RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

March 2019
Board Packet

****

Agenda

****

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Regular Board Meeting Agenda

Wednesday, March 6, 2019
6:30 P.M.
District Office Board Room
2665 Noel Drive, Little Canada, MN

1. Call to Order – 6:30 PM
2. **Approval of Agenda**
3. **Consent Agenda**
    A. Approval of Minutes February 6, 2019
4. **Treasurer's Report and Bill List**
5. Visitor Presentations
6. Permit Program
    A. Applications
        i. **19-06 Launch Properties Tamarack – Woodbury**
        ii. **19-07 Phalen Parking Lot Improvement – St. Paul**
        iii. **19-08 Cornerstone Medical Expansion – Woodbury**
        iv. **19-10 Gladstone Phase 3 – Maplewood**
    B. Enforcement Action Report
    C. 2019 Rule Revision Update and 45 day Comment Board Action
    D. Inspection and Enforcement Charges Increase
7. Stewardship Grant Program
    A. Applications
        i. **19-04 CS Shepherd of the Hills Lutheran Church Phase 2**
        ii. **19-05 CS Maplewood Community Center**
    B. Budget Status Update
8. Action Items
    A. Snail Lake Shoreline Restoration Bid Review and Award
    B. 2019-2020 BMP Maintenance Program Contractor Selection
9. Administrator's Report
    A. Meetings Attended
    B. Upcoming Meetings and Dates

(651) 792-7950
fax (651) 792-7951
office@rwmwd.org
rwmwd.org
2665 Noel Drive
Little Canada, MN 55117

C. Staff Updates
D. Twin Lake Public Meeting
E. CAC Update
F. Upcoming Board Information and Education Efforts
G. MAWD Legislative Updates

10. Project and Program Status Reports
    A. New Project Memo: Cottage Place Wetland Restoration
    B. New Project Memo: Wetland Restoration Site Search
    C. Ongoing Project and Program Updates
        i. Owasso Park Stormwater Master Plan
        ii. Beltline Resiliency Study
        iii. Lake Owasso Emergency Response Plan
        iv. Twin Lake Public Meetings
        v. FEMA Flood Mapping
        vi. West Vadnais Lake Outlet Permitting
        vii. 500-Year Atlas 14 Modeling
        viii. Auto Lake Monitoring Systems
        ix. Maplewood Mall Monitoring
        x. Kohlman Basin Test Weirs
        xi. Wakefield Park/Frost Avenue Project
        xii. Targeted Retrofit Projects
        xiii. Roseville High School Campus Project
        xiv. BMP Design Assistance
        xv. Markham Pond Aeration
        xvi. Aldrich Arena Site Design
        xvii. CIP Maintenance and Repair 2019 Project
        xviii. Natural Resources Program
        xix. Education Program
        xx. Communications Program
11. Informational Items
12. Report of Managers
13. **Adjourn**

Items in **bold signify that an action needs to be taken by the Board.*

****

Consent Agenda

****

Ramsey-Washington Metro Watershed District
Minutes of Regular Board Meeting
February 6, 2019

The Regular Meeting of February 6, 2019, was held at the District Office Board Room, 2665 Noel Drive, Little Canada, Minnesota, at 6:30 p.m.

PRESENT:
Marj Ebensteiner, President
Cliff Aichinger, Vice President
Dianne Ward, Treasurer
Dr. Pam Skinner, Secretary
Lawrence Swope, Manager

ABSENT:

ALSO PRESENT:
Tina Carstens, District Administrator
Tracey Galowitz, Attorney for District
Nicole Soderholm, Permit Inspector
Dave Vlasin, Water Quality Technician
Matt Kumka, Barr Engineering
Paige Ahlborg, Project Manager
Brad Lindaman, Barr Engineering
Bill Bartodziej, Natural Resource Specialist
Chris O'Brien, Communications Coordinator
Erin Anderson Wenz, Barr Engineering

1. CALL TO ORDER
The meeting was called to order by President Ebensteiner at 6:30 p.m.

2. APPROVAL OF AGENDA
Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve the agenda as presented. Motion carried unanimously.

3. CONSENT AGENDA
A. Approval of Minutes from January 2, 2019
B. District Liability Insurance Coverage Waiver

Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve the consent agenda as presented. Motion carried unanimously.

4. TREASURER'S REPORT AND BILL LIST
Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve the February 6, 2019, bill list as submitted. Motion carried unanimously.

5. VISITOR PRESENTATIONS
There were none.

6. PERMIT PROGRAM

A. Applications

Permit #19-05: 3M Innovation Blvd/19th St Reconstruction – Maplewood

Nicole Soderholm provided details on the project. She stated that one of the bid alternates includes expansion of a parking area and the stormwater facilities have been properly sized to accommodate that possible expansion.

Motion: Dianne Ward moved, Lawrence Swope seconded, to approve Permit #19-05. Motion carried unanimously.

B. Monthly Enforcement Report

During January zero notices were sent.

C. TAC Permit Rule Update

Nicole Soderholm stated that this item was introduced at the last Board meeting and the proposed rule changes were highlighted within the Board packet. She reported that a TAC meeting was held in September to allow those members to see the proposed changes. She confirmed that the biggest changes would be the change in rates and the increase in the cap on filtration from two inches to 2.5 inches. She stated that from the comments received thus far, most parties were surprised the District had not raised its rates sooner, as the rates have remained stable for over ten years. She stated that during the informal comment period there were comments received by the Saint Paul Port Authority and provided a summary. She stated that Board action is not requested tonight, but she will ask the Board to approve the start of the formal comment period at the next meeting, which would begin the 60-day review window, with review for adoption in June.

7. STEWARDSHIP GRANT PROGRAM

A. Applications

None.

B. Budget Status Update

No comments.

8. ACTION ITEMS

A. Board of Managers Annual Meeting

Tina Carstens noted that these are items that require annual action from the Board. Manager Aichinger commented that he likes the changes to the Board packet that have been made, especially with the project status section. Dr. Pam Skinner requested to add an item to the Board packet regarding new opportunities that are being reviewed by the District to make improvements. President Ebensteiner stated that she believes that everyone should be open to sharing ideas and communicating openly. She hoped that everyone felt comfortable sharing their ideas and opinions. Manager Aichinger stated that for the Board packet he would rather there be more information versus less information. President Ebensteiner stated she likes the opportunity to allow staff to talk about projects included on the list to provide additional details. Manager Aichinger stated that he has appreciated that Barr Engineering continues to bring in new staff members for different projects and presentations that have different areas of expertise.

Motion: Dr. Pam Skinner moved, Cliff Aichinger seconded, to maintain the same Board officers, maintain the same consulting staff, and maintain the same official bank of deposit and official newspapers. Motion carried unanimously.

B. Snail Lake Shoreline Restoration Approval of Plans and Authorization to Advertise for Bids

Tina Carstens stated that if the Board approves, staff will put this project out for bid and bring back the bids for approval at the next meeting. Paige Ahlborg provided additional details on the proposed restoration project. Manager Swope asked for details on the County's plans for that area. Paige was unsure of the County's plans and noted that

this project would not impact any of the County projects or the beach. She stated there are 26 homeowner properties involved in the project and estimated that the project would be completed within two years.

Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and advertise the project for bid. Motion carried unanimously.

C. 2019-2020 BMP Maintenance Program Request for Qualifications

Motion: Lawrence Swope moved, Cliff Aichinger seconded, to direct staff to finalize the documents and distribute the request for qualifications. Motion carried unanimously.

9. ADMINISTRATOR'S REPORT

A. Meetings Attended

No comments.

B. Upcoming Meetings and Dates

Tina Carstens confirmed that the Managers would be invited to attend the conference and tour in August.

C. District Office Updates

Tina Carstens noted that technology updates for the conference room, as well as updates for the front door area and painting were included.

D. Operations and Maintenance Conference Tour and Abstract Submittal

Tina Carstens stated that more information will be provided as the planning for this item continues.

E. MAWD Legislative Briefing, Reception, and Day at the Capital

Tina Carstens noted that the legislative platform was included for informational purposes.

10. PROJECT AND PROGRAM STATUS REPORTS

A. Project Technical Reports and Presentation: Maplewood Mall 5 Year Project Inspection, Inventory, and Recommendations for Maintenance and Improvements

Matt Kumka stated that a review of the infrastructure and the health of the tress was conducted as this was the five-year anniversary of the completion of the Maplewood Mall project. He stated that the information was gathered this past summer in order to measure the success of the BMPs and health of the trees. He stated that overall the project is doing well, even with the large amount of vehicle traffic and snowplowing program. He stated that the tree trench design is innovative and is showing success on certain species, while not as much success for other species. He stated that the tree trench design is effective in function and design.

Matt explained that all of the hard infrastructure was reviewed and only 24 elements were identified in poor condition. He stated that the rain gardens look fantastic and the plants are thriving. He stated that two rain gardens have failed, as they always appear to have standing water. He stated that is a sign that the soil was compacted in the installation process and therefore it would be recommended that the soil be lifted out, the drain tile be rebuilt, and new plantings and medium be installed. He moved to the tree trenches and reviewed the grading system that was used to rate each of the trees, which ranged from A to F2. He reported that about 25 percent of the trees are dead or not looking good. He stated that the tree trenches are wetter than expected, partly because of the weather that has been experienced. He stated that the trees were chosen based on the expectation that there would be hot drought like, parking lot conditions.

Matt provided photograph examples of the different health conditions of the trees. He stated that for water quality it is better to have the weirs in. He stated that as trees are replaced, the weirs would be left out of the shallow groves. He stated that if there are dry conditions, the weirs could be put back into those areas. He stated

that overall there are 70 trees rated D or F1. He reviewed the recommendations for trees to be replaced and the recommended species. Manager Swope asked if diversity would be kept ensuring that a problem would not occur, similar to Emerald Ash Borer. Matt confirmed that diversity would be an important element.

Manager Aichinger stated that the data collected should be available to be shared as well, perhaps for a future conference, as this is a critical review at the five-year mark. He asked if the tree trenches are working as designed. Erin stated that for a while the water levels were being monitored. She stated that the question of whether to have the weirs in or out is a good questions that should continue to be monitored. She confirmed that there is retention in the flow. She reviewed some of the tree trench monitoring that will be conducted this year. She noted that the majority of the raingardens continue to be a shining example of success.

B. Project Technical Memo: District Office Parking Lot Rehabilitation and Retrofit Options

Matt Kumka stated that the porous asphalt parking lot is not draining in all areas as designed. He described how the parking lot area is designed to function. Manager Aichinger provided details on the previous maintenance, noting that the necessary equipment was not available. He stated that the puddling started to occur over time as the pores began to clog. Matt stated that a variety of options were reviewed and summarized those potential options. He confirmed that the structural integrity of the parking lot is strong.

Manager Aichinger stated that option one could be done and if that does not work successfully, a trench drain could be installed in a section which would direct the drainage away from the parking lot area. President Ebensteiner noted that if option one does not work, the District is not out much, but if it does work that could be a simple solution that others could use as well. Erin Anderson Wenz agreed that this continues to be an experiment that others can learn from. She stated that this is a path of discovery.

Motion: Dr. Pam Skinner moved, Cliff Aichinger seconded, to select option one for the District Office Parking Lot Rehabilitation and Retrofit. Motion carried unanimously.

C. Ongoing Project and Program Updates

i. Groundwater

Manager Skinner stated that she would like information on gaps in groundwater and would also like to see if there is the ability to determine what was in the barrels that leaked at 3M.

ii. Owasso Park Stormwater Master Plan
iii. Beltline Resiliency Study
iv. Subwatershed Feasibility Study
v. Lake Owasso Emergency Response Plan
vi. FEMA Flood Mapping
vii. West Vadnais Lake Outlet Permitting
viii. 500 Year Atlas 14 Modeling
ix. Auto Lake Monitoring Systems
x. Wakefield Park/Frost Avenue Project
xi. Targeted Retrofit Projects
xii. Roseville High School Campus Project
xiii. Willow Pond Spent Lime Filter
xiv. Aldrich Arena Site Design

President Ebensteiner stated that this is a very noticeable piece of property and an opportunity for the District to do something great. Matt Kumka stated that staff has been working closely with Ramsey County on this project. He stated that there is room available for surface treatment and displayed a concept that would treat the water with rain gardens. He stated that the design incorporates rain gardens and reduces impervious surface.

Erin Anderson Wenz stated that because the parking could be rearranged and there are adjacent open space areas, 1.1 inches can be captured throughout the entire site. She stated that the cost estimate is higher than originally budgeted. She explained that the original budget was about $500,000 for construction and the rough estimate at this time without contingency would be $890,000. She noted that contingency is about 15 percent of that construction budget. Manager Aichinger stated that the opportunity fund would have available funds. President Ebensteiner stated that she would be concerned with the strip that abuts White Bear Avenue, as she would like that to be more aesthetically pleasing. Erin noted that something could be designed, but it would be for aesthetics and not water quality purposes. President Ebensteiner commented that Ramsey County should be interested in assisting that aesthetic value. Manager Aichinger stated that would reduce the need for mowing on that steep incline, and that might interest the County. President Ebensteiner stated that a piece of public art would also be a nice incorporation for the project. Erin stated that this is a highly visible site and therefore that has been considered and there is a public art line item included. Manager Skinner noted the interactive water feature at Maplewood Mall and stated that something similar could perhaps be added to this project. Manager Aichinger stated that in terms of public art, this could be a great public challenge project opportunity.

Erin noted that these plans simply reflect reaching the 1.1 inches, but the other comments add another layer to the discussion. Tina Carstens noted that this is the water quality portion of the project and staff can continue with the additional suggestions. Erin noted that this was already an increase in cost just for water quality and confirmed the consensus of the Board to continue to work on additional elements. She stated that this project would provide a cost of $5,000 to $6,000 per pound of phosphorus removal, which is very efficient. She described the path that water takes from this site and noted that the reduction provided at this site would have a positive impact in other areas that it drains to.

xv. CIP Maintenance and Repair 2019 Project

xvi. New Technology Review – Modular Wetland System Downspout

Manager Aichinger asked if this is an enhanced rain barrel. Matt Kumka confirmed that it would be similar to a rain garden in a box. He noted that there is specific media that would require to be swapped out. He stated that he is working with another watershed district that is offering a rain garden in a box to residents. Manager Aichinger suggested that the District do a demo project at the office site. Tina Carstens stated that staff is already reviewing plans for the back patio and that could be incorporated.

xvii. Natural Resources Program

xviii. Education Program

xix. Communications Program

11. INFORMATIONAL ITEMS

No comments.

12. REPORTS OF MANAGERS

A. Summary of Closed Meeting held February 6, 2019, at 5:00 p.m.

Cliff Aichinger reported that a closed meeting was held today, February 6th at 5:00 p.m., prior to the regular Board meeting for the purpose of reviewing the Administrator's performance. All Managers were in attendance. Job duties, performance, and salary were discussed.

B. Other

Manager Skinner stated that she met with a Senator from Cottage Grove that is sponsoring a bill regarding groundwater chemicals from 3M. She stated that the District watershed is also highly impacted. She explained that there has not been enough research to determine the impacts from these chemicals. She stated that the bill would provide funds for public health researchers at the University of Minnesota to do further research. She stated that perhaps the Watershed District could provide a letter of support. Manager Swope stated that he would like additional time to review the bill. Manager Aichinger confirmed the consensus of the Board to direct staff to draft a letter of support within the next week, pending comments from the Managers after review.

13. ADJOURN

Motion: Dr. Pam Skinner moved, Dianne Ward seconded, to adjourn the meeting at 8:35 p.m. Motion carried unanimously.

