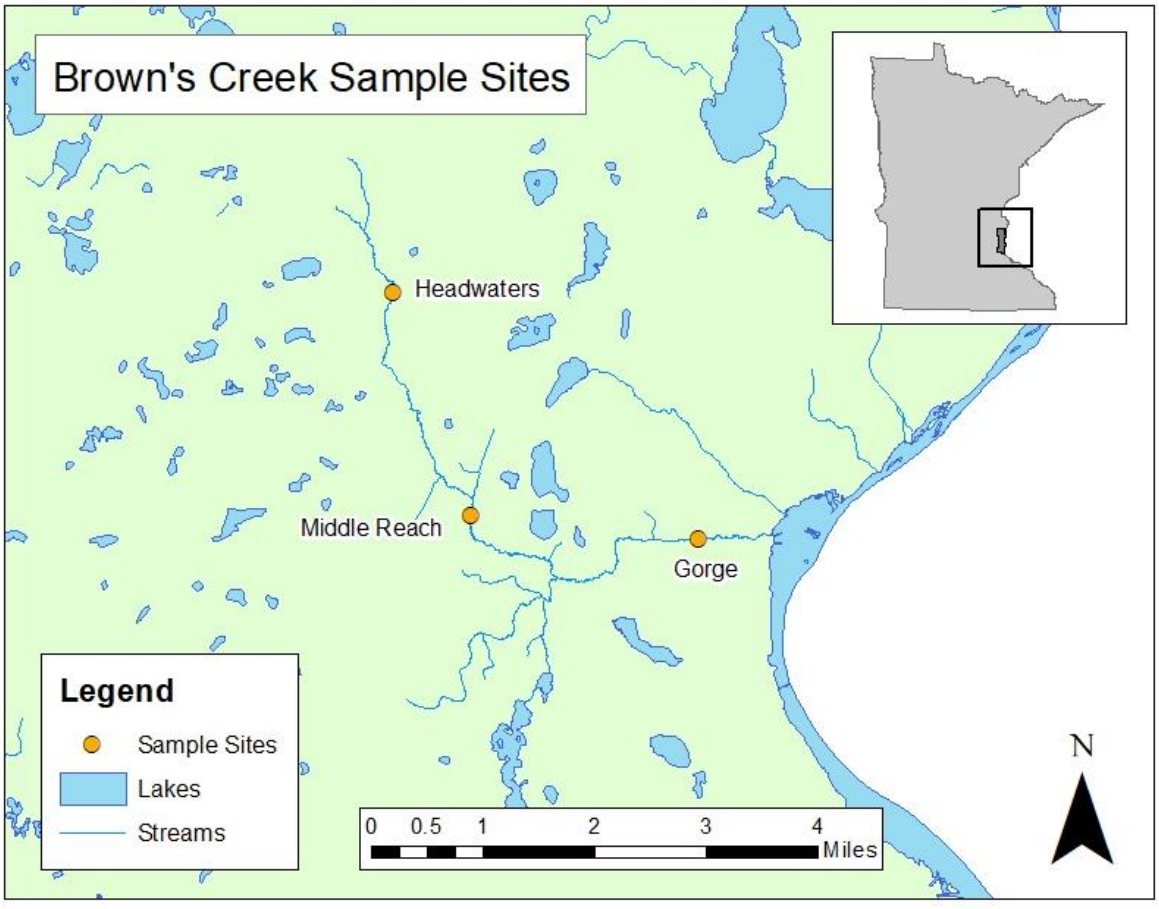


Figure 1: Macroinvertebrate monitoring sites in Brown's Creek, 2015-2024

a baseline dataset of invertebrates found in this region, which can be used for assessments of impacts or future restoration projects on this stream.

Methods

Sample Collection

The aquatic macroinvertebrate samples collected from 2015 – 2024 were located at the Headwaters, Middle Reach, and Gorge sites of Brown's Creek. Samples were collected with a D-frame net following the MPCA's Standard Operating Procedure (SOP) for multi-habitat collection of stream invertebrates (MPCA). They were then preserved and delivered to RMB Environmental Laboratories, Inc. (RMBEL) in Detroit Lakes, MN for laboratory processing and data analysis.

Laboratory Processing

The macroinvertebrate samples were processed following MPCA methods, including sorting random subsamples to a target specimen count of 300. All taxa were enumerated and identified to genus level, with leeches and snails identified to species where possible. Representative taxa were retained in a project collection for internal quality control. Subsample picking and taxa identifications were both held to 95% efficiency in internal quality control checks.

Data Management and Assessment

The final data for each sample was entered into a spreadsheet and sent to Joel Chirhart at the MPCA to run the IBI database calculations. RMBEL staff used the macroinvertebrate community data to calculate general invertebrate metrics to accompany the IBI values and facilitate comparison among sites along the stream gradient and across years. Sites were mapped in ArcMap to regionally compare the samples, which are within the Southern Coldwater Streams invertebrate class (Class 9). These classes are derived from the Minnesota Department of Natural Resources (DNR) Ecological Classification System provinces and were developed based on major climate zones, native vegetation, and biomes.

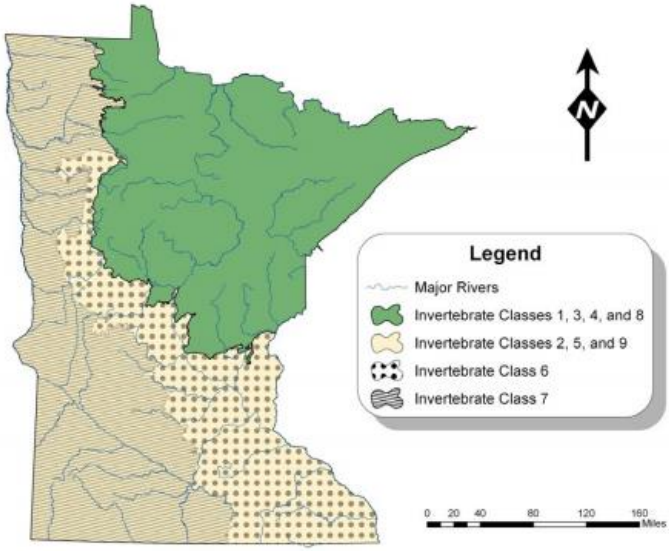


Figure 2: Map of Minnesota Pollution Control Agency invertebrate classes (MPCA)

Results

Macroinvertebrate Metrics

Macroinvertebrate metrics can provide a general overview of the health of a stream ecosystem relating to which taxa are dominant in a sample and how many taxa are intolerant to pollution impacts. Overall taxa richness is a common metric for water quality, since unimpacted stream systems typically show much more diversity than those with heavy impacts. The taxa richness values in this report include only unique taxa, and specimens that are immature or damaged and left at a higher taxonomic level were omitted from the metric. This may present some discrepancies from previous reports sent, in which all taxa were included in the richness values, regardless of whether they were unique to the rest of the community composition. Evaluating certain taxa groups that generally prefer specific conditions can give an idea of whether the stream quality is higher or lower than other sites. These include Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies), which typically are found in unpolluted waters, as well as Chironomidae (midges) which tend to dominate in highly impacted sites. Additionally, the presence of taxa that are intolerant to pollution can indicate higher quality waters. These metrics are explained in Table 1; they have been calculated for all the samples throughout this project and are listed in Tables 2 – 7.

Table 1. Explanations of the macroinvertebrate metrics

Metric	Explanation	Response
Taxon Richness	**The total number of taxa found in the sample (genus level, family level for Chironomidae)**	**Higher numbers indicate better water quality and habitat quality**
EPT Richness	**The total number of Ephemeroptera (mayflies), Plecoptera (Stoneflies), and Trichoptera (caddisflies) in the sample. These taxa are considered generally intolerant to pollution.**	**Higher numbers indicate better water quality and habitat quality**
Plecoptera Richness	**The total number of Plecoptera (stoneflies) taxa in the sample. Plecoptera are intolerant to pollution and are clean water indicators.**	**Higher numbers indicate better water quality and habitat quality**
Percent Chironomidae	**Generally, the more chironomids in a sample, the more impacted the site is.**	**Lower numbers indicate better water quality and habitat quality**
Average Tolerance	**The average tolerance value of all the taxa in the sample on a 0-10 scale, with 0 being intolerant to organic pollution and 10 being tolerant to organic pollution**	**Lower numbers indicate better water quality and habitat quality**
Intolerance	**Number of taxa with tolerance values less than or equal to 4**	**Higher numbers indicate better water quality and habitat quality**

2015 Results

This macroinvertebrate survey began in 2015 with two samples collected per year at the Headwaters, Middle Reach, and Gorge sites of Brown's Creek. Overall, there were 53 unique taxa found in the samples this year. Most of the samples showed high taxon richness values, with the most diversity found at the Headwaters and Middle Reach sites (Table 2). All samples had at least two taxa in the EPT group, which represent higher quality water. Plecoptera (stonefly) richness is a metric that can indicate unimpacted streams. Only one immature stonefly specimen was found at the Gorge site during this year of sampling. Stoneflies typically prefer to live in fast, cold waters with riffles, and even a stream with moderate impacts can be unsuitable for them.

The percent Chironomidae metric showed results from 0% up to only 11.7% in 2015. This taxa group tends to dominate in heavily impacted streams, so this low proportion of the community means that there are minimal high-impact pollutant sources affecting the stream. The average tolerance values of all taxa found in each sample were predominantly greater than 5.0, which indicates that most of the taxa are tolerant to higher levels of pollution or other impacts to the streams.

Every sample in 2015 included intolerant taxa in the community, which are specimens with a tolerance value of 4 or less. Even though most of the samples had dominating species with high tolerance values, the presence of intolerant taxa indicates the sites are also providing suitable conditions.

Table 2. Metrics for each sample site in 2015

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**39**	**8**	**0**	**8.1%**	**6.1**	**2**
June	28	7	0	11.7%	5.9	2
September	18	4	0	1.1%	6.5	1
Middle Reach	**27**	**6**	**0**	**1.2%**	**6.5**	**2**
June	21	4	0	4.3%	6.3	2
September	28	5	0	0.0%	6.7	1
Gorge	**22**	**4**	**1**	**1.3%**	**5.8**	**4**
June	16	3	0	1.5%	5.7	3
September	11	2	1	0.9%	6.2	2

2016 Results

In 2016, the samples had a total of 55 different taxa found. The taxon richness values for each sample were mostly above 20, which represents a diverse community of invertebrates (Table 3). Only the Gorge sample from September showed a lower taxa richness than the other samples, with only 15 unique taxa. The EPT richness was also found to be high, with every sample having at least 3 different taxa from one of those insect groups. The Plecoptera richness was comparable to the 2015 samples, with only the Gorge site having stoneflies present, but they were found in both the May and September samples this year.

The percent Chironomidae was low again for the samples in 2016, with the highest only reaching 14.2%. However, the average tolerance values were slightly above 5.0 again, indicating the domination of tolerant taxa in the samples. Like 2015, each of the samples displayed intolerant taxa, so each site does not show the high impact levels that would prevent those species from occurring there.

Table 3. Metrics for each sample site in 2016

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**36**	**8**	**0**	**6.0%**	**5.6**	**3**
May	20	4	0	7.6%	5.9	1
September	28	6	0	4.5%	5.3	3
Middle Reach	**36**	**7**	**0**	**6.8%**	**5.8**	**3**
May	20	3	0	14.2%	6.2	1
September	23	5	0	1.4%	5.6	3
Gorge	**27**	**3**	**1**	**11.6%**	**6.2**	**2**
May	21	3	1	12.2%	6.3	1
September	15	3	1	1.1%	6.2	1

2017 Results

The macroinvertebrate samples taken in 2017 again showed high-quality water overall, with 60 unique taxa found across all the sites (Table 4). The taxon richness was higher for most of the samples than in previous years, and all sites had several EPT taxa present. Plecoptera were again found only at the Gorge site, but in both the spring and fall samples. The Chironomidae proportion was higher in some of the sites this year than in previous years, with the most being present in the Headwaters sample from May. However, most of the midge taxa found were *Diamesa* and *Parametriocnemus*, which both have moderate tolerance values of 5.0 and 5.2, respectively. Midges that dominate in heavily impacted streams tend to have tolerance values much higher than those found in this sample. The average tolerance values for the samples were like previous years in the 5.5 – 6.5 range, and each site had some intolerant taxa found.

Table 4. Metrics for each sample site in 2017

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**31**	**6**	**0**	**33.2%**	**5.7**	**4**
May	18	3	0	51.5%	5.7	2
September	23	4	0	4.8%	5.8	3
Middle Reach	**37**	**8**	**0**	**8.9%**	**6.1**	**5**
May	19	3	0	19.6%	5.9	2
September	28	6	0	1.3%	6.2	4
Gorge	**34**	**6**	**1**	**20.5%**	**6.1**	**3**
May	20	3	1	34.5%	6.4	1
September	27	5	1	11.7%	5.9	3

2018 Results

The metrics for 2018 sample sites show high stream quality, most like 2017 than previous years, and the samples included 64 different taxa across all samples (Table 5). All samples showed exceptionally high taxon richness values, with the Gorge site being at a similar level to the other sites. All sites had at least two EPT taxa present, and again the only Plecoptera specimens found this year were at the Gorge site in both samples. The percent Chironomidae metric was slightly lower across most of the sites compared to previous years. Like 2017, the highest percent Chironomidae value was in the May Headwaters sample, but again the community consisted mostly of moderate-tolerance species. The average tolerance values are like previous years, and all samples had some intolerant taxa present this year, so the sites also provide suitable conditions for these species.

Table 5. Metrics for each sample site in 2018

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**35**	**6**	**0**	**18.7%**	**5.9**	**4**
May	24	2	0	35.8%	5.7	2
September	26	5	0	4.9%	6.0	3
Middle Reach	**37**	**6**	**0**	**7.3%**	**6.0**	**4**
May	21	3	0	13.8%	5.9	2
September	25	4	0	0.9%	6.1	3
Gorge	**36**	**8**	**1**	**11.5%**	**5.7**	**5**
May	27	6	1	17.9%	5.9	3
September	24	5	1	5.4%	5.6	3

2019 Results

In 2019, the samples included 58 unique taxa and showed an ongoing trend of high stream quality (Table 6). The taxon richness values continue to show high levels of diversity throughout Brown's Creek. The May Headwaters community had a richness level higher than any sample in this project so far with over 30 unique taxa. The Middle Reach and Gorge sites showed diversity like previous years. All samples had at least 3 unique EPT taxa present, with the Gorge site showing the only Plecoptera specimens. However, this year both *Isoperla* and *Haploperla* were found at this site, which have moderately low tolerance values of 4.2 and 4.0, respectively.

The Chironomidae proportion was slightly higher in 2019 than in previous years in the Headwaters and Middle Reach sites with half to two-thirds of the May samples comprised of midges. This level of community domination would generally indicate a higher level of impact, although the majority of the Chironomidae community was again represented by *Diamesa*. The average tolerance values are also slightly lower than in previous years with all the samples remaining below 6.0, and all sites included intolerant taxa. This indicates that the stream community is stable and continuing to support the species that are intolerant to stream impacts.

Table 6. Metrics for each sample site in 2019

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**39**	**8**	**0**	**40.3%**	**5.7**	**4**
May	32	4	0	67.0%	5.5	2
September	23	6	0	16.9%	6.0	3
Middle Reach	**32**	**9**	**0**	**28.4%**	**5.6**	**5**
May	19	3	0	54.8%	5.2	3
September	20	7	0	4.0%	5.9	4
Gorge	**31**	**9**	**2**	**11.3%**	**5.9**	**4**
May	24	6	1	25.3%	5.9	3
September	17	5	1	1.8%	5.9	2

2020 Results

In 2020, the samples included 54 unique taxa and showed an ongoing trend of high stream quality (Table 7). The taxon richness values continue to show high levels of diversity throughout Brown's Creek. All samples had at least 3 unique EPT taxa present. The Middle Reach and Gorge sites both showed Plecoptera specimens. This is the first year that Plecoptera has been found in the Middle Reach which could represent higher water quality in that area than in years past.

The average tolerance values for the samples were similar to 2019, with numbers falling between the 5.6 – 6.0 range which are slightly lower than in previous years. Each site had some intolerant taxa found which indicates that the stream community is stable and continuing to support the species that are intolerant to stream impacts.

This year there was a higher number of taxa with moderately low tolerance values ranging from 4.1 to 4.5. *Isoperla (TV=4.2)* was found in both Middle Reach and Gorge, *Ptilostomis (TV=4.4)* and *Pycnopsyche (TV=4.5)* were found in Headwaters, and *Antocha (TV=4.1)* was found in Gorge. A higher number of taxa with moderately low tolerance values is another indicator of good water quality.

The Chironomidae proportion was lower in 2020 compared to 2019 where we saw the highest numbers of any year sampled. Similar to 2019, the majority of the Chironomidae community was again represented by *Diamesa,* which has a moderate tolerance value compared to other midges.

Table 7. Metrics for each sample site in 2020

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**36**	**7**	**0**	**23.8%**	**5.8**	**2**
May	22	3	0	35.9%	5.7	2
September	25	6	0	11.4%	6.0	3
Middle Reach	**32**	**10**	**1**	**18.1%**	**5.7**	**5**
May	16	6	1	28.5%	5.6	3
September	22	5	0	18.1%	5.7	3
Gorge	**29**	**7**	**1**	**14.2%**	**5.7**	**5**
May	20	5	1	21.1%	5.7	2
September	22	7	1	6.6%	5.7	5

2021 Results

In 2021, the samples included 52 unique taxa and showed an ongoing trend of high stream quality (Table 8). The taxon richness values continue to show high levels of diversity throughout Brown's Creek. All samples had at least 4 unique EPT taxa present. The Gorge site showed Plecoptera specimens for both sample occurrences.

The average tolerance values for the samples in 2021 were similar to 2020, with numbers falling between the 5.6 – 6.0 range which are slightly lower than in previous years. Each site had some intolerant taxa found which indicates that the stream community is stable and continuing to support the species that are intolerant to stream impacts.

This year again there was a higher number of taxa with moderately low tolerance values ranging from 4.1 to 4.5. *Ptilostomis (TV=4.4)* was found in Headwaters. *Isoperla (TV=4.2), Pycnopsyche (TV=4.5)* and *Antocha (TV=4.1)* were found in Gorge. A higher number of taxa with moderately low tolerance values is another indicator of good water quality.

The Chironomidae proportion was lower in 2021 compared to 2020 and substantially lower to 2019 where we saw the highest numbers of any year sampled. The majority of the Chironomidae community was represented by *Polypedilum,* which has a high tolerance value compared to other midges. The second highest number of midges were represented by Diamesa which has a lower tolerance value and has been the most prevalent genus found in past years. The lower Chironomidae numbers this year are a good sign since most of MN had experienced low water conditions over the summer of 2021. Lower water conditions usually result in warmer water temperatures which helps Chironomidae development. EPT richness remained stable from Spring to fall sampling and increased in the Middle Reach which is similar to past years and a great sign that taxa can maintain richness even in low water conditions.

Table 8. Metrics for each sample site in 2021

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**28**	**8**	**0**	**6.0%**	**5.5**	**5**
May	20	5	0	9.7%	5.3	4
September	21	5	0	2.4%	5.8	3
Middle Reach	**40**	**9**	**0**	**15.6%**	**5.7**	**5**
May	25	4	0	30.8%	6.3	3
September	24	7	0	3.1%	5.1	3
Gorge	**28**	**7**	**1**	**14.7%**	**5.8**	**3**
May	22	5	1	24.9%	6.1	2
September	16	5	1	4.5%	5.5	2

2022 Results

In 2022, the samples included 50 unique taxa and showed an ongoing trend of high stream quality (Table 9). The taxon richness values continue to show high levels of diversity throughout Brown's Creek. All samples had at least 5 unique EPT taxa present. All samples had at least 20 unique taxa with the highest being 28 representing a heathy and diverse community of invertebrates. The Gorge site showed Plecoptera specimens for both sample occurrences. Middle Reach showed plecoptera specimens for its spring sample.

The average tolerance values were like years past for Headwaters and Middle Reach. Gorge site had a normal average tolerance in the spring; but showed a much lower average tolerance value for its fall sample due to the abundance of the caddisfly Glossosoma (TV=1.1), Protoptila (TV=1.4) and riffle beetle Optioservus (TV=3.1). Each site had at least 5 intolerant taxa which indicates that the stream community is stable and continuing to support the species that are intolerant to stream impacts.

The Chironomidae proportion was average for Headwaters which typically shows higher numbers than the other two sites. The majority of the Chironomidae community was represented by Diamesa (TV=5.0), which has a lower tolerance value and has been the most prevalent genus found in past years. Middle Reach and Gorge came back with lower-than-average Chironomidae numbers which are similar to 2015 where we had the lowest numbers of all year's sampled.

Table 9. Metrics for each sample site in 2022

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters	**32**	**7**	**0**	**26.2%**	**6.0**	**8**
May	25	5	0	41.4%	5.3	6
September	22	5	0	10.8%	6.3	6
Middle Reach	**37**	**10**	**1**	**4.5%**	**5.6**	**7**
May	25	8	1	5.1%	5.3	5
September	28	7	0	4.0%	5.8	6
Gorge	**33**	**10**	**1**	**3.9%**	**5.1**	**8**
May	26	7	1	3.5%	6.1	5
September	20	8	1	4.2%	4.2	7

2023 Results

In 2023, the samples included 44 unique taxa and showed an ongoing trend of high stream quality (Table 10). The taxon richness values continue to show high levels of diversity throughout Brown's Creek. All samples had at least 5 unique EPT taxa present. All samples had at least 20 unique taxa with the highest being 26 representing a heathy and diverse community of invertebrates. The Gorge and Middle Reach sites showed Plecoptera specimens for each sample occurrence.

The average tolerance values were like years past for all three sites. Each site had at least 3 intolerant taxa which is consistent with past years indicating that the stream community is stable and continuing to support the species that are intolerant to stream impacts.

The Chironomidae proportion was average for Headwaters which typically shows higher numbers than the other two sites. The majority of the Chironomidae community was represented by Tvetenia Bavarica Group (TV=5.0), which has a lower tolerance value than other midges. Middle Reach and Gorge came back with lower-than-average Chironomidae numbers.

Table 10. Metrics for each sample site in 2023

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters						
September	20	5	0	10.3%	5.7	3
Middle Reach						
September	26	7	1	4.0%	5.6	**3**
Gorge						
September	21	8	1	5.4%	5.1	4

2024 Results

In 2024, the samples included 38 unique taxa and showed an ongoing trend of high stream quality (Table 11). The taxon richness values continue to show high levels of diversity throughout Brown's Creek. All samples had at least 5 unique EPT taxa present. All samples had at least 21 unique taxa with the highest being 25 representing a heathy and diverse community of invertebrates. The Gorge and Middle Reach sites showed Plecoptera specimens for each sample occurrence.

The average tolerance values were like years past for all three sites. Each site had at least 3 intolerant taxa which is consistent with past years indicating that the stream community is stable and continuing to support the species that are intolerant to stream impacts.

The Chironomidae proportion was lower for Headwaters which typically shows higher numbers than the other two sites. Middle Reach and Gorge came back with average Chironomidae numbers.

Table 11. Metrics for each sample site in 2024

Site	Taxon Richness	EPT Richness	Plecoptera Richness	Percent Chironomidae	Average Tolerance	Intolerance
Headwaters						
September	24	7	0	6.3%	5.8	4
Middle Reach						
September	25	5	1	7.8%	5.9	2
Gorge						
September	21	6	1	5.2%	5.4	3

2015 – 2024 Comparisons

General macroinvertebrate metrics are best used in combination to determine the health of a stream ecosystem. However, a few of the metrics can give an overall glimpse into how stream health is changing over time. The taxa richness represents how many unique specimens are present in a sample, which is an indication of biological community stability. Streams with high taxa richness are better able to respond to and recover from impacts to the water quality. In this project, the taxa richness for all samples ranges from 11 to 32, and over the years of this project, the communities present appear to be stable and show an increasing trend in richness (Figure 3). This indicates that the stream ecosystem is healthy and successfully recovering from any disturbances or impacts that may have occurred in the years prior to the survey. Several of the 2015 samples did not meet the target specimen count of 300 specimens when the entire sample was sorted, and this can affect the metric results. However, even with these low counts, the spring samples still showed a high taxa richness that is comparable to the community sampled in the following years. The Headwaters sample from May 2019 showed 32 unique taxa, which was higher than in any of the previous samples, indicating that the stream has a very stable and diverse community present. Samples from 2021 showed lower taxa richness than 2019 but remained comparable with earlier years of sampling. 2022 showed continued improvement. We had a record low for average tolerance from the fall Gorge site which also resulted in a record high in IBI scoring from that same site. The total tolerance

comparison across all years shows a strong increase in intolerant taxa along with a decrease in tolerant taxa. Decreasing tolerance values along with stable taxa richness and lower Chironomidae numbers are all great indicators that conditions are improving for Brown's Creek. When comparing 2023's results with past numbers for taxa richness, average tolerance and IBI scoring; consistent stable numbers appear to be the trend which is a great sign that no new impairments have been introduced to Brown's Creek and the stream seems to be maintaining a health macroinvertebrate community. 2024's results remained consistent regarding taxa richness, EPT species and percent Chironomidae and average tolerance. MIBI numbers were great this year with both Middle Reach and Gorge coming in above the exceptional use threshold. Head waters had a lower MIBI score but still came in consistent with past years.

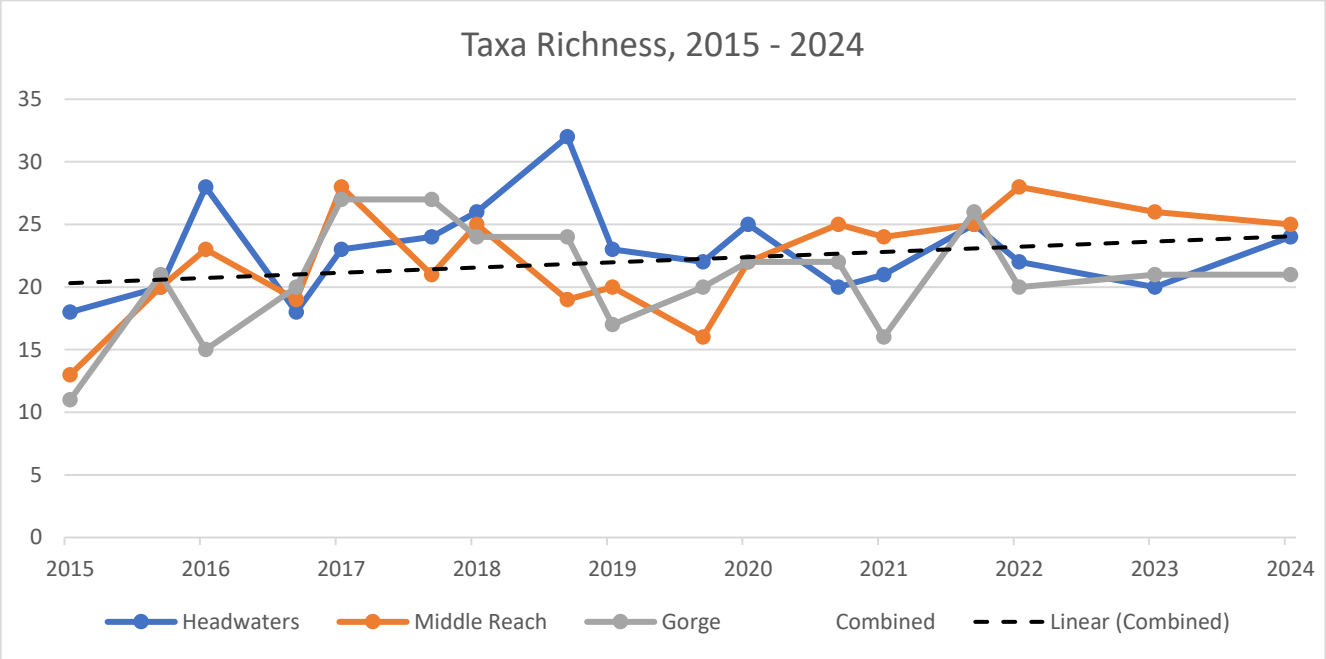


Figure 3: Taxa richness values for Brown's Creek samples from 2015 to 2024

The average tolerance value metrics can also give a good insight into stream health since it consists of a weighted average calculation. The Brown's Creek samples show an interesting pattern over the course of the years surveyed (Figure 4). In 2015, there were high values across the sites, and then some fluctuation in the tolerance values over the rest of the years. Natural fluctuations in community composition can occur year to year and are a normal occurrence in this tolerance range of 5.5 to 6.5. There is a slight decreasing trend developing over the years, showing that the stream community can support more specimens that are intolerant to impacts. This is an indication of good water quality and a stable aquatic ecosystem. The Headwaters and Middle Reach sites tend to follow the same pattern throughout the sample period, indicating similar conditions at those two sites. However, the Gorge samples follow a different pattern, showing a higher tolerance score in 2016 and

2017 when the other two sites showed much lower scores. This could be due to a disturbance or impact occurring to Brown's Creek between the Middle Reach and Gorge sample sites. However, the disturbance is not severe enough to have strongly altered the other metrics in the Gorge samples, so the stream community is able to recover before reaching this last sample site. In 2020 & 2021, we see more consistent taxa in Headwaters and Middle Reach. Gorge showed more variation than in years past when compared with the other two sites; this could be due to low water levels in the fall. There is a down trend in average tolerance values and it seems that the numbers of intolerant taxa have been rising year after year which is a great sign that conditions are improving. Even thou numbers of unique taxa have declined since 2018 in Brown's creek, the taxa with lower tolerance values have been increasing. As conditions improve in Brown's creek it allows taxa with lower tolerance values a chance to rebound and increase their populations from past numbers.

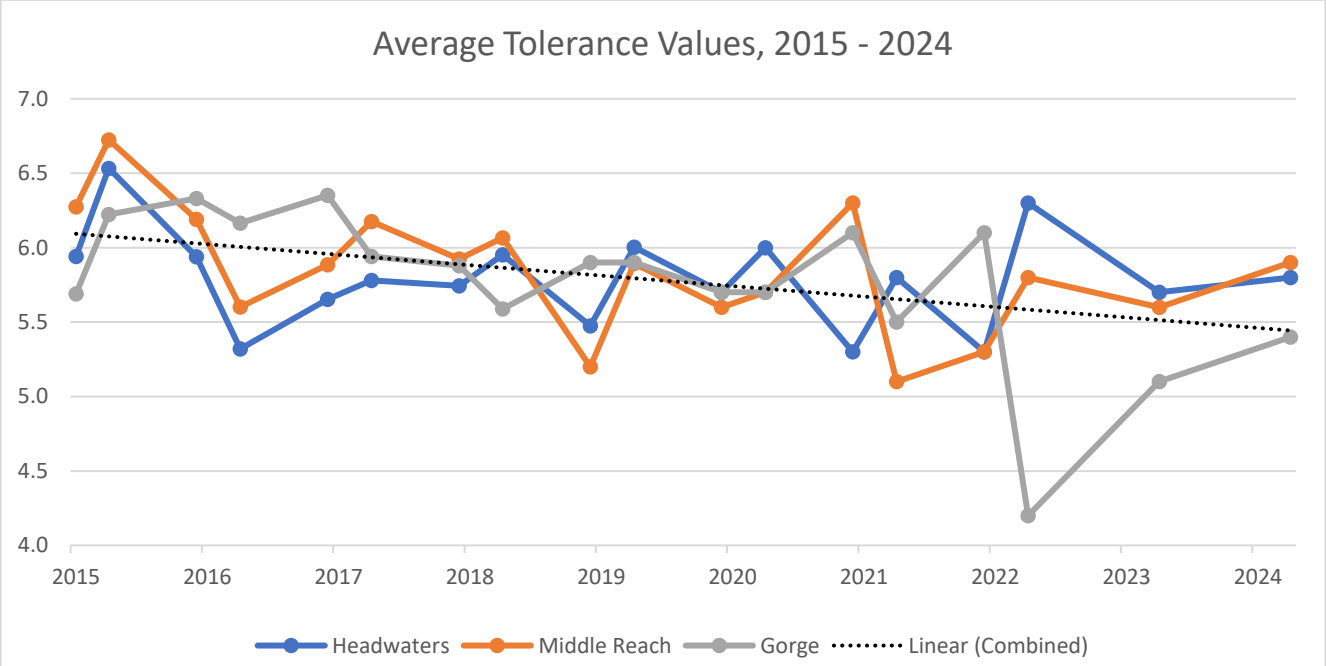


Figure 4: Average tolerance values for Brown's Creek samples from 2015 to 2024

Index of Biological Integrity (IBI)

The MPCA has developed a state-wide method of evaluating stream health using aquatic macroinvertebrates. This index gives each sample a numerical value that can be used to compare one site to another. It can also be used to monitor individual sites over time to determine whether the stream condition is improving or declining.

Due to the geographic differences throughout Minnesota and the variability in stream types, the state has been divided up into three regions that comprise nine different invertebrate stream classes (Figure 2). Each class has a different IBI calculation that best represents the invertebrate

communities typically found within the region. They are based primarily on region, watershed size, thermal regime, and stream gradient (MPCA). The study area in this project is located within the Southern Coldwater Streams invertebrate class.

Tiered Aquatic Life Uses (TALU)

Stream health throughout Minnesota is evaluated for its capacity to sustain aquatic life, including the macroinvertebrates, fish, plants, and other organisms. The MPCA developed models with threshold IBI values that represent how well the stream can sustain aquatic life. These include *Exceptional Use* for high-quality streams, *General Use* for streams with light impacts, and *Modified Use* for areas with heavy impacts to the streams (Table 7). Each invertebrate stream class has different threshold levels based on the invertebrate communities typically found in that region. In this project, almost all samples were above the General Use Threshold, and several were above the Exceptional Use Threshold.

Table 12: Tiered Aquatic Life Uses as determined by the MPCA (MPCA 2014)

Use Category	Description
Exceptional Use	**Evident changes in structure due to loss of some rare native taxa; shifts in relative abundance; ecosystem level functions fully maintained**
General Use	**Overall balanced distribution of all expected major groups; ecosystem functions largely maintained through redundant attributes**
Modified Use	**Sensitive taxa markedly diminished; conspicuously unbalanced distribution of major taxonomic groups; ecosystem function shows reduced complexity and redundancy**

Table 13: Index of Biological Integrity (IBI) scores for Brown's Creek samples from 2015 to 2024

Sample Date		Headwaters	Middle Reach	Gorge
2015	June	53	64.6	62.2
	September	57.1	74.5	53.8
2016	May	51.7	44.8	41
	September	63	77.7	65.8
2017	May	49.8	56.1	35.2
	September	65.1	81.1	61.4
2018	May	53.8	66.6	52.4
	September	61.2	68.4	58.9
2019	May	49.9	48.9	51
	September	73.1	86.4	82
2020	May	63.3	64.5	53.2
	September	57.6	76.6	86.2
2021	May	72.5	43.3	48.4
	September	77.8	68.9	82
2022	May	59.1	75.1	78
	September	52.7	78.5	86.5
2023	September	59.5	72.7	77.8
2024	September	73.1	61.1	89.9

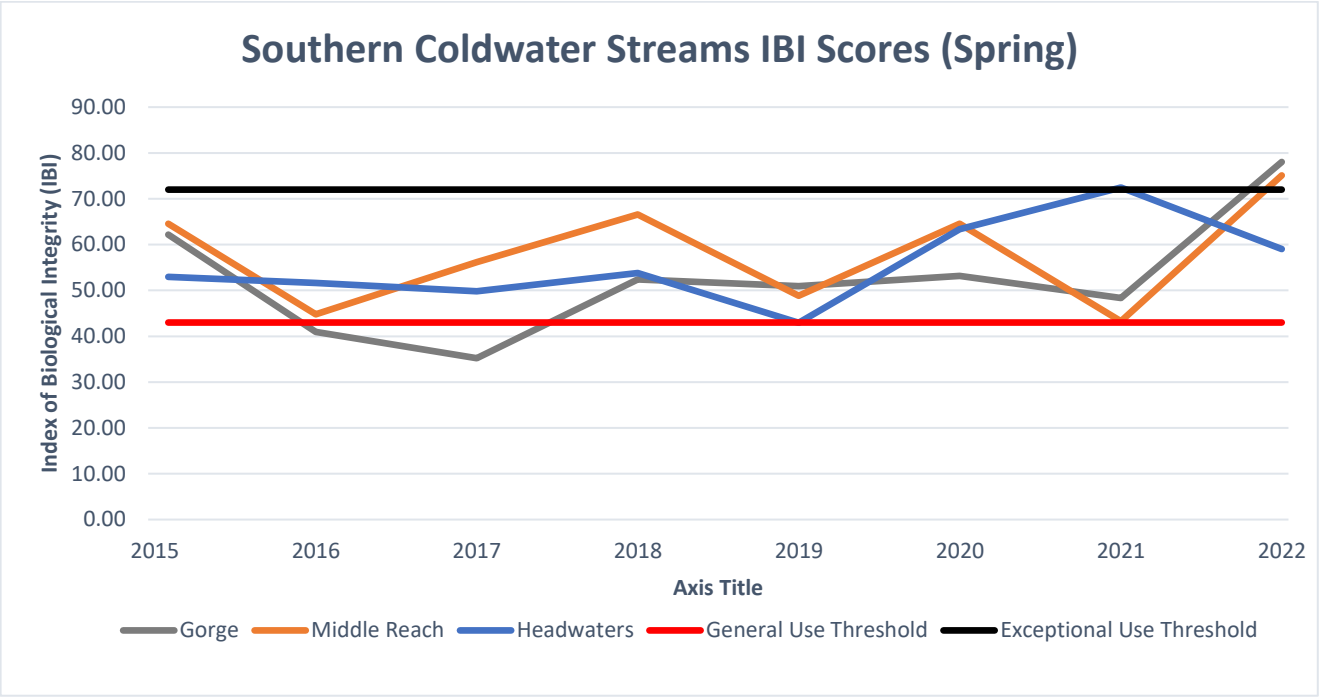


Figure 5: IBI scores, General Use Threshold, and Exceptional Use Threshold for Brown's Creek samples within the Southern Coldwater Streams class in spring 2015 - 2022

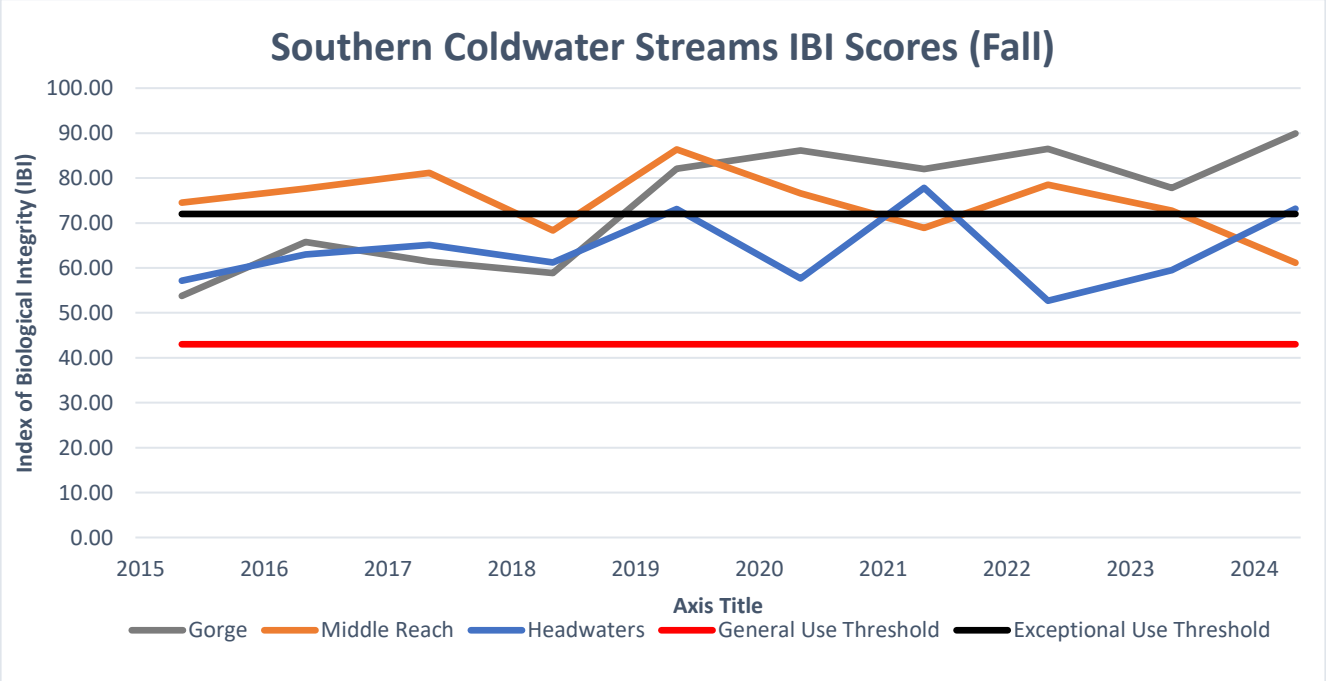


Figure 6: IBI scores, General Use Threshold, and Exceptional Use Threshold for Brown's Creek samples within the Southern Coldwater Streams class in fall 2015 - 2024

Southern Coldwater Streams region represents areas in the southern portions of Minnesota with deciduous broadleaf forests. This invertebrate class has an IBI General Use Threshold of 43 and an Exceptional Use Threshold of 72. In this project, almost all samples met the General Use Threshold, and several of the Middle Reach & Gorge samples exceeded the Exceptional Use Threshold as well as all the sites in September of 2019 (Table 7, Figure 5). The highest score was 86.5 from the September 2022 sample of the Gorge site and the lowest was 35.2 from the May 2017 sample of the Gorge site. There are natural fluctuations in the invertebrate community, causing the IBI scores to change over time. The samples taken in the fall of each year usually show a higher score than the spring samples, but overall, the scores are between the General and Exceptional Use Thresholds, indicating a stable aquatic community. Some of the samples in 2015 fell below the total specimen count of 265 recommended for the IBI calculation, which can affect the score outcome. However, even with the low counts, the IBI scores from 2015 still appear comparable to the results in the later years of this project.

