BROWN'S CREEK WATERSHED DISTRICT

455 HAYWARD AVE N
OAKDALE, MN
55128

651.330.8220 X26 [PHONE]
651.330.7747 [FAX]
WWW.BCWD.ORG

REGULAR MEETING OF THE BOARD OF MANAGERS
Wednesday, September 11, 2024 at 6:00 PM

NOTE MEETING LOCATION
Regular Board Meeting will be held at
Family Means
1875 Northwestern Ave, Stillwater, MN 55082

1) Call Regular Meeting to order 6:00 PM

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 Board Meeting Minutes of the August 14, 2024 Regular Meeting
   b) Accept Permit Fee Statement
   c) Authorize payment of Geomorphic Restoration pay application #3

5) Treasurer's Report
   a) Review Authorized Funds Spreadsheet
   b) Current Items Payable-**Board Action (Roll Call Vote)**

6) Permitting
   a) Rule Review Facilitation Agreement - **Board Action**
   b) BCWD Permit 24-09 CSAH 5 Phase 3 – Project overview– **no action**

7) 2025 Budget
   a) Public Hearing
   b) Resolution 24-01 2025 Budget and Levy – **Board Action**

8) Planning
   a) Management Plan Update – two-hour work session (~30 minutes per issue)
      (1) Education, Outreach & Stewardship
      (2) Recreation
      (3) Stormwater Runoff Management

(4) Stream Management

9) Discussion Agenda - No Action Required
   a) Updates
      (1) Administrator –
         (a) BCWD Permit 17-04 Lakes of Stillwater – administrator authorized permit extension to December 31, 2025
         (b) BCWD Permit 24-09 CSAH 9 – administrator authorized 60-day permit review extension
      (2) Legal
      (3) Engineer –
         (a) Permit Inspections
      (4) Managers
   b) October 2024 Regular Meeting BCWD Board Agenda:

10) Adjournment

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DRAFT Minutes of the special and regular meetings of the Brown's Creek Watershed District Board of Managers, Wednesday August 14, 2024

ROLL CALL

Managers Present:	**Others Present:**
Klay Eckles, President	Karen Kill, BCWD administrator
Celia Wirth, Vice President	Ryan Fleming, EOR, BCWD engineer
Debra Sahulka, Secretary	Michael Welch, Smith Partners, BCWD counsel
Gerald Johnson, Treasurer	Cameron Blake, BCWD staff
	Pat Conrad, EOR, BCWD engineer
Manager Absent:	Beth Carreno*
Chuck LeRoux	Steve Warnick, resident*
	Cariann Carter, resident*

* *regular meeting only*

1) 2025 Budget Workshop

President Klay Eckles called the special budget-review meeting to order at 5:00 p.m.

Karen Kill presented the proposed draft 2025 budget, which includes a 2.3 percent levy increase, an increase of approximately $26,728 over 2024 and consistent with the watershed management plan proposed 3 percent annual increase. The taxable market value of property in the watershed increased approximately 10.3 percent.

Considerations in the 2025 budget include operations and maintenance for long-term capital improvement projects, and a proposed increase from 1.5 to 2.0 full-time staff to allow for increased implementation items and education and outreach. The budget also includes the next installment of the federal 319 grant passed through the Minnesota Pollution Control Agenda for improvements to Brown's Creek or Long Lake. The budget reflects a feasibility study of a rock crib to reduce thermal loading to Brown's Creek as was identified in a previous study of the watershed. The managers requested the specific capital improvement be left as broadly described as possible to allow for exploration for the best use of grant funds. The managers supported earmarking funds for above-and-beyond stormwater treatment at the future Lakeview Hospital site. Ms. Kill explained that the *E. coli* impairment in Brown's Creek is not from human sources, and agricultural interaction with the creek is limited. Managers requested further information on the *E. coli* impairment to inform future activity. The managers discussed new efforts in the budget including homeowner association stormwater maintenance support, which has become a growing issue. The managers made no changes to the draft budget.

Manager Johnson moved, seconded by Manager Wirth, to schedule the budget and levy public hearing for the September 11 regular meeting. Motion carried, vote 4/0.

The budget workshop adjourned at 6:19 p.m.

2) Call regular meeting to order

President Klay Eckles called the regular meeting to order at 6:31 p.m.

3) Approve Agenda

Manager Johnson moved, seconded by Manager Wirth, to approve the agenda as presented. Motion carried, vote 4/0.

4) Public Comments

Residents Cariann Carter and Steve Warnick, 11589 110th Street North, Grant, explained they were neighbors to the Brown's Creek Conservation Easement Area and were here to listen to the board meeting and learn more about the watershed district. Staff and managers thanked them for attending and encouraged their ongoing engagement in watershed work.

5) Consent Agenda

Manager Wirth moved, seconded by Manager Johnson, to approve the consent agenda:
a) Approve board meeting minutes of the July 10, 2024 regular meeting
b) Accept permit fee statement
c) Authorize payment of Geomorphic Restoration pay application #2
d) Authorize registration, expenses, and per diems for managers and registration and expenses for staff for the Minnesota Watersheds annual meeting December 2024
e) Appoint Sandy Noreen-Ruben and Dory Herman to the Citizens Advisory Committee
f) Accept Steve Merchant resignation from the Citizens Advisory Committee and thank for service
Motion carried 4/0.

6) Treasurer's Report

a) Review Authorized Funds Spreadsheet

There was no discussion on the authorized funds spreadsheet.

b) Current Items Payable

Manager Wirth moved, seconded by Manager Johnson, to accept the authorized funds spreadsheet, and authorize the administrator to pay the bills as presented in the amount of $158,353.14, including the Geomorphic Restoration pay application as recommended by the engineer under the consent agenda.

	Yea	Nay	Abstain	Absent
Manager Eckles	X			

Manager Johnson X
Manager LeRoux X
Manager Wirth X
Manager Sahulka X
Motion carried 4/0.

7) Planning

a) Management Plan Update

(1) Regulatory review facilitation proposals

Ms. Kill reminded the managers of the effort to seek facilitation to evaluate the regulatory program. Staff recommends Beth Carreno's proposal not to exceed $9,800 from account 909-0000. The proposal also included a review of the permitting process. Manager Eckles confirmed that the proposed budget would cover the collection of needed data, and Ms. Carreno confirmed that she would connect on how much follow up work may be needed. Manager Eckles noted he remains interested in simplifying the process for single-family residential permits.

Mr. Welch explained if the managers chose to move forward with Ms. Carreno's proposal, contract terms for insurance need to be determined, given that she is a sole proprietor. Managers requested staff work out the contract details and bring a draft agreement to the next meeting for authorization.

(2) Equity Framework Policy

Mr. Welch provided background on the draft policy provided in the meeting packet for the managers' consideration. He noted the importance of tying work on diversity, equity, inclusivity and accessibility to the district's statutory water-resource protection and flood-risk mitigation purposes. Manager Wirth asked if the policy would specify what the district will be doing and define what communities will be engaged. Mr. Welch advised that these details should be included in the management plan.

Manager Johnson moved, seconded by Manager Sahulka, to adopt the equity policy as presented. Motion carried, vote 4/0.

(3) Natural Resource Inventory Updates

(a) Wetlands

Pat Conrad provided background on the two scopes of work included in the meeting packet for consideration as part of the management plan update. The district uses an existing wetland inventory for the regulatory program. Better data are available and the tool for wetland classification has been revised and updated. Currently the district evaluates wetlands during each permit review and the cost is covered by the applicant. Currently staff and developers work off the wetland inventory and come to an agreement on how to classify the wetland. The proposed scope would bring the inventory up to today's standards by applying a functional assessment tool to a subset of wetlands that could then be extrapolated to all wetlands in the watershed via a desktop evaluation. This would allow the district to identify and protect unique resources in the district.

(b) Groundwater Dependent Natural Resources

Mr. Conrad explained the district also has rules designed to protect groundwater dependent natural resources. Areas of recharge and groundwater connection are valuable information for management decisions. This effort is related to the wetlands inventory update, but specific to groundwater dependent analysis.

Manager Wirth moved, seconded by Manager Johnson, to approve the scopes of services for $24,020 to conduct the wetland inventory and functions and values assessment and $9,972 to conduct the groundwater dependent natural resource update from account number 927-0000.

Manager Eckles requested the motion be amended to specify the approved scope includes an update of the entire wetland inventory, and if this work was not intended to be included in the total scope that the scope be brought back to the managers at the September meeting. Managers Wirth and Johnson concurred.

Upon vote, the amended motion carried 4/0.

8) Discussion Agenda

a) Updates

(1) Administrator

Ms. Kill said Freshwater Society's fundraiser on September 12, 2024, has topics that could be of interest to board managers or staff.

Manager Wirth moved, seconded by Manager Johnson, to authorize payment for staff and managers for tickets to the Freshwater Society fundraiser. Motion carried, vote 4/0.

(2) Legal

Mr. Welch explained that Nine Mile Watershed District will be considering a resolution supporting regulatory approaches to chloride-use reduction next week for submission to Minnesota Watersheds.

(3) Engineer

(a) Permit Inspection Update

Ms. Kill said active permits are getting their sites into compliance despite the heavy rain.

(4) Managers

Manager Celia Wirth said she was excited about the new Citizens Advisory Committee members. The managers discussed potential candidates they could contact to apply for the upcoming BCWD board vacancy.

9) Adjournment

Manager Johnson moved, seconded by Manager Wirth, to adjourn the regular meeting at 7:55 p.m. Motion carried 4/0.

Respectfully submitted by
Cameron Blake, BCWD staff and Debra Sahulka, Secretary

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
Bergmann Development/Sanctuary Permit No. 05-12	10/14/2005		X	X	X			X				X			$ -
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			$18,888.02
The Lakes of Stillwater Permit 17-04		received as-builts and not built as approved -needs correction	X	X	X			X					X		$4,110.58
West Ridge Permit 17-17			X	X	X			X	X			X			$1,082.93
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			$381.44
Hazel Place/Hertiage Ridge Permit 18-05 (Was 17-09)		lots to go	X	X	X			X	X			X			($2,445.17)
Nottingham Village Permit 18-06		approved (overflow too	X	X	X			X				X			$650.03
Ridgecrest Permit 18-11		done - one raingardian follow up spring 2024	X	X				X	X				X		$16.68
St Croix Valley Recreation Center Expansion Permit 18-14		up 2021		X				X	X	X				$6,970.28	
Central Commons Permit 19-05	11/11/2025	Declaration still	X	X	X			X	X				X		($5,000.00)
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				$19,495.85	
White Pine Ridge Permit 20-12	6/7/2021 surety redution request 1/12/23			X					X			X			($631.32)
Maryland Gateway Addition Permit 21-13	9/29/2021	four lots left to build	x	x				x				x			($817.00)
Schwartz Residence Permit 21-15	5/6/2021 erosion control only	amendment requested for 2.0	x	x							x				($319.38)
Millbrook Park- City of Stillwater Permit 21-21	8/25/2021	Retrofit complete/planting spring 2024	x	x	x					x				$6,970.18	
Fahey Permit 21-34	11/4/2021			x							x				($743.78)
Norell Ave N Improvements	*(Fall 2022 BMP still needs to be finalized fall 2023)*	waiting on maintnance agreement	x	x				x		x				$10,458.63	

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
Permit 21-45															
Gonyea (8 lots)- White Pine Ridge Permit 22-02				x								x			($407.85)
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				$7,650.88
13199 Dellwood Rd Permit 22-15	???			x							x				$217.83
Read Residence Permit 22-17	11/7/2022		x	x							x				$0.00
Stillwater Oaks Permit 22-18	conditional approval		x	x								x			$11,158.50
Popeyes OPH Permit 22-20	11/9/2022			x									x		($189.62)
7164 Lone Oak Trl (WOS L113) Permit 22-25	12/6/2022			x							x				$76.24
Wash Co. CSAH 5 Phase II Permit 22-30	1/19/2023			x						x				$840.51	
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				$8,110.45	
WOS L114 - Cates (7211 Lone Oak Trail Tweden) Permit 23-02	9/26/2023 submittal			x	x			x			x				$8,399.43
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				$652.59
72nd St Road and Trail Improvements Permit 23-08	5/26/2023									x				$3,401.41	
Curio Dance Studio Permit 23-10	10/2/2023	Declaration amendment prior to closure	x	x									x		$6,036.16
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				$1,021.30
CSAH 9 -Keystone Ave - Culvert Replacement Permit 23-12	6/7/2023	nearing completion fall 2023						x		x				$1,562.02	
The Lakes - Phase III/Sandhill Shores Permit 23-13	6/8/2023			x								x			$344.76
Wiskow Berm Permit 23-14	6/28/2023			x							x				($655.14)

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
7085 Lone Oak Trail- WOS L102- Mensah Res/Cates Permit 23-15	App recieved 7/10 John reviewing/conditions 7/27/2023			x							x				$1,230.16
Sundance Townhomes Permit 23-17	conditional approval		x	x	x			x					x		$6,688.75
7285 Lone Oak Trl- WOS L124 Permit 23-18	erosion control revisions needed			x							x				$207.93
Liberty Classical Academy Expansion Permit 23-19	Plans submitted 6-12-2024 Fee received 12-21-2023		x	x	x			x					x		$33,781.23
Take 5 Oil Change Permit 24-01	8/23/2024		x	x				x					x		($3,062.47)
Schuster Residence- 122nd St N Permit 24-02	3/12/2024			x							x				$780.83
WOS L120- 7255 Lone Oak- Hilgert Permit 24-03	3/18/2024			x							x				$1,931.23
Washington County CSAH 5 - 36 to Croixwood Permit 24-04	2/26/2024			x						x				$ 1,159.00	
Swager Residence Permit 24-05	3/7/2024			x							x				$ (720.47)
Rutherford Elementary Permit 24-06	8/29/2024		x	x				x		x				$ 8,379.06	
Elliot Crossing Permit 24-07	8/2/2024 submittal complete		x	x	x			x				x			$ 15,995.49
Altendorfer Residence - 13075 Lynch Rd Permit 24-08	5/8/2024			x							x				$ (853.75)
Washington County CSAH 5 - Trails and Bridge Permit 24-09	8/6/2024 submittal complete		x	x			x	x		x					$ 16,576.50
Boutwell Farms lot 1 -Conlin - 2545 Boutwell Farm Rd Permit 24-10	application incomplete 8/29/2024			x							x				$ (866.91)
7300 Lone Oak Trail - WOS Lot 127 Karr Residence Permit 24-11	8/29/2024			x							x				$ 433.25
7388 Lone Oak Trail- WOS Lot 130 Permit 24-12	pre-application - lowest floor alteration request										x				
8413 Marylane Permit 24-13	application recieved 8/30 incomplete			x							x				$ (1,000.00)
TOTAL NON-EXEMPT DUE BCWD:			90	326	34	15	27	160		71	153	13	119		**$207,897.08**
Total due back to applicants if closed:															**$ (214,075.90)**

memo

Project Name |	Brown's Creek Stream Restoration Project	**Date** |	09/05/24
To / Contact info |	Karen Kill (BCWD Board of Managers (BCWD)		
Cc / Contact info |	Camilla Correll (EOR)		
From / Contact info |	Dan Mossing (EOR) Mike Majeski (EOR)		
Regarding |	Contractor Payment Application #3		

The purpose of this memorandum is to recommend payment of Pay Request #3 from Geomorphic Restoration, Inc. for the Brown's Creek Stream Restoration Project.

PROJECT UPDATE

This payment application is for all work completed through September 5, 2024. All in stream work in fully completed. The practices installed thus far are brush/log toe, bank shaping, rock riffles, channel plugs, vegetated boulder toe, sod mats and remeandering. Native seeding and hydromulching is partially completed and will continue on through the month of September. Remaining items before project closeout include finalizing tree and invasive vegetation management, remove miscellaneous debris and completing the asphalt paving and seat boulders.

PAY APPLICATION REVIEW

The quantity billed under this pay request has been verified via field inspections, measurements, and/or material invoices submitted by the contractor. Work has been satisfactorily completed.

SUMMARY OF PAYMENT(S)

Original Contract Price (Including Add Alternate)	$355,261.50
Current Contract Price with Change Order #1	$358,638.50
Work completed to date	$273,960.83
Retainage (5%)	$13,698.04
Amount Eligible to Date	$260,262.78
Previous Payment for Pay Application #1	$43,878.13
Previous Payment for Pay Application #2	$73,534.99
Payment Request #3:	***$142,849.66***

RECOMMENDATION

Recommend payment of $142,849.66 to Geomorphic Restoration, Inc. for work completed under this pay request.

Encl:

- Contractor's Application for Payment No. 3 (Dated 9/5/2024)

Approved by:

Dan Mossing, PE

Contractor's Application for Payment No. 3

	Application Period: August/September, 2024	Application Date: 9/5/2024
To (Owner): Brown's Creek Watershed District	From (Contractor): Geomorphic Restoration, Inc.	Via (Engineer): Emmon's and Olivier Resources, Inc.
Project: Brown's Creek Stream Restoration Project	Contract: Brown's Creek Stream Restoration Project	
Owner's Contract No.: -	Contractor's Project No.: -	Engineer's Project No.: 00041-0418

Application For Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
1	$3,377.00	
TOTALS	$3,377.00	
NET CHANGE BY CHANGE ORDERS	$3,377.00	

1.	**ORIGINAL CONTRACT PRICE**		$	**$355,261.50**
2.	**Net change by Change Orders**		$	**$3,377.00**
3.	**Current Contract Price (Line 1 ± 2)**		$	**$358,638.50**
4.	**TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)**		$	**$273,960.83**
5.	**RETAINAGE:**			
	a. 5.0% X $273,960.83 **Work Completed**		$	**$13,698.04**
	b. X _____ **Stored Material**		$	
	c. Total Retainage (Line 5a + Line 5b)		$	**$13,698.04**
6.	**AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)**		$	**$260,262.78**
7.	**LESS PREVIOUS PAYMENTS (Line 6 from prior Application)**		$	**$117,413.12**
8.	**AMOUNT DUE THIS APPLICATION**		$	**$142,849.66**
9.	**BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)**		$	**$94,998.72**

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By: _____ Date: 9/5/2024

Payment of: $ $142,849.66
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ 9/5/2024
(Engineer) (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding Agency (if applicable) (Date)

Brown's Creek Watershed District
2024 Approved Budget- Final Certified Levy
9-11-2024

		Revised 2023 Carry Forward for Approval	2024 Grants	2024 Levy	2024 Total Budget (For approval)	Allocated	Available
100-2910	Designated Funds - Management Plan Projects	*$ 992,580*			$ 992,580		$ 992,580
					$ -		$ -
Revenue					$ -		$ -
100-3700	Interest Income				$ -		$ -
100-3601	Metropolitan Council Outlet Monitoring Grant		$ 5,000		$ 5,000		$ 5,000
100-3630	Washington County Cost-share Applewood Reuse	*$ 66,800*			$ 66,800		$ 66,800
100-3631	MPCA Small Watershed Grant 2023-2026	*$ 320,706*			$ 320,706		$ 320,706
100-3100	Tax Levy			$ 1,180,803	$ 1,180,803		$ 1,180,803
TOTAL, ESTIMATED Sources of Funding		***$ 1,380,086***	***$ 5,000***	***$ 1,180,803***	**$ 2,565,889**		**$ 2,565,889**

ACCT. #	General Expenses	Revised 2023 Carry Forward for Approval	2024 Grants	2024 Levy	2024 Total Budget (For approval)	Allocated	Available
200-4000	Manager Per Diem and Expense			$ 10,000	$ 10,000	$ 10,000	$ -
200-4001	Manager Communications/Tablets	*$ 4,350*			$ 4,350	$ 4,350	$ -
200-4220	Secretarial Services	*$ 4,000*		$ (4,000)	$ -		$ -
200-4250	Dues & Subscriptions (MAWD 6500 and LMCIT 2500)			$ 9,000	$ 9,000	$ 9,000	$ -
200-4270	Bonding & Insurance			$ 6,000	$ 6,000	$ 6,000	$ -
200-4280	Postage & Delivery			$ 1,000	$ 1,000		$ 1,000
200-4290	Printing & Notices			$ 1,000	$ 1,000		$ 1,000
200-4330	Accounting			$ 4,560	$ 4,560	$ 4,560	$ -
200-4331	Audit			$ 10,300	$ 10,300	$ 10,300	$ -
200-4949	Misc., Other Expense			$ 2,000	$ 2,000	$ 1,000	$ 1,000
200-4320	Wash. Conservation District--Admin			$ 58,670	$ 58,670	$ 58,670	$ -
200-4265	Admin Conference Registrations			$ 2,000	$ 2,000		$ 2,000
200-4410	Legal Fees - General			$ 25,800	$ 25,800	$ 25,800	$ -
200-4500	Staff Engineer			$ 28,445	$ 28,445	$ 28,445	$ (1)
	Diversity, Equity and Inclusion Training			$ 5,000	$ 5,000		$ 5,000
	Contingency Reserve	*$ 30,824*		$ -	$ 30,824		$ 30,824
TOTAL GENERAL FUND EXPENSES:		***$ 39,174***	***$ -***	***$ 159,775***	***$ 198,948***	***$ 158,125***	**$ 40,823**

ACCT. #	MANAGEMENT PLAN EXPENSES	Revised 2023 Carry Forward for Approval	2024 Grants	2024 Levy	2024 Total Budget (For approval)	Allocated	Available
300-4320	Wash. Conservation District--Administrator	*$ 15,000*		$ 176,005	$ 191,005	$ 191,005	$ -
300-4410	Legal Fees - Mgmt Plan			$ 60,000	$ 60,000		$ 60,000
300-4501	Staff Engineer			$ 90,474	$ 90,474	$ 90,474	$ 0
300-4702	Permitting, Legal Review			$ 15,000	$ 15,000		$ 15,000
300-4703	Permitting, Engineering Review			$ 55,000	$ 55,000		$ 55,000
300-4704	Permitting, Inspection Database			$ 1,000	$ 1,000		$ 1,000
300-4710-1	Baseline Monitoring	*$ 518*	$ 5,000	$ 136,420	$ 141,938	$ 141,938	$ -
300-4640	Equip. Maint. and Upgrades	*$ 15,000*		$ 10,000	$ 25,000	$ 7,400	$ 17,600
300-4810	Shared Educator Position			$ 20,500	$ 20,500	$ 20,500	$ -
300-4950	Management Plan Implementation -future projects			$ -	$ -		$ -
903-0001	Trout Habitat Preservation Project: Monitoring,			$ 6,500	$ 6,500	$ 6,490	$ 10
909-0000	Rules Review/Evaluation	*$ 27,000*		$ 3,000	$ 30,000		$ 30,000
909-0001	Groundwater Dep Nat Resource Inventory update	*$ 10,000*		$ (10,000)	$ -		$ -
909-0002	Permitting Program Internal Procedure updates	*$ 25,000*			$ 25,000		$ 25,000
910-0000	Education & Outreach			$ 15,000	$ 15,000	$ 14,948	$ 52
911-0000	Volunteer Stream Monitoring			$ 4,045	$ 4,045	$ 4,045	$ -
912-0000	Grant Preparation	*$ -*			$ -		$ -
914-0000	Homeowner BMP Program			$ 50,000	$ 50,000		$ 50,000
922-0000	Plan Reviews - LGU/LWMP				$ -		$ -
923-0000	H & H Model Maintenance	*$ 3,800*		$ 130,824	$ 134,624	$ 26,370	$ 108,254
923-0002	Flood Risk Assessment	*$ 89,316*		$ (63,360)	$ 25,956	$ 25,956	$ -
927-0000	Management Plan Update	*$ 127,000*		$ 90,000	$ 217,000	$ 204,634	$ 12,366
929-0000	Long Lake Plan Implementation-shoreline management			$ -	$ -		$ -
929-0010	Long Lake -Implementation - regional treatment	*$ 75,000*		$ (75,000)	$ -		$ -
929-0011	Long Lake - 62nd Street Pond Retrofit Feasibility	*$ 15,000*			$ 15,000	$ 15,000	$ -
929-0012	Long Lake - Marketplace Reuse Feasibility	*$ 164,900*		$ 60,220	$ 225,120		$ 225,120
931-0001	Benz Lake Management Plan Implementation	*$ 15,500*		$ (15,500)	$ -		$ -
935-0000	Land Conservation Program	*$ 100,000*		$ 50,000	$ 150,000		$ 150,000
935-0002	110th Street Property Implementation	*$ 45,000*		$ 25,000	$ 70,000		$ 70,000
935-0003	Develop Land Conservation Priorities	*$ 20,000*			$ 20,000		$ 20,000
940-0000	BMP Program – LGU/Community Demonstration Projects	*$ 10,000*			$ 10,000	$ 10,000	$ -
942-0004	Measuring Trends in GW Elevations & Flow	*$ 3,960*			$ 3,960	$ 3,960	$ -
942-0007	Groundwater - Browns Creek piezometers	*$ 8,960*			$ 8,960		$ 8,960
942-0011	Groundwater - Coordination with users	*$ 40*		$ 24,000	$ 24,040	$ 24,036	$ 4
942-0012	Groundwater - Install Monitoring Wells	*$ 58,000*		$ (58,000)	$ -		$ -
942-0013	Groundwater - Pump Test	*$ 15,000*		$ (15,000)	$ -		$ -
947-0017	Brown's Creek Implementation - Ecoli site visits/cost-share	*$ 10,000*			$ 10,000		$ 10,000
947-0018	Brown's Creek - Biological Survey (Macroinvert & Fish)	*$ 4,000*			$ 4,000	$ 3,776	$ 224
947-0022	Brown's Creek - Buffer and Stream Restoration	*$ 330,000*		$ 133,000	$ 463,000	$ 364,244	$ 98,757
947-0023	Brown's Creek - Golf Course Reuse - Oak Glen				$ -		$ -
947-0026	Brown's Creek - Brown's Creek Cove Reach			$ 20,000	$ 20,000		$ 20,000
948-0000	CIP Maintenance	*$ 35,418*		$ 135,000	$ 170,418	$ 52,218	$ 118,199
950-0001	South School Curly Leaf Treatment	*$ 1,000*		$ (1,000)	$ -		$ -
951-0001	Woodpile Lake Management Plan Implementation	*$ 10,000*		$ (10,000)	$ -		$ -
953-0000	Fen Management Plan Implementation	*$ 4,000*			$ 4,000	$ 4,000	$ -
957-0000	Weather Station			$ 3,700	$ 3,700	$ 3,642	$ 58
959-0001	Resource Assessment - upstream 110th/Drone flight			$ 4,700	$ 4,700	$ 4,700	$ -
959-0002	Resource Assessment - Diversion Tribs - Head cut Repairs	*$ 60,000*		$ (60,000)	$ -		$ -
959-0003	Resource Assessment - Brown's Creek Gorge Bluff				$ -		$ -
960-0000	St Croix Phosphorus Reduction	*$ 10,000*			$ 10,000		$ 10,000
961-0000	Mendel Wetland Restoration Feasiblity	*$ 20,000*		$ 15,000	$ 35,000		$ 35,000
962-0000	District-Wide Pond Management Planning/Implementation			$ 4,500	$ 4,500	$ 4,500	$ -
963-0000	District-Wide Vegetation Surveys	*$ 10,000*		$ (10,000)	$ -		$ -
964-0000	District-Wide Chloride Source Assessment	*$ 2,500*			$ 2,500		$ 2,500
TOTAL MANAGEMENT PLAN PROJECT EXPENSES:		***$ 1,340,912***	***$ 5,000***	***$ 1,021,028***	***$ 2,366,940***		**$ 1,143,104**
TOTAL, OPERATING EXP. & MGMT. PLAN PROJECTS:		***$ 1,380,086***	***$ 5,000***	***$ 1,180,803***	***$ 2,565,888***		***$ 1,183,927***