Respectfully submitted,

Dr. Pam Skinner, Secretary

****

Bill List

****

RWMWD BUDGET STATUS REPORT
Administrative & Program Budget
Fiscal Year 2019
1/31/2019

Budget Category	Budget Item	Account Number	Original Budget	Budget Transfers	Current Month Expenses	Year-to-Date Expenses	Current Budget Balance	Percent of Budget
Manager	Per diems	4355	$6,500.00	-	690.00	690.00	$5,810.00	10.62%
	Manager expenses	4360	3,500.00	-	-	-	3,500.00	0.00%
Committees	Committee/Bd Mtg. Exp.	4365	3,500.00	-	215.00	215.00	3,285.00	6.14%
Employees	Staff salary/taxes/benefits	4010	1,385,000.00	-	95,339.12	95,339.12	1,289,660.88	6.88%
	Employee expenses	4020	10,000.00	-	199.74	199.74	9,800.26	2.00%
	District training & education	4350	25,000.00	-	1,254.60	1,254.60	23,745.40	5.02%
Administration/	GIS system maint. & equip.	4170	15,000.00	-	-	-	15,000.00	0.00%
Office	Data Base/GIS Maintenance	4171	5,000.00	-	-	-	5,000.00	0.00%
	Equipment maintenance	4305	3,000.00	-	-	-	3,000.00	0.00%
	Telephone	4310	8,000.00	-	358.22	358.22	7,641.78	4.48%
	Office supplies	4320	5,000.00	-	-	-	5,000.00	0.00%
	IT/Internet/Web Site/Software Lic.	4325	45,000.00	-	2,346.98	2,346.98	42,653.02	5.22%
	Postage	4330	10,000.00	-	-	-	10,000.00	0.00%
	Printing/copying	4335	8,000.00	-	285.67	285.67	7,714.33	3.57%
	Dues & publications	4338	11,000.00	-	7,580.00	7,580.00	3,420.00	68.91%
	Janitorial/Trash Service	4341	17,000.00	-	743.27	743.27	16,256.73	4.37%
	Utilities/Bldg.Contracts	4342	20,000.00	-	1,851.61	1,851.61	18,148.39	9.26%
	Bldg/Site Maintenance	4343	300,000.00	-	294.50	294.50	299,705.50	0.10%
	Miscellaneous	4390	5,000.00	-	-	-	5,000.00	0.00%
	Insurance	4480	35,000.00	-	-	-	35,000.00	0.00%
	Office equipment	4703	40,000.00	-	-	-	40,000.00	0.00%
	Vehicle lease, maintenance	4810-40	43,000.00	-	88.03	88.03	42,911.97	0.20%
Consultants/	Auditor/Accounting	4110	55,000.00	-	-	-	55,000.00	0.00%
Outside Services	Engineering-administration	4121	93,000.00	-	4,945.50	4,945.50	88,054.50	5.32%
	Engineering-permit I&E	4122	10,000.00	-	63.00	63.00	9,937.00	0.63%
	Engineering-eng. review	4123	55,000.00	-	1,374.50	1,374.50	53,625.50	2.50%
	Engineering-permit review	4124	55,000.00	-	593.00	593.00	54,407.00	1.08%
	Project Feasibility Studies	4129	790,000.00	-	8,902.50	8,902.50	781,097.50	1.13%
	Attorney-permits	4130	10,000.00	-	-	-	10,000.00	0.00%
	Attorney-general	4131	40,000.00	-	-	-	40,000.00	0.00%
	Outside Consulting Services	4160	40,000.00	-	-	-	40,000.00	0.00%
Programs	Educational programming	4370	60,000.00	-	48.88	48.88	59,951.12	0.08%
	Communications & Marketing	4371	25,000.00		80.00	80.00	24,920.00	0.32%
	Events	4372	50,000.00	-	38.31	38.31	49,961.69	0.08%
	Water QM-Engineering	4520-30	300,000.00	-	3,258.33	3,258.33	296,741.67	1.09%
	Project operations	4650	160,000.00	-	581.48	581.48	159,418.52	0.36%
	SLMP/TMDL Studies	4661	68,000.00	-	-	-	68,000.00	0.00%
	Natural Resources/Keller Creek	4670-72	115,000.00	-	473.50	473.50	114,526.50	0.41%
	Outside Prog.Support/Weed Mgmt.	4683-84	67,000.00	-	1,884.60	1,884.60	65,115.40	2.81%
	Research Projects	4695	115,000.00	-	1,130.00	1,130.00	113,870.00	0.98%
	Health and Safety Program	4697	3,000.00	-	-	-	3,000.00	0.00%
	NPDES Phase II	4698	10,000.00	-	4,011.50	4,011.50	5,988.50	40.12%
GENERAL FUND TOTAL			**$4,124,500.00**	**$0.00**	**$138,631.84**	**$138,631.84**	**$3,985,868.16**	3.36%
CIP's	CIP Project Repair & Maintenance	516	1,120,000.00	-	87,517.05	87,517.05	1,032,482.95	7.81%
	Targeted Retrofit Projects	518	978,760.00	-	11,748.20	11,748.20	967,011.80	1.20%
	District Office Building Solar Energy Retrofit	519	-	-	-	-	-	---
	Flood Damage Reduction Fund	520	2,500,000.00	-	6,250.00	6,250.00	2,493,750.00	0.25%
	Debt Services-96-97 Beltline/MM/Battle Creek	526	399,113.00	-	274,856.15	274,856.15	124,256.85	68.87%
	Stewardship Grant Program Fund	528-529	1,250,000.00	-	8,920.50	8,920.50	1,241,079.50	0.71%
	Impervious Surface Volume Reduction Opportunity	531	1,500,000.00	-	-	-	1,500,000.00	0.00%
	Beltline & Battle Creek Tunnel Repair	549	-	-	-	-	-	---
	Frost/Kennard Enhanced WQ BMP	550	-	-	-	-	-	---
	Markham Pond Dredging & Aeration	551	65,000.00	-	-	-	65,000.00	0.00%
	Wakefield Park Project	553	1,100,000.00	-	1,309.50	1,309.50	1,098,690.50	0.12%
	Willow Pond CMAC	554	300,000.00		161.50	161.50	299,838.50	0.05%
	District Office Bond Payment	585	194,885.00	-	193,453.76	193,453.76	1,431.24	99.27%
CIP BUDGET TOTAL			**$9,407,758.00**	**-**	**$584,216.66**	**$584,216.66**	**$8,823,541.34**	6.21%
TOTAL BUDGET			**$13,532,258.00**	**$0.00**	**$722,848.50**	**$722,848.50**	**$12,809,409.50**	**5.34%**

Current Fund Balances:

Fund:	Unaudited Beginning Fund Balance @ 12/31/18	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Unaudited Fund Balance @ 01/31/19
101 - General Fund	$4,557,640.12	-	500.00	138,631.84	138,631.84	4,419,508.28
516 - CIP Project Repair & Maintenance	923,619.41	-	-	87,517.05	87,517.05	836,102.36
518 - Targeted Retrofit Projects	989,596.25	-	-	11,748.20	11,748.20	977,848.05
519 - District Office Building Solar Energy Retrofit	32,805.00	-	-	-	-	32,805.00
520 - Flood Damage Reduction Fund	1,884,578.15	-	-	6,250.00	6,250.00	1,878,328.15
526 - Debt Services-96-97 Beltline/MM/Beltline-Battle Creek Tunnel Repair	381,542.55	-	-	274,856.15	274,856.15	106,686.40
528/529 - Stewardship Grant Program Fund	398,854.69	-	-	8,920.50	8,920.50	389,934.19
531 - Impervious Surface Volume Reduction Opportunity	1,484,215.00	-	-	-	-	1,484,215.00
549 - Beltline & Battle Creek Tunnel Repair	815,166.67	-	-	-	-	815,166.67
550 - Frost/Kennard Enhanced WQ BMP	(154,661.36)	-	-	-	-	(154,661.36)
551 - Markham Pond Dredging & Aeration	110,379.00	-	-	-	-	110,379.00
553 - Wakefield Park Project	1,112,709.01	-	-	1,309.50	1,309.50	1,111,399.51
554 - Willow Pond CMAC	(29,932.08)	-	-	161.50	161.50	(30,093.58)
580 - Contingency Fund	476,100.94	-	-	-	-	476,100.94
585 - Certificates of Participation	131,513.82	-	-	193,453.76	193,453.76	(61,939.94)
Total District Fund Balance	**$13,114,127.17**	**-**	**$ 500.00**	**$ 722,848.50**	**$722,848.50**	**$12,391,778.67**

RWMWD BUDGET STATUS REPORT
Administrative & Program Budget
Fiscal Year 2018
12/31/18-Unaudited/Updated-2/26/19

Budget Category	Budget Item	Account Number	Original Budget	Budget Transfers	Current Month Expenses	Year-to-Date Expenses	Current Budget Balance	Percent of Budget
Manager	Per diems	4355	$6,500.00	-	255.00	4,180.00	$2,320.00	64.31%
	Manager expenses	4360	3,500.00	-	165.79	948.38	2,551.62	27.10%
Committees	Committee/Bd Mtg. Exp.	4365	3,500.00	-	313.79	3,140.53	359.47	89.73%
Employees	Staff salary/taxes/benefits	4010	1,300,000.00	-	94,332.06	1,219,782.84	80,217.16	93.83%
	Employee expenses	4020	10,000.00	-	1,091.31	5,741.86	4,258.14	57.42%
	District training & education	4350	25,000.00	-	2,491.11	22,430.34	2,569.66	89.72%
Administration/	GIS system maint. & equip.	4170	15,000.00	-	-	4,101.02	10,898.98	27.34%
Office	Data Base/GIS Maintenance	4171	15,000.00	-	-	1,300.00	13,700.00	8.67%
	Equipment maintenance	4305	3,000.00	-	277.00	1,707.83	1,292.17	56.93%
	Telephone	4310	8,000.00	-	662.22	3,694.18	4,305.82	46.18%
	Office supplies	4320	5,000.00	-	216.72	4,183.30	816.70	83.67%
	IT/Internet/Web Site/Software Lic.	4325	42,000.00	-	8,018.25	35,050.82	6,949.18	83.45%
	Postage	4330	10,000.00	-	142.47	3,417.06	6,582.94	34.17%
	Printing/copying	4335	8,000.00	-	285.67	5,100.46	2,899.54	63.76%
	Dues & publications	4338	11,000.00	-	344.00	10,152.00	848.00	92.29%
	Janitorial/Trash Service	4341	17,000.00	-	1,138.15	13,067.44	3,932.56	76.87%
	Utilities/Bldg.Contracts	4342	18,000.00	-	2,279.68	16,863.70	1,136.30	93.69%
	Bldg/Site Maintenance	4343	70,000.00	-	1,710.06	30,171.82	39,828.18	43.10%
	Miscellaneous	4390	5,000.00	-	74.99	400.18	4,599.82	8.00%
	Insurance	4480	35,000.00	-	-	34,295.00	705.00	97.99%
	Office equipment	4703	40,000.00	-	-	14,892.97	25,107.03	37.23%
	Vehicle lease, maintenance	4810-40	43,000.00	-	157.92	33,728.33	9,271.67	78.44%
Consultants/	Auditor/Accounting	4110	50,000.00	-	3,574.94	48,370.67	1,629.33	96.74%
Outside Services	Engineering-administration	4121	93,000.00	-	11,346.52	75,832.59	17,167.41	81.54%
	Engineering-permit I&E	4122	15,000.00	-	3,441.58	6,596.58	8,403.42	43.98%
	Engineering-eng. review	4123	55,000.00	-	4,325.50	54,018.06	981.94	98.21%
	Engineering-permit review	4124	50,000.00	-	4,344.50	41,375.00	8,625.00	82.75%
	Project Feasibility Studies	4129	735,000.00	-	27,800.25	315,189.57	419,810.43	42.88%
	Attorney-permits	4130	10,000.00	-	-	1,161.28	8,838.72	11.61%
	Attorney-general	4131	40,000.00	-	3,480.00	17,282.47	22,717.53	43.21%
	Outside Consulting Services	4160	40,000.00	-	-	7,832.00	32,168.00	19.58%
Programs	Educational programming	4370	60,000.00	-	2,336.06	32,223.57	27,776.43	53.71%
	Communications & Marketing	4371	25,000.00		156.17	6,691.37	18,308.63	26.77%
	Events	4372	50,000.00	-	4,747.00	41,987.41	8,012.59	83.97%
	Water QM-Engineering	4520-30	513,000.00	-	26,137.45	164,897.81	348,102.19	32.14%
	Project operations	4650	140,000.00	-	763.05	92,067.57	47,932.43	65.76%
	SLMP/TMDL Studies	4661	115,000.00	-	-	18,725.17	96,274.83	16.28%
	Natural Resources/Keller Creek	4670-72	100,000.00	-	11,981.82	98,014.59	1,985.41	98.01%
	Outside Prog.Support/Weed Mgmt.	4683-84	70,000.00	-	4,275.14	42,791.41	27,208.59	61.13%
	Research Projects	4695	100,000.00	-	25,324.00	65,834.63	34,165.37	65.83%
	Health and Safety Program	4697	2,000.00	-	-	2,747.54	(747.54)	137.38%
	NPDES Phase II	4698	20,000.00	-	836.84	10,261.90	9,738.10	51.31%
	Atlas 14 Watershed Modeling	4732	-	-	-	-	-	0.00%
GENERAL FUND TOTAL			**$3,976,500.00**	**$0.00**	**$248,827.01**	**$2,612,251.25**	**$1,364,248.75**	65.69%
CIP's	CIP Project Repair & Maintenance	516	1,000,000.00	-	22,676.82	745,707.12	254,292.88	74.57%
	Targeted Retrofit Projects	518	800,000.00	-	113,135.59	201,734.79	598,265.21	25.22%
	District Office Building Solar Energy Retrofit	519	150,000.00	-	-	96,818.00	53,182.00	64.55%
	Flood Damage Reduction Fund	520	2,000,000.00	-	973.78	84,730.93	1,915,269.07	4.24%
	Debt Services-96-97 Beltline/MM/Battle Creek	526	448,951.00	-	435.00	426,929.68	22,021.32	95.09%
	Stewardship Grant Program Fund	528-529	800,000.00	-	77,036.24	577,482.73	222,517.27	72.19%
	Impervious Surface Volume Reduction Opportunity	531	1,500,000.00	-	-	-	1,500,000.00	0.00%
	Beltline & Battle Creek Tunnel Repair	549	-	-	118,093.50	1,710,456.33	(1,710,456.33)	---
	Frost/Kennard Enhanced WQ BMP	550	400,000.00	-	188.00	299,171.21	100,828.79	74.79%
	Markham Pond Dredging & Aeration	551	25,000.00	-	32.00	32.00	24,968.00	0.13%
	Wakefield Park Project	553	1,100,000.00	-	2,527.20	52,493.13	1,047,506.87	4.77%
	Willow Pond CMAC	554	400,000.00		22,651.95	429,881.50	(29,881.50)	107.47%
	District Office Bond Payment	585	194,885.00	-	-	196,983.53	(2,098.53)	101.08%
CIP BUDGET TOTAL			**$8,818,836.00**	**-**	**$357,750.08**	**$4,822,420.95**	**$3,996,415.05**	54.68%
TOTAL BUDGET			**$12,795,336.00**	**$0.00**	**$606,577.09**	**$7,434,672.20**	**$5,360,663.80**	**58.10%**

Current Fund Balances:

Fund:	Beginning Fund Balance @ 12/31/17	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Unaudited Fund Balance @ 12/31/18
101 - General Fund	$4,329,903.56	-	2,832,458.57	248,827.01	2,612,251.25	4,550,110.88
516 - CIP Project Repair & Maintenance	615,041.00	-	1,054,285.53	22,676.82	745,707.12	923,619.41
518 - Targeted Retrofit Projects	836,989.00	-	354,342.04	113,135.59	201,734.79	989,596.25
519 - District Office Building Solar Energy Retrofit	129,623.00	-	-	-	96,818.00	32,805.00
520 - Flood Damage Reduction Fund	1,118,749.00	-	850,560.08	973.78	84,730.93	1,884,578.15
526 - Debt Services-96-97 Beltline/MM/Beltline-Battle Creek Tunnel Repair	359,578.00	-	448,894.23	435.00	426,929.68	381,542.55
528/529 - Stewardship Grant Program Fund	561,388.00	-	414,949.42	77,036.24	577,482.73	398,854.69
531 - Impervious Surface Volume Reduction Opportunity	1,484,215.00	-	-	-	-	1,484,215.00
549 - Beltline & Battle Creek Tunnel Repair	2,407,984.00	-	-	118,093.50	1,710,456.33	697,527.67
550 - Frost/Kennard Enhanced WQ BMP	119,513.00	-	24,996.85	188.00	299,171.21	(154,661.36)
551 - Markham Pond Dredging & Aeration	110,411.00	-	-	32.00	32.00	110,379.00
553 - Wakefield Park Project	351,874.00	-	813,328.14	2,527.20	52,493.13	1,112,709.01
554 - Willow Pond CMAC	-	-	399,949.42	22,651.95	429,881.50	(29,932.08)
580 - Contingency Fund	476,100.94	-	-	-	-	476,100.94
585 - Certificates of Participation	133,637.00	-	194,860.35	-	196,983.53	131,513.82
Total District Fund Balance	**$13,035,006.50**	**-**	**$ 7,388,624.63**	**$ 606,577.09**	**$7,434,672.20**	**$12,988,958.93**

Ramsey Washington Metro Watershed Dist.
Check Register
For the Period From Feb 1, 2019 to Feb 28, 2019