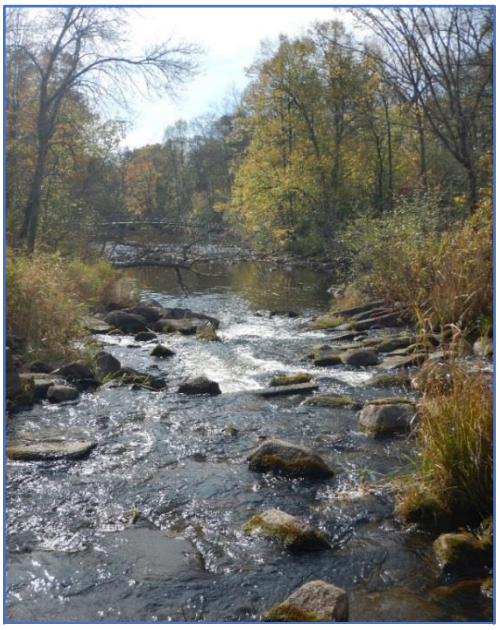
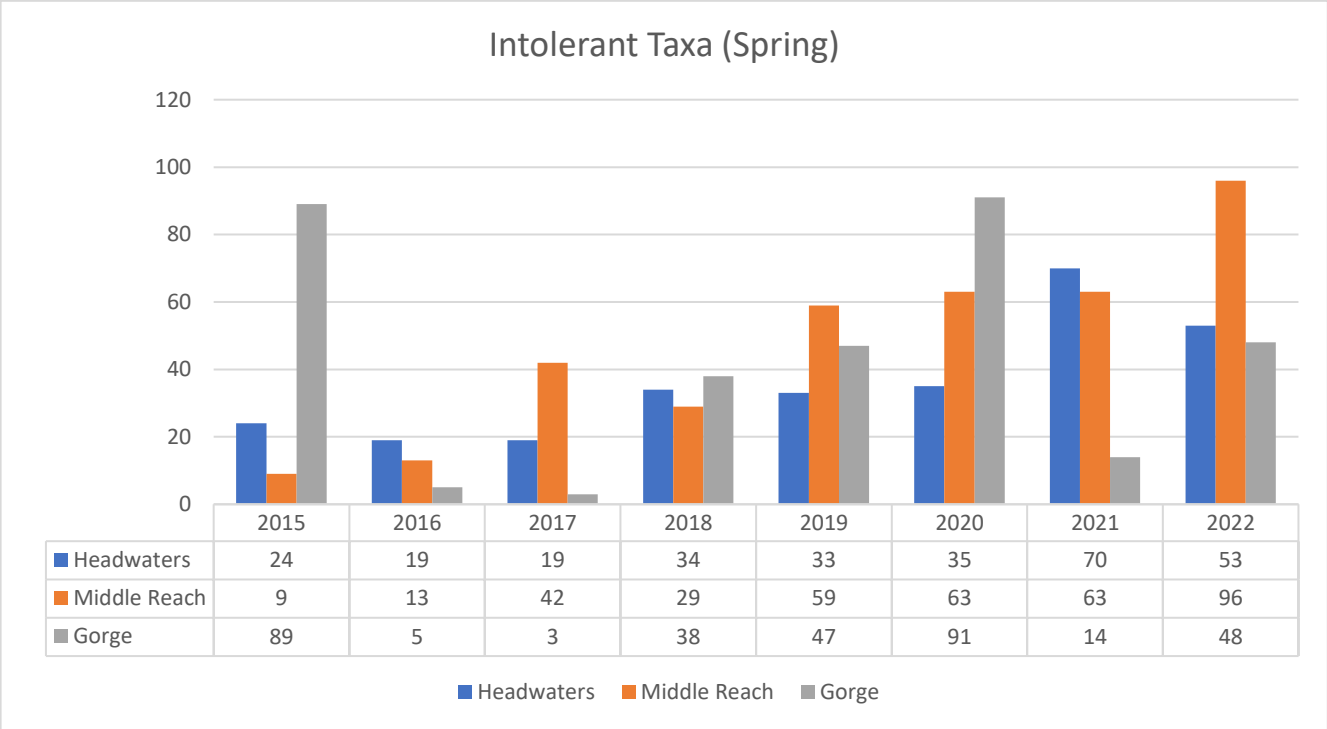


Figure 7: Example of a Southern Coldwater Stream sample site



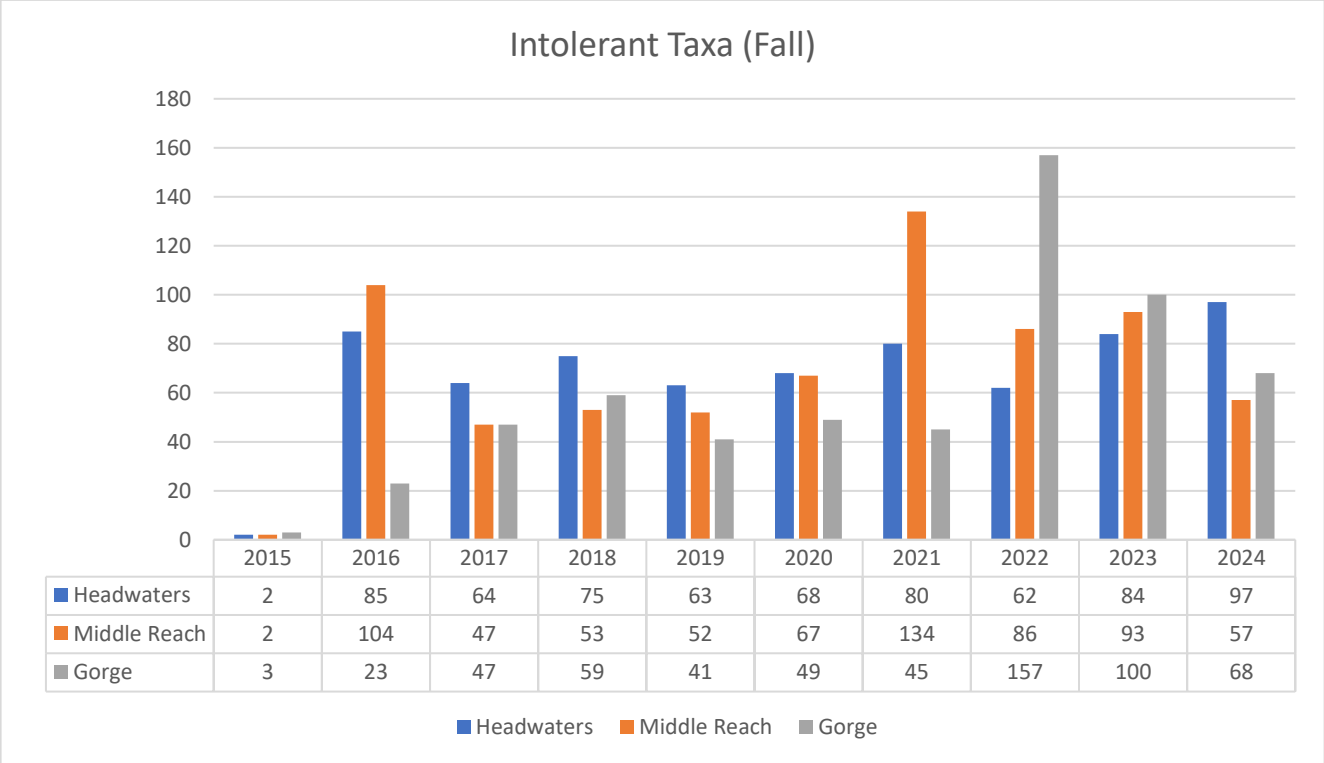


Figure 8 & 9: Comparison of Intolerant taxa spring vs fall for Brown's Creek 2015 - 2024

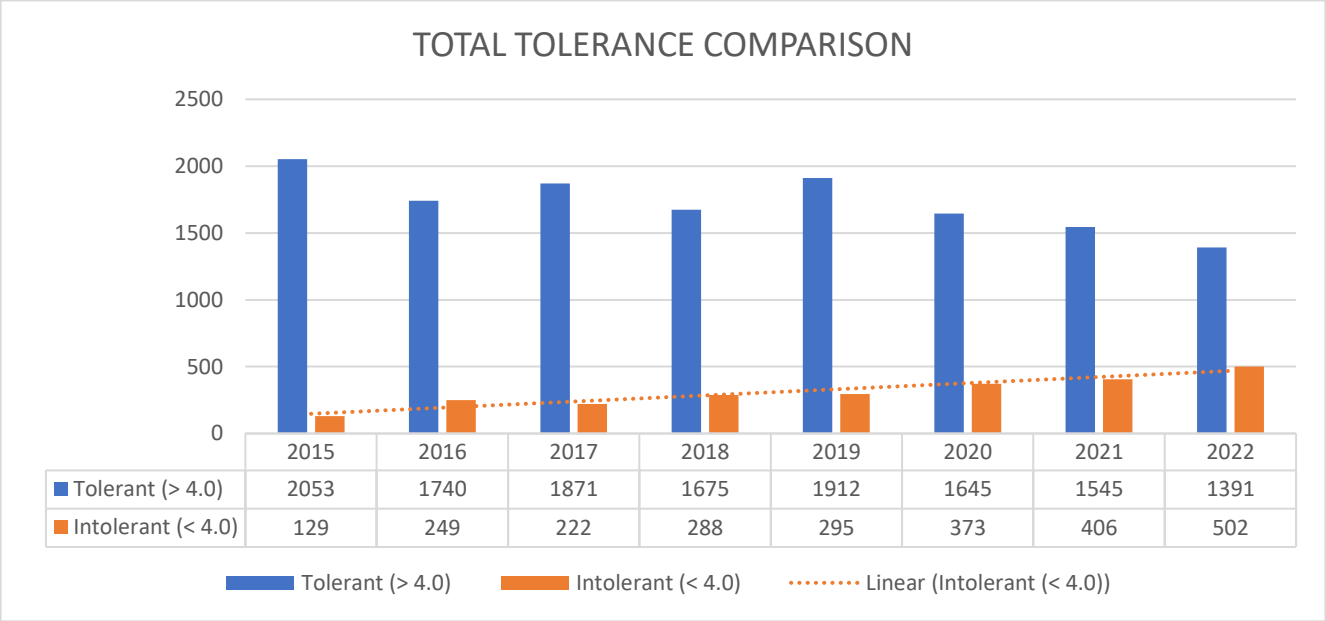


Figure 10: Comparison of Tolerant from Intolerant Taxa for Brown's Creek 2015 – 2022

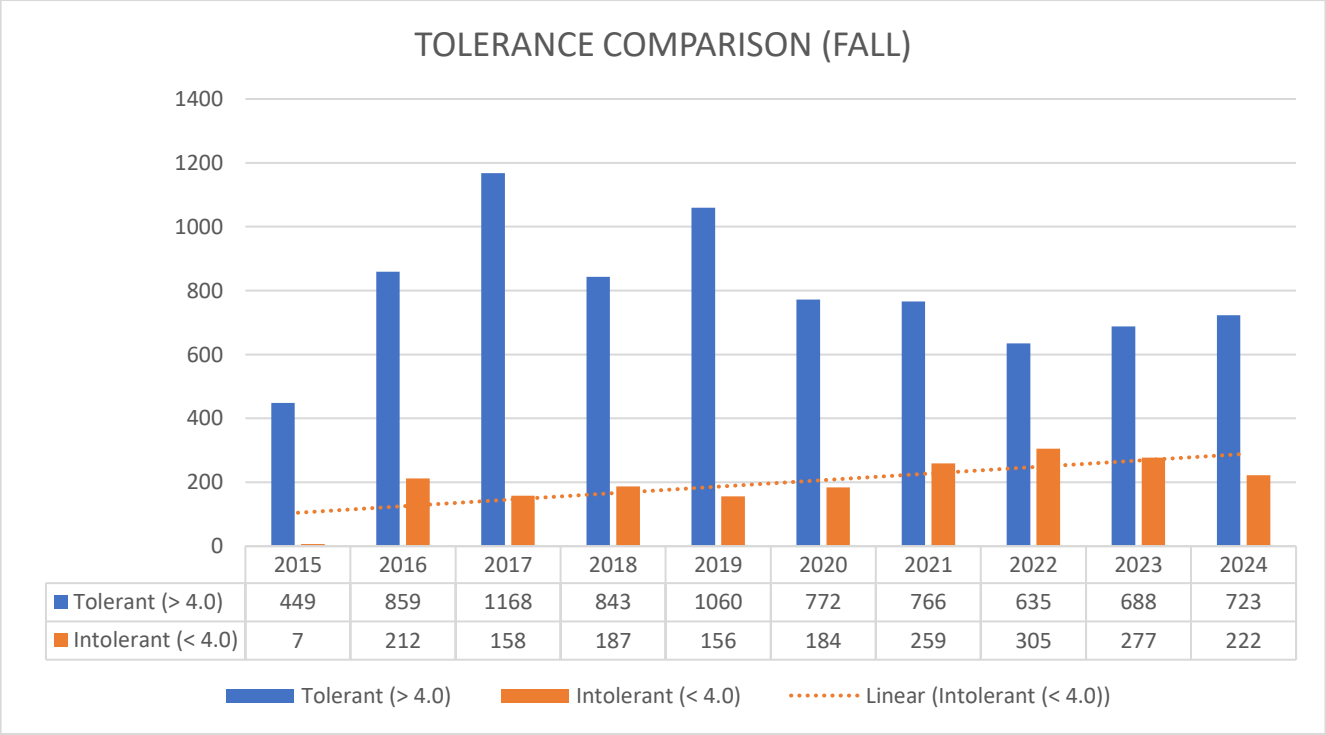


Figure 11: Comparison of Tolerant from Intolerant Taxa for Brown's Creek (Fall) 2015 – 2024

Discussion

General Metrics

The macroinvertebrate communities sampled throughout this project included a wide variety of species, and the sample sites showed a range of metric results. Overall, there were 161 unique taxa across all the years of sampling, meaning that the Brown's Creek sites have diverse communities with seasonal fluctuations in the community composition (Appendix 1). The most prevalent taxa overall were scuds (*Gammarus*), blackflies (*Simulium*), and mayflies (*Baetis*). These taxa have medium-level tolerance values, so they are often found in higher densities in streams with moderate impacts. The dominance of tolerant taxa like these can cause the average tolerance value of a sample to be high. Most of the samples in this project had an average tolerance value between 5 and 7, with the lowest being 5.2 in the May 2019 Middle Reach sample and the highest being 6.7 in the September 2015 Middle Reach sample.

Despite the prevalence of tolerant species, all the samples included some intolerant taxa, indicating that the level of impacts on the streams was not high enough to prevent the sensitive species from living there. The next most abundant taxon was a riffle beetle (*Optioservus*) which is intolerant to impacts with a tolerance value of only 3.1. The abundance of these riffle beetles indicates that the stream is clean and fast enough to support a strong community of intolerant taxa. Intolerant taxa are any species with a tolerance value (TV) of 4 or less. In this project, these included *Cardiocladius* (TV = 2.7), *Glossosoma* (TV = 1.1), *Lepidostoma* (TV = 0.1), *Limnephilidae* (TV = 3.5), *Lype* (TV = 3.1), *Neophylax* (TV = 3.2), *Optioservus* (TV = 3.1), *Parapsyche* (TV = 1.0), *Perlodidae* (TV = 2.7), *Prosimulium* (TV = 3.0), Protoptila (TV = 1.4), and *Rhyacophila* (TV = 0.0). This combination of taxa shows that while these streams likely have some urbanization impact, they also have pockets of good microhabitat and sufficient oxygen.

The EPT metric evaluates the diversity of Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies) in the samples. These insect groups are generally indicators of less impacted waters since they contain many intolerant species. In this project, the EPT values ranged from 2 to 7 unique taxa in each sample. While there are no definitive thresholds with this metric, sites with few or no EPT taxa likely have a substantial number of impacts and may be targeted for management practices to improve the watersheds that flow into these sites. The Plecoptera subset of the EPT metric is also evaluated since the stonefly group contains mostly intolerant species, and typically they require high-quality, well-oxygenated water. Two unique stonefly species were found during this project (*Isoperla* and *Haploperla*), and they have only been found in the Gorge & Middle Reach Sites. This group of insects is typically not very diverse in stream samples without strong riffles present to keep the water full of dissolved oxygen.

The Chironomidae fraction of a sample can also indicate general water quality. Even though this group is very diverse and includes midge species with tolerance values ranging from 0 to 10, generally they only dominate a sample at a site with heavy pollution impacts. The samples in this project ranged from 0% to 67% Chironomidae present, with some of the largest proportions seen in the May 2019 samples. Since most healthy streams have a diverse community of macroinvertebrates, the high numbers of midges seen in the spring samples initially seems like an indication of impact. However, with the change in community throughout the year and with such low Chironomidae proportions in the fall samples, Brown's Creek likely has minimal pollution impacts affecting the water quality, especially when looking at all the metrics in combination.

Invertebrate Stream Classes

Minnesota is divided up into invertebrate stream classes based on three geographic regions so the IBI values can be compared to streams within similar regions. These regions include Northern Forest Streams, Southern Streams, and Prairie Streams. The regions are then further divided based on whether the sample was taken from a site with riffle habitats present or only with glides and pools. This survey was located within the Southern Coldwater Streams class. Samples were taken from 3 dominant habitat types in a given reach per season (Either from riffles, pools, runs, glides, undercut banks, leaf packs, or wood debris.)

Each stream class has unique threshold values indicating the level of support for biological communities living there. The highest tier is the Exceptional Use Threshold which represents the highest quality streams that are providing maximum support for aquatic organisms. The next level is the General Use Threshold, which is the target level for streams that are healthy and functioning despite any impacts to them. The lowest level is the Modified Use Threshold, which represents streams with heavy impacts that may be struggling to adequately support the aquatic communities living in them. Sites with IBI scores at or below the Modified Threshold should be prioritized over others for management practices or restorations to improve the stream health.

The Brown's Creek sites within the Southern Coldwater Streams region have been regularly fluctuating with the seasonal sampling over the years of this project. Most IBI scores fall between the General and Exceptional Use Thresholds. The pattern across the three sites shows increased scores in the fall with numbers closer to the Exceptional Use Threshold. The Spring samples show slightly lower scoring with numbers closer to the general use threshold. This pattern is normal for most streams with fall samples showing a better display of a stream's true macro community. With improving IBI scoring occurring over the summer, it's unlikely that any major pollution impacts are occurring along Brown's Creek between the sample points.

Limitations and Future Projects

This project contained a few limitations that may have affected some of the resulting data and statistics. During laboratory processing, some of the 2015 samples were completely sorted with the total number of specimens falling below the required 265 count needed for best application of the MPCA IBI calculation. This can slightly skew the resulting IBI score for those sites, but the taxa and tolerance values are still accurate and representative of the sample.

Further monitoring of these sites is recommended to continue establishing the baseline data for these aquatic communities. Each site is dynamic and seasonally changing, so continuing to collect data helps to eliminate the differences due to natural fluctuations in invertebrate communities. Additionally, if there are suspected pollution inputs to a stream or restoration projects in progress, monitoring before and after these impacts is recommended to assess how the biological community is affected.

Literature Cited

MPCA. 2014. Development of a macroinvertebrate-based Index of Biological Integrity for assessment of Minnesota's rivers and streams. Minnesota Pollution Control Agency, Environmental Analysis and Outcomes Division, St. Paul, MN.

MPCA. 2014. Development of biological criteria for tiered aquatic life uses: Fish and macroinvertebrate thresholds for attainment of aquatic life use goals in Minnesota streams and rivers. Minnesota Pollution Control Agency, Environmental Analysis and Outcomes Division, St. Paul, MN.

Appendix 1: Project Taxa List

Order	Family	Genus	Species
Amphipoda	Crangonyctidae	Crangonyx	
Amphipoda	Gammaridae	Gammarus	lacustrus
Amphipoda	Hyalellidae	Hyalella	
Basommatophora	Physidae	Physella	
Basommatophora	Planorbidae	Micromenetus	
Bivalva	Pisidiidae	Pisidium	
Bivalvia	Pisidiidae	Sphaerium	
Bivalvia	Pisidiidae	Musculium	
Cambaridae			
Clitellata			
Coleoptera	Dytiscidae	Agabus	
Coleoptera	Dytiscidae	Ilybius	
Coleoptera	Dytiscidae	Liodessus	
Coleoptera	Dytiscidae	Uvarus	
Coleoptera	Elmidae	Macronychus	
Coleoptera	Elmidae	Optioservus	
Coleoptera	Elmidae	Stenelmis	
Coleoptera	Gyrinidae	Gyrinus	
Coleoptera	Haliplidae	Peltodytes	
Coleoptera	Hydraenidae	Hydraena	
Coleoptera	Hydrophilidae	Enochrus	
Coleoptera	Hydrophilidae	Hydrobius	
Coleoptera	Hydrophilidae	Hydrochara	
Coleoptera	Hydrophilidae	Hydrochus	
Coleoptera	Hydrophilidae	Tropisternus	
Coleoptera	Hydrophilidae	Berosus	
Coleoptera	Scirtidae	Scirtes	
Collembola			
Diptera	Ceratopogoninae	Bezzia/Palpomyia	
Diptera	Ceratopogonidae	Ceratopogon	
Diptera	Ceratopogonidae	Dasyhelea	
Diptera	Ceratopogonidae	Mallochohelea	
Diptera	Chironomidae	Brillia	
Diptera	Chironomidae	Cardiocladius	
Diptera	Chironomidae	Chaetocladius	
Diptera	Chironomidae	Cladotanytarsus	
Diptera	Chironomidae	Conchapelopia	
Diptera	Chironomidae	Corynoneura	
Diptera	Chironomidae	Cricotopus	

Diptera	Chironomidae	Cryptochironomus	
Diptera	Chironomidae	Diamesa	
Diptera	Chironomidae	Diplocladius	
Diptera	Chironomidae	Eukiefferiella claripennis gr.	
Diptera	Chironomidae	Eukiefferiella devonica gr.	
Diptera	Chironomidae	Eukiefferiella tirolensis group	
Diptera	Chironomidae	Limnophyes	
Diptera	Chironomidae	Meropelopia	
Diptera	Chironomidae	Micropsectra	
Diptera	Chironomidae	Microtendipes	
Diptera	Chironomidae	Microtendipes pedellus group	
Diptera	Chironomidae	Nanocladius	
Diptera	Chironomidae	Orthocladius (Orthocladius)	
Diptera	Chironomidae	Orthocladius (Symposiocladius)	lignicola
Diptera	Chironomidae	Paracricotopus	
Diptera	Chironomidae	Parametriocnemus	
Diptera	Chironomidae	Paratanytarsus	longistilus
Diptera	Chironomidae	Paratendipes	
Diptera	Chironomidae	Polypedilum	
Diptera	Chironomidae	Prodiamesa	
Diptera	Chironomidae	Rheocricotopus	
Diptera	Chironomidae	Rheotanytarsus	
Diptera	Chironomidae	Saetheria	
Diptera	Chironomidae	Stenochironomus	
Diptera	Chironomidae	Stictochironomus	
Diptera	Chironomidae	Tanytarsus	
Diptera	Chironomidae	Thienemanniella	
Diptera	Chironomidae	Thienemannimyia complex	
Diptera	Chironomidae	Thienemannimyia Gr.	
Diptera	Chironomidae	Tvetenia	
Diptera	Chironomidae	Tvetenia bavarica gr.	
Diptera	Chironomidae	Zavrelimyia	
Diptera	Dixidae	Dixa	
Diptera	Empididae	Chelifera	
Diptera	Empididae	Hemerodromia	
Diptera	Empididae	Metachela	
Diptera	Empididae	Neoplasta	
Diptera	Ephydridae		
Diptera	Limoniidae	Antocha	
Diptera	Limoniidae	Helius	
Diptera	Limoniidae	Limona	
Diptera	Limoniidae	Molophilus	

Diptera	Pediciidae	Dicranota	
Diptera	Simuliidae	Simulium	
Diptera	Simuliidae	Prosimulium	
Diptera	Simuliidae	Simulium	
Diptera	Straitomyidae	Straitiomys	
Diptera	Stratiomyidae	Odontomyia	
Diptera	Syrphidae	Chrysogaster	
Diptera	Tipulidae	Antocha	
Diptera	Tabanidae	Chrysops	
Diptera	Tipulidae	Dicranota	
Diptera	Tipulidae	Hexatoma	
Diptera	Tipulidae	Limnophila	
Diptera	Tipulidae	Limonia	
Diptera	Tipulidae	Ormosia	
Diptera	Tipulidae	Pedicia	
Diptera	Tipulidae	Pilaria	
Diptera	Tipulidae	Tipula	
Ephemeroptera	Baetidae	Acentrella	
Ephemeroptera	Baetidae	Baetis	
Gastropoda	Ancylidae	Ferrissia	
Gastropoda	Lymnaeidae	Stagnicola	
Gastropoda	Physidae	Aplexa	
Gastropoda	Physidae	Physa	gyrina
Gastropoda	Physidae	Physa	acuta
Gastropoda	Physidae	Physa	gyrina
Gastropoda	Planorbidae	Gyraulus	parvus
Gastropoda	Valvatidae	Valvata	perdepressa
Hemiptera	Belostomatidae	Belostoma	
Hemiptera	Corixidae	Hesperocorixa	
Hemiptera	Corixidae	Sigara	
Hemiptera	Gerridae	Aquarius	
Hemiptera	Gerridae	Gerris	
Hemiptera	Nepidae	Ranatra	
Hemiptera	Pleidae	Neoplea	
Hemiptera	Veliidae	Microvelia	
Hirudinida	Erpobdellidae	Dina	parva
Hirudinida	Erpobdellidae	Erpobdella	punctata
Hirudinea	Glossiphoniidae	Placobdella	
Hirudinea	Glossiphoniidae	Glossiphonia	complanata
Hirudinea	Glossiphoniidae	Helobdella	stagnalis
Hirudinea	Haemopodidae	Haemopis	
Isopoda	Asellidae	Asellus	

Isopoda	Asellidae	Caecidotea	
Isopoda	Asellidae	Lirceus	
Isopoda	Oniscidae	Oniscus	
Lepidoptera	Pyralidae		
Mermithida	Mermithidae		
Odonata	Aeshnidae	Aeshna	
Odonata	Aeshnidae	Boyeria	
Odonata	Calopterygidae	Calopteryx	
Odonata	Coenagrionidae		
Oligochaeta			
Plecoptera	Chloroperlidae	Haploperla	
Plecoptera	Perlodidae	Isoperla	
Rhynchobdellida	Glossiphoniidae	Placobdella	
Sphaeriida	Sphaeriidae	Musculium	
Sphaeriida	Sphaeriidae	Pisidium	
Trichoptera	Brachycentridae	Brachycentrus	
Trichoptera	Glossosomatidae	Glossosoma	
Trichoptera	Glossosomatidae	Protoptila	
Trichoptera	Hydropsychidae	Ceratopsyche	
Trichoptera	Hydropsychidae	Cheumatopsyche	
Trichoptera	Hydropsychidae	Hydropsyche	
Trichoptera	Hydropsychidae	Parapsyche	
Trichoptera	Hydroptilidae	Hydroptilidae	
Trichoptera	Lepidostomatidae	Lepidostoma	
Trichoptera	Leptoceridae	Oecetis	
Trichoptera	Leptoceridae	Triaenodes	
Trichoptera	Limnephilidae	Anabolia	
Trichoptera	Limnephilidae	Limnephilus	
Trichoptera	Limnephilidae	Pycnopsyche	
Trichoptera	Philopotamidae	Chimarra	
Trichoptera	Phryganeidae	Ptilostomis	
Trichoptera	Polycentropodidae	Polycentropus	
Trichoptera	Psychomyiidae	Lype	
Trichoptera	Rhyacophilidae	Rhyacophila	
Trichoptera	Thremmatidae	Neophylax	
Trombidiformes	Limnesiidae	Limnesia	
Trombidiformes	Prostigmata	Hydracarina	
Trombidiformes	Sperchontidae	Sperchon	

BCWD WMP Update – Revised Schedule

Items to complete before finalizing the Implementation Plan:	**When to discuss**
Present the findings of the H/H model	Board Meeting - May 14, 2025
Conduct the Flood Vulnerability Assessment and meetings with member communities	Conduct: May 14 – August 13
DRAFT Implementation Plan meeting with KK #1	May
Submit DRAFT Land and Water Resource Inventory to TAC for preliminary review	May
DRAFT Implementation Plan meeting with KK #2	June
Submit DRAFT Issues, Goals and Implementation Activities to TAC for preliminary review	June
Meeting with Member Communities	July 2025
Present findings of the FVA to the Board	Board Meeting - August 13, 2025
Complete Diversion Drainage Water Quality Analysis	Board Meeting - July 9, 2025
Budget Recommendations Memo	Board Meeting - July 9, 2025
Board Workshop #1 – 6:00 – 8:00 p.m. - Review historical priorities - Review feedback from CAC and TAC - Get direction from the Board of priorities for the 2027-2036 Plan - Review Staff's recommendations – get Board's feedback - Implementation Plan – Review half of the activities o Rules and Regulations o Stormwater Management o Erosion and Sediment Control o Monitoring and Data Collection o Land Conservation o Ecological Health o Education, Outreach and Stewardship o Recreation o Pollutants of Emerging Concern	June 3, 2025
Submit DRAFT Plan to TAC for preliminary review	August
CAC Meeting - Review Implementation Plan - Review Draft Plan	August 11, 2025
TAC Meeting - Review Implementation Plan - Review Draft Plan – *Informal review*	Week of August 18, 2025

Board Workshop #2
- Finalize Implementation Plan
  o Stream Management
  o Lake Management
  o Floodplain Management
  o Groundwater Management
  o Wetland Management
- Finalize Prioritization
	Week of August 25, 2025

Board Meeting - Review DRAFT Plan - Review and approve the plan for formal review process	September 10, 2025

LOWER ST. CROIX WATERSHED PARTNERSHIP

MEMORANDUM

To: Lower St. Croix Watershed Partnership Member Boards
From: Lower St. Croix Watershed Partnership Policy Committee
Date: April 28, 2025

RE: Minor Amendment to Lower St. Croix River Comp. Watershed Management Plan

The Lower St. Croix Watershed Partnership (LSCWP) Policy Committee met on April 28th and recommends that the LSCWP local governing boards approve the following minor amendments to the Lower St. Croix River Comprehensive Watershed Management Plan (Plan). These amendments are not expected to increase the overall cost to administer or implement the Plan.

Proposed Minor Plan Amendments

1) Adjust language to priority location descrptions found within Table 5-1 (Part C #43) of the Plan to expand the priority areas for forest management or woodland stewardship plans:

   - Areas located along bluffland or adjacent to publicly owned forest land such as state parks and trails **and parcels eligible for a DNR woodland stewardship plan that drain to regionally significant rivers and streams for pollutant reductions (Table 5-2) or regionally significant lakes for pollutant reductions or protection (Table 5-3)**.

By making this adjustment to further define priority areas for woodland stewardship plans, the Plan will better address protection of private forested acres in regions of the watershed that still have substantial forested areas. Intact and productive forest lands provide an expansive array of ecosystem services, including water storage, surface water infiltration, groundwater protection, and reduction of velocity of surface water flow. By working towards private forest land protection, the Plan will help protect water quality benefits. An eligible property for a DNR woodland stewardship plan is one that is 20 to 5,000 acres where at least 10 acres have or will have trees. The size of properties that are eligible is one of the reasons why an expansion of priority areas is recommended. The scale at which the watershed needs to look at properties of that size should be increased in order for the watershed to successfully accomplish related protection goals laid out in the Plan. Priority waterbodies that would benefit from this can be found on Table 5-2 and Table 5-3.

[This space left intentionally blank.]

2) Modify Table 5-2 (Regionally Significant Rivers and Streams for Pollutant Reductions) as follows:

Table 5-2. Regionally Significant Rivers and Streams for Pollutant Reductions (See Figure 5-2)

Stream Name	Lake St. Croix TMDL Total Phosphorus Reduction Goal (lbs/yr)[1]	10-year TP Reduction Goal (lbs/yr)[2]
Sunrise River and Tributaries	18,306	2,256
Lawrence Creek[3]	1,177	118
Browns Creek[4]	848	85
Valley Branch (includes Valley Creek and Kelle's Creek)	968	97
Trout Brook[3]	1,419	142
~~Small Streams Draining to St. Croix River (south of Lawrence Cr & north of Valley Br.)~~	~~6,450~~	~~645~~
Rock Creek	3,512	351
Rush Creek	2,451	245
Goose Creek	2,980	298
St. Croix River (including small stream and direct drainage areas and excluding local landlocked basin areas)	**9,839**	**984**
TOTAL	~~38,111~~ **41,500**	~~4,237~~ **4,576**

(1) Table B-7, 2012 Lake St. Croix Total Maximum Daily Load Study
(2) 10% per stream + 425 lbs for stream restoration projects in Sunrise River Watershed
(3) According to Lake St. Croix TMDL: Actual phosphorus load reduction goals in Lawrence Creek, Valley Branch, and Trout Brook may be smaller than shown (possibly even zero) due to substantial landlocked portions resulting in smaller drainage areas than those used to calculate load reductions.
(4) Browns Creek reduction goal based on Implementation Plan for Lake St. Croix Nutrient TMDL (2013), App B.

3) Modify Figure 5-2 (Regionally Significant Rivers and Streams) as attached to include subwatershed boundaries of the areas identified in the amended Table 5-2, consistent with the existing definition of "Direct drainage and direct catchments" on page 59 of the Plan:

Direct drainage and direct catchments: The stream, river, or land area that drains directly to the St. Croix River or Lake St. Croix and that is downstream of a pollutant-mitigating feature such lake, impoundment, pond, or large wetland. (Does not apply in Sunrise River due to the significant pollution contributions from the entire subwatershed and the complex nature of wetlands, impoundments, and connected drainage areas throughout the subwatershed.)

4) Adjust language to priority location descriptions found within Table 5-1 (Part A #2, Part B #14, and Part D #55) to reflect the changes made in items #2 and #3 above:

- Direct drainage areas to St. Croix River **including** through Rock, Rush, Goose, Lawrence, and Browns Creeks and Trout Brook and other small streams shown in Figure 5-2**, excluding local landlocked basins**.