BROWN'S CREEK WATERSHED DISTRICT
9/11/2024
CURRENT ITEMS PAYABLE-PAGE 1 of 2

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

VENDOR		**ACCOUNT #**		ITEMS	TOTAL	**CK NO**
Emmons & Olivier Resources, Inc.	Invoices August 2024					
	Inv. 41-0000-225 Retainer	300-4500	$	7,078.50		
	Inv. 41-0000-225 Retainer	200-4500	$	2,359.50		
	Inv. 41-0001-228 General Permitting	300-4703	$	7,699.50		
	Inv. 41-0307-89 Permits 2017					
	Permitting #17-01 Grant Holdings Subd	300-4703	$	56.42		
	Permitting #17-04 Stillwater Senior Living	300-4703	$	148.50		
	Permitting #17-17 West Ridge	300-4703	$	190.92		
	Inv. 41-0330-73 Permits 2018					
	Permitting #18-04 Boutwell Farm	300-4703	$	154.17		
	Inv. 41-0365-47 Permits 2020					
	Permitting #20-12 White Pine Ridge	300-4703	$	220.50		
	Inv. 41-0384-34 Permits 2021					
	Permitting #21-13 Marylane Gateway	300-4703	$	37.61		
	Inv. 41-0402-30 Permits 2022					
	Permitting #22-02 Gonyea at White Pine Ridge	300-4703	$	73.50		
	Permitting #22-11 WOS L106	300-4703	$	147.00		
	Permitting #22-18 Stillwater Oaks	300-4703	$	477.75		
	Permitting #22-19 Miller Flood Protection	300-4703	$	148.50		
	Permitting #22-20 Popeyes	300-4703	$	76.64		
	Permitting #22-25 WOS L113	300-4703	$	18.88		
	Inv. 41-0420-20 Permits 2023					
	Permitting #23-02 WOS Lot 114	300-4703	$	35.63		
	Permitting #23-07 WOS Lot 118	300-4703	$	39.25		
	Permitting #23-08 72nd Street	300-4703	$	147.00		
	Permitting #23-10 Curio Dance Studio	300-4703	$	113.39		
	Permitting #23-11 WOS L122	300-4703	$	56.00		
	Permitting #23-13 Sandhill Shores	300-4703	$	94.03		
	Permitting #23-14 Wiskow Berm	300-4703	$	39.03		
	Permitting #23-15 WOS Lot 102	300-4703	$	60.04		
	Permitting #23-18 WOS L124	300-4703	$	56.42		
	Permitting #23-19 Liberty Classical Academy Expansion	300-4703	$	3,702.00		
	Inv. 41-0438-08 Permits 2024					
	Permitting #24-01 Take 5 Oil Change	300-4703	$	186.03		
	Permitting #24-02 Schuster Residence	300-4703	$	57.98		
	Permitting #24-03 WOS L120- Hilgert Residence	300-4703	$	56.42		
	Permitting #24-06 Rutherford Elementary	300-4703	$	74.73		
	Permitting #24-07 Elliot Crossing	300-4703	$	6,328.50		
	Permitting #24-09 CSAH 5 Phase 3	300-4703	$	6,985.50		

	Permitting #24-10 Boutwell Farm Lot 1	300-4703	$ 37.61		
	Permitting #24-11 WOS Lot127 Karr Residence	300-4703	$ 1,433.25		
	Inv. 41-0205-82 CIP Operation and Maintenance	948-4500	$ 498.56		
	Inv. 41-0418-21 Brown's Ck Pk Restoration	947-0022	$ 14,719.14		
	Inv. 41-0442-5 2024 Weather Station	957-0000	$ 297.00		
	Inv. 41-0447-5 BCWD 2024 WMP Update	927-0000	$ 6,461.27		
	Inv. 41-0443-4 Rare Aquatic Plant Outreach	910-0000	$ 993.25		
	Inv. 41-0433-7 2024 H&H Model Update	923-0000	$ 9,175.50		
	Inv. 41-0437-6 2024 OGGC Reuse Maintenance and Monitoring	948-0000	$ 742.50		
	Inv. 41-0450-3 Coordinating WQ Improvements with Member	962-0000	$ 396.00		
	Inv. 41-0453-3 IESF OM 2024	948-4500	$ 2,404.69		
	Inv. 41-0455-1 Wetland Inventory and Assessment Update	948-4500	$ 840.00	$	74,918.61
Xcel Energy	Inv. 890880617- Iron Enhanced Sand Filter pump operation	948-4500	$ 100.85	$	100.85
Washington Conservation District	Inv. 6650 July 2024- Water Monitoring				
	Baseline Water Monitoring- labor	300-4710	$ 10,441.25		
	Baseline Water Monitoring- equipment	300-4640	$ 36.24		
	Inv. 6654 July 2024- BMP Program	914-0000	$ 2,489.13		
	Inv. 6610 Volunteer Stream Monitoring	911-0000	$ 672.25		
	Inv. 6663 Administration Q2 2024				
	Administration (1/4)	200-4320	$ 14,667.19		
	Administration (3/4)	300-4320	$ 44,001.56		
	Admin Training Registration	200-4265	$ 285.23		
	Helmer Printing	200-4949	$ 2,748.75		
	Miscellaneous Expenses	200-4949	340.73		
	Inv. 6633 2nd Quarter 2024 Educator - EMWREP	300-4810	$ 5,120.33	$	80,802.66
Smith Partners	August 2024 Invoices				
	Inv. 45150 Retainer - Meetings, Preparation	200-4410	$ 2,186.27		
	Inv. 45151 General Legal Services	300-4410	$ 502.20		
	Inv. 45152 Planning	300-4410	$ 781.65		
	Inv. 45153 Contracts	300-4410	$ 167.40		
	Inv. 45154 Rule Making	300-4410	$ 390.60		
	Inv. 45155 Permits	300-4703	$ 2,893.70		
	Inv. 45156 Oak Glen Golf Club Project	300-4410	$ 27.90	$	6,949.72
Dave McCord	Inv. 4399 July 2024 Accounting Services	200-4330	$ 380.00	$	380.00
Erin and Matthew Read	Permit Closure #22-17 Read Residence	300-4703	$ 10,246.23	$	10,246.23
Geomorphic Restoration Inc.	Brown's Creek Stream Restoration Project Pay Request #3	947-0022	$ 73,534.99	$	142,849.66
Kay Scrow	Stewardship Grant Reimbursement 2024-05	914-0000	$ 500.00	$	500.00
Sustainable Stillwater	Community Event- Raptor Show Fee 50% Reimbursement	910-0000	$ 232.50	$	232.50
Karen Voy	Community Event- Demonstration Bee Hive	910-0000	$ 150.00	$	150.00

Hannah Hendrickson	Community Event- Mountain-Fern Band	910-0000	$	300.00	$	300.00
Jim Lane	Community Event- Herpatology	910-0000	$	200.00	$	200.00
Rapid Press Printing	Community Event- Yard Signs	910-0000	$	260.10	$	260.10
Total Amount Disbursed					**$**	**317,890.33**

BROWN'S CREEK WATERSHED DISTRICT
9/11/2024
MONTHLY ITEMS DEPOSITED - Page 1 of 1

VENDOR	INVOICE/DESCRIPTION	ACCOUNT #	CK NO	DEPOSIT DATE		TOTAL
Main Street Builders	#24-13 Permit Deposit	300-4703	5566	8/30/2024	$	1,000.00
4M Fund	Dividend	100-3700	Direct Deposit	8/31/2024	$	5,617.58
TOTAL AMOUNT DEPOSITED:					**$**	**6,617.58**

Brown's Creek Watershed District
Treasurer's Report
9/11/24

Total Bank Balance			
4M Fund		$	1,209,883.61
USBank			-
Less Accounts Payable			(317,890.33)
Plus Unrecorded Deposits since	08/31/2024		1,000.00
Total Balance		$	892,993.28

Agreement between
Brown's Creek Watershed District and
Beth Carreño

Regulatory Outreach Facilitation

This agreement is entered into by the Brown's Creek Watershed District, a public body with powers set forth at Minnesota Statutes chapters 103B and 103D (BCWD), and Beth Carreño, a private individual (Carreño). In consideration of the terms and conditions set forth herein, and the exchange of consideration, the sufficiency of which is hereby acknowledged, BCWD and Carreño agree as follows:

1. Scope of Work

Carreño will perform the work described in the June 25, 2024, scope of services attached as Exhibit A (the Services). Exhibit A is incorporated into this agreement and its terms and schedules are binding on Carreño as a term hereof. In the event of conflict or disparity between a term or terms of this agreement and Exhibit A, this agreement will prevail. BCWD, at its discretion, in writing may at any time suspend work or amend the Services to delete any task or portion thereof. Authorized work by Carreño on a task deleted or modified by BCWD will be compensated in accordance with paragraphs 5 and 6. Time is of the essence in the performance of the Services.

2. Independent Contractor

Carreño is an independent contractor under this agreement. Carreño will select the means, method and manner of performing the Services. Nothing herein contained is intended or should be construed to constitute Carreño as the agent, representative or employee of BCWD in any manner. Personnel performing the Services on behalf of Carreño or a subcontractor will not be considered employees of BCWD and will not be entitled to any compensation, rights or benefits of any kind from BCWD.

3. Subcontract and Assignment

Carreño will not assign, subcontract or transfer any obligation or interest in this agreement or any of the Services without the written consent of BCWD and pursuant to any conditions included in that consent. BCWD consent to any subcontracting does not relieve Carreño of its responsibility to perform the Services or any part thereof, nor in any respect its duty of care, insurance obligations or duty to defend, indemnify and hold BCWD harmless under this agreement.

4. Duty of Care; Indemnification

Carreño will perform the Services with due care. Carreño will indemnify, defend and hold harmless BCWD, its officers, board members, employees and agents from any and all actions, costs, damages and liabilities of any nature arising from: (a) Carreño's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty; or (b) a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by Carreño to BCWD. For any claim subject to this paragraph by an employee of Carreño or a subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for Carreño or a subcontractor under workers' compensation acts, disability acts or other employee benefit acts.

5. Compensation

BCWD will compensate Carreño for the Services on progress-payments basis in accordance with Exhibit A. Invoices will be submitted monthly for work performed during the preceding month. Payment for undisputed work will be due within 35 days of receipt of invoice. Direct costs not specified in Exhibit A will not be reimbursed except with prior written approval of the BCWD administrator. Subcontractor fees and subcontractor direct costs, as incurred by Carreño, will be reimbursed by BCWD at the rate specified in BCWD's written approval of the subcontract arrangement.

The total payment for the Services will not exceed $9,800. Total payment means all sums to be paid whatsoever, including but not limited to fees and reimbursement of direct costs and subcontract costs, whether specified in this agreement or subsequently authorized by the administrator.

Carreño will maintain all records pertaining to fees or costs incurred in connection with the Services for six years from the date of completion of the Services. Carreño agrees that any authorized BCWD representative or the state auditor may have access to and the right to examine, audit and copy any such records during normal business hours.

6. Termination; Continuation of Obligations

This agreement is effective when fully executed by the parties and will remain in force until March 31, 2025, unless earlier terminated as set forth herein.

BCWD may terminate this agreement at its convenience, by a written termination notice stating specifically what prior authorized or additional tasks or services it requires Carreño to complete. Carreño will receive full compensation for all authorized work performed, except that Carreño will not be compensated for any

part performance of a specified task or service if termination is due to Carreño's breach of this agreement.

Insurance obligations; duty of care; obligations to defend, indemnify and hold harmless; and document-retention requirements will survive the completion of the Services and the term of this agreement.

7. Waiver

The failure of either party to insist on the strict performance by the other party of any provision or obligation under this agreement, or to exercise any option, remedy or right herein, will not waive or relinquish such party's rights in the future to insist on strict performance of any provision, condition or obligation, all of which will remain in full force and affect. The waiver of either party on one or more occasion of any provision or obligation of this agreement will not be construed as a waiver of any subsequent breach of the same provision or obligation, and the consent or approval by either party to or of any act by the other requiring consent or approval will not render unnecessary such party's consent or approval to any subsequent similar act by the other.

Notwithstanding any other term of this agreement, BCWD waives no immunity in tort. This agreement creates no right in and waives no immunity, defense or liability limit with respect to any third party.

8. Insurance

At all times during the term of this agreement, Carreño will have and keep in force standard liability and comprehensive automobile insurance coverage. Carreño will not commence work until she has filed with BCWD a certificate of insurance clearly evidencing the required coverage.

9. Compliance With Laws

Carreño will comply with the laws and requirements of all federal, state, local and other governmental units in connection with performing the Services and will procure all licenses, permits and other rights necessary to perform the Services.

In performing the Services, Carreño will ensure that no person is excluded from full employment rights or participation in or the benefits of any program, service or activity on the ground of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public assistance status or national origin; and no person who is protected by applicable federal or state laws, rules or regulations against discrimination otherwise will be subjected to discrimination.

10. Materials

All materials, including but not limited to data and information, obtained or generated by Carreño in performing the Services, including documents in hard and electronic copy, software, and all other forms in which the materials are contained, documented or memorialized, are the property of BCWD. Carreño hereby assigns and transfers to BCWD all right, title and interest in: (a) its copyright, if any, in the materials; any registrations and copyright applications relating to the materials; and any copyright renewals and extensions; (b) all works based on, derived from or incorporating the materials; and (c) all income, royalties, damages, claims and payments now or hereafter due or payable with respect thereto, and all causes of action in law or equity for past, present or future infringement based on the copyrights. Carreño agrees to execute all papers and to perform such other proper acts as BCWD may deem necessary to secure for BCWD or its assignee the rights herein assigned.

BCWD may immediately inspect, copy or take possession of any materials on written request to Carreño. On termination of the agreement, Carreño may maintain a copy of some or all of the materials except for any materials designated by BCWD as confidential or non-public under applicable law, a copy of which may be maintained by Carreño only pursuant to written agreement with BCWD specifying terms.

11. Data Practices; Confidentiality

If Carreño receives a request for data pursuant to the Data Practices Act, Minnesota Statutes chapter 13 (DPA), that may encompass data (as that term is defined in the DPA) Carreño possesses or has created as a result of this agreement, she will inform BCWD immediately and transmit a copy of the request. If the request is addressed to BCWD, Carreño will not provide any information or documents, but will direct the inquiry to BCWD. If the request is addressed to Carreño, Carreño will be responsible to determine whether she is legally required to respond to the request and otherwise what its legal obligations are, but will notify and consult with BCWD and its legal counsel before replying. Nothing in the preceding sentence supersedes Carreño's obligations under this agreement with respect to protection of BCWD data, property rights in data or confidentiality. Nothing in this section constitutes a determination that Carreño is performing a governmental function within the meaning of Minnesota Statutes section 13.05, subdivision 11, or otherwise expands the applicability of the DPA beyond its scope under governing law.

Carreño agrees that she will not disclose and will hold in confidence any and all proprietary materials owned or possessed by BCWD and so denominated by BCWD. Carreño will not use any such materials for any purpose other than

performance of the Services without BCWD written consent. This restriction does not apply to materials already possessed by Carreño or that Carreño received on a non-confidential basis from BCWD or another party. Consistent with the terms of this section 11 regarding use and protection of confidential and proprietary information, Carreño retains a nonexclusive license to use the materials and may publish or use the materials in its professional activities. Any Carreño duty of care under this agreement does not extend to any party other than BCWD or to any use of the materials by BCWD other than for the purpose(s) for which Carreño is compensated under this agreement.

12. BCWD Property

All property furnished to or for the use of Carreño or a subcontractor by BCWD and not fully used in the performance of the Services, including but not limited to equipment, supplies, materials and data, both hard copy and electronic, will remain the property of BCWD and returned to BCWD at the conclusion of the performance of the Services, or sooner if requested by BCWD. Carreño further agrees that any proprietary materials are the exclusive property of BCWD and will assert no right, title or interest in the materials. Carreño will not disseminate, transfer or dispose of any proprietary materials to any other person or entity unless specifically authorized in writing by BCWD. Any property including but not limited to materials supplied to Carreño by BCWD or deriving from BCWD is supplied to and accepted by Carreño as without representation or warranty including but not limited to a warranty of fitness, merchantability, accuracy or completeness. However, Carreño's warranty of professional care under paragraph 4, above, does not extend to materials provided to Carreño by BCWD or any portion of the Services that is inaccurate or incomplete as the result of Carreño's reliance on those materials.

13. Notices

Any written communication required under this agreement to be provided in writing will be directed to the other party as follows:

To BCWD:

Administrator
Brown's Creek Watershed District
455 Hayward Ave North
Oakdale, MN 55128
651-330-8220, ext. 236; KKill@mnwcd.org

To Carreño:

Beth Carreño

920-918-5550; bethcarreno@gmail.com

Either of the above individuals may in writing designate another individual to receive communications under this agreement.

14. Choice of Law, Venue and Jurisdiction

This agreement will be construed under and governed by the laws of the State of Minnesota, and venue for any dispute under this agreement will be in the district court of Washington County, Minnesota.

15. Whole Agreement

The entire agreement between the two parties is contained herein and this agreement supersedes all oral agreements and negotiations relating to the subject matter hereof. Any modification of this agreement is valid only when reduced to writing as an amendment to the agreement and signed by the parties hereto. BCWD may amend this agreement only by action of the Board of Managers acting as a body.

{Signature page follows.}

IN WITNESS WHEREOF, intending to be legally bound, the parties hereto execute and deliver this agreement.

Carreño

_____ Date: _____

By Beth Carreño

Brown's Creek Watershed District

_____ Date: _____

By Karen Kill
Its Administrator

Approved as to Form and Execution

_____

BCWD attorney

Exhibit A
Scope of Services

June 25, 2024

OVERVIEW
Brown's Creek Watershed District (BCWD) is in the process of completing its Comprehensive Watershed Management Plan update, and one of the issues is the District's regulatory program. Some Board members and stakeholders have expressed an interest in a facilitated review of the current rules with a possible rule change to run concurrently with the plan update.

Facilitated stakeholder engagement could provide information for the Board to determine if a rules revision should be completed as part of the planning process. In addition, it could provide a complete assessment of the District's regulatory program with reviews of public perception and understanding, existing rules and potential changes, regulatory processes and responsibilities, and information and outreach materials. This information could be used by the Board to determine where changes or improvements are needed (rules, processes, resources, and/or materials) and allocate resources and budgets, identify goals, select strategies, and set timelines for the regulatory component of the plan.

PURPOSE & GOAL
Utilize a facilitated stakeholder engagement process to complete a comprehensive review of the BCWD Regulatory Program. Results and recommendations related to changes in rules, regulatory processes, or program resources and guidance materials will be provided to the BCWD Board for consideration, action, and/or inclusion in the 2026 – 2035 Brown's Creek Watershed Management Plan. Additional activities may take place as a result of BCWD Board decision-making and could include the facilitation of the rules change efforts, completion of activities related to developing new regulatory process, and/or supporting adaptation and development of regulatory program resources and guidance materials.

Initial Regulatory Program Review and Needs Assessment ($6,100)

- Internal Planning Meetings (August – October 2024)
  - Coordination meetings between Beth Carreño (consultant), Karen Kill (BCWD Administrator), and others identified by Karen Kill for participation
  - Before initial stakeholder engagement to review agenda and process (1) and after the stakeholder meeting to review results and recommendations (2)

- Facilitated Stakeholder Engagement (1st) (September 2024)
  - Stakeholder meeting to get feedback on current regulatory program and possible changes to rules, processes, and resources / materials
  - BCWD defines stakeholders and completes outreach and invitations for meetings with input and support from Beth Carreño
  - Initial Stakeholder Meeting
    - Agenda will include presentation of the current BCWD rules and regulatory program with information on BCWD efforts, investments, and changes to ensure stakeholders understand current program

        - Facilitated discussion will increase engagement and feedback to assess current efforts and identify possible changes

- Summary report (September – October 2024)
    - Beth Carreño will provide a report summarizing the stakeholder feedback
        - The report will include recommendations from stakeholders and the facilitator

- DELIVERABLES Facilitated stakeholder meeting
    - Summary report with recommendations

Technical Advisory Committee (TAC) and Board Engagement ($2,100)

- Internal Planning Meetings (October – December 2024)
    - Coordination meetings between Beth Carreño (consultant), Karen Kill (BCWD Administrator), and others identified by Karen Kill for participation
    - Before Technical Advisory Committee (TAC) and BCWD Board meeting presentations and/or as needed

- TAC Meeting (October 2024)
    - Present summary report to the TAC and get additional input

- Board Workshop (November 2024)
    - Present summary report and input from the TAC to the Board
    - Board determines next steps

- Final report (December 2024 – January 2025)
    - Beth Carreño will create a final report that incorporates stakeholder, TAC, and Board feedback and Board direction
        - The report could be used as the foundation for the final stakeholder engagement to review with stakeholders what was learned through the review and needs assessment plus the District's next steps

- DELIVERABLES
    - Presentation with support materials and facilitated engagement for TAC
    - Presentation with support materials for Board
    - Final report

Regulatory Program Review and Needs Assessment Outcomes ($1,600)

- Internal Planning Meetings (December 2024 – January 2025)
    - Coordination meetings between Beth Carreño (consultant), Karen Kill (BCWD Administrator), and others identified by Karen Kill for participation
    - Before final stakeholder meeting and/or as needed

- Facilitated Stakeholder Engagement (2nd) (January 2025)
    - Stakeholder meeting to present final report of the regulatory program review and needs assessment and provide next steps identified by the Board

- DELIVERABLES
  - Facilitated stakeholder engagement and sharing outcomes
  - Communications packet including press release, article, and social media content

Brown's Creek Watershed District
2025 Budget Workshop - DRAFT
8-14-2024

		2023 Carry Forward	2024 Grants	2024 Levy	2024 Total Budget	Estimated 2024 Carry Forward	2025 Grants	2025 Levy	2025 Total Budget (DRAFT)	Change from 2024 to 2025
100-2910	Designated Funds - Management Plan Projects	*$ 992,580*			$ 992,580	*$ 841,580*			$ 841,580	$ (151,000)
					$ -				$ -	$ -
Revenue					$ -				$ -	$ -
100-3700	Interest Income				$ -				$ -	$ -
100-3601	Metropolitan Council Outlet Monitoring Grant		$ 5,000		$ 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)
100-3632	MPCA Small Watershed Grant 2025-2029						$ 34,800		$ 34,800	$ 34,800
100-3100	Tax Levy			$ 1,180,803	$ 1,180,803			$ 1,207,531	$ 1,207,531	$ 26,728
TOTAL, ESTIMATED Sources of Funding		***$ 1,380,086***	***$ 5,000***	***$ 1,180,803***	**$ 2,565,889**	**$ 841,580**	**$ 39,800**	**$ 1,207,531**	**$ 2,088,911**	**$ (476,978)**

ACCT. #	General Expenses	2023 Carry Forward	2024 Grants	2024 Levy	2024 Total Budget	Estimated 2024 Carry Forward	2025 Grants	2025 Levy	2025 Total Budget (DRAFT)	Change from 2024 to 2025
200-4000	Manager Per Diem and Expense			$ 10,000	$ 10,000			$ 10,000	$ 10,000	$ -
200-4001	Manager Communications/Tablets	*$ 4,350*			$ 4,350				$ -	$ (4,350)
200-4220	Secretarial Services	*$ 4,000*		$ (4,000)	$ -				$ -	$ -
200-4250	Dues & Subscriptions (MN Watersheds 7200 and LMCIT 2800)			$ 9,000	$ 9,000			$ 10,000	$ 10,000	$ 1,000
200-4270	Bonding & Insurance			$ 6,000	$ 6,000			$ 6,500	$ 6,500	$ 500
200-4280	Postage & Delivery			$ 1,000	$ 1,000			$ 1,000	$ 1,000	$ -
200-4290	Printing & Notices			$ 1,000	$ 1,000			$ 1,000	$ 1,000	$ -
200-4330	Accounting			$ 4,560	$ 4,560			$ 5,000	$ 5,000	$ 440
200-4331	Audit			$ 10,300	$ 10,300			$ 12,000	$ 12,000	$ 1,700
200-4949	Misc., Other Expense			$ 2,000	$ 2,000			$ 2,000	$ 2,000	$ -
200-4320	Wash. Conservation District--Admin			$ 58,670	$ 58,670			$ 65,000	$ 65,000	$ 6,330
200-4265	Admin Conference Registrations			$ 2,000	$ 2,000			$ 3,000	$ 3,000	$ 1,000
200-4410	Legal Fees - General			$ 25,800	$ 25,800			$ 27,100	$ 27,100	$ 1,300
200-4500	Staff Engineer			$ 28,445	$ 28,445			$ 31,289	$ 31,289	$ 2,844
	Diversity, Equity and Inclusion Training			$ 5,000	$ 5,000			$ 5,000	$ 5,000	$ -
	Contingency Reserve	*$ 30,824*		$ -	$ 30,824			$ 50,000	$ 50,000	$ 19,176
TOTAL GENERAL FUND EXPENSES:		***$ 39,174***	***$ -***	***$ 159,775***	***$ 198,948***	**$ -**	**$ -**	**$ 228,889**	**$ 228,889**	**$ 29,940**

ACCT. #	MANAGEMENT PLAN EXPENSES	2023 Carry Forward	2024 Grants	2024 Levy	2024 Total Budget	Estimated 2024 Carry Forward	2025 Grants	2025 Levy	2025 Total Budget (DRAFT)	Change from 2024 to 2025
300-4320	Wash. Conservation District--Administrator	*$ 15,000*		$ 176,005	$ 191,005			$ 250,000	$ 250,000	$ 58,995
300-4410	Legal Fees - Mgmt Plan			$ 60,000	$ 60,000			$ 60,000	$ 60,000	$ -
300-4501	Staff Engineer			$ 90,474	$ 90,474			$ 99,522	$ 99,522	$ 9,047
300-4702	Permitting, Legal Review			$ 15,000	$ 15,000			$ 15,750	$ 15,750	$ 750
300-4703	Permitting, Engineering Review			$ 55,000	$ 55,000			$ 75,000	$ 75,000	$ 20,000
300-4704	Permitting, Inspection Database			$ 1,000	$ 1,000			$ 10,500	$ 10,500	$ 9,500
300-4710-1	Baseline Monitoring	*$ 518*	$ 5,000	$ 136,420	$ 141,938		$ 5,000	$ 145,000	$ 150,000	$ 8,062
300-4640	Equip. Maint. and Upgrades	*$ 15,000*		$ 10,000	$ 25,000	*$ 15,000*		$ 10,000	$ 25,000	$ -
300-4810	Shared Educator Position			$ 20,500	$ 20,500			$ 31,000	$ 31,000	$ 10,500
300-4950	Management Plan Implementation -future projects			$ -	$ -				$ -	$ -
903-0001	Trout Habitat Preservation Project: Monitoring,			$ 6,500	$ 6,500	*$ 6,500*			$ 6,500	$ -
909-0000	Rules Review/Evaluation	*$ 27,000*		$ 3,000	$ 30,000	*$ 20,000*		$ 10,000	$ 30,000	$ -
909-0001	Groundwater Dep Nat Resource Inventory update	*$ 10,000*		$ (10,000)	$ -				$ -	$ -
909-0002	Permitting Program Internal Procedure updates	*$ 25,000*			$ 25,000	*$ 25,000*			$ 25,000	$ -
910-0000	Education & Outreach			$ 15,000	$ 15,000			$ 103,500	$ 103,500	$ 88,500
911-0000	Volunteer Stream Monitoring			$ 4,045	$ 4,045			$ 4,500	$ 4,500	$ 455
912-0000	Grant Preparation	*$ -*			$ -				$ -	$ -
914-0000	Homeowner BMP Program			$ 50,000	$ 50,000			$ 50,000	$ 50,000	$ -
922-0000	Plan Reviews - LGU/LWMP				$ -				$ -	$ -
923-0000	H & H Model Maintenance	*$ 3,800*		$ 130,824	$ 134,624	*$ 42,500*			$ 42,500	$ (92,124)
923-0002	Flood Risk Assessment	*$ 89,316*		$ (63,360)	$ 25,956				$ -	$ (25,956)
923-0003	Long Lake - Flood Risk - Weir Modification Assessment							$ 30,000	$ 30,000	$ 30,000
927-0000	Management Plan Update	*$ 127,000*		$ 90,000	$ 217,000	*$ 10,000*		$ 15,000	$ 25,000	$ (192,000)
929-0000	Long Lake Plan Implementation			$ -	$ -			$ 103,700	$ 103,700	$ 103,700
929-0010	Long Lake -Implementation - regional treatment	*$ 75,000*		$ (75,000)	$ -				$ -	$ -
929-0011	Long Lake - 62nd Street Pond Retrofit Feasibility	*$ 15,000*			$ 15,000				$ -	$ (15,000)
929-0012	Long Lake - Marketplace Reuse Feasibility	*$ 164,900*		$ 60,220	$ 225,120	*$ 225,120*		$ (225,120)	$ -	$ (225,120)
929-0013	Long Lake - Chloride Impairement Assessment							$ 15,000	$ 15,000	$ 15,000
929-0014	Long Lake - Brewer's Pond BMP/LGU cost-share							$ 15,750	$ 15,750	$ 15,750
931-0001	Benz Lake Management Plan Implementation	*$ 15,500*		$ (15,500)	$ -				$ -	$ -
935-0000	Land Conservation Program	*$ 100,000*		$ 50,000	$ 150,000	*$ 150,000*		$ 50,000	$ 200,000	$ 50,000
935-0002	110th Street Property Implementation	*$ 45,000*		$ 25,000	$ 70,000	*$ 50,000*			$ 50,000	$ (20,000)
935-0003	Develop Land Conservation Priorities	*$ 20,000*			$ 20,000	*$ 20,000*			$ 20,000	$ -
940-0000	BMP Program – LGU/Community Demonstration Projects	*$ 10,000*			$ 10,000				$ -	$ (10,000)
942-0004	Measuring Trends in GW Elevations & Flow	*$ 3,960*			$ 3,960			$ 4,700	$ 4,700	$ 740
942-0007	Groundwater - Browns Creek piezometers	*$ 8,960*			$ 8,960	*$ 8,960*		$ (8,960)	$ -	$ (8,960)
942-0011	Groundwater - Coordination with users	*$ 40*		$ 24,000	$ 24,040	*$ 8,500*			$ 8,500	$ (15,540)
942-0012	Groundwater - Install Monitoring Wells	*$ 58,000*		$ (58,000)	$ -				$ -	$ -
942-0013	Groundwater - Pump Test	*$ 15,000*		$ (15,000)	$ -				$ -	$ -
947-0017	Brown's Creek Implementation - Ecoli	*$ 10,000*			$ 10,000	*$ 10,000*		$ 5,800	$ 15,800	$ 5,800
947-0018	Brown's Creek - Biological Survey (Macroinvert)	*$ 4,000*			$ 4,000			$ 4,100	$ 4,100	$ 100
947-0022	Brown's Creek - Buffer and Stream Restoration	*$ 330,000*		$ 133,000	$ 463,000	*$ 40,800*			$ 40,800	$ (422,200)
947-0023	Brown's Creek - Golf Course Reuse - Oak Glen				$ -				$ -	$ -
947-0026	Brown's Creek - Brown's Creek Cove Reach			$ 20,000	$ 20,000	*$ 23,200*	$ 34,800		$ 58,000	$ 38,000
947-0027	Brown's Creek - McKusick Road rock crib feasibility					*$ 26,000*			$ 26,000	$ 26,000
948-0000	CIP Maintenance	*$ 35,418*		$ 135,000	$ 170,418	*$ 115,000*		$ 85,000	$ 200,000	$ 29,582
950-0001	South School Curly Leaf Treatment	*$ 1,000*		$ (1,000)	$ -				$ -	$ -
951-0001	Woodpile Lake Management Plan Implementation	*$ 10,000*		$ (10,000)	$ -				$ -	$ -
953-0000	Fen Management Plan Implementation	*$ 4,000*			$ 4,000				$ -	$ (4,000)
957-0000	Weather Station			$ 3,700	$ 3,700			$ 3,900	$ 3,900	$ 200
959-0001	Resource Assessment - upstream 110th/Drone flight			$ 4,700	$ 4,700				$ -	$ (4,700)
959-0002	Resource Assessment - Diversion Tribs - Head cut Repairs	*$ 60,000*		$ (60,000)	$ -				$ -	$ -
959-0004	Resource Assessment - AIS							$ 15,000	$ 15,000	$ 15,000
960-0000	St Croix Phosphorus Reduction	*$ 10,000*			$ 10,000	*$ 10,000*			$ 10,000	$ -
961-0000	Mendel Wetland Restoration Feasiblity	*$ 20,000*		$ 15,000	$ 35,000	*$ 35,000*			$ 35,000	$ -
962-0000	District-Wide Pond Management Planning/Implementation			$ 4,500	$ 4,500				$ -	$ (4,500)
963-0000	District-Wide Vegetation Surveys	*$ 10,000*		$ (10,000)	$ -				$ -	$ -
964-0000	District-Wide Chloride Source Assessment	*$ 2,500*			$ 2,500				$ -	$ (2,500)
TOTAL MANAGEMENT PLAN PROJECT EXPENSES:		***$ 1,340,912***	***$ 5,000***	***$ 1,021,028***	***$ 2,366,940***	**$ 841,580**	**$ 39,800**	**$ 978,642**	**$ 1,860,022**	**$ (506,918)**
TOTAL, OPERATING EXP. & MGMT. PLAN PROJECTS:		***$ 1,380,086***	***$ 5,000***	***$ 1,180,803***	***$ 2,565,888***	***$ 841,580***	***$ 39,800***	***$ 1,207,531***	***$ 2,088,911***	***$ (476,978)***