Check #	Date	Payee ID	Payee	Description	Amount
EFT	02/01/19	del004	Deluxe OrderPro	Office Supplies	$124.70
EFT	02/01/19	met008	MetLife-Group Benefits	Employee Benefits	1,212.68
EFT	02/11/19	hea002	HealthPartners	Employee Benefits	11,929.48
70544	02/12/19	aws001	AWS Service Center	Janitorial/Trash Service	191.73
70545	02/12/19	cit011	City of Roseville	IT/Website/Software	213.00
70546	02/12/19	gal001	Galowitz Olson, PLLC	January Legal Fees	2,887.50
70547	02/12/19	mbc001	MBC Consulting	Events	4,674.35
70548	02/12/19	mid001	Quicksilver Express Courier	Water QM Staff	34.02
70549	02/12/19	nsp001	Xcel Energy	Construction Imp.-Willow Pond	12.16
70550	02/12/19	pre003	Premium Waters, Inc.	Utilities/Bldg. Contracts	22.00
70551	02/12/19	uni011	University Imaging Centers	Communications & Marketing	26.40
70552	02/26/19	ada002	Adam's Pest Control, Inc.	Utilities/Bldg. Contracts	79.00
70553	02/26/19	adv003	Advantage Signs & Graphics, Inc.	Communications & Marketing	350.00
70554	02/26/19	all004	allstream	Project Operations	64.96
70555	02/26/19	att002	AT & T Mobility - ROC	IT/Website/Software	43.22
70556	02/26/19	bar001	Barr Engineering	January/February Engineering	123,843.96
70557	02/26/19	bar002	Bill Bartodziej	Employee Reimbursement	1,042.82
70558	02/26/19	bar004	Deborah Barnes	Employee Reimbursement	60.00
70559	02/26/19	bfg001	BFG Supply Co.	Educational Program	146.92
70560	02/26/19	cam001	Campbell Scientific, Inc.	Construction Imp.-Willow Pond	1,252.50
70561	02/26/19	car007	Carp Solutions, LLC	Natural Resources	1,350.00
70562	02/26/19	cen006	Century Power Sports & Equipment	Natural Resources	18,203.93
70563	02/26/19	cit010	City of White Bear Lake	GIS System Maint./Equipment	987.02
70564	02/26/19	cit011	City of Roseville	Phone/IT/Website/Software	3,721.71
70565	02/26/19	ecs001	ECSI System Integrators	Utilities/Bldg. Contracts	360.00
70566	02/26/19	emm001	Emmons & Olivier Resources, Inc.	Stewardship Grant Fund	2,352.00
70567	02/26/19	fit001	Fitzgerald Excavating & Trucking, Inc.	Construction Imp.-Maint. & Rep.	219,172.60
70568	02/26/19	fre001	Freshwater Society	Outside Program Support	15,217.50
70569	02/26/19	gal001	Galowitz Olson, PLLC	February Legal Fees	2,709.00
70570	02/26/19	geo002	George's Contracted Services, Inc.	Janitorial/Trash Service	600.00
70571	02/26/19	gil001	Gilbert Mechanical Contractors, Inc.	Bldg./Site Maintenance	2,500.35
70572	02/26/19	inn002	Innovative Office Solutions LLC	Office Supplies	95.30
70573	02/26/19	inn003	Innovational Concepts, Inc.	Utilities/Bldg. Contracts	206.75
70574	02/26/19	int001	Office of MN, IT Services	Telephone Expense	55.40
70575	02/26/19	kin001	FedEx Office	Communications & Marketing	10.85
70576	02/26/19	mel001	Michelle L. Melser	Employee Reimbursement	53.36
70577	02/26/19	met004	Metro Sales, Inc.	Printing Expense	482.34
70578	02/26/19	min008	Minnesota Native Landscapes, Inc.	Construction Imp.-Maint. & Rep.	208.00
70579	02/26/19	ncp001	NCPERS Group Life Ins.	Employee Benefits	16.00
70580	02/26/19	nov002	Liv Novotny	Educational Program	100.00
70581	02/26/19	nsp001	Xcel Energy	Proj.Operations/Utilities	2,444.46
70582	02/26/19	obr001	Christopher O'Brien	Employee Reimbursement	169.00
70583V	02/26/19	---	VOID	VOID	-
70584	02/26/19	pac001	Pace Analytical Services, Inc.	Water QM Staff	241.00
70585	02/26/19	qwe001	CenturyLink	Project Operations	228.61
70586	02/26/19	red002	Redpath & Company, Ltd	January Accounting	3,488.49
70587	02/26/19	sel001	Tim Melser	Bldg./Site Maintenance	475.00
70588	02/26/19	sod001	Nicole Soderholm	Employee Reimbursement	40.00
70589	02/26/19	tim002	Timesaver Off-Site Secretarial, Inc.	Employee Benefits	395.00
70590	02/26/19	usb002	U.S. Bank	Monthly Credit Card Expense	3,196.80
70591	02/26/19	usb005	US Bank Equipment Finance	Printing Expense	285.67
70592	02/26/19	van001	Vanguard Cleaning Systems of Minnesota	Janitorial/Trash Service	550.00
70593	02/26/19	voy001	US Bank Voyager Fleet Sys.	Vehicle Fuel	120.71
70594	02/26/19	ysi001	YSI , Incorporated	Water QM Staff	915.45
70595	02/26/19	ost0001	Dr. Michael Osterholm	Events	500.00
Total					**$429,663.70**

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From Feb 1, 2019 - Feb 28, 2019

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail	
02/01/19	EFT	del004	Deluxe OrderPro	4320-101-000	Office Supplies-General	$124.70		
02/01/19	EFT	met003	MetLife			1,212.68		
				4040-101-000	Employee Benefits-General		988.14	
				2015-101-000	Employee Health-General		224.54	
02/11/19	EFT	hea002	HealthPartners			11,929.48		
				4040-101-000	Employee Benefits-General		10,309.40	
				2015-101-000	Employee Health-General		1,620.08	
02/12/19	70544	aws001	AWS Service Center	4341-101-000	Janitorial/Trash Service	191.73		
02/12/19	70545	cit011	City of Roseville	4325-101-000	IT/Website/Software	213.00		
02/12/19	70546	gal001	Galowitz Olson, PLLC			2,887.50		
				4131-516-000	Atty General-Maint. & Repair		170.00	
				4131-101-000	Atty General-General Fund		2,717.50	
02/12/19	70547	mbc001	MBC Consulting	4372-101-000	Events	4,674.35		2018
02/12/19	70548	mid001	Quicksilver Express Courier	4530-101-000	Water QM Staff-General	34.02		
02/12/19	70549	nsp001	Xcel Energy	4630-554-000	Construction Imp.-Willow Pond	12.16		
02/12/19	70550	pre003	Premimum Waters, Inc.	4342-101-000	Utilities/Building Contracts	22.00		
02/26/19	70551	uni001	University Imaging Centers	4371-101-000	Communications & Marketing	26.40		
02/26/19	70552	ada002	Adam's Pest Control, Inc.	4342-101-000	Utilities/Building Contracts	79.00		
02/26/19	70553	adv003	Advantage Signs & Graphics, Inc.	4371-101-000	Communications & Marketing	350.00		
02/26/19	70554	all004	allstream	4650-101-000	Project Operations-General	64.96		
02/26/19	70555	att001	AT&T Mobility	4325-101-000	IT/Website/Software	43.22		
02/26/19	70556	bar001	Barr Engineering			123,843.96		
				4121-101-000	Engineering Admin-General Fund		6,735.16	
				4123-101-000	Engineering-Review		4,266.00	
				4129-101-000	Project Feasibility-General		108.50	
				4129-101-000	Project Feasibility-General		9,447.00	
				4129-101-000	Project Feasibility-General		12,468.00	
				4129-101-000	Project Feasibility-General		1,174.00	
				4129-101-000	Project Feasibility-General		170.00	
				4129-101-000	Project Feasibility-General		85.00	
				4129-101-000	Project Feasibility-General		1,305.00	
				4129-101-000	Project Feasibility-General		892.50	
				4170-101-000	GIS System Maint. & Equipment		85.00	
				4520-101-000	Water QM-Engineering		437.50	
				4520-101-000	Water QM-Engineering		2,362.00	
				4124-101-000	Engineering-Permit Review		1,740.00	
				4129-101-000	Project Feasability-General		5,142.00	
				4695-101-000	Research Projects-General		459.50	
				4695-101-000	Research Projects-General		4,108.00	
				4650-101-000	Project Operations-General		216.00	
				4128-553-000	Engineering-Wakefield		23,450.50	
				4128-518-000	Engineering-School/Commer Retrofit		264.50	
				4128-518-000	Engineering-School/Commer Retrofit		2,481.50	
				4128-518-000	Engineering-School/Commer Retrofit		376.50	
				4128-518-000	Engineering-School/Commer Retrofit		4,955.00	

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From Feb 1, 2019 - Feb 28, 2019

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
				4682-559-000	Stewardship Grant Program		2,958.50
				4128-518-000	Engineering-School/Commer Retrofit		4,715.50
				4128-551-000	Engineering-Markham		160.00
				4128-518-000	Engineering-School/Commer Retrofit		11,105.00
				4128-554-000	Engineering-Willow Pond		76.00
				4128-516-000	Engineering-Maint. & Repair		14,532.14
				4128-516-000	Engineering-Maint. & Repair		7,567.66
02/26/19	70557	bar002	Bill Bartodziej			1,042.82	
				4040-101-000	Employee Benefits-General		220.00
				4020-101-000	Employee Expenses-General		37.12
				4670-101-000	Natural Resources Project-General		785.70
02/26/19	70558	bar004	Deborah Barnes	4040-101-000	Employee Benefits-General	60.00	
02/26/19	70559	bfg001	BFG Supply Co.	4370-101-000	Educational Program-General	146.92	
02/26/19	70560	cam001	Campbell Scientific, Inc.	4630-554-000	Construction Imp-Willow Pond	1,252.50	
02/26/19	70561	car007	Carp Solutions, LLC	4670-101-000	Natural Resources Project-General	1,350.00	
02/26/19	70562	cen006	Century Power Sports & Equipment			18,203.93	
				4670-101-000	Natural Resources Project-General		14,049.93
				4670-101-000	Natural Resources Project-General		4,154.00
02/26/19	70563	cit010	City of White Bear Lake	4170-101-000	GIS System Maint. & Equipment	987.02	
02/26/19	70564	cit011	City of Roseville			3,721.71	
				4325-101-000	IT/Website/Software		993.71
				4310-101-000	Telephone-General		304.00
				4325-101-000	IT/Website/Software		2,424.00
02/26/19	70565	ecs001	ECSI System Integrators	4342-101-000	Utilities/Building Contracts	360.00	

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From Feb 1, 2019 - Feb 28, 2019

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
02/26/19	70566	emm001	Emmons & Olivier Resources, Inc.	4682-529-000	Stewardship Grant Program	2,352.00	
02/26/19	70567	fit001	Fitzgerald Excavating & Trucking, Inc.	4630-516-000	Construction Imp.-Maint. & Repair	219,172.60	
02/26/19	70568	fre001	Freshwater Society	4683-101-000	Outside Program Support	15,217.50	
02/26/19	70569	gal001	Galowitz Olson, PLLC	4131-101-000	Atty General-General Fund	2,709.00	
02/26/19	70570	geo002	George-s Contracted Services, Inc.	4341-101-000	Janitorial/Trash Service	600.00	
02/26/19	70571	gil001	Gilbert Mechanical Contractors, Inc.			2,500.35	
				4343-101-000	IT/Website/Software		678.25
				4343-101-000	Telephone-General		249.18
				4343-101-000	IT/Website/Software		226.75
				4343-101-000	Telephone-General		1,346.17
02/26/19	70572	inn002	Innovative Office Solutions, LLC	4320-101-000	Office Supplies-General	95.30	
02/26/19	70573	inn003	Innovational Concepts, Inc.	4343-101-000	Utilities/Building Contracts	206.75	
02/26/19	70574	int001	Office of MN, IT Services	4310-101-000	Telephone-General	55.40	
02/26/19	70575	kin001	FedEx Office	4371-101-000	Communications & Marketing	10.85	
02/26/19	70576	mel001	Michelle Melser	4020-101-000	Employee Expenses-General	53.36	
02/26/19	70577	met004	Metro Sales, Inc.	4335-101-000	Printing-General	482.34	
02/26/19	70578	min008	Minnesota Native Landscapes, Inc.	4630-516-000	Construction Imp.-Maint. & Repair	208.00	
02/26/19	70579	ncp001	NCPERS Group Life Ins.c	2015-101-000	Employee Health-General	16.00	
02/26/19	70580	nov002	Liv Novotny	4370-101-000	Educational Program-General	100.00	
02/26/19	70581	nsp001	Xcel Energy			2,444.46	
				4342-101-000	Utilities/Building Contracts		1,895.11
				4650-101-000	Project Operations-General		549.35
02/26/19	70582	obr001	Christopher O'Brien			169.00	
				4040-101-000	Employee Benefits-General		68.00
				4020-101-000	Employee Expenses-General		101.00
02/26/19	70583V	---	VOID	---	VOID	-	
02/26/19	70584	pac001	Pace Analytical Services, Inc.			241.00	
				4530-101-000	Water QM Staff-General		52.00
				4530-101-000	Water QM Staff-General		189.00
02/26/19	70585	qwe001	CenturyLink	4650-101-000	Project Operations-General	228.61	
02/26/19	70586	red002	Redpath & Company, Ltd.	4110-101-000	Accounting & Auditing	3,488.49	
02/26/19	70587	sel001	Tim Melser	4343-101-000	Bldg./Site Maintenance	475.00	
02/26/19	70588	sod001	Nichole Soderholm	4040-101-000	Employee Benefits-General	40.00	
02/26/19	70589	tim002	Timesaver Off-Site Secretarial, Inc.			395.00	
				4365-101-000	Committee/Board Meeting Expense		180.00
				4365-101-000	Committee/Board Meeting Expense		215.00
02/26/19	70590	usb002	U.S. Bancorp			3,196.80	
				4530-101-000	Water QM Staff-General		66.57
				4343-101-000	Bldg./Site Maintenance		38.00
				4320-101-000	Office Supplies-General		17.56
				4350-101-000	Training & Education-General		74.56
				4320-101-000	Office Supplies-General		39.61
				4530-101-000	Water QM Staff-General		38.68
				4338-101-000	Dues & Publications		95.00
				4325-101-000	IT/Website/Software		96.00

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From Feb 1, 2019 - Feb 28, 2019

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
				4343-101-000	Bldg./Site Maintenance		93.63
				4040-101-000	Employee Benefits-General		(188.60)
				4350-101-000	Training & Education-General		24.34
				4040-101-000	Employee Benefits-General		92.90
				4350-101-000	Training & Education-General		250.00
				4350-101-000	Training & Education-General		102.88
				4350-101-000	Training & Education-General		85.00
				4350-101-000	Training & Education-General		200.00
				4350-101-000	Training & Education-General		94.93
				4365-101-000	Board Meeting Expense		97.75
				4682-529-000	Stewardship Grant Program		945.00
				4371-101-000	Communications & Marketing		350.00
				4371-101-000	Communications & Marketing		80.00
				4350-101-000	Training & Education-General		485.00
				4320-101-000	Office Supplies-General		17.99
02/26/19	70591	usb005	US Bank Equipment Finance	4335-101-000	Printing-General	285.67	
02/26/19	70592	van001	Vanguard Cleaning Systems of Minnesota	4341-101-000	Janitorial/Trash Service	550.00	
02/26/19	70593	voy001	US Bank Voyager Fleet Sys.	4830-101-000	Vehicle Expense-Fuel	120.71	
02/26/19	70594	ysi001	YSI, Inc.	4530-101-000	Water QM Staff-General	915.45	
02/26/19	70595	ost001	Dr. Michael Osterholm	4372-101-000	Events	500.00	
						$429,663.70	

BARR

Summary of Professional Engineering Services During the Period
January 19, 2019 through February 15, 2019