Making the minor changes in items #2 through #4 above will correct an ongoing situation whereby the Plan, as currently written, does not recognize its titular waterbody as a regionally significant waterbody worth protecting through implementation of pollutant reductions as otherwise prescribed within the Plan. The modified load reduction goals for direct drainage areas in Table 5-2 are pulled directly from the Lake St. Croix TMDL. The amendment further clarifies the specific exclusion of local land-locked basins consistent with the original intent of the Plan.

LSCWP Policy Committee Recommendation

The LSCWP Policy Committee recommends that all LSCWP local governing boards approve the proposed minor amendments as shown in the attached markup plan pages (Pages 61, 66, 75, 78, 81, and Figure 5-2).

Next Steps

The local governing boards must act on Policy Committee recommendations within 60 days after the day on which the Policy Committee formally adopted such a recommendation. The decisions of the various governing boards of the Lower St. Croix Watershed Partnership will be deemed approved for purposes of this Agreement when 2/3rds of the governing bodies have adopted formal action on the respective recommendation. Upon local board action, please notify Craig Mell (Chisago SWCD), Angie Hong (Washington SWCD), and Kyle Axtell (South Washington WD) via email of the local board's decision pertaining to this agenda item. The South Washington WD will then proceed with minor plan amendment procedures consistent with the Plan and BWSR operating procedures, including a 30-day notice and comment period and public hearing, to be held at a future LSCWP Policy Committee meeting.

B. 2021 – 2030 Implementation Table: Table 5-1

Table 5-1 Part A. Implementation Actions for Agricultural Lands

Table 5-1 Part A: Implementation for Agricultural Lands		Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-year Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
	Implementation Actions	**Estimated Costs**										
	(A) Shared Services: Hire or contract with agricultural conservationist and agronomist for basin wide assistance with agronomy, outreach, and technical assistance to agricultural producers including conservation planning and nutrient management plans. [Approximately 80% of this position's time will be directly working with agricultural producers in the LSC Watershed to identify economical farming practices with water quality benefits to make them a routine part of farm operations. A target is to interact with operators of >3,000 acres. 20% of the position will be support of implementation of BMPs led by others.]	$250,000	$250,000	$250,000	$250,000	$250,000	$1,250,000	$0	$0	$1,250,000	LSC Partnership	BWSR MDA NRCS U of M Ext
	(A) Provide cost share for installing or implementing agricultural best management practices, both structural and non-structural (e.g. soil health BMPs, feedlot improvements, buffers, swales, etc.). Projects to be chosen through targeting and prioritization process described in Section VII.B.	$690,000	$940,000	$1,190,000	$1,190,000	$1,190,000	$5,200,000	A $20,000 C $200,000 I P $5,000 W $250,000 **$475,000**	A C $200,000 I $40,000 P W $150,000 **$390,000**	$4,335,000	SWCD WMO WD CLLID	BWSR NRCS MDA MDH
	(C) Provide conservation planning, technical assistance and education on agricultural best management practices through existing local staff and local initiatives	$547,800	$547,800	$547,800	$547,800	$547,800	$2,739,000	A C I P $15,000 W $1,700,000 **$1,715,000**	A C $500,000 I $24,000 P W $500,000 **$ 1,024,000**	$0	SWCD WMO WD	BWSR NRCS MDA U of M Ext
	Priority Location	**Measurable Output**	**Output by Biennium**									
1. GW Quality **(Table 3-1 GW1A, 2B)**	Basin Wide Priority - Agricultural lands where: 1) DWSMA vulnerability is moderate, high, or very high; or 2) Pollution sensitivity to wells is high or very high; or 3) Pollution sensitivity to near surface materials is karst or high; or 4) Well testing show ≥ 5 mg/L nitrate See **Figure 5-1**	Install BMPs on 2,200 acres that improve soil health and/or reduce nitrogen and pesticide pollution to groundwater	300 ac	400 ac	500 ac	500 ac	500 ac					
2. Rivers & Streams + St. Croix River WQ **(Table 3-1 R&S 1A; STC 1B, C)**	Regionally Significant Rivers and Streams: - All streams and tributaries in Sunrise River Watershed (whole watershed regardless of direct drainage) - Direct drainage areas to St. Croix River including through Rock, Rush, Goose, Lawrence, and Browns Creeks and Trout Brook and other small streams shown in **Figure 5-2**, excluding local landlocked basins See **Table 5-2** for streams and total phosphorus reduction goals; see **Figure 5-2**	Reduce total phosphorus by 3,300 lbs/year (install approximately 220 BMPs @ estimated 15 lbs/BMP) and reduce TSS, bacteria, and nitrogen as secondary benefit	450 lbs TP (approx. 30 BMPs)	600 lbs TP (approx. 40 BMPs)	750 lbs TP (approx. 50 BMPs)	750 lbs TP (approx. 50 BMPs)	750 lbs TP (approx. 50 BMPs)					

Table 5-1 Part B: Implementation for Developed and Developing Lands			Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-yr Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
12. GW recharge & stream flow **(Table 3-1 GW 2B, R&S 3A)**	In critical groundwater recharge areas as identified in existing or future maps or studies	Retrofit 20 existing developments with infiltration, recharge and reuse projects	4 projects	4 projects	4 projects	4 projects	4 projects						
13. St. Croix River flows **(Table 3-1 STC 3A)**	Direct catchments to the St. Croix River and Lake St. Croix	Evaluate and update small storm volume control and large storm rate control ordinances in 4 communities			2 LGUs	2 LGUs							
14. St. Croix River + Rivers & streams WQ **(Table 3-1 STC 1B; R&S 1A)**	Regionally Significant Rivers and Streams: - All streams and tributaries in Sunrise River Watershed (whole watershed regardless of direct drainage) - Direct drainage areas to St. Croix River including through Rock, Rush, Goose, Lawrence, and Browns Creeks and Trout Brook and other small streams shown in **Figure 5-2**, excluding local landlocked basins See **Table 5-2** for streams and total phosphorus reduction goals; See **Figure 5-2**	Reduce TP by 100 lbs. (approximately 100 BMPs) and reduce TSS, bacteria, and nitrogen as secondary benefit [Assume 1 lb/BMP; typical reduction for raingarden or similar BMP]	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)						
15. Lake WQ **(Table 3-1 LK 1B)**	Regionally Significant Lakes for Urban BMPs See **Table 5-3** for lakes and total phosphorus reduction goals; See **Figure 5-3**	Reduce TP by 100 lbs. (approximately 100 BMPs) and reduce TSS, bacteria, and nitrogen as secondary benefit [Assume 1 lb/BMP; typical reduction for raingarden or similar BMP]	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)	20 lbs TP (approx. 20 BMPs)						
16. St. Croix River chlorides **(Table 3-1 STC 1D)**	Basin wide	75% of all cities have staff certified in MPCA's Level 1 and Level 2 Smart Salting Training	Total of 15% of cities	Total of 30% of cities	Total of 45% of cities	Total of 60% of cities	Total of 75% of cities						
	Implementation Action		**Estimated Costs**										
	(C) Contact highest urban/suburban groundwater consumers; provide cost share to install smart irrigation technologies		$0	$290,000	$290,000	$0	$0	$580,000	A C I P W $100,000 **$100,000**	A $10,000 C I P W **$10,000**	$470,000	COs SWCDs WDs WMOs	MDNR U of M Ext

Table 5-1 Part C: Implementation for Ecosystem Services			Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-yr Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
41. Land protection **(Table 3-1 UP 1C, LK 1B)**	First priority: Areas where upland habitat is fractured and shoreline areas where there is high to moderate development or land under future development pressure Second priority: Basin wide	Create 20 new Landscape Stewardship Plans	4 new plans	4 new plans	4 new plans	4 new plans	4 new plans						
42. Habitat improve **(Table 3-1 UP 2C)**	Basin wide based on prioritized mapping including MLCCS maps and other critical habitat mapping	1,000 new acres managed for better habitat, or as recommended in Landscape Stewardship Plans	200 new acres managed	200 new acres managed	200 new acres managed	200 new acres managed	200 new acres managed						
43. Protected lands **(Table 3-1 UP 2B)**	Areas located along bluffland or adjacent to publicly owned forest land such as state parks and trails and parcels eligible for a DNR woodland stewardship plan that drain to regionally significant rivers and streams for pollutant reductions **(Table 5-2)** or regionally significant lakes for pollutant reductions or protections **(Table 5-3)**	Increase acres under private Forest Management Plans or Woodland Stewardship Plans by 20% [23 plans over 10 years]	4 new plans developed	4 new plans developed	4 new plans developed	4 new plans developed	7 new plans developed						
							TOTAL "A" High Priorities for WBIF	**$4,330,000**	**$1,431,500**	**$155,000**	**$2,743,500***		
							TOTAL "B" Secondary Priorities for WBIF	**$2,650,000**	**$140,000**	**$90,000**	**$2,420,000***		
							TOTAL "C" Local Priorities	**$5,035,000**	**$2,061,900**	**$1,582,000**	**$1,391,100**		
							TABLE 5-1, Part C: GRAND TOTAL	**$12,015,000**	**$3,633,400**	**$1,827,000**	**$6,554,600**		

*This total may not reflect the true additional external funding need given significant variation in existing local and stable external funds between counties and LSC Partners.

Table 5-1 Part D. Implementation for Prioritization and Analysis

	Goals & Issues Table 3-1	Priority Locations	Measurable Outputs	Implementation Actions	Years 1 - 2	Years 3 - 4	Years 5 - 6	Years 7 - 8	Years 9 - 10	10-year Estimated Cost	10-yr Estimated Local Funds	10-year Existing Stable External Funding	Add't External Funds Needed	Imp. Entity	Support Agency
55	**R&S 1A, STC 4B**	Regionally Significant Rivers and Streams: - Streams and tributaries in Sunrise R. Watershed - Direct drainage areas to St. Croix River including through Rock, Rush, Goose, and Browns Creeks and Trout Brook and other small streams as shown in **Table 5-2** and **Figure 5-2**, excluding local landlocked basins	20 subwatershed project targeting analyses are completed (estimated $10,000 - $50,000/SWA or $30,000 ave)	mapping, modeling, cost benefit analyses, or other data-driven targeting activities. See Section VII.B. for further description.	$150,000 (5 SWAs)	$150,000 (5 SWAs)	$120,000 (4 SWAs)	$90,000 (3 SWAs)	$90,000 (3 SWAs)						
56	**STC 4A, 4C**	Tributaries to the St. Croix	Coordinated hydrologic, chemical, and biological monitoring of the St. Croix River and its tributaries; nutrient loading data of major tributaries to the St. Croix River is evaluated.	Operate up to 10 new monitoring stations that lack data (quality and quantity) to evaluate progress toward achieving the TMDL and to identify priority subwatersheds. @ $10,000/year/station	$100,000	$200,000	$200,000	$200,000	$200,000	$900,000	A C I P W $100,000 **$100,000**	A C I P W **$0**	$800,000	Counties SWCDs WDs WMOS CLLID	MPCA SCRA Met Council USGS St. Cr Res Station Basin Team
57	**STC 3A**	Land use authorities in the St. Croix Riverway.	Evaluate the floodplain and zoning ordinances for consistency and effectiveness in protecting the floodplain function and preventing flood damages. Include impacts of variances in the evaluation.	Work with land use authorities along St. Croix River and MnDNR Area Hydrologists to evaluate floodplain and zoning ordinances and update where appropriate.	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000	A C $50,000 I P W **$50,000**	A C $50,000 I P W **$50,000**	$150,000	Counties SWCDs WDs WMOS	MDNR SCRA
58	**STC 4B & UP 2A**	Intermittent and perennial tributaries and watercourses flowing directly to St. Croix River	Inventory and prioritize active erosion sites.	Identify, evaluate, and rank active gullies directly discharging into the St. Croix or its tributaries [LIDAR to identify gully locations; RUSLE & BWSR pollution reduction calculator to determine pollution reduction numbers]	$50,000	$50,000	$50,000	$50,000	$50,000	$250,000	A C I P W **$0**	A C $25,000 I P W **$25,000**	$225,000	Counties SWCDs WDs WMOS	MDNR BWSR
59	**STC 2B, 4C UP 1A**	Basin wide	Map priority restoration and protection areas for acquisition, easements, and voluntary stewardship	Complete level 4/5 MLCCS basin wide. Expand the Washington County Natural Resource Framework and use their methodology in Anoka, Chisago, Isanti, and Pine Counties. (MLCCS = $1,000/sq mi * 640 sq miles)	$240,000	$200,000	$200,0000	$0	$0	$640,000	$0	$0	$640,000	Counties SWCDs	MDNR BWSR MPCA

Table 5-2. Regionally Significant Rivers and Streams for Pollutant Reductions (See Figure 5-2)

Stream Name	Lake St. Croix TMDL Total Phosphorus Reduction Goal (lbs/yr)[1]	10-year TP Reduction Goal (lbs/yr)[2]
Sunrise River and Tributaries	18,306	2,256
Lawrence Creek[3]	1,177	118
Browns Creek[4]	848	85
Valley Branch (includes Valley Creek and Kelle's Creek)	968	97
Trout Brook[3]	1,419	142
~~Small Streams Draining to St. Croix River (south of Lawrence Cr & north of Valley Br.)~~	~~6,450~~	~~645~~
Rock Creek	3,512	351
Rush Creek	2,451	245
Goose Creek	2,980	298
St. Croix River (including small stream and direct drainage areas and excluding local landlocked basin areas)	9,839	984
TOTAL	~~38,111~~41,500	~~4,237~~4,576

(1) Table B-7, 2012 Lake St. Croix Total Maximum Daily Load Study
(2) 10% per stream + 425 lbs for stream restoration projects in Sunrise River Watershed
(3) According to Lake St. Croix TMDL: Actual phosphorus load reduction goals in Lawrence Creek, Valley Branch, and Trout Brook may be smaller than shown (possibly even zero) due to substantial landlocked portions resulting in smaller drainage areas than those used to calculate load reductions.
(4) Browns Creek reduction goal based on Implementation Plan for Lake St. Croix Nutrient TMDL (2013), App B.

Pine County
Isanti County
Chisago County
Anoka County
Ramsey County
Washington County
Rock Creek
Rush Creek
Goose Creek
Sunrise River - North Branch
Sunrise River - West Branch
Sunrise River - South Branch
Sunrise River
Lawrence Creek
Brown's Creek
Valley Creek
Kelle's Creek
Trout Brook

Lower St. Croix Watershed
Rock Creek
Rush Creek
Goose Creek
Sunrise River
Lawrence Creek
Brown's Creek
Valley Branch & Kelle's Creek
Trout Brook
St. Croix River (Direct Drainage Areas Only)
Regionally Significant Rivers and Streams
PWI Watercourse
Lake, Pond or Reservoir
County Boundary

N

0 5
Miles

AMENDMENT: APRIL 28, 2025

REGIONALLY SIGNIFICANT RIVERS AND STREAMS

FIGURE 5-2

LOWER ST. CROIX WATERSHED PARTNERSHIP

To: Lower St. Croix Watershed Partnership member boards

From: Lower St. Croix Watershed Partnership Policy Committee

Date: April 28, 2025

Re: LSC FY23 WBIF Work Plan Revision and Budget Amendment

The Policy Committee met on April 28th and recommends to the Lower St. Croix Watershed Partnership local boards the following work plan revision and budget amendment to the LSC FY23 WBIF grant work plan and budget.

Proposed LSC FY23 WBIF grant work plan revision.

Item #1: add Forest Management Plans or Woodland Stewardship Plans as an eligible activity

elink Activity Category: Targeting Analyses

Lead Agency: Washington Conservation District, Jay Riggs

Co-lead Agency: Chisago SWCD, Craig Mell (subcontracts with local partners for each subwatershed project)

Staff Qualifications: This task will be completed by existing qualified staff members of LSC Partner organizations.

Activity Description: This Activity includes ~~two~~ three general types of analyses: 1) Subwatershed Assessment (or similar analysis, not necessarily SWA protocols), ~~and~~ 2) Targeted Street Sweeping Analysis, and 3) Forest Management Plans or Woodland Stewardship Plans.

All priority waterbodies are listed in tables 5.2 and 5.3 Regionally Significant Lakes, Rivers and Streams for Pollutant Reductions. Subwatershed analysis requests will be reviewed by the Steering Committee and other committees as appropriate.

Communities or roadways draining to the waterbodies listed in Table 5-2 and Table 5-3 of the LSC CWMP are priorities for Targeted Street Sweeping Studies. Studies will follow the Tree Canopy Assessment Protocol which is available at www.lsc1w1p.org.

All areas identified in Table 5-1 Part C # 43 of the LSC CWMP are priorities for Forest Management Plans or Woodland Stewardship Plans. Plans will follow the MN DNR Forest Stewardship Program.

Item #2: Budget revision to several work plan activities.

FY23 WBIF - Lower St. Croix Watershed Partners Grant - Steering Committee Recommended Work Plan Budget Revision (03/26/2025)					
A	B	C	D	E	F
WBIF GRANT WORK PLAN ACTIVITY	CURRENT WBIF GRANT ACTIVITY BUDGET	PC RECOMMENDED WBIF GRANT WORK PLAN BUDGET REVISION (04/28/2025)	PR RECOMMENDED WBIF BALANCE WITH WORK PLAN BUDGET REVISION (04/28/2025)	AMOUNT WBIF's ENCUMBERED (04/28/2025)	WBIF BALANCE REMAINING WITH PC RECOMMENDED REVISIONS
A1 Structural Ag BMP Implementation	$ 260,000.00	$ 85,472.03	$ 345,472.03	$ 345,472.03	$ -
A2 Structural Urban BMP Implementation	$ 148,054.00	$ (18,054.00)	$ 130,000.00	$ 130,000.00	$ -
A3 Non-Structural Ag/Urban BMP Implementation	$ 122,025.00	$ (20,000.00)	$ 102,025.00	$ 102,025.00	$ -
A4 Wetland Restoration Implementation	$ 255,000.00	$ (15,009.84)	$ 239,990.16	$ 239,990.16	$ -
A5 Agronomy Outreach Specialist	$ 125,000.00	$ -	$ 125,000.00	$ 125,000.00	$ -
A6 Shared Services Educator	$ 270,500.00	$ (12,660.00)	$ 257,840.00	$ 227,840.00	$ 30,000.00
A7 Technical/Engineering	$ 112,615.00	$ (36,059.44)	$ 76,555.56	$ 76,555.56	$ -
A8 Internal Analyses	$ 18,000.00	$ 27,000.00	$ 45,000.00	$ 45,000.00	$ -
A9 Targeting Analyses	$ 45,000.00	$ (6,000.00)	$ 39,000.00	$ 19,000.00	$ 20,000.00
A10 Administration/Coordination	$ 90,000.00	$ (4,688.75)	$ 85,311.25	$ 85,311.25	$ -
PROJECT BALANCE:	$ 1,446,194.00	$ -	$ 1,446,194.00	$ 1,396,194.00	$ 50,000.00

Item #3: Grant Agreement Expiration Date extension request.

- Current: December 31, 2025
- Recommended: December 31, 2026

Lower St. Croix Watershed Partnership Policy Committee Recommendation

Recommend that the Lower St. Croix Watershed Partnership local boards approve the proposed LSC FY23 WBIF grant work plan revisions to

1. Add Forest Management Plans or Woodland Stewardship Plans as an eligible activity under the Targeted Analyses activity.
2. Amend the budget as recommended by the LSC WP Policy Committee on April 28, 2025
3. Extend the grant agreement expiration date from December 31, 2025 to December 31, 2026.

Next steps

The local governing boards must act on Policy Committee recommendations within 60 days after the day on which the Policy Committee formally adopted such a recommendation. The decisions of the various governing boards of the Lower St. Croix Watershed Partnership will be deemed approved for purposes of this Agreement when 2/3rds of the governing bodies have adopted formal action on the respective recommendation. Upon local board action, please notify both Craig Mell and Angie Hong via email of the local boards decision pertaining to this agenda item. The Chisago SWCD, acting as the Fiscal Agent, will then submit a work plan revision request to the Board of Water and Soil Resources for consideration and approval.

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: Hannah Peterson
RE: Appointment of New CAC Member
DATE: May 8, 2025

Background:

BCWD is seeking additional members for its citizen advisory committee.

Dennis Gervais (attached application) has been a resident of Brown's Creek Watershed District in Grant, MN for 15 years and has been working to improve water quality and habitat on his property. He expressed interest in getting more involved throughout the district as a member of the CAC.

Recommended Action:

Appoint Dennis Gervais to the Brown's Creek Watershed District Citizen's Advisory Committee.

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

Please email this completed application to Hannah Peterson at hpeterson@mnwcd.org

Application: Citizen Advisory Committee (CAC)

Deadline: Applications accepted on a rolling basis

Name:	Dennis L. Gervais	**Email:**	dennislgervais@aol.com
Address:	11630 Manning Tr. N. Grant MN 55082	**Phone:**	651-216-3947

Why are you interested in becoming a Citizen Advisor for the Watershed District?

I live in Browns Creek Estates and want to stay informed of how to improve and restore the area to its natural habitat and preserve and improve Browns Creek watershed district

What are three things you hope to accomplish while serving on the committee?

1. Continue to improve water quality.
2. Restore natural habitat to the area.
3. Continue to eliminate growth of unwanted invasive species of plant growth.

What are the strengths and/or qualifications you can bring to help this committee fulfill its purpose and duties?

I have lived in Grant for 15 years and I have been actively working to restore the wooded area on my property to its natural state. A very time consuming process and I would like to get involved on a larger scale.

One of the roles of CAC members is to identify education needs in the community. What is one need, related to water, that you have seen?

Speaking with neighbor and friends in the area I find people are genuinely concerned as I am that without education and awareness of the issues progress may be subdued.

Are you able to commit to attending evening meetings and special meetings as needed?

- [x] Yes
- [ ] No

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

Browns Creek Watershed District Regulatory Review: Report and Recommendations

May 5, 2025

Facilitator: Beth Carreño

Browns Creek Watershed District Regulatory Review: Report and Recommendations

Purpose Statement

The purpose of the Brown's Creek Watershed District (BCWD) regulatory review and facilitated partner meetings was to gain feedback on the current BCWD regulatory program and recommendations for the BCWD Board of Managers to consider when developing the updated (2026-2035) Watershed Management Plan and future initiatives of the regulatory program. Participants were asked to consider the three components of the regulatory program: rules, processes, and outreach and information.

Summary

The purposes of watershed districts are to conserve the natural resources of the state by land use planning, flood control, and conservation projects by using sound scientific principles for the protection of the public health and welfare and the use of the natural resources. BCWD has rules required by Minnesota Statute to conserve the natural resources of the State and Watershed. The regulatory program addresses stormwater management, erosion and sediment control, buffers, shoreline alterations, water crossings, and flood control.

The BCWD regulatory review process included a facilitated partner meeting held November 21, 2024; a presentation and discussion of initial recommendations with the Board on January 8, 2025; and a second facilitated partner meeting on April 4, 2025. Thirty-nine individuals attended the November meeting, and 19 individuals attended the April meeting. Recommendations in this report are based on feedback from all three sessions. While not all-encompassing, the feedback from the Board and partners was accompanied by a review of the website and existing processes of the District. This was to improve and provide context to the recommendations.

BCWD staff put a great deal of planning and effort to ensure attendance and participation at the meeting. They worked with a facilitator for planning and hosting partner meetings and reporting to the Board. Partner meetings benefit from a facilitator who ensures balanced participation, guides discussions and activities, manages the group and conflicts, improves communication and collaboration, and provides non-biased recommendations for problem solving. It builds trust in a process, allows staff and Board members to listen, and increases the likelihood of achieving the desired outcomes.

Appendix One provides an overview of the planning process. Appendix Two is the BCWD Regulatory Review: Amended Partner Meeting Feedback Summary, and it contains the initial feedback summary from the first partner meeting, additional comments received after the first partner meeting, and the feedback from the second partner meeting. It has been updated from earlier draft versions of the report to include all comments from the second partner meeting in April 2025. Appendix Three is a review of the icebreaker activity, "Defining Simple," which was designed to encourage participants to focus on providing detailed feedback with specific strategies.

The recommendations included in this report are based on specific feedback, identification of themes in the feedback, and an interpretation of the information received from partners. BCWD will likely require additional staff to support the recommendations related to the rules review, changes to processes, and

improved outreach. It's notable that BCWD is already allocated additional resources and staff to support and improve delivery of its programs.

Recommendations with Board Direction

Participants were asked multiple questions during the facilitated exercises at the November and April meetings and were frequently reminded to consider the three components of the regulatory program: rules, processes, and outreach and information.

Participants provided detailed feedback and specific strategies for improving the BCWD regulatory program. However, *participants also consistently complimented current BCWD staff, BCWD efforts to protect water resources and provide good service, and this process.* This is a good foundation for building the next stage of BCWD efforts.

All comments from both sessions were recorded and reviewed. Three themes emerged during the first meeting and the synthesis of the feedback:

- **Theme** 1: The BCWD regulatory program should be transparent, efficient, equitable, consistent, and not unduly complicated.

- **Theme 2**: The BCWD regulatory program should protect and improve the resource and properties in the District, and there should be accountability.

- **Theme 3**: Communication is critical, should be consistent, and should lead to improved engagement and understanding with the public, partners, permittees, and other specific audiences including engineers representing permittees and the business community.

A fourth theme emerged after the second partner meeting:

- **Theme 4:** BCWD should collaborate with other entities including neighboring watershed districts, cities, counties, and private partners to improve its programs.

The Board will ultimately decide the degree to which these can be implemented. For example, it may not be possible to have rules that are in plain language and can be understood at or below the standard 7th grade comprehension standard for public documents. Instead, the Board may consider guidance documents and allocate staff support for some applicants to ensure better understanding of the rules.

Board Direction: Direct staff to begin implementing

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Website	Review the General Permitting Info page of the website and identify opportunities for improvement Improve transparency on the program by including a statement of how many applications, permits, projects, pre-app meetings, how the program is paid for, and estimated costs Complete FAQs Continuously look for opportunities to increase readability, plain speak, and user experience on the website		Outreach & Information	1,3
Annual Reports & Newsletters	Include information on regulatory program in newsletters and annual reports Mission and purpose – why is there a regulatory program? Improve transparency and perspective on the program by including a statement of how many applications, permits, projects, pre-application meetings, how the program is paid for, and estimated costs		Processes	3

Board Direction: Direct staff to explore issue and get more information (cost, time commitment, consequences, limitations)

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Develop and implement a process for follow-up on closed projects, additional inspections, and enforcement			Processes	2
Assess the viability of an application portal and electronic payment process	Complete a cost-benefit analysis to determine feasibility Consider fixed *and* variable costs, number of applications, risks, and opportunities – *there were 20 permit approvals in 2023* Identify other practices to communicate permit status to applicants (or to improve current communication)	Improve transparency and perspective on the program by communicating on the number of applications, permits, projects, and pre-app meetings; how the program is paid for; and estimated costs If you choose not to develop an application portal or electronic payment process, be transparent and communicate "why." Return on investment (ROI)?	Processes	1

Board Direction: Take the recommendation into the WMP process for more consideration

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
HOAs – identify and implement strategies to improve "hand-off" from developers and HOAs	Require a meeting with a checklist with HOA obligations Improve HOA guidance on website to include more information on obligations, processes, and resources	Board direction included a desire to identify some additional ideas / information that could be considered during the WMP process	Processes, Outreach & Information	2, 3, 4
Develop guidance documents for permittees and potential permittees	Rules guidance document Videos / vlogs to provide guidance / instruction Flow charts to explain permitting requirements and/or process		Outreach & Information	1, 3

Board Direction: Take the recommendation into the WMP process and future rules revisions

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Review permit fee structure to ensure they are clearly communicated and equitable	Consider caps on fees and other requirements for single family projects Identify opportunities to increase transparency, full-cost accounting, and standardized fees Determine who should bear the weight of the regulatory program and permits	Can't make money on the regulatory program; permit fees have to match the level of review required	Processes	1, 4

Board Direction: Direct staff to explore and prepare for future rule revisions

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Prepare for future rule revisions	Review the specific rules that were identified by participants at partner meeting – are there opportunities to make changes? Create an inventory of rules that could be considered during a formal rules update Complete a comparison of rules to those of nearby and/or similar watersheds – look for opportunities to align, ideas for clarity Identify opportunities to clarify rules or allow for increased flexibility in meeting the rules	Review the specific rules that some partners identified for change during the engagement process This would include things that staff have noted or were noted by partners	Rules	1, 2, 3, 4
Begin rule revision process after the watershed management plan is completed, selected process/ outreach strategies have been implemented, and additional partner meetings have been held *and* only if specific rules have been identified		Estimated timeline: 2026 – 2029 • This work requires a commitment from partners • Continue engagement & outreach to see how this improves and/or addresses some concerns • When and how do partners want to give time, meet, or do this shared work? *See comments from 2nd meeting*	Rules	1, 2, 3

Board Direction: Request additional information or clarification from partners

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Identify opportunities in the rules to increase administrator / Board's ability to provide flexibility without increasing the number of variances	Identify opportunities to engage additional feedback from partners / permittees	*Offering "regional" solutions was recommended in feedback. BCWD currently offers regional solutions. QUESTION: is the flexibility we offer good, and people just don't know OR is there a different flexibility wanted? What does flexibility mean to you? Examples / demonstrate where BCWD offers, but ask if there is more wanted from partners and get specific examples	Rules, Processes	1,3,4
Review the current appeals process and assess opportunities to improve the process, timeline, and communication; ensure that applicants are provided with information on the appeals process		There is not appeals process. What do partners want to appeal, when, and why? What needs to be fixed?	Rules	1,3,4

Synthesis of Feedback from 2nd Partner Meeting - Flexibility

Partners spent a significant amount of time discussing "flexibility" and providing specific ideas for consideration in the regulatory program at BCWD. There was also significant overlap with the discussion on "regional solutions." Full responses are included in the appendixes.

- Variances – review variances and identify trends
    - Determine if a rule change should be considered
- Communication – use existing and improving communication strategies to present, promote, and explain the District's flexible solutions and opportunities to meet rules
    - Guidance documents and explanations for specific rules, options for erosion control, showcasing standards and examples of *how* rules could be met, coordinate language (and possibly approach) with other watershed districts and local government units (LGUs)
- Determine if administrator approval can be expanded
- Determine if there are alternatives or lesser requirements for applications that can demonstrate protection of the resource, clear stormwater disconnect, etc
    - Consider reduced fees or credit when a project results in improved habitat, restoration, or other resource benefit
- Review MIDs and MIDs+ for potential expanded flexibility

Synthesis of Feedback from 2nd Partner Meeting - Appeals

Some participants encouraged the District to look to other LGUs for possible appeals processes. However, there was significant consensus that addressing other recommendations from the regulatory review and the following ideas would be a possible alternative to address "what needs to be fixed" instead of a formal appeals process:

- Improved communication
    - Promotion of timelines and processes
    - Options for coordination, discussion, and the pre-application process
    - Identifying processes for how to address disagreements on the interpretation of rules and how to meet them

Board Direction: Request additional information or clarification from partners and have staff explore issue and get more information (cost, time commitment, etc.)

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Allow regional solutions	Review how other watershed districts (and State partners) support regional solutions and identify opportunities for BCWD – *this may require a rules change*	*BCWD does offer opportunities for regional solutions / treatments; utilize outreach / information strategies to communicate this and including this in future partner meetings • Regional solutions is tied to flexibility. Are the regional solutions / flexibility we offer good, and people just don't know about it OR is there a different flexibility / regional solution wanted? • Monitor future feedback on this to determine if rules or process changes are needed • What regional solutions are you looking for? Wetland banking? Larger stormwater management facilities?	Rules, Processes, and Outreach & Information	1, 2, 3, 4

Synthesis of Feedback from 2nd Partner Meeting – Regional Solutions

Partners spent a significant amount of time discussing "regional solutions" and providing specific ideas for consideration in the regulatory program at BCWD. There was also significant overlap with the discussion on "flexibility." Full responses are included in the appendixes.

- Collaborate and coordinate
    - Work with land use authorities, the county, LGUs, developers to plan, identify, and promote regional solutions; consider agreed upon priorities or methodology

- Mapping
    - Map existing regional solutions and potential locations
- Communication
    - Promote regional solutions and awareness of the options, coordination, share success stories
- Consider the feasibility of the watershed district purchasing properties to become a regional system / solution – evaluate pros and cons

Board Direction: Request additional information or clarification from partners and then include in WMP process

Recommendation	Strategies	Notes	Rules, Processes, or Outreach & Information	Theme
Host ongoing engineering workshops / meetings	Initial facilitated conversation / focus group Ongoing discussions / training	Additional ideas: Continuing ED? Opportunities to meet staff and learn about rules, processes, expectations, obligations, and opportunities *and provide feedback – could this be done regionally (EMWREP)* Lunch and learns, virtual sessions, breakfasts Incentivize their participation	Outreach & Information	1,3, 4
Increase outreach opportunities	Inventory where touchpoints are and look for opportunities to share BWCD info - city billing inserts, realtor communication Create information cards or standard language (for documents / websites) for other permitting LGUs to provide to applicants Schedule consistent meetings with partners – city-county partner meetings, city coordination meetings, partner meetings – determine a schedule that is do-able and set expectation	Incentivize participation	Outreach & Information	1, 3, 4

Increase outreach opportunities – cont.	Opportunities for developers and/or contractors to meet staff and learn about rules, processes, expectations, obligations, opportunities – lunch and learns, virtual sessions, breakfasts			
Committee membership	Provide opportunities for developers, contractors, and the regulatory audience to participate in the District This could include Board, CAC, and/or TAC appointments, inviting them to information sessions with members of the above groups, and staff presenting at meetings where business leaders are present Provide opportunity for this group to identify ways they want to participate	Integrate them and don't leave them on an island.	Outreach & Information	1, 2, 3, 4

Synthesis of Feedback from 2nd Partner Meeting – Combined Feedback on Increased Participation by Engineers and All Partners

- Host ongoing engineering workshops / meetings
- Increase outreach opportunities
- Committee membership

The feedback from these questions is best summarized together. This is in part due to the limitation of time for discussion in the second partner meeting and the overlap of ideas. Also, there were no engineers in attendance at the second partner meeting; this presented a challenge to determine what would be most successful from their perspective.

- Continue to consistently engage and strengthen relationships
    - Follow best practices for meetings including consistently held meetings, varying meeting times, alternative participation options, and expanded invitations (consider public notice)
    - Attend partner meetings (ex: staff or Board members attend city council meetings)
    - Invite participation at "change moments" (rule making, plan development)
    - Resource: IAP2 (International Association for Public Participation – www.iaps.org)

- Collaborate with other organizations including the county and other watershed districts to reduce the separate asks on cities, developers, and engineers
    - Identify and use existing partnerships like Water Consortium to convene communities around watershed topics
        - Work with multiple partners to co-deliver events for specific audiences (engineers, developers)
    - Co-host meetings, events, trainings
    - Co-create outreach materials (general watershed, specific solutions, fact sheets, videos)
- Continue to seek feedback from multiple audiences
    - Use tools like surveys to get feedback from permit applicants after the permitting process or to get information from individuals that did not attend facilitated partner meetings

Initial Recommendations reviewed by the BCWD Board of Managers:

Rules	Recommendation	Theme(s)

	Prepare for future rule revisions
	• Review the specific rules that were identified by participants of the partner meeting
	  ○ Are there opportunities to make changes?
	• Create an inventory of rules that could be considered during a formal rules update
	• Complete a comparison of rules to those of nearby and/or similar watersheds
	  ○ Look for opportunities to align, ideas for clarity
	• Identify opportunities to clarify rules or allow for increased flexibility in meeting the rules
		1,2,3

	Identify opportunities in the rules to increase administrator / Board's ability to provide flexibility without increasing the number of variances • Identify opportunities to engage additional feedback from partners / permittees • May include some process opportunities	1,3
	Begin rule revision process after watershed management plan is completed, selected process / outreach strategies have been implemented, and additional partner meetings have been held ***and*** only if specific rules have been identified • Estimated timeline: 2026 – 2029	1,2,3

	Allow regional solutions – rules, processes, & outreach • Review how other watershed districts (and State partners) support regional solutions and identify opportunities for BCWD – *this may require a rules change* • Note: BCWD does offer opportunities for regional solutions / treatments; utilize outreach / information strategies to communicate this and including this in future partner meetings ○ Monitor future feedback on this to determine if rules or process changes are needed	1,2,3
Processes		
	Develop and implement a process for follow-up on closed projects, additional inspections, and enforcement	2
	HOAs – identify and implement strategies to improve "hand-off" from developers and HOAs – *this also requires implementation of improved outreach and information strategies* • Require a meeting with a checklist with HOA obligations • Improve HOA Guidance on website to include more information on obligations, processes, and resources	2,3
	Allow regional solutions – rules, processes, & outreach • Review how other watershed districts (and State partners) support regional solutions and identify opportunities for BCWD – *this may require a rules change* • Note: BCWD does offer opportunities for regional solutions / treatments; utilize outreach / information strategies to communicate this and including this in future partner meetings ○ Monitor future feedback on this to determine if rules or process changes are needed	1,2,3
	Assess the viability of an application portal and electronic payment process • Complete a cost-benefit analysis to determine feasibility • Consider fixed *and* variable costs, number of applications, risks, and opportunities – *there were 20 permit approvals in 2023* • Identify other practices to communicate permit status to applicants (or to improve current communication)	1

	• Improve transparency and perspective on the program by communicating on the number of applications, permits, projects, and pre-app meetings; how the program is paid for; and estimated costs	
	Review permit fee structures to ensure they are clearly communicated and equitable • Consider caps on fees (and other requirements) for single family projects • Identify opportunities to increase transparency, full-cost accounting, and standardized fees • Determine who should bear the weight of the regulatory program and permits	1
	Review the current appeals process and assess opportunities to improve the process, timeline, and communication; ensure that applicants are provided with information on the appeals process	1,3
Outreach & Information		
	Host ongoing engineering workshop / meeting • Initial facilitated conversation • Ongoing discussions / training	1,3

	Increase outreach opportunities
	• Inventory where touchpoints are and look for opportunities to share BCWD info (city billing inserts, realtor communications)
	• Create information cards or standard language (for documents / websites) for other permitting LGUs to provide to applicants
	• Schedule consistent meetings with partners
	  ○ City-county partner meetings; city coordination meetings; partner meetings – determine a schedule that is do-able and set an expectation
	  ○ Identify opportunities to collaborate with regional groups – county, neighbor watersheds, etc.
	  ○ Opportunities for developers and/or contractors to meet staff and learn about rules, processes, expectations, obligations, and opportunities
	  ▪ Lunch and learns, virtual sessions, breakfasts
	  ▪ Incentivize their participation
	  ▪ Ex: A city with two watersheds within its borders co-hosts a developer / contractor breakfast with both watersheds; rules presentation highlighting requirements
		1,3

	Develop guidance documents for permittees and potential permittees • Rules guidance document • Videos / vlogs to provide guidance / instruction	1,3
	Website • Review the General Permitting Info page of the website and identify opportunities for improvement ○ Improve transparency on the program by including a statement of how many applications, permits, projects, pre-app meetings, how the program is paid for, and estimated costs • Complete FAQs • Continuously look for opportunities to increase readability, plain speak, and user experience on the website	1,3

	Annual Reports and Newsletters
	• Include information on regulatory program in newsletters and annual reports
	  ○ Mission and purpose focus – why is there a regulatory program?
	  ○ Improve transparency and perspective on the program by including a statement of how many applications, permits, projects, pre-app meetings, how the program is paid for, and estimated costs
		3

	Committee membership
	• Provide opportunities for developers, contractors, and the regulatory audience to participate in the District.
	  ○ This could include Board, CAC, and/or TAC appointments, inviting them to information sessions with members of the Board, CAC, and/or TAC, and staff providing presentations at meetings where business leaders will be present.
	  ○ Provide opportunity for this group to identify ways that they want to participate at follow-up meeting(s).
		1,2,3

Appendix 1
Process

For the November partner meeting, Staff developed the invitation list based on local and regional partners, individuals and companies with a history of participating in the permitting process, individuals who have interacted with the watershed district in the past, and through an additional equitable partner engagement review. A survey was conducted to select the date of the meeting, invitations were emailed with multiple reminders, and staff reached out directly through email and phone calls to improve attendance. The same process was followed for the April meeting.