Resolution No. 24-01

BROWN'S CREEK WATERSHED DISTRICT BOARD OF MANAGERS
2025 BUDGET & CERTIFIED 2025 TAX LEVY RESOLUTION: ALL FUNDS

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

WHEREAS on September 11, 2024, pursuant to published notice and in conformance with Minnesota Statutes § 103D.911, the Brown's Creek Watershed District Board of Managers held a public hearing to receive comments on the District's 2025 budget and levies; and

WHEREAS [no] public testimony was received on the proposed budget and considered by the managers;

NOW, THEREFORE, BE IT RESOLVED that the Brown's Creek Watershed District Board of Managers adopts a 2025 Operating and Capital Budget totaling $2,088,911 as follows:

Management Plan Implementation	$ 1,860,022
Operations	$ 228,889

NOW, THEREFORE, BE IT FURTHER RESOLVED, the District's 2025 budget includes a 2024 carryover and certain non-levy revenues, together totaling $881,380, resulting in a levy of $1,207,531;

NOW, THEREFORE, BE IT FURTHER RESOLVED that a mill rate sufficient to produce the following sums, totaling $1,207,531, be levied upon all taxable property in Brown's Creek Watershed District, Washington County, State of Minnesota, for the year of 2025, and for the purposes noted below:

1. General Fund: $228,889 for the purpose of paying the administrative expenses of the District as provided by Minnesota Statute §103D.905, subdivision 3; and,

2. Management Planning Fund: $978,642 for the purpose of paying the cost of watershed management planning and implementation of specific projects according to the Watershed Management Plan, as provided by Minnesota Statutes 103B.241.

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

	Yea	Nay	Absent
ECKLES	☐	☐	☐
JOHNSON	☐	☐	☐
LEROUX	☐	☐	☐
SAHULKA	☐	☐	☐
WIRTH	☐	☐	☐

Upon vote, the chair declared the resolution adopted.

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

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 the BCWD and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand this ____ day of _____, 2024.

_____
Debra Sahulka, Secretary

Project Name |	Brown's Creek Watershed District Watershed Management Plan Update	**Date** |	09-06-2024
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, BCWD		
From / Contact info |	Camilla Correll, EOR		
Regarding |	Issue Update – Stormwater Management; Stream Management; Education, Outreach and Stewardship; and Recreation		

Background

To complete the Watershed Management Plan (WMP) Update, staff are reviewing Issues with watershed partners (Citizen Advisory Committee and Technical Advisory Committee), and reviewing plans and work completed over the past 10 years to identify updates to the Issues, Goals, and Implementation Actions that will guide the next 10 years of work. Since the last WMP Update to the Board in July 2024, the project team has advanced work in the following ways.

- **Citizen Advisory Committee Meeting – August 12th, 2024**
  Staff met with the CAC to gather input on the Issues of Education, Outreach and Stewardship, and Recreation. *Minutes from the CAC meeting are included as an attachment to this memo.*
- **Technical Advisory Committee Meeting – August 20th, 2024**
  Staff met with the TAC to gather input on the Issues of Stormwater Management, and Stream Management. *Minutes from the TAC meeting are included as an attachment to this memo.*
- **Internal Issue Review – September 4th, 2024**
  EOR staff conducted an internal review of Stormwater Management and Stream Management, consulting with staff involved in planning and implementation projects relevant to these Issues.
- **Issue Review Session – September 5th, 2024**
  Staff met internally to review the updates to Stormwater Management; Stream Management; Education, Outreach and Stewardship; and Recreation in advance of the September 11th, 2024 Board meeting. *A copy of the redlined WMP Update reflecting proposed changes to the Plan is included as an attachment to this memo, see Sections 3.1.1, 3.1.3, 3.1.12, and 3.1.13.*
- **Coordinated Plan Review**
  Staff are in the process of finalizing a review of Plans updated in the past 10 years that impact how Goals and Implementation Items are established for the WMP Update. *A memo of these Plans will be shared ahead of a future Board meeting.*

Submittal Materials / Instructions

As a reminder, we will be reviewing the following issue categories at the September Board meeting:

- Stormwater Runoff Management
- Stream Management
- Recreation
- Education, Outreach and Stewardship

Attached to this memorandum, you will find the following materials which we are asking you to review in advance of next week's Board meeting:

1. **Section 1.7 Summary of *Issues, Goals and Strategies*** – This section has been included to demonstrate how we are proposing to address climate change and DEI in the Watershed Management Plan.
2. **Stormwater Runoff Management** (Track Changes version) – Review the *General Issue Statement, Relevance to the District, Sub-Issue Areas,* and *Policies and Goals.* IMPLEMENTATION ACTIVITIES HAVE NOT BEEN UPDATED so don't spend time reviewing this content. We will come back to this at a later date.
3. **Stream Management** (Track Changes version) – Same comments as above.
4. **Recreation** (Track Changes version)– Same comments as above.
5. **Education, Outreach and Stewardship** (Track Changes version) – Same comments as above.
6. **Stormwater Runoff Management** (Clean version)
7. **Stream Management** (Clean version)
8. **Recreation** (Clean version)
9. **Education, Outreach and Stewardship** (Clean version)

For next week's discussion, we are asking the Board if they are comfortable with the content developed to date. This content is still subject to change and may be modified based on what we learn over the coming months. We are looking for you to tell us if the changes made to the document are in line with what you think the BCWD should be doing for the next 10 years. With this in mind, please think about the following questions as you review each of these documents:

- **What do you like about this content?** (Education, Outreach and Stewardship, Recreation, Stream Management, Stormwater Runoff Management)
- **What concerns do you have with the content?** (Education, Outreach and Stewardship, Recreation, Stream Management, Stormwater Runoff Management)
- **What doesn't make sense? Where would you like more education on a topic or aspect of this issue?**

Be prepared – We will ask you to answer these questions during our meeting.

Areas of Board of Manager Decision

As stated above, the revised sections of the Plan are provided for initial review and reaction to understand whether new directions for these Issues align with the Board's comfort level. As the WMP Update progresses to review other Issues, interrelationships between Issues may result in changes to the Issues presented. The Board will have further opportunity to refine and sign-off on the characterization of these Issues.

We ask that the Board review the four Issue sections of Stormwater Management; Stream Management; Education, Outreach and Stewardship; and Recreation to provide input and direction on:

- General Issue Statement
- Relevance to the District

- Sub-Issue Areas
- Policies
- Goals

Implementation Items will require further investigation and refinement, and do not require review at this time. Through the review of the following Issues within the Plan, staff request the Board provide direction on the following aspects of the Plan:

Stormwater Management

- What role should the BCWD play in drought management which is a predicted outcome due to climate change (e.g. native landscapes, lower irrigation surfaces)?

Stream Management

- The goal for *E.Coli* is a placeholder for later. EOR will make a presentation on *E. coli* at an upcoming meeting so the Board can provide direction on how it wants to proceed with this pollutant in the next 10 years.

Education, Outreach and Stewardship

- *NEW Sub-Issues* – Business Community, HOA, and Youth Education and Outreach as distinct from other forms of Education and Outreach.
    - To what extent does the Board want to prioritize various streams of education and outreach to these groups?

Recreation

- Reframed the Issue away from "underutilization" of resources, given limited public access within the watershed. Shifted focus to ensuring improved watershed resources are not negatively impacted/degraded by the desire for recreational opportunities (protecting the BCWD's investments).
- Revised Implementation Items focusing on developing a greater understanding of where and how people are using watershed resources to identify areas of higher activity, gaps, and opportunities for the District to incorporate co-benefits through its projects.
- What purposes do you feel are within the Recreation mandate of the District?
    - Should the BCWD take a more active role in providing public access to the District's resources?
    - Should there be a greater emphasis on indirect public health outcomes from improved natural resources?

minutes

Project Name |	Brown's Creek Watershed District (BCWD) Watershed Management Plan Update	**Date** |	8-12-2024
Meeting Location |	Stillwater Public Library		
Regarding |	Watershed Management Plan Update; Education, Outreach, and Stewardship; Recreation		
Attendee(s) + Info. |	CAC – Anne Maule-Miller, George Vania, Jyneen Thatcher, Hallie Chasensky, Sandy Noreen-Ruben, Dory Herman Board Liaison - Celia Wirth District Staff – Karen Kill, Cameron Blake, Alexander Furneaux (EOR) Public - Quinn Judge		
Recorded By |	Alexander Furneaux, EOR		

Meeting Overview

EOR staff attended the Community Advisory Committee (CAC) to lead a discussion on two issues in the BCWD Watershed Management Plan (WMP) update. Alexander provided a summary of the initial plan meeting of the WMP, the work completed since the CAC last met, and the list of issues to be discussed with the CAC. The remainder of the meeting was used to discuss two issue categories "Education, Outreach, and Stewardship" and "Recreation".

CAC members were asked to identify concerns/threats, management strategies, monitoring opportunities, and engagement opportunities associated with these issues. Of importance was understanding how these issues are evolving and what updates are required to ensure the relevance of the Issue for the coming 10 years.

Discussion

The following summary of the meeting discussion includes input received from the CAC during the meeting, input on these Issues received following the meeting (if any), and input on the issue received through prior engagement as part of the Watershed Management Plan update.

This input is summarized in **Table 1**and **Table 2** and separated by content discussed that is Within the Plan Currently[1], New to the Update, or Out of Scope of the District's authority (if applicable)

Information from these tables will be used to update the following subsections of the issue statements in the plan in the following ways:

- **Concerns/Threats –** Informs potential updates to the General Issue Statement (3.X.1), Relevance to the District (3.X.2), and Sub-Issue Areas (3.X.3).
- **Management Strategies –** Informs potential Goals (new or updated).
- **Monitoring Opportunities -** Informs potential Implementation Items (new or updated).
- **Engagement Opportunities –** Informs potential Implementation Items (new or updated).

[1] This refers to content within the Plan currently that was discussed by CAC members. More content on the Issue is available but was not referenced by participants.

Table 1. Education, Outreach, and Stewardship (EOS)

	Concerns/Threats	Management Strategies	Monitoring Opportunities	Engagement Opportunities
Within the Plan Currently	• Challenge of how to make communication more impactful.	• Broader public should know they can connect and trust the BCWD. *Consider how to incorporate this as a metric.*	• Documenting participant information. *Consider how to incorporate this as a metric.* • Maintaining a list of partners. *Consider how to incorporate this as a metric.*	• Continue building the BCWD's potential partners through relationships that help further name recognition (e.g. Master Gardeners) • Explore opportunities for innovative engagement o Geographically focused outreach targeting for specific Issues (e.g chloride in Long Lake); could include a kiosk with rotating information. o Tote of BCWD information and material to bring or provide to events. o Combine multiple techniques to reach people (e.g. kiosk and local outreach directing people to attend virtual webinar or meeting). • Opportunity for involvement in Summer Tuesdays . o May require Stillwater Chamber membership. o Weekly involvement time intensive.
New to the Update	• Poor name recognition of the BCWD and awareness of its role; BCWD is often encountered late in the process because people aren't aware of its role. • Loss of knowledge and expertise from retiring CAC members. • Struggle to communicate the story of watershed improvements to watershed partners and broader public. • More HOAs have emerged meaning fewer centralized points to contact (previously was builders) making it more resource intensive to conduct outreach. • HOAs struggle to understand their responsibilities with stormwater management.	• Expanding the CAC to create more opportunities for involvement and ways to pass on knowledge/expertise • Integrate the CAC into coordination with watershed partners to share information and partner on EOS opportunities.	•	• Work to highlight project achievements so people recognize work as BCWD led/involved. • Continue to develop business and organizational outreach. • Online information sessions during COVID-19 pandemic attracted interest; consider a directory to meeting recordings; consider online webinars. • Consider developing a directory to the State's Stormwater BMP guide.

Table 2. Recreation

	Concerns/Threats	Management Strategies	Monitoring Opportunities	Engagement Opportunities
Within the Plan Currently	• Private land barrier to lake access.	• Recreation can be a pathway to greater knowledge, pride of place, and desire for stewardship of a resource. • Coordination with enforcement authorities to manage recreation-related resource degradation. • Goal of the BCWD to provide recreation improvements with public benefit.	•	
New to the Update	• Habitat degradation from recreation activities (e.g. unofficial mountain bike trails, tree clearing).	• Goal of the BCWD is not to become a park manager.	• Tracking recreation-related degradation impacts. *Consider how to incorporate this as a metric.*	• Coordination with landowners near resources where there is recreation potential (creek, 110th St property). • Outreach to local HOAs to coordinate lake tour event. • Developing greater understanding of how watershed partners are using resources for recreation; this may include small interactions (e.g. ECFE summer series in Brown's Creek). • Connecting recreational opportunities to changes in water quality.

minutes

Project Name |	Brown's Creek Watershed District (BCWD) Watershed Management Plan Update	**Date** |	8-20-2024
Meeting Location |	Stillwater Public Library		
Regarding |	Watershed Management Plan Update; Stormwater Management; Stream Management		
Attendee(s) + Info. ***Full attendance in Appendix A*** |	TAC Members CAC Members Board Members District Staff and Consultants		
Recorded By |	Alexander Furneaux, EOR		

Meeting Overview

EOR staff attended the Technical Advisory Committee (TAC) to lead a discussion on two issues in the BCWD Watershed Management Plan (WMP) update. Camilla and Alexander provided a summary of the initial plan meeting of the WMP, the work completed since the TAC last met, and the list of issues to be discussed with the TAC. The remainder of the meeting was used to discuss two issue categories "Stormwater Management" and "Stream Management".

TAC members were asked to identify concerns/threats, management strategies, monitoring opportunities, and engagement opportunities associated with these issues. Of importance was understanding how these issues are evolving and what updates are required to ensure the relevance of the Issue for the coming 10 years.

Discussion

The following summary of the meeting discussion includes input received from the TAC during the meeting, input on these issues received following the meeting (if any), and input on the issue received through prior engagement as part of the Watershed Management Plan update.

This input is summarized in **Table 1** and **Table 2,** and separated by content discussed that is Within the Plan Currently[1], New to the Update, or Out of Scope of the District's authority (if applicable).

Information from these tables will be used to update the following subsections of the issue statements in the plan in the following ways:

- **Concerns/Threats –** Informs potential updates to the General Issue Statement (3.X.1), Relevance to the District (3.X.2), and Sub-Issue Areas (3.X.3).
- **Management Strategies –** Informs potential Goals (new or updated).
- **Monitoring Opportunities -** Informs potential Implementation Items (new or updated).
- **Engagement Opportunities –** Informs potential Implementation Items (new or updated).

[1] This refers to content within the Plan currently that was discussed by TAC members. More content on the Issue is available but was not referenced by participants.

Table 1. Stormwater Management

	Concerns/Threats	Management Strategies	Monitoring Opportunities	Engagement Opportunities
Within the Plan Currently	• Poor maintenance record of BMPs, some residents find maintenance challenging; HOAs not investing in maintenance. • Developers under-designing stormwater management for property alterations (e.g. pool, larger driveway). • Infill becoming more challenging to proactively address needed changes. • Stormwater is considered late in the development process. • Increasing impervious surface, generally.	• Improving relationships between township leadership and BCWD Board. • Retrofit opportunities remain on areas before watershed rules (stormwater treatment in Croixwood for Long Lake). • Reviewing rule triggers to reflect current state of infill development. • Continue conservation easement/credits. • Below-ground storage with optiRTC. • Maintenance cost-sharing with BCWD.	• Examine monitoring to optimize data efficiently. • Continue partnering with SAFL connecting monitoring to latest research.	

	Concerns/Threats	Management Strategies	Monitoring Opportunities	Engagement Opportunities
New to the Update	• Greater consideration of the ramifications (cost) if operation and maintenance needs are not met. *BCWD has not conducted a cost-benefit analysis.*	• Revisiting rules regarding infiltration, MDH willing to review/strength with guidance for ground/drinking water protection. • Encouraging oversizing BMPs based on anticipated climate change impacts to precipitation. • Targeted restorations that would reduce flooding. • Encouraging natural landscaping for new large lot developments; developing rules to discourage blue grass lawns. • Sensitivity analysis ensuring freeboard is sufficient for 200-year events. ***Tie-in to Floodplain Management***. • Incorporate larger scale water reuse opportunities (challenging for internal use due to code).	• Support/partner on efforts to understand impacts of infill groundwater quality. ***Tie-in to Groundwater Management.*** • Groundwater monitoring in response to pumping/wells in north. ***Tie-in to Groundwater Management.*** • PFAS surface water monitoring.	• Educating new HOA owners when the development is completed, plus a 5-year follow-up. • Sharing stormwater management resources with approachable language. ***Tie-in to Groundwater Management.*** • Using multiple communication approaches (e.g. signage, social media) to share information. ***Tie-in to Groundwater Management.*** • Personalizing stormwater management experiences to make them more relatable. ***Tie-in to Groundwater Management.***

	Concerns/Threats	Management Strategies	Monitoring Opportunities	Engagement Opportunities
Out of Scope		• Ordinance change to encourage preferred development patterns/outcomes. *BCWD does not have land use authority, can work with municipalities to explore and encourage other development patterns* • Protect mature trees in development (conservation development approach), strengthen tree replacement policies. *BCWD cannot regulate this but can work with municipalities to establish goals.* ***Tie-in to Land Conservation.***		

Table 2. Stream Management

	Concerns/Threats	Management Strategies	Monitoring Opportunities	Engagement Opportunities
Within the Plan Currently	• Climate change resulting in more short but intense storms, less infiltration, more runoff (TSS, nutrient runoff, erosion, water temperature issues). • Increased impervious surface and turfgrass conversion. • Over pumping of groundwater due to increased development. • Denuded soils in floodplains and gorge slopes due to Buckthorn, TSS impacts.	• Promoting natural landscapes, reduce turf grass. • Habitat, wetland, and floodplain preservation. • Remediating the Brown's Creek buffer zone to improve water quality.	• Most critical: TSS, stream temperature, dissolved oxygen, flow monitoring, and nutrient concentrations. • Habitat monitoring surveys (birds and plants).	• Demonstration projects for native plantings and education about turf alternate options. • Involving leaders, attending Council meetings. • Support for local permit reviews. • Engaging community development and land use planners (Met Council subregional engagement).
New to the Update	• PFAS contamination • Chloride from SSTS (water softener). • Areas of unknown legacy loading, CMSCWD working on this.	• Separate areas of concern by the north and south portions of the watershed, different concerns. *Would create a new format for the Plan.* • Reduce irrigation *from the groundwater system. Water conservation strategy.* ***Tie-in to Groundwater Management.***	• Important to monitor trends in PFAS and chlorides. • Challenge to determine frequency of monitoring.	• Continuing education credits and targeted engagement for developers, HOA maintenance management companies. • Education on soil health.

Appendix A – Attendance

Roles	Name	Organization
Board	Klayton Eckles	
	Celia Wirth	
CAC	George Vania	
	Anne-Maule Miller	
TAC	Abby Shea	Minnesota Department of Health
	Jen Kader	Metropolitan Council
	Jay Riggs	Washington Conservation District
	Mike Isensee	Carnelian-Marine St. Croix Watershed District
	Dan Scallon	Minnesota Department of Natural Resources
District Staff	Karen Kill	Brown's Creek Watershed District
	Cameron Blake	
	Camilla Correll	Emmons & Olivier Resource Inc. (EOR)
	Alexander Furneaux	

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1.5. District Boundaries (Jurisdictional Area)

The Brown's Creek Watershed District covers portions of seven municipalities; the City of Stillwater, City of Oak Park Heights, City of Lake Elmo, City of Grant, City of Hugo, May Township and Stillwater Township. Figure 1 shows the legal and hydrologic boundaries of the District. The hydrologic boundary delineates areas that would ultimately drain to Brown's Creek. The legal boundary defines the actual legal area of jurisdiction of the District; it corresponds as closely as possible to the hydrologic boundary while following established property lines.

1.6. Board of Managers

A five-member Board of Managers governs the Brown's Creek Watershed District. The managers are appointed by the Washington County Board of Commissioners and serve staggered three-year terms in office. Watershed District managers must be voting residents of the watershed and cannot be a public officer of the county, state, or federal government, except that a soil and water conservation district supervisor may be a manager. The Board of Managers involved in the development of this Plan included Klayton Eckles (President), Celia Wirth (Vice-President), NEW Manager, Chuck LeRoux (Secretary), and Deb Sahulka (Manager).~~Craig Leiser, President, Sharon Schwarze, Vice President, Gail Pundsack, Second Vice President, Connie Taillon, Treasurer and Gerald Johnson, Secretary.~~ All managers, past and present, are listed in Table 3.

Table 3. Board of Managers and Terms in Office

Manager	Term
Klayton Eckles	2021 - present
Tim Freeman	2002-2003
Ned Gordon	1997–2003, 2003-2004
Gerald Johnson	2003–2024
Karen Kilberg	1997-2004
Craig Leiser	1997–2021
Anne Maule Miller	2016-2020
Rob McKim	2021- 2022
Barb Medinger	2002-2004
Jon Michaels	1997-1999
Chuck LeRoux	2020 - present
Don Peterson	1999-2001
Dan Potter	1997-2000
Gail Pundsack	2004-2016
Deb Sahulka	2024- present
Sharon Schwarze	2013-2020
Connie Taillon	2004-2018
Jerry Turnquist	2001-2001
Rick Vanzwol	2005-2013
Celia Wirth	2021 - present

1.7. Summary of Issues, Goals and Strategies

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Many of the BCWD's issues have been consistent from plan to plan because many of the resource protection and restoration needs have been the same. Concerns related to the impacts of development continue to be articulated under Stormwater Management, Erosion and Sediment Control, Floodplain Management and Regulations while concerns related to specific resources are articulated under Lake, Stream and Wetland Management as well as Groundwater Management, Ecological Health and Monitoring and Data Collection. ~~and Groundwater Management.~~ While the issues have remained more or less the same, the policies, goals and implementation activities have not. As ~~s~~State water quality standards have evolved and the District has collected more information about the quality of its resources, the management approach has shifted with time: the District's goals and activities have become more targeted.

New to this Plan is the integration of climate change and Diversity, Equity, and Inclusion (DEI). Rather than include these issues as stand-alone categories in the Plan, this document takes a holistic approach that recognizes the intersection of environmental and social factors. By considering these elements at each stage of the planning process, the BCWD ensures that the strategies included in the implementation plan not only achieve the District's watershed management goals but are also equitable, inclusive and build resilience in the face of climate change.

1.7.1. Climate Change

Within the last 10 years, the BCWD has experienced a number of impacts related to climate change. According to Kenny Blumenfeld, Senior Climatologist with the Minnesota Department of Natural Resources, 2010-2020 was the wettest decade on record. More precipitation is coming from larger storm events (1-inch or more per day) and the frequency of 3-inch/day storm events is increasing while the return period is decreasing. These conditions resulted in flooding throughout Washington County including the flooding of Kimbro Basin which overtopped County Road 12 and encroached on neighboring properties, raising concerns about access to and flooding of homes, as well as public safety. Similarly, changes in temperature patterns are having an impact on the District's resources. Winter nights are warming ten times faster than summer temperatures and the lowest temperature of winter is also increasing. This means that liquid precipitation during winter is increasing and days with~~out~~ snow are decreasing. The winter of 2023 was the warmest on record throughout the state. The warm conditions during the early winter delayed ice formation on lakes with many experiencing their latest ice-in dates on record. These types of changes have wide-ranging consequences for water quality, fisheries, recreational activities, and local economies. As a result, climate change impacts have been considered and summarized for each issue in the WMP. Implementation activities developed to enhance the resilience of the District's natural and built systems are indicated with the following icon.

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1.7.2. Diversity, Equity, and Inclusion

Government agencies are increasingly acknowledging that the impacts of historical decision-making have impacted communities in ways that have generated unequal outcomes that have advantaged some while disadvantaged others, predominately along lines of social vulnerability such as race, age, gender, but also other individual and intersecting identities. In an effort to address these historic inequalities, particularly in the areas of environmental planning and engineering, organizations such as the EPA and the Twin Cities Met Council are increasingly

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looking to ways to work with communities to understand how to respect diversity, engage inclusively, and undertake projects and programs equitably.

In 2024, the BCWD Board of Managers adopted the following Diversity, Equity, Inclusion and Accessibility Policy:

> Brown's Creek Watershed District is a special-purpose unit of government established under Minnesota Statutes chapters 103B and 103D to mitigate damage from flooding and improve Brown's Creek and the wetlands, lakes and streams in the watershed. As a public entity working on fundamental water issues that affect everyone in the watershed, BCWD is obligated to ensure its expenditure of tax funds accrues to the benefit of all. In pursuit of this goal, BCWD will ensure diversity, equity, inclusion and accessibility influences its development and implementation of its programs and projects and will work toward addressing current and historical inequities in how land and waters have been managed and improved in the watershed. BCWD will incorporate diverse views in its decision-making, robustly communicate and engage with historically underserved communities, provide equitable access to information and resources, and use social vulnerability and related indices in developing and implementing its programs and projects.

To illustrate how the District's programs and projects are informed by DEI, social vulnerability has been considered and summarized for each issue in the WMP. Implementation activities developed to address social vulnerability are indicated with the following icon.