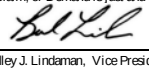
Engineering Administration	Total Engineering Budget (2019)	Total Fees to Date (2019)	Budget Balance (2019)	Fees During Period	District Accounting Code	Plan Implementation Task Number
General Engineering Administration	$76,000.00	$11,680.66	$64,319.34	$6,735.16	**4121-101**	DW-13
RWMWD Health and Safety/ERTK Program	$2,000.00	$0.00	$2,000.00		**4697-101**	DW-13
Educational Program/Educational Forum Assistance	$20,000.00	$4,011.50	$15,988.50		**4129-101**	DW-11
Engineering Review						
Engineering Review	$55,000.00	$5,640.50	$49,359.50	$4,266.00	**4123-101**	DW-13
Project Feasibility Studies						
Owasso County Park Stormwater Master Plan and Detailed Design: Phase 1 and Phase 2	$50,000.00	$108.50	$49,891.50	$108.50	**4129-101**	DW-6
Beltline Resiliency and Phalen Chain Water Level Management Study	$217,000.00	$11,878.50	$205,121.50	$9,447.00	**4129-101**	BELT-3
Interim emergency response plan funds for top priority District flooding areas (such as Owasso Basin, Willow Creek, PCU Pond, etc)	$50,000.00	$0.00	$50,000.00		**4129-101**	DW-19
FEMA Flood Mapping Update	$90,000.00	$16,385.00	$73,615.00	$12,468.00	**4129-101**	DW-9
Snail, Grass, and West Vadnais outlet permitting with the MnDNR	$100,000.00	$1,250.00	$98,750.00	$1,174.00	**4129-101**	DW-9
Modeling of 500-year event Atlas 14 District-wide (Climate Change Scenario) and Generation of Flood Maps for Future Outreach Efforts	$70,000.00	$307.50	$69,692.50	$170.00	**4129-101**	DW-9
Climate Adaption Workshops with Member Cities	$100,000.00	$85.00	$99,915.00	$85.00	**4129-101**	DW-9
Hillcrest Golf Course (multi-use)	$25,000.00	$0.00	$25,000.00		**4129-101**	DW-6
Wetland Restoration site search. BWSR criteria needed to help guide this idea.	$25,000.00	$1,305.00	$23,695.00	$1,305.00	**4129-101**	DW-1, DW-8
Gold BRT planning	$20,000.00	$0.00	$20,000.00		**4129-101**	DW-6
Priority Pond Assessment (WQ Monitor/Dredge/Treat/Leave As-Is)	$20,000.00	$0.00	$20,000.00		**4129-101**	DW-5
Contingency*	$20,000.00	$3,233.00	$16,767.00	$892.50	**4129-101**	
GIS Maintenance						
GIS Maintenance	$5,000.00	$85.00	$4,915.00	$85.00	**4170-101**	DW-13
Monitoring Water Quality/Project Monitoring						
Lake Water Quality Monitoring (Misc QA/QC)	$10,000.00	$0.00	$10,000.00		**4520-101**	DW-2
Auto lake monitoring system for Grass Lake	$20,000.00	$0.00	$20,000.00		**4520-101**	DW-18
Auto lake monitoring system for Owasso Lake	$20,000.00	$437.50	$19,562.50	$437.50	**4520-101**	DW-18
Auto lake monitoring system for Phalen Lake	$20,000.00	$4,799.50	$15,200.50	$2,362.00	**4520-101**	DW-18
Auto lake monitoring system for Snail Lake	$20,000.00	$0.00	$20,000.00		**4520-101**	DW-18
Auto lake monitoring system for Wabasso Lake	$20,000.00	$0.00	$20,000.00		**4520-101**	DW-18
Special Project BMP Monitoring (Maplewood Mall, Frost Kennard Spent Lime Filter, Willow Pond CMAC)	$25,000.00	$0.00	$25,000.00		**4520-101**	DW-12
Permit Processing, Inspection and Enforcement						
Permit Application Inspection and Enforcement	$10,000.00	$63.00	$9,937.00		**4122-101**	DW-7
Permit Application Review	$55,000.00	$2,333.00	$52,667.00	$1,740.00	**4124-101**	DW-7
Lake Studies/WRPPs/TMDL Reports						
2019 Grant Applications	$30,000.00	$0.00	$30,000.00		**4661-101**	--
Tanners Flood Response Tool Model Update	$3,000.00	$0.00	$3,000.00		**4661-101**	TaL-1
Internal Load Management Discussions	$10,000.00	$0.00	$10,000.00		**4661-101**	KL-2, GC-2, WL-3, BL-3, BCL-2, LE-4, BeL-3, LO-5
Twin Lake Public Meeting	$8,000.00	$5,142.00	$2,858.00	$5,142.00	**4129-101**	DW-19
Contingency for Lake Studies	$17,000.00	$0.00	$17,000.00		**4661-101**	
Research Projects						
New Technology Mini Case Studies (average 6 per year)	$12,000.00	$1,589.50	$10,410.50	$459.50	**4695-101**	DW-12
Kohlman Permeable Weir Test System - Implement Monitoring Plan	$15,000.00	$4,108.00	$10,892.00	$4,108.00	**4695-101**	DW-12
Iron aggregate pond application research project	$20,000.00	$0.00	$20,000.00		**4695-101**	DW-12
Project Operations						
2018 Tanners Alum Facility Monitoring	$15,000.00	$216.00	$14,784.00	$216.00	**4650-101**	TaL-3
Capital Improvements						
Wakefield Park/Frost Avenue Stormwater Project	$175,000.00	$24,760.00	$150,240.00	$23,450.50	**4128-553**	WL-1
Commercial Sites Retrofit Projects 2018 (Targeted Retrofits)	$55,000.00	$2,034.70	$52,965.30	$264.50	**4128-518**	DW-6
School Sites Retrofit Projects 2018 (Targeted Retrofits)	$55,000.00	$4,621.00	$50,379.00	$2,481.50	**4128-518**	DW-6
Church Sites Retrofit Projects 2018 (Targeted Retrofit)	$55,000.00	$1,402.00	$53,598.00	$376.50	**4128-518**	DW-6
Roseville High School Campus Stormwater Retrofit (Bennett Lake Subwatershed)	$125,000.00	$10,073.00	$114,927.00	$4,955.00	**4128-518**	BeL-4
BMP Incentive Fund: Gen'l BMP Design Assistance and Review (cases where Dist is approached by landowner, or landowner is not commercial, school, church).	$50,000.00	$6,294.00	$43,706.00	$2,958.50	**4682-529**	DW-6
Lowering West Vadnais Lake Outlet	$50,000.00	$0.00	$50,000.00		**4128-520**	DW-9
Cottage Place Wetland Restoration	$100,000.00	$6,410.50	$93,589.50	$4,715.50	**4128-518**	DW-1, DW-8
Markham Pond Aeration Project and Grant Reporting	$1,000.00	$160.00	$840.00	$160.00	**4128-551**	KC-1
Aldrich Arena Plans and Specifications	$125,000.00	$17,253.00	$107,747.00	$11,105.00	**4128-518**	DW-6
Willow Pond CMAC Implementation	$100,000.00	$127,704.61	-$27,704.61	$76.00	**4128-554**	BeL-4
CIP Project Repair & Maintenance						
Kohlman Lake Macrophyte Mgmt	$5,000.00	$0.00	$5,000.00		**4128-516**	KL-3
Routine CIP Inspection and Unplanned Maintenance Identification	$75,000.00	$18,786.70	$56,213.30	$14,532.14	**4128-516**	DW-5
2019 CIP Maintenance and Repairs	$150,000.00	$18,982.80	$131,017.20	$7,567.66	**4128-516**	DW-5
2020 CIP Maintenance and Repairs	$150,000.00	$0.00	$150,000.00		**4128-516**	DW-5

*Final edits to Beaver, Owasso and Battle Creek Lakes Subwatershed Feasibility Studies per Board comments at the 1/2/19 meeting.

Subtotal $123,843.96

TOTAL PAYABLE FOR PERIOD 01/19/2019 - 02/15/2019 **$123,843.96**

Barr declares under the penalties of Law that this Account, Claim, or Demand is just and that no part has been paid.



Bradley J. Lindaman, Vice President

Capital Improvement Project Maintenance/Repairs 2019
Progress Payment Number 2

1.0	Total Completed Through This Period:	$297,781.00		
2.0	Total Completed Previously Completed:		$67,073.00	
3.0	Total Completed This Period:			$230,708.00
4.0	Amount Previously Retained:		$3,353.65	
5.0	Amount Retained This Period (See Note 1):			$11,535.40
6.0	Total Amount Retained (See Note 2):		$14,889.05	
7.0	Retainage Released Through This Period:			$0.00
8.0	Total Retainage Remaining:		$14,889.05	
9.0	Amounts Previously Paid:	$63,719.35		
10.0	Amount Due This Estimate:			$219,172.60

Note 1: Retainage shall be 5 percent of the value of the Work completed.

SUBMITTED BY:

Name: Jason Fitzgerald Date: 2/27/19

Title: President

Contractor: Fitzgerald Excavating & Trucking, Inc.

Signature:

RECOMMENDED BY:

Name: Brad Lindaman Date: 2/27/2019

Title: District Engineer

Engineer: Barr Engineering Company

Signature:

APPROVED BY:

Name: Marj Ebensteiner Date:

Title: President

Owner: Ramsey-Washington Metro Watershed District

Signature:

Capital Improvement Project Maintenance/Repairs 2019
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through February 19, 2019 for Progress Payment Number 2

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
1.04 Item	**Description**	**Unit**	**Estimated Quantity**	**Unit Price**	**Extension**	**Quantity**	**Amount**	**Quantity**	**Amount**	**Quantity**	**Amount**
General											
1.04.A	Mobilization/Demobilization	L.S.	1	15,000.00	15,000.00	0.50	$7,500.00	0.25	$3,750.00	0.25	$3,750.00
1.04.B	Control of Water	L.S.	1	10,000.00	10,000.00	0.50	$5,000.00	0.25	$2,500.00	0.25	$2,500.00
1.04.AB	Traffic Control	L.S.	1	2,000.00	2,000.00	0.50	$1,000.00	0.25	$500.00	0.25	$500.00
Site 1 – Tamarack Swamp, Woodbury											
1.04.F	Sediment Log (6-Inch Diameter)	L.F.	60	5.00	300.00	0	$0.00	0	$0.00	0	$0.00
1.04.C	Sediment/Muck Cleanout (55 C.Y.)	L.S.	1	1,500.00	1,500.00	0	$0.00	0	$0.00	0	$0.00
1.04.D	Disposal of Sediment/Muck Cleanout (Level 3 Material)	TON	85	50.00	4,250.00	0	$0.00	0	$0.00	0	$0.00
1.04.G	Paver Sweeping (1,400 S.Y.)	S.Y.	1,400	2.00	2,800.00	0	$0.00	0	$0.00	0	$0.00
1.04.H	Removal, Disposal, and Replacement of Existing 1 ½" to 2" Clear Washed Filter Rock	C.Y.	3	50.00	150.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	1.50	150.00	0	$0.00	0	$0.00	0	$0.00
Site 2 – 5th Street Wetland, Oakdale											
1.04.I	Permeable Weir Maintenance (Reopening Drainage Slots and Remove all Brush and Debris)	L.F.	65	25.00	1,625.00	65	$1,625.00	65	$1,625.00	0	$0.00
1.04.K	Silt Fence	L.F.	35	1.50	52.50	~~0~~	$0.00	0	$0.00	0	$0.00
1.04.E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	210	2.00	420.00	0	$0.00	0	$0.00	0	$0.00
Site 3 – Tanners Wetland, Oakdale											
1.04.I	Permeable Weir Maintenance (Reopening Drainage Slots and Remove all Brush and Debris)	L.F.	580	7.00	4,060.00	580	$4,060.00	580	$4,060.00	0	$0.00
1.04.E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	600	1.50	900.00	0	$0.00	0	$0.00	0	$0.00
Site 4 – Gervais Mill Park, Little Canada											
1.04.J	Install Flotation Silt Curtain	L.F.	55	15.00	825.00	55	$825.00	55	$825.00	0	$0.00
1.04.H	Removal, Disposal, and Replacement of Existing 1 ½" to 2" Clear Washed Filter Rock	C.Y.	16	50.00	800.00	16	$800.00	16	$800.00	0	$0.00
1.04.N	Remove and Replace Plastic Netting (Tensar Tri Ax Geogrid or approved equal)	S.Y.	24	13.00	312.00	24	$312.00	24	$312.00	0	$0.00
1.04.E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	400	1.50	600.00	0	$0.00	0	$0.00	0	$0.00
Site 5 – PCU Pond, North St. Paul											
1.04.L	Construction Entrance	EACH	1	500.00	500.00	0	$0.00	0	$0.00	0	$0.00
1.04.J	Flotation Silt Curtain or	L.F.	540	3.00	1,620.00	340	$1,020.00	340	$1,020.00	0	$0.00
1.04.K	Silt Fence	L.F.	540	3.00	1,620.00	0	$0.00	0	$0.00	0	$0.00
1.04.C	Sediment/Muck Cleanout (1,500 C.Y.)	L.S.	1	50,000.00	50,000.00	1	$50,000.00	0	$0.00	1	$50,000.00
1.04.D	Disposal of Sediment/Muck Cleanout (Level 2 & 3 Material)	TON	2,325	30.00	69,750.00	2,996	$89,880.00	0	$0.00	2996	$89,880.00
1.04.E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	30	2.00	60.00	222	$444.00	0	$0.00	222	$444.00
Site 6 – Hayward Avenue Ponds, Oakdale											
1.04.L	Construction Entrance	EACH	1	500.00	500.00	~~0~~	$0.00	0	$0.00	0	$0.00
1.04.M	Inlet Protection	EACH	1	100.00	100.00	2	$200.00	2	$200.00	0	$0.00
1.04.J	Flotation Silt Curtain or	L.F.	60	3.00	180.00	27	$81.00	27	$81.00	0	$0.00
1.04.K	Silt Fence	L.F.	60	3.00	180.00	~~0~~	$0.00	0	$0.00	0	$0.00
1.04.O	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	5,000.00	5,000.00	1	$3,000.00	1	$3,000.00	0	$0.00
1.04.P	Clean Out Catch Basin	EACH	1	1,500.00	1,500.00	0	$0.00	0	$0.00	0	$0.00
1.04.Q	Cleanout Sediment from Flared End Section and Pipe to Structure	L.S.	1	700.00	700.00	0	$0.00	0	$0.00	0	$0.00
1.04.C	Sediment/Muck Cleanout (450 C.Y.)	L.S.	1	13,000.00	13,000.00	1	$13,000.00	1	$13,000.00	0	$0.00
1.04.D	Disposal of Sediment/Muck Cleanout (Levels 2 & 3 Material)	TON	698	40.00	27,920.00	885	$35,400.00	885	$35,400.00	0	$0.00
1.04.R	MN/DOT Class III Riprap with Type IV Geotextile Filter Fabric	TON	10	45.00	450.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site and Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	667	2.00	1,334.00	0	$0.00	0	$0.00	0	$0.00

Capital Improvement Project Maintenance/Repairs 2019
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through February 19, 2019 for Progress Payment Number 2

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
1.04 Item	**Description**	**Unit**	**Estimated Quantity**	**Unit Price**	**Extension**	**Quantity**	**Amount**	**Quantity**	**Amount**	**Quantity**	**Amount**
Site 7 – McKnight Basin, St. Paul											
1.04.L	Construction Entrance	EACH	1	500.00	500.00	0	$0.00	0	$0.00	0	$0.00
1.04.J	Flotation Silt Curtain	L.F.	580	15.00	8,700.00	0	$0.00	0	$0.00	0	$0.00
1.04.N	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	500.00	500.00	0	$0.00	0	$0.00	0	$0.00
1.04.C	Sediment/Muck Cleanout (700 C.Y.)	L.S.	1	28,000.00	28,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.D	Disposal of Sediment/Muck Cleanout (Levels 2 & 3 Material)	TON	1,085	35.00	37,975.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site and Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	167	2.00	334.00	0	$0.00	0	$0.00	0	$0.00
Site 8 – Fish Creek Tributary Detention Pond, Maplewood											
1.04.L	Construction Entrance	EACH	1	500.00	500.00	0	$0.00	0	$0.00	0	$0.00
1.04.J	Flotation Silt Curtain or	L.F.	130	3.00	390.00	0	$0.00	0	$0.00	0	$0.00
1.04.K	Silt Fence	L.F.	130	3.00	390.00	0	$0.00	0	$0.00	0	$0.00
1.04.C	Sediment/Muck Cleanout (130 C.Y.)	L.S.	1	4,550.00	4,550.00	1	$4,550.00	0	$0.00	1	$4,550.00
1.04.D	Disposal of Sediment/Muck Cleanout (Level2 & 3 Material)	TON	202	35.00	7,070.00	312	$10,920.00	0	$0.00	312	$10,920.00
1.04.R	MN/DOT Class III Riprap with Type IV Geotextile Filter Fabric	TON	10	45.00	450.00	0	$0.00	0	$0.00	0	$0.00
1.04.R	MN/DOT Class V Riprap with Type VII Geotextile Filter Fabric	TON	10	45.00	450.00	0	$0.00	0	$0.00	0	$0.00
1.04.S	Mill Bituminous Surface (2”)	S.Y.	460	11.50	5,290.00	0	$0.00	0	$0.00	0	$0.00
1.04.T	Type SPWEA330F Wearing Course Mixture (3”)	TON	78	150.00	11,700.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	200	2.00	400.00	222	$444.00	0	$0.00	222	$444.00
Site 9 – Suburban Pond, St. Paul											
1.04.L	Construction Entrance	EACH	2	500.00	1,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.J	Flotation Silt Curtain or	L.F.	200	3.00	600.00	0	$0.00	0	$0.00	0	$0.00
1.04.K	Silt Fence	L.F.	200	3.00	600.00	0	$0.00	0	$0.00	0	$0.00
1.04.M	Inlet Protection	EACH	10	100.00	1,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.N	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	5,000.00	5,000.00	0	$0.00	0	$0.00	0	$0.00
1,04.X	Investigative Excavation Crew	HOUR	12	150.00	1,800.00	0	$0.00	0	$0.00	0	$0.00
1.04.C	Sediment/Muck Cleanout (1,180 C.Y.)	L.S.	1	40,000.00	40,000.00	0.50	$20,000.00	0	$0.00	0.50	$20,000.00
1.04.D	Disposal of Sediment/Muck Cleanout (Level 3 Material)	TON	1,829	40.00	73,160.00	1,193	$47,720.00	0	$0.00	1193	$47,720.00
1.04.R	MN/DOT Class III Riprap with Type IV Geotextile Filter Fabric	TON	92	45.00	4,140.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	2,444	2.00	4,888.00	0	$0.00	0	$0.00	0	$0.00

Capital Improvement Project Maintenance/Repairs 2019
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through February 19, 2019 for Progress Payment Number 2

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
1.04 Item	**Description**	**Unit**	**Estimated Quantity**	**Unit Price**	**Extension**	**Quantity**	**Amount**	**Quantity**	**Amount**	**Quantity**	**Amount**
Site 10 – Grass Lake, Shoreview											
Alternate A											
1.04.A	Mobilization/Demobilization	L.S.	1	2,000.00	2,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.O	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	2,000.00	2,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.L	Construction Entrance	EACH	1	500.00	500.00	0	$0.00	0	$0.00	0	$0.00
1.04.K	Silt Fence	L.F.	280	1.00	280.00	0	$0.00	0	$0.00	0	$0.00
1.04.AA	Remove and Replace Bituminous Pavement	S.Y.	80	3.00	240.00	0	$0.00	0	$0.00	0	$0.00
1.04.AC	Common Excavation (P)	C.Y.	100	10.00	1,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.U	MN/DOT Common Borrow (P)	C.Y.	145	18.00	2,610.00	0	$0.00	0	$0.00	0	$0.00
1.04.V	Topsoil Borrow (P)	C.Y.	85	18.00	1,530.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	510	3.00	1,530.00	0	$0.00	0	$0.00	0	$0.00
Alternate B											
1.04.A	Mobilization/Demobilization	L.S.	1	1,000.00	1,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.W	Furnish and Install Aluminum Stop Log System (by Whipps, Inc. local supplier Rodru Equipment, Chaska, MN 952-249-4584 [illegible])	L.S.	1	3,250.00	3,250.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	80	3.00	240.00	0	$0.00	0	$0.00	0	$0.00
Alternate D											
1.04.A	Mobilization/Demobilization	L.S.	1	1,000.00	1,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.O	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	2,000.00	2,000.00	0	$0.00	0	$0.00	0	$0.00
1.04.K	Silt Fence	L.F.	195	2.00	390.00	0	$0.00	0	$0.00	0	$0.00
1.04.U	MN/DOT Common Borrow (P)	C.Y.	80	14.00	1,120.00	0	$0.00	0	$0.00	0	$0.00
1.04.V	Top Soil Borrow (P)	C.Y.	85	18.00	1,530.00	0	$0.00	0	$0.00	0	$0.00
1.04.E	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	500	3.00	1,500.00	0	$0.00	0	$0.00	0	$0.00
				Total of Extensions =	**$ 483,265.50**		**$297,781.00**		**$67,073.00**		**$230,708.00**
Change Orders											
C.O.1A					0.00	0	$0.00	0	$0.00	0	$0.00
					GRAND TOTALS		**$297,781.00**		**$67,073.00**		**$230,708.00**

Galowitz Olson, PLLC
10390 39th Street North
Lake Elmo, Minnesota 55042
Office: (651) 777-6960
Fax: (651) 777-8937

Ramsey-Washington Metro Watershed District
C/O Tina Carstens
2665 Noel Drive
Little Canada MN 55117

February 19, 2019
File No: 9M

	Balance
General Account	$2,709.00

****

Permit Program

****

Permit Application Coversheet

Date March 06, 2019

Project Name Launch Properties Tamarack **Project Number** 19-06

Applicant Name Dan Regan, Launch Properties

Type of Development Commercial/Retail

Property Description

This project is located southwest of Tamarack Road and Bielenberg Drive in the City of Woodbury. The total site is 15.2 acres. The applicant is proposing to construct four retail buildings with associated driveways and parking lots. The City of Woodbury is responsible for constructing an extension to Nature Path to service the development. Volume reduction and rate control for both the roadway and retail development will be achieved with a filtration basin and a stormwater reuse pond for irrigation. Boundaries for existing wetlands on the site were approved in 2015 (#15-03 WCA). The city roadway alignment would permanently impact 0.48 acre of wetland. The RWMWD Board of Managers approved a wetland replacement plan on 5/2/18, and a subsequent Notice of Decision was issued on 5/17/18 (#18-03 WCA). The replacement plan will result in 0.77 acre of wetland creation and 0.96 acre wetland buffer west of Nature Path. The replacement plan meets Wetland Conservation Act (WCA) and District Rule E requirements. The existing wetland on the northeast corner of the site will not be impacted. A WCA financial assurance in the amount of $51,068 will be collected before the permit can be issued. The applicant is required to monitor and maintain the wetland replacement areas for 5 years following construction. The WCA financial assurance will be held during the 5-year monitoring period and returned once a final inspection by District staff confirms the replacement areas are established and functioning according to WCA requirements.