Thirty-nine individuals attended the November meeting; this was 33% of the 118 invited. Participants represented residents, homeowner associations, permittees, developers, BCWD communities, Washington County, state agency partners, other watershed districts, and members of the Citizen Advisory Committee and Board of Managers. It was noted during the meeting that many of the engineers that were invited weren't in attendance. This is noteworthy because engineers often work with clients during the permitting process, and their feedback would have been valuable. Recommendations related to this audience are included later in the report.

The participants represented diverse audiences with often differing priorities. This diversity was essential to get a full range of feedback. It also provided an opportunity to gather feedback from partners that may not have the same ability or opportunity to communicate with the watershed district but still have a perspective that should not be overlooked.

The meeting included introductions, an icebreaker, an overview of the current BCWD regulatory program, and multiple facilitated large and small group discussions. Multiple techniques were used so participants would interact with different people throughout the morning. In addition to BCWD capturing feedback, it was important that participants also heard the perspectives of the others in the room.

To ensure transparency and accountability, staff sent the initial draft of meeting feedback to all participants and invitees with a request that they provide any additional clarification or feedback and to provide those that had not attended an opportunity to give feedback.

The feedback form the first partner meeting with recommendations was presented to the BCWD Board of Managers at the January 8, 2025, Board Meeting. **The Board had the opportunity to review the feedback and recommendations, discuss and identify priorities, provide direction for obtaining additional clarification from partners, and ultimately incorporate selected priority activities into the watershed management plan and BCWD work plans.** Another partner meeting was always planned to present Board direction on the recommendations. However, the Board requested additional partner feedback on several recommendations, and this was integrated into the April meeting.

Nineteen individuals attended the April meeting with less representation of the partner groups than the first. This was noted with participants and ideas for engagement of different audiences was discussed. The meeting included an overview of the process to date, a review of Board direction for the initial recommendations, and small group discussions on recommendations where the Board had asked for additional partner feedback.

After the April meeting, staff met with the facilitator again to review the partner feedback and a final report was prepared.

Appendix 2

BCWD Regulatory Review: Amended Partner Meeting Feedback Summary

The original Partner Meeting Feedback Summary has been amended to include comments received by email in the extended comment period from December 6, 2024, through December 13, 2024. An additional amendment to feedback summary was made in May 2025 to include comments received during the second partner meeting on April 4, 2025.

Meeting Overview

A partner meeting was held November 21, 2024, to gain feedback on the current Browns Creek Watershed District (BCWD / the District) regulatory program and recommendations for future activities for the BCWD Board of Managers to consider when developing the updated (2026 – 2035) Watershed Management Plan.

The meeting included an overview of the current BCWD regulatory program including information on its regulatory authority, past updates, current processes and rules, and accomplishments due in part to the District's regulatory program.

There were 118 individuals invited and 39 individuals, or 33% of those invited, in attendance with participants representing residents, homeowner associations, permittees, developers, BCWD communities, Washington County, state agency partners, other watershed districts, and members of the Citizen Advisory Committee and Board of Managers. Participants were asked to introduce themselves, who they represent, and how they interact with BCWD. Several participants noted that there weren't many engineers at this meeting. It's important to note that engineers were invited, and staff are continuing to develop and implement strategies to engage this critical audience.

An icebreaker was led to create a definition for the word "simple." Simple and its variations are frequently used to provide direction for what the BCWD rules and regulatory program should be. Seventy-eight responses were offered with many of these unique. It was established that "simple" would not be a word used in the day's feedback, and participants would focus on providing specific strategies and detailed feedback.

Participants were asked to consider the BCWD regulatory program as its rules, processes, and outreach and information. Activities focused on getting feedback around these three components. Multiple facilitation approaches were used to increase engagement, encourage participants to interact with different people, allow participants to hear multiple perspectives, and for everyone to share their ideas in multiple conversations.

There were three facilitated discussions. The first was done with the whole group, the second was completed in small groups, and the third had participants moving around the room in changing small groups (a variation of a known facilitation technique called World Café). Participants were asked to respond to multiple questions or prompts. After each activity, participants reported back to the entire group and shared ideas. The meeting ended with a brief wrap-up discussion, and participants were asked if they felt anything was missed in the questions asked or the conversation. Individuals were asked to share something they heard another participant say that was a new perspective for them.

Questions & Response Summary

A summary of the questions and a generalization of the responses follow. A complete list of all answers is included in this report and were used to inform recommendations.

Who and what benefits from the regulatory program?

The answers reflected the group's shared beliefs that the community, property owners, and the resources benefited from this program. Half of all responses identified individuals (in the community or property owners) as beneficiaries as a result of a healthy resource or protection from harm (flooding, etc). Of nearly 100 responses given, only five identified engineers, consultants, and watershed staff as the beneficiaries of the regulatory program.

What are the most important factors or components of a successful regulatory program?

Themes that were present in the answers focused on consistency and fairness; flexibility; efficiency; clarity; value and cost; public engagement, awareness, and communication; effectiveness and enforcement; the process; and a focus on the resource.

There was broad agreement that a successful regulatory program has sound and clearly communicated processes that are applied fairly and consistently while also valuing flexibility, cost-effectiveness, and efficiency. Public engagement and informational materials should be used to increase knowledge and understanding of the regulatory program and the applicable rules. Enforcement was identified in addition to a number of process suggestions.

What are improvements or changes that you would like to see in the regulatory program?

A significant amount of feedback focused on changes in communication, outreach materials, administrative efforts, and fees. There was less focus on the specific topics identified for possible rule changes; however, one individual provided a list of items for consideration.

What would those improvements or changes result in?

Responses could be categorized into improved communication and engagement, efficiency and expense, administration, and the resource and water quality. They identified outcomes for resident and permit applicant experiences, processes or activities of the watershed district, and the effect on the resource.

What is working in the current BCWD regulatory program?

Participant responses identified current success with resource protection and improvement; administrative practices and staff; current flexibility; and communication and engagement. Many of these were implemented after the last facilitated effort around the regulatory program. All of the things identified serve as a strong foundation for the regulatory program and future changes.

Provide specific suggestions and strategies for BCWD rules, processes, and outreach and information.

There were many similarities between what participants wanted to keep or build upon and aspects of the regulatory program that were identified as "working."

Suggestions for the District's rules encouraged flexibility and innovation; consistency; and some specific rules that could be reviewed.

Suggestions for the District's processes focused on steps to improve communication and transparency; cost-effectiveness; efficiencies; and permittee resources.

Suggestions for the District's outreach and information efforts included the continuation of partner meetings and community engagement; ideas for what and how to share the BCWD story and requirements; and identification of audiences.

Questions and All Responses

Large Group Facilitated Discussion: Idea Pools

Large Group Question One: *Who and what benefits from the regulatory program?*

Topic Areas	Specific Comments

COMMUNITY	• Community – 2
	  ○ Reduced flooding
	• Individuals in the watershed – 2
	  ○ Users in the watershed district
	• Individuals downstream
	• Residents - 6
	  ○ Current residents
	  ○ All residents within the District
	• Future
	  ○ Property owners
	  ○ Generations – 2
	  ○ Future residents
	• Citizens - 4
	  ○ Of state, watershed, etc.
	  ○ "Citizens should"
	• The public (in general) - 2
	• People near the water
	• Those who use the resource
	  ○ Recreationists - 2
	• Anyone drinking water
	• Public health

PROPERTY OWNERS	• Homeowners
	• Property owners - 3
	  ○ Flooding
	• Landowners - 2
	  ○ Downstream landowners
	• Old homesites that were built before planning for runoff
	• Taxpayer
	  ○ Property values - 2
	  ○ Resource quality
	• Business owners

OTHER PEOPLE	• The watershed district employees, staff, engineers
	  ○ Watershed district employees
	• Consultants – 2
	  ○ Consultants / engineers currently benefit
	  ○ Engineers and their firms
	Economics

THE RESOURCE	• Resources – 3 ○ The resource

	○ Shared resources ○ Natural resources – 2 ▪ Natural resources should • Water ○ Water resources – 4 ▪ Lakes, streams, wetlands, groundwater ▪ Lakes ○ Browns Creek Water Quality ▪ Browns Creek ○ Water quality - 2 ○ Groundwater – 2 ○ Surface water • Lakes, rivers, streams, wetland • Ecosystems ○ Ecosystem health • The environment - 8 • Habitat – 2 • Aquatic environment • Aquatic life ○ Trout ○ Animals near the water ○ Fish, bugs, plants • Wildlife • Nature
Additional comments and questions	• Recreation • Who suffers if not enforced? • How do the rules account for climate change? • Rules not enforced versus when rules are enforced ○ Benefit: environment, landowners, future residents

Large Group Question Two: ***What are the most important factors or components of a successful regulatory program?***

Topic Areas	Specific Comments
CONSISTENCY	• Consistent – 3 ○ Consistency - 2 • Predictable • Implemented consistently
FAIRNESS	• Fair – 6 ○ Applied Consistently • Fairness • Fair implementation • Fair application • Implemented equally • Equitable
FLEXIBILITY	• Flexibility ○ Flexibility for landowners • Nimble / flexible – 2

EFFICIENT	• Efficient – 4
	  ○ Efficient for BCWD, applicant, municipality
	  ○ Efficient to administer
	• Timely - 3
	• Timeliness

COST / VALUE	• Cost-effective
	• Pre-determined fees
	  ○ Fees that do not require calculations
	  ○ 1 garden = $100
	• Demonstrated value to stakeholders
	• Minimum cost for the most value
	• Technical assistance at low cost
	• Area wide fees and developer fees

UNDERSTANDABLE	• Clear
	  ○ Clear rules
	• Clarity
	• Straightforward
	• Decipherable
	• Understandable
	• Easy to understand
	  • Easily understandable by all
	  • Easy to understand by all parties
	  • Easy
	  • Easy to accomplish
	  • Step by step notice
	• Easy to implement

PUBLIC ENGAGEMENT & AWARENESS	• Shared understanding of long-term maintenance / limitations (stormwater BMPs + buffers)
	• Buy-in by watershed residents
	  ○ Buy-in
	  ○ Buy-in from both the regulator and the regulated
	• Awareness of rules that can be followed
	• Community involvement
	• Value to stakeholders
	• Educated public
	• Participation by all parties – with clear responsibilities
	  ○ BCWD
	  ○ Applicant
	• Municipality

COMMUNICATION	• Communication • Open communication of permittee and regulator • Clear communication between staff and applicant • Well-communicated and clear rules that applicants can understand • Clear guidance materials (contributes to streamlined processes)
ENFORCEMENT & FOLLOW-UP	• Enforced • Enforcement with leverage and a process • Follow-up and reporting – w/out lose benefit of project / plan • Ensuring permit requirements are enforced both short and long term • Way to establish accountability for maintenance and potential negative impacts

EFFECTIVENESS	• Effective
	  ○ Permits issued, permits closed)
	• Regulations are effective
	  ○ Ex: when applied they protect the resource they are meant to
	• Provides intended results
	• Successful best management practices
	  ○ Ensure solutions are / can be perpetual
	• Implementable
	• Does it actually produce the desired result and at what cost – accountability

PROCESS	• Process • Shared regulatory authority • Local government participation and involvement ○ Local / county involvement • LGU implemented • A succinct end point with a clear punch list • Data driven • Streamlined process • Everyone knows their role • Everyone involved understands the process • Workshop with the engineering community to see what they need; what formulas to use; what steps to take; it's not clear to them • Good plan (BMPs) • One online access portal for permits

	• Accountability - 2 • Appeals Processes ○ Ease of appeals
RESOURCE	• Protective of resource ○ Protect / improve the resources • Adequate protection of water resources (quantity / quality) for future generations • Objective resource protection
OTHER	• Purposeful • Supported • Appropriate rules • Comprehensive and well thought out rules • Not unduly burdensome – 2 • Projects able to occur without harming the environment • The program is forward thinking (looking ahead for changes in population, climate, etc)

Small Group Facilitated Discussion

Small Group Question One: ***What are improvements or changes that you would like to see in the regulatory program? Think rules, processes, and outreach / information.***

Topic Areas	Specific Comments

COMMUNICATION / INFORMATION / OUTREACH / RESOURCES	• Better targeting
	• Better guidance / expectation setting
	  ○ Communicate expectations
	  ○ Increased communication for buyers who are responsible for maintenance of stormwater / sediment control structures
	• Conciseness of rules
	• Ease of access to rules
	• Better follow-up
	• Portal – submit permits; monitor status
	• Engineering
	  ○ Clear calculations for engineers
	  ○ Better engineer information
	• Resources online for permittee
	  • Link to well index, watershed health assessment tool, etc.

ADMINISTRATIVE / FEES / FLEXIBILITY / EFFICIENCY	• More pre-permit coordination • More administrative approvals • 30 day staff review instead of 60 day • Appeals ○ Clearly defined appeals process • Fee structure – easy to calculate • Create rules that place high value on alternative improvement efforts • Flexibility • Regional ponding • Efficiency • LGU implementation of WMO rules w/ WMO support (or WMO does if LGU prefers) • Consistency among watershed districts
DEFINITIONS	• Rule 7 defined • Re-use calculator defined
DEVELOPMENT	• Should not be in charge of land use planning – leave to townships / cities • Hold developers responsible for their part in stormwater structure maintenance and protection of features during construction
OTHER RULE REVISION SPECIFIC TOPICS	• Site specific analysis – setback review on a cliff but not near a creek • Change “steep slope” criteria • Remove “landlocked versus not” rules difference • Enable farming to remain ○ How to permit / address? • Reduce setbacks by 25 – 50% • More stormwater controls for shoreland development (single lots) • MID – watershed wide (higher standard for / if trout & flooding) • SINGLE FAMILY and SMALL PROJECTS

	○ Less rigorous process for small individual projects (homes) ▪ Very expensive • WCA ○ Support WCA plus ○ Local mitigation priority sequence ○ Higher replacement ratio for high quality wetlands • DRINKING WATER, GROUNDWATER, PRIVATE WELLS • Drinking water protection • More rules tied to drinking water / private wells (SWSMA) ○ Limitations of infiltration near wells or in SWSMA ○ Floodplain & well considerations An individual provided this feedback during the process: • Consultant fees ○ Create transparency of fees collected • Create a quick appeal process when consultants disagree • Endeavor to appoint at least one manager with a background in real estate • Limit requirements of declarations and extractions • Buffers in excess of 20' • Any rule prohibiting buffer averaging • Allow reasonable activities in buffer zones • Requirement to mimic pre-settlement conditions • Allow variances based on practical difficulties • Eliminate landowners obligation to demonstrate that landowner facilities will not have an adverse impact – very subjective standard • Release financial assurances and eliminate need for posting LOL and then paying fees

Small Group Question Two: *What would those improvements or changes result in?*

Topic Areas	Specific Comments
COMMUNICATION / ENGAGEMENT	• Communicated expectations • Clearer communication – the HOA receives outlining the rules when they assume responsibility from the developer / seller / title • Acceptance of enforcement

EFFICIENCY / TIME / COST / EXPENSE / FEES	• Faster / shorter review timeline will reduce $ for waiting and eventually obtaining permits
	• Less rigorous program for small projects would save time and money
	  ○ Also might get more protection with “un-engineered” solutions
	• Less costs - 3
	  ○ Less upfront costs
	  ○ Predetermined fees / precalculated
	• Efficiency
	• Simplification / consolidation of rules
	  ○ Watershed district wide rule would result in increased regulations but simplification
	• Increased complexity

ADMINISTRATION	• More staff (needed to speed up processes)
	• Faster approval process
	• Faster timelines
	• A more fair and equitable system
	• Less variances required
	• On-line portal
	  ○ Permit & submission
	  ○ Follow-up in portal
	  ○ Appeal application
	• Appeal process
	  ○ Ability to appeal a permit decision in a reasonable time
	• More cities as LGU
	• More direct involvement of the Board in rule making
	  ○ Less engineer and legal review / comments

RESOURCE	• Better follow up keeps integrity of projects / plan
	• Increased / regulated
	  ○ Protection of groundwater
	  • Increased costs
	  • Increased water quality of groundwater
	• Limit potential contamination / liability of drinking water

Small Group Question Three: ***What is working in the current BCWD regulatory program?***

Topic Areas	Specific Comments

RESOURCE	• Water quality is improving! – 2
	• Protection / improvement of Browns Creek
	• Surface water quality in areas of watershed
	  ○ Meeting goals – phosphorus, temperature, sediment
	• Volume control is being achieved
	• Resources are being protected
	  ○ Resource protection
	• Phosphorus reduction and improvement of resources

ADMINISTRATIVE	• More administrative review – efficient • Staff wants to help you through the process • Staff is proactive, but restrictive / inflexible • Good staff that cares about the community • Staff is approachable • Application process
FLEXIBILITY	• Flexibility on reconstruction vs. rehabilitation (roads projects) • Board flexible but responsible

COMMUNICATION / ENGAGEMENT / OUTREACH	• Pre-application meetings
	  ○ Initial free meeting
	• Collaboration
	  ○ WCDs
	  ○ Cities
	  ○ Developers
	• Board of managers understanding of projects / reality
	• Communications / connections
	• Listening to feedback / outreach
	  ○ This type of collaboration and asking for input
	• Partnerships
	  ○ Good with partnerships
	• Processes on website
	• Information is accessible and available
	• Trying to make it easy for the applicant

OTHER	• Consistent • Rules are good • Attentiveness to rules

Facilitated Discussion: World Café Variation

Instructions:

- ***Rotate through tables - provide comments - Be Specific***
- ***What is good / important to keep? Suggest changes - don't use the word "simple"***

Topic Areas	Specific Comments

PROCESSES	• Grant opportunities for BCWD priorities
	• Appeal process
	  ○ Implement an appeal process
	• Portal to see where the permit is at in the process – 4
	  ○ Coon Creek has permit portal now online (as an example)
	• Fees
	  ○ Easier fee or automated calculator
	  ○ Fee caps as a % of total cost for single families or ?????
	• Small, medium, large projects
	• Shorten process as much as possible
	• Interagency coordination of permits – 2
	• Less legal review
	  ○ Let engineers / admin review and approve
	  ○ Administrative approval
	  ○ Less attorney review by staff
	• Developer maintain integrity of stormwater feature during construction
	  ○ District enforce
	• KEEP
	  ○ Keep Citizen Advisory Committee – 2 (could also apply to outreach & info)
	  ○ Admin review
	  ○ Pre-application meetings
	  ○ Stakeholder engagement &involvement (could also apply to outreach & info)
	  ○ Continue these meetings with cross-education exercises (could also apply to outreach & info)
	• CHANGE
	  ○ Landlocked basins
	  ○ Better communication
	  ○ Easier to figure out if it applies
	  ○ Less rigorous process for solo single family permits
	  ○ Change undue hardship on variances to practical difficulty
	  ○ Simplify appeal of technical / consultant / disputes
	  ○ Strengthen maintenance agreements
	  ○ Communicate expectations better
	  ○ Make release of financial assurances easier / quicker

OUTREACH & INFORMATION	• Keep partnership meetings – 2 • Keep attending project-specific public project meetings • Keep pre-meetings (free) – 2

	• Community events
	• Maintain Citizen Advisory Committee – 2
	  ○ More CAC outreach / communication to increase attendance at events
	• Share outcomes of implementation
	• Highlight uniqueness of BCWD
	• Identify conflict and highlight positives
	• Maintain relationship with the WCD
	  ○ Utilize shared services
	• Improve relationships with land use authorities
	• Share what BCWD does with tax bill, benefits, programs
	• Budget process
	• Knowledge of needing a permit
	• Clear permitting authority when multiple entities have regulations
	• Give explanation / justifications for each role
	• Links to more resources like MN Well Index, watershed health assessment framework tool, etc
	• Engineer list for stormwater / flood mitigation projects
	• Have $$ available
	• Videos - 2
	  ○ Permit application video for builders / owners
	  ○ Target primarily homeowners / HOAs
	  ▪ How-tos
	  ▪ Overview
	  ▪ Importance
	• Website works
	  ○ Well laid out
	  ○ Rules are easy to find on website

RULES	• Encourage flexibility – options - 2
	  ○ Encourage flexible options
	  ○ Innovative practices
	  ○ Regional ponding – 2
	  ▪ Prioritize regional ponding opportunities
	  • Stormwater credits?
	  ○ Look for multi-benefit projects / extra flexibility
	• More flexibility for recon projects – especially public
	  ○ Keep rehab versus recon
	• Consistency with other watershed districts – 3
	• Equitable application of rules
	• Reconsider decompaction – 2
	• Rule 7 defined – 2
	• Re-word re-use
	• Less engineering required for homeowners
	• Farm friendly rules
	• Pre-settlement (?)

	○ Pre-settlement conditions a challenge to meet; existing conditions preferred • Buffers in excess of 25' • Provide clear responsibilities for HOA stormwater facility maintenance - 2 ○ Include enforcement ○ City versus watershed district • Protect private / drinking wells / source not just public supplies – 2 ○ Both could be explicit in rule – thinking regarding stormwater & floodplain • KEEP ○ Permit Threshold triggers ○ Volume control – maintain standards • CHANGE ○ Single family home rules – 3 ○ Where statute does not define specific language, make it less technical ○ Forcing landowners to solve MNDOT runoff issues with no compensation

Additional Feedback:
Participants and the invitee list were emailed the "Partner Meeting Feedback Summary" on December 6, 2024, and encouraged to provide comments on the summary and/or submit additional feedback on the BCWD regulatory program. The email requested that additional comments be sent by December 13, 2024; a reminder was sent on the morning of December 13, 2024. Limited feedback was received and has been considered in preparing the final report and report and recommendations.

Summary of those comments is below:

Attended	• Document captures the comments well • Many may support comments even if they were shared by one individual • The Board will have to determine what to focus on and in what order
Could not attend	Enforcement and Follow-up • Enforcement and follow-up are lacking • An example was provided (and has been shared with staff) • Would like to see resources and tools made available to improve enforcement
Attended	Follow-up on the rules for stronger protections for groundwater and drinking water and that the specific suggestions provided during the meeting were opportunities / possibilities and not dictated expectations. • Specific ideas were presented to staff

All comments received during April 4, 2025, partner meeting:

Request Clarification from Partners:

1. Regarding Recommendation:

Identify opportunities in the rules to increase administrator / Board's ability to provide flexibility without increasing the number of variances

Strategy:

- Identify opportunities to engage additional feedback from partners / permittees

*Offering "regional" solutions was recommended in feedback. BCWD currently offers regional solutions. QUESTION: is the flexibility we offer good, and people just don't know OR is there a different flexibility wanted?

What does flexibility mean to you?

- Flexible treatment options *
- Flexibility opportunities must be based on data / habitat protection
    - Not political desires / protest or developers ROI
- Examine buffer rules; allow more averaging
- Put process costs towards other solutions (ex: native prairie)
- Create process to allow credit for creating restored areas
    - Native habitat
    - Restoration = volume control credit
    - Adding computation credit system for open space
- Review variances – what are the most common variances? Variance review- what is common? Rule change necessary?
    - Review variance request for common challenges – how did the Board approve or deny
    - Variance request – how did the board approve or deny; work that into the rule
- Record instances of previous variances to use as references of precedence
- Loosen variance needs
- Instead of a variance process --- a *mitigation* process
- Ongoing Communications Improvement
    - Guidance document or website section on flexibility
    - Providing / directing applicants to information on approaches that they can use to meet regulations
        - Eg: people may not know they could do 6 – 10 things to meet their permit requirements
    - Clear communication of FTOs (Field Testing Operations) for stormwater
    - Communicating other options for erosion control
    - Clear curve number definitions & assumptions (to avoid hydrocad games)
    - Include the "why" for the individual standard requirements for the developer and resident to understand
    - Simplified explanation of each specific rule that is understood by regular people
    - Include indicators that these standards are working
- For education/outreach: What flexibility do we have in rules
    - Also have buffer averaging

    - Regional treatment
    - MIDS in diversion drainage
    - HOW you meet (various ways like decompaction, erosion control types are not all same expense)
- Consistency – coordinate language and approach with neighboring watersheds and cities
- Consider what benefits the rule has for the resource and if that protection is there for a lesser requirement
- More stringent that state standard – prove benefit to the resource or allow more flexibility
    - Meet full rule versus less than but adequate
- Need to be aware of setting precedents
- Allow staff / engineers to provide flexibility in certain circumstances without variance
    - Interpretation flexibility – process to allow consensus *
        - Stormwater / engineering rules that allow benefit to the resources breaking down overly prescribed / prescriptive rules *
- Higher level of engineering review? Frequency? Could add complexity
- MIDS (like VBWD) – Staff availability + staff authority + District wide connecting
    - MIDS in general and MIDS+ for sensitive features (addressing need may require greater than 1.1 inch
    - Treatment flex per MIDS – watershed district wide (alt treatment standard for trout stream and landlocked)
- Staff availability and authority (private & public) collaboration on higher level of watershed*
- Communicate and potentially expand Admin approval
- Additional things / processes that go through a quicker review
- Review other watershed district rules for flexibility options
- Flexibility between different watersheds
- Cost flexibility for different types of projects for permits
    - Cost flexibility – less expensive for certain types of projects
- Interpretation flexibility if the engineers don't agree on the interpretation of rules; is there a process that can be implemented to facilitate healthy solutions
- Easier permitting for sites that can demonstrate clear stormwater disconnect
- Clear demonstration of stormwater; topography does not make it to resource
- Reduction in fees if treatment exceeds a certain threshold
- Permit threshold review fees in lieu
- Rate of water flow; taking a higher overview of water from a larger perspective
    - De minimis (a legal doctrine by which a court refuses to consider trifling matters)*
- For sites that drain in multiple directions, apply rate control & water quality protection to the overall site not necessarily on a subdrainage drainage basis. Particularly if overall discharge is less post development and dnst (?) properties are not impacted
- Justification of changes in real time versus designed plans *
- Evaluating old design capacity and creating projects to incorporate new design capacity
- *When getting rule comparison data…also ask what flexibility others feel they have in rules, how many permits they issue per year, what variances they have given in past x years, what regional treatment options…looking at cities/county appeal process (Jay says cities have to appeals process)*

*identified as priorities in group

Request additional information or clarification from partners and have staff explore issue and get more information (cost, time commitment, etc)

1. Regarding Recommendation:

Allow regional solutions

Strategies:

- Review how other watershed districts (and State partners) support regional solutions and identify opportunities for BCWD – *this may require a rules change*

Tied into "what does flexibility mean to you?"

*BCWD does offer opportunities for regional solutions / treatments; utilize outreach / information strategies to communicate this and including this in future partner meetings

- Is the flexibility we offer good, and people just don't know about it OR is there a different flexibility / regional solution wanted?
- Monitor future feedback on this to determine if rules or process changes are needed

What regional solutions are you looking for? Wetland banking? Larger stormwater management facilities?

- Regional solutions summit / planning with LGUs
- Survey developers for ideas
- Work with local land use authorities
- Collaborative effort – how can planning be accomplished together; looking into broader area
- Chicken and egg game – how to streamline the process so all who should be involved are?
- City or township has a plan; approved by watershed district
    - Watershed district encouraging and support
- Task Washington County to build master plan for watershed subareas – then developers can work into prelim plan
- Map existing regional solutions
- Increase cohesiveness of previously approved regional solutions
    - Website
    - Signage
- Stillwater Milbrook Development has been a great success –
    - "I've found no overflow to Browns Creek or Carnelian Watershed District"
- Review historic experience of Cub / Walmart development
    - 1st class como after rigid rules failed politically
- Map out and protect / predefine lands for regional solutions
    - Develop regional methodology
- Increase awareness of regional stormwater approaches
- Provide list of recommended ideas – perhaps location specific
- Allow native habitat creation as a solution to volume control
- Prepare outreach to prevent NIMBY-ism
- Not understanding how the regional solutions impact large areas
- Watershed purchase the land for the stormwater BMP (regional) in advance
- Future of planning based upon 50 year
    - Buying land before; capital project; area needs bond; imminent domain, already in place
- Folks do cash in lieu to pay in for areas already on a regional system

    - This is a great option but shouldn't be used when great treatment on site exists
    - Communications issue: some people feel like that is extortion
- Prioritize and reward regional solutions - 2
- Overlay of where in the watershed regional solutions already exist
    - Storymap to click, see, pursue
- Diversion drainage
- Wetland banking –
    - Timed out; consistent regional solutions & honoring
    - Expensive – site is developable; other options for creative solutions

2. Regarding Recommendation:

Review the current appeals process and assess opportunities to improve the process, timeline, and communication; ensure that applicants are provided with information on the appeals process

There is not appeals process

What do you want to appeal, when, and why?
What needs to be fixed?

- Approach from a position of partnership
- Be consistent with other appeals processes of other kinds of LGUs
- Get ahead of appeals
    - Early coordination
    - Purposeful communication
    - Co-decision
- If working together, appeals aren't needed
- An appeal aims at doing something not allowed – current process is ok
- When there are clashes between attorney and/or between engineers – how do we have a conversation that isn't always "our guy is right?"
- What happens when a permit is denied? Can an applicant reapply?
- Who is being appealed to? The engineers who don't agree? The board? Attorneys? At what point in the process?
- Can a third party be brought in?
- Developers to share w/ board – more discussion
- Zoning - appeal decision – appeal meeting
    - Planning + town board
    - Discrepancy between parties
        - Made decision
        - Appeal
        - Reasoning entered into at a different meeting
    - Land use, engineers
- Staff level or board
- Watershed district – 60 days or 120 days rarely deny – disconnect between board
    - Work with applicants
- Variance requests or what process are in place

- Process/Education- discussion to board is possible if engineers don't agree on interpretation of rules or how to meet

Request additional information or clarification from partners and then include in WMP process

1. Regarding Recommendation:

Host ongoing engineering workshops / meetings

Strategies:

- Initial facilitated conversation / focus group

Ongoing discussions / training

Additional ideas:

Continuing ED? Opportunities to meet staff and learn about rules, processes, expectations, obligations, and opportunities *and provide feedback – could this be done regionally (EMWREP)*

Lunch and learns, virtual sessions, breakfasts

Incentivize their participation

Is there value in this? Do the partners support it? Someone has to pay for engineers to attend, so would the partners support sending their engineers?

- The best people to ask this question are (maybe) not in the room
- Other ideas for increasing outreach opportunities & committee membership / participation

2. Regarding Recommendation:

Increase outreach opportunities

Strategies:

- Inventory where touchpoints are and look for opportunities to share BWCD info - city billing inserts, realtor communication
- Create information cards or standard language (for documents / websites) for other permitting LGUs to provide to applicants
- Schedule consistent meetings with partners – city-county partner meetings, city coordination meetings, partner meetings – determine a schedule that is do-able and set expectation
- Opportunities for developers and/or contractors to meet staff and learn about rules, processes, expectations, obligations, opportunities – lunch and learns, virtual sessions, breakfasts

Additional ideas:

- Continuing Ed? Opportunities to meet staff and learn about rules, processes, expectations, obligations, and opportunities and provide feedback – could this be done regionally (EMWREP)?
- Lunch and learn, virtual sessions, breakfasts
- Incentivize their participation

What are you interested in? What activities are you most likely to attend?

- Participatory planning + rule making = invite us back at change moments
- Outside of BCWD
    - Met Council's subregional engagement process may be a good additional venue
- Water consortium already does this to some extent; get us back in the room again (how do you get developers' engineers in the room?)

- Flowcharts could be helpful for communication ("dichotomous key"). Flowcharts are useful, but could that end up complicating?
    - Examples:
        - Regs A, B, C
            - Reg B – Options to Achieve Pre Approval (1., 2., 3., 4., etc)
                - If not, not approved or variance required
        - Starting point questions
            - If yes, continue to (permit app or other step) ---- etc
            - If no, revisit x, y, or z ---- verify function ---- back to s

3. Regarding Recommendation:

Committee membership

Strategies:

- Provide opportunities for developers, contractors, and the regulatory audience to participate in the District
    - This could include Board, CAC, and/or TAC appointments, inviting them to information sessions with members of the above groups, and staff presenting at meetings where business leaders are present
- Provide opportunity for this group to identify ways that want to participate

Additional Note: Integrate them and don't leave them on an island

What kind of involvement are you looking for? Would you be willing and interested in participating? What would you be willing to do?

- Committee Membership
    - Engineers – private entities; watershed district(s) to hire full time engineers, show up to meetings
    - What's the motive of each party involved
    - Public notice for all to allow time to communicate w/ Board or people
    - Boards and leaders – technical experts; generalist leaders – strategic direction; allow for more people to participate
    - When asking for more specific feedback, provide questions in advance
    - Hold meetings at different times to accommodate various schedules
- Continued Involvement / Engagement
    - People show up when they are mad about something
    - Meet w/ cities fairly often (quarterly, sometimes want less)
    - Relationship building between meetings (CLFLWD)
    - Board members to attend city/township council meetings (at least once per year)
    - Staff liaisons – help determine which meeting(s) to attend – look at agenda
    - Diversity of people in the room makes more valuable discussions
- Close the loop – build trust, build understanding
- Make collaborative efforts focused
- IAP2 – International Association for Public Participation (www.iap2.org)
- Quick survey to those who didn't attend asking why not? Would they still like to be included? Bad timing? Not applicable? Feels pointless? Invite back when change opportunities?

Appendix 3
Defining Simple

The icebreaker at the facilitated partner meeting was designed to demonstrate that using single words, like simple, to provide direction on complex issues provided very little benefit to decision makers. The activity also showed that people meant many different things even though they are using the same word. Participants were asked to share what "simple" means or what they mean when they use it.

"Simple" was the word selected for the activity, because the word and its variations are frequently used to provide direction for the BCWD rules and regulatory program. Seventy-eight responses were offered; many of the responses were unique.

During the wrap-up of the icebreaker, participants were encouraged to focus on providing detailed feedback and specific strategies they wanted the Board to consider.

Defining SIMPLE

- Easy - 4
    - Easy to perform, enact, do
    - Easily done
    - Easy to implement
    - Easy to achieve or understand
    - To explain
- Not complicated / uncomplicated- 5
- Easily understood / easy to understand / understandable- 13
    - Understandable to all -2
    - Easily understood at all knowledge levels
- Plain language
- Concise
- Not hard
- Quick – 2
    - quickest
    - Fast
- Practical
- Clear Language
    - Clear definitions
    - Clearly defined terms / rules that don't encourage discussion
- Nothing more than what is essential
- Can be described within one paragraph
- Efficient – 5
- Effective
- To the point
- Straightforward - 2
- Predictable

- General - 2
- Basic
- Minimal details
- Not specific -2
- Transparent
- Opposite of complex
- Down to essentials
- Least number of steps
    - Most direct way
    - Minimal steps
- Instinctual
- Flexible
- Conservative
- Economical
- Not targeted
- Not unduly burdensome
- Doesn't require technical expertise
- Planned, local input, qualified implementors
- MIDS; MIDS + for cold water fisheries and landlocked basins (so not totally simple…)
- Captured above, "something that is efficient and easily understood by all."
- Process
- Question someone added:
    - For who? How to serve the resource?
    - Feedback

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

VIA EMAIL

May 15, 2025

Ted Kozlowski, Mayor
tkozlowski@stillwatermn.gov
City of Stillwater
216 North Fourth Street
Stillwater, MN 55082

Re. Marketplace reuse project

Mayor Kozlowski,

At the April 9, 2025, meeting of the Brown's Creek Watershed District the board of managers conditionally approved the City of Stillwater's application for a permit for a parking lot, sidewalk and driveways at St. Croix Valley Recreation Center. Because the rec center is within the emergency response area for Stillwater's drinking-water well number 10, the city could not utilize infiltration to meet BCWD's stormwater-management requirements. Instead the city will install alternative treatment devices that provide significantly less stormwater-volume control than would be achieved if infiltration were allowed.

City staff explored options for storage and reuse of stormwater for irrigation on the rec center property, but such a system proved infeasible.

BCWD has taken steps to assess the feasibility of a regional stormwater-reuse system utilizing greenspace within the Marketplace area of Stillwater for irrigation. Stormwater for such a system would be collected by a central system, presumably to be constructed by BCWD, from properties within the region. Applicants for BCWD permits would be able to utilize the system to meet stormwater volume-control requirements, which would help conserve water quality in downstream Long Lake.

While the city's stormwater-management system for the rec center project met the applicable BCWD requirements, I wanted to note for you the shortfall from treatment standards and ask the city to commit to support BCWD's development of the Marketplace regional reuse project. With the city as anchor participant, BCWD could move forward with feasibility studies and design, confident that it had a capable partner on board.