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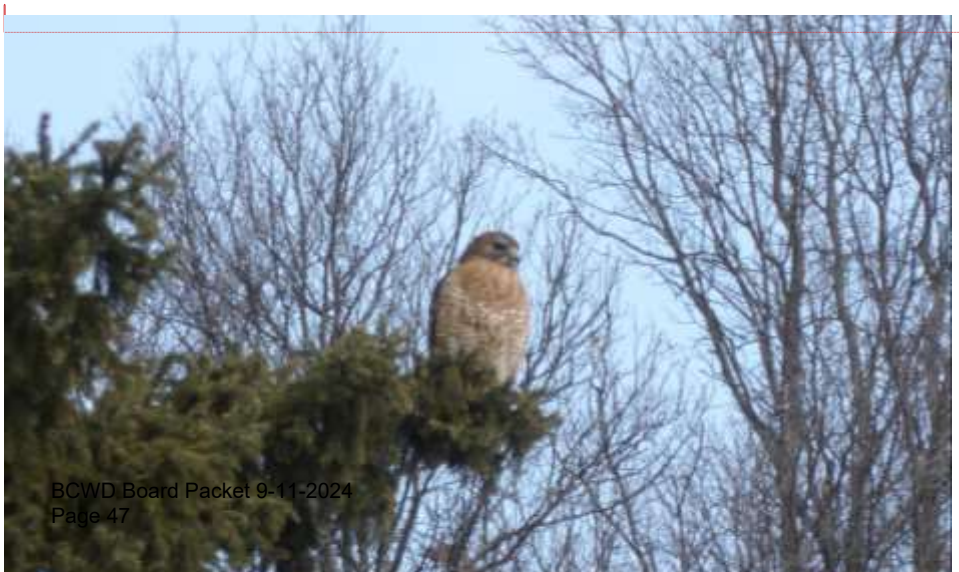
~~Since the opening of the Brown's Creek State Trail in 2015, thousands of trail users have been exposed to Brown's Creek and have come to appreciate the rare and unique gem that for many, is located in their backyard. As a result of this new appreciation for Brown's Creek and the watershed district, recreation has been identified as a priority concern that residents would like the BCWD to address over the 10-year timeframe of the Plan.~~

~~The findings of the Unique Species Inventory (summarized in Appendix A – Land and Water Resource Inventory) highlight the quantity and quality of plant communities, macroinvertebrates, fish, amphibians, birds and mammals that rely on the Brown's Creek corridor for all or a portion of their life cycle. The collection of this information, paired with the biotic impairment for Brown's Creek resulted in the inclusion of another new priority concern, Ecological Health.~~

~~Finally, a recent trend analysis of local climate and precipitation data and feedback received from residents of the watershed district highlighted the need to consider climate change and climate adaptation strategies as the BCWD moves forward with management decisions over the course of the next ten years. As a result, Climate Change Adaptation has been included as a new priority concern for the BCWD as well.~~



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3.1. Stormwater Runoff Management

3.1.1. General Issue Statement

Properly managed impervious surfaces can reduce common environmental impacts, such as increased runoff rates, decreased water quality, and reduced groundwater recharge. Urbanization and land-use changes often involve an increase in imperviousness, compaction of native soils, and removal of existing vegetation. Unless land use changes are properly managed, these activities will increase the rate and volume of stormwater runoff generated in the watershed and will decrease the quality of surface water resources and the quantity of groundwater resources. Many of the Best Management Practices used to provide stormwater management require long-term maintenance to ensure their performance. Existing urbanized areas already contribute additional runoff volume and increased runoff rates to local water bodies, compared with pre-settlement conditions.

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3.1.2. Relevance to the District

Development and redevelopment activities have occurred within the watershed and are expected to continue. Given the amount of development that has occurred in the urban portions of the watershed it is expected that the predominant land development activity in this portion of the watershed ~~during the course of implementation of this Plan~~ will be redevelopment. In the last five years, the watershed district has seen increased development pressure in rural areas including the Cities of Grant and Hugo. Areas of special concern remain development and redevelopment around landlocked basins, groundwater dependent natural resources, wetlands, and areas tributary to Brown's Creek and the St. Croix River. Many areas of the watershed developed prior to adoption of the BCWD Rules and represent stormwater runoff management retrofit opportunities. Additionally, many of the stormwater management practices constructed to meet the District's rules or installed as retrofit projects need maintenance to ensure that they continue to function as designed.

There are also portions of the watershed that have been hydrologically altered. Modifications like the Diversion Structure (described in Appendix A-Land and Water Resource Inventory) have implications for application of the District's stormwater rules and regulations and participation in the restoration and protection of waterbodies outside of the watershed boundary. Surface waters listed as impaired for various pollutants (including the emerging issue of chloride impairment) by the MPCA and resources that are approaching an exceedance of state water quality standards can benefit from additional stormwater management efforts.

Climate change has a significant impact on stormwater runoff, altering both the quantity and quality of water flowing through urban and rural systems. These changes can create a range of challenges for stormwater management, infrastructure, and ecosystems as illustrated in Table X.

Table 5. Related Climate Change Impacts

Impact	Description	Indicators
More Extreme Water-Related Events	Heavier precipitation during rainfall events	- Increased risk of flooding - Increased variability of streamflows - Increased velocity of water during high flow periods

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		- Taxes existing infrastructure systems (e.g. levees, sewer pipes, wastewater treatment plans, etc…)
Increases in Water Pollution Problems	Increased flooding increases water-borne diseases and sediment transport	- Increased stormwater runoff washes sediments (erosion) and other contaminants into waterbodies - Overloading of stormwater and stormsewer systems transports contaminants into waterbodies
Water Boundary Movement and Displacement	Size of wetlands and lakes will change	- Changing water flow to lakes/streams - Changes in precipitation impacts wetland hydrology (bounce and duration)
	Increased stream channel instability	- Increase in channel-forming flows (bank-full flows) leads to increased sediment transport potential and channel instability
	Decreased groundwater recharge	- Rain from extreme events falls too quickly to be absorbed into the ground

Planning and implementation of stormwater runoff management can address DEI by:

- Reducing communities' exposure to hazards such as flooding and pollution.
- Retrofitting spaces to include more greenspace that can contribute to indirect physical and mental health outcomes.
- Mitigating the Urban Heat Island effect and improving air quality.
- Noise control.
- Carbon sequestration (i.e., by increasing tree canopy, native vegetation, etc.)

3.1.3. Sub-Issue Areas

Quality, Quantity, and Rate of Stormwater Runoff

Increases in runoff rate, usually caused by increases in impervious surfaces or changes in vegetative cover (e.g., forested areas converted to turf grass), can intensify erosion and raise flood levels. Similarly, increases in runoff volumes, often caused by increases in impervious surface cover and soil compaction, can cause flooding and can reduce the landscape's ability to infiltrate surface water to groundwater.

The quality of runoff entering water bodies such as lakes, streams and wetlands is affected by land management practices. Practices that degrade water quality include, among others, connection of impervious surfaces to water bodies, soil disturbance leading to erosion, ~~and~~ excessive fertilizer and chloride uses, and lack of terrestrial invasive species management. Increases in runoff rate and volume also lead to decreased water quality because of increased erosion, direct connection of impervious surface to water bodies, increased water temperature, and increased volume of water carrying pollutants to water bodies. A number of management techniques can be used to limit the downstream effect of rate and volume increases and to limit the impact to water quality. These management techniques are typically constructed as part of the District's regulatory program, stormwater retrofit program or its capital improvement program. Opportunities to partner with the business and development community in going above and beyond the rule requirements would further help to address stormwater related impacts.

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Monitoring and Maintenance of Stormwater Management Facilities

Stormwater management facilities are constructed to limit the effects of increased runoff rates and volumes and to collect pollutants that could degrade downstream resources. To fully achieve these purposes, stormwater management facilities require regular inspections and periodic maintenance. Cities, ~~and~~ towns, and Homeowners Associations (HOAs) generally have responsibility for the operation and maintenance of stormwater management facilities; some have greater capacity than others to perform the monitoring and maintenance activities needed on a regular, routine basis.

Coordination with Other Government Agencies

Development activity and population growth threaten the health of lakes, wetlands, and streams (e.g. change in density and/or change in the type of development). The watershed is affected by the urbanization of the landscape and the transformation of the natural environment. Coordinated planning and control of development and redevelopment activities can reduce the impact of land use changes on the water resources of the District. Opportunities to partner with the member communities on the implementation of stormwater improvement projects would further help to address stormwater related impacts.

3.1.4. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Mussel Survey Net – Brown's Creek

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Table 65. Stormwater Runoff Management Policies, Goals, and Implementation Activities

SUB-ISSUE:	Quality, Quantity, and Rate of Stormwater Runoff		
POLICY:	**The BCWD is committed to improving the quality of stormwater runoff in order to reduce pollutant loadings to downstream water bodies.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Achieve the Revised TMDL Load Reduction for Phosphorous of 848 lb./yr. assigned to Brown's Creek in the *Implementation Plan for the Lake St. Croix Nutrient TMDL (February, 2013)*	**1**	Annually analyze progress toward the phosphorus reduction goal based on evaluation of the collected monitoring data (conducted as part of the baseline monitoring program).
		2	Utilize the District's cost-share program to assist in citizen installation of water quality improvement projects (including thermal BMPs) and water quantity (e.g. volume control) practices
		3	Work with Washington County, MNDOT and member communities to improve operation & maintenance practices.
		4	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
B	TSS loads within the contributing drainage area to Brown's Creek, includes both the regulated and nonregulated portions of municipalities; need to be reduced by 74% on average in order to meet these loading limits. (Brown's Creek TMDL Implementation Plan, 2012)	**1**	Annually analyze progress toward the TSS reduction goal based on evaluation of the collected monitoring data (conducted as part of the baseline monitoring program).
		2	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
C	Restore impaired lakes so that they meet state standards for total phosphorous, chlorophyll A, and chloride concentrations, and Secchi depth	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER LAKE MANAGEMENT PLANS (TABLE 62)**
D	Achieve the TP Load Reduction goal of 148 lbs. established at the Diversion Structure as identified in the *McKusick Lake and Lily Lake Mgmt. Plan*	**1**	Re-assess water quality data collected in contributing drainage area to Diversion Structure to evaluate pollutant loading and identify sources.
E	Manage the nutrient inputs (watershed loading and internal loading) to the following lakes: - Bass Lakes (East and West) - Benz Lake - Goggins Lake - Lynch Lake (North and South) - Lake Masterman - Pat Lake - Plaisted Lake - North School Section Lake - South School Section Lake - Woodpile Lake	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER LAKE MANAGEMENT PLANS**
J	Manage the nutrient inputs (watershed loading and internal loading) to the following ponds: - Kismet Basin - July Avenue Pond - Heifort Pond - Brewers Pond - Sinnets Pond		**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER POND MANAGEMENT PLANS**
POLICY:	**The BCWD is committed to ensuring that activities within the watershed provide for groundwater recharge, provide thermal protection to Brown's Creek, & reduce volume related impacts to the District's water bodies and reduce flood hazards to downstream properties.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Protect and maintain the quantity and quality of groundwater recharge	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Identify and implement methods to provide thermal protection to Brown's Creek to achieve the thermal loading reductions identified in the Brown's Creek TMDL Implementation Plan	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**

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C	Reduce volume-related impacts to the District's water bodies (e.g. stormwater impacts such as wetland bounce and duration)	1	Promote stormwater reuse by working with local businesses, local units of government and Washington County to incorporate BMPs into new development or redevelopment projects.
		2	*Addressed through administration of the BCWD regulatory standards and criteria.*
D	Reduce flood hazards under existing 100-year event and projected 100-year event.	3	**SEE FLOODING ACTIVITES IDENTIFIED UNDER…SEE FLOODING ACTIVITES IDENTIFIED UNDER… EE FLOODING ACTIVITES IDENTIFIED UNDER…SEE FLOODING ACTIVITES IDENTIFIED UNDER…** Partner with the City of Stillwater in the implementation of recommendations made in the Maryland Avenue North Drainage Easement Assessment.
POLICY:	**The BCWD is committed to ensuring that the rate of stormwater runoff is controlled in order to reduce impacts to the District's water bodies.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Ensure no-net increase in runoff rate from new development and redevelopment.	1	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Identify and implement rate control projects to reduce rate-related impacts to water bodies and build resilience.	1	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		2	BCWD Cost Share Program for going above and beyond the rules to meet a future (projected) rainfall condition OR waive permit fees if they provide this mount of treatment.
SUB-ISSUE:	**Monitoring and Maintenance of Stormwater Management Facilities**		
POLICY:	**The BCWD is committed to ensuring the long-term maintenance of stormwater management facilities in order to improve the water resources of the District through the continued achievement of the expected rate control, water quality treatment and infiltration goals of a facility.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Continue to monitor stormwater management facilities to evaluate long-term performance and obtain design information on infiltration rates, suspended solids removal rates, and phosphorus removal rates, and chloride concentrations as appropriate to the facility.	1	Monitor the IESF, THPP, Kern Center Pond, Kismet Basin, and Bradshaw Pond as outlined in maintenance plans and agreements.
		2	Conduct monitoring of stormwater management facilities to evaluate performance as needed. Observe facilities chosen for monitoring during construction to evaluate any conditions that would affect infiltration or removal rates.
B	Monitor any facilities constructed or installed by the BCWD for at least five years following facility installation to evaluate performance.	1	Complete a minimum five-year monitoring period for the Iron Enhanced Sand Filter (constructed by BCWD in 2013) and conduct monitoring after medium is replaced.
		2	Complete a five-year monitoring period for BMPs that are implemented in the future by the District.
C	Each stormwater management facility in the District will be regularly inspected and maintained as appropriate to the type of facility.	1	Continue to require permanent maintenance commitments for stormwater management facilities constructed under the District's Rules.
		2	Develop and follow an operations and maintenance plan for the stormwater management facilities operated by the BCWD.
		3	Work with member communities to collaborate on maintenance of stormwater management facilities and to define criteria triggering the need for maintenance on installed stormwater management practices.
		4	Conduct a cost-benefit analysis considering the impacts if operations and maintenance needs are not met.
		5	Support HOAs in understanding their maintenance responsibilities for stormwater runoff infrastructure by providing HOAs with stormwater management maintenance resources.

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SUB-ISSUE:	Coordination with Other Government Agencies		
POLICY:	**BCWD will partner with municipalities early in the land use & development planning processes to ensure that BCWD & municipal standards are met within a community and within a development.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Establish a process for BCWD involvement early in each municipality's development review process.	**1**	Work with individual municipalities to establish a process for early involvement in development review. The municipal partnership will establish a process that allows cost-effective and efficient review of development projects and ensures the incorporation of stormwater management practices as an integral part of development plans.
		2	Work with Townships and Washington County to become involved in development review in townships within the BCWD.
		3	Conduct a pre-permit meeting that is free of charge with potential permit applicant & its design team and municipal staff.
B	BCWD reviews of municipal comprehensive plans, local water management plans and water resource management plans will specifically address the connection between the designated land uses and the goals & policies of the BCWD.	**1**	Work with each municipality and township through the comprehensive plan and water resource management plan review process to develop and implement land use policies that focus on preservation and protection of water and natural resources.
C	Ensure application of consistent standards for review of stormwater management practices.	**1**	Review the findings of monitoring studies on infiltration practices being conducted by local agencies to evaluate recommended design infiltration rates.
		2	Develop a list of published and industry accepted total phosphorus and total suspended solids removal rates from innovative and standard stormwater management practices as a permitting tool.
		3	Provide the phosphorus and sediment removal rates list and the design infiltration rate list to allow cities to make land use permit applicants aware of District requirements early in the plan development process.
D	Achieve more stormwater management treatment through incentives and/or partnerships.	**1**	Establish an incentive program that will allow the BCWD to partner with the business/development community on BMPs that help a site go above and beyond the rule requirements.
		2	Establish a cost share program that will allow the BCWD to partner with its member communities in the implementation of water quality improvement/retrofit projects.

Table 7~~6~~. Projected Expenditures (in 1,000's) for Stormwater Runoff Management

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Utilize the District's cost-share program to assist in citizen installation of water quality improvement projects (including thermal BMPs) and water quantity (e.g. volume control) practices	20	20	20	20	20	20	20	20	20	20	200
Re-assess water quality data collected in contributing drainage area to Diversion Structure to evaluate pollutant loading and identify sources.	--	--	--	--	--	--	--	--	--	10	10

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Partner with the City of Stillwater in the implementation of recommendations made in the Marylane Avenue North Drainage Easement Assessment.	--	65	--	--	--	--	--	--	--	--	65
Complete a minimum five-year monitoring period for the Iron Enhanced Sand Filter and conduct monitoring after medium is replaced.	19	19	19	19	--	19	--	--	--	--	93
Complete a five-year monitoring period for BMPs that are implemented in the future by the District.	18	18	18	18	18	20	20	20	20	20	190
Develop and follow operations and maintenance plan for the stormwater management facilities operated by the BCWD.	50	50	50	50	65	65	70	60	60	60	580
Total for Stormwater Runoff Management	**107**	**172~~07~~**	**107**	**107**	**103**	**109**	**110**	**100**	**100**	**110**	**~~974~~1,138**

Table ~~8~~7. Stormwater Runoff Management Implementation Activities from Table 5 covered by Administrative and/or Project Development Program

Work with Washington County, MNDOT and member communities to improve operation & maintenance practices.
Promote stormwater reuse by working with local businesses, local units of government and Washington County to incorporate BMPs into new development or redevelopment projects.
Work with member communities to collaborate on maintenance of stormwater management facilities and to define criteria triggering the need for maintenance on installed stormwater management practices.
Work with each municipality through the comprehensive plan and water resource management plan review process to develop and implement land use policies that focus on preservation and protection of water and natural resources
Review the findings of monitoring studies on infiltration practices being conducted by local agencies to evaluate recommended design infiltration rates.

Table ~~9~~8. Stormwater Runoff Management Implementation Activities from Table 5 addressed by Baseline Monitoring Program

Annually analyze progress toward the TSS reduction goal based on evaluation of the collected monitoring data (conducted as part of the baseline monitoring program).
Annually analyze progress toward the phosphorus reduction goal based on evaluation of the collected monitoring data.
Monitor the IESF, THPP, Kern Center Pond, Kismet Basin, and Bradshaw Pond as outlined in maintenance plans and agreements

Table ~~10~~9. Stormwater Runoff Management Implementation Activities from Table 5 covered by Regulatory Program

Continue to require permanent maintenance commitments for stormwater management facilities constructed under the District's Rules.
Work with individual municipalities to establish a process for early involvement in development review
Work with Washington County to become involved in development review in townships within the BCWD.

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Conduct a pre-permit meeting that is free of charge with potential permit applicant and its design team and municipal staff.
Develop a list of published and industry accepted total phosphorus and total suspended solids removal rates from innovative and standard stormwater management practices as a tool for permit review.
Provide the phosphorus and sediment removal rates list and the design infiltration rate list to allow cities to make land use permit applicants aware of District requirements early in the plan development process.

3.2. Erosion Prevention and Sediment Control

3.2.1. General Issue Statement

Unless properly managed, land-disturbing activities can intensify erosion and lead to increased transport of sediment into surface waters. Increased erosion can also cause the formation of gullies in areas with unstable soils. Sedimentation in waterways can lead to fish kills, clogged streams, reduced storage volume of reservoirs and reductions in stormwater infiltration by sealing permeable soils.

3.2.2. Relevance to the District

The erosion that occurs naturally throughout the watershed and as a result of land-disturbing activities (e.g. development activity and agricultural activity) has the potential to transport sediment and associated nutrients into the District's surface waters. Waters of particular concern include Brown's Creek, which is impaired for aquatic life due to a lack of cold water fish assemblage. Through the stressor identification process, high suspended solids were identified as one of the primary stressors to the biota in the impaired reach of Brown's Creek. To date the origins of the total contribution of suspended solids to Brown's Creek have not been identified and the District continues to evaluate sources from the landscape as well as near-channel. Several District lakes are impaired due to excess nutrient loading which is associated with erosion as nutrients are generally tied to sediment particles.

[Preamble, climate change impact on the Issue]

Table 11. Related Climate Change Impacts

Impact	Description	Indicators
		-
		-
		-
		-

Planning and implementation of [Issue] opportunities can address DEI by:

-

3.2.3. Sub-Issue Areas

Existing Erosion Problems

Excessive erosion near the District's water bodies can add sediment and nutrients that degrade water quality. Identifying problem areas, performing cost-benefit analyses and implementing long-term solutions can limit the impact of these issues on the quality of the District's waters.

Click here to enter text.

3.3. Stream Management

3.3.1. General Issue Statement

Alterations in land use disrupt the hydrology and ecology of stream ecosystems. For example, increased imperviousness in the contributing drainage area to a resource results in inhibited infiltration of rainfall and snowmelt. This reduction in infiltration results in reduced baseflow, larger and more frequent stormwater discharges, and increased temperature and pollutant loads. These factors contribute to channel enlargement, changes to instream habitat, decreased aquatic diversity and, in general, degradation of the resource. A portion of Brown's Creek does not meet the State's water quality standards and is impaired for aquatic life due to a lack of cold-water fish assemblage and high turbidity. Currently, Chloride concentrations in Brown's Creek are not near the chronic threshold for chloride but Chloride loads and concentrations are increasing at every monitoring station in Brown's Creek. While data collected from 2015-2023 indicates an overall upward (improving) trend in stream health and macroinvertebrate community quality, further improvements are still necessary.

3.3.2. Relevance to the District

Commented [CC8]: Add language addressing total phosphorous concentrations and sources based on new state standards.

Three reaches of Brown's Creek are included on the MPCA 303d (Impaired Waters) list. Both branches of Brown's Creek, the North Branch (from 110th Street to Manning Avenue) and the Main Branch (Highway 96 near Manning Avenue to the St. Croix River) are impaired for aquatic recreation and aquatic life due to low levels of dissolved oxygen, lack of cold-water fish assemblage, and high levels of *E. coli* (Escherichia coli) bacteria. ~~A portion of Brown's Creek, from Highway 15 to the St. Croix River, is impaired for aquatic life due to a lack of cold-water fish assemblage and high turbidity.~~ Through the stressor identification process, the primary stressors to the biota in these impaired reaches of Brown's Creek were identified as high suspended solids and high temperatures. Although high copper concentrations were identified in previous stressor identification processes, follow-up investigation ruled out copper as an ongoing concern. While these impairments have been addressed by the Brown's Creek TMDL Report and Implementation Plan (the latter of which identifies specific goals for restoration activities), additional impairments in the system for Escherichia coli (*E. coli*) and Dissolved Oxygen are under investigation. The North Branch is also impaired due to a low score of the Minnesota Macroinvertebrate Index of Biological Integrity (M-IBI). While the index of biological integrity (M-IBI) scores in Brown's Creek are improving at all three locations where samples are being collected, total suspended solids (TSS) concentrations remain very high exceeding the TSS standard for Cold water streams at all monitoring locations.

In addition to Brown's Creek there are several small tributaries in the southern, portion of the District all of which drain to the Diversion Structure. These tributaries include the Long Lake Tributary, South Central Tributary and Zephyr Tributary. Land use change in the drainage area to the Diversion Structure has resulted in changes in flow conditions, head cutting of the tributaries, and water quality concerns. While the surface water contribution from this drainage system has been altered by the Diversion Structure, these tributaries are an important source of recharge and groundwater baseflow to Brown's Creek.

The St. Croix River is a Wild and Scenic Waterway administered by the National Park Service. While the BCWD focuses much of its efforts on the protection and restoration of its surface water bodies, it is important to remember that the watershed is a tributary to this National

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treasure. Anything that the BCWD does to improve the health of Brown's Creek has a direct impact on the health of the St. Croix River.

Climate change has a significant impact on cold-water fisheries and stream systems. These changes can create a range of challenges for watershed management as illustrated in Table X.

Table 1514. Related Climate Change Impacts

Impact	Description	Indicators
More Extreme Water-Related Events	Heavier precipitation during rainfall events	- Increased risk of flooding - Increased variability of streamflows - Increased velocity of water during high flow periods
Increases in Water Pollution Problems	Increases in sediment transport	- Increased stormwater runoff washes sediments (erosion) and other contaminants into waterbodies (i.e. TSS)
	Warmer air temperatures result in warmer waters	-
	Changes in snowfall patterns	- More ice during the winter requires application of more chemicals (i.e., chlorides)
Water Boundary Movement and Displacement	Size of wetlands and lakes will change	- Changing water flow to lakes/streams - Changes in precipitation impacts wetland hydrology (bounce and duration)
	Increased stream channel instability	- Increase in channel-forming flows (bank-full flows) leads to increased sediment transport potential and channel instability
	Decreased groundwater recharge	- Rain from extreme events falls too quickly to be absorbed into the ground
Changes to availability of Drinking Water Supplies	Changing patterns of precipitation and snowmelt	- Increased drought conditions place higher demands on drinking water supplies - Increased water loss due to higher evaporation (as a result of warmer air temperatures)
	Water air temperature	- Places higher demands on community water supplies - Increased water needs for agriculture and industry - Increased need for energy production (e.g. air conditioning)

Planning and implementation of stream management can address DEI by:

- Equitable access to healthy water resources
- Protecting sacred and culturally significant waterways (i.e., Brown's Creek and the St. Croix River)
- Provide health, recreational, and aesthetic benefits.

3.3.3. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy.

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The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Table 16. Floodplain Management Policies, Goals, and Implementation Activities

SUB-ISSUE:	**Protection of Flood Storage Areas**		
POLICY:	**The BCWD is committed to the protection of flood storage areas to reduce the impacts of flooding and promote recharge.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Ensure no net loss of flood storage capability within the watershed.	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
SUB-ISSUE:	**Management of Flood Prone Areas**		
POLICY:	**The BCWD will continue to protect structures and natural communities from flooding exceeding natural water level fluctuations.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Assess the potential for flooding properties when evaluating land management activities.	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
		2	Continue to monitor lake levels and shallow aquifer groundwater levels to evaluate conditions that may cause impacts to existing structures.
POLICY:	**The BCWD desires to minimize the risks of flooding associated with land alterations adjacent to landlocked basins.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Minimize the risk of flooding to structures within landlocked basins.	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Minimize the risk of flooding on downstream properties when outlets are provided for landlocked basins.	**2**	*Addressed through administration of the BCWD regulatory standards and criteria.*

Table 17. Floodplain Management Implementation Activities (from Table 23) addressed by Baseline Monitoring Program

Continue to monitor lake levels and shallow aquifer groundwater levels to evaluate conditions that may cause impacts to existing structures - Costs identified in under the Baseline Monitoring Program.

Kismet Basin Lake aerial

Commented [AA9]: Sensitivity analysis for 200-year event impact on freeboard.

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~~3.3.3.~~3.3.4. Sub-Issue Areas

Water Quality, Aquatic Habitat, and Fisheries Protection

The flora and fauna of Brown's Creek require a specific range of conditions in order to complete their life cycles and maintain viable populations. The lower reaches of Brown's Creek currently support an assemblage of organisms that require cold water and clean substrates (i.e. macroinvertebrates). Additionally, the cool microclimate of the lower gorge supports unique flora species not found elsewhere in the watershed. The wetland conditions of the upper reaches of Brown's Creek do not support certain species due to differences in vegetative cover, water quality, and temperature. While the management requirements in this portion of the watershed differ from those in the lower portions of the watershed (as described in the Unique Species Inventory) the ~~and therefore do not directly require the same runoff management as the lower reaches. However,~~ groundwater discharge within the upper reaches feed the lower reaches of the creek and are instrumental in maintaining the health and baseflow of the creek.

Maintenance of Flow and Geomorphology

The shape and course of a stream is determined by topography, vegetation, and ~~as well as~~ flow conditions. Changes in vegetation quality and type, particularly from invasive to native vegetation, and in flow conditions can ~~lead to changes in~~alter the size and course of a stream. Urbanization near a stream can lead to bank erosion, undercutting, and stream widening if rates and volumes of runoff are not managed. Additionally, over pumping of groundwater can reduce stream baseflow.

~~3.3.4.~~3.3.5. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Table ~~18~~13: Stream Management Policies, Goals, and Implementation Activities

SUB-ISSUE:	Water Quality, Aquatic Habitat, and Fisheries Protection		
POLICY:	The BCWD is committed to the improvement of the water quality and ecological integrity of Brown's Creek and its tributaries, including maintaining a viable cold-water fishery		
GOALS		IMPLEMENTATION ITEM	
A	Achieving and maintaining the Macroinvertebrate Index of Biological Integrity (IBI) for southern coldwater streams of 46 or higher and the fish IBI for southern coldwater streams of 45 or higher in the trout stream portion of Brown's Creek (or revised standard as determined by PCA)	1	Continue to implement volunteer stream monitoring program by providing financial support to the Stillwater High School science program.
		2	Reassess the fish and macroinvertebrate community health at representative sites in three portions of Brown's Creek (Headwaters, Central and Lower Gorge) in May and September.
		3	Complete annual report on stream flow, water quality, and fisheries and aquatic habitat trends based on monitoring results.
		4	Continue to assess the copper concentrations in Brown's Creek.
		5	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
B	Maintaining a minimum daily Dissolved Oxygen concentration of 7 mg/L in the trout stream portion of Brown's Creek.	1	Continue to monitor Dissolved Oxygen in Brown's Creek and expand monitoring and evaluation efforts as needed to evaluate changes along the length of the creek.

Commented [CC10]: From LSCR1W1P:
1A. Improve water quality in key rivers and streams with human contact and significant pollutant loading to St. Croix River and Lake St. Croix.
1B. Maintain naturally reproducing trout populations.

In watersheds of trout streams promote infiltration and reduce impervious surfaces

Commented [CC11]: Consider adding a new goal related to pollutants of emerging concern monitoring.

Commented [AA12R11]: Added as 3.1.16

Click here to enter text.