Watershed District Policies or Standards Involved:

- ☑ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

Staff Recommendation

Staff recommends approval of the permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#19-06 Launch Properties Tamarack

Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

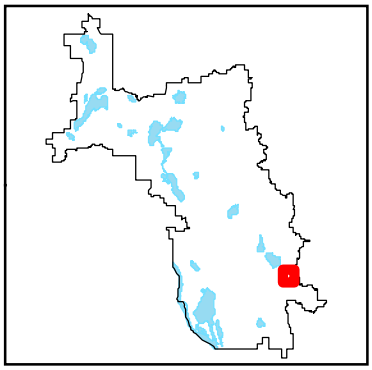
- Permits
- RWMWD Boundary
- Subwatersheds
- Creeks
- Washington Co Parcels
- City Boundaries

Highlighted Areas Represent Active Permit

0 250 500
Feet

0 0.05 0.1
Miles

N



19-06

Special Provisions

1. The applicant shall submit the stormwater escrow fee of $76,000.

2. The applicant shall submit a revised erosion control plan that shows redundant perimeter control parallel to the North Wetland edge.

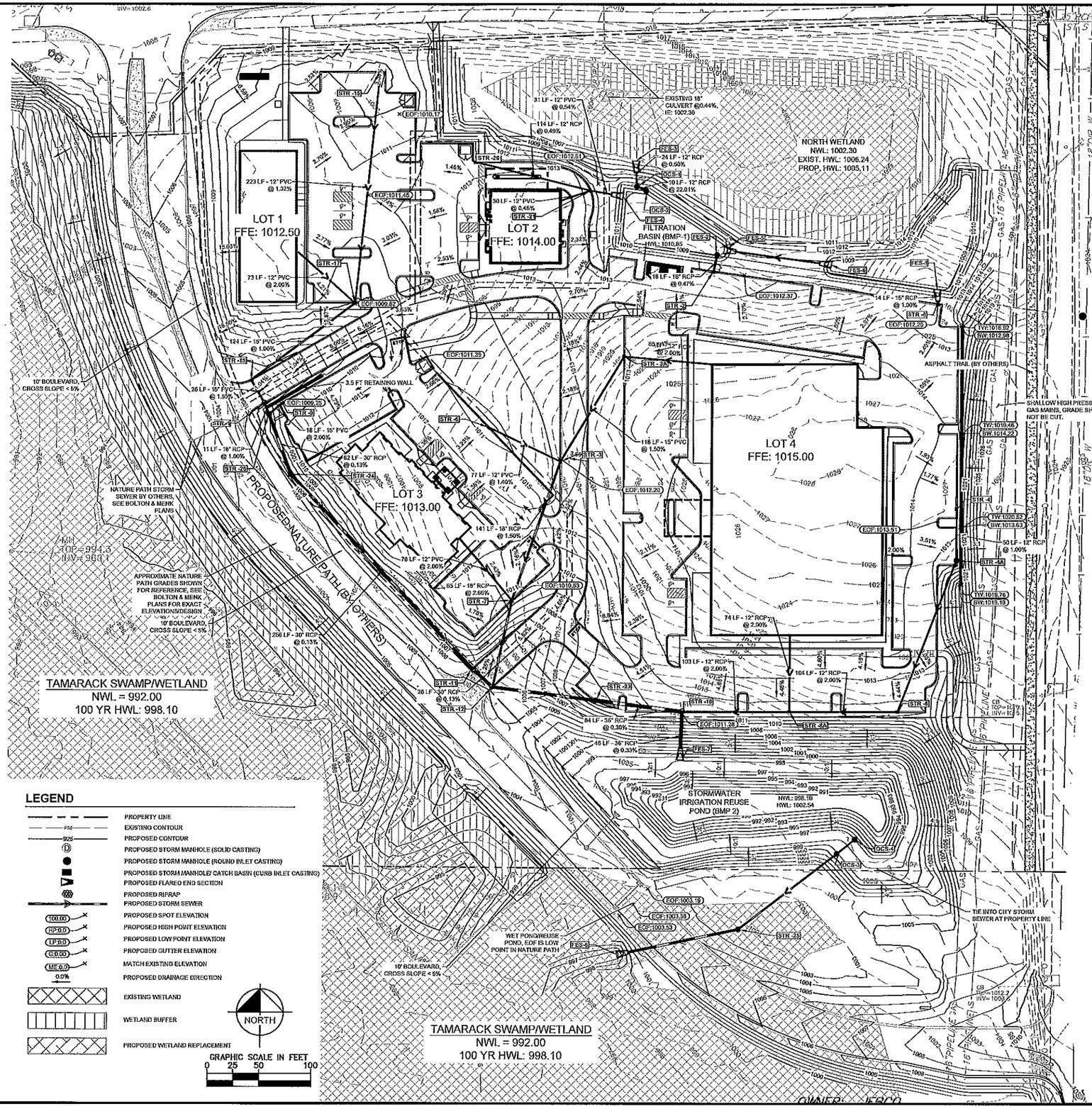
3. The applicant shall submit a final, signed copy of the construction plans.

4. The applicant shall submit an executed stormwater maintenance agreement.

5. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

6. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit.

7. The applicant shall submit the Wetland Conservation Act (WCA) financial assurance of $51,068.



GRADING PLAN NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF WOODBURY, SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
2. CONTRACTOR TO CALL GOPHER STATE ONE CALL @ 1-800-252-1166 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
3. STORM SEWER PIPE SHALL BE AS FOLLOWS:
   RCP PER ASTM C-76
   HDPE: 6" - 10" PER AASHTO M-252
   HDPE: 12" OR GREATER PER ASTM F-2306
   PVC SDR 26 PER ASTM D-3034
   STORM SEWER FITTINGS SHALL BE AS FOLLOWS:
   RCP PER ASTM C-76, JOINTS PER ASTM C-361, C-990, AND C-443
   HDPE PER ASTM 3212
   PVC PER ASTM D-3034, JOINTS PER ASTM D-3212
4. CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OR EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
5. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF EXISTING PAVEMENT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
7. CONTRACTOR SHALL EXCAVATE DRAINAGE TRENCHES TO FOLLOW PROPOSED STORM SEWER ALIGNMENTS.
8. GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATION AND LEAVE STREET READY FOR SUBBASE.
9. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE CONSTRUCTION SITE.
10. REFER TO THE UTILITY PLAN FOR SANITARY SEWER MAIN, WATER MAIN SERVICE LAYOUT AND ELEVATIONS AND CASTING / STRUCTURE NOTATION.
11. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF PAVEMENTS AND CURB AND GUTTER WITH SMOOTH UNIFORM SLOPES TO PROVIDE POSITIVE DRAINAGE.
12. INSTALL A MINIMUM OF 4" CLASS 5 AGGREGATE BASE UNDER CURB AND GUTTER AND CONCRETE SIDEWALKS.
13. UPON COMPLETION OF EXCAVATION AND FILLING, CONTRACTOR SHALL RESTORE ALL STREETS AND DISTURBED AREAS ON SITE. ALL DISTURBED AREAS SHALL BE RE-VEGETATED WITH A MINIMUM OF 4" OF TOPSOIL.
14. ALL SPOT ELEVATIONS/CONTOURS ARE TO GUTTER / FLOW LINE UNLESS OTHERWISE NOTED.
15. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO CURRENT ADA STATE/NATIONAL STANDARDS. IN NO CASE SHALL ACCESSIBLE RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2% . IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5%. IN NO CASE SHALL ACCESSIBLE PARKING STALLS OR AISLES EXCEED 2% (1.5% TARGET) IN ALL DIRECTIONS. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS AND GATES SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET IN ANY LOCATION PRIOR TO PAVING. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A COMPLIANCE ISSUES.
16. CONTRACTOR TO PROVIDE 3" INSULATION BY 5' WIDE CENTERED ON STORM PIPE IF LESS THAN 4' OF COVER IN PAVEMENT AREAS AND LESS THAN 3' OF COVER IN LANDSCAPE AREAS.
17. ALL STORM SEWER CONNECTIONS SHALL BE GASKETED AND WATER TIGHT INCLUDING MANHOLE CONNECTIONS.
18. ALL STORM SEWER PIPE SHALL BE AIR TESTED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
19. MAINTAIN A MINIMUM OF 1.20% SLOPE IN BITUMINOUS PAVEMENT AREAS, 0.5% SLOPE IN CONCRETE PAVEMENT AREAS. MAINTAIN A MINIMUM OF 0.5% GUTTER SLOPE TOWARDS LOW POINTS.
17. CONTRACTOR SHALL REVIEW PAVEMENT GRADIENT AND CONSTRUCT "INFALL CURB" WHERE PAVEMENT DRAINS TOWARD GUTTER, AND "OUTFALL" CURB WHERE PAVEMENT DRAINS AWAY FROM GUTTER.
18. ALL MASS SITE GRADING ACTIVITIES SHALL BE COMPLETED AND A GRADING AS-BUILT SURVEY SUBMITTED TO CITY STAFF AS OUTLINED IN THE LAND DISTURBANCE REQUIREMENTS PRIOR TO ANY UTILITY AND STREET IMPROVEMENTS BEING CONSTRUCTED ON-SITE.

DRAINAGE SCHEDULE

STRUCTURE NO.	STRUCTURE/ CASTING TYPE	RIM/GRATE ELEVATION	INVERT ELEVATION IN	PIPE SIZE IN	PIPE SLOPE IN	INVERT ELEVATION OUT	PIPE SIZE OUT	PIPE SLOPE OUT
FES-1	FES		S 1009.00	15"	1.69%			
FES-2	FES		S 1009.00	18"	0.47%			
FES-3	FES		S 1007.00	12"	0.50%			
FES-4	FES		W 1009.00	12"	0.64%			
FES-5	FES		E 1009.00	12"	0.00%			
FES-6	FES					W 1009.00	12"	0.00%
FES-7	FES		N 998.10	36"	0.33%			
FES-8	FES		E 999.61	24"	0.50%			
OCS-1	OUTLET STRUCTURE PER STD PLATE STO-40		SE 1009.00	12"	22.01%	N 1007.12	12"	0.00%
OCS-2	OUTLET STRUCTURE PER STD PLATE STO-25					NW 1010.20	12"	22.01%
OCS-3	OUTLET STRUCTURE PER STD PLATE STO-40	1000.44	NE 998.05	12"	0.23%	SW 998.00	15"	0.50%
OCS-4	OUTLET STRUCTURE PER STD PLATE STO-25					SW 998.10	12"	0.23%
STR -3A	2'x3' CB	1012.84	E 1008.00	12"	2.09%	SW 1007.89	15"	1.59%
STR -1	60" CBMH NEENAH R-3067VB	1004.32	NW 1000.59	15"	1.55%	S 1000.44	18"	1.00%
STR -2	CBMH NEENAH R-3067VB SUMP MH PER STO-6	1011.90				N 1009.08	18"	0.47%
STR -3	CBMH NEENAH R-3067VB	1012.21	NE 1006.53 NW 1006.17	15" 12"	1.59% 1.40%	S 1005.88	18"	1.50%
STR -4	CBMH NEENAH R-3067VB	1013.22				S 1009.20	12"	1.00%
STR -4A	MH	1010.87	N 1008.70	12"	1.00%	S 1008.60	12"	2.00%
STR -5	CBMH NEENAH R-3067VB SUMP MH PER STO-6	1012.22				N 1009.14	15"	1.00%
STR -6	CBMH NEENAH R-3067VB	1010.64				SE 1007.24	12"	1.40%
STR -7	CBMH NEENAH R-3067VB	1010.64	N 1003.77	18"	1.59%	S 1003.67	18"	2.56%
STR -8	CBMH NEENAH R-3067VB	1011.50	N 1006.48	12"	2.00%	W 1006.00	12"	2.00%
STR -8A	CBMH NEENAH R-3067VB	1009.36	E 1002.93 N 1005.00	12" 12"	2.00% 2.00%	W 1002.60	12"	2.00%
STR -9	CBMH NEENAH R-3067VB	1009.18				SW 1001.73	15"	2.00%
STR -10	72" CBMH NEENAH R-3067VB SUMP MH PER STO-6	1011.25	W 998.35 E 1000.43	35" 12"	0.33% 2.00%	S 998.25	35"	0.33%
STR -11	60" CBMH NEENAH R-3067VB	1005.23	NW 999.13	30"	0.13%	SE 999.08	30"	0.13%
STR -12	60" CBMH NEENAH R-3067VB	1006.09	NW 999.05 N 1001.40	30" 18"	0.13% 2.66%	E 998.95	30"	0.26%
STR -15	CBMH NEENAH R-3067VB	1004.32	NE 1001.19	15"	1.00%	SE 1001.09	15"	1.55%
STR -16	CBMH NEENAH R-3067VB	1009.08				S 1005.58	12"	1.32%
STR -17	CBMH NEENAH R-3067VB	1009.87	N 1002.63 NW 1002.53	12" 12"	1.32% 2.00%	SW 1002.43	15"	1.00%
STR -20	2X3 CB NEENAH R-3067VB	1012.53				E 1009.77	12"	0.49%
STR -21	CBMH NEENAH R-3067VB SUMP MH PER STO-6	1012.71	W 1009.21 W 1009.27	12" 12"	0.49% 0.46%	E 1009.17	12"	0.54%
STR -23	60" CBMH NEENAH R-3067VB	1009.61	W 998.70	30"	0.25%	E 998.60	36"	0.30%
STR -24	60" MH, NEEAH R-1642	1008.42	N 999.51	30"	0.13%	SE 999.46	30"	0.13%
STR -25	NEENAH BEE-HIVE GRATE	1001.72	NE 997.41	15"	0.50%	W 997.20	24"	0.69%
STR -26	60" MH, NEEAH R-1642	1005.03	N 1000.33 NE 1001.41	18" 15"	1.00% 2.00%	S 999.59	30"	0.13%

No.	REVISIONS	DATE	BY
3	CITY OF WOODBURY RESUBMITTAL	02/06/19	BRJ
2	CITY OF WOODBURY RESUBMITTAL	09/21/18	BRJ
1	CITY OF WOODBURY SUBMITTAL	06/08/18	TDS

Kimley»Horn

767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: (651) 645-4197
WWW.KIMLEY-HORN.COM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

WILLIAM D. MATZEK, P.E.
DATE: 02/13/2019 LIC. NO. 45790

KHA PROJECT 150734020
DATE 02/13/2019
SCALE AS SHOWN
DESIGNED BY BRJ
DRAWN BY ACL
CHECKED BY WDM

PRELIMINARY - NOT FOR CONSTRUCTION

LAUNCH - TAMARACK PUD

PREPARED FOR

LAUNCH PROPERTIES

WOODBURY MINNESOTA

GRADING PLAN

SHEET NUMBER C500

Permit Application Coversheet

Date March 06, 2019

Project Name Phalen Parking Lot Improvements **Project Number** 19-07

Applicant Name Bryan Murphy, City of St. Paul Parks & Recreation

Type of Development Parking Lot

Property Description

This project is located within four existing parking lots on the west and south sides of Lake Phalen in the City of St. Paul. The applicant is proposing to conduct maintenance and reconstruct portions of the existing lots. The total disturbance area is 4.7 acres, but only 1.41 acres are considered full reconstruction and subject to permanent stormwater treatment requirements. An existing rain garden east of the 'Lakeside Center' parking lot will be expanded to provide volume reduction and rate control for the project. Pretreatment will include a sumped inlet and plunge pool.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