BCWD and the city both have an interest in protecting and preserving Long Lake, reducing water consumption; a regional reuse system could also provide potential water quality solutions and

opportunities for private development and redevelopment in the Stillwater commercial area surrounding Market Place. A regional reuse project could be an effective approach if both agencies work together. For instance, there might be incentives for new private development to utilize a regional system and make a financial contribution to offset expenses incurred by the partnership.

Thank you for your consideration of the idea. Karen Kill, BCWD's administrator, will follow up with city staff to explore next steps in developing the project, but in the meantime, I'd be glad to informally discuss the concept with you by phone (651-275-1875) or in person.

Sincerely,

Klayton Eckles, President

c/ Joe Kohlmann, Administrator; Shawn Sanders, Assistant City Administrator (via email)

Project Name |	BCWD Permit 25-03 Lakeview Hospital	**Date** |	05/12/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Trevor Gruys, PE / Loucks, Inc.		
Cc / Contact info |	Karen Kill, Administrator / BCWD		
From / Contact info |	Camilla Correll, PE; Stu Grubb, PG; Paul Nation; Julia Lau, EIT; John Sarafolean / EOR		
Regarding |	Permit Application No. 25-03 Engineer's Report		

The following review was prepared for purposes of the engineer's recommendation to the Board of Managers for its determination of the permit application.

Applicant: HealthPartners
Permit Submittal Date: *4/29/2025*
Completeness Determination: *4/29/2025*
Board Action Required By: *06/28/2025*
Review based on BCWD Rules effective April 1, 2020
Recommendation: Approve with Conditions

GENERAL COMMENTS

Health Partners has applied for a BCWD permit for the Lakeview Hospital project on four parcels north of Trunk Highway 36 and east of Manning Ave N, encompassing a total of 66 acres.

Existing Conditions: The existing project area includes a commercial building, laydown yard, and dirt roads, with five Manage 2 wetlands (see Figure 2). The total existing impervious area is 6.43 acres. There are three discharge points from the existing site, all of which flow to Long Lake. The majority of the site,62.34 acres, flows toward Wetland 2 where the discharge flows north, directly to Long Lake. One 0.76-acre subcatchment discharges west, directly to the storm sewer on Manning Ave N, and the remaining 2.92 acres on the northwest corner of the site discharge to the ditch on 62nd Street N.

Proposed Conditions: The applicant proposes to construct a hospital building, a parking lot, and bituminous roadway and trail, reconstruct an existing, bituminous roadway, a bituminous trail, and will establish a 4.45-acre prairie, and stormwater management facilities (Figure 1). The City of Stillwater is requiring a zoning amendment and a conditional use permit for the project. Two of the five wetlands onsite will be impacted by the development; Wetland 5 will be filled, and Wetland 3 will be partially filled. The drainage area for Manning discharge point will be decreased to 0.07 acres and the 62nd will be decreased to 0.11 acres, where the remaining area is redirected toward Wetland 2. The general flow paths for the rest of the site will remain unchanged (Figure 2, which includes information on wetland size). The project will disturb 49 acres and result in the construction of 18.99 acres of impervious surface, including 1.02 acres of redeveloped linear impervious surface.

Recommendation: The BCWD engineer recommends that the board approve the application with the conditions and stipulations outlined in the report.

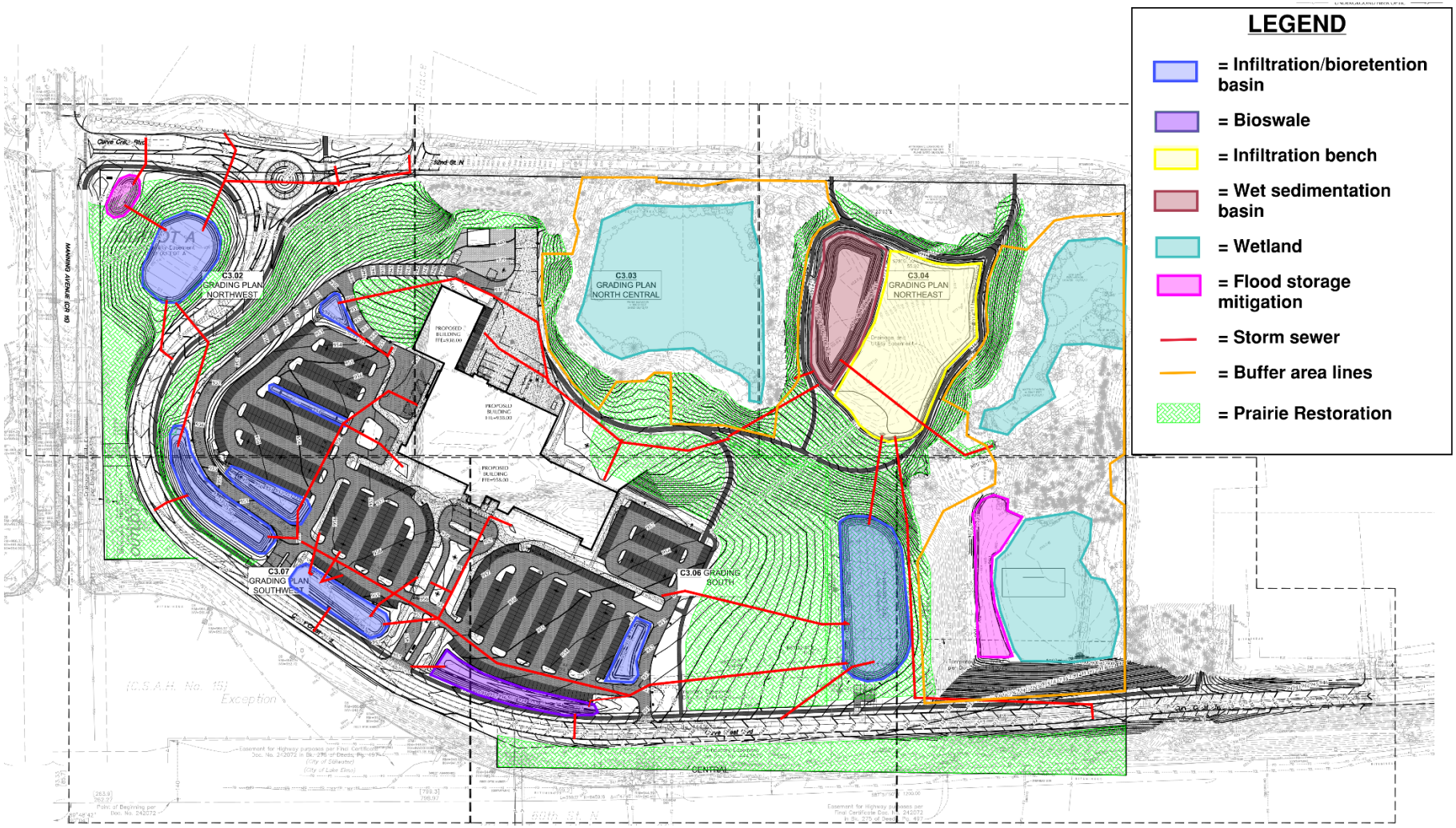


Figure 1: Site Plan

Figure 2: Site Drainage Pattern

Rule 2.0—STORMWATER MANAGEMENT

The proposed project triggers the application of Rule 2.0 Stormwater Management because it creates one or more acres of new and/or reconstructed impervious surface (paragraph 2.2(b)). The site is located within the Diversion Structure Subwatershed, so the stormwater criteria in subsection 2.4.1(b) apply.

The stormwater management plan for the project includes:

- *Six infiltration/bioretention basins*
- *Two lined biofiltration basins*
- *One wet pond with an infiltration bench*
- *One bioswale*
- *Six proprietary stormwater pretreatment devices structures to act as pre-treatment for the proposed infiltration/bioretention basins*
- *Twenty-six sump structures to act as pre-treatment for the proposed infiltration/bioretention basins*
- *Prairie restoration which reduces stormwater runoff by restoring soil health (i.e. decompaction to a minimum depth of 12 inches and incorporation of three inches of compost into the soil and the planting of native vegetation) and allowing for a lower curve number in the HydroCAD model.*

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

The stormwater management plan developed for the site was evaluated using a HydroCAD model of existing and post-development site conditions. A comparison of the modeled peak flow rates for each discharge point is included in Table 1. All discharge points show a decrease in rate in the modeling results submitted by the applicant.

Table 1 - Peak Runoff Rates at Each Discharge Point

Discharge Point		*2-year (2.80")*	*10-year (4.17")*	*100-year (7.23")*
Manning	Existing (cfs)	2.35	3.84	7.19
	Proposed (cfs)	0.20	0.33	0.63
62nd	Existing (cfs)	1.94	2.95	6.05
	Proposed (cfs)	0.07	0.10	0.18
Wetland 2	Existing (cfs)	21.23	43.44	119.44
	Proposed (cfs)	20.91	38.86	116.22

Volume Control

According to BCWD Rule 2.4.1(b)(ii), 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 Met

To meet the BCWD volume control requirement the applicant proposes six infiltration/bioretention basins, an infiltration bench east of the wet pond, and restoration of a prairie. Geotechnical analysis (soil borings, test pits, and hydrometer analyses) confirmed the presence of sandier materials and supports the infiltration rates used for the infiltration/bioretention basins and the infiltration bench. A groundwater mounding analysis confirms that the volume of stormwater runoff being infiltrated in this facility will not interfere with the performance of the basin. Minor modifications to the construction plan details are required to facilitate the construction of these BMPs as designed. A summary of the required stormater volume is included in Table 2a, and a summary of the stormwater volume being provided by BMP is provided in Table 2b.

Table 2a - Discharge Volume

Impervious Surface Area (acres)	*Required Volume (cf)*	*Provided Volume (cf)*
18.99	75,827	76,730

Table 2b. Summary of Volume Control by BMP

BMP	*Provided Volume (cf)*
One (1) Infiltration Basin (Bench) (Pond 10)	59,112
Six (6) Biofiltration/Infiltration Basins (Ponds 1, 2, 3, 4, 5, 6)	15,573
Prairie Restoration (Buffer Side Slopes, Wetlands 2, 3, 4)	2,045
TOTAL	**76,730**

Infiltration Pretreatment

According to BCWD Rule 2.5.2, surface flows to infiltration facilities must be pretreated for long-term removal of at least 50 percent of sediment loads.

☒ Rule Requirement Met

There are six infiltration/bioretention BMPs and an infiltration bench, all of which require pretreatment for runoff directed to these facilities.

All of the stormwater runoff will be routed to the infiltration bench. As stormwater runoff makes its way to the infiltration bench, it travels through a series of smaller best management practices, where it is treated along the way (i.e., a treatment train approach). Rain Guardians and storm sewer manhole sump structures will be used as pre-treatment for infiltration/bioretention basins upstream in the treatment train. The applicant submitted total suspended solids (TSS) inflow loading with Minimal Impact Design Standards modeling and TSS pretreatment reduction using software for Sizing

Hydrodynamic Separators and Manholes (SHSAM),, demonstrating compliance with Rule 2.5.2. The pretreatment requirement is met with more than 50 percent reduction in each basin, as shown in Table 3.

Table 3 - Infiltration Basin Pretreatment

Basin	*Pretreatment Practices*	*TSS Inflow Loading (lb/yr)*	*TSS Pretreatment Reduction (%)*
1	7 sumps	1070.70	50.90
2	1 Rain Guardian, 1 sump	286.76	62.50
3	1 Rain Guardian, 1 sump	128.97	62.71
4	2 Rain Guardians	591.30	72.24
5	4 sumps	460.91	53.56
6	6 sumps	917.90	51.42
10	Sedimentation Basin, 1 CDS Structure	3036.25	75.99

Lake/Wetland Bounce

According to BCWD Rule 2.4.1(b)(iii), an applicant must submit a stormwater-management plan providing no increase in 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

The five wetlands onsite receive runoff from the site. A HydroCAD model was provided to demonstrate compliance with Rule 2.4.1(b)(iii). As shown in Table 4, the proposed stormwater-management plan meets BCWD wetland bounce requirements because the high-water level in each wetland either decreases or stays the same for the 2-, 10-, and 100-year storms. Comparison of the hydrographs in Table 5 demonstrates that the period of inundation at each wetland decreases.

Table 4 - Downstream Wetland High Water Levels (ft)

		2-year		*10-year*		*100-year*	
Waterbody	*Management Category*	*Pre-development*	*Proposed*	*Pre-development*	*Proposed*	*Pre-development*	*Proposed*
Wetland 1	2	907.72	905.60	908.08	907.27	908.90	908.05
Wetland 2	2	900.38	900.37	901.22	901.08	903.19	903.12
Wetland 3	2	900.38	900.37	901.23	901.09	903.20	903.12
Wetland 4	2	920.90	920.75	921.16	920.94	921.70	921.31
Wetland 5	2	971.41	Filled	971.64	Filled	972.14	Filled

Table 5 - Downstream Wetland Inundation Period (hours)

		2-year		*10-year*		*100-year*	
Waterbody	***Management Category***	***Pre-development***	***Proposed***	***Pre-development***	***Proposed***	***Pre-development***	***Proposed***
Wetland 1	2	501.0	253.0	504.0	455.0	506.5	501.5
Wetland 2	2	453.5	452.5	462.0	461.0	464.0	462.5
Wetland 3	2	231.0	230.0	239.5	238.0	241.0	240.0
Wetland 4	2	4.5	1.5	6.5	11.0	9.0	14.5
Wetland 5	2	86.5	Filled	90.5	Filled	92.0	Filled

Rule 2.0 Conditions:

2-1. Provide BCWD with the final Civil Plan Set prior to start of construction. (BCWD 2.7.9)

2-2. Provide a stormwater facility maintenance declaration in a form acceptable to the District and proof of recordation with Washington County. A template is available under the permit section of the District's website. The maintenance declaration must be recorded on the deed to the site after a draft is approved by the District (BCWD Rule 2.6).

2-3. Provide documentation as to the status of a National Pollutant Discharge Elimination System stormwater permit for the project from the Minnesota pollution Control Agency and provide the storm water pollution prevention plan as it becomes available (BCWD Rule 2.7.15).

2-4. Update the Sedimentation/bioretention basin10 plan view detail to correctly portray that the stormwater facility is a sedimentation/infiltration basin.

2-5. Add a note to the sedimentation/infiltration basin 10 plan view detail that states that the soils in the area of sedimentation/infiltration basin 10 cannot be over-excavated and removed.

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 of land altering activities will disturb 49 acres*.

☒ Rule Requirements Met with Conditions

The erosion and sediment control plan includes:

- *Construction entrance/exits*
- *Silt fence (standard & heavy duty) perimeter control*
- *Sediment control logs4*
- *Inlet protection*
- *Rip rap at pipe outlets*

- *Erosion control blanket*
- *Tree protection fencing*
- *Temporary sedimentation basin & dewatering device*
- *Temporary stabilization and seeding measures*
- *Prefabricated concrete washout facility*
- *Permanent landscaping/restoration plan*

The following conditions must be addressed in the erosion and sediment control plan to comply with the District's requirements:

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. Provide the District with contact information for the Erosion Control Supervisor and the construction schedule when available (BCWD 3.3.2).

3-2. Add a detail for tree planting on slopes, trees should be planted on a level shelf.

3-3. Include/note the specific seed mixes on the plan set.

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 Requirements Met with Conditions

Rule 4.0 applies to the site because the property is being subdivided to a new primary use for which rezoning and a conditional use permit is required and there are wetlands greater than 1 acre on the property (4.2.1). There are a total of five wetlands onsite. Fifty-foot buffers will be created around wetlands 2, 3, and 4 as they are all larger than one acre and categorized as Manage 2. Wetland 1 is smaller than an acre and Wetland 5 is being filled in for construction of the Curve Crest Boulevard. The buffers for wetlands 2, 3, and 4 all encounter steep slope conditions of over 12% and have been extended to the top of the steep slopes, as shown in green in Figure 3 below.

Figure 3: Extended Wetland Buffers in Steep Slope Conditions

Under Rule 4.4.1, at the time a buffer is created under Rule 4.0, the District may require a planting or landscaping plan to establish adequate native vegetative cover for area that (a) has vegetation composed more than 30 percent of undesirable plant species (including, but not limited to reed canary grass, common buckthorn, purple loosestrife, leafy spurge, bull thistle, or other noxious weeds); or (b) consists more than 10 percent of bare or disturbed soil or turf grass.

A buffer assessment and restoration plan has been submitted for wetlands 2, 3, and 4. Steep slope areas that were not accounted for at the time of the creation of the restoration plan will need to be assessed and added to the restoration plan.

Under Rule 4.2.3, a buffer must be indicated by permanent, free-standing markers at the buffer's upland edge and no more than an interval of 200 feet, with a design and text approved by District staff.

1. Label sign "Wetland Buffer Zone" rather than "Watershed Buffer Zone".
2. Change white lettering to a darker color for legibility.

Rule 4.0 Conditions:

4-1. Provide a buffer declaration in a form acceptable to the District and proof of recordation with Washington County. A template is available under the permit section of the District's website. The buffer declaration must be recorded with the County after a draft is approved by the District (BCWD Rule 4.2.2).

4-2. Submit a revised buffer monumentation design for review.

4-3. The buffer assessment and vegetation management plan needs to be updated with the revised steep slope buffer areas of the latest plan set that were not accounted for in the previous submittal.

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. The proposed filling of wetland 3 onsite will disturb the natural shoreline of the wetland below the ordinary high-water mark, triggering Rule 5.0.

☒ Rule Requirements Met with Conditions

Because the applicant is proposing a bioengineered shoreline for wetland 3, the project design must meet the criteria in subsection 5.3, bioengineering techniques must be used to the extent possible under the following criteria.

5.3.1 The resultant project must be structurally stable. Special emphasis will be given to the stability of the toe of slope where traditional engineering techniques may be more appropriate.

5.3.2 Native vegetation must be used in all cases. Preferable species include those that form dense root systems or can be planted from cuttings.

5.3.3 Bioengineering projects must include a long-term maintenance plan that will ensure that small erosion spots are corrected and native plant materials are successful.

The applicant has provided construction plans that meet the requirements of 5.3.1 and 5.3.2. A native seed mix designed for shoreline restorations with quick establishment times will be established along the disturbed wetland edge up to the proposed road grade. Native trees and shrubs are also being utilized on the shoreline slope for added stabilization.

Rule 5.0 Conditions:

5-1. Provide documentation of inspections and draft maintenance declaration followed by recordation requirement of the shoreline restoration until establishment to ensure satisfaction of BCWD Rule 5.3.3.

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

According to Rule 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 Because the applicant is proposing to fill wetland 5 entirely and wetland 3 in part, i.e., fill land below the 100-year flood elevation of both, Rule 7.0 applies to the project.

According to Rule 7.3.1, floodplain filling must be accompanied by a replacement of flood volume between the ordinary water level and the 100-year flood elevation.

The applicant is proposing to completely fill Wetland 5 and partially fill Wetland 3.Replacement flood storage for Wetland 5 is provided by a small depression upstream of Basin 1between the ordinary water level and the 100-year flood elevation of Wetland 5, exceeding the required replacement storage. Replacement flood storage for Wetland 3 is proposed to be provided by excavating storage along the west side of the wetland between the ordinary water level and the 100-year flood elevation of Wetland 3. Replacement storage volumes for the two basins are shown below in Table 6.

Table 6 – Floodplain Replacement Storage (cf)

	Fill Volume	***Replacement Storage***	***Excess Storage Provided***
Wetland 3	15,431	20,976	5,545
Wetland 5	4,524	12,632	8,108

According to 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 natural overflow of a waterbody; and at least two feet above the 100-year high water elevation of any open stormwater conveyance; and at least two feet above the 100-year high water elevation or one foot above the emergency overflow (EOF) of a constructed basin.

The 100-year high water elevations, EOFs, and lowest adjacent building elevations were evaluated and meet the District's low floor requirement as shown in Table 6. All stormwater BMPs were evaluated for their adjacency to the hospital building. Specifically, BMP location, proximity, and flood routing were evaluated and it has been determined that Wetland 4 is the only adjacent waterbody that needs to be evaluated for freeboard.

Table 6 - Freeboard Requirement Summary

Waterbody	***Natural Overflow***	***100-Year HWL***	***Allowable Basement Floor***	***Lowest Proposed Basement Floor***
Wetland 4	920.9'	921.2'	923.2'	938.0

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 boundaries as a result of the project. The proposed project will result in a reduction of the stormwater runoff rates and volumes at all discharge points for the 2-, 10-, and 100-year 24-hour rain events. For the 100-year, 24-hour rain event, the runoff volume from the site to Long Lake is reduced by 2.93 ac-ft from existing conditions. .

Rule 8.0—FEES

Fees for this project as outlined below:

1. Stormwater management fee	$3,000
2. Erosion control fee for grading	$2,000
3. Shoreline and streambank alterations fee	$1,500
4. Floodplain and drainage alterations fee	$500
▪ **TOTAL FEES**	**$7,000**

Rule 9.0—FINANCIAL ASSURANCES

Financial assurances for this project are as outlined below:

1. Grading or Alteration (48.70 acres disturbed x $2,000/acre)	$97,400
2. Stormwater Management Facilities (125% of facility cost ($2,402,080))	$3,002,600
▪ **TOTAL FINANCIAL ASSURANCES ($5,000 Minimum Performance Financial Assurance)**	$3,100,000

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 the 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.

☐ Rule Not Applicable to Permit. *There are no requested variances.*

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. Demonstrate that the plan has received preliminary plat approval (BCWD Rule 1.3a).
2. Demonstrate that the plan has completed the Wetland Conservation Act approval process (BCWD Rule 1.3)

3. Address all stormwater management requirements (Conditions 2-1 to 2-5).
4. Address all erosion control requirements (Conditions 3-1 to 3-3).
5. Address all buffer requirements (Conditions 4-1 to 4-3).
6. Address all shoreline and streambank alteration requirements (Condition 5-1).
7. Replenish the Permit fee deposit to $36,500 (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 will be deemed abandoned and all prior approvals will be revoked and collection proceedings will begin on unpaid balances.
8. Provide the required financial assurances (BCWD Rule 9.0):
    a. Total grading or alteration assurance 48.7 acres ($97,400).
    b. Stormwater management facilities assurance ($3,100,000).

STIPULATIONS OF APPROVAL:

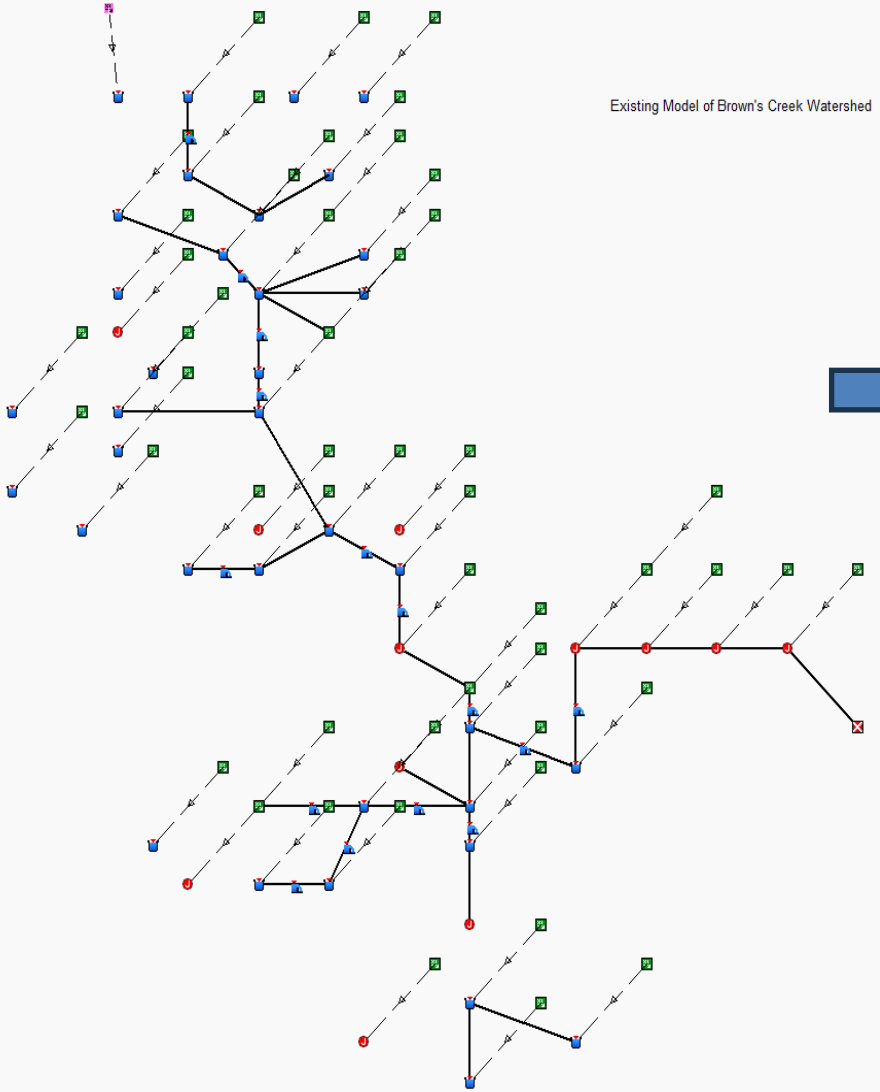
1. Note that the permit, if issued, will require that the applicant notify the District in writing at least three business days prior to commencing land disturbance. (BCWD Rule 3.3.1)
2. To ensure that construction is carried out according to the approved plan, provide verification that construction standards have been met for all infiltration basins and pretreatment swales. This includes but is not limited to confirmation that infiltration basin sub-cut reaches soil material reflected in the geotechnical report and that the vegetation establishment procedures have been followed per the landscaping/restoration plan. This can be achieved by scheduling a BCWD inspection during the excavation of the basins, independent geotechnical engineer observation and note of confirmation, or well-documented photographic evidence by the onsite engineer along with collected survey elevations of the basins.
3. Provide the District with As-built record drawings showing that the completed grading and stormwater facilities conform to the grading plan.
4. Provide the District with proof, such as photographic documentation, of de-compaction and incorporation of compost for all disturbed soils.
5. Provide contact information for the party responsible for long-term maintenance of proposed stormwater facilities.

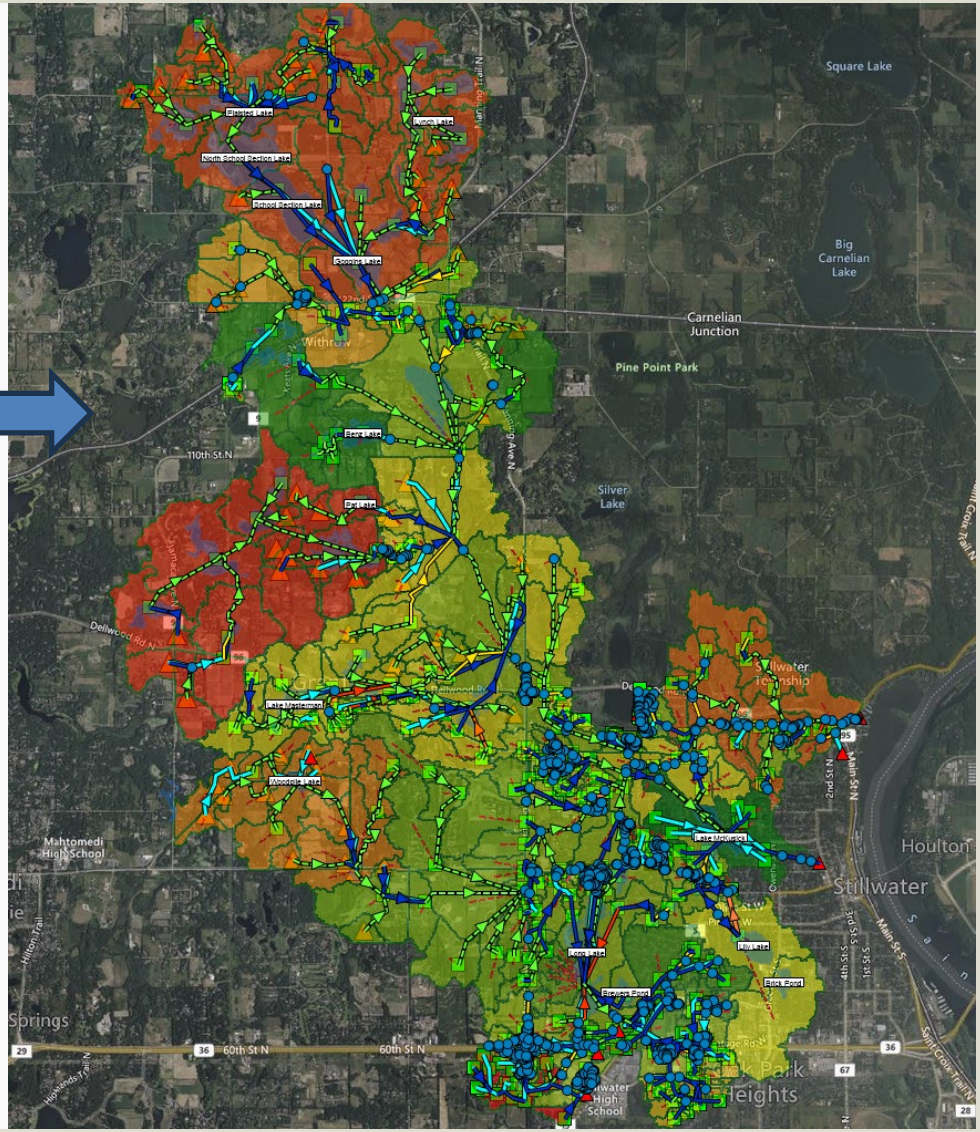
BCWD Watershed Board Meeting April 9, 2025

BCWD H&H Model Update

1. Model Update History
2. Project Scope/Update Overview
3. Model Update Benefits
4. Calibration and Validation Process & Results
5. BCWD Rainfall History and Future Climate Forecast
6. Floodplain Footprints
7. Recommendations & Next Steps

- 1999 H&H (46 subcatchments)
  - paper maps, 10’ topo, limited culvert information
- 2004 H&H Update (345 subcatchments)
  - 2’ topography & Minn. Landcover Classification System
  - Calibration of seventeen DNR waterbodies (BCWD “Lakes”)
  - 100-Year Event = 5.9” -Basis for 2010 FEMA Flood Insurance Studies
  - Landlocked basin policy
- 2015 H&H Update (380 subcatchments)
  - 2011 LiDAR topography & GIS “trained” impervious areas
  - Calibration of DNR waterbodies & Brown’s Creek
  - “Atlas 14” 100-Year Event = 7.2” with greater rainfall intensity
  - Average of +0.5-foot 100-year water level increase

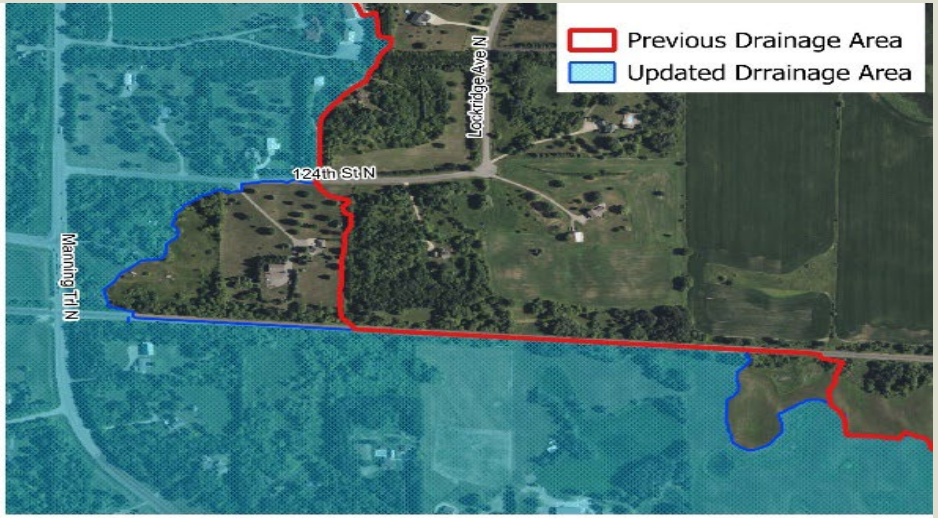

Existing Model of Brown's Creek Watershed


Square Lake
Big Carnelian Lake
Carnelian Junction
Pine Point Park
Silver Lake
Withrow
110th St N
Dellwood Rd N
Mahtomedi High School
Houlton
Stillwater
Springs
60th St N
Park Heights

2025 H&H Update - Phased approach based on data availability:

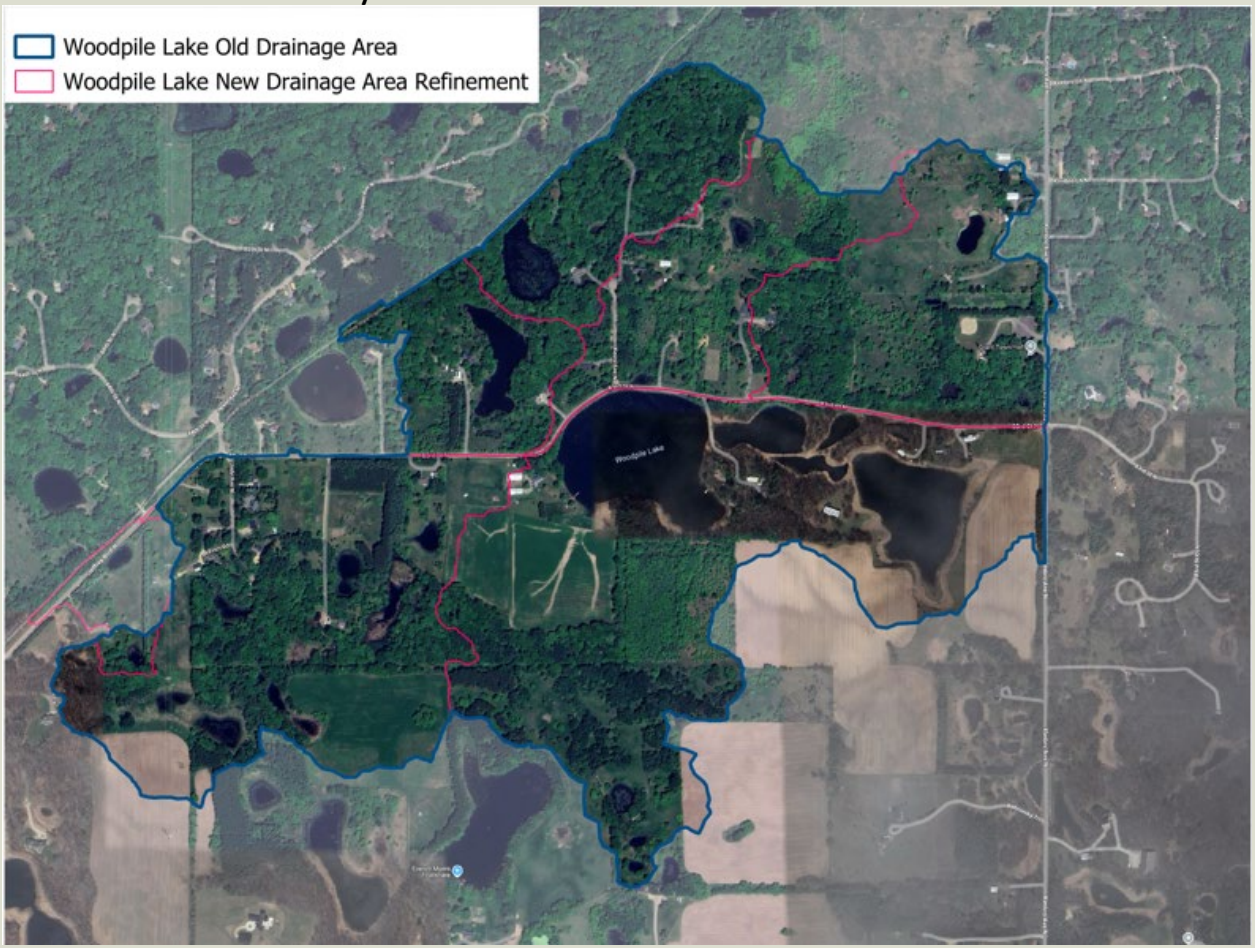
- Updated climatology & precipitation data (NEXRAD Radar)
- Model hydraulics updated from 34 permits
- Topography Update (2022 LiDAR):
  - 621 subcatchment boundaries refined
  - 568 pond/depression/wetland storage
  - Overflow location/elevation, flow paths
  - More accurate accounting of flood storage in the landscape
- Updated land cover (2016 U of M 1-meter resolution)
- Calibration & validation for lakes and Brown's Creek
- Model design storm event simulations (2-year, 10-year, 100-year)
- 100-year flood mapping:
  - 7.2" Rainfall
  - 9.5" Rainfall - Upper bound 90% confidence interval