C	Maintaining an instantaneous Total Suspended Solids (TSS) concentration of 10 mg/L or lower in at least 90% of samples collected between April 1 and September 30 in the trout stream portion of Brown's Creek.	1	Monitor sediment load and sediment concentration in Brown's Creek in coordination with municipalities, Washington County, and state agencies as appropriate to evaluate locations of excessive sediment input and to measure progress toward the TSS goal.
		2	Implement TSS reduction projects based on the findings of the BCWD's sediment evaluations (e.g. PTMapp Analysis and McKusick Stormwater Feasibility Analysis) - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		~~3~~	~~Re-survey the two actively eroding bluffs within the lower gorge to re-evaluate rate of erosion and the need for stabilization~~
D	Achieve and maintain in-stream water temperatures of 18.3°C (65°F) or lower in the trout stream portion of Brown's Creek.	1	Monitor Brown's Creek temp. in coordination with municipalities, Washington County, and state agencies as appropriate.
		2	Assess the need to establish a policy on beaver management on Brown's Creek by simulating beaver dams in the District's Thermal Model for Brown's Creek.
		3	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		4	Monitor the water quality impacts of discharge from the Diversion Structure at Neal Avenue to Brown's Creek and conduct a feasibility study to evaluate options for reducing the thermal load to the creek.
E	~~Extend the trout stream portion of Brown's Creek to Highway 15.~~ MNDNR are stocking Brook Trout starting in 2025. What Fish IBI should we be shooting for to support the Brook Trout.	~~1~~	Coordinate with MNDNR on the development and implementation of a fisheries management plan for the Creek that would establish stocking rates, species, and planning for expansion of the trout stream portion of the Creek.
F	~~Actively participate in Total Maximum Daily Load study for *E. coli*. Impairment.~~ Try to understand E. coli and implement what we can to reduce it.	1	Continue to ~~conduct~~ monitor through *E. coli* source investigation to evaluate bacteria sources to Brown's Creek and to guide Best Management Practice selection.
		~~3~~	~~Collaborate with Washington County to identify, prioritize and address non-compliant septic systems.~~
		2	~~Consider developing a program to conduct a targeted SSTS inventory and inspections, which may include incentives for residents who participate.~~
G	Facilitate the implementation of the Brown's Creek TMDL Implementation Plan.	1	~~Hold annual meetings~~ Coordinate with member communities to discuss progress toward Local Surface Water Management Plan implementation, TMDL Implementation Plan goals, other mutual goals and opportunities for partnerships.
		2	Track performance towards Brown's Creek TMDL goals annually.
H	Achieve and ~~M~~maintain~~Improve~~ the water quality and ecological integrity of upper Brown's Creek (Headwaters to Manning) to achieve the State's goals.	1	Maintaining native vegetation, pools, riffles, and woody debris within the stream corridor.
SUB-ISSUE:	**Maintenance of Flow and Geomorphology**		
POLICY:	**The BCWD strives to maintain the hydrology and geomorphology of Brown's Creek and its tributaries required for stream equilibrium and health.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Manage the watershed to mimic natural (pre-settlement) hydrologic conditions	1	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Evaluate system-wide geomorphology on a ~~biennial~~ five-year basis and identify and execute restoration opportunities.	1	Monitor geomorphology of Brown's Creek and its tributaries on a ~~biennial~~ five~~ten~~-year basis to understand the creek's response to~~impacts of~~ restoration activities and to detect changes within unrestored reaches.
		2	Improve reaches of the creek (specific projects not yet identified) categorized as having degraded stream channel geomorphology

Commented [CC13]: The potential issues with this decision are the competing goals of the two resources; TP for Lake McKusick and thermal/ biological impairments for Brown's Creek. If there is a lot of stormwater reaching the creek now as a result of closing the gate value, there could be thermal/wq/ biotic impacts to the creek, especially concerning since the creek has a better aquatic community downstream of this outfall (particularly the gorge reach). We also don't have any idea what else is in the stormwater (heavy metals, herbicides/pesticides, PAH's etc.). Perhaps the pretreatment train along the ditch will mitigate some of this but I think this may warrant wq monitoring by the WCD just downstream of the outfall since the existing McKusick monitoring station at the east McKusick road crossing is also downstream of the Lake McKusick "return flow" pipe from the lake, so it would be challenging to determine wq as a result of these two sources.

Commented [AA14]: Remove?

Commented [AA15R14]: DNR Brook Trout; should be supporting native. Make sure DNR follows through.

Mike following up with TJ.

Add Goal to support native fishery.

Commented [CC16R14]: We are assisting the Brown's Creek Watershed District with establishing goals for the fish communities of Brown's Creek. As you are aware, Brown's Creek is a unique stream in that the headwaters region is primarily in a warm water state that transitions into a coldwater state somewhere in the middle reach downstream of Manning Ave. Subsequently, there is a mingling of warm water and coldwater fishes in this transition zone, with more coldwater species occurring in the gorge reach. As the BCWD looks to define goals for improving water quality in the stream, we are trying to figure out what a reasonable goal would be for the distribution of warm and coldwater species in the creek. Maybe it is based on IBI scores for the sampled reaches (for example, the headwaters should meet an IBI score of X for a warm water fishery, and the gorge should meet an IBI score of Y for a coldwater fishery). The transition zone is tricky and I'm not sure what realistic goals can be set in that reach. What are your thoughts for setting realistic goals in the creek? Perhaps it's as simple as setting an IBI score target for each reach as I described above, knowing the IBI score for the gorge will likely be influenced by species that migrate upstream from the St. Croix river.

Commented [AA17]: CMSCWD discussed during TAC their work on looking at areas of unknown legacy loading

Not sure where it fits in.

Commented [AA18]: Mike noted this is quite stable, justifying longer time frame.

Click here to enter text.

			(from a thermal stand-point by addressing: Stream Width, Over-Hanging Banks, and Profile and Alignment. (Brown's Creek TMDL Implementation Plan, EOR, 2012) - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		3	Implement the recommendations of diversion tributary resource assessment by discussing restoration projects with adjacent landowners, establishing grade control and thinning the canopy.

Brown's Creek – Oak Glenn Golf Course

Click here to enter text.

Table 1914. Projected Expenditures (in 1,000's) for Stream Management Practices

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Continue to implement volunteer stream monitoring program by providing financial support to the Stillwater High School science program	4	4	4	4	4	4	4	4	4	4	40
Reassess the fish and macroinvertebrate community health at representative sites in three portions of Brown's Creek (Headwaters, Central and Lower Gorge) in May and September	15	9	--	--	9	15	9	15	9	15	96
Implement TSS reduction projects based on the findings of the BCWD's sediment evaluations - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**	30	20	4550	4030	2530	--	--	--158	--158	--	160476
Re-survey the two actively eroding bluffs within the lower gorge to re-evaluate rate of erosion and the need for stabilization	--	--	--	--	7	--	--	--	--	--	7
Assess the need for a beaver management policy on Brown's Creek by simulating beaver dams in the District's Thermal Model for Brown's Creek	--	--	--	--	15	--	--	--	--	--	15
Continue to conduct *E. coli* source investigation to evaluate bacteria sources to Brown's Creek and to guide Best Management Practice selection.	5	5	5	5	5	5	5	5	5	5	50

Click here to enter text.

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
~~Collaborate with Washington County to identify, prioritize and address non-compliant septic systems.~~	~~10~~	~~10~~	~~10~~	~~10~~	~~10~~	~~–~~	~~–~~	~~–~~	~~–~~	~~–~~	~~50~~
Consider developing a program to conduct a targeted SSTS inventory and inspections, which may include incentives for residents who participate.	--	10	10	10	10	10	--	--	--	--	50
Hold annual meetings with member communities to discuss progress toward Local Surface Water Management Plan implementation, TMDL Implementation Plan goals, other mutual goals & opportunities for partnerships.	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	27.5
Track performance towards Brown's Creek TMDL goals annually.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	25
Monitor geomorphology of Brown's Creek and its tributaries on a biennial basis.	--	10	--	10	--	10	--	10	--	10	50
Improve reaches of the creek categorized as having degraded stream channel geomorphology (Stream Width, Over-Hanging Banks, and Profile and Alignment) - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**	65	62	30	94	49	120	190	--	--	--	608

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Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Implement the recommendations of diversion tributary resource assessment by discussing restoration projects with adjacent landowners, establishing grade control and thinning the canopy.	18.3	1	1	1	1	1	1	1	1	1	27.3
Total for Stream Management	**153**	**136**	~~112~~105	~~179~~159	~~142~~135	**170**	**216**	~~40~~198	~~26~~182	**40**	**1,~~494~~216**

Table 20~~15~~. Stream Management Implementation Activities from Table 13 addressed by Baseline Monitoring Program

Complete annual report on stream flow, water quality, and fisheries and aquatic habitat trends based on monitoring results
Continue to assess the copper concentrations in Brown's Creek.
Continue to monitor Dissolved Oxygen in Brown's Creek and expand monitoring and evaluation efforts as needed to evaluate changes along the length of the creek.
Monitor sediment load and sediment concentration in Brown's Creek in coordination with municipalities, Washington County, and state agencies as appropriate to evaluate locations of excessive sediment input and to measure progress toward the TSS goal.
Monitor the temperature of Brown's Creek in coordination with municipalities, Washington County, and state agencies as appropriate.

Monitoring / Field Notes

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~~3.12.~~3.11. Recreation

~~3.12.1.~~3.11.1. General Issue Statement

The Brown's Creek corridor and other natural areas within the watershed provide opportunities~~, which are underutilized relative to their capacity,~~ for fishing, wildlife viewing, and outdoor learning. As the District implements projects ~~and~~that provide more opportunities for people to engage with ~~makes~~ resources like Brown's Creek ~~accessible to the public~~, ongoing monitoring is critical to ensure these resources are protected from overuse.

~~3.12.2.~~3.11.2. Relevance to the District

Commented [CC41]: Ask the Board if they want to take a more active role in providing public access to the District's watershed.

Recreational and tourism activities are two primary ecosystem services provided by the natural environment. The Brown's Creek corridor has an appealing aesthetic and has the potential to attract more frequent fishing, birdwatching, and environmental education or eco-tourism programs. Existing trails (e.g. Gateway Trail, Brown's Creek Trail, and roadside trails) ~~as well as the recent addition of the MNDNR Brown's Creek State trail~~ and associated public access areas within the Brown's Creek corridor, and the recent acquisition of the Brown's Creek Conservation Property provides the necessary infrastructure to support increased outdoor recreation.

As greater public access to naturalized green spaces occurs, ensuring natural resources are enjoyed responsibly is critical to protecting the investments made by the District to improve watershed health. Greater access may increase the public's appreciation and desire to care for natural areas, helping supplement the District's existing and future efforts to protect and restore natural resources. The BCWD's role should focus on the recreational co-benefits that can come from watershed resource improvement, and coordination with local units of government and state agencies on their public recreational resources.

Climate change has a significant impact on recreation altering the resources people have available to access for their enjoyment, health, and wellbeing. These changes can create a range of challenges for recreation as illustrated in Table X.

Table ~~5~~15. Related Climate Change Impacts

Impact	Description	Indicators
Warming Winters	Less ice and snow may result in fewer opportunities for winter recreation such as cross country skiing, snowshoeing, and ice fishing.	- Fewer days with snow cover - Later ice-in/earlier ice-out - Unsafe ice conditions
Warming Water	Less ice cover, warmer winters, and warmer summer waters may impair access to sustainable fishing populations.	- Water temperature
Habitat Loss	Changing growth zones and competition from invasive species may result in habitat loss reducing the presence of species of interest for recreation such as birds.	- Species inventory

Click here to enter text.

Planning and implementation of recreation opportunities can address DEI by:

- TBD

~~3.12.3.~~3.11.3. Sub-Issue Areas

Recreational Opportunities

The Brown's Creek Watershed District has a number of resources designated for recreation use and there is interest in greater recreation opportunities throughout the watershed~~that are not being utilized to the extent possible~~. Improving water quality and enhancing wildlife habitat will increase the recreational value of the resources for the public's use.

In order to provide greater connectivity to certain resources, the District may need to be more flexible with its rules to permit the creation of new trails or sidewalks to formalize access.

Additionally, access to high quality naturalized green spaces have well-documented benefits to peoples' physical and mental health. Improving access to opportunities to interact with improved natural resources presents the opportunity to achieve indirect co-benefits such as improved health outcomes and greater care for the resources they have access to.

Stewardship

As opportunities to recreate in the BCWD increase, individuals utilizing the resources for fishing, canoeing, biking, etc. need to do so ~~in a~~ responsibl~~ye fashion~~.

By fostering opportunities to access improved natural resources, through areas such as the Brown's Creek Conservation Property, people are exposed to what healthy ecosystems look like which may spark behavioral change to support the District's work.

~~3.12.4.~~3.11.4. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Commented [CC42]: Highlighting co-benefits to illustrate how BCWD projects address other things like urban heat island effect [this belongs under stormwater runoff management]; if we can get more people into nature, they might care more (understand what a healthy ecosystem looks like) and change their behavior.

Click here to enter text.

Table 5244. Recreation Policies, Goals, and Implementation Activities

SUB-ISSUE:	Recreational Opportunities		
POLICY:	**BCWD supports access to natural areas for a diversity of outdoor recreation activities throughout the watershed for all of its residents and visitors.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Manage the lakes and fishery in the District to enhance passive recreation by … ~~the sport fishing, reduce the rough fish population, reduce the potential for aquatic vegetation to impede swimming, and benefit water quality.~~	**1**	Implement ~~fisheries~~ BMPs, shoreline improvements and other management recommendations found in Lake Management Plans.
B	Explore opportunities to develop and leverage partnerships which increase awareness and access to natural resources recreation in BCWD	**1**	*Addressed through administration of the East Metro Water Resource Education Program (EMWREP).*
		2	Develop a mapped inventory of current and desired recreation activities and locations with watershed partners through the Enhanced Stakeholder Engagement process.
SUB-ISSUE:	**Stewardship**		
POLICY:	**The BCWD is committed to playing a strong leadership role in creating a culture that encourages environmental stewardship**		
GOALS		**IMPLEMENTATION ITEM**	
A	Enhance public knowledge and appreciation for the District's water resources through an increase in passive and active voluntary stewardship activities.	**1**	*Addressed through administration of the East Metro Water Resource Education Program (EMWREP).*
		2	Conduct BMP installation and implementation training workshops to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.
		3	Utilize the ~~cost-share~~stewardship grant program to assist citizens in best management practice installation.
B	Protect areas of investment from recreation-related impacts	**1**	Monitor public access and use of Brown's Creek and evaluate the need to provide formal dedicated access points and the need to mitigate new impacts, i.e. erosion from foot traffic.
		2	Meet annually with municipalities to review recreation-related issues to understand impacts and develop responses to emerging issues *Record instances of these engagements and what areas were identified/responded to through this process.*
C	Promote access throughout the watershed to opportunities for interaction with high-quality naturalized environments.	**1**	Prioritize projects watershed resources which add the co-benefit of improving resources in areas of the watershed not previously served by improvements
		2	Host an annual "District on the Lake" event for small watercraft to explore a lake and learn about improvements and challenges facing the resource.

Table 5345. Projected Expenditures (in 1,000's) for Recreation Activities

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr Total
Monitor public access and	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.5

Click here to enter text.

use of Brown's Creek by walking the trail annually to evaluate the need to provide formal dedicated access points and the need to mitigate new impacts (e.g. erosion from foot traffic).											
Total for Recreation	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**2.5**

Click here to enter text.

Table 5446. Recreation Implementation Activities from Table 44 where implementation costs covered under another Issue Category

Implementation Activity	Issue Category where implementation cost is identified (Table #)
Implement fisheries management recommendations found in Lake Management Plans	Ecological Health (Table 30)
Conduct BMP installation and implementation training workshops to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.	Education and Outreach (Table 47)
Utilize the cost-share program to assist citizens in best management practice installation	Stormwater Management (Table 5)

Brown's Creek Trail – old railway line

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~~3.13.~~3.12. Education, Outreach and Stewardship

~~3.13.1.~~3.12.1. General Issue Statement

Successful efforts to achieve the BCWD's goals will require the involvement of residents, businesses, and municipalities. These groups will be most interested in active participation in District projects, or in water and natural resource protection in general, if they understand and relate to the issues and the benefits of water resource management. Historically, engagement and outreach has resonated with individuals and communities with a direct interest in environmental conservation (e.g. bird watchers, fishers, hikers, gardeners) and struggled with audiences indirectly impacted by changes in watershed resources (e.g. home and business owners, local elected officials). The BCWD continues its efforts to broaden relationships to work with communities throughout the watershed so they understand the district's responsibilities and roles in their communities. In particular, the BCWD continues to think about who is being served by its work and the co-benefits this work can generate.

~~3.13.2.~~3.12.2. Relevance to the District

Since its inception as a watershed management organization, public involvement and public information efforts have played a strong role in directing project implementation in the BCWD. The BCWD has a history of citizen participation in watershed management planning and implementation. For example, through the enhanced stakeholder engagement process, the BCWD has reignited its relationship with Trout Unlimited. Together the BCWD and Trout Unlimited ~~and is~~are now working together to encourage girls to get out into nature through STREAM Girls, monitoring at Brown's Creek Conservation Property~~)~~, helping to secure volunteers for planting events at the Brown's Creek restoration project, and collaborating in the Trout in the Classroom program. The BCWD has been involved through ~~–~~EMWREP in the creation of mini workshops for HOA's.

The BCWD continues to develop relationships with its watershed partners through ~~E~~enhanced ~~E~~engagement efforts designed to target opportunities for involvement and collaboration with existing and new watershed partners.

[Preamble, climate change impact on Education, Outreach and Stewardship]

Table 55. Related Climate Change Impacts

Impact	Description	Indicators
		-
		-
		-
		-

Planning and implementation of Education, Outreach and Stewardship opportunities can address DEI by:

-

~~3.13.3.~~3.12.3. Sub-Issue Areas

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Municipality and Developer/Contractor Education and Outreach

Municipalities, as the land use authority, have great potential to impact and improve water resources. They also own and operate roads, stormwater management facilities and other stormwater infrastructure in the watershed. Additionally, municipalities are often the first point of contact for citizens, businesses, and developers interested in local water resource management. Developers and contractors, as the individuals conducting the change in land use, can directly impact and improve water resources through, among others, development planning and construction techniques. Educating municipal officials can lead to better planning, zoning and ordinances, as well as changes to operations and maintenance policies and programs. Training municipal staff allows them to more effectively install and maintain stormwater systems and BMPs, reduce impacts to water resources from other operation and maintenance activities (e.g. road and park maintenance) and more effectively interface with the development community.

Homeowners Associations (HOAs) Education and Outreach

Growing communities across the district have led to the establishment of more HOAs. These associations are responsible for the management and maintenance of the stormwater management practices of their development, however these responsibilities are susceptible to neglect or improper maintenance. The presence of many HOAs makes determining a point of contact, combined with management turnover, challenging to maintain and develop deeper relationships with HOAs. Opportunities exist to reciprocate information sharing to better understand interest in natural resource management, strategies to conduct more efficient management of resources in their care, and develop a network of organizations capable to learning and supporting each other.

Commented [AA43]: The BCWD will work with HOAs to help develop relationships that enable to the BCWD to better understand how engaged these HOA communities are in natural resource management. The BCWD can assist with training to help HOAs be better stewards of their property and create management plans. create management plans, provide training so they can be better stewards of their property, build relationships so the BCWD can learn how engaged their community is in natural resources management, helping create a network so the HOA's can learn and support each other in the work.

Public-Focused Education, Outreach, and Project Assistance

The public at large are the largest group of constituents of the BCWD comprising people who live, work, and play within the watershed. They make everyday decisions about their relationship to the landscape that impact the quality of resources. They can protect and enhance water resources through stewardship in their communities and everyday management decisions. The public also act to influence the policies of the BCWD, state agencies, and municipalities. The BCWD can serve as a valuable resource for its citizens by ensuring its role continues building relationships through shared priorities.

Commented [CC44]: Let's add the who is working here and who is playing here. This doesn't cover working with DNR trails on education and outreach to provide education materials for the people using the Brown's Creek State Trail.

Business Community

Historically the BCWD has had a weaker relationship with the local business community. These watershed partners play an important role in maintenance practices tied to their properties and operations. Greater collaboration with the business community can create opportunities to involve these watershed partners in initiatives targeting BCWD priorities such as chloride management and water capture and re-use by establishing clearer connections between the business community's operational practices and watershed impacts. Ensuring that proposed operational opportunities emphasize cost impacts will be key to making these alternatives resonate with the business community.

Youth Education and Outreach

The BCWD improves the water resources of the District so they can be managed sustainably for future generations to benefit from. As future stewards of this landscape, supporting the

Commented [CC45]: Ask the Board if they want this to be a separate sub-issue area or include in citizen engagement

Click here to enter text.

involvement young people in efforts to care for these resources plays an important role in nurturing the next generation of advocates, volunteers, and stewards.

BCWD Board of Managers

Ensuring the Board is aware of news issues, concerns, opportunities, and ways of thinking about watershed resources is vital to their role as decision-makers for the District.

~~3.13.4.~~3.12.4. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Click here to enter text.

Table 5647. Education, Outreach and Stewardship Policies, Goals, and Implementation Activities

SUB-ISSUE:	Municipality and Developer/Contractor Education and Outreach		
POLICY:	**The BCWD is committed to providing education and outreach services to municipalities in the District to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase municipal official and staff capacity for and use of development techniques and regulatory strategies that protect natural resources and benefit water quality.	**1**	*Coordinate BCWD education and outreach efforts with those of municipalities and other local watershed organizations by continuing to support the East Metro Water Resource Education Program (EMWREP).*
		2	*Encourage attendance at training sessions hosted by Stormwater U on ordinances, development planning strategies, and development techniques that protect natural resources and benefit water quality by providing stipends so that 2 people from each District community can attend once every three years.*
		3	*Promote the MPCA's tool called WMAt for winter maintenance professionals to promote chloride reduction activities in the Long lake subwatershed.*
B	Increase municipal official and staff capacity to promote the benefits of regular maintenance of stormwater management and infiltration practices and increase the implementation of maintenance practices.	**1**	*Encourage attendance at training sessions hosted by Stormwater U on stormwater management facility maintenance schedules and procedures and the relation to water quality improvement (e.g. best practices to reduce impacts to water resources from parks and road maintenance activities - road salt application, fertilizer use, irrigation practices) by providing stipends so that 2 people from each District community can attend once every three years.*
		2	*Work with municipalities in the development of operation and maintenance plans for stormwater management facilities.*
C	Increase municipal official and municipal staff awareness of the BCWD and the assistance it can provide to municipalities.	**1**	*Develop demonstration projects to highlight BMPs and stewardship.*
		2	*Promote Friends of the Mississippi River's Blue Star Award program to recognize municipal programs or projects and/or developer and contractor programs or projects that exemplify water and natural resource stewardship.*
		3	*Educate municipalities about the District's Rules.*
		4	*Develop a Continuing Education Credit recognition for municipalities and developers recognizing their understanding of responsible watershed development practices.*
POLICY:	**The BCWD promotes good stewardship of water and natural resources through education and outreach opportunities for ~~land owners~~landowners and managers conducting work within the District in order to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase developers' and~~,~~ contractors'~~, homeowner's associations and property managers'~~ awareness and use of development techniques that protect natural resources and benefit water quality.	**1**	Conduct workshops targeted to developers and realtors about marketing lakeshore properties based on BCWD analysis of lake functions and values.
		2	Provide training sessions on development planning strategies and development techniques that protect natural resources and benefit water quality.
B	Increase developers' and~~,~~ contractors'~~, homeowner's associations and property managers'~~ awareness of the importance of construction, installation, and maintenance techniques on the long-term functionality of stormwater management practices and increase the implementation of these techniques.	**1**	Encourage attendance at training sessions hosted by Stormwater U on stormwater management practice construction and installation techniques and the relationship to the continued functionality of the practice by providing stipends to individuals involved in construction oversight once every three years.
		2	Encourage developers with active projects in the watershed to attend erosion control seminars held by EMWREP / MECA.

Commented [AA46]: Comment from Karen: Get input if needed by municipalities.

Commented [AA47]: Smart Salt

Commented [AA48]: Identified for input

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C	Increase developer, contractor, ~~homeowner's associations and property managers'~~ awareness of the BCWD and the assistance it can provide.	1	Educate developers and the local design community about the District's Rules.
SUB-ISSUE:	Homeowner Association (HOA) and Property Manager Education and Outreach		
POLICY:	The BCWD is committed to helping HOAs and property managers make informed decisions about their responsibilities to promote good stewardship of water and natural resources.		
GOALS		IMPLEMENTATION ITEM	
A	Increase homeowner's associations and property managers' awareness of the importance of construction, installation, and maintenance techniques on the long-term functionality of stormwater management practices and increase the implementation of these techniques.	1	Provide HOAs with stormwater management maintenance resources to better inform maintenance approaches.
		2	Educate HOA owners when a development is completed and follow-up 5 years later.
B	Increase homeowner's associations and property managers' awareness of the BCWD and the assistance it can provide.	1	
SUB-ISSUE:		~~Citizen~~Public-Focused Education, Outreach, and Project Assistance	
POLICY:	The BCWD will provide clear and accessible information highlighting existing efforts to share the story of watershed accomplishments and opportunities to get involved. ~~The BCWD will leverage and highlight existing efforts of other organizations conducting environmental stewardship work in the area~~		
GOALS		IMPLEMENTATION ITEM	
A	Increase ~~citizen~~ public awareness of surface water, groundwater, and natural resource protection, restoration, and stewardship.	1	Regularly promote the District's accomplishments and events through multiple communication channels (newsletters, mail outs, social media, etc…) to reach audiences, sharing information about topics ~~Send an annual newsletter to all citizens of the District. The newsletter may contain information on topics~~ such as groundwater recharge, wetland and lake aesthetics and natural condition, home and yard care practices, and shoreline and wetland stewardship as well as information on BCWD accomplishments.
		2	Include an educational component in all BCWD capital improvement projects.
		3	Provide targeted educational messages to ~~through~~ local businesses, ~~and~~ local organizations, and areas experiencing specific challenges (e.g. chloride impairment in Long Lake). ~~Businesses and organizations may include fertilizer suppliers, lawn care and garden companies, lake associations and garden clubs.~~
		4	~~Host education seminars on Estate Planning to educate the public about tax incentives to property owners who create and donate a conservation easement.~~
		5	Provide education to residents of the District on groundwater conservation strategies.
		6	Host online information sessions on education topics of interest and maintain a record of these webinars on BCWD's website. Track views for these sessions to understand level of interest and gather participant engagement.
		7	Maintain an updated list of partners and event participants – update the list quarterly to reflect new information on partners and participants.

Commented [AA49]: Discuss current challenges with HOAs and capacity to be able to carry out targeted strategies with these watershed partners, or are the implementation items similar to the municipalities and contractor items?

Commented [CC50]: Move these to HOA Education and Outreach.

Commented [EP51]: This policy statement doesn't align with the actions. Meet with Karen and Angie Hong to revie and make changes.

Click here to enter text.

		8	Establish one permanent information kiosk with permanent and rotating information that is geographically relevant to resources near the kiosk (e.g. chloride impairment in Long Lake).
B	Promote ~~citizen~~public-led efforts in water and natural resource restoration, protection, and stewardship.	1	Continue to administer the Annual Recognition Program to recognize citizen efforts in water resource and natural resource protection.
		2	Conduct BMP installation and implementation training workshops and provide supporting resources (e.g. directory to the State's Stormwater BMP guide) to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.
		~~3~~3	Utilize the ~~cost-share~~stewardship grant ~~program~~ to assist citizens in best management practice installation.
		44	Develop demonstration projects to highlight stormwater management practices natural resource protection methods and resource stewardship.
POLICY:	**The BCWD desires to provide ~~its citizens~~ education and public involvement opportunities in watershed management planning and implementation in order to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase ~~citizen~~ public awareness of the BCWD, its role, and the functions and assistance it provides.	1	Update the District website and Facebook page to include easy-to-use information on resource protection and stewardship.
		2	Include an educational component in all BCWD capital improvement projects.
		3	Educate ~~citizens~~ residents about the District's permitting program
		4	Host annual ~~ice cream social~~community watershed event in different parts of the watershed to highlight local projects and to engage residents in scientific and recreational activities
~~C~~B	Stay informed on the topic of pollutants of emerging concern in lakes, streams, and groundwater by monitoring future studies completed by the MPCA and sharing information with the public.	1	Educate the public about pollutants of emerging concern including the widespread prevalence of pharmaceutical and cosmetic products in our lakes and streams, how these compounds can disrupt hormone regulation of aquatic organisms, such as fish, and how these chemicals enter lakes and streams.
SUB-ISSUE:	**Youth Education and Outreach**		
POLICY:	**The BCWD will support the work of its partners in furthering opportunities for youth to learn about watershed resources and get involved in stewardship.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Support watershed partners specializing in youth education and outreach to provide greater understanding and stewardship of watershed resources	1	
B	Provide K – 12 educational opportunities to encourage stewardship and increase awareness of the interconnected nature of land, surface water, and groundwater.	1	Develop classroom educational program that provides grants to teachers planning water and natural resource education sessions for their classroom or assist with curriculum development (e.g. perform monitoring activities, monitor BMPs, design BMPs, and develop watershed educational materials for variety of audiences).
		2	Conduct classroom presentations (K-12) on watershed concepts and water and natural resource stewardship.
SUB-ISSUE:	**BCWD Board of Manager Education**		
POLICY:	**The BCWD will provide its Board of Managers with opportunities to further their understanding of emerging topics to help inform decision-making.**		
GOALS		**IMPLEMENTATION ITEM**	

Commented [AA52]: Identified as "Not Continued" from the status update - remove as an implementation item?