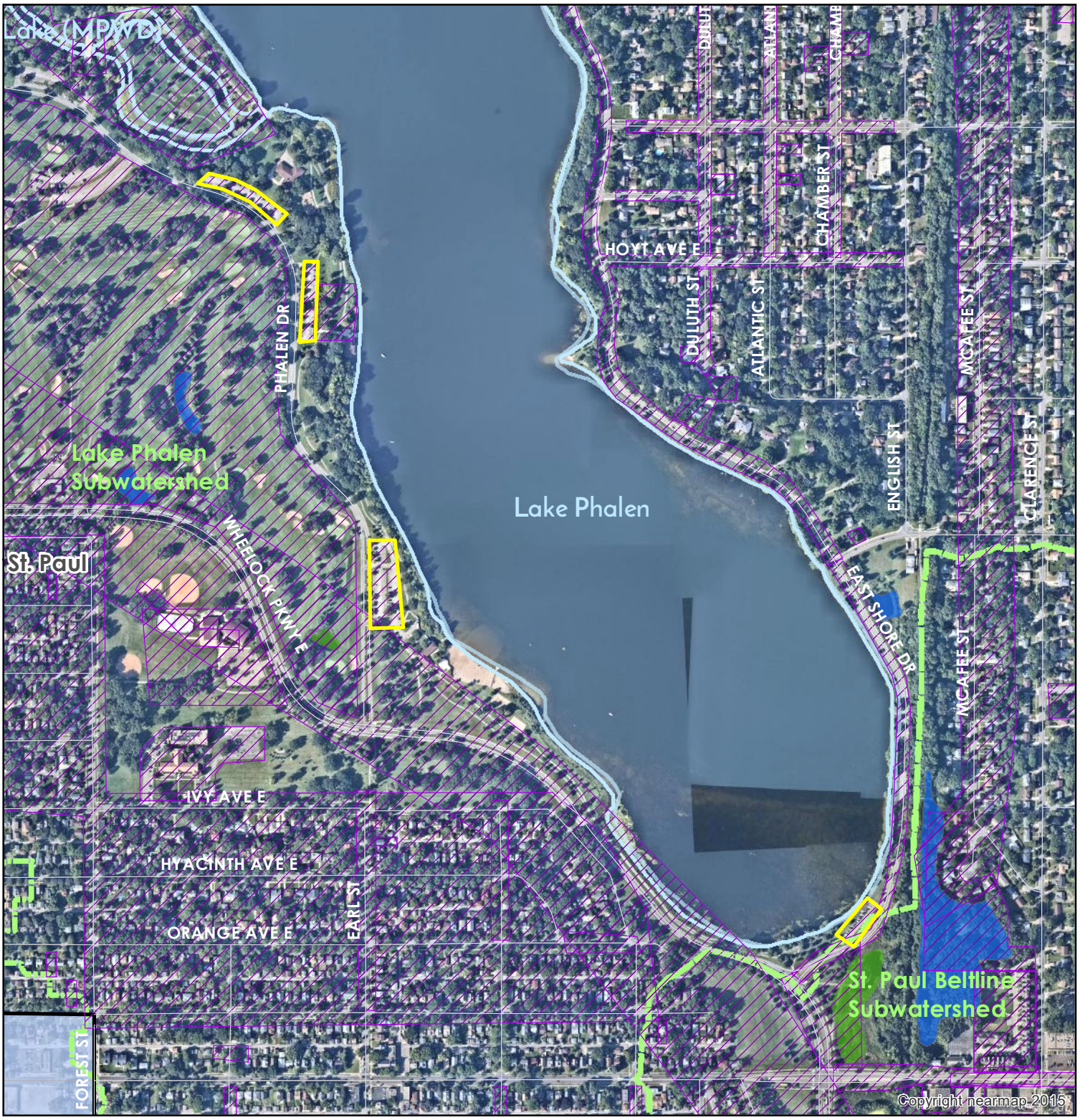
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#19-07 Phalen Parking Lot Improvements



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

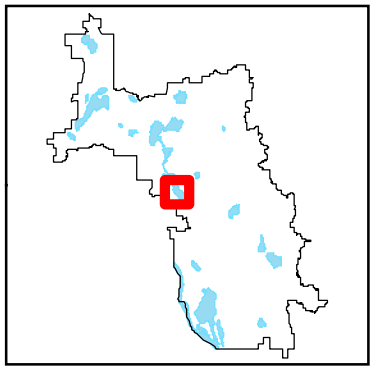
- Roads_RWMWD
- Permits
- RWMWD Boundary
- Subwatersheds
- Creeks
- Washington Co Parcels
- City Boundaries

Highlighted Areas Represent Active Permit

0 500 1,000
Feet

0 0.1 0.2
Miles

N



19-07

Special Provisions

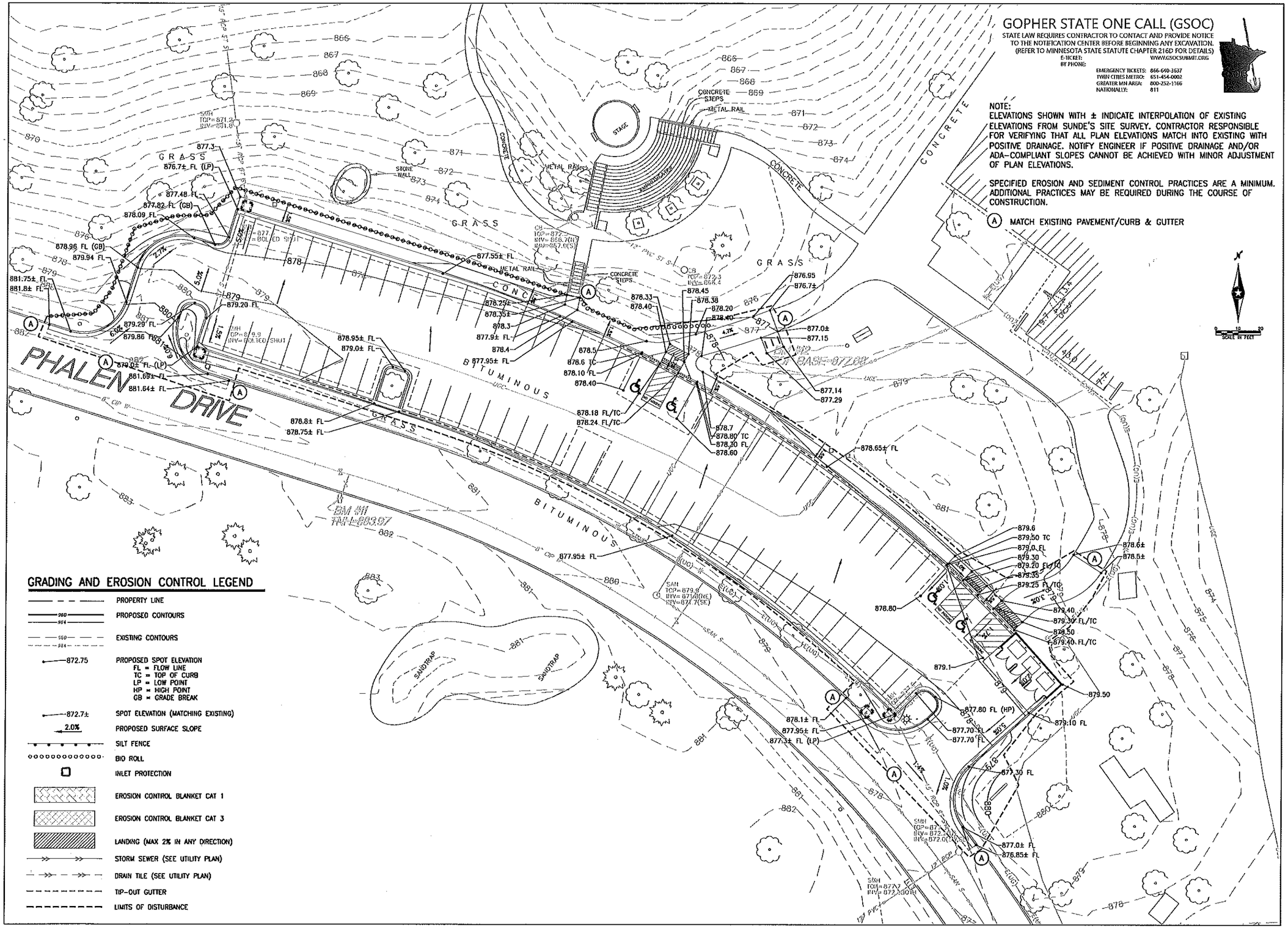
1. The applicant shall revise the rain garden outlet structure such that the pretreatment basin draws down within 48 hours, or revise the HydroCAD model to reflect an intended Normal Water Level.

2. The applicant shall add stabilized construction exits to the erosion control plan.

3. The applicant shall submit a final, signed copy of the construction plans.

4. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

5. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit.



GOPHER STATE ONE CALL (GSOC)

STATE LAW REQUIRES CONTRACTOR TO CONTACT AND PROVIDE NOTICE TO THE NOTIFICATION CENTER BEFORE BEGINNING ANY EXCAVATION. (REFER TO MINNESOTA STATE STATUTE CHAPTER 216D FOR DETAILS)

E-TICKET: WWW.GSOCSUBMIT.ORG
BY PHONE:
EMERGENCY TICKETS: 866-640-3637
TWIN CITIES METRO: 651-454-0002
GREATER MN AREA: 800-252-1166
NATIONALLY: 811

SRF Consulting Group, Inc.

SAINT PAUL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: BRADY P. RUTMAN

SIGNATURE:

DATE: Friday, February 1st, 2019

LICENSE #: 56607

CITY SITE PLAN SUBMITTAL

REVISIONS

NO.	DATE	BY	CHKD	APPR

DRAWN BY	B. RUTMAN
DESIGNED BY	B. RUTMAN
CHECKED BY	M. AARON
ST. PAUL CONTRACT NO.	L16-05-29
SRF COMM. NO.	10437.00

PHALEN REGIONAL PARK
MULTIMODAL TRANSPORTATION IMPROVEMENTS
CITY OF SAINT PAUL

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
PICNIC PAVILION

SHEET
C4.0

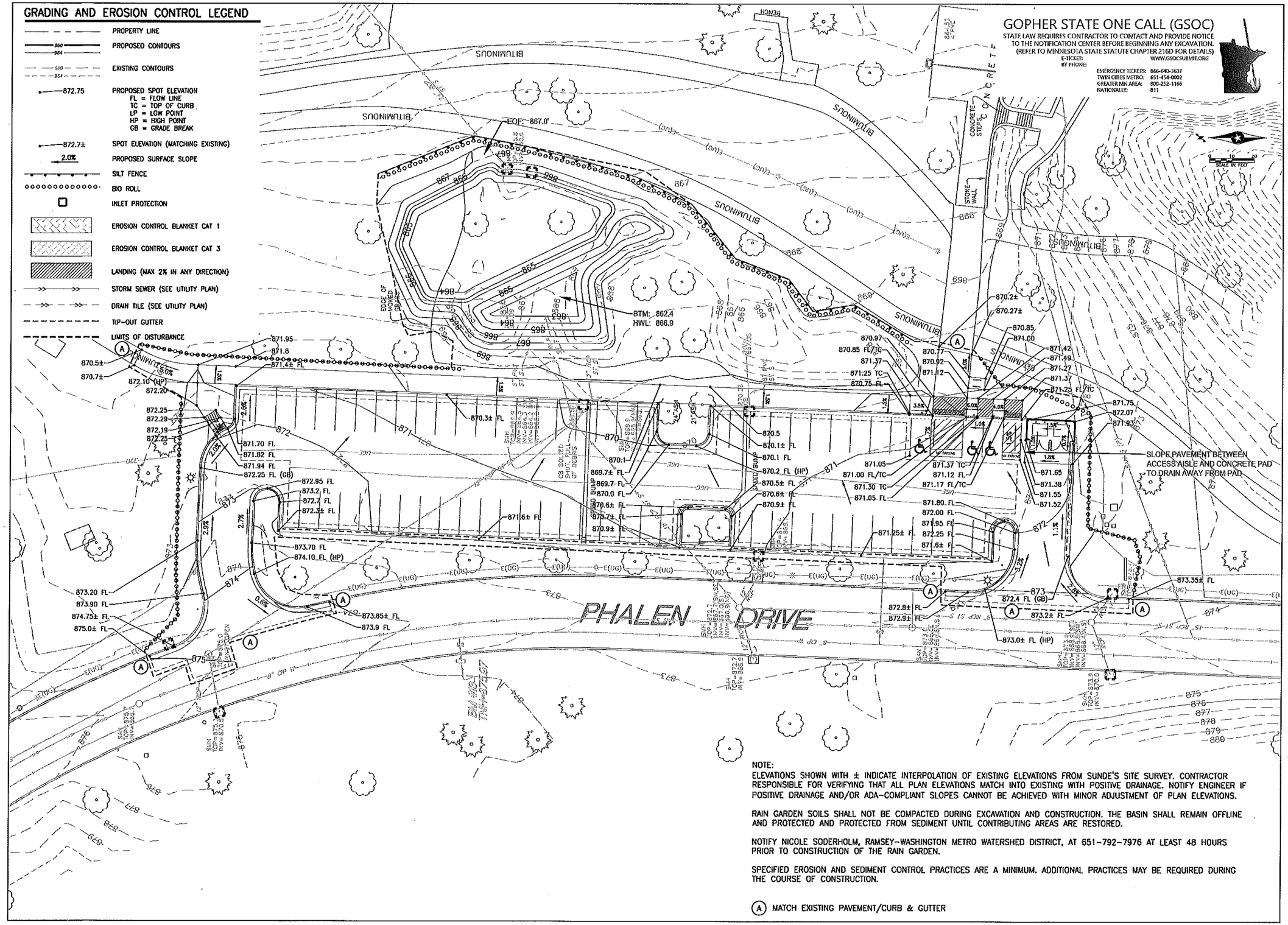
GRADING AND EROSION CONTROL LEGEND

- PROPERTY LINE
- PROPOSED CONTOURS (960 / 964)
- EXISTING CONTOURS (959 / 954)
- 872.75 — PROPOSED SPOT ELEVATION
  - FL = FLOW LINE
  - TC = TOP OF CURB
  - LP = LOW POINT
  - HP = HIGH POINT
  - GB = GRADE BREAK
- 872.7± — SPOT ELEVATION (MATCHING EXISTING)
- 2.0% — PROPOSED SURFACE SLOPE
- SILT FENCE
- BIO ROLL
- INLET PROTECTION
- EROSION CONTROL BLANKET CAT 1
- EROSION CONTROL BLANKET CAT 3
- LANDING (MAX 2% IN ANY DIRECTION)
- STORM SEWER (SEE UTILITY PLAN)
- DRAIN TILE (SEE UTILITY PLAN)
- TIP-OUT GUTTER
- LIMITS OF DISTURBANCE

GOPHER STATE ONE CALL (GSOC)

STATE LAW REQUIRES CONTRACTOR TO CONTACT AND PROVIDE NOTICE TO THE NOTIFICATION CENTER BEFORE BEGINNING ANY EXCAVATION. (REFER TO MINNESOTA STATE STATUTE CHAPTER 216D FOR DETAILS)

E-TICKET: WWW.GSOCSUBMIT.ORG
BY PHONE:
EMERGENCY TICKETS: 866-640-3637
TWIN CITIES METRO: 651-454-0002
GREATER MN AREA: 800-252-1166
NATIONALLY: 811



NOTE:
ELEVATIONS SHOWN WITH ± INDICATE INTERPOLATION OF EXISTING ELEVATIONS FROM SUNDE'S SITE SURVEY. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT ALL PLAN ELEVATIONS MATCH INTO EXISTING WITH POSITIVE DRAINAGE. NOTIFY ENGINEER IF POSITIVE DRAINAGE AND/OR ADA-COMPLIANT SLOPES CANNOT BE ACHIEVED WITH MINOR ADJUSTMENT OF PLAN ELEVATIONS.

RAIN GARDEN SOILS SHALL NOT BE COMPACTED DURING EXCAVATION AND CONSTRUCTION. THE BASIN SHALL REMAIN OFFLINE AND PROTECTED AND PROTECTED FROM SEDIMENT UNTIL CONTRIBUTING AREAS ARE RESTORED.

NOTIFY NICOLE SODERHOLM, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION OF THE RAIN GARDEN.

SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES ARE A MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

(A) MATCH EXISTING PAVEMENT/CURB & GUTTER

SRF Consulting Group, Inc.