1. Refine Watershed Hydrologic Boundaries



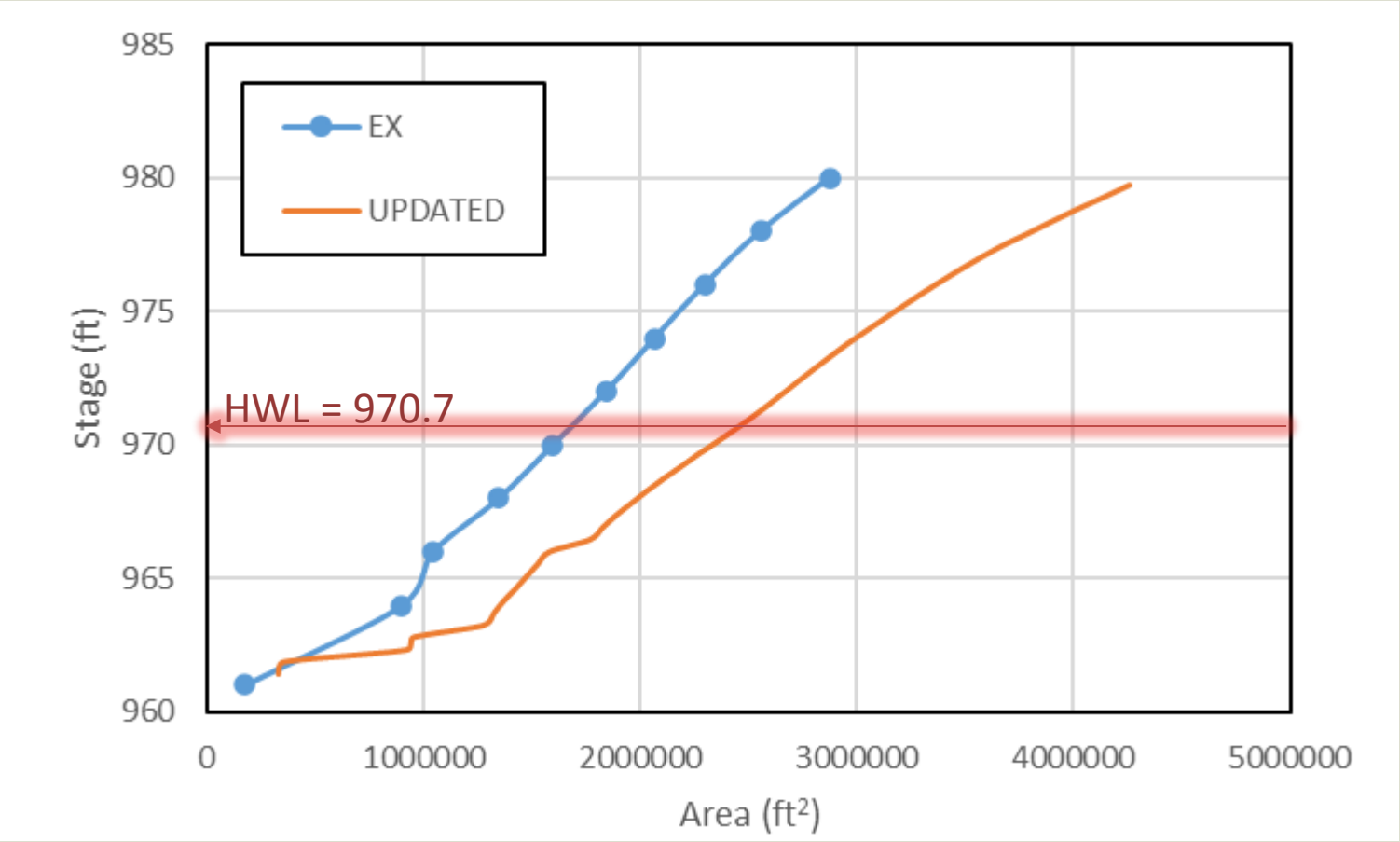
2. Refined Subcatchments

- Accounts for natural depressional storage in the landscape
- Informs of areas that normally hold water back from lakes



2. More Accurate Basin Storage

- Woodpile Lake (Landlocked)
- Improves lake calibration for more accurate high water level predictions

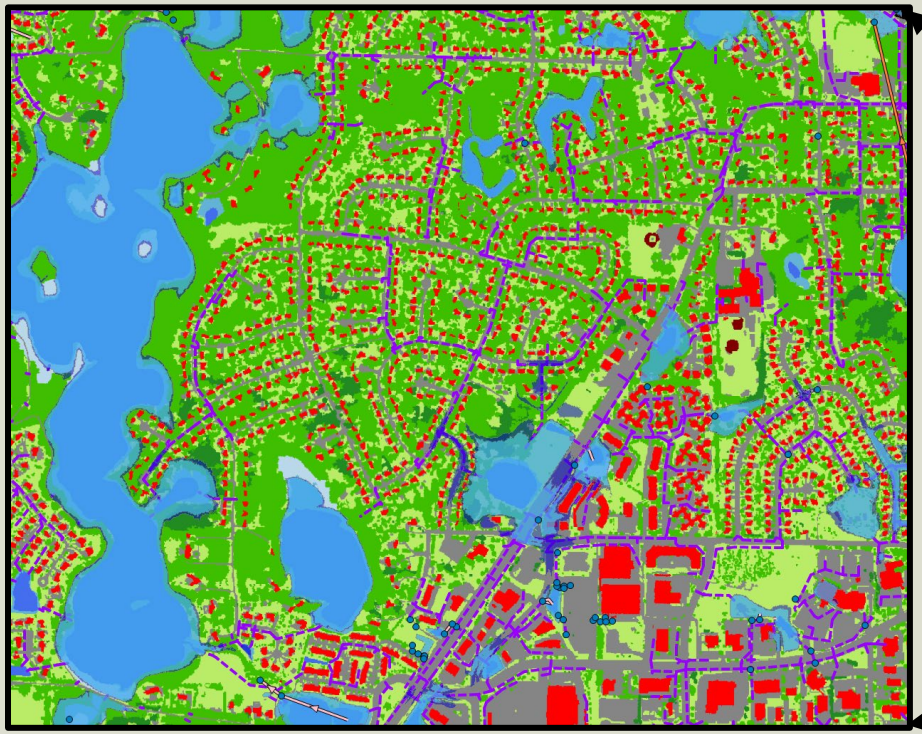


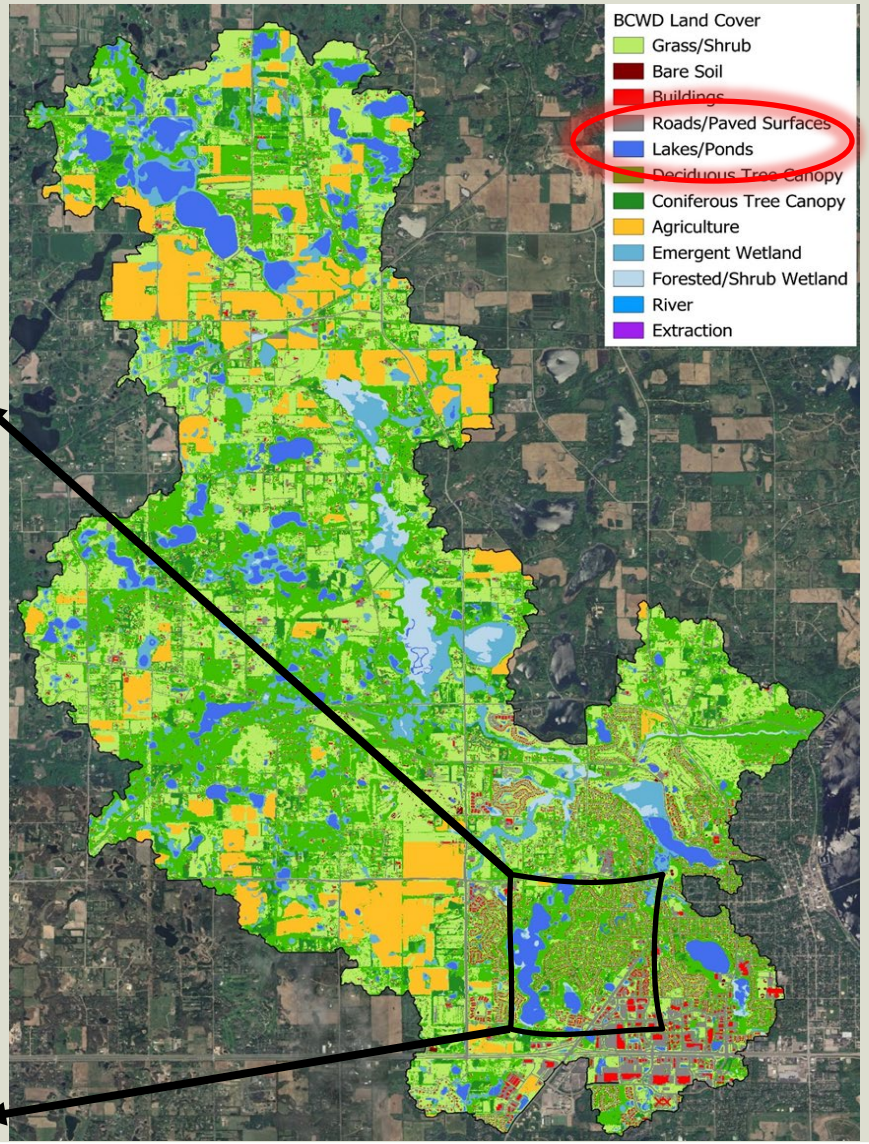
3. Utilization of Updated Land Cover Data

- More accurate, imperviousness and hydrologic parameter estimates

4. Enhanced Model Resolution

- Ability to assess proposed land cover changes within subcatchments





17 Lakes – Volume (Elevation)

Lake Name	Node Name	DNR ID
Masterman	CBC-2a	82012600
South School Section	GSL-12a	82015100
Lynch Lake	GSL-14a	82004200
Goggins	GSL-20a	82007700
Plaisted	GSL-7a	82014800
Unnamed	KPL-1	82012800
Bass	KPL-2	82012300
Unnamed (Bass)	KPL-5	82012400
Kismet	KPL-6a	82033400
Pat	KPL-7	82012500
Long	LL-20	82002100
Jackson	LL-22	82030500
McKusick	McK-18	82002000
Unnamed (July Ave)	UBC-1	82031800
Benz	UBC-5f	82012000
Wood Pile	WKL-3	82013200
Kimbro	WKL-4	82034900

3 Locations of Brown's Creek - Flow

1. Manning Avenue
2. Stonebridge Trail
3. Highway 96 (WOMP)

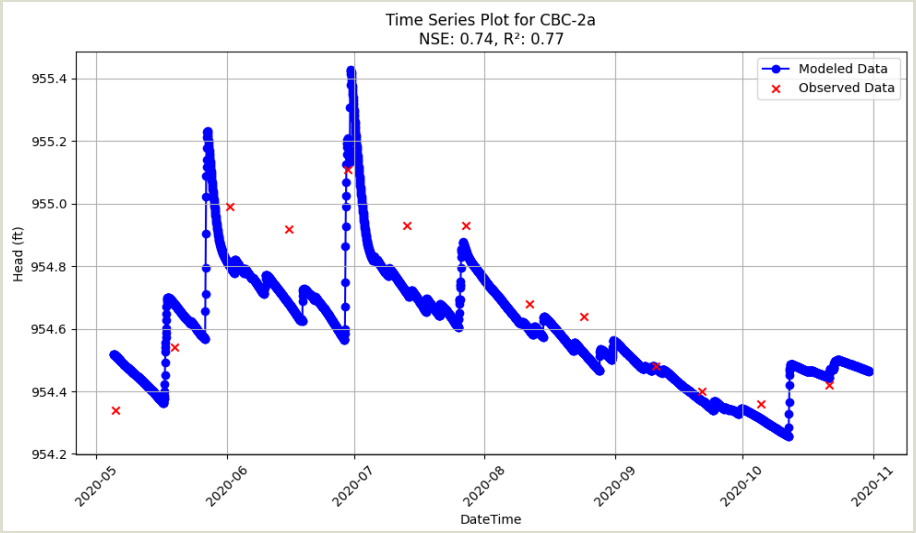
Time Period

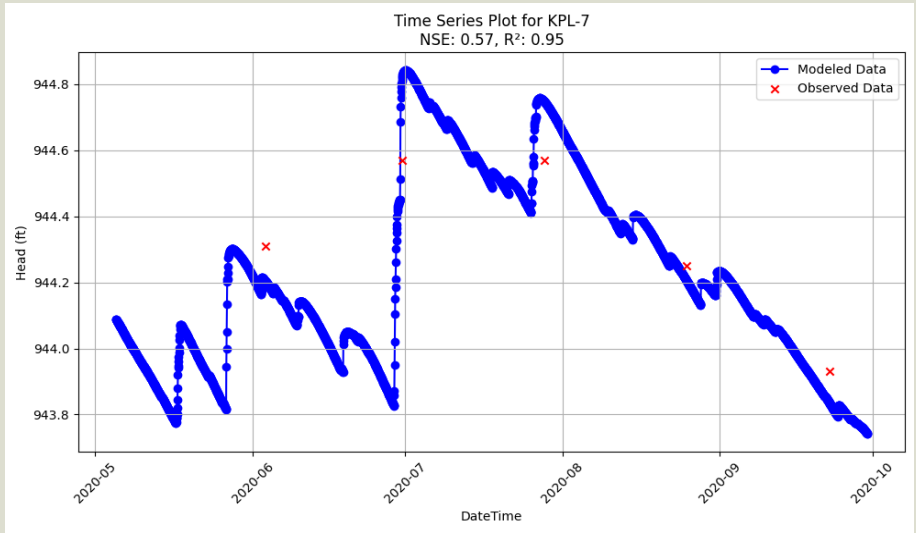
1. Calibration: 2020 data
2. Validation: 2022 data

Methodologies

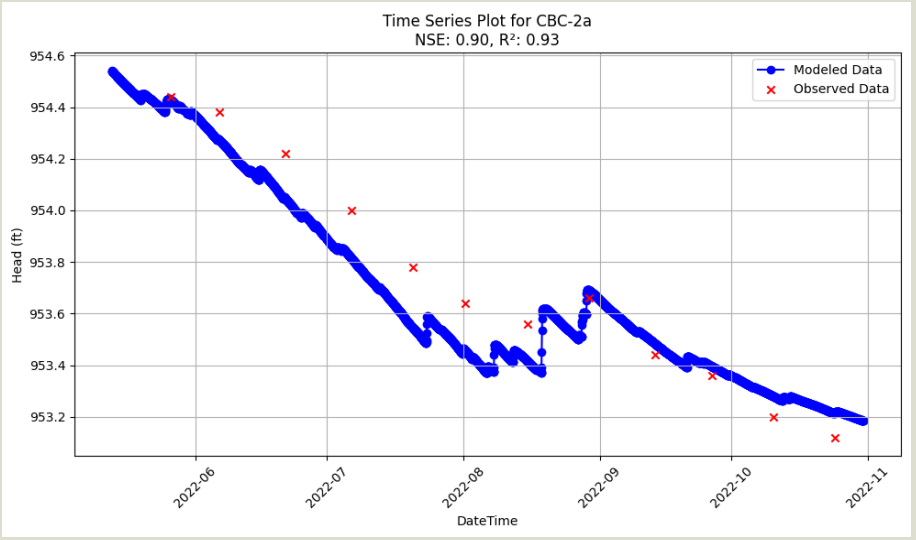
1. Used a hotstart tool to simulate early spring precip. as a "warm up" period for realistic soil conditions/moisture
2. Set initial lake levels, aligning with recorded data
3. Developed scripts to automate parts of the calibration and validation process, improving efficiency

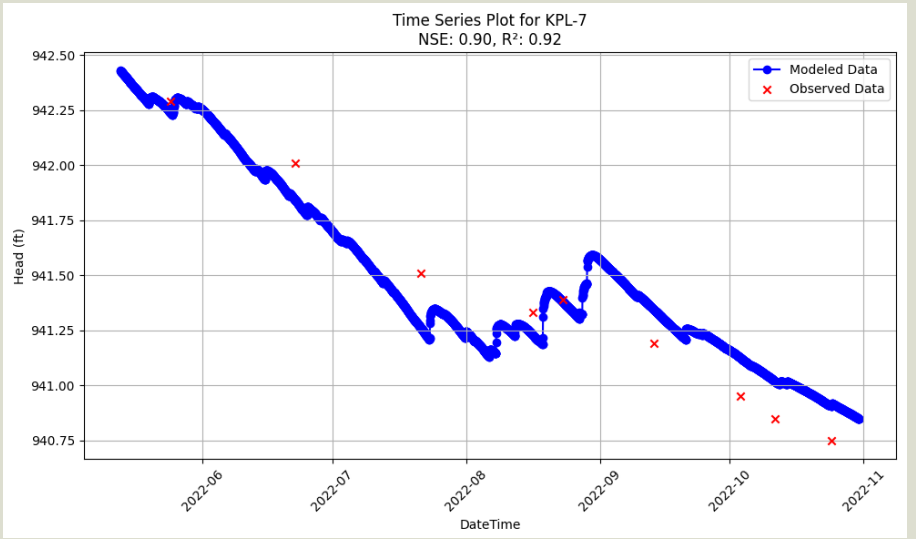
2020 Lake Levels - Calibration



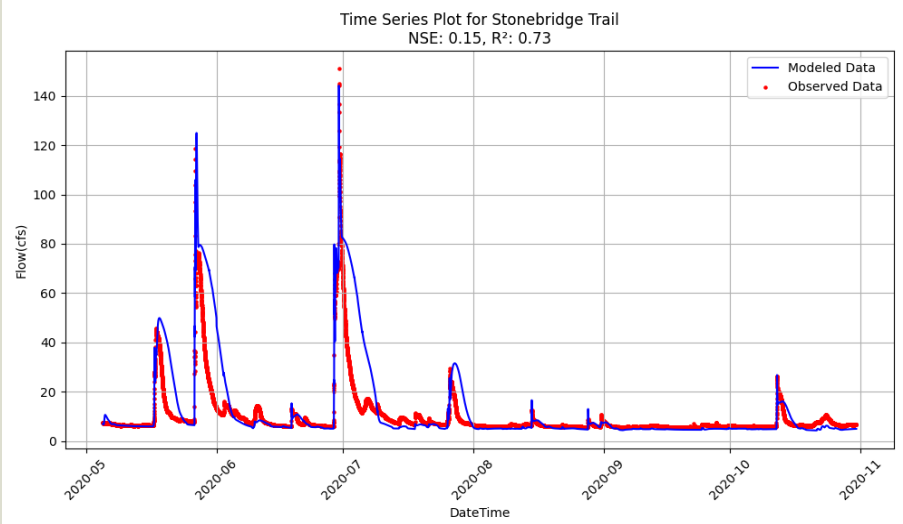


2022 Lake Levels - Validation

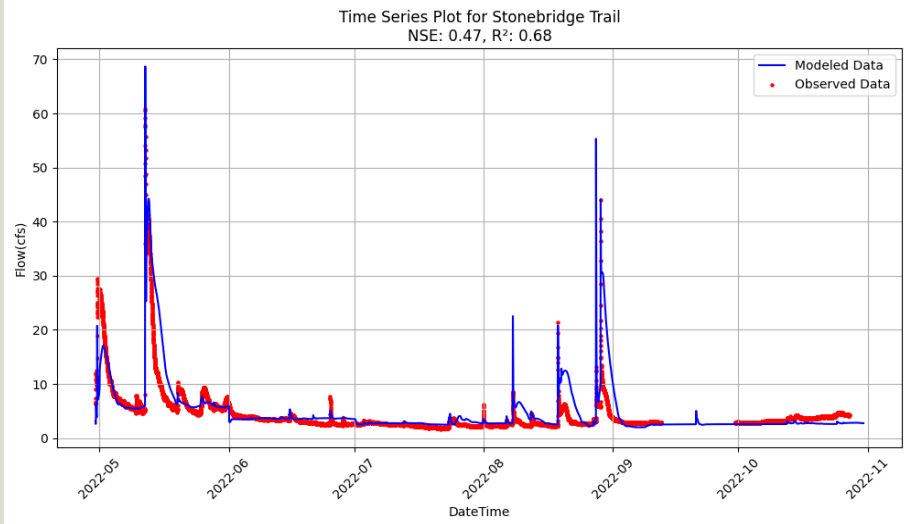


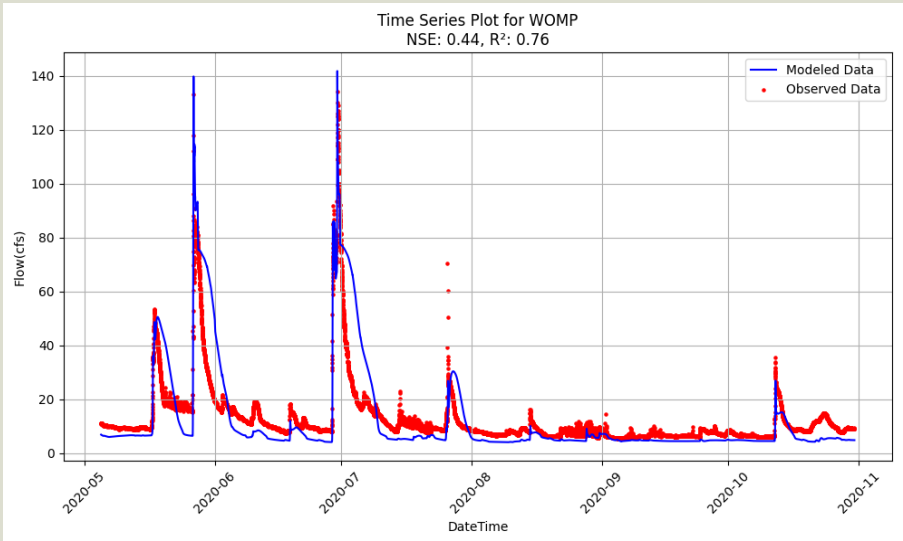


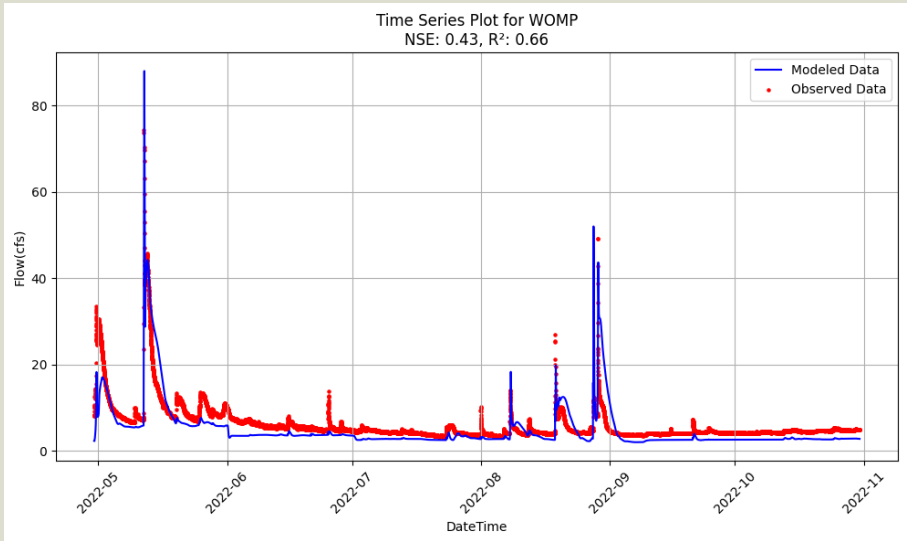
2020 Creek Flow - Calibration



2022 Creek Flow - Validation

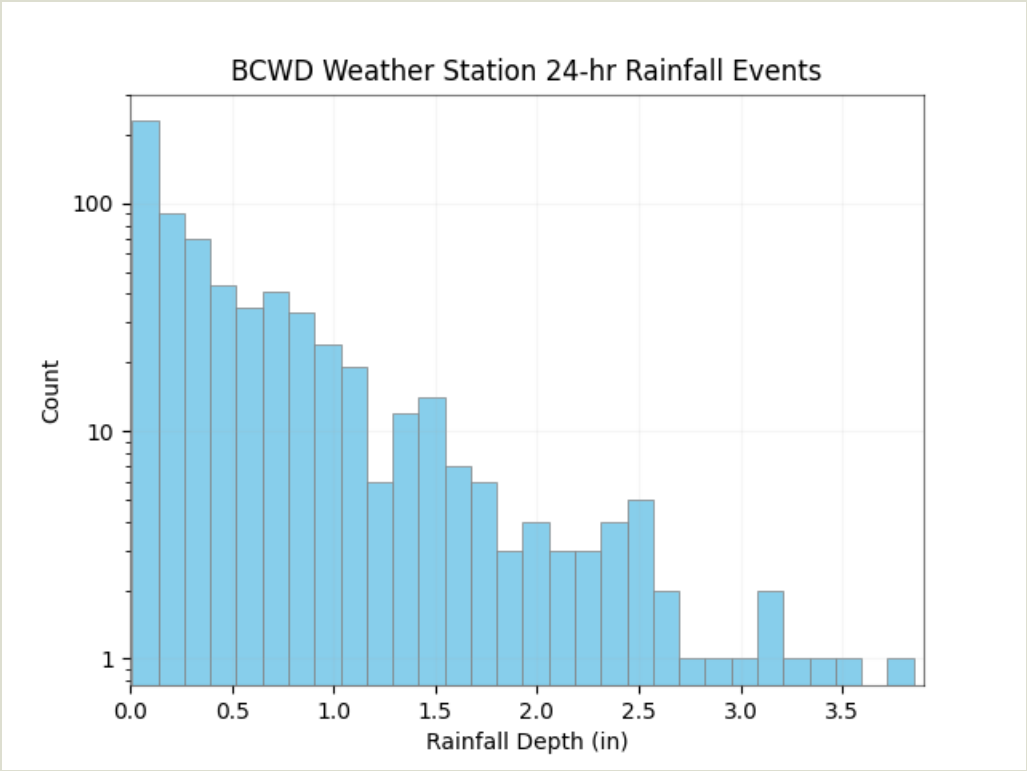






BCWD Weather Station (Record starting 07-2011)

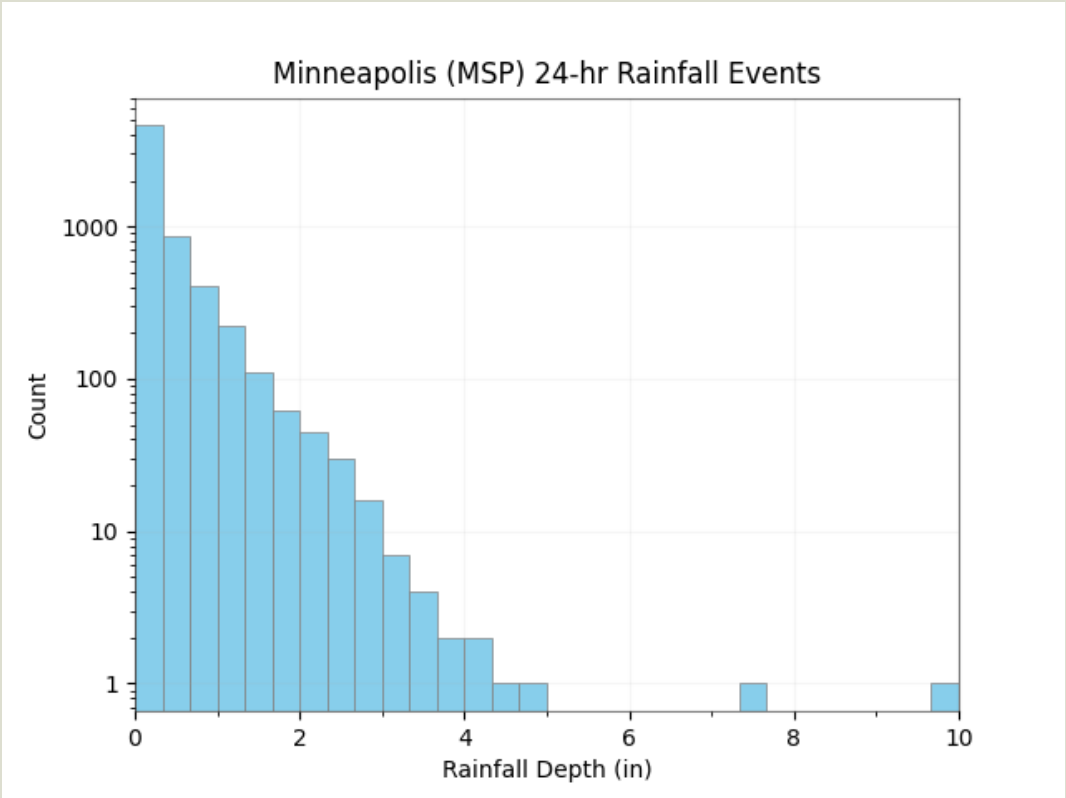
Rainfall Event	Event Depth (in.)	Event Count
24-hr, 1-yr	2.44	12
24-hr, 2-yr	2.81	4
24-hr, 5-yr	3.49	3
24-hr, 10-yr	4.17	0
24-hr, 25-yr	5.23	0
24-hr, 50-yr	6.16	0
24-hr, 100-yr	7.23	0



Two largest 24-hr storm events:
**3.85-inch event occurred on 7/5/2015*
**3.49-inch event occurred on 6/28/2020*

Minneapolis Station (Record starting 01-1947)

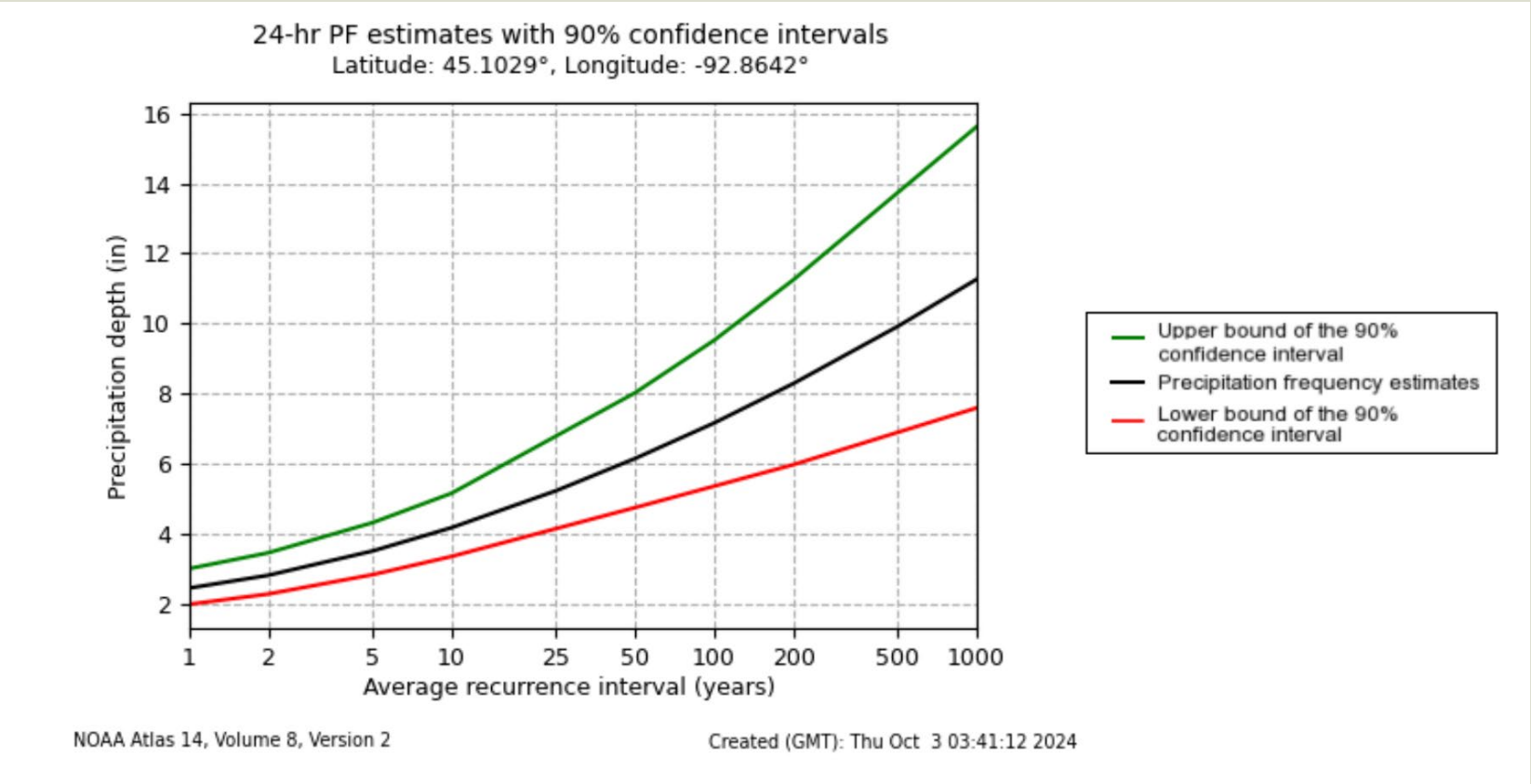
Rainfall Event	Event Depth (in.)	Event Count
24-hr, 1-yr	2.44	39
24-hr, 2-yr	2.81	24
24-hr, 5-yr	3.49	6
24-hr, 10-yr	4.17	2
24-hr, 25-yr	5.23	0
24-hr, 50-yr	6.16	0
24-hr, 100-yr	7.23	1
24-hr, 200-yr	8.32	0
24-hr, 500-yr	9.98	1



Two largest 24-hr storm events:
**10.0-inch event occurred on 7/23/1987*
**7.36-inch event occurred on 8/30/1977*

FUTURE CONDITIONS SCENARIO

- NOAA Atlas 14 upper bound of 90th percentile for the 100-year event (9.5” rainfall)
- Resulted in an average of + 0.5’ water level increase over current conditions (MAX of 1.4’ on Long Lake)



Methodology:

1. Exported 100-year water level results from model storage nodes into GIS
2. Integrated LiDAR data (topography) to generate floodplain maps

Limitations:

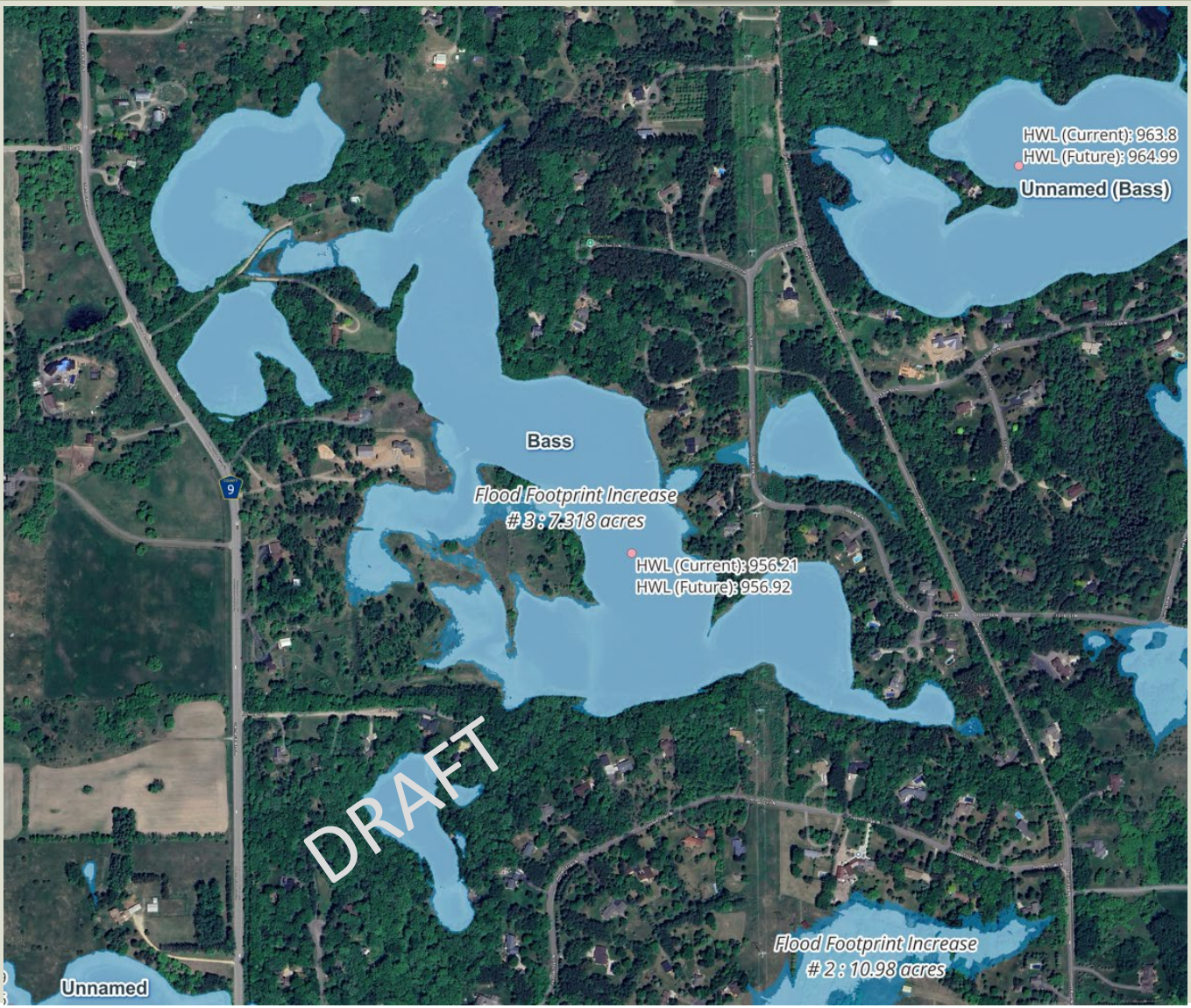
1. In urban areas, the entire storm sewer system is not modeled, only pond outlet pipes
2. Floodplain footprints are generated from the high water level of one pond in a subcatchment area, but not necessarily every depression in an urban area.
    - Therefore, depression areas surrounding the modeled ponds are assumed to be connected and reach the same water elevation - Example is backyard swales connecting to downstream ponds.
3. Pipes, inlets, and outlet capacity limitations and clogging could worsen flood footprints

- Top 10 flood footprint increases for 9.5” Upper Bound 100-Year Event:

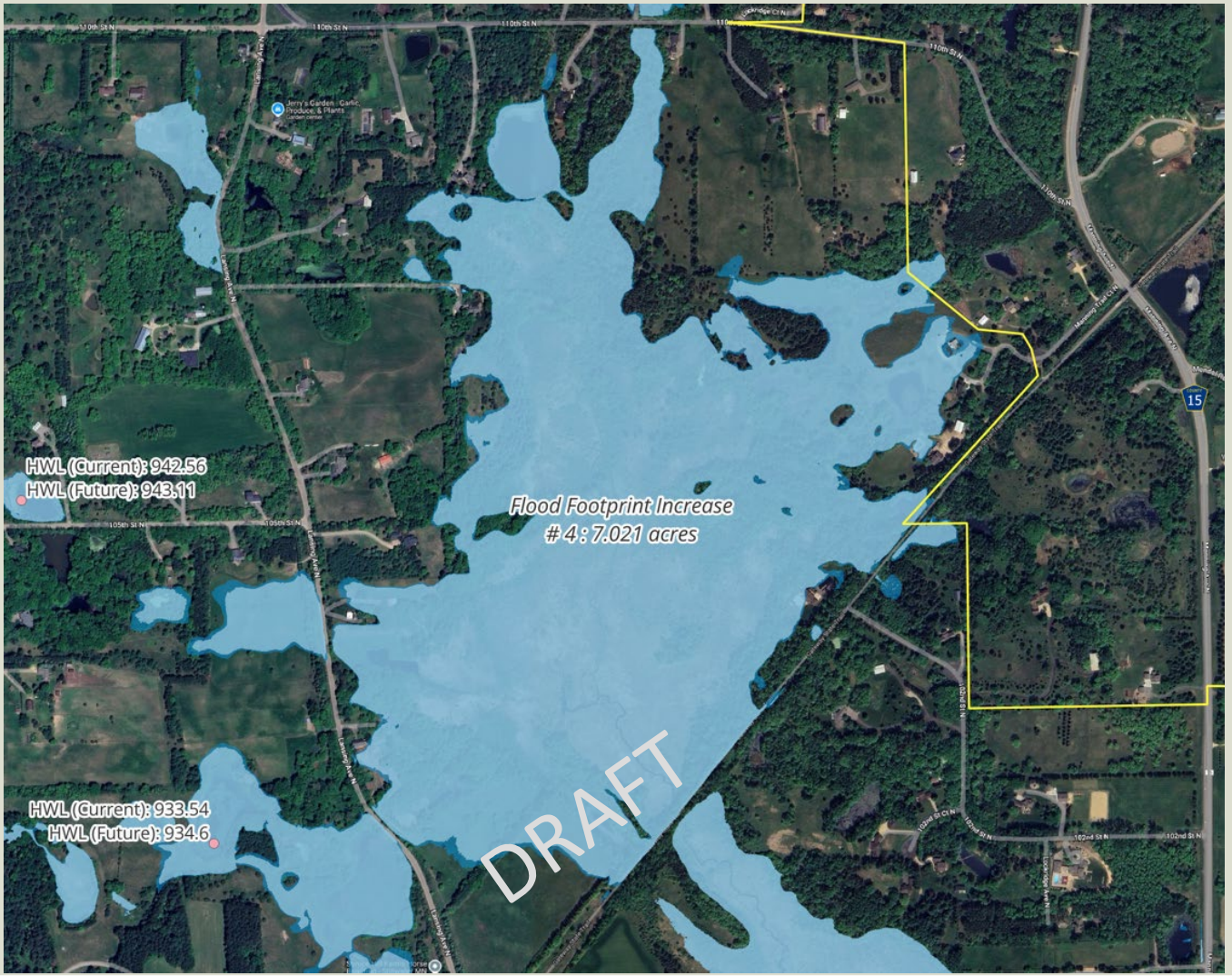
Location	Area Increase	% Increase
Dellwood Rd Wetland	+11 acres	+22%
Bass Lake West	+7 acres	+9%
BOND Conservation Area	+7 acres	+4%
Stillwater Blvd & Orleans St	+6.8 acres	+54%
Long Lake	+6.5 acres	+5%
Manning & 115th St	+5.7 acres	+18%
July Avenue Pond	+5.4 acres	+15%
Goggins Lake	+5.2 acres	+4%
Plaisted Lake	+5.0 acres	+5%
Mendel Wetland	+41 acres	+130%

- **Dellwood Road Wetland**
  - **+11 acres;**
  - **+1.4 feet**

- **Bass Lake West**
  - **+7.0 acres;**
  - **+0.7 feet**

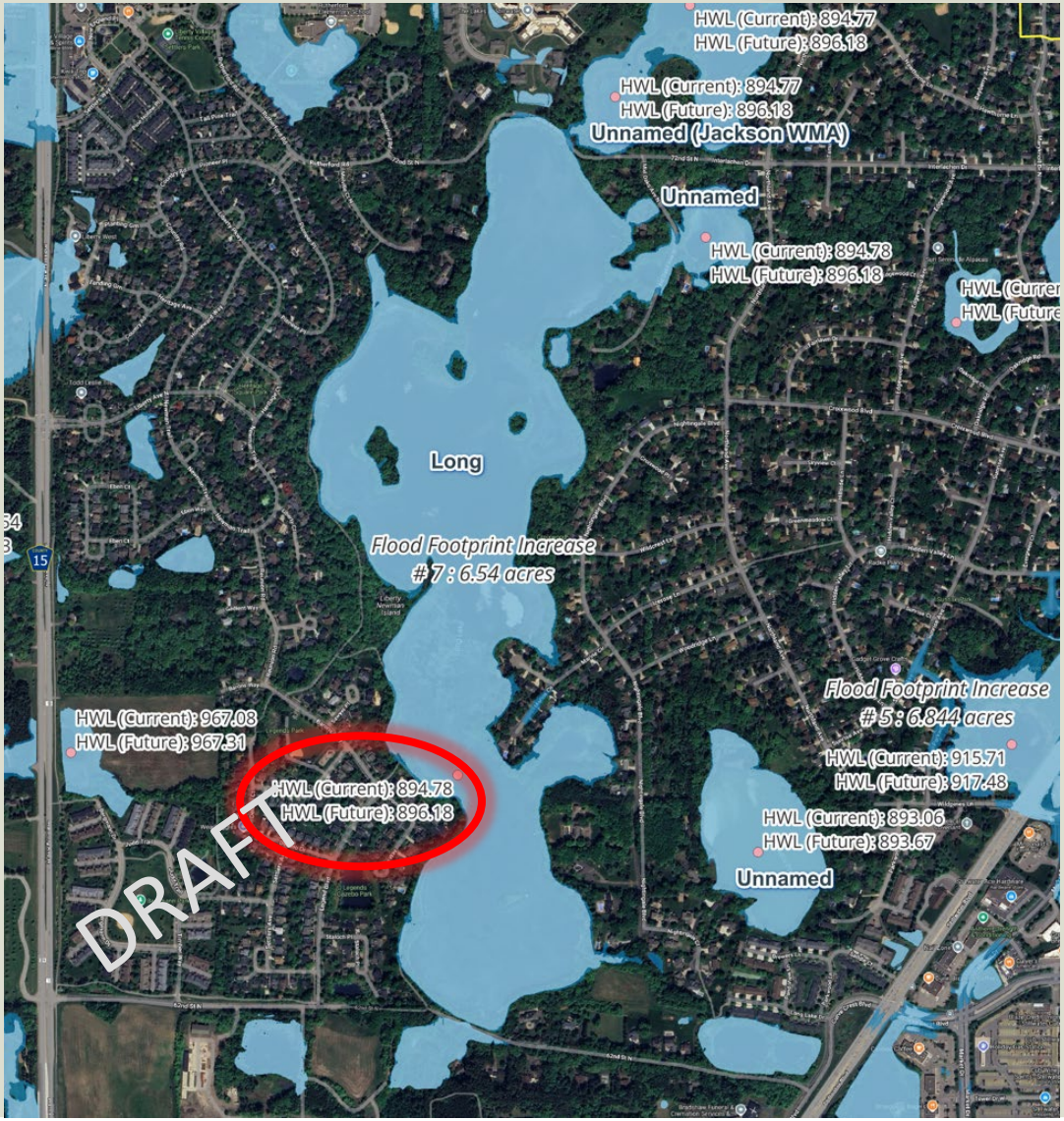


- **BCWD Conservation Area**
  - **+7.0 acres;**
  - **+0.9 feet**



- **Stillwater Blvd & Orleans Street**
  - **+6.8 acres;**
  - **+1.8 feet**

- **Long Lake**
  - **+6.5 acres;**
  - **+1.4 feet**



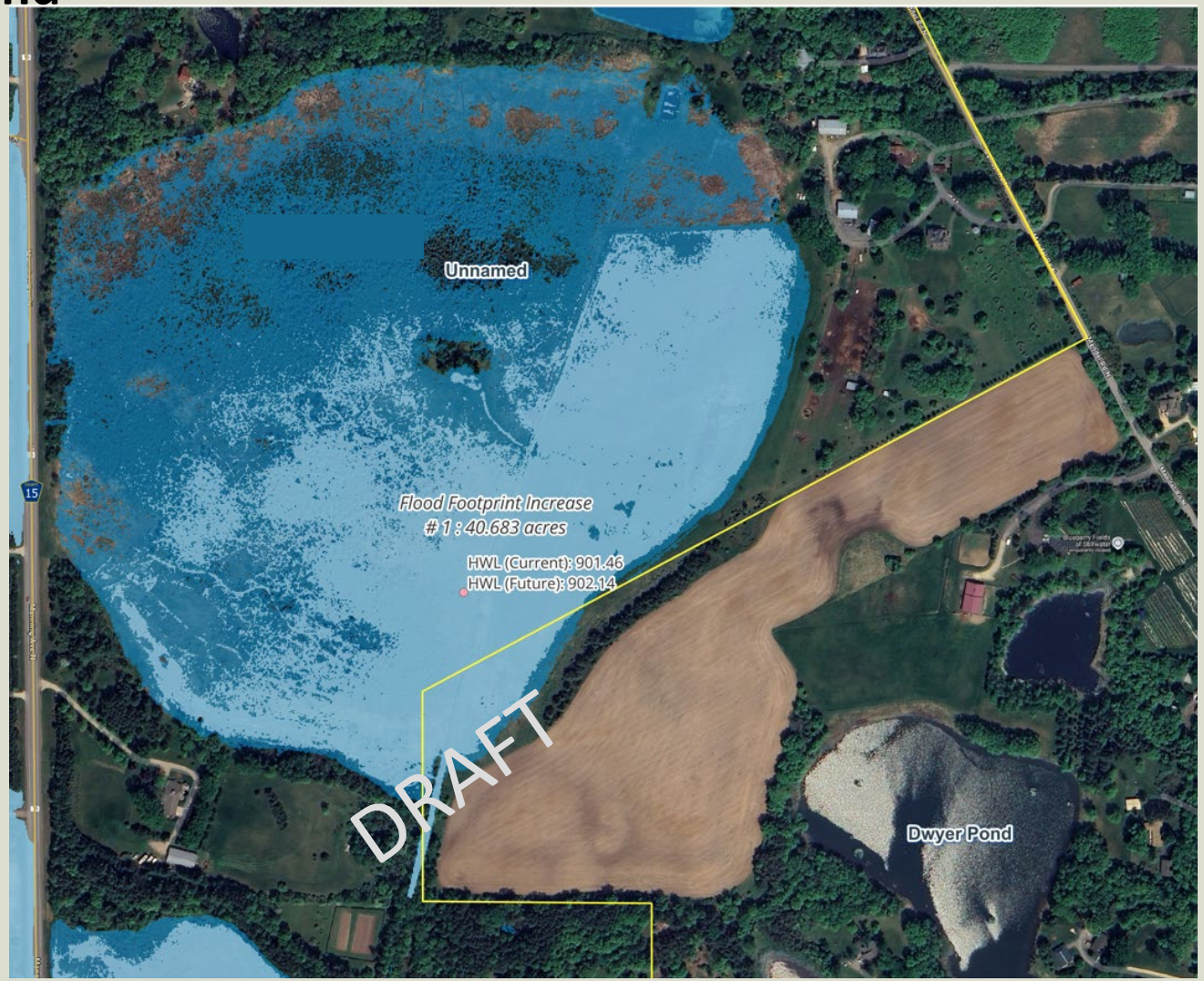
- **Manning & 115th**
  - **+5.7 acres;**
  - **+1.2 feet**

- **July Avenue Pond = +5.4 acres; +0.9 feet**

- **Goggins Lake**
  - **+5.2 acres;**
  - **+0.7 feet**

- **Plaisted Lake = +5.0 acres; +0.6 feet**

- **Mendel Wetland**
  - **+41 acres;**
  - **+0.7 feet**

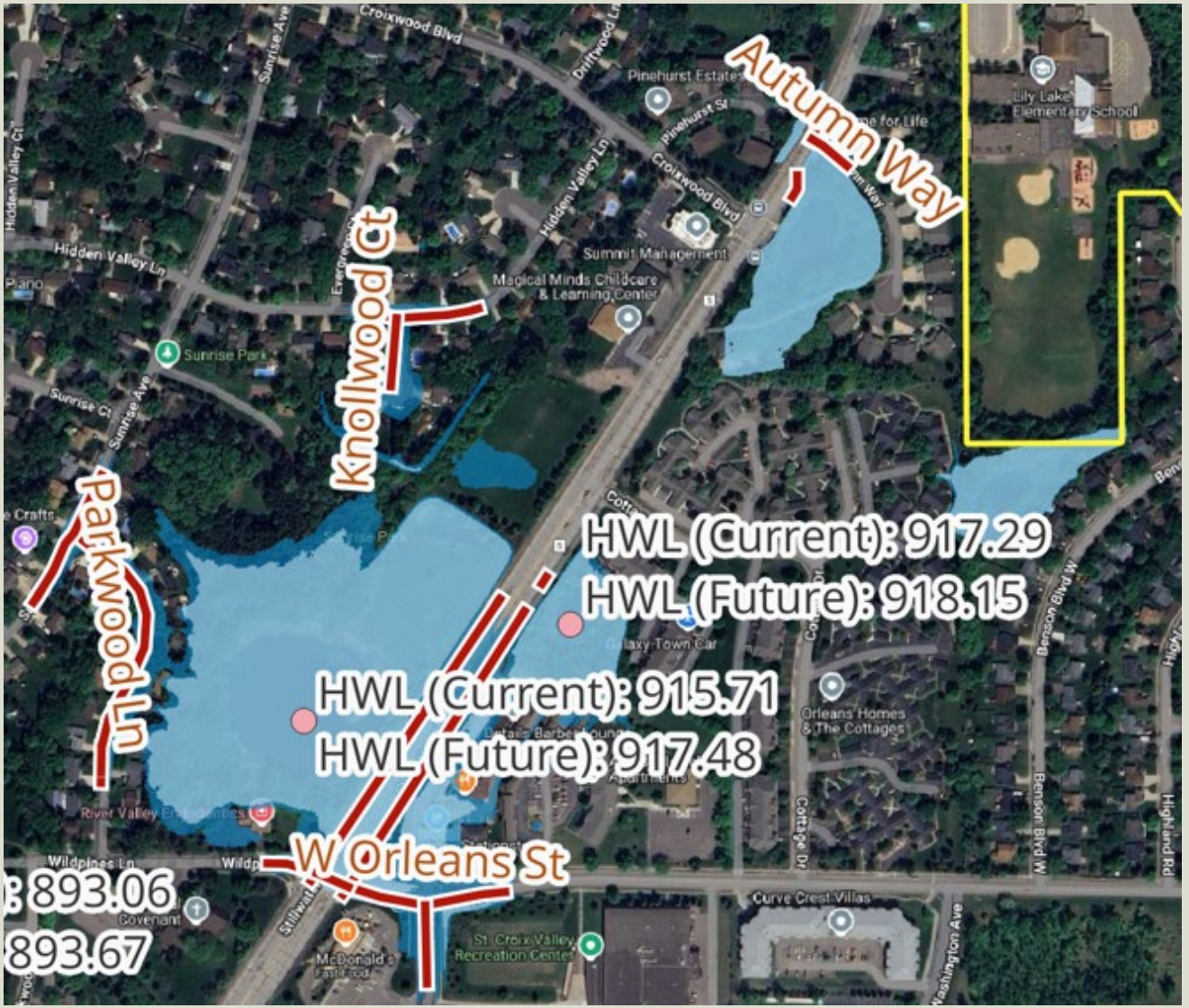


- Urban Flooded Areas:
  1. 62nd Street (x2)
  2. Curve Crest Blvd
  3. MN TH 36

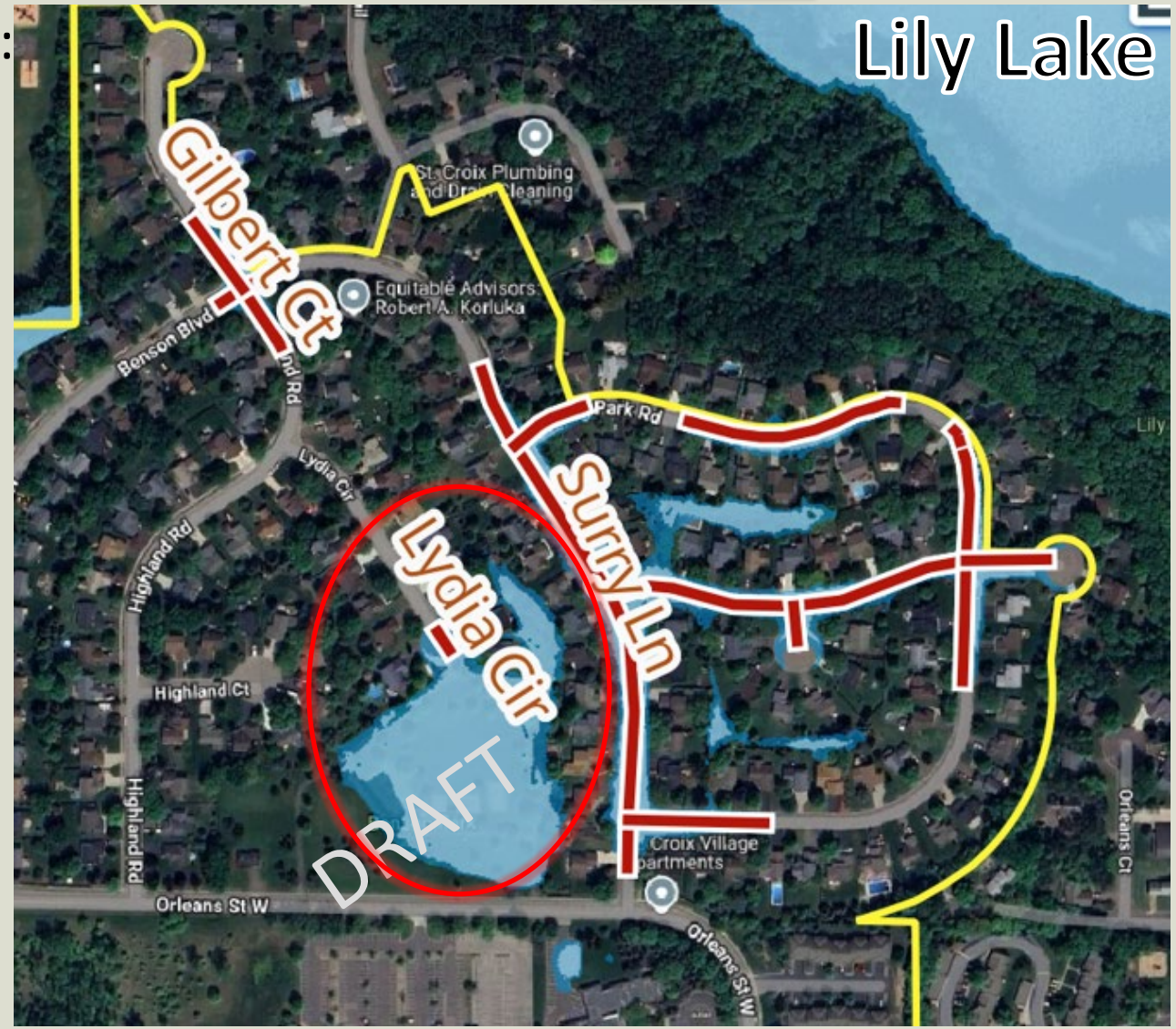
- Urban Flooded Areas:
  1. W. Orleans
  2. Curve Crest Blvd
  3. Stillwater Blvd
  4. Washington Ave
  5. 60th Street
  6. MN TH 36

Urban Flooded Areas:

1. Parkwood Ln
2. W Orleans St
3. Stillwater Blvd
4. Knollwood Ct
5. Autumn Way



- Urban Flooded Areas:
  1. Gilbert Ct
  2. Lydia Cir
  3. Benson Blvd
  4. Surry Ln
  5. Park Rd



Urban Flooded Areas:

1. 58th St N
2. 60th St N
3. Krueger Ln
4. Norell Ave N

Urban Flooded Areas:

1. 56th Street N
2. Memorial Ave
3. Stillwater Blvd

- **Further GIS Analysis:**
  1. Incorporate all storm sewer information to better define flooding footprints in key urban locations

- **Consider 2D modeling for urban areas (e.g., Marketplace) to:**
  1. Better understand flood dynamics
  2. Assess sewer system performance and pipe capacity limitations
  3. Demonstrate overland flow patterns, flooding duration, and roadway overtopping depths

Flood Vulnerability Assessment – ***use the updated model to:***

- Critical Event Analysis
- Evaluate Social, Environmental, and Infrastructural impacts
- Share results with member communities
- Flood Reduction Evaluation
- Review opportunities with member communities and local partners

Thank You

BCWD Watershed Board Meeting April 9, 2025

water ecology community

Resolution No. 25-02

BROWN'S CREEK WATERSHED DISTRICT BOARD OF MANAGERS

Change of principal place of business to Stillwater Township Town Hall

Manager _____ offered the following resolution and moved its adoption, seconded by Manager _____.

Whereas Brown's Creek Watershed District is a special-purposes local governmental unit with purposes and powers stated in Minnesota Statutes chapters 103B and 103D;

Whereas Minnesota Statutes section 103D.321 provides procedure for a Minnesota watershed district to change its "principal place of business," which is the location at which the board of managers of a watershed district holds its official meetings;

Whereas a facility of Family Means, a private nonprofit organization, at 1875 Northwestern Avenue in Stillwater, Minnesota, has been BCWD's principal place of business since July 2013, but the facility is no longer accommodating meetings of BCWD;

Whereas Stillwater Township Town Hall, at 13636 – 90th Street North in Stillwater, Minnesota, is a suitable public meeting space and is within the jurisdictional limits of Brown's Creek Watershed District; and

Whereas the BCWD Board of Managers wishes to receive public comment on its intention to move its principal place of business to and hold meetings at Stillwater Township Town Hall beginning with its July 9, 2025, meeting.

NOW, THEREFORE, BE IT RESOLVED that the board of managers directs the administrator issue notice of and convene a public hearing in accordance with Minnesota Statutes section 103D.321, subdivision 2, as part of the regular meeting of the board June 25, 2025, to allow the managers to hear and consider comments of all interested parties prior to ordering the change of BCWD's principal place of business as described above.

The question was on the adoption of the resolution and there were ___ yeas and ___ nays as follows:

	Yea	Nay	Abstain	Absent
Eckles	☐	☐	☐	☐
LeRoux	☐	☐	☐	☐
Odebrecht	☐	☐	☐	☐
Sahulka	☐	☐	☐	☐
Wirth	☐	☐	☐	☐

Upon vote, the president declared the resolution adopted.

Dated: May 14, 2025.

* * * * * * * * * * * *

I, Debra Sahulka, secretary of the Brown's Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with BCWD and find the same to be a true and correct transcription thereof.

IN TESTIMONY WHEREOF, I set my hand on _____, 2025.

_____

Debra Sahulka, Secretary

WATERSHED
PARTNERS

Metro Watershed Partners

2024 Annual Program Report

Metro Watershed Partners is a coalition of more than seventy public, private and non-profit organizations in the Twin Cities metro area. Through collaborative education and outreach, the Metro Watershed Partners promote a public understanding that inspires people to act to protect water in their watershed. Since 1996, partners have cooperated through educational projects, networking, and resource sharing.

MINNESOTA WATER
LET'S KEEP IT CLEAN

Table of Contents

Metro Watershed Partners 2024 Report

Introduction

Metro Watershed Partners is a coalition of more than seventy public, private and non-profit organizations in the Twin Cities metro area. Through collaborative education and outreach, the Metro Watershed Partners promote a public understanding that inspires people to act to protect water in their watershed. Since 1996, partners have cooperated through educational projects, networking, and resource sharing.

WATERSHED PARTNERS

The mission of the Metro Watershed Partners is two-fold:

- to provide and promote collaborative watershed education programs with consistent messages to the general public, local government staff and elected officials, and
- to provide WSP members a place and means to share information, generate ideas, and coordinate and support collaborative watershed education programs.

In 2024, members contributed $187,000 to support monthly meetings, exhibit checkout, administrative functions, state fair outreach, Adopt-a-Drain, and the Clean Water Minnesota outreach campaign.

Leadership

The work of **Metro Watershed Partners** is guided by a steering committee that includes stormwater education professionals from watershed organizations, nonprofits and government agencies. In 2024, our steering committee members were:

Angie Hong, Washington Conservation District
Ann Zawistoski, Hamline University, Center for Global Environmental Education
Jessica Miller, Dragons Wynd Entomology Outreach
Kris Meyer, Freshwater
Kristin Seaman, City of Woodbury
Lauren Letsche, City of Columbia Heights
Nick Voss, Vadnais Lake Area Watershed Management Organization
Sofie Wicklund, Hamline University, Center for Global Environmental Education
Tracy Fredin, Hamline University, Center for Global Environmental Education

Nick Voss and Lauren Letsche left the steering committee in 2024 due to job changes. We are so thankful for their service and leadership in the group.

Metro Watershed Partners Activities and Accomplishments

Networking and Sharing Information

The Watershed Partners hold monthly meetings that give members an opportunity to network, share information, generate ideas, and form partnerships. These meetings feature presentations by experts in the fields of education, legislation, marketing, and watershed management.

In 2024, The Watershed Partners held 10 meetings, 6 of which were held virtually via Zoom with an average of 30 members attending each meeting. While our Zoom meetings tend to have a higher attendance, we plan to continue to meet in a variety of formats, both in-person and online to facilitate networking and provide a forum in which the most people can participate. The Zoom format allows us to record and share the presentations to those who were not able to attend and can be found on our YouTube playlist. We were thrilled to be able to once again come together in person in December for our annual year-end potluck, which was graciously hosted by the Mississippi Watershed Management Organization.

Our monthly meetings are a valued part of the Watershed Partners program that facilitates watershed education in Minnesota. We will continue offering these monthly gatherings in 2025, both virtually and in person.

On the annual boat ride on the Mississippi River in June

2024 Watershed Partner Meetings - Topics and Presenters

Links to the meeting recordings are provided when available

Month	Topic	Presenters	Attendance
January	Long-Term Care of Natural Landscapes and Clean Water Planting Projects	Angie Hong, Washington Conservation District Jennifer Ehlert, Metro Blooms	33
February	Legislative Update	Aaron Klemz, MCEA Carly Griffith, MCEA	34
March	Strategic Planning and Conversations (in person at CRWD)	Ann Zawistoski, Hamline University, Break-out meetings of subcommittees	19
April	Artists in Residence	Kyle Axtell, South Washington Watershed District Britta Dornfeld, Environmental Initiative	25
May	AmeriCorps Members Mini Presentations	AmeriCorps Members: Hannah Peterson, Becka Krasky, Lori Maxfield, Thomas Hayden, Phil Davies, Angela Hugunin	29
June	June Boat Ride (in person on Magnolia Blossom River Boat)	Madeline Hayden, Minnesota Aquatic Invasive Species Research Center Colleen O'Connor Toberman, Friends of the Mississippi River Hiro Hayashi, Fishing For All	45
September	Middle Rice Creek Restoration Tour	Matt Kocian, Rice Creek Watershed District	11
October	Chloride Engagement Campaigns	Jessica Wilson, City of Edina	30
November	Community Engagement Discussions	Tara Jebens-Singh, Many Faces, Many Stories	41
December	End of Year Potluck with Lighting Round: Outreach Projects (in person at MWMO)		35

Mobilize

The Metro Watershed Partners listserv is a forum for watershed educators and other industry professionals throughout the state to share information and resources. In 2024, the Metro Watershed Partners listserv provided 315 members with an effective tool to promote watershed education, share information about professional programs, and exchange information with other watershed educators, legislators, and government agencies.

Our listserv is hosted by Mobilize.io, an online interactive communications platform for discussions, chat, events, files, and networking that is accessible online, via email, and mobile app.

The listserv can be found at:
https://watershedpartners.mobilize.io

Messages can posted online to a feed or sent via email:
watershed-partners@groups.mobilize.io

This is a private forum and anyone who would like to be added to the Mobilize group should send an email request to swicklund02@hamline.edu.

Exhibit Checkouts

The Metro Watershed Partners offers multiple exhibits that can be checked out for free by partners and volunteer groups. Some have a general watershed and nonpoint source pollution focus, including Tables 2 and 3 (pictured below) and the Eutrophication exhibit-in-a-box. We also offer an Adopt-a-Drain tabletop exhibit and bean bag toss game. In 2023, we designed and created a smaller bean bag toss that fits perfectly on a table.

In 2024, our exhibits were used for at least 13 community events in the Twin Cities area. In addition to exhibits, you may request free Adopt-a-Drain handouts for your event, and swag items (hats, water bottles, tote bags, etc) are available for purchase.

View more info about exhibit checkouts at cleanwatermn.org/partners/exhibit-check-out/

Adopt-a-Drain Exhibit-in-a-Box

Eutrophication Exhibit-in-a-Box

Table 2: "What is your Watershed Address?"

A map of the Minneapolis/St. Paul metropolitan area and the state of Minnesota with puzzle pieces to lift and reveal the name of the watershed in which one lives. Graphic panels give more information and depict the larger watersheds of the entire United States. Fits on a 6-foot table.

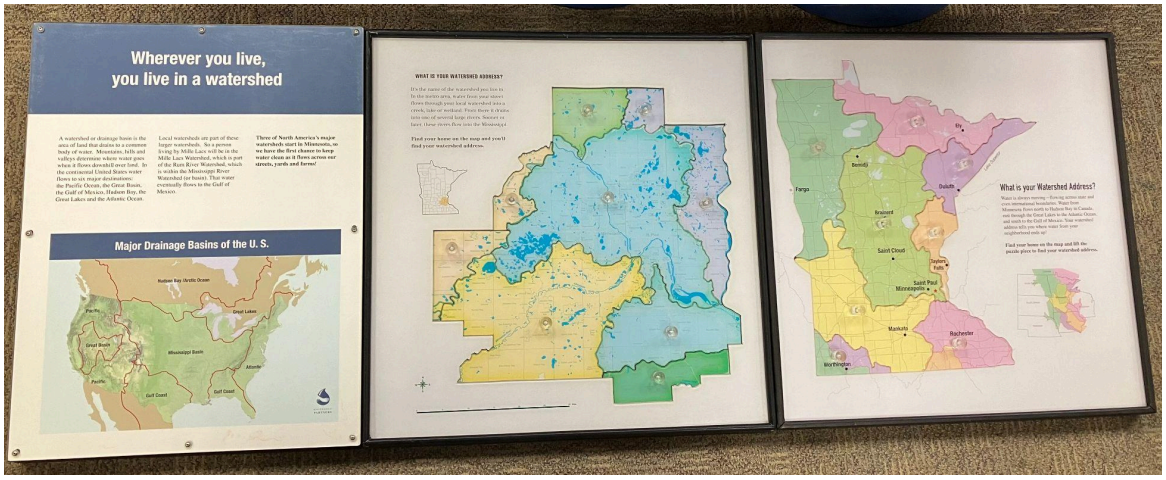


Table 3: “Your Street Flows to the River”

Exemplifies how everyday activities in our own yards and driveways can impact the entire watershed. Many people are unaware that the water that flows into the storm drains in their street goes directly to the lakes and rivers of their community and carries with it the pollutants that cause the lakes and streams to become fouled. Fits on a 6-foot table.

Bean Bag Toss

Full-size (4’ x 2’)

Tabletop (2’ x 1’)

Clean Water MN Update

Clean Water MN is the collaborative outreach project of the Metro Watershed Partners. Working together, we provide resources, training, and support to partners as they work to inspire residents in the Twin Cities metro area to keep water clean and healthy.

Cleanwatermn.org features seasonally-appropriate stories about metro area residents taking action at home and in their lives to keep Minnesota water clean and healthy. The stories are designed for partners to use in their own communications—via websites, Facebook, Twitter, and newsletters. Each story also includes a suite of professional photographs, accessible to partners online for use in their own stories and publications.

The cleanwatermn.org website also features informational pages, calls to action, information about the partnership, educational resources, and a list of our partners. While the stories on the website are no longer updated as often as previously, we believe that the information provided there is evergreen and we will continue maintaining the site. In fact, the Clean Water MN website continues to be visited, having received 7,000 views in 2024. We encourage our partners to continue to share the resources and information on that site with their residents.

As the social media landscape has evolved, the needs of the Metro Watershed Partners have shifted as well. Platforms are now prioritizing native video and image content and deprioritizing links to external content. In response, we plan to continue investing in a robust digital resource library in 2025 which will facilitate the curation and sharing of high quality images, videos, and other materials. We hope to transform the Cleanwatermn.org site to become a portal to many varied types of resources for learning and sharing.

Top 5 Pages on Clean Water MN by number of views in 2024

Page	Number of views
Home Page - Clean Water Minnesota	1,523
Choose clean lakes for safer swimming - Clean Water Minnesota	886
Is my lake safe? Learn what to look for to answer this question.	819
Using Sidewalk Salt Responsibly - Clean Water Minnesota	614
Resources Archive - Clean Water Minnesota	558

Adopt-a-Drain

Activities & Accomplishments in 2024

Adopt-a-Drain continues to expand throughout greater Minnesota, with the Sauk River and St. Louis Watersheds joining Adopt-a-Drain and Little Canada joining the Metro Watershed Partners. Statewide this year 2,115 new participants signed up to adopt over 3,950 additional storm drains.

In the Metro Watershed areas, we continue to see a steady growth in the program year over year, with an 15% increase in participants in 2024. Over 102,000 lbs of debris were cleaned up by MSW Adopt-a-Drain participants this year, with 2,622 members reporting their work, for a reporting rate of 26%. Participants spent a combined total of 4,155 hours, or 173 days, keeping their streets and storm drains clean.

We had many reasons to celebrate in October of this year. That month marked our 10 year anniversary of the Adopt-a-Drain program. We had our 24,000th drain adopted in MN, and received the Water Environment Federation's Public Communication and Outreach Award!

2024 Adopt-a-Drain metrics for Metro Watershed Partners

Debris Type Removed	Amount (lbs)
Brown Leaves	59,264.5
Grass and Green Leaves	5,582.3
Sediment and dirt	32,361.2
Trash	4,978.9
Pet Waste	11.9
Salt	513.8
Total	**102,712.5**

Monthly Breakdown of Storm Drain adoptions and cleanings

Month	New Participants	Drains Adopted	Debris collected (lbs)	Time spent (hrs)	Number of Drains Cleaned
January	34	57	20,905.80	665.0	620
February	26	40	2,773.28	92.5	205
March	42	94	3,516.28	92.9	202
April	111	254	14,971.54	241.8	535
May	88	139	6,912.91	468.8	385
June	75	132	8,982.80	135.4	344
July	78	179	10,193.32	1396.2	361
August	432	623	8,499.59	149.3	360
September	218	383	5,426.35	116.5	352
October	112	166	8,952.73	145.4	303
November	95	125	32,152.72	552.6	946
December	17	29	7,310.78	98.4	174
TOTALS	**1,328**	**2,221**	**130,598.1**	**4,154.6**	**4,787**

2024 Adopt-a-Drain National Program Survey

In 2024, we once again conducted research of adopt-a-drain programs throughout the United States. We found around 250 active programs at the city, watershed, county, and state levels. More than half of those programs (140+) are part of Adopt-a-Drain network, showing just how far-reaching the work of the Watershed Partners is. Adopt-a-Drain partners are now in 12 states (MN, WA, CA, UT, MI, MO, LA, GA, FL, VT, MA, NJ) with plans underway to onboard new states over the next year.

We also looked at the success of the adopt a drain programs around the country by comparing the number of drains adopted with that city's population. We're happy to report that cities within the Watershed Partners often ranked at the top by that metric.

Numbers in the charts below were retrieved from the program's website as of December, 2024. Cities that are Metro Watershed Partners members are highlighted in blue. Cities that are members of the Adopt-a-Drain.org program are marked with an asterisk.

Large-sized cities of over 100,000 people:

Rank	City	Population	Number of Adopted Drains	Adopted drains per 1,000 people
1	**Minneapolis, MN***	**429,954**	**7606**	**17.7**
2	**Saint Paul, MN***	**311,527**	**4037**	**13.0**
3	San Francisco, CA	808,000	6765	8.4
4	Grand Rapids, MI	197,416	1658	8.4
5	**Rochester, MN***	**121,395**	**785**	**6.5**

Medium-sized cities of between 10,000-100,000 people:

Rank	City	Population	Number of Adopted Drains	Adopted drains per 1,000 people
1	**Columbia Heights, MN***	**21,973**	**341**	**15.5**
2	Red Wing, MN*	16,547	245	14.8
3	Berkeley Heights, NJ*	13,292	189	14.2
4	Newcastle, WA*	12,100	151	12.5
5	**White Bear Lake, MN***	**24,883**	**283**	**11.4**

Small cities of under 10,000 people:

Rank	City	Population	Number of Adopted Drains	Adopted drains per 1,000 people
1	New London, MN*	1,252	37	29.6
2	Lake Crystal, MN*	2,539	44	17.3
3	**Lauderdale, MN***	**2,271**	**38**	**16.7**
4	Spicer, MN*	1,112	12	10.8
5 (tie)	**Circle Pines***	**5,025**	**54**	**10.7**
5 (tie)	Duvall, WA*	8,034	86	10.7

Minnesota Twins Game

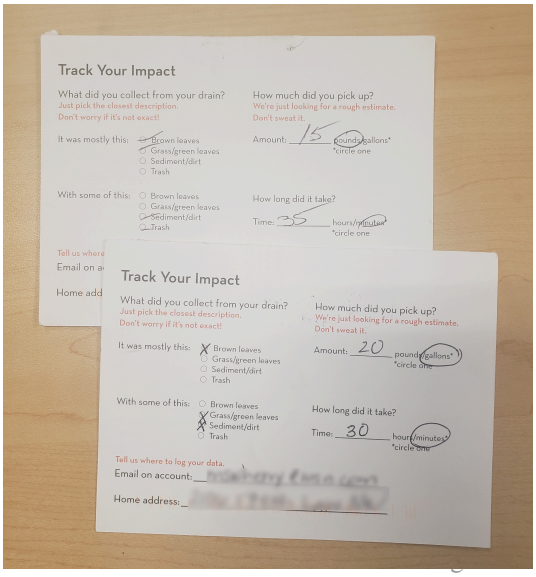
On Saturday, May 4th, 2024, we held an appreciation event at the Minnesota Twins game for the Metro Watershed Partners and our Adopt-a-Drain participants. Around 500 people attended, buying reduced rate tickets in our section in the home run porch. We were able to participate in a pre-game parade around the field and free Adopt-a-Drain hats were provided to everyone in our section. Watershed Partner members and teachers who had participated in the Adopt-a-Drain K12 program that year were provided free tickets to the game.