Commented [AA53]: On-boarding of new managers, keeping them abreast of new issues/concerns, opportunities, technologies, DEI Training, *Develop a Board Training Plan.*

Measure of success - 4 in-meeting trainings per year
Attending MN Watershed Training and other external training
Annual training workshop

Click here to enter text.

A	Provide continuous learning opportunities for the Board to further their understanding of current and emerging watershed issues.	1	Develop a Board Training Plan for new Board member orientation and ongoing learning opportunities
		2	Hold an annual training workshop for the Board
		3	Hold quarterly in-meeting trainings on topics identified by the Board
		4	Support attendance at external trainings

Commented [AA54]: E.g. on DEI

Commented [AA55]: E.g. on PFAS or other pollutants of emerging concern.

Commented [AA56]: E.g. MN Watershed Training

Table 5748. Projected Expenditures (in 1,000's) for Education, Outreach and Stewardship Activities

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr Total
Coordinate BCWD education and outreach efforts with those of municipalities and other local watershed organizations by continuing to support the EMWREP.	18.5	18.5	19.4	19.4	19.4	20.4	20.4	20.4	21.4	21.4	199.3
Encourage attendance at training sessions hosted by Stormwater U on ordinances, development planning strategies, and development techniques that protect natural resources & benefit water quality by providing stipend: 2 people from District communities can attend once every 3 years.	--	--	2	--	--	2	--	--	2	--	6
Encourage attendance at training sessions hosted by Stormwater U on stormwater management facility maintenance schedules and procedures and the relation to water quality improvement by providing stipends: 2 people from District communities can attend once every three years.	--	2	--	--	2	--	--	2	--	--	6
Educate municipalities about the District's Rules.	--	--	7.5	--	--	--	--	--	--	--	7.5
Encourage attendance at training sessions hosted by Stormwater U on stormwater management practice construction and installation techniques and the relationship to the continued functionality of the practice by providing stipends to individuals	--	--	2	--	--	2	--	--	2	--	6

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Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr Total
involved in construction oversight once every 3 yrs.											
Educate developers & the local design community about the District's Rules.	--	--	7.5	--	--	--	--	--	--	--	7.5
Send annual newsletter to all citizens of the District.	5	5	5	5	5	5	5	5	5	5	50
Include an educational component in all BCWD capital improvement projects.	--	6.5	--	6.5	--	6.5	--	6.5	--	6.5	32.5
Host education seminars on Estate Planning to educate the public about tax incentives to property owners who create and donate a conservation easement.	.25	--	.25	--	.25	--	.25	--	.25	--	1.25
Continue to administer the Annual Recognition Program to recognize citizen efforts in water resource and natural resource protection.	--	.25	--	.25	--	.25	--	.25	--	.25	1.25
Update the District website and Facebook page to include easy-to-use information on resource protection and stewardship	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5
Host annual ice cream social in different parts of the watershed to highlight local projects and to engage residents in scientific and recreational activities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	15
Develop classroom educational program	5	5	5	5	5	5	5	5	5	5	50
Conduct classroom (K-12) presentations on watershed concepts and water and natural resource stewardship.	--	--	--	--	--	1	1	1	1	1	5
Total for Education	**30.75**	**39.25**	**50.7**	**38.2**	**33.7**	**44.1**	**33.6**	**42.1**	**38.7**	**41.2**	**392.3**

Table 5849. Education, Outreach and Stewardship Implementation Activities from Table 47 addressed by Administrative and/or Project Development Program

Work with municipalities in the development of operation and maintenance plans for stormwater management facilities.
Promote Friends of the Mississippi River's Blue Star Award program to recognize municipal programs or projects and/or developer and contractor programs or projects that exemplify water and natural resource stewardship.

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Encourage developers with active projects in the watershed to attend erosion control seminars held by EMWREP / MECA.
Educate citizens about the District's permitting program.

Click here to enter text.

Table 5950. Education, Outreach and Stewardship Implementation Activities from Table 46 addressed by East Metro Water Resource Education Program

Promote the MPCA's tool called WMAt for winter maintenance professionals to promote chloride reduction activities in the Long lake subwatershed.
Conduct workshops targeted to developers and realtors about marketing lakeshore properties based on BCWD analysis of lake functions and values.
Provide training sessions on development planning strategies and development techniques that protect natural resources and benefit water quality.
Provide targeted educational messages through local businesses and local organizations. Businesses and organizations may include fertilizer suppliers, lawn care and garden companies, lake associations and garden clubs.
Provide education to residents of the District on groundwater conservation strategies.
Conduct BMP installation and implementation training workshops to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.
Educate the public about pollutants of emerging concern including the widespread prevalence of pharmaceutical and cosmetic products in our lakes and streams, how these compounds can disrupt hormone regulation of aquatic organisms, such as fish, and how these chemicals enter lakes and streams.

Table 6051. Education, Outreach and Stewardship Implementation Activities from Table 47 where implementation costs covered under another Issue Category

Implementation Activity	Issue Category where implementation cost is identified (Table #)
Develop demonstration projects to highlight BMPs and stewardship.	Funding (Table 54)
Utilize the cost-share program to assist citizens in best management practice installation.	Stormwater Management (Table 5)

Brown's Creek Trail Opening

1.5. District Boundaries (Jurisdictional Area)

The Brown's Creek Watershed District covers portions of seven municipalities; the City of Stillwater, City of Oak Park Heights, City of Lake Elmo, City of Grant, City of Hugo, May Township and Stillwater Township. Figure 1 shows the legal and hydrologic boundaries of the District. The hydrologic boundary delineates areas that would ultimately drain to Brown's Creek. The legal boundary defines the actual legal area of jurisdiction of the District; it corresponds as closely as possible to the hydrologic boundary while following established property lines.

1.6. Board of Managers

A five-member Board of Managers governs the Brown's Creek Watershed District. The managers are appointed by the Washington County Board of Commissioners and serve staggered three-year terms in office. Watershed District managers must be voting residents of the watershed and cannot be a public officer of the county, state, or federal government, except that a soil and water conservation district supervisor may be a manager. The Board of Managers involved in the development of this Plan included Klayton Eckles (President), Celia Wirth (Vice-President), NEW Manager, Chuck LeRoux (Secretary), and Deb Sahulka (Manager). All managers, past and present, are listed in Table 3.

Table 3. Board of Managers and Terms in Office

Manager	Term
Klayton Eckles	2021- present
Tim Freeman	2002-2003
Ned Gordon	1997–2003, 2003-2004
Gerald Johnson	2003–2024
Karen Kilberg	1997-2004
Craig Leiser	1997–2021
Anne Maule Miller	2016-2020
Rob McKim	2021- 2022
Barb Medinger	2002-2004
Jon Michaels	1997-1999
Chuck LeRoux	2020 - present
Don Peterson	1999-2001
Dan Potter	1997-2000
Gail Pundsack	2004-2016
Deb Sahulka	2024- present
Sharon Schwarze	2013-2020
Connie Taillon	2004-2018
Jerry Turnquist	2001-2001
Rick Vanzwol	2005-2013
Celia Wirth	2021 - present

1.7. Summary of Issues, Goals and Strategies

Many of the BCWD's issues have been consistent from plan to plan because many of the resource protection and restoration needs have been the same. Concerns related to the impacts of

development continue to be articulated under Stormwater Management, Erosion and Sediment Control, Floodplain Management and Regulations while concerns related to specific resources are articulated under Lake, Stream and Wetland Management as well as Groundwater Management, Ecological Health and Monitoring and Data Collection. While the issues have remained more or less the same, the policies, goals and implementation activities have not. As state water quality standards have evolved and the District has collected more information about the quality of its resources, the management approach has shifted with time: the District's goals and activities have become more targeted.

New to this Plan is the integration of climate change and Diversity, Equity, and Inclusion (DEI). Rather than include these issues as stand-alone categories in the Plan, this document takes a holistic approach that recognizes the intersection of environmental and social factors. By considering these elements at each stage of the planning process, the BCWD ensures that the strategies included in the implementation plan not only achieve the District's watershed management goals but are also equitable, inclusive and build resilience in the face of climate change.

1.7.1. Climate Change

Within the last 10 years, the BCWD has experienced a number of impacts related to climate change. According to Kenny Blumenfeld, Senior Climatologist with the Minnesota Department of Natural Resources, 2010-2020 was the wettest decade on record. More precipitation is coming from larger storm events (1-inch or more per day) and the frequency of 3-inch/day storm events is increasing while the return period is decreasing. These conditions resulted in flooding throughout Washington County including the flooding of Kimbro Basin which overtopped County Road 12 and encroached on neighboring properties. This is raising concerns about access to and flooding of homes, as well as public safety. Similarly, changes in temperature patterns are having an impact on the District's resources. Winter nights are warming ten times faster than summer temperatures and the lowest temperature of winter is also increasing. This means that liquid precipitation during winter is increasing and days with snow are decreasing. The winter of 2023 was the warmest on record throughout the state. The warm conditions during the early winter delayed ice formation on lakes with many experiencing their latest ice-in dates on record. These types of changes have wide-ranging consequences for water quality, fisheries, recreational activities, and local economies. As a result, climate change impacts have been considered and summarized for each issue in the WMP. Implementation activities developed to enhance the resilience of the District's natural and built systems are indicated with the following icon.

1.7.2. Diversity, Equity, and Inclusion

Government agencies are increasingly acknowledging that the impacts of historical decision-making have impacted communities in ways that have generated unequal outcomes that have advantaged some while disadvantaged others, predominately along lines of social vulnerability such as race, age, gender, but also other individual and intersecting identities. In an effort to address these historic inequalities, particularly in the areas of environmental planning and engineering, organization such as the EPA and the Met Council are increasingly looking to ways to work with communities to understand how to respect diversity, engage inclusively, and undertake projects and programs equitably.

In 2024, the BCWD Board of Managers adopted the following Diversity, Equity, Inclusion and Accessibility Policy:

> Brown's Creek Watershed District is a special-purpose unit of government established under Minnesota Statutes chapters 103B and 103D to mitigate damage from flooding and improve Brown's Creek and the wetlands, lakes and streams in the watershed. As a public entity working on fundamental water issues that affect everyone in the watershed, BCWD is obligated to ensure its expenditure of tax funds accrues to the benefit of all. In pursuit of this goal, BCWD will ensure diversity, equity, inclusion and accessibility influences its development and implementation of its programs and projects and will work toward addressing current and historical inequities in how land and waters have been managed and improved in the watershed. BCWD will incorporate diverse views in its decision-making, robustly communicate and engage with historically underserved communities, provide equitable access to information and resources, and use social vulnerability and related indices in developing and implementing its programs and projects.

To illustrate how the District's programs and projects are informed by DEI, social vulnerability has been considered and summarized for each issue in the WMP. Implementation activities developed to address social vulnerability are indicated with the following icon.

Red-Shouldered Hawk

3.1. Stormwater Runoff Management

3.1.1. General Issue Statement

Properly managed impervious surfaces can reduce common environmental impacts, such as increased runoff rates, decreased water quality, and reduced groundwater recharge. Urbanization and land-use changes often involve an increase in imperviousness, compaction of native soils, and removal of existing vegetation. Unless land use changes are properly managed, these activities will increase the rate and volume of stormwater runoff generated in the watershed and will decrease the quality of surface water resources and the quantity of groundwater resources. Many of the Best Management Practices used to provide stormwater management require long-term maintenance to ensure their performance. Existing urbanized areas already contribute additional runoff volume and increased runoff rates to local water bodies, compared with pre-settlement conditions.

3.1.2. Relevance to the District

Development and redevelopment activities have occurred within the watershed and are expected to continue. Given the amount of development that has occurred in the urban portions of the watershed it is expected that the predominant land development activity in this portion of the watershed will be redevelopment. In the last five years, the watershed district has seen increased development pressure in rural areas including the Cities of Grant and Hugo. Areas of special concern remain development and redevelopment around landlocked basins, groundwater dependent natural resources, wetlands, and areas tributary to Brown's Creek and the St. Croix River. Many areas of the watershed developed prior to adoption of the BCWD Rules and represent stormwater runoff management retrofit opportunities. Additionally, many of the stormwater management practices constructed to meet the District's rules or installed as retrofit projects need maintenance to ensure that they continue to function as designed.

There are also portions of the watershed that have been hydrologically altered. Modifications like the Diversion Structure (described in Appendix A-Land and Water Resource Inventory) have implications for application of the District's stormwater rules and regulations and participation in the restoration and protection of waterbodies outside of the watershed boundary. Surface waters listed as impaired for various pollutants (including the emerging issue of chloride impairment) by the MPCA and resources that are approaching an exceedance of state water quality standards can benefit from additional stormwater management efforts.

Climate change has a significant impact on stormwater runoff, altering both the quantity and quality of water flowing through urban and rural systems. These changes can create a range of challenges for stormwater management, infrastructure, and ecosystems as illustrated in Table X.

Table 5. Related Climate Change Impacts

Impact	Description	Indicators
More Extreme Water-Related Events	Heavier precipitation during rainfall events	- Increased risk of flooding - Increased variability of streamflows - Increased velocity of water during high flow periods - Taxes existing infrastructure systems (e.g.

		levees, sewer pipes, wastewater treatment plans, etc…)
Increases in Water Pollution Problems	Increased flooding increases water-borne diseases and sediment transport	- Increased stormwater runoff washes sediments (erosion) and other contaminants into waterbodies - Overloading of stormwater and stormsewer systems transports contaminants into waterbodies
Water Boundary Movement and Displacement	Size of wetlands and lakes will change	- Changing water flow to lakes/streams - Changes in precipitation impacts wetland hydrology (bounce and duration)
	Increased stream channel instability	- Increase in channel-forming flows (bank-full flows) leads to increased sediment transport potential and channel instability
	Decreased groundwater recharge	- Rain from extreme events falls too quickly to be absorbed into the ground

Planning and implementation of stormwater runoff management can address DEI by:

- Reducing communities' exposure to hazards such as flooding and pollution.
- Retrofitting spaces to include more greenspace that can contribute to indirect physical and mental health outcomes.
- Mitigating the Urban Heat Island effect and improving air quality.
- Noise control.
- Carbon sequestration (i.e., by increasing tree canopy, native vegetation, etc.)

3.1.3. Sub-Issue Areas

Quality, Quantity, and Rate of Stormwater Runoff

Increases in runoff rate, usually caused by increases in impervious surfaces or changes in vegetative cover (e.g., forested areas converted to turf grass), can intensify erosion and raise flood levels. Similarly, increases in runoff volumes, often caused by increases in impervious surface cover and soil compaction, can cause flooding and can reduce the landscape's ability to infiltrate surface water to groundwater.

The quality of runoff entering water bodies such as lakes, streams and wetlands is affected by land management practices. Practices that degrade water quality include, among others, connection of impervious surfaces to water bodies, soil disturbance leading to erosion, excessive fertilizer and chloride uses, and lack of terrestrial invasive species management. Increases in runoff rate and volume also lead to decreased water quality because of increased erosion, direct connection of impervious surface to water bodies, increased water temperature, and increased volume of water carrying pollutants to water bodies. A number of management techniques can be used to limit the downstream effect of rate and volume increases and to limit the impact to water quality. These management techniques are typically constructed as part of the District's regulatory program, stormwater retrofit program or its capital improvement program. Opportunities to partner with the business and development community in going above and beyond the rule requirements would further help to address stormwater related impacts.Monitoring and Maintenance of Stormwater Management Facilities

Stormwater management facilities are constructed to limit the effects of increased runoff rates and volumes and to collect pollutants that could degrade downstream resources. To fully achieve these purposes, stormwater management facilities require regular inspections and

periodic maintenance. Cities, towns, and Homeowners Associations (HOAs) generally have responsibility for the operation and maintenance of stormwater management facilities; some have greater capacity than others to perform the monitoring and maintenance activities needed on a regular, routine basis.

Coordination with Other Government Agencies

Development activity and population growth threaten the health of lakes, wetlands, and streams (e.g. change in density and/or change in the type of development). The watershed is affected by the urbanization of the landscape and the transformation of the natural environment. Coordinated planning and control of development and redevelopment activities can reduce the impact of land use changes on the water resources of the District. Opportunities to partner with the member communities on the implementation of stormwater improvement projects would further help to address stormwater related impacts.

3.1.4. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Mussel Survey Net – Brown's Creek

Table 6. Stormwater Runoff Management Policies, Goals, and Implementation Activities

SUB-ISSUE:	Quality, Quantity, and Rate of Stormwater Runoff		
POLICY:	**The BCWD is committed to improving the quality of stormwater runoff in order to reduce pollutant loadings to downstream water bodies.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Achieve the Revised TMDL Load Reduction for Phosphorous of 848 lb./yr. assigned to Brown's Creek in the *Implementation Plan for the Lake St. Croix Nutrient TMDL (February, 2013)*	**1**	Annually analyze progress toward the phosphorus reduction goal based on evaluation of the collected monitoring data (conducted as part of the baseline monitoring program).
		2	Utilize the District's cost-share program to assist in citizen installation of water quality improvement projects (including thermal BMPs) and water quantity (e.g. volume control) practices
		3	Work with Washington County, MNDOT and member communities to improve operation & maintenance practices.
		4	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
B	TSS loads within the contributing drainage area to Brown's Creek, includes both the regulated and nonregulated portions of municipalities; need to be reduced by 74% on average in order to meet these loading limits. (Brown's Creek TMDL Implementation Plan, 2012)	**1**	Annually analyze progress toward the TSS reduction goal based on evaluation of the collected monitoring data (conducted as part of the baseline monitoring program).
		2	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
C	Restore impaired lakes so that they meet state standards for total phosphorous, chlorophyll A, and chloride concentrations, and Secchi depth	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER LAKE MANAGEMENT PLANS (TABLE 62)**
D	Achieve the TP Load Reduction goal of 148 lbs. established at the Diversion Structure as identified in the *McKusick Lake and Lily Lake Mgmt. Plan*	**1**	Re-assess water quality data collected in contributing drainage area to Diversion Structure to evaluate pollutant loading and identify sources.
E	Manage the nutrient inputs (watershed loading and internal loading) to the following lakes: - Bass Lakes (East and West) - Benz Lake - Goggins Lake - Lynch Lake (North and South) - Lake Masterman - Pat Lake - Plaisted Lake - North School Section Lake - South School Section Lake - Woodpile Lake	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER LAKE MANAGEMENT PLANS**
J	Manage the nutrient inputs (watershed loading and internal loading) to the following ponds: - Kismet Basin - July Avenue Pond - Heifort Pond - Brewers Pond - Sinnets Pond		**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER POND MANAGEMENT PLANS**
POLICY:	**The BCWD is committed to ensuring that activities within the watershed provide for groundwater recharge, provide thermal protection to Brown's Creek, reduce volume related impacts to the Distric water bodies and reduce flood hazards to downstream properties.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Protect and maintain the quantity and quality of groundwater recharge	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Identify and implement methods to provide thermal protection to Brown's Creek to achieve the thermal loading reductions identified in the Brown's Creek TMDL Implementation Plan	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**

C	Reduce volume-related impacts to the District's water bodies (e.g. stormwater impacts such as wetland bounce and duration)	**1**	Promote stormwater reuse by working with local businesses, local units of government and Washington County to incorporate BMPs into new development or redevelopment projects.
		2	*Addressed through administration of the BCWD regulatory standards and criteria.*
D	Reduce flood hazards under existing 100-year event and projected 100-year event.	**3**	**SEE FLOODING ACTIVITES IDENTIFIED UNDER…SEE FLOODING ACTIVITES IDENTIFIED UNDER…** **EE FLOODING ACTIVITES IDENTIFIED UNDER…SEE FLOODING ACTIVITES IDENTIFIED UNDER…** Partner with the City of Stillwater in the implementation of recommendations made in the Maryland Avenue North Drainage Easement Assessment.
POLICY:	**The BCWD is committed to ensuring that the rate of stormwater runoff is controlled in order to reduce impacts to the District's water bodies.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Ensure no-net increase in runoff rate from new development and redevelopment	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Identify and implement rate control projects to reduce rate-related impacts to water bodies and build resilience.	**1**	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		2	BCWD Cost Share Program for going above and beyond the rules to meet a future (projected) rainfall condition OR waive permit fees if they provide this mount of treatment.
SUB-ISSUE:	**Monitoring and Maintenance of Stormwater Management Facilities**		
POLICY:	**The BCWD is committed to ensuring the long-term maintenance of stormwater management facilities in order to improve the water resources of the District through the continued achievement of the expected rate control, water quality treatment and infiltration goals of a facility.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Continue to monitor stormwater management facilities to evaluate long-term performance and obtain design information on infiltration rates, suspended solids removal rates, phosphorus removal rates, and chloride concentrations as appropriate to the facility.	**1**	Monitor the IESF, THPP, Kern Center Pond, Kismet Basin, and Bradshaw Pond as outlined in maintenance plans and agreements.
		2	Conduct monitoring of stormwater management facilities to evaluate performance as needed. Observe facilities chosen for monitoring during construction to evaluate any conditions that would affect infiltration or removal rates.
B	Monitor any facilities constructed or installed by the BCWD for at least five years following facility installation to evaluate performance.	**1**	Complete a minimum five-year monitoring period for the Iron Enhanced Sand Filter (constructed by BCWD in 2013) and conduct monitoring after medium is replaced.
		2	Complete a five-year monitoring period for BMPs that are implemented in the future by the District.
C	Each stormwater management facility in the District will be regularly inspected and maintained as appropriate to the type of facility.	**1**	Continue to require permanent maintenance commitments for stormwater management facilities constructed under the District's Rules.
		2	Develop and follow an operations and maintenance plan for the stormwater management facilities operated by the BCWD.
		3	Work with member communities to collaborate on maintenance of stormwater management facilities and to define criteria triggering the need for maintenance on installed stormwater management practices.
		4	Conduct a cost-benefit analysis considering the impacts if operations and maintenance needs are not met.
		5	Support HOAs in understanding their maintenance responsibilities for stormwater runoff infrastructure by providing HOAs with stormwater management maintenance resources.

SUB-ISSUE:	Coordination with Other Government Agencies		
POLICY:	**BCWD will partner with municipalities early in the land use & development planning processes to ensure that BCWD & municipal standards are met within a community and within a development.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Establish a process for BCWD involvement early in each municipality's development review process.	**1**	Work with individual municipalities to establish a process for early involvement in development review. The municipal partnership will establish a process that allows cost-effective and efficient review of development projects and ensures the incorporation of stormwater management practices as an integral part of development plans.
		2	Work with Townships and Washington County to become involved in development review in townships within the BCWD.
		3	Conduct a pre-permit meeting that is free of charge with potential permit applicant & its design team and municipal staff.
B	BCWD reviews of municipal comprehensive plans, local water management plans and water resource management plans will specifically address the connection between the designated land uses and the goals & policies of the BCWD.	**1**	Work with each municipality and township through the comprehensive plan and water resource management plan review process to develop and implement land use policies that focus on preservation and protection of water and natural resources.
C	Ensure application of consistent standards for review of stormwater management practices.	**1**	Review the findings of monitoring studies on infiltration practices being conducted by local agencies to evaluate recommended design infiltration rates.
		2	Develop a list of published and industry accepted total phosphorus and total suspended solids removal rates from innovative and standard stormwater management practices as a permitting tool.
		3	Provide the phosphorus and sediment removal rates list and the design infiltration rate list to allow cities to make land use permit applicants aware of District requirements early in the plan development process.
D	Achieve more stormwater management treatment through incentives and/or partnerships.	**1**	Establish an incentive program that will allow the BCWD to partner with the business/development community on BMPs that help a site go above and beyond the rule requirements.
		2	Establish a cost share program that will allow the BCWD to partner with its member communities in the implementation of water quality improvement/retrofit projects.

Table 7. Projected Expenditures (in 1,000's) for Stormwater Runoff Management

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Utilize the District's cost-share program to assist in citizen installation of water quality improvement projects (including thermal BMPs) and water quantity (e.g. volume control) practices	20	20	20	20	20	20	20	20	20	20	200
Re-assess water quality data collected in contributing drainage area to Diversion Structure to evaluate pollutant loading and identify sources.	--	--	--	--	--	--	--	--	--	10	10

Partner with the City of Stillwater in the implementation of recommendations made in the Marylane Avenue North Drainage Easement Assessment.	--	65	--	--	--	--	--	--	--	--	65
Complete a minimum five-year monitoring period for the Iron Enhanced Sand Filter and conduct monitoring after medium is replaced.	19	19	19	19	--	19	--	--	--	--	93
Complete a five-year monitoring period for BMPs that are implemented in the future by the District.	18	18	18	18	18	20	20	20	20	20	190
Develop and follow operations and maintenance plan for the stormwater management facilities operated by the BCWD.	50	50	50	50	65	65	70	60	60	60	580
Total for Stormwater Runoff Management	**107**	**172**	**107**	**107**	**103**	**109**	**110**	**100**	**100**	**110**	**1,138**

Table 8. Stormwater Runoff Management Implementation Activities from Table 5 covered by Administrative and/or Project Development Program

Work with Washington County, MNDOT and member communities to improve operation & maintenance practices.
Promote stormwater reuse by working with local businesses, local units of government and Washington County to incorporate BMPs into new development or redevelopment projects.
Work with member communities to collaborate on maintenance of stormwater management facilities and to define criteria triggering the need for maintenance on installed stormwater management practices.
Work with each municipality through the comprehensive plan and water resource management plan review process to develop and implement land use policies that focus on preservation and protection of water and natural resources
Review the findings of monitoring studies on infiltration practices being conducted by local agencies to evaluate recommended design infiltration rates.

Table 9. Stormwater Runoff Management Implementation Activities from Table 5 addressed by Baseline Monitoring Program

Annually analyze progress toward the TSS reduction goal based on evaluation of the collected monitoring data (conducted as part of the baseline monitoring program).
Annually analyze progress toward the phosphorus reduction goal based on evaluation of the collected monitoring data.
Monitor the IESF, THPP, Kern Center Pond, Kismet Basin, and Bradshaw Pond as outlined in maintenance plans and agreements

Table 10. Stormwater Runoff Management Implementation Activities from Table 5 covered by Regulatory Program

Continue to require permanent maintenance commitments for stormwater management facilities constructed under the District's Rules.
Work with individual municipalities to establish a process for early involvement in development review
Work with Washington County to become involved in development review in townships within the BCWD.
Conduct a pre-permit meeting that is free of charge with potential permit applicant and its design team and municipal staff.

Develop a list of published and industry accepted total phosphorus and total suspended solids removal rates from innovative and standard stormwater management practices as a tool for permit review.
Provide the phosphorus and sediment removal rates list and the design infiltration rate list to allow cities to make land use permit applicants aware of District requirements early in the plan development process.

3.2. Erosion Prevention and Sediment Control

3.2.1. General Issue Statement

Unless properly managed, land-disturbing activities can intensify erosion and lead to increased transport of sediment into surface waters. Increased erosion can also cause the formation of gullies in areas with unstable soils. Sedimentation in waterways can lead to fish kills, clogged streams, reduced storage volume of reservoirs and reductions in stormwater infiltration by sealing permeable soils.

3.2.2. Relevance to the District

The erosion that occurs naturally throughout the watershed and as a result of land-disturbing activities (e.g. development activity and agricultural activity) has the potential to transport sediment and associated nutrients into the District's surface waters. Waters of particular concern include Brown's Creek, which is impaired for aquatic life due to a lack of cold water fish assemblage. Through the stressor identification process, high suspended solids were identified as one of the primary stressors to the biota in the impaired reach of Brown's Creek. To date the origins of the total contribution of suspended solids to Brown's Creek have not been identified and the District continues to evaluate sources from the landscape as well as near-channel. Several District lakes are impaired due to excess nutrient loading which is associated with erosion as nutrients are generally tied to sediment particles.

[Preamble, climate change impact on the Issue]

Table 11. Related Climate Change Impacts

Impact	Description	Indicators
		-
		-
		-
		-

Planning and implementation of [Issue] opportunities can address DEI by:

-

3.2.3. Sub-Issue Areas

Existing Erosion Problems

Excessive erosion near the District's water bodies can add sediment and nutrients that degrade water quality. Identifying problem areas, performing cost-benefit analyses and implementing long-term solutions can limit the impact of these issues on the quality of the District's waters.

3.3. Stream Management

3.3.1. General Issue Statement

Alterations in land use disrupt the hydrology and ecology of stream ecosystems. For example, increased imperviousness in the contributing drainage area to a resource results in inhibited infiltration of rainfall and snowmelt. This reduction in infiltration results in reduced baseflow, larger and more frequent stormwater discharges, and increased temperature and pollutant loads. These factors contribute to channel enlargement, changes to instream habitat, decreased aquatic diversity and, in general, degradation of the resource. A portion of Brown's Creek does not meet the State's water quality standards and is impaired for aquatic life due to a lack of cold-water fish assemblage and high turbidity. Currently, Chloride concentrations in Brown's Creek are not near the chronic threshold for chloride but Chloride loads and concentrations are increasing at every monitoring station in Brown's Creek. While data collected from 2015-2023 indicates an overall upward (improving) trend in stream health and macroinvertebrate community quality, further improvements are still necessary.