SAINT PAUL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: BRADY P. RUTMAN

SIGNATURE:

DATE: Friday, February 1st, 2019

LICENSE #: 56607

CITY SITE PLAN SUBMITTAL

REVISIONS

NO.	DATE	BY	CHKD	APPR

DRAWN BY	B. RUTMAN
DESIGNED BY	B. RUTMAN
CHECKED BY	M. AARON
ST. PAUL CONTRACT NO.	L16-05-29
SRF COMM. NO.	10437.00

PHALEN REGIONAL PARK
MULTIMODAL TRANSPORTATION IMPROVEMENTS
CITY OF SAINT PAUL

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
LAKESIDE CENTER

SHEET
C4.1

GRADING AND EROSION CONTROL LEGEND

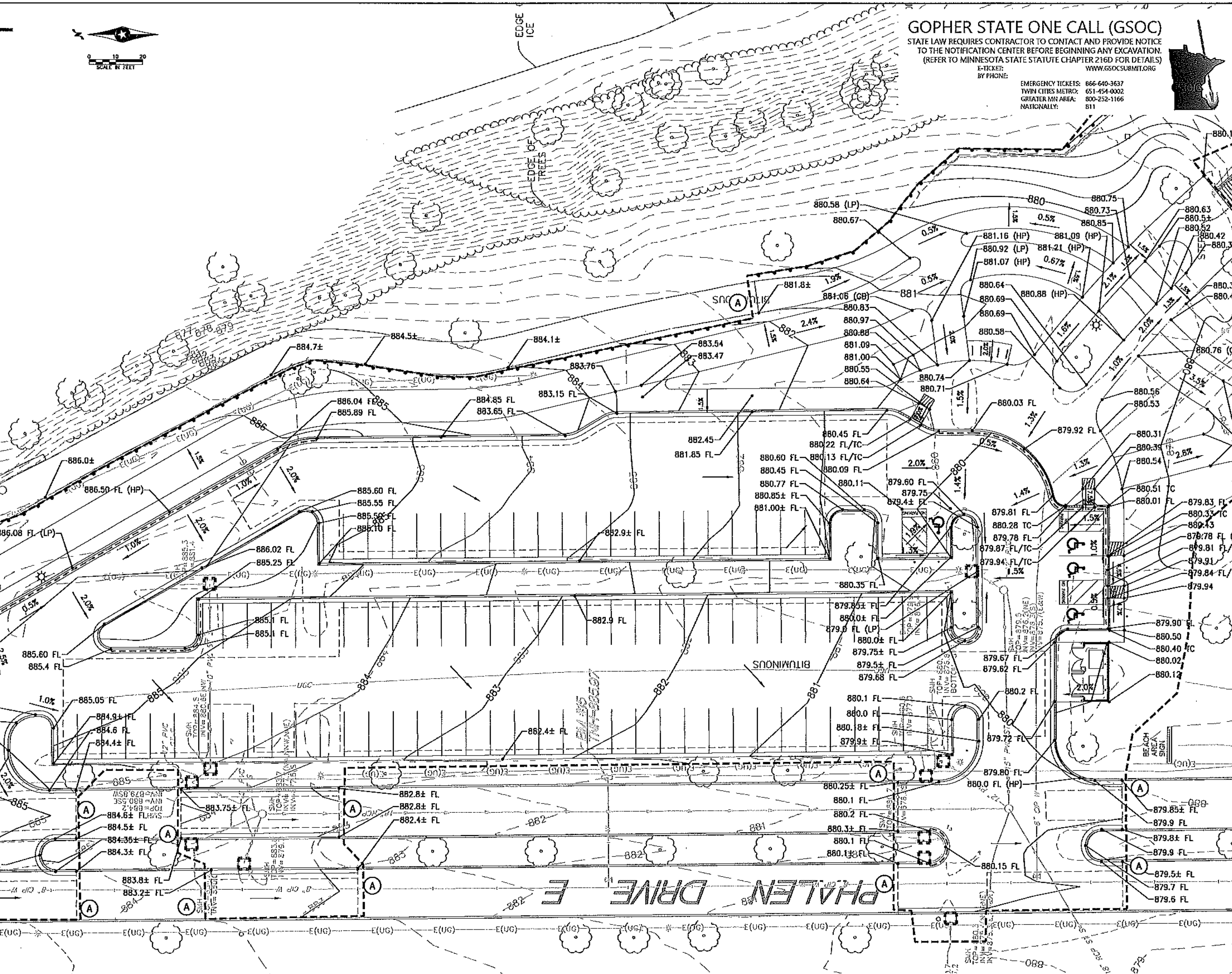
— — —	PROPERTY LINE
960 / 964	PROPOSED CONTOURS
960 / 964	EXISTING CONTOURS
872.75	PROPOSED SPOT ELEVATION FL = FLOW LINE TC = TOP OF CURB LP = LOW POINT HP = HIGH POINT GB = GRADE BREAK
872.7±	SPOT ELEVATION (MATCHING EXISTING)
2.0%	PROPOSED SURFACE SLOPE
	SILT FENCE
	BIO ROLL
	INLET PROTECTION
	EROSION CONTROL BLANKET CAT 1
	EROSION CONTROL BLANKET CAT 3
	LANDING (MAX 2% IN ANY DIRECTION)
	STORM SEWER (SEE UTILITY PLAN)
	DRAIN TILE (SEE UTILITY PLAN)
	TIP-OUT GUTTER
	LIMITS OF DISTURBANCE

0 10 20
SCALE IN FEET

GOPHER STATE ONE CALL (GSOC)

STATE LAW REQUIRES CONTRACTOR TO CONTACT AND PROVIDE NOTICE TO THE NOTIFICATION CENTER BEFORE BEGINNING ANY EXCAVATION. (REFER TO MINNESOTA STATE STATUTE CHAPTER 216D FOR DETAILS)

E-TICKET: WWW.GSOCSUBMIT.ORG
BY PHONE:
EMERGENCY TICKETS: 866-640-3637
TWIN CITIES METRO: 651-454-0002
GREATER MN AREA: 800-252-1166
NATIONALLY: 811



NOTE:
ELEVATIONS SHOWN WITH ± INDICATE INTERPOLATION OF EXISTING ELEVATIONS FROM SUNDE'S SITE SURVEY. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT ALL PLAN ELEVATIONS MATCH INTO EXISTING WITH POSITIVE DRAINAGE. NOTIFY ENGINEER IF POSITIVE DRAINAGE AND/OR ADA-COMPLIANT SLOPES CANNOT BE ACHIEVED WITH MINOR ADJUSTMENT OF PLAN ELEVATIONS.

SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES ARE A MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

(A) MATCH EXISTING PAVEMENT/CURB & GUTTER

SRF Consulting Group, Inc.

SAINT PAUL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: BRADY P. RUTMAN

SIGNATURE:

DATE: Friday, February 1st, 2019

LICENSE #: 56607

CITY SITE PLAN SUBMITTAL

REVISIONS

NO.	DATE	BY	CHKD	APPR

DRAWN BY	B. RUTMAN
DESIGNED BY	B. RUTMAN
CHECKED BY	M. AARON
ST. PAUL CONTRACT NO.	L16-05-29
SRF COMM. NO.	10437.00

PHALEN REGIONAL PARK
MULTIMODAL TRANSPORTATION IMPROVEMENTS
CITY OF SAINT PAUL

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
BEACH AREA

SHEET
C4.2

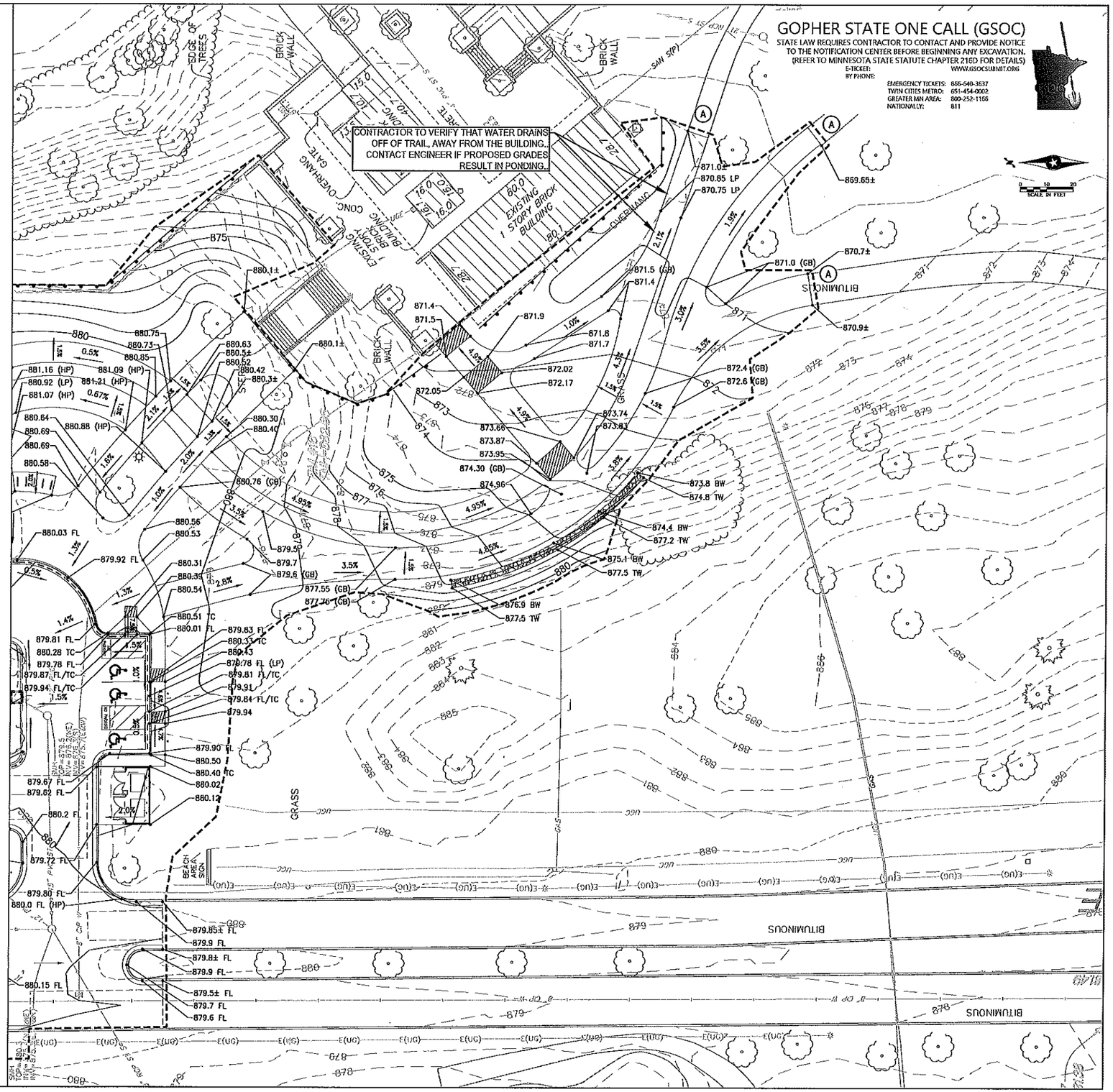
GRADING AND EROSION CONTROL LEGEND

- PROPERTY LINE
- PROPOSED CONTOURS (960 / 964)
- EXISTING CONTOURS (960 / 964)
- 872.75 — PROPOSED SPOT ELEVATION (FL = FLOW LINE, TC = TOP OF CURB, LP = LOW POINT, HP = HIGH POINT, GB = GRADE BREAK)
- 872.7± — SPOT ELEVATION (MATCHING EXISTING)
- 2.0% — PROPOSED SURFACE SLOPE
- SILT FENCE
- BIO ROLL
- INLET PROTECTION
- EROSION CONTROL BLANKET CAT 1
- EROSION CONTROL BLANKET CAT 3
- LANDING (MAX 2% IN ANY DIRECTION)
- STORM SEWER (SEE UTILITY PLAN)
- DRAIN TILE (SEE UTILITY PLAN)
- TIP-OUT GUTTER
- LIMITS OF DISTURBANCE

NOTE:
ELEVATIONS SHOWN WITH ± INDICATE INTERPOLATION OF EXISTING ELEVATIONS FROM SUNDE'S SITE SURVEY. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT ALL PLAN ELEVATIONS MATCH INTO EXISTING WITH POSITIVE DRAINAGE. NOTIFY ENGINEER IF POSITIVE DRAINAGE AND/OR ADA-COMPLIANT SLOPES CANNOT BE ACHIEVED WITH MINOR ADJUSTMENT OF PLAN ELEVATIONS.

SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES ARE A MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

MATCH EXISTING PAVEMENT/CURB & GUTTER



SRF Consulting Group, Inc.
SAINT PAUL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: BRADY P. RUTMAN

SIGNATURE:

DATE: Friday, February 1st, 2019

LICENSE #: 56607

CITY SITE PLAN SUBMITTAL

REVISIONS

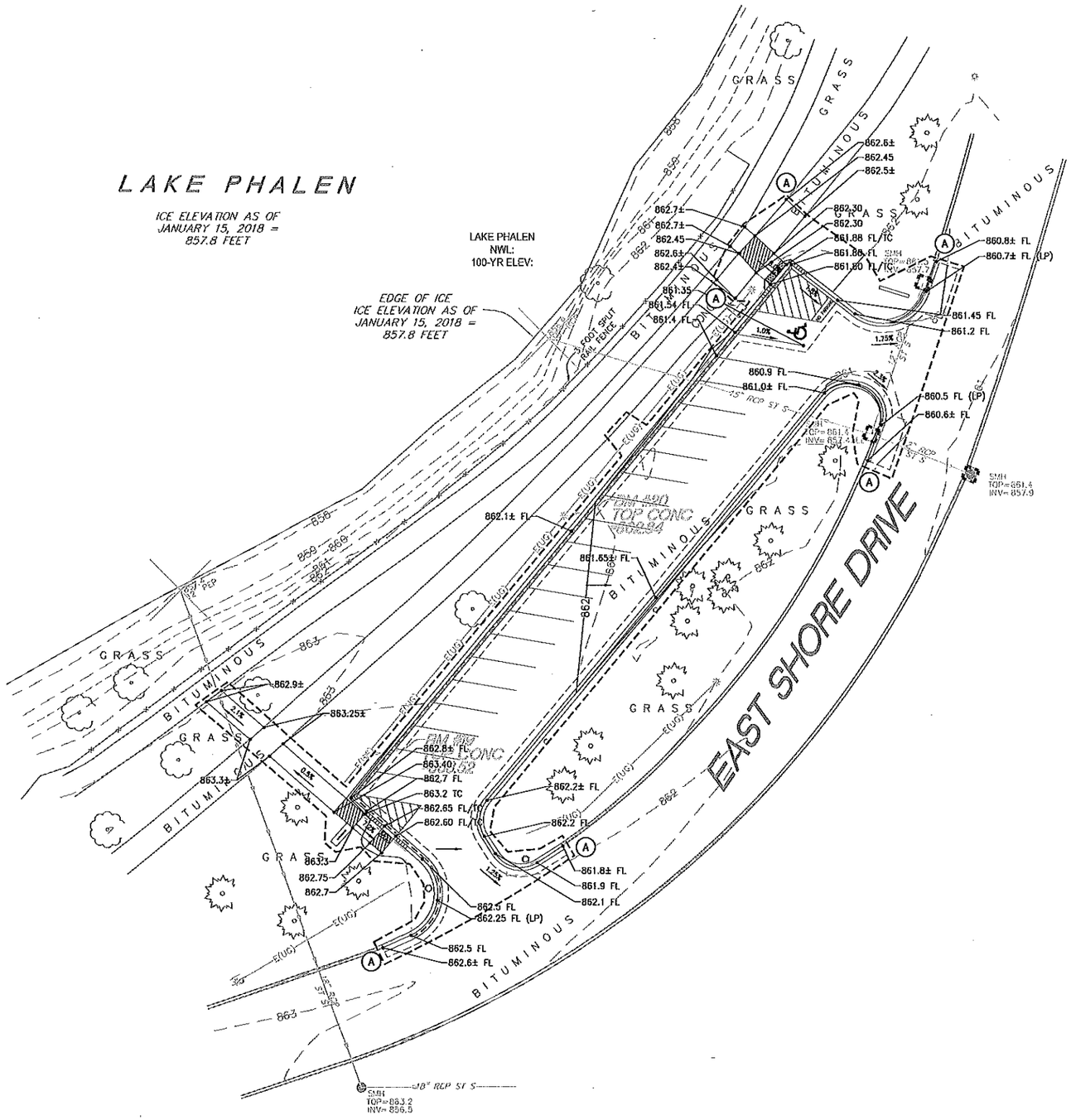
NO.	DATE	BY	CHKD	APPR

DRAWN BY	B. RUTMAN
DESIGNED BY	B. RUTMAN
CHECKED BY	M. AARON
ST. PAUL CONTRACT NO.	L16-05-29
SRF COMM. NO.	10437.00

PHALEN REGIONAL PARK
MULTIMODAL TRANSPORTATION IMPROVEMENTS
CITY OF SAINT PAUL

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
BEACH AREA

SHEET
C4.3



GOPHER STATE ONE CALL (GSOC)

STATE LAW REQUIRES CONTRACTOR TO CONTACT AND PROVIDE NOTICE TO THE NOTIFICATION CENTER BEFORE BEGINNING ANY EXCAVATION. (REFER TO MINNESOTA STATE STATUTE CHAPTER 216D FOR DETAILS)

E-TICKET: WWW.GSOCSUBMIT.ORG
BY PHONE:
EMERGENCY TICKETS: 866-640-3637
TWIN CITIES METRO: 651-454-0002
GREATER MN AREA: 800-252-1166
NATIONALLY: 811

NOTE:
ELEVATIONS SHOWN WITH ± INDICATE INTERPOLATION OF EXISTING ELEVATIONS FROM SUNDE'S SITE SURVEY. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT ALL PLAN ELEVATIONS MATCH INTO EXISTING WITH POSITIVE DRAINAGE. NOTIFY ENGINEER IF POSITIVE DRAINAGE AND/OR ADA-COMPLIANT SLOPES CANNOT BE ACHIEVED WITH MINOR ADJUSTMENT OF PLAN ELEVATIONS.

SPECIFIED EROSION AND SEDIMENT CONTROL PRACTICES ARE A MINIMUM. ADDITIONAL PRACTICES MAY BE REQUIRED DURING THE COURSE OF CONSTRUCTION.

(A) MATCH EXISTING PAVEMENT/CURB & GUTTER

SCALE IN FEET 0 10 20

GRADING AND EROSION CONTROL LEGEND

- PROPERTY LINE
- PROPOSED CONTOURS (960 / 964)
- EXISTING CONTOURS (960 / 964)
- 872.75 — PROPOSED SPOT ELEVATION (FL = FLOW LINE, TC = TOP OF CURB, LP = LOW POINT, HP = HIGH POINT, GB = GRADE BREAK)
- 872.7± — SPOT ELEVATION (MATCHING EXISTING)
- 2.0% — PROPOSED SURFACE SLOPE
- SILT FENCE
- BIO ROLL
- INLET PROTECTION
- EROSION CONTROL BLANKET CAT 1
- EROSION CONTROL BLANKET CAT 3
- LANDING (MAX 2% IN ANY DIRECTION)
- STORM SEWER (SEE UTILITY PLAN)
- DRAIN TILE (SEE UTILITY PLAN)
- TIP-OUT GUTTER
- LIMITS OF DISTURBANCE

SRF Consulting Group, Inc.