Lining up for the parade around the field and walking the field before the game.

End of year reporting postcards

Throughout the year, Adopt-a-Drain participants are encouraged to stay engaged and report their work via timely newsletter reminders and automated email reminders that send on a schedule chosen by the participant (monthly, quarterly, or twice per year).

In November, we sent a postcard to all participants who had not yet reported their work online, and received an additional 640 responses from Minnesota participants.



Social Media Promotion in 2024

In 2024, our Social Media team focused on posting high-quality and consistent content across all of our social media platforms. We implemented strategic tactics to gain followers, increase engagement and reach a large audience on all of our Adopt-a-Drain social media accounts. At the end of 2024, we had 2,357 Instagram followers and 1,764 Facebook followers, an increase of 6% and 14.8% respectively over 2024. The content focused on spotlighting awesome drain adopters who help keep their local waterways and communities clean.

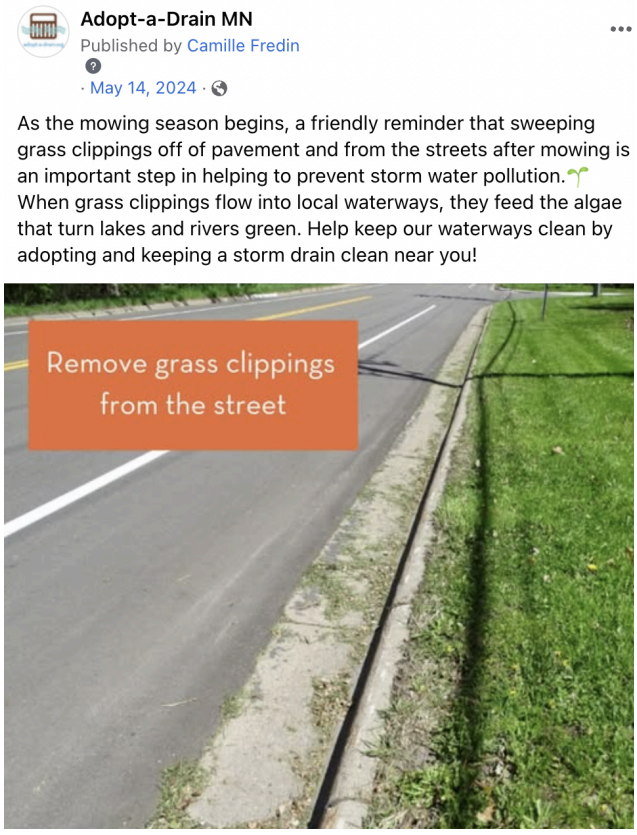
For Earth Day, we created a social media campaign that encouraged people to report their drain cleanings by offering free t-shirts for any current drain adopter who cleaned their drain and reported it or signed up for the program and reported a cleaning during Earth week (April 20 to April 30). This led to 561 people reporting their cleanings and 350 of those people requested to be sent a t-shirt. Amount collected = 11,395 lbs.

In 2025 we will continue to focus on posting high-quality and consistent content as we strive to educate and engage our current audience and simultaneously continue to reach new audiences.

Social Media Impressions in 2024

Adopt-a-Drain's social media reached a large number of people this year. On Facebook our posts reached over 100,000 people, while our Instagram posts reached over 69,000 people. The posts following the chart were some of our top posts by number of views. Adopt-a-Drain social media accounts don't only focus on the Adopt-a-Drain program; they also share quality content about water stewardship and other environmental actions that followers can take outside of storm drain cleaning alone.

Month	Facebook	Instagram
January	7,314	6,027
February	3,958	4,902
March	3,607	6,122
April	10,412	4,285
May	7,165	4,859
June	10,465	5,710
July	17,648	5,991
August	11,899	6,986
September	8,424	5,760
October	11,668	6,979
November	4,740	5,723
December	3,373	5,889
TOTAL	**100,673**	**69,233**



Other Social Media Post Highlights in 2024

Adopt-a-Drain MN
Published by Camille Fredin
· October 1, 2024 ·

We can't "be-leaf" it's already October!🍁 While leaves might be "natural" debris they become pollution when large quantities hit the water and break down becoming food for algae. So get ready to "Sweep up! Rake up! Pick Up!"
So far AAD participants in MN have kept over 765,000 pounds of debris from local storm drains! Help us track our impact by reporting what you collect after your drain cleaning at mn.adopt-a-drain.org.

Adopt-a-Drain MN
Published by Camille Fredin
· April 22, 2024 ·

Happy #EarthDay to the over 12,700 participants in the Adopt-a-Drain MN program!🌎 Join thousands of drain adopters in the Twin Cities area today and help do your part to keep your local waterways clean.

Bonus for this years Earth Day: We're offering free t-shirts for anyone who cleans their drain and reports it OR signs up for the program and reports a cleaning during Earth week (April 20 to April 30).

Follow these easy steps:
1. Log into your account at adopt-a-drain.org
2. Click on "track impact"
3. Enter your best guess of the total amount you've collected from all of your drains since you last reported.

#AdoptaDrain #EarthDay2024

Adopt-a-Drain Brand Standards and Marketing Materials User Guide

Remember to check out the guide we've developed to help partners promote Adopt-a-Drain in their communities. Access the most up-to-date guide at: https://ms4.adopt-a-drain.org/marketing-guide

In this guide, you will find concise guidelines for using the Adopt-a-Drain brand, as well as a visual resource that guides you through accessing and utilizing the most up-to-date print and digital resources to promote the Adopt-a-Drain program in your community. We continue to refine and update print and digital assets, so take a minute to peruse this guide to find out about promotional resources you might not know about. For example, you can now download design files that will allow you to order Adopt-a-Drain merchandise such as hats, water bottles and tote bags directly from the vendor.

Access and download the standard marketing materials in Google Drive.

Education and Outreach at the Minnesota State Fair

The Minnesota State Fair in 2024 saw over 1.9 million total visitors over the 12 day running time, slightly higher attendance levels than what was seen in 2023. The Eco Experience building saw an estimated 218,000 visitors. The Metro Watershed Partner's Adopt-a-Drain exhibit was also very busy; we took over 3,300 photos of visitors in the Adopt-a-Drain photo booth during the course of the fair. The exhibit included many hands-on activities that introduced visitors to information about nonpoint source pollution and actions they could take to protect their waterways.

This year, Wisconsin residents could adopt a drain for the first time at the Minnesota State Fair; in addition we were able to sign up visitors from participating communities in Michigan and Washington. The Adopt-a-Drain exhibit also had a surprise

visit from Minnesota Lieutenant Governor Peggy Flanagan.

Over the twelve days of the fair, 744 Minnesotans in 108 different cities signed up to adopt storm drains. 740 of these new participants signed up on a kiosk at the Eco Experience building and received a drawstring backpack, an informational packet and a small yard sign that reads “We protect Minnesota lakes, rivers, and wetlands.”

We had 31 volunteers sign up to help our staff run the Adopt-a-Drain exhibit. Many of those volunteers came from our outreach to the Watershed Partners and Water Stewards. Our staff and volunteers had the opportunity to chat with current participants in the program, answer their questions, and talk about how their actions help protect our waterways. Many, many thanks to everyone who volunteered to help for making the exhibit a great success! We look forward to returning to the Great Minnesota Get-Together in 2025!

State Fair 2024 Summary

Day	Adopt-a-Drain New Participants	Drains Adopted	Photobooth photos taken
Thursday 8/22	44	44	339
Friday 8/23	62	77	296
Saturday 8/24	80	83	291
Sunday 8/25	45	50	206
Monday 8/26	26	50	153
Tuesday 8/27	48	60	253
Wednesday 8/28	68	94	296
Thursday 8/29	47	60	160
Friday 8/30	76	103	372
Saturday 8/31	73	88	319
Sunday 9/1	105	126	350
Monday 9/2	66	98	283
TOTAL	**740**	**933**	**3,318**

New participants signed up at the State Fair from across our Watershed Partners member areas. The chart below shows the number of new drains adopted for member cities, counties and watersheds.

New Drains Adopted at the State Fair by City, County & Watershed

City	Drains Adopted
Andover	10
Blaine	15
Bloomington	19
Circle Pines	2
Columbia Heights	4
Crystal	6
Eden Prairie	17
Edina	17
Fridley	2
Hastings	3
Hopkins	4
Lakeville	9
Minneapolis	250
Minnetonka	11
Mound	1
New Brighton	5
Richfield	29
Rochester	4
Roseville	22
Saint Cloud	4
Saint Louis Park	14
Saint Paul	148
Shoreview	5
Wayzata	2
White Bear Lake	4
White Bear Township	1
Woodbury	20

Watershed	Drains Adopted
Bassett Creek	50
Browns Creek	1
Capitol Region	134
Comfort Lake Forest Lake	1
Coon Creek	29
Eagan-Inver Grove Heights	11
Elm Creek	23
Lower Mississippi River	38
Minnehaha Creek	170
Mississippi	126
Nine Mile Creek	33
Ramsey Washington	50
Riley-Purg-Bluff Creek	22
Shingle Creek	23
South Washington	20
Vadnais Lake Area	4
Vermillion River	18
West Mississippi	10
County	**Drains Adopted**
Anoka County	52
Carver County	9
Hennepin County	472
Washington County	46

2024 Financial Report

Partners contributed $186,999 to the Watershed Partners in support of meetings, state fair outreach, administration, exhibit development (including maintenance and checkout), Adopt-a-Drain, and the Clean Water MN website and public outreach campaign. While our revenue was slightly lower than projected, we remain in good financial standing. We shifted some of the planned work on the digital resource library to 2025 t o meet our budget. We plan to continue that work in 2025 along with supporting our new Chloride initiative. We will not be raising our dues, but do hope to add new member cities to the Metro Watershed Group in 2025.

Supporting Members of the Metro Watershed Partners in 2024

Andover
Anoka Conservation District
Bassett Creek WMC
Blaine
Bloomington
Brown's Creek Watershed District
Capitol Region Watershed District
Carver County
Circle Pines
Columbia Heights
Coon Creek Watershed District
Crystal
Eagan-Inver Grove Heights WMO
East Metro Water Resources
Eden Prairie
Edina
Elm Creek WMC
Excelsior
Fridley
Hastings
Hennepin County
Hopkins
Lakeville
Lauderdale
Little Canada
Lower Mississippi River WMO
Middle St. Croix WMO
Minneapolis
Minnehaha Creek Watershed District
Minnetonka
Mississippi WMO
Mound
New Brighton
Nine Mile Creek Watershed District
Pioneer-Sarah Creek WC
Ramsey-Washington Metro Watershed District
Rice Creek Watershed District
Richfield
Riley Purgatory Bluff Creek Watershed District
Rochester
Rosemount
Roseville
Saint Louis Park
Saint Paul
Shingle Creek WMC
Shoreview
South Washington Watershed District
Vadnais Lake Area WMO
Vermillion River Watershed JPO
Washington Conservation District
Wayzata
West Mississippi WMC
White Bear Lake
White Bear Township
Woodbury

Watershed Partners 2024 Accounting

	IN-KIND	CASH	TOTAL
REVENUE			
2023 Funds rollover		$14,241.28	$14,241.28
2024 Membership		$186,999.00	$186,999.00
Total revenue		$201,240.28	$201,240.28
EXPENSE			
1. Watershed Partners Coordination			
Principle Investigator	$2,500.00	$8,481.43	$10,981.43
Program Coordination	$9,000.00	$18,000.00	$27,000.00
Steering Committee	$32,400.00		$32,400.00
Mobilize annual membership		$588.00	$588.00
Technology maintenance	$1,400.00	$1,375.42	$2,775.42
Meeting expenses		$3,268.13	$3,268.13
Postage and printing		$100.00	$100.00
Subtotal	$45,300.00	$30,269.43	$75,569.43
2. Watershed Exhibit Implementation			
Exhibit coordination	$4,500.00	$4,728.00	$9,228.00
State fair expenses	$2,700.00	$25,394.00	$28,094.00
Storage and check-out	$5,000.00		$5,000.00
Subtotal	$12,200.00	$30,122.00	$42,322.00
3. Clean Water MN			
Web hosting and maintenance		$1,400.00	$1,400.00
Earth Month Campaign and MN Twins Event		$7,619.77	$7,619.77
Image and video digital resource library		$6,000.00	$6,000.00
Media curation		$4,000.00	$4,000.00
Subtotal	$0.00	$19,019.77	$19,019.77
4. Adopt-a-Drain			
Site license	$6,900.00	$30,000.00	$36,900.00
Program coordination		$29,000.00	$29,000.00
Program implementation		$17,000.00	$17,000.00

	IN-KIND	CASH	TOTAL
Social media and communications		$9,000.00	$9,000.00
Promo merch		$0.00	$0.00
End of year mailing		$2,202.30	$2,202.30
Website work and graphic design		$7,000.00	$7,000.00
Subtotal	$6,900.00	$94,202.30	$101,102.30
TOTAL	**$64,400.00**	**$173,613.50**	**$238,013.50**
ADMINISTRATION FEE		**$17,361.35**	**$17,361.35**
TOTAL (INCL. ADMIN)	**$64,400.00**	**$190,974.85**	**$255,374.85**

2024 Rollover: $10,265.43

Watershed Partners Projected 2025 Budget

	IN-KIND	CASH	TOTAL
REVENUE			
2024 Funds rollover		$10,265.43	$10,265.43
2024 Membership		$190,000.00	$190,000.00
Total revenue		$200,265.43	$200,265.43
EXPENSE			
1. Watershed Partners Coordination			
Principle Investigator	$2,500.00	$8,481.43	$10,981.43
Program Coordination	$9,000.00	$18,000.00	$27,000.00
Steering Committee	$32,400.00		$32,400.00
Mobilize annual membership		$588.00	$588.00
Technology maintenance	$1,400.00	$1,000.00	$2,400.00
Meeting expenses		$3,000.00	$3,000.00
Postage and printing		$150.00	$150.00
Subtotal	$45,300.00	$31,219.43	$76,519.43
2. Watershed Exhibit Implementation			
Exhibit coordination	$4,500.00	$4,728.00	$9,228.00
State fair expenses	$2,700.00	$27,000.00	$29,700.00
Storage and check-out	$5,000.00		$5,000.00
Subtotal	$12,200.00	$31,728.00	$43,928.00
3. Clean Water MN			
Web hosting and maintenance		$2,500.00	$2,500.00
Photo and video resource library		$10,000.00	$10,000.00
Media curation		$4,000.00	$4,000.00
Earth Month Campaign and Event		$6,000.00	$6,000.00
Subtotal	$0.00	$20,000.00	$20,000.00
4. Adopt-a-Drain			
Site license	$6,000.00	$30,000.00	$36,000.00
Program coordination		$29,000.00	$29,000.00
Program implementation		$17,000.00	$17,000.00

	IN-KIND	CASH	TOTAL
Social media and communications		$9,000.00	$9,000.00
Promo merch		$0.00	$0.00
End of year mailing		$2,500.00	$2,500.00
Website work and graphic design		$7,000.00	$7,000.00
Subtotal	$6,000.00	$94,500.00	$100,500.00
TOTAL	**$63,500.00**	**$177,447.43**	**$240,947.43**
ADMINISTRATION FEE		**$17,744.74**	**$17,744.74**
TOTAL (INCL. ADMIN)	**$63,500.00**	**$195,192.17**	**$258,692.17**

2025 Projected Rollover: $5,073.26

Project Name |	BCWD Permit Program	**Date** |	05/09/2025
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	John Sarafolean; Julia Lau EIT/ EOR		
Regarding |	April Permit Inspection Update		

Background

BCWD has an on-going permit review process in support of the District Rules. Developments within the District Jurisdictional Boundary are reviewed for compliance with the Rules and conditions of the permit. This memo documents inspections from 04/07/2025 to 5/9/2025.

Inspection of Existing Permits

Project Name	Permit ID	Date	Grade
White Oaks Savanna Development	17-01	4/23/2025	B
Central Commons	19-05	4/17/2025	A
		4/23/2025	A
		4/30/2025	B
		5/7/2025	B
WOS Lot 122 Freiroy Residence	23-11	4/23/2025	B
		5/7/2025	B
Wiskow Berm	23-14	4/23/2025	C
WOS Lot 102 Mensah Residence	23-15	4/23/2025	B
		5/7/2025	B
WOS Lot 124 PennyLane	23-18	4/23/2025	B
		5/7/2025	B
Take 5 Oil Change	24-01	4/23/2025	C
Schuster Residence	24-02	4/29/2025	B
		5/7/2025	B
WOS Lot 120 Hilgert Residence	24-03	4/23/2025	C
		5/7/2025	C
Swager Residence	24-05	4/29/2025	B
Elliot Crossing	24-07	5/7/2025	C
Altendorfer Residence	24-08	4/29/2025	A
CSAH 5 Phase 3	24-09	4/30/2025	A
Boutwell Farms Lot 1	24-10	4/29/2025	B
WOS Lot 127 Karr Residence	24-11	4/23/2025	C

		5/7/2025	B
WOS Lot 130 Carlson Residence	24-12	4/23/2025	C
		5/7/2025	C
8413 Marylane	24-13	4/29/2025	C
Wick Residence	24-14	5/7/2025	C
Lornston Residence	24-15	5/7/2025	C
Goodsell Residence	24-16	4/23/2025	C
WOS Lot 129 Weatherby	24-17	4/23/2025	C
		5/7/2025	C
CSAH 15 Frontage Road	24-18	4/17/2025	A
		4/23/2025	B
		4/30/2025	B
		5/7/2025	B
Anderson Holdings	25-02	4/17/2025	A
		4/23/2025	A
		4/30/2025	A
		5/7/2025	B
Dockter Residence	25-09	4/29/2025	B

Permit No.	Applicant/Permit Name	Status
15-07	Brown's Creek Cove	Active
16-03	The Ponds at Heifort Hills	Active
17-01	White Oaks Savanna	Active
17-04	The Lakes of Stillwater	Active
17-17	Westridge	Active
18-02	Heifort Hills Estates	Active
18-04	Boutwell Farm	Active
18-05	Heritage Ridge	Active
18-06	Nottingham Village	Active
20-05	Neal Avenue Reconstruction	Active
20-12	White Pine Ridge	Active
21-13	Marylane Gateway	Active
21-15	Schwartz Residence	Active
21-21	Millbrook West Park	Active
22-02	White Pine Ridge, remaining lots	Active
22-03	Westridge, remaining lots	Active
22-05	13290 Boutwell Rd N	Active
22-18	Stillwater Oaks	Pending
22-23	Ferguson Residence (Heritage Ridge Lot 4)	Active
23-13	Sandhill Shores (Phase III of Lakes at Stillwater)	Active
23-14	Wiskow Berm	Active
23-17	Sundance Stillwater	Pending
24-05	Swager Residence	Active
24-06	Rutherford Elementary	Active
24-09	CSAH 5 Phase 3	Review
24-10	Boutwell Farms Lot 1	Review
24-13	8413 Marylane	Active
25-06	CSAH 15 Pavement Preservation	Active
25-09	Dockter Residence	Review

Active Permit
Conditional Approval
Under Review
BCWD Political Boundary

BCWD Permit Sites
May 9th, 2025

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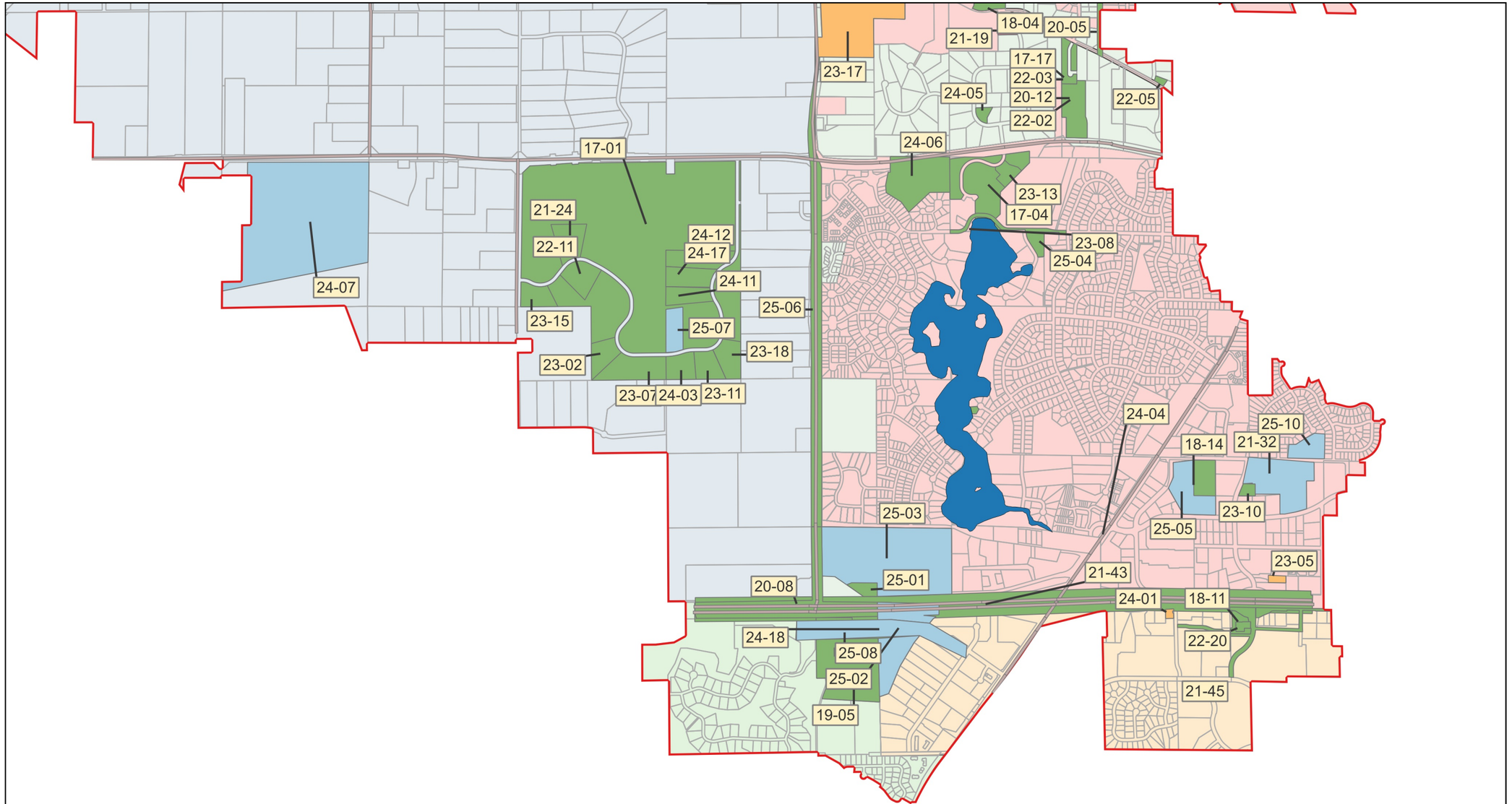

Permit No.	Applicant/Permit Name	Status
17-01	White Oaks Savanna	Active
17-04	The Lakes of Stillwater	Active
17-17	Westridge	Active
18-04	Boutwell Farm	Active
18-11	Ridgecrest	Active
18-14	St. Croix Valley Recreation Center Expansion	Active
19-05	Central Commons	Active
20-05	Neal Avenue Reconstruction	Active
20-08	TH36 CSAH 15 Interchange	Active
20-12	White Pine Ridge	Active
21-24	Nepal Residence - WOS B1L3	Active
21-32	Lakeview EMS	Review
21-43	MnDOT TH-36	Active
21-45	Norell Avenue Improvements	Active
22-02	White Pine Ridge, remaining lots	Active
22-03	Westridge, remaining lots	Active
22-05	13290 Boutwell Rd N	Active
22-11	Wiechmann Residence	Active
22-19	Miller Flood Protection	Active
22-20	Popeyes OPH	Active
23-02	Tweden Residence	Active
23-05	Rocket Carwash	Pending
23-08	72nd St Improvement	Active
23-10	Curio Dance Studio	Active
23-11	Freiroy Residence	Active
23-13	Sandhill Shores (Phase III of Lakes at Stillwater)	Active
23-15	Mensah Residence	Active
23-17	Sundance Stillwater	Pending
23-18	WOS Lot 124 Heck Residence	Active
24-01	Take 5 Oil Change	Pending
24-03	WOS Lot 120 Hilgert Residence	Active
24-05	Swager Residence	Active
24-06	Rutherford Elementary	Active
24-07	Elliot Crossing/ Indian Hills	Review
24-11	WOS Lot 127 Karr Residence	Active
24-12	Carlson Residence	Active
24-17	WOS Lot 129 Weatherby	Active
24-18	CSAH 15 Frontage Road	Active
25-01	Curve Crest Utility	Active
25-02	Anderson Holdings	Review
25-03	Lakeview Hospital	Review
25-04	Kranz Residence Addition	Active
25-05	St. Croix Recreation Center	Review
25-06	CSAH 15 Pavement Preservation	Active
25-07	Castillo Residence	Review
25-08	CSAH 15B Construction	Review
25-10	Stillwater Wellhead 10 PFAS Treatment	Review

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EOR water ecology community

- Active Permit
- Conditional Approval
- Under Review
- BCWD Political Boundary

BCWD Permit Sites
May 9th, 2025

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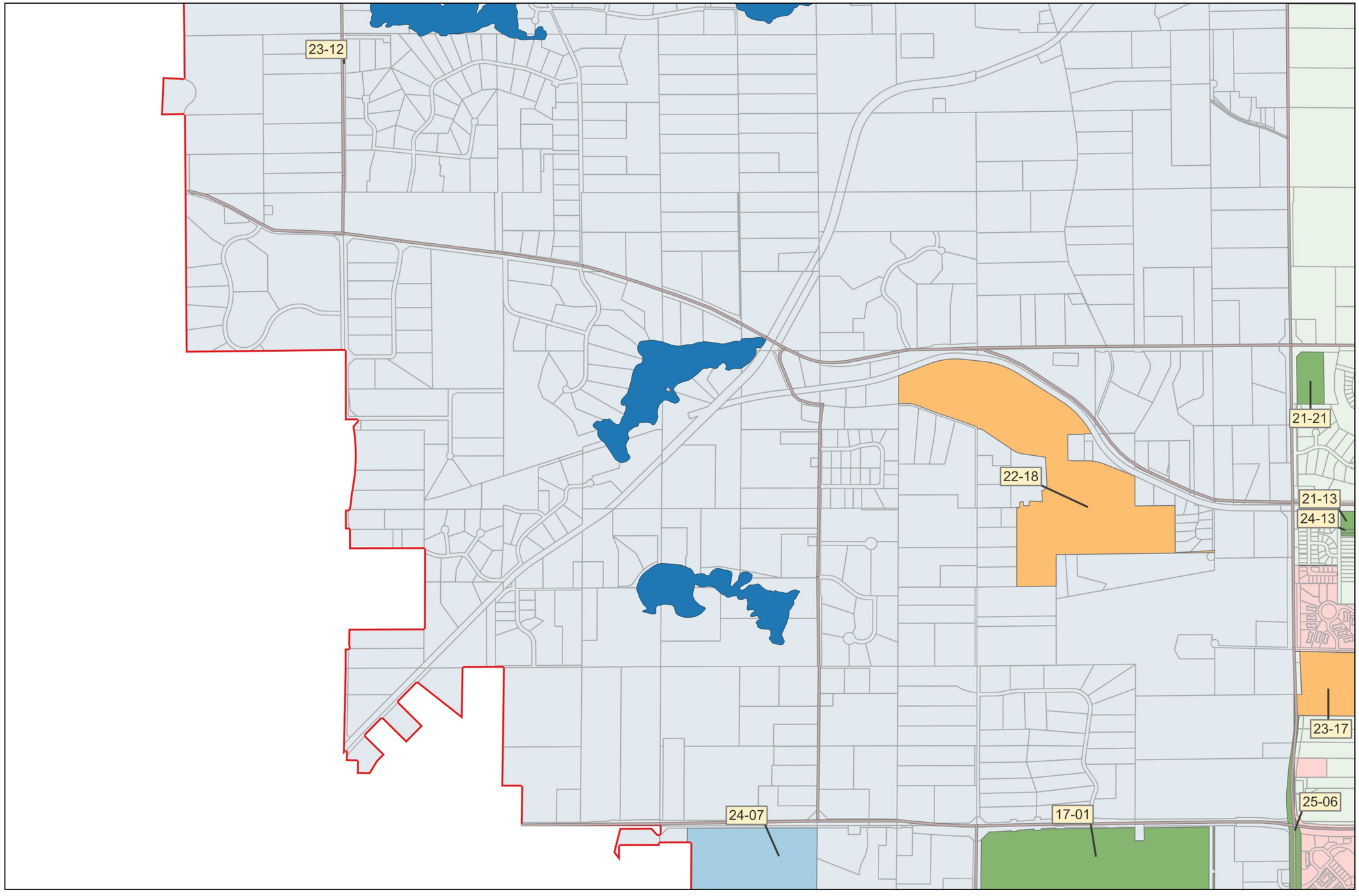

Permit No.	Applicant/Permit Name	Status
17-01	White Oaks Savanna	Active
21-13	Marylane Gateway	Active
21-21	Millbrook West Park	Active
22-18	Stillwater Oaks	Pending
23-17	Sundance Stillwater	Pending
24-07	Elliot Crossing/ Indian Hills	Review
24-13	8413 Marylane	Active
25-06	CSAH 15 Pavement Preservation	Active

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EOR water ecology community

- Active Permit
- Conditional Approval
- Under Review
- BCWD Political Boundary

BCWD Permit Sites
May 9th, 2025

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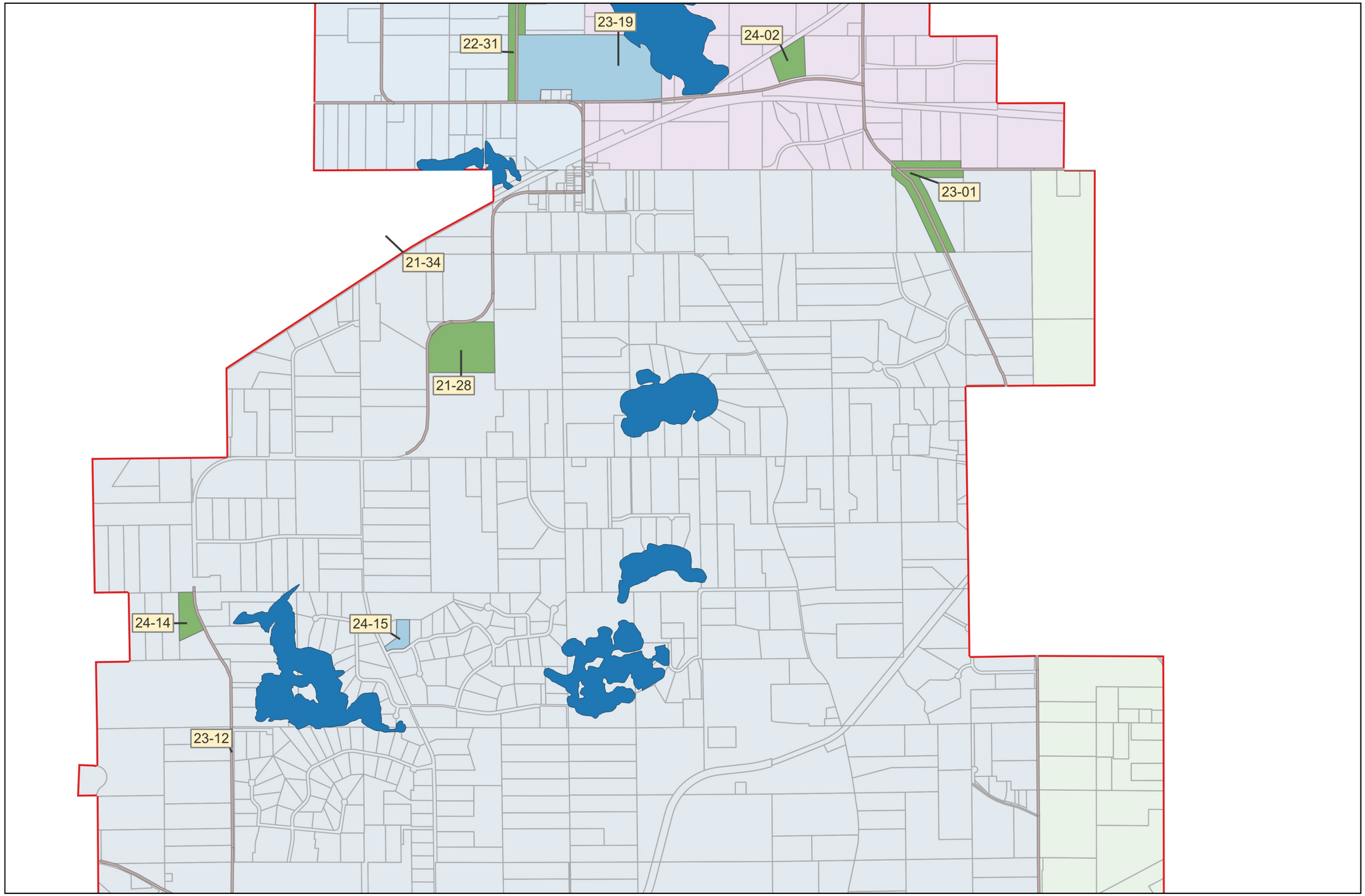
Permit No.	Applicant/Permit Name	Status
21-28	Guerrino Residence	Active
21-34	Fahey Residence	Active
22-31	County Road 57 Culverts	Active
23-01	County Road 61 Improvements	Active
23-19	Liberty Academy Expansion	Review
24-02	Schuster Residence	Active
24-14	Wick Residence	Active
24-15	Lorntson Property	Review



Active Permit
Conditional Approval
Under Review
BCWD Political Boundary

BCWD Permit Sites
May 9th, 2025

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Allison
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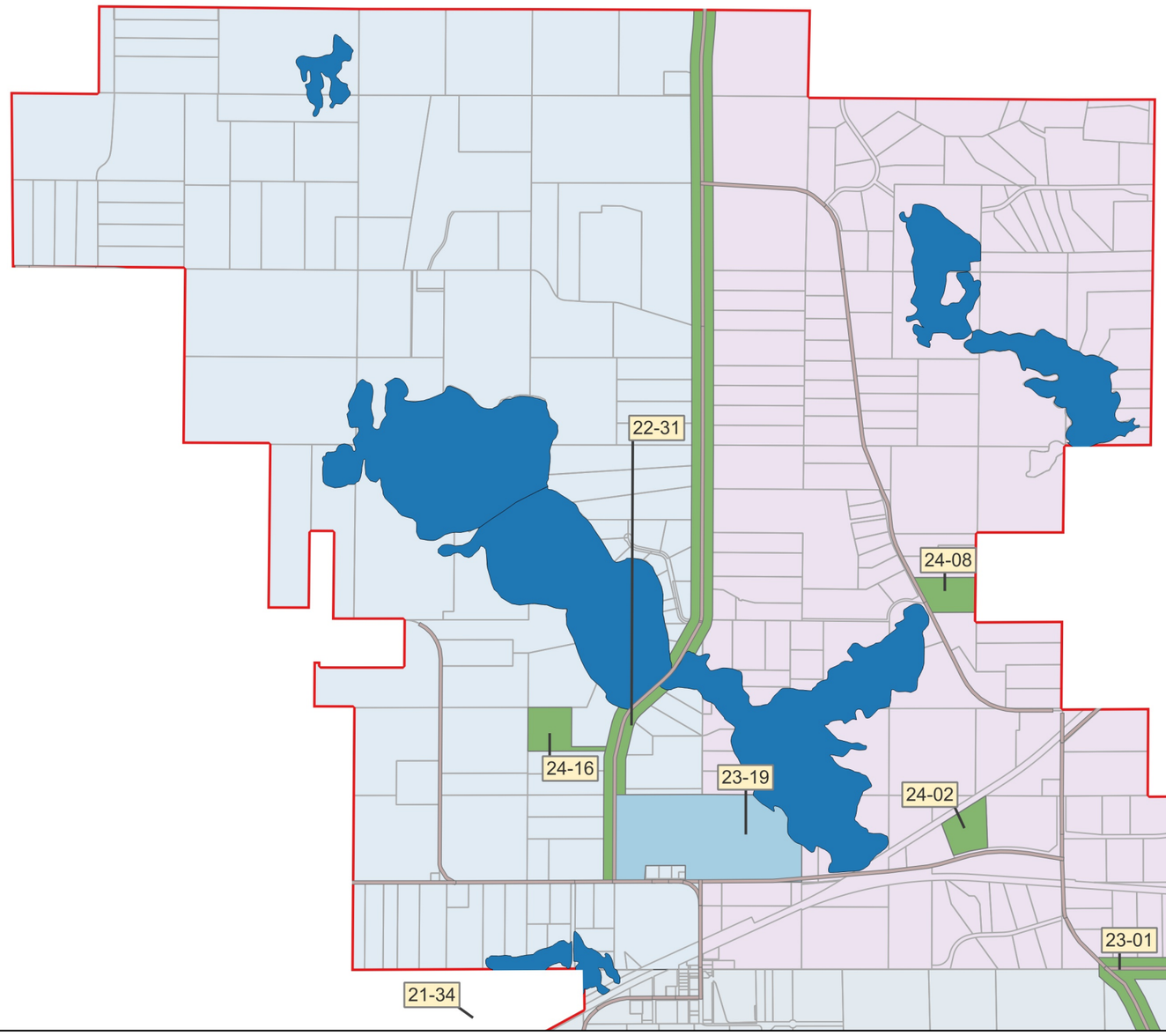
Permit No.	Applicant/Permit Name	Status
21-34	Fahey Residence	Active
22-31	County Road 57 Culverts	Active
23-01	County Road 61 Improvements	Active
23-19	Liberty Academy Expansion	Review
24-02	Schuster Residence	Active
24-08	Altendorfer Residence	Active
24-16	Goodsell Residence	Active



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- Active Permit
- Conditional Approval
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- BCWD Political Boundary

BCWD Permit Sites
May 9th, 2025

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