3.3.2. Relevance to the District

Three reaches of Brown's Creek are included on the MPCA 303d (Impaired Waters) list. Both branches of Brown's Creek, the North Branch (from 110th Street to Manning Avenue) and the Main Branch (Highway 96 near Manning Avenue to the St. Croix River) are impaired for aquatic recreation and aquatic life due to low levels of dissolved oxygen, lack of cold-water fish assemblage, and high levels of *E. coli* (Escherichia coli) bacteria. Through the stressor identification process, the primary stressors to the biota in these impaired reaches of Brown's Creek were identified as high suspended solids and high temperatures. Although high copper concentrations were identified in previous stressor identification processes, follow-up investigation ruled out copper as an ongoing concern. While these impairments have been addressed by the Brown's Creek TMDL Report and Implementation Plan (the latter of which identifies specific goals for restoration activities), additional impairments in the system for Escherichia coli (*E. coli*) and Dissolved Oxygen are under investigation. The North Branch is also impaired due to a low score of the Minnesota Macroinvertebrate Index of Biological Integrity (M-IBI). While the index of biological integrity (M-IBI) scores in Brown's Creek are improving at all three locations where samples are being collected, total suspended solids (TSS) concentrations remain very high exceeding the TSS standard for Cold water streams at all monitoring locations.

In addition to Brown's Creek there are several small tributaries in the southern, portion of the District all of which drain to the Diversion Structure. These tributaries include the Long Lake Tributary, South Central Tributary and Zephyr Tributary. Land use change in the drainage area to the Diversion Structure has resulted in changes in flow conditions, head cutting of the tributaries, and water quality concerns. While the surface water contribution from this drainage system has been altered by the Diversion Structure, these tributaries are an important source of recharge and groundwater baseflow to Brown's Creek.

The St. Croix River is a Wild and Scenic Waterway administered by the National Park Service. While the BCWD focuses much of its efforts on the protection and restoration of its surface water bodies, it is important to remember that the watershed is a tributary to this National

treasure. Anything that the BCWD does to improve the health of Brown's Creek has a direct impact on the health of the St. Croix River.
Climate change has a significant impact on cold-water fisheries and stream systems. These changes can create a range of challenges for watershed management as illustrated in Table X.

Table 15. Related Climate Change Impacts

Impact	Description	Indicators
More Extreme Water-Related Events	Heavier precipitation during rainfall events	- Increased risk of flooding - Increased variability of streamflows - Increased velocity of water during high flow periods
Increases in Water Pollution Problems	Increases in sediment transport	- Increased stormwater runoff washes sediments (erosion) and other contaminants into waterbodies (i.e. TSS)
	Warmer air temperatures result in warmer waters	-
	Changes in snowfall patterns	- More ice during the winter requires application of more chemicals (i.e., chlorides)
Water Boundary Movement and Displacement	Size of wetlands and lakes will change	- Changing water flow to lakes/streams - Changes in precipitation impacts wetland hydrology (bounce and duration)
	Increased stream channel instability	- Increase in channel-forming flows (bank-full flows) leads to increased sediment transport potential and channel instability
	Decreased groundwater recharge	- Rain from extreme events falls too quickly to be absorbed into the ground
Changes to availability of Drinking Water Supplies	Changing patterns of precipitation and snowmelt	- Increased drought conditions place higher demands on drinking water supplies - Increased water loss due to higher evaporation (as a result of warmer air temperatures)
	Water air temperature	- Places higher demands on community water supplies - Increased water needs for agriculture and industry - Increased need for energy production (e.g. air conditioning)

Planning and implementation of stream management can address DEI by:

- Equitable access to healthy water resourcesProtecting sacred and culturally significant waterways (i.e., Brown's Creek and the St. Croix River)
- Provide health, recreational, and aesthetic benefits.

3.3.3. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items

for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Table 16. Floodplain Management Policies, Goals, and Implementation Activities

SUB-ISSUE:	**Protection of Flood Storage Areas**		
POLICY:	**The BCWD is committed to the protection of flood storage areas to reduce the impacts of flooding and promote recharge.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Ensure no net loss of flood storage capability within the watershed.	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
SUB-ISSUE:	**Management of Flood Prone Areas**		
POLICY:	**The BCWD will continue to protect structures and natural communities from flooding exceeding natural water level fluctuations.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Assess the potential for flooding properties when evaluating land management activities.	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
		2	Continue to monitor lake levels and shallow aquifer groundwater levels to evaluate conditions that may cause impacts to existing structures.
POLICY:	**The BCWD desires to minimize the risks of flooding associated with land alterations adjacent to landlocked basins.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Minimize the risk of flooding to structures within landlocked basins.	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Minimize the risk of flooding on downstream properties when outlets are provided for landlocked basins.	**2**	*Addressed through administration of the BCWD regulatory standards and criteria.*

Table 17. Floodplain Management Implementation Activities (from Table 23) addressed by Baseline Monitoring Program

Continue to monitor lake levels and shallow aquifer groundwater levels to evaluate conditions that may cause impacts to existing structures - Costs identified in under the Baseline Monitoring Program.

Kismet Basin Lake aerial

3.3.4. Sub-Issue Areas

Water Quality, Aquatic Habitat, and Fisheries Protection

The flora and fauna of Brown's Creek require a specific range of conditions in order to complete their life cycles and maintain viable populations. The lower reaches of Brown's Creek currently support an assemblage of organisms that require cold water and clean substrates (i.e. macroinvertebrates). Additionally, the cool microclimate of the lower gorge supports unique flora species not found elsewhere in the watershed. The wetland conditions of the upper reaches of Brown's Creek do not support certain species due to differences in vegetative cover, water quality, and temperature. While the management requirements in this portion of the watershed differ from those in the lower portions of the watershed (as described in the Unique Species Inventory) the groundwater discharge within the upper reaches feed the lower reaches of the creek and are instrumental in maintaining the health and baseflow of the creek.

Maintenance of Flow and Geomorphology

The shape and course of a stream is determined by topography, vegetation, and flow conditions. Changes in vegetation quality and type, particularly from invasive to native vegetation, and in flow conditions can alter the size and course of a stream. Urbanization near a stream can lead to bank erosion, undercutting, and stream widening if rates and volumes of runoff are not managed. Additionally, over pumping of groundwater can reduce stream baseflow.

3.3.5. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Table 18: Stream Management Policies, Goals, and Implementation Activities

SUB-ISSUE:	**Water Quality, Aquatic Habitat, and Fisheries Protection**		
POLICY:	**The BCWD is committed to the improvement of the water quality and ecological integrity of Brown's Creek and its tributaries, including maintaining a viable cold-water fishery**		
GOALS		**IMPLEMENTATION ITEM**	
A	Achieving and maintaining the Macroinvertebrate Index of Biological Integrity (IBI) for southern coldwater streams of 46 or higher and the fish IBI for southern coldwater streams of 45 or higher in the trout stream portion of Brown's Creek (or revised standard as determined by PCA)	**1**	Continue to implement volunteer stream monitoring program by providing financial support to the Stillwater High School science program.
		2	Reassess the fish and macroinvertebrate community health at representative sites in three portions of Brown's Creek (Headwaters, Central and Lower Gorge) in May and September.
		3	Complete annual report on stream flow, water quality, and fisheries and aquatic habitat trends based on monitoring results.
		4	Continue to assess the copper concentrations in Brown's Creek.
		5	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
B	Maintaining a minimum daily Dissolved Oxygen concentration of 7 mg/L in the trout stream portion of Brown's Creek.	**1**	Continue to monitor Dissolved Oxygen in Brown's Creek and expand monitoring and evaluation efforts as needed to evaluate changes along the length of the creek.
C	Maintaining an instantaneous Total Suspended Solids (TSS) concentration of 10 mg/L or lower in at least 90% of samples	**1**	Monitor sediment load and sediment concentration in Brown's Creek in coordination with municipalities, Washington County, and state agencies as appropriate to evaluate locations of excessive

	collected between April 1 and September 30 in the trout stream portion of Brown's Creek.		sediment input and to measure progress toward the TSS goal.
		2	Implement TSS reduction projects based on the findings of the BCWD's sediment evaluations (e.g. PTMapp Analysis and McKusick Stormwater Feasibility Analysis) - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
D	Achieve and maintain in-stream water temperatures of 18.3°C (65°F) or lower in the trout stream portion of Brown's Creek.	**1**	Monitor Brown's Creek temp. in coordination with municipalities, Washington County, and state agencies as appropriate.
		2	Assess the need to establish a policy on beaver management on Brown's Creek by simulating beaver dams in the District's Thermal Model for Brown's Creek.
		3	**SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		4	Monitor the water quality impacts of discharge from the Diversion Structure at Neal Avenue to Brown's Creek and conduct a feasibility study to evaluate options for reducing the thermal load to the creek.
E	NDNR are stocking Brook Trout starting in 2025. What Fish IBI should we be shooting for to support the Brook Trout.		Coordinate with MNDNR on the development and implementation of a fisheries management plan for the Creek that would establish stocking rates, species, and planning for expansion of the trout stream portion of the Creek.
F	Try to understand E. coli and implement what we can to reduce it.	**1**	Continue to monitor through *E. coli* source investigation to evaluate bacteria sources to Brown's Creek and to guide Best Management Practice selection.
		2	
G	Facilitate the implementation of the Brown's Creek TMDL Implementation Plan.	**1**	Coordinate with member communities to discuss progress toward Local Surface Water Management Plan implementation, TMDL Implementation Plan goals, other mutual goals and opportunities for partnerships.
		2	Track performance towards Brown's Creek TMDL goals annually.
H	Achieve and maintain the water quality and ecological integrity of upper Brown's Creek (Headwaters to Manning) to achieve the State's goals.	**1**	Maintaining native vegetation, pools, riffles, and woody debris within the stream corridor.
SUB-ISSUE:	**Maintenance of Flow and Geomorphology**		
POLICY:	**The BCWD strives to maintain the hydrology and geomorphology of Brown's Creek and its tributaries required for stream equilibrium and health.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Manage the watershed to mimic natural (pre-settlement) hydrologic conditions	**1**	*Addressed through administration of the BCWD regulatory standards and criteria.*
B	Evaluate system-wide geomorphology on a five-year basis and identify and execute restoration opportunities.	**1**	Monitor geomorphology of Brown's Creek and its tributaries on a five-year basis to understand the creek's response to restoration activities and to detect changes within unrestored reaches.
		2	Improve reaches of the creek (specific projects not yet identified) categorized as having degraded stream channel geomorphology (from a thermal stand-point by addressing: Stream Width, Over-Hanging Banks, and Profile and Alignment. (Brown's Creek TMDL Implementation Plan, EOR, 2012) - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**
		3	Implement the recommendations of diversion tributary resource assessment by discussing restoration projects with adjacent landowners, establishing grade control and thinning the canopy.

Brown's Creek – Oak Glenn Golf Course

Table 19. Projected Expenditures (in 1,000's) for Stream Management Practices

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Continue to implement volunteer stream monitoring program by providing financial support to the Stillwater High School science program	4	4	4	4	4	4	4	4	4	4	40
Reassess the fish and macroinvertebrate community health at representative sites in three portions of Brown's Creek (Headwaters, Central and Lower Gorge) in May and September	15	9	--	--	9	15	9	15	9	15	96
Implement TSS reduction projects based on the findings of the BCWD's sediment evaluations - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**	30	20	50	30	30	--	--	158	158	--	476
Re-survey the two actively eroding bluffs within the lower gorge to re-evaluate rate of erosion and the need for stabilization	--	--	--	--	7	--	--	--	--	--	7
Assess the need for a beaver management policy on Brown's Creek by simulating beaver dams in the District's Thermal Model for Brown's Creek	--	--	--	--	15	--	--	--	--	--	15
Continue to conduct *E. coli* source investigation to evaluate bacteria sources to Brown's Creek and to guide Best Management Practice selection.	5	5	5	5	5	5	5	5	5	5	50

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Consider developing a program to conduct a targeted SSTS inventory and inspections, which may include incentives for residents who participate.	--	10	10	10	10	10	--	--	--	--	50
Hold annual meetings with member communities to discuss progress toward Local Surface Water Management Plan implementation, TMDL Implementation Plan goals, other mutual goals & opportunities for partnerships.	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	27.5
Track performance towards Brown's Creek TMDL goals annually.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	25
Monitor geomorphology of Brown's Creek and its tributaries on a biennial basis.	--	10	--	10	--	10	--	10	--	10	50
Improve reaches of the creek categorized as having degraded stream channel geomorphology (Stream Width, Over-Hanging Banks, and Profile and Alignment) - **SEE IMPLEMENTATION ACTIVITIES IDENTIFIED UNDER BROWN'S CREEK MANAGEMENT PLAN (TABLE 61)**	65	62	30	94	49	120	190	--	--	--	608

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr. Total
Implement the recommendations of diversion tributary resource assessment by discussing restoration projects with adjacent landowners, establishing grade control and thinning the canopy.	18.3	1	1	1	1	1	1	1	1	1	27.3
Total for Stream Management	**153**	**136**	**105**	**159**	**135**	**170**	**216**	**198**	**182**	**40**	**1,494**

Table 20. Stream Management Implementation Activities from Table 13 addressed by Baseline Monitoring Program

Complete annual report on stream flow, water quality, and fisheries and aquatic habitat trends based on monitoring results
Continue to assess the copper concentrations in Brown's Creek.
Continue to monitor Dissolved Oxygen in Brown's Creek and expand monitoring and evaluation efforts as needed to evaluate changes along the length of the creek.
Monitor sediment load and sediment concentration in Brown's Creek in coordination with municipalities, Washington County, and state agencies as appropriate to evaluate locations of excessive sediment input and to measure progress toward the TSS goal.
Monitor the temperature of Brown's Creek in coordination with municipalities, Washington County, and state agencies as appropriate.

Monitoring / Field Notes

3.11. Recreation

3.11.1. General Issue Statement

The Brown's Creek corridor and other natural areas within the watershed provide opportunities for fishing, wildlife viewing, and outdoor learning. As the District implements projects that provide more opportunities for people to engage with resources like Brown's Creek, ongoing monitoring is critical to ensure these resources are protected from overuse.

3.11.2. Relevance to the District

Recreational and tourism activities are two primary ecosystem services provided by the natural environment. The Brown's Creek corridor has an appealing aesthetic and has the potential to attract more frequent fishing, birdwatching, and environmental education or eco-tourism programs. Existing trails (e.g. Gateway Trail, Brown's Creek Trail, and roadside trails) and associated public access areas within the Brown's Creek corridor, and the recent acquisition of the Brown's Creek Conservation Property provides the necessary infrastructure to support increased outdoor recreation.

As greater public access to naturalized green spaces occurs, ensuring natural resources are enjoyed responsibly is critical to protecting the investments made by the District to improve watershed health. Greater access may increase the public's appreciation and desire to care for natural areas, helping supplement the District's existing and future efforts to protect and restore natural resources. The BCWD's role should focus on the recreational co-benefits that can come from watershed resource improvement, and coordination with local units of government and state agencies on their public recreational resources.

Climate change has a significant impact on recreation altering the resources people have available to access for their enjoyment, health, and wellbeing. These changes can create a range of challenges for recreation as illustrated in Table X.

Table 51. Related Climate Change Impacts

Impact	Description	Indicators
Warming Winters	Less ice and snow may result in fewer opportunities for winter recreation such as cross country skiing, snowshoeing, and ice fishing.	- Fewer days with snow cover - Later ice-in/earlier ice-out - Unsafe ice conditions
Warming Water	Less ice cover, warmer winters, and warmer summer waters may impair access to sustainable fishing populations.	- Water temperature
Habitat Loss	Changing growth zones and competition from invasive species may result in habitat loss reducing the presence of species of interest for recreation such as birds.	- Species inventory

Planning and implementation of recreation opportunities can address DEI by:

- TBD

3.11.3. Sub-Issue Areas

Recreational Opportunities

The Brown's Creek Watershed District has a number of resources designated for recreation use and there is interest in greater recreation opportunities throughout the watershed. Improving water quality and enhancing wildlife habitat will increase the recreational value of the resources for the public's use.

In order to provide greater connectivity to certain resources, the District may need to be more flexible with its rules to permit the creation of new trails or sidewalks to formalize access.

Additionally, access to high quality naturalized green spaces have well-documented benefits to peoples' physical and mental health. Improving access to opportunities to interact with improved natural resources presents the opportunity to achieve indirect co-benefits such as improved health outcomes and greater care for the resources they have access to.

Stewardship

As opportunities to recreate in the BCWD increase, individuals utilizing the resources for fishing, canoeing, biking, etc. need to do so responsibly.

By fostering opportunities to access improved natural resources, through areas such as the Brown's Creek Conservation Property, people are exposed to what healthy ecosystems look like which may spark behavioral change to support the District's work.

3.11.4. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Table 52. Recreation Policies, Goals, and Implementation Activities

SUB-ISSUE:	**Recreational Opportunities**		
POLICY:	**BCWD supports access to natural areas for a diversity of outdoor recreation activities throughout the watershed for all of its residents and visitors**		
GOALS		**IMPLEMENTATION ITEM**	
A	Manage the lakes and fishery in the District to enhance passive recreation by …	**1**	Implement BMPs, shoreline improvements and other management recommendations found in Lake Management Plans.
B	Explore opportunities to develop and leverage partnerships which increase awareness and access to natural resources recreation in BCWD	**1**	*Addressed through administration of the East Metro Water Resource Education Program (EMWREP).*
		2	Develop a mapped inventory of current and desired recreation activities and locations with watershed partners through the Enhanced Stakeholder Engagement process.
SUB-ISSUE:	**Stewardship**		
POLICY:	**The BCWD is committed to playing a strong leadership role in creating a culture that encourages environmental stewardship**		
GOALS		**IMPLEMENTATION ITEM**	
A	Enhance public knowledge and appreciation for the District's water resources through an increase in passive and active voluntary stewardship activities.	**1**	*Addressed through administration of the East Metro Water Resource Education Program (EMWREP).*
		2	Conduct BMP installation and implementation training workshops to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.
		3	Utilize the stewardship grant program to assist citizens in best management practice installation.
B	Protect areas of investment from recreation-related impacts	**1**	Monitor public access and use of Brown's Creek and evaluate the need to provide formal dedicated access points and the need to mitigate new impacts, i.e. erosion from foot traffic.
		2	Meet annually with municipalities to review recreation-related issues to understand impacts and develop responses to emerging issues *Record instances of these engagements and what areas were identified/responded to through this process.*
C	Promote access throughout the watershed to opportunities for interaction with high-quality naturalized environments.	**1**	Prioritize projects watershed resources which add the co-benefit of improving resources in areas of the watershed not previously served by improvements
		2	Host an annual "District on the Lake" event for small watercraft to explore a lake and learn about improvements and challenges facing the resource.

Table 53. Projected Expenditures (in 1,000's) for Recreation Activities

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr Total
Monitor public access and	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	2.5

use of Brown's Creek by walking the trail annually to evaluate the need to provide formal dedicated access points and the need to mitigate new impacts (e.g. erosion from foot traffic).											
Total for Recreation	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**	**2.5**

Table 54. Recreation Implementation Activities from Table 44 where implementation costs covered under another Issue Category

Implementation Activity	Issue Category where implementation cost is identified (Table #)
Implement fisheries management recommendations found in Lake Management Plans	Ecological Health (Table 30)
Conduct BMP installation and implementation training workshops to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.	Education and Outreach (Table 47)
Utilize the cost-share program to assist citizens in best management practice installation	Stormwater Management (Table 5)

Brown's Creek Trail – old railway line

3.12. Education, Outreach and Stewardship

3.12.1. General Issue Statement

Successful efforts to achieve the BCWD's goals will require the involvement of residents, businesses, and municipalities. These groups will be most interested in active participation in District projects, or in water and natural resource protection in general, if they understand and relate to the issues and the benefits of water resource management. Historically, engagement and outreach has resonated with individuals and communities with a direct interest in environmental conservation (e.g. bird watchers, fishers, hikers, gardeners) and struggled with audiences indirectly impacted by changes in watershed resources (e.g. home and business owners, local elected officials). The BCWD continues its efforts to broaden relationships to work with communities throughout the watershed so they understand the district's responsibilities and roles in their communities. In particular, the BCWD continues to think about who is being served by its work and the co-benefits this work can generate.

3.12.2. Relevance to the District

Since its inception as a watershed management organization, public involvement and public information efforts have played a strong role in directing project implementation in the BCWD. The BCWD has a history of citizen participation in watershed management planning and implementation. For example, through the enhanced stakeholder engagement process, the BCWD has reignited its relationship with Trout Unlimited. Together the BCWD and Trout Unlimited are now working together to encourage girls to get out into nature through STREAM Girls, monitoring at Brown's Creek Conservation Property, helping to secure volunteers for planting events at the Brown's Creek restoration project, and collaborating in the Trout in the Classroom program. The BCWD has been involved through EMWREP in the creation of mini workshops for HOA's.

The BCWD continues to develop relationships with its watershed partners through enhanced engagement efforts designed to target opportunities for involvement and collaboration with existing and new watershed partners.

[Preamble, climate change impact on Education, Outreach and Stewardship]

Table 55. Related Climate Change Impacts

Impact	Description	Indicators
		-
		-
		-
		-

Planning and implementation of Education, Outreach and Stewardship opportunities can address DEI by:

-

3.12.3. Sub-Issue Areas

Municipality and Developer/Contractor Education and Outreach

Municipalities, as the land use authority, have great potential to impact and improve water resources. They also own and operate roads, stormwater management facilities and other stormwater infrastructure in the watershed. Additionally, municipalities are often the first point of contact for citizens, businesses, and developers interested in local water resource management. Developers and contractors, as the individuals conducting the change in land use, can directly impact and improve water resources through, among others, development planning and construction techniques. Educating municipal officials can lead to better planning, zoning and ordinances, as well as changes to operations and maintenance policies and programs. Training municipal staff allows them to more effectively install and maintain stormwater systems and BMPs, reduce impacts to water resources from other operation and maintenance activities (e.g. road and park maintenance) and more effectively interface with the development community.

Homeowners Associations (HOAs) Education and Outreach

Growing communities across the district have led to the establishment of more HOAs. These associations are responsible for the management and maintenance of the stormwater management practices of their development, however these responsibilities are susceptible to neglect or improper maintenance. The presence of many HOAs makes determining a point of contact, combined with management turnover, challenging to maintain and develop deeper relationships with HOAs. Opportunities exist to reciprocate information sharing to better understand interest in natural resource management, strategies to conduct more efficient management of resources in their care, and develop a network of organizations capable to learning and supporting each other.

Public-Focused Education, Outreach, and Project Assistance

The public at large are the largest group of constituents of the BCWD comprising people who live, work, and play within the watershed. They make everyday decisions about their relationship to the landscape that impact the quality of resources. They can protect and enhance water resources through stewardship in their communities and everyday management decisions. The public also act to influence the policies of the BCWD, state agencies, and municipalities. The BCWD can serve as a valuable resource for its citizens by ensuring its role continues building relationships through shared priorities.

Business Community

Historically the BCWD has had a weaker relationship with the local business community. These watershed partners play an important role in maintenance practices tied to their properties and operations. Greater collaboration with the business community can create opportunities to involve these watershed partners in initiatives targeting BCWD priorities such as chloride management and water capture and re-use by establishing clearer connections between the business community's operational practices and watershed impacts. Ensuring that proposed operational opportunities emphasize cost impacts will be key to making these alternatives resonate with the business community.

Youth Education and Outreach

The BCWD improves the water resources of the District so they can be managed sustainably for future generations to benefit from. As future stewards of this landscape, supporting the involvement young people in efforts to care for these resources plays an important role in nurturing the next generation of advocates, volunteers, and stewards. BCWD Board of Managers

Ensuring the Board is aware of news issues, concerns, opportunities, and ways of thinking about watershed resources is vital to their role as decision-makers for the District.

3.12.4. Policies, Goals, and Implementation

The policies, goals, and implementation items related to these sub-issue areas are summarized in the following tables. The sub-issue area is identified in a heading, followed by a related policy. The goals addressing that policy are lettered and stated, followed by the implementation items for that goal. This format is intended to clearly display how each policy and goal will be addressed.

Table 56. Education, Outreach and Stewardship Policies, Goals, and Implementation Activities

SUB-ISSUE:	Municipality and Developer/Contractor Education and Outreach		
POLICY:	**The BCWD is committed to providing education and outreach services to municipalities in the District to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase municipal official and staff capacity for and use of development techniques and regulatory strategies that protect natural resources and benefit water quality.	**1**	*Coordinate BCWD education and outreach efforts with those of municipalities and other local watershed organizations by continuing to support the East Metro Water Resource Education Program (EMWREP).*
		2	*Encourage attendance at training sessions hosted by Stormwater U on ordinances, development planning strategies, and development techniques that protect natural resources and benefit water quality by providing stipends so that 2 people from each District community can attend once every three years.*
		3	*Promote the MPCA's tool called WMAt for winter maintenance professionals to promote chloride reduction activities in the Long lake subwatershed.*
B	Increase municipal official and staff capacity to promote the benefits of regular maintenance of stormwater management and infiltration practices and increase the implementation of maintenance practices.	**1**	*Encourage attendance at training sessions hosted by Stormwater U on stormwater management facility maintenance schedules and procedures and the relation to water quality improvement (e.g. best practices to reduce impacts to water resources from parks and road maintenance activities - road salt application, fertilizer use, irrigation practices) by providing stipends so that 2 people from each District community can attend once every three years.*
		2	*Work with municipalities in the development of operation and maintenance plans for stormwater management facilities.*
C	Increase municipal official and municipal staff awareness of the BCWD and the assistance it can provide to municipalities.	**1**	*Develop demonstration projects to highlight BMPs and stewardship.*
		2	*Promote Friends of the Mississippi River's Blue Star Award program to recognize municipal programs or projects and/or developer and contractor programs or projects that exemplify water and natural resource stewardship.*
		3	*Educate municipalities about the District's Rules.*
		4	*Develop a Continuing Education Credit recognition for municipalities and developers recognizing their understanding of responsible watershed development practices.*
POLICY:	**The BCWD promotes good stewardship of water and natural resources through education and outreach opportunities for landowners and managers conducting work within the District in order to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase developers' and contractors' awareness and use of development techniques that protect natural resources and benefit water quality.	**1**	Conduct workshops targeted to developers and realtors about marketing lakeshore properties based on BCWD analysis of lake functions and values.
		2	Provide training sessions on development planning strategies and development techniques that protect natural resources and benefit water quality.
B	Increase developers' and contractors' awareness of the importance of construction, installation, and maintenance techniques on the long-term functionality of stormwater management practices and increase the implementation of these techniques.	**1**	Encourage attendance at training sessions hosted by Stormwater U on stormwater management practice construction and installation techniques and the relationship to the continued functionality of the practice by providing stipends to individuals involved in construction oversight once every three years.
		2	Encourage developers with active projects in the watershed to attend erosion control seminars held by EMWREP / MECA.
C	Increase developer, contractor, awareness of the BCWD and the assistance it can provide.	**1**	Educate developers and the local design community about the District's Rules.

SUB-ISSUE:	Homeowner Association (HOA) and Property Manager Education and Outreach		
POLICY:	**The BCWD is committed to helping HOAs and property managers make informed decisions about their responsibilities to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase homeowner's associations and property managers' awareness of the importance of construction, installation, and maintenance techniques on the long-term functionality of stormwater management practices and increase the implementation of these techniques.	**1**	Provide HOAs with stormwater management maintenance resources to better inform maintenance approaches.
		2	Educate HOA owners when a development is completed and follow-up 5 years later.
B	Increase homeowner's associations and property managers' awareness of the BCWD and the assistance it can provide.	**1**	
SUB-ISSUE:	**Public-Focused Education, Outreach, and Project Assistance**		
POLICY:	**The BCWD will provide clear and accessible information highlighting existing efforts to share the story of watershed accomplishments and opportunities to get involved.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase public awareness of surface water, groundwater, and natural resource protection, restoration, and stewardship.	**1**	Regularly promote the District's accomplishments and events through multiple communication channels (newsletters, mail outs, social media, etc…) to reach audiences, sharing information about topics such as groundwater recharge, wetland and lake aesthetics and natural condition, home and yard care practices, and shoreline and wetland stewardship as well as information on BCWD accomplishments.
		2	Include an educational component in all BCWD capital improvement projects.
		3	Provide targeted educational messages to local businesses, local organizations, and areas experiencing specific challenges (e.g. chloride impairment in Long Lake).
		5	Provide education to residents of the District on groundwater conservation strategies.
		6	Host online information sessions on education topics of interest and maintain a record of these webinars on BCWD's website. Track views for these sessions to understand level of interest and gather participant engagement.
		7	Maintain an updated list of partners and event participants – update the list quarterly to reflect new information on partners and participants.
		8	Establish one permanent information kiosk with permanent and rotating information that is geographically relevant to resources near the kiosk (e.g. chloride impairment in Long Lake).
B	Promote public-led efforts in water and natural resource	**1**	Continue to administer the Annual Recognition Program to recognize citizen efforts in water resource and natural resource protection.

	restoration, protection, and stewardship.	**2**	Conduct BMP installation and implementation training workshops and provide supporting resources (e.g. directory to the State's Stormwater BMP guide) to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.
		3	Utilize the stewardship grant to assist citizens in best management practice installation.
		4	Develop demonstration projects to highlight stormwater management practices natural resource protection methods and resource stewardship.
POLICY:	**The BCWD desires to provide education and public involvement opportunities in watershed management planning and implementation in order to promote good stewardship of water and natural resources.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Increase public awareness of the BCWD, its role, and the functions and assistance it provides.	**1**	Update the District website and Facebook page to include easy-to-use information on resource protection and stewardship.
		2	Include an educational component in all BCWD capital improvement projects.
		3	Educate residents about the District's permitting program
		4	Host annual community watershed event in different parts of the watershed to highlight local projects and to engage residents in scientific and recreational activities
B	Stay informed on the topic of pollutants of emerging concern in lakes, streams, and groundwater by monitoring future studies completed by the MPCA and sharing information with the public.	**1**	Educate the public about pollutants of emerging concern including the widespread prevalence of pharmaceutical and cosmetic products in our lakes and streams, how these compounds can disrupt hormone regulation of aquatic organisms, such as fish, and how these chemicals enter lakes and streams.
SUB-ISSUE:	**Youth Education and Outreach**		
POLICY:	**The BCWD will support the work of its partners in furthering opportunities for youth to learn about watershed resources and get involved in stewardship.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Support watershed partners specializing in youth education and outreach to provide greater understanding and stewardship of watershed resources	**1**	
B	Provide K – 12 educational opportunities to encourage stewardship and increase awareness of the interconnected nature of land, surface water, and groundwater.	**1**	Develop classroom educational program that provides grants to teachers planning water and natural resource education sessions for their classroom or assist with curriculum development (e.g. perform monitoring activities, monitor BMPs, design BMPs, and develop watershed educational materials for variety of audiences).
		2	Conduct classroom presentations (K-12) on watershed concepts and water and natural resource stewardship.
	BCWD Board of Manager Education		
POLICY:	**The BCWD will provide its Board of Managers with opportunities to further their understanding of emerging topics to help inform decision-making.**		
GOALS		**IMPLEMENTATION ITEM**	
A	Provide continuous learning opportunities for the Board to further their understanding of current and emerging watershed issues.	**1**	Develop a Board Training Plan for new Board member orientation and ongoing learning opportunities
		2	Hold an annual training workshop for the Board

		3	Hold quarterly in-meeting trainings on topics identified by the Board
		4	Support attendance at external trainings

Table 57. Projected Expenditures (in 1,000's) for Education, Outreach and Stewardship Activities

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr Total
Coordinate BCWD education and outreach efforts with those of municipalities and other local watershed organizations by continuing to support the EMWREP.	18.5	18.5	19.4	19.4	19.4	20.4	20.4	20.4	21.4	21.4	199.3
Encourage attendance at training sessions hosted by Stormwater U on ordinances, development planning strategies, and development techniques that protect natural resources & benefit water quality by providing stipend: 2 people from District communities can attend once every 3 years.	--	--	2	--	--	2	--	--	2	--	6
Encourage attendance at training sessions hosted by Stormwater U on stormwater management facility maintenance schedules and procedures and the relation to water quality improvement by providing stipends: 2 people from District communities can attend once every three years.	--	2	--	--	2	--	--	2	--	--	6
Educate municipalities about the District's Rules.	--	--	7.5	--	--	--	--	--	--	--	7.5
Encourage attendance at training sessions hosted by Stormwater U on stormwater management practice construction and installation techniques and the relationship to the continued functionality of the practice by providing stipends to individuals involved in construction oversight once every 3 yrs.	--	--	2	--	--	2	--	--	2	--	6
Educate developers & the local design community about the District's Rules.	--	--	7.5	--	--	--	--	--	--	--	7.5

Implementation Activities	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	10-Yr Total
Send annual newsletter to all citizens of the District.	5	5	5	5	5	5	5	5	5	5	50
Include an educational component in all BCWD capital improvement projects.	--	6.5	--	6.5	--	6.5	--	6.5	--	6.5	32.5
Host education seminars on Estate Planning to educate the public about tax incentives to property owners who create and donate a conservation easement.	.25	--	.25	--	.25	--	.25	--	.25	--	1.25
Continue to administer the Annual Recognition Program to recognize citizen efforts in water resource and natural resource protection.	--	.25	--	.25	--	.25	--	.25	--	.25	1.25
Update the District website and Facebook page to include easy-to-use information on resource protection and stewardship	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5
Host annual ice cream social in different parts of the watershed to highlight local projects and to engage residents in scientific and recreational activities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	15
Develop classroom educational program	5	5	5	5	5	5	5	5	5	5	50
Conduct classroom (K-12) presentations on watershed concepts and water and natural resource stewardship.	--	--	--	--	--	1	1	1	1	1	5
Total for Education	**30.75**	**39.25**	**50.7**	**38.2**	**33.7**	**44.1**	**33.6**	**42.1**	**38.7**	**41.2**	**392.3**

Table 58. Education, Outreach and Stewardship Implementation Activities from Table 47 addressed by Administrative and/or Project Development Program

Work with municipalities in the development of operation and maintenance plans for stormwater management facilities.
Promote Friends of the Mississippi River's Blue Star Award program to recognize municipal programs or projects and/or developer and contractor programs or projects that exemplify water and natural resource stewardship.
Encourage developers with active projects in the watershed to attend erosion control seminars held by EMWREP / MECA.
Educate citizens about the District's permitting program.

Table 59. Education, Outreach and Stewardship Implementation Activities from Table 46 addressed by East Metro Water Resource Education Program

Promote the MPCA's tool called WMAt for winter maintenance professionals to promote chloride reduction activities in the Long lake subwatershed.
Conduct workshops targeted to developers and realtors about marketing lakeshore properties based on BCWD analysis of lake functions and values.
Provide training sessions on development planning strategies and development techniques that protect natural resources and benefit water quality.
Provide targeted educational messages through local businesses and local organizations. Businesses and organizations may include fertilizer suppliers, lawn care and garden companies, lake associations and garden clubs.
Provide education to residents of the District on groundwater conservation strategies.
Conduct BMP installation and implementation training workshops to provide citizens with the knowledge to install and implement BMPs on their properties. Programs could include workshops on topics such as rain barrels, rain gardens, shoreline restoration, and fertilizer use, and native vegetation buffer establishment and maintenance.
Educate the public about pollutants of emerging concern including the widespread prevalence of pharmaceutical and cosmetic products in our lakes and streams, how these compounds can disrupt hormone regulation of aquatic organisms, such as fish, and how these chemicals enter lakes and streams.

Table 60. Education, Outreach and Stewardship Implementation Activities from Table 47 where implementation costs covered under another Issue Category

Implementation Activity	Issue Category where implementation cost is identified (Table #)
Develop demonstration projects to highlight BMPs and stewardship.	Funding (Table 54)
Utilize the cost-share program to assist citizens in best management practice installation.	Stormwater Management (Table 5)

Brown's Creek Trail Opening

Project Name |	BCWD Permit Program	**Date** |	09/05/2024
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	John Sarafolean, EOR		
Regarding |	August 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 08/09/2024 through 09/05/2024.

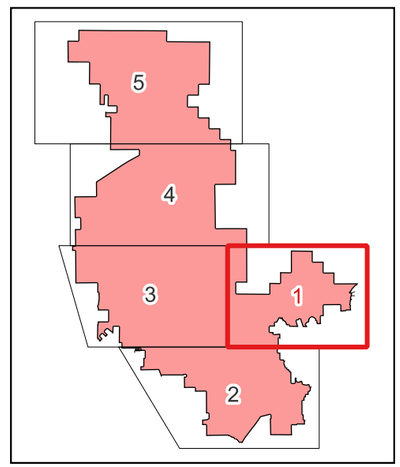
Inspection of Existing Permits

Project Name	Permit ID	Date	Grade
White Oaks Savanna Development	17-01	08/27/2024	A
Popeyes	22-20	08/30/2024	B
WOS Lot 118 Villa-Rococo	23-07	08/27/2024	A
Curio Dance Studio	23-10	08/30/2024	B
WOS Lot 122 Freiroy Residence	23-11	08/27/2024	C
Lakes at Stillwater Sandhill Shores	23-13	08/27/2024	C
Wiskow Berm	23-14	08/30/2024	B
WOS Lot 102 Mensah Residence	23-15	08/27/2024	A
WOS Lot 124 Penny-Lane	23-18	08/27/2024	A
Take 5 Oil Change	24-01	08/30/2024	B
Schuster Residence	24-02	08/27/2024	A
WOS Lot 120 Hilgert Residence	24-03	08/27/2024	C
Rutherford Elementary	24-06	08/27/2024	C
Boutwell Farms Lot 1	24-10	08/30/2024	A

Permit Closures:

- 22-17 Read Residence

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
22-15	13199 Dellwood Rd	Active
22-18	Stillwater Oaks	Pending
22-23	Ferguson Residence (Heritage Ridge Lot 4)	Active
22-30	CSAH 5 Phase 2	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



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Author: Allison
Layout: Mark
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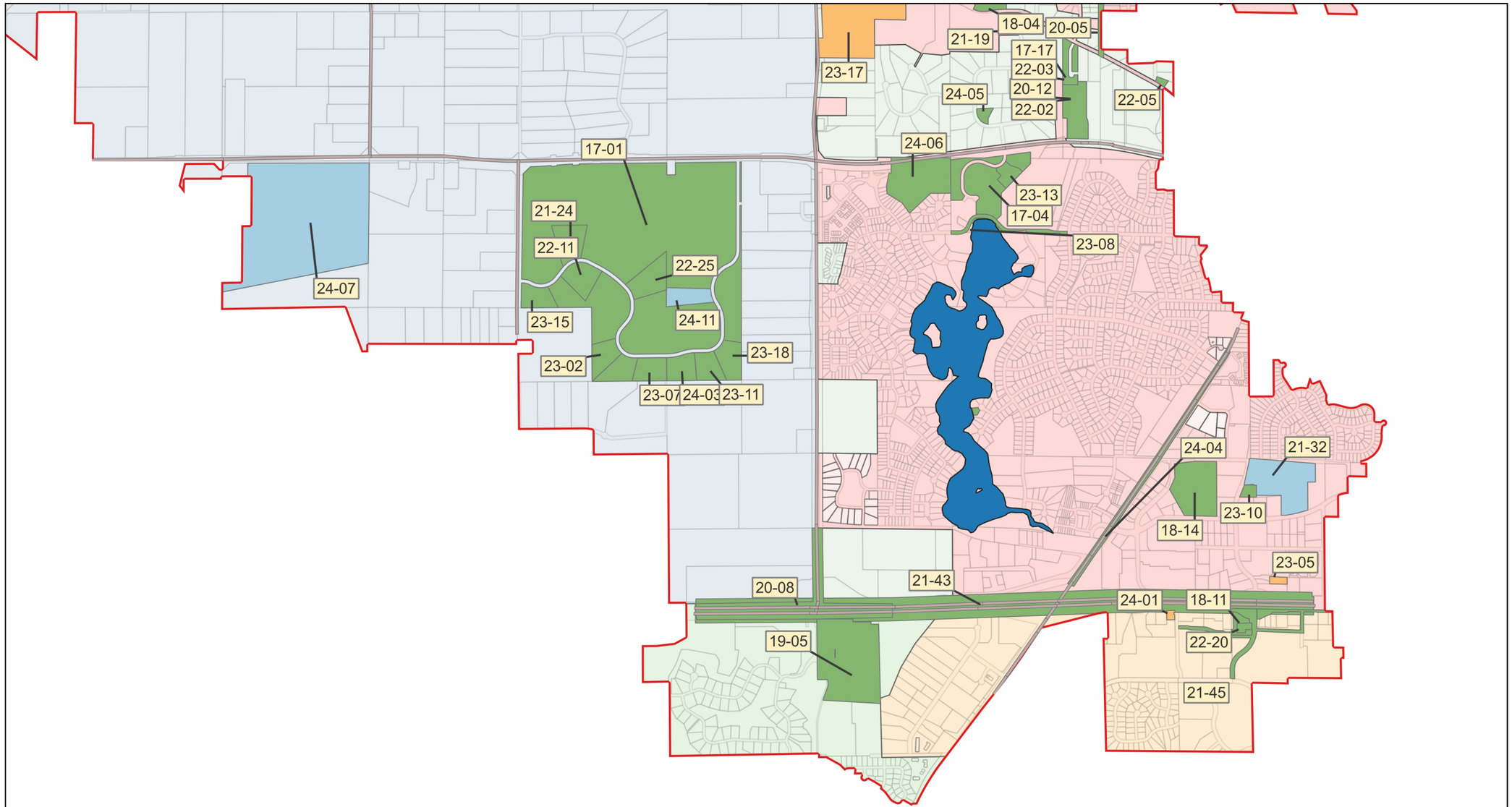
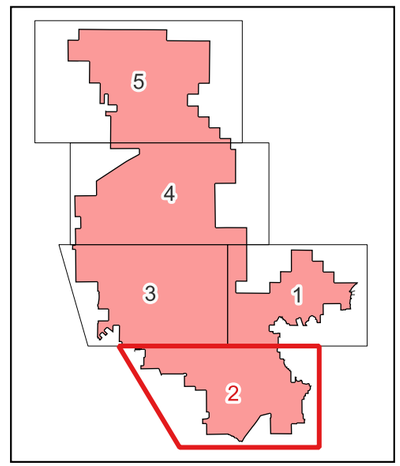


Permit No.	Applicant/Permit Name	Status
17-01	White Oaks Savanna	Active
17-04	The Lakes of Stillwater	Active
17-17	Westridge	Active
18-04	Boutwell Farm	Active
18-11	Ridgecrest	Active
18-14	St. Croix Valley Recreation Center Expansion	Active
19-05	Central Commons	Active
20-05	Neal Avenue Reconstruction	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
22-25	Miller-Duis Residence (WOS Lot 113)	Active
23-02	Tweden Residence	Active
23-05	Rocket Carwash	Pending
23-07	Villa Rococo Residence	Active
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
24-04	CSAH 5 Resurfacing	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	Review



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Author: Allison Mark
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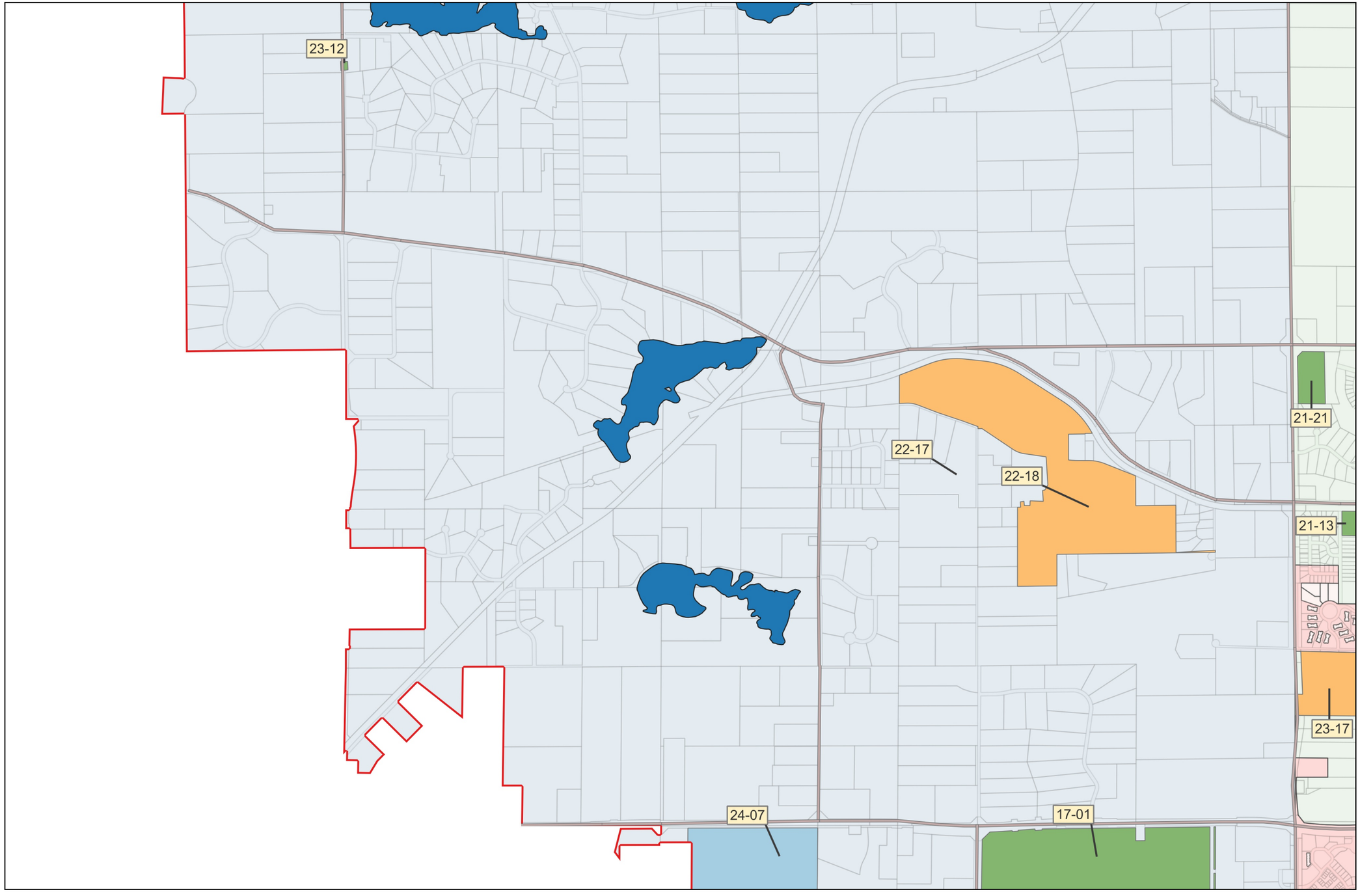
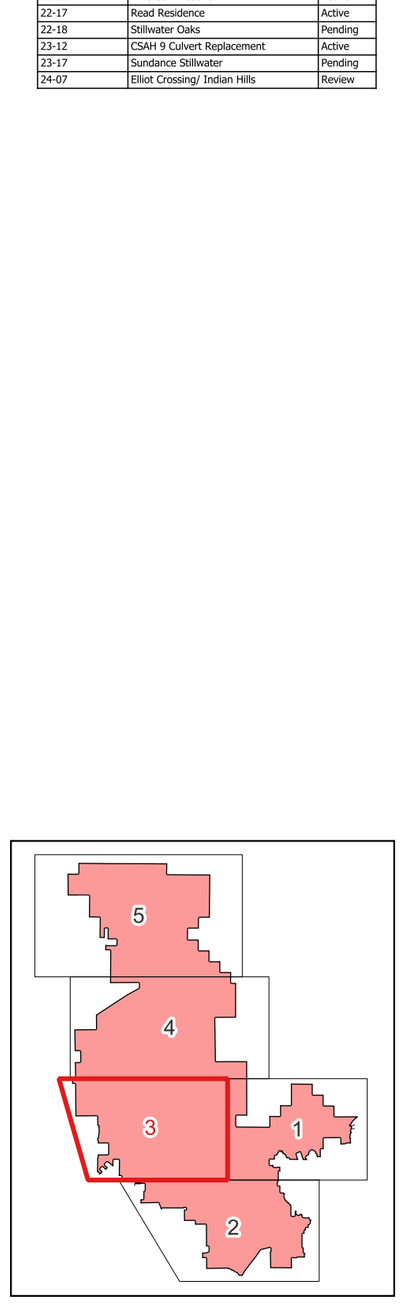
Permit No.	Applicant/Permit Name	Status
17-01	White Oaks Savanna	Active
21-13	Marylane Gateway	Active
21-21	Millbrook West Park	Active
22-17	Read Residence	Active
22-18	Stillwater Oaks	Pending
23-12	CSAH 9 Culvert Replacement	Active
23-17	Sundance Stillwater	Pending
24-07	Elliot Crossing/ Indian Hills	Review





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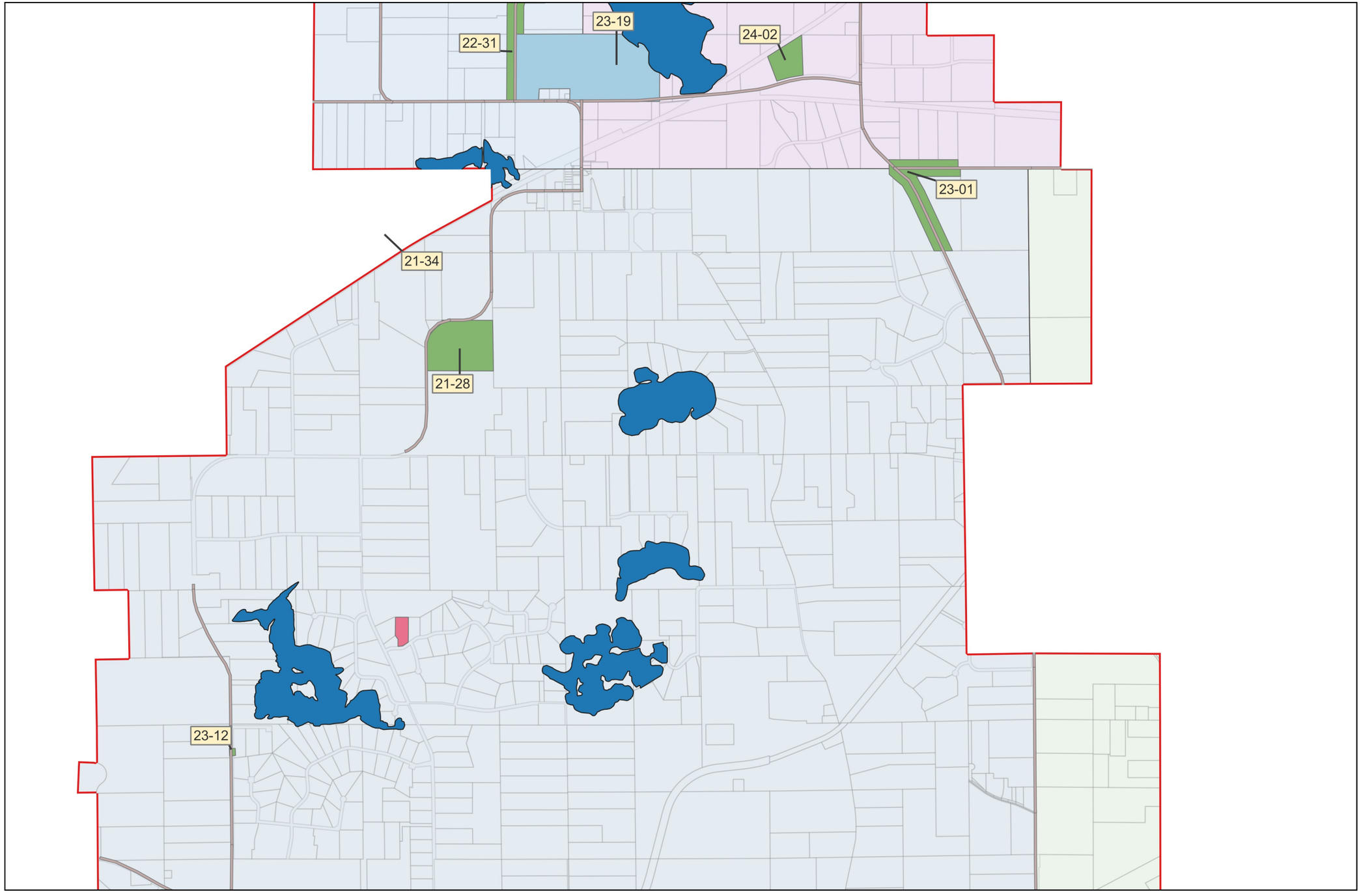
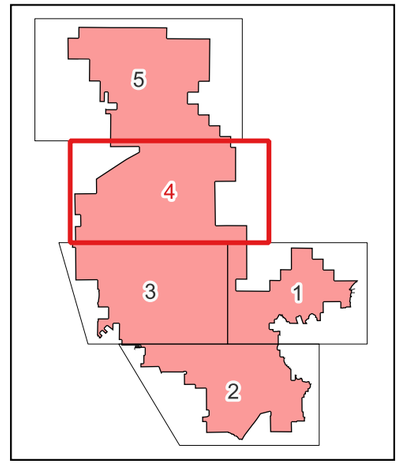
Author: Allison Mark
Layout: Permit Update Map

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
23-12	CSAH 9 Culvert Replacement	Active
23-19	Liberty Academy Expansion	Review
24-02	Schuster Residence	Active





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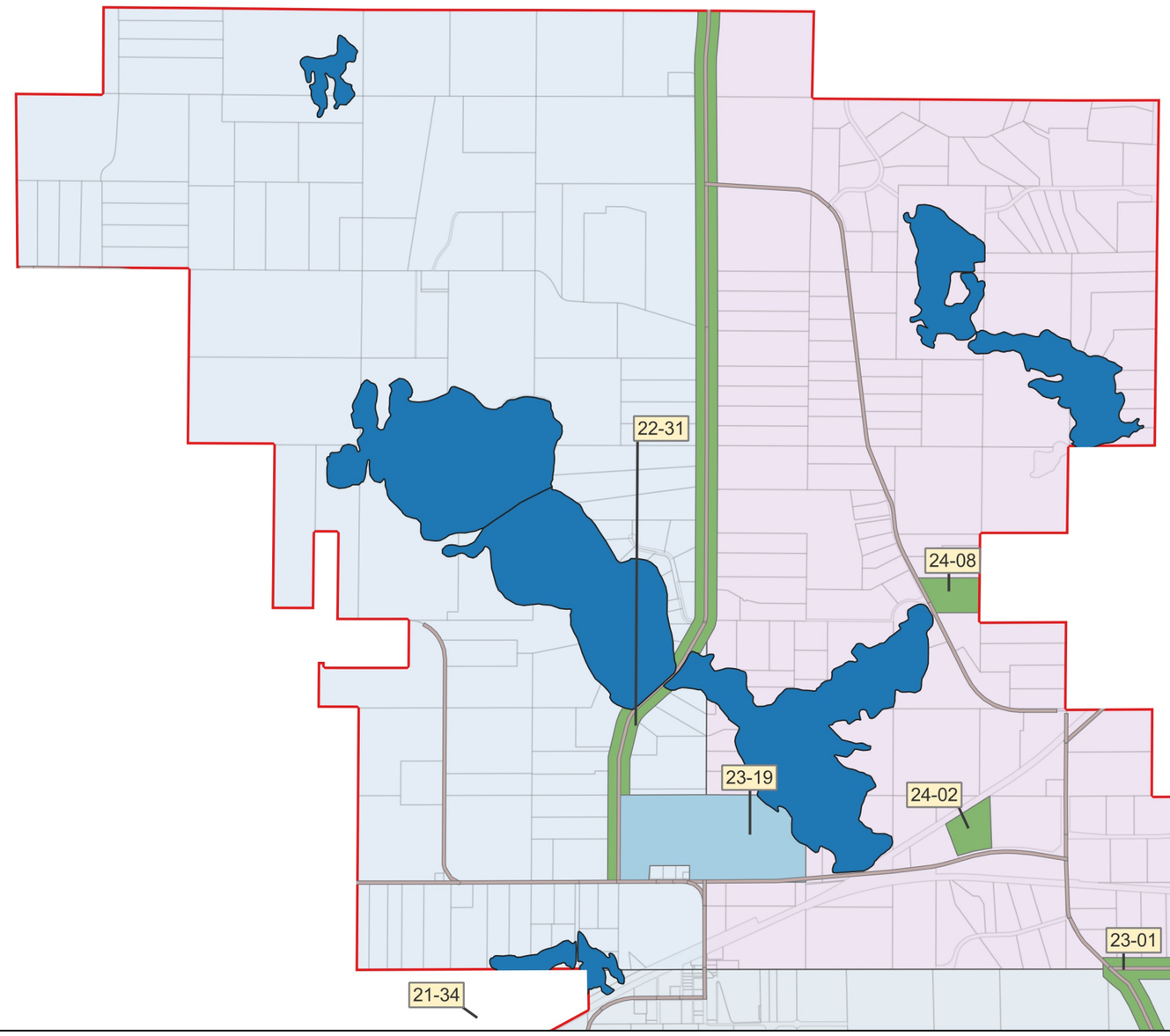
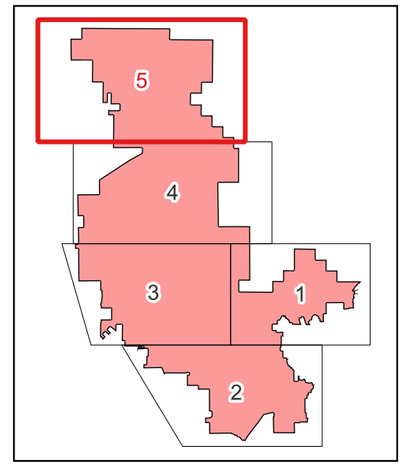
Permit No.	Applicant/Permit Name	Status
21-34	Fahey Residence	Active
22-31	County Road 57 Culverts	Active
23-01	County Road 61 Improvements	Active
23-19	Liberty Academy Expansion	Review
24-02	Schuster Residence	Active
24-08	Altendorfer Residence	Active





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Author: Allison
Layout: Mark
Permit Update Map