SAINT PAUL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: BRADY P. RUTMAN

SIGNATURE:

DATE: Friday, February 1st, 2019

LICENSE #: 56607

CITY SITE PLAN SUBMITTAL

REVISIONS

NO.	DATE	BY	CHKD	APPR

DRAWN BY	B. RUTMAN
DESIGNED BY	B. RUTMAN
CHECKED BY	M. AARON
ST. PAUL CONTRACT NO.	L16-05-29
SRF COMM. NO.	10437.00

PHALEN REGIONAL PARK
MULTIMODAL TRANSPORTATION IMPROVEMENTS
CITY OF SAINT PAUL

GRADING, DRAINAGE, AND EROSION CONTROL PLAN
SOUTH END

SHEET
C4.4

Permit Application Coversheet

Date March 06, 2019

Project Name Cornerstone Medical Expansion **Project Number** 19-08

Applicant Name Ross Hedlund, Frauenshuh

Type of Development Office

Property Description

This project is located at 6025 Lake Road, northwest of I-494 in the City of Woodbury. The applicant is proposing to construct a medical office building on a partially developed site. The property was originally developed in 2006 (Permit #06-21). A wet pond with infiltration bench and an infiltration basin were constructed at that time to account for full site build-out. Due to District rule changes since then, the applicant is now proposing to expand the existing Best Management Practices (BMPs) to achieve compliance for the new development using current rules and sizing requirements. The total disturbance area is 1.68 acres.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

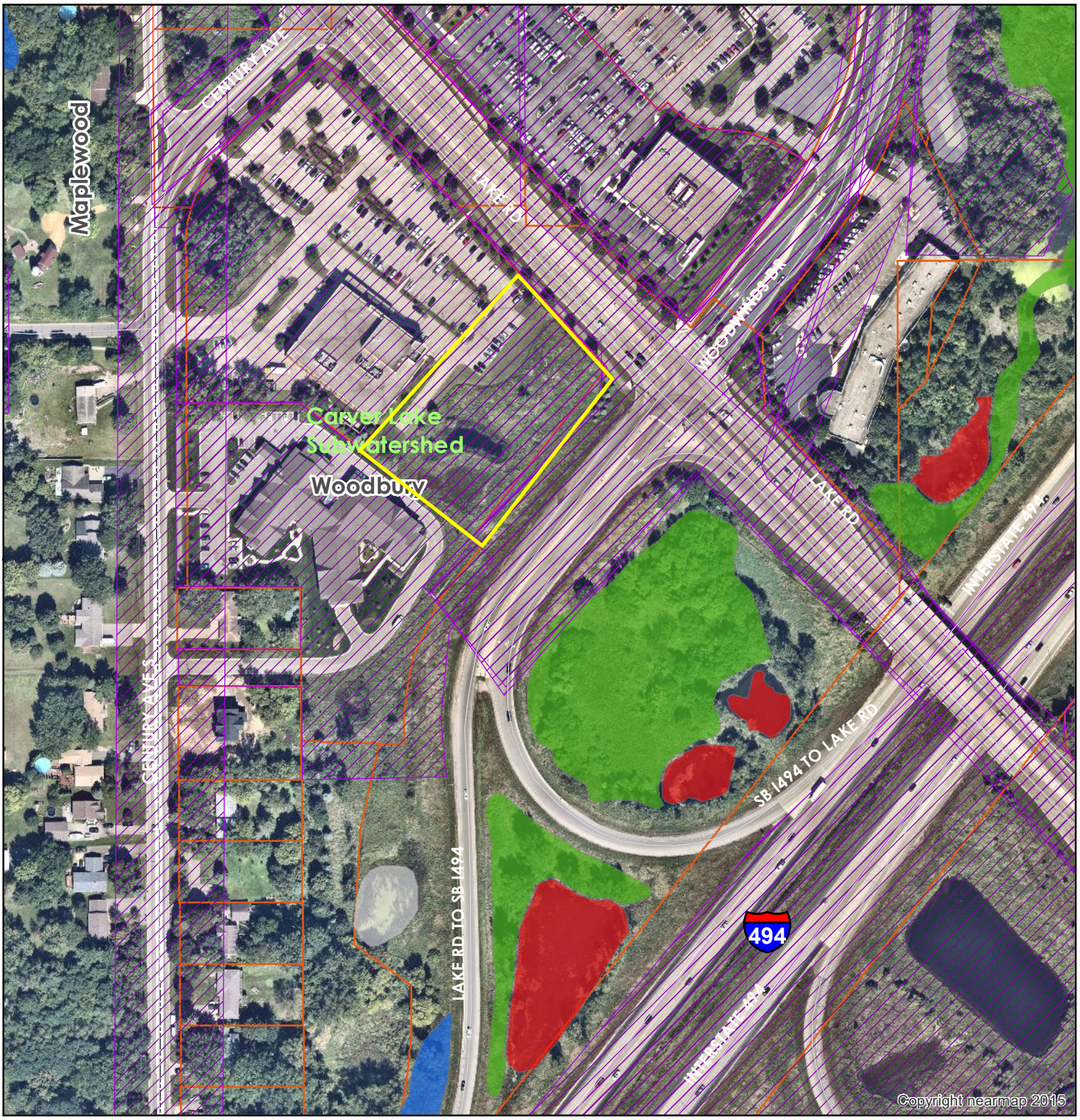
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#19-08 Cornerstone Medical Expansion



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

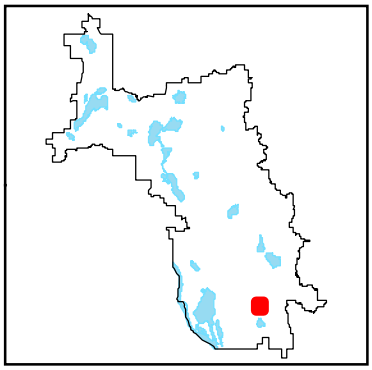
- Permits
- RWMWD Boundary
- Subwatersheds
- Creeks
- Washington Co Parcels
- City Boundaries

Highlighted Areas Represent Active Permit

0 150 300
Feet

0 0.035 0.07
Miles

N



19-08

Special Provisions

1. The applicant shall submit supporting calculations for the time of concentration values used in the hydrologic model.

2. The applicant shall submit the escrow fee of $8,400.

3. The applicant shall add notes to the plans:
   A. Provide direction to the contractor on reconstruction of the stormwater facilities. Infiltration areas must not be compacted, and facilities should remain offline and protected from sediment until all contributing areas are restored.
   B. Notify Nicole Soderholm, Ramsey-Washington Metro Watershed District, at 651-792-7976 prior to any and all construction activity in order to schedule an initial SWPPP inspection.
   C. Notify Nicole Soderholm, Ramsey-Washington Metro Watershed District, at 651-792-7976 at least 48 hours prior to reconstruction of the stormwater facilities.
   D. The specified erosion and sediment control practices are the minimum. Additional practices may be required during the course of construction.

4. The applicant shall submit construction details for outlet control structure A.

5. The applicant shall label the 100-year High Water Levels for the stormwater facilities on grading plan Sheet C3-1.

6. The applicant shall submit an erosion control plan that includes a legend and details for perimeter control, inlet protection, and stabilized construction exits.

7. The applicant shall submit a Stormwater Pollution Prevention Plan (SWPPP).

8. The applicant shall submit a final, signed copy of the construction plans.

9. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the SWPPP.

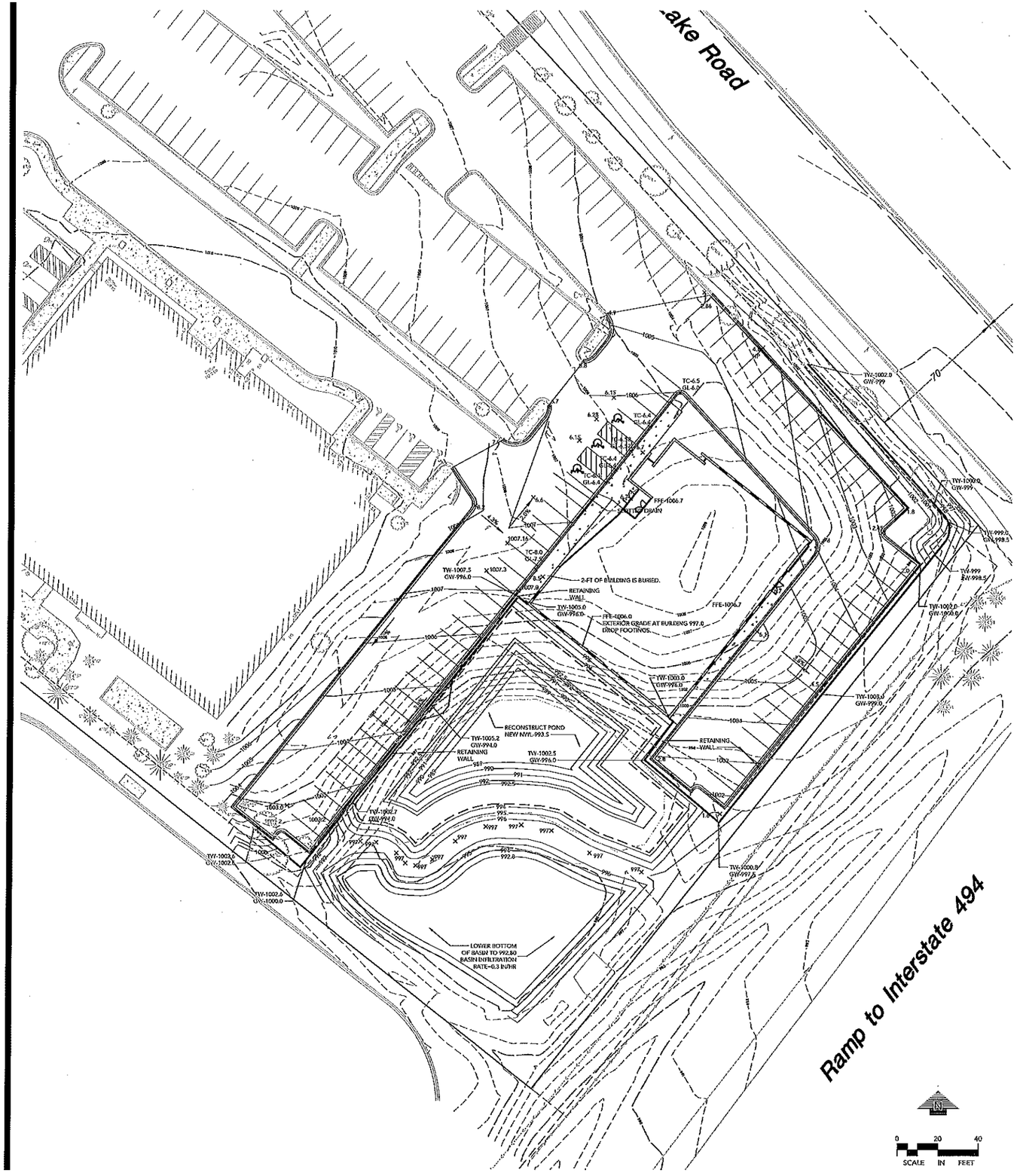
10. The applicant shall submit an executed stormwater maintenance agreement for the stormwater facilities.

11. The applicant shall submit a draft stormwater BMP Operations &

Special Provisions

Maintenance Plan.

12. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit.



GRADING NOTES

1. BACKGROUND INFORMATION IS BASED ON A FIELD SURVEY BY LOUCKS AND RECORD UTILITY DRAWINGS FROM THE CITY. LOUCKS DOES NOT GUARANTEE THE ACCURACY OF INFORMATION PROVIDED BY OTHERS.
2. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF BUILDINGS, VESTIBULES, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, ENTRY LOCATIONS AND LOCATIONS OF DOWNSPOUTS.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASE OF THIS PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASE OF THIS PROJECT.
4. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
5. BEFORE BEGINNING CONSTRUCTION THE CONTRACTOR SHALL INSTALL A TEMPORARY ROCK ENTRANCE PAD AT ALL POINTS OF VEHICLE EXIT FROM THE PROJECT SITE. SAID ROCK ENTRANCE PAD SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE PROJECT.
6. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE ESTABLISHED AROUND THE ENTIRE SITE PERIMETER AND IN ACCORDANCE WITH NPDES PERMIT REQUIREMENTS, BEST MANAGEMENT PRACTICES, AND CITY REQUIREMENTS.
7. ALL SPOT ELEVATIONS SHOWN REPRESENT FINISHED SURFACE OR GUTTER LINE ELEVATIONS UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY EXISTING INFORMATION PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY PLAN DISCREPANCIES.
9. EXISTING UTILITY LOCATIONS AS-PER CITY AS-BUILT PLANS AND FIELD SHOTS.
10. SEE SHEET C3-2 FOR EROSION CONTROL INFORMATION.
11. GENERAL CONTRACTOR MUST VERIFY ALL TIE IN GRADES.
12. REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION.
13. ADA ACCESSIBLE ROUTE SHALL HAVE A 5.0% MAXIMUM SLOPE IN THE DIRECTION OF TRAVEL AND A 2.0% MAXIMUM CROSS-SLOPE.
14. ACCESSIBLE STALLS, ACCESS AISLES AND 60' TURNING CIRCLES SHALL HAVE A 2.0% MAXIMUM SLOPE IN ANY DIRECTION.

ABBREVIATION LEGEND
FFE=FINISHED FLOOR ELEVATION
TW=TOP OF RETAINING WALL
GW=GROUND AT FACE OF RETAINING WALL
HP=HIGH POINT
LP=LOW POINT
TC=TOP OF CURB
GL=GUTTER LINE

NOTE:
CATCH BASINS RIMS ARE 2 INCHES LOWER THAN FLOW LINE ELEVATION.

NOTE:
SPOT ELEVATIONS AT CURB LINES INDICATE BASE OF CURB AND GUTTER LINE (I.E. FLOW LINE) ELEVATIONS UNLESS OTHERWISE NOTED.

LEGEND

EXISTING		PROPOSED
	CATCH BASIN	
	STORM MANHOLE	
	FLARED END SECTION	
	SANITARY MANHOLE	
	HYDRANT	
	GATE VALVE	
	POST INDICATOR VALVE	
	WATER MANHOLE / WELL	
	LIGHT POLE	
	POWER POLE	
	ELECTRIC METER	
	GAS METER	
	TELEPHONE PEDESTAL	
	SIGN	
	BENCHMARK	
	SOIL BORING	
	PARKING STALL COUNT	
	ACCESSIBLE PARKING STALL	
	STORM SEWER	
	DRAINTILE	
	SANITARY SEWER	
	FORCEMAIN	
	WATERMAIN	
	SANITARY SEWER SERVICE	
	WATER SERVICE	
	UNDERGROUND ELECTRIC	
	UNDERGROUND FIBER OPTIC	
	UNDERGROUND GAS	
	UNDERGROUND TELEPHONE	
	OVERHEAD UTILITY	
	FENCE	
	CHAIN LINK FENCE	
	CONCRETE CURB	
	RETAINING WALL	
	CONCRETE	
	NO PARKING	
	BUILDING	
	CONTOUR	
	SPOT ELEVATION	
	DIRECTION OF FLOW	
	TREE LINE	
	PARKING SETBACK LINE	
	BUILDING SETBACK LINE	

CALL BEFORE YOU DIG!
Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166

WARNING:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COORDINATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND / OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

NOT FOR CONSTRUCTION

POPE ARCHITECTS
POPE ASSOCIATES, INC.
1295 BANDANA BLVD N, SUITE 200
ST. PAUL, MN 55108-2735
(651) 642-9200 | FAX (651) 642-1101
www.popearch.com

CORNERSTONE
MEDICAL SPECIALTY CENTRE

LOUCKS
PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL
7200 Hemlock Lane, Suite 300
Maple Grove, MN 55369
763.424.5505
www.loucksinc.com
LOUCKS PROJECT NO. 12046.00

CORNERSTONE MEDICAL SPECIALTY CENTRE EXPANSION
WOODBURY, MN

GRADING & DRAINAGE PLAN

1	CITY SUBMITTAL	2/4/19

26175-17187
DDL/BMM
VJV

SHEET
C3-1

Permit Application Coversheet

Date March 06, 2019

Project Name Gladstone Phase 3 **Project Number** 19-09

Applicant Name Steve Love, City of Maplewood

Type of Development Linear

Property Description

This project is located on Frost Avenue between English Street and White Bear Avenue. The City of Maplewood is proposing to narrow the existing roadway from 52' to 26', resulting in a full reconstruction and storm sewer improvements. The City is also proposing to construct a bituminous multi-use trail on the south side of the street and a concrete sidewalk on the north side. 6,400 lineal feet of depressed boulevards along the corridor will provide some stormwater treatment for the road in the amount of 4,030 cubic feet. A partnership between the District and City will result in an additional 30,480 cubic feet of volume reduction within the subwatershed through construction of two infiltration basins in Wakefield Park. The District has provided design plans for the park BMPs and will reimburse the City following construction. The roadway improvements and park BMPs will be bid as one project. Originally the City planned on a mill-and-overlay of Frost Ave which would not have triggered any requirements for stormwater treatment. Through this partnership, the project will achieve a net impervious surface reduction of 0.87 acre and a combined 34,510 cubic feet of stormwater treatment to contribute to TMDL goals for Wakefield Lake.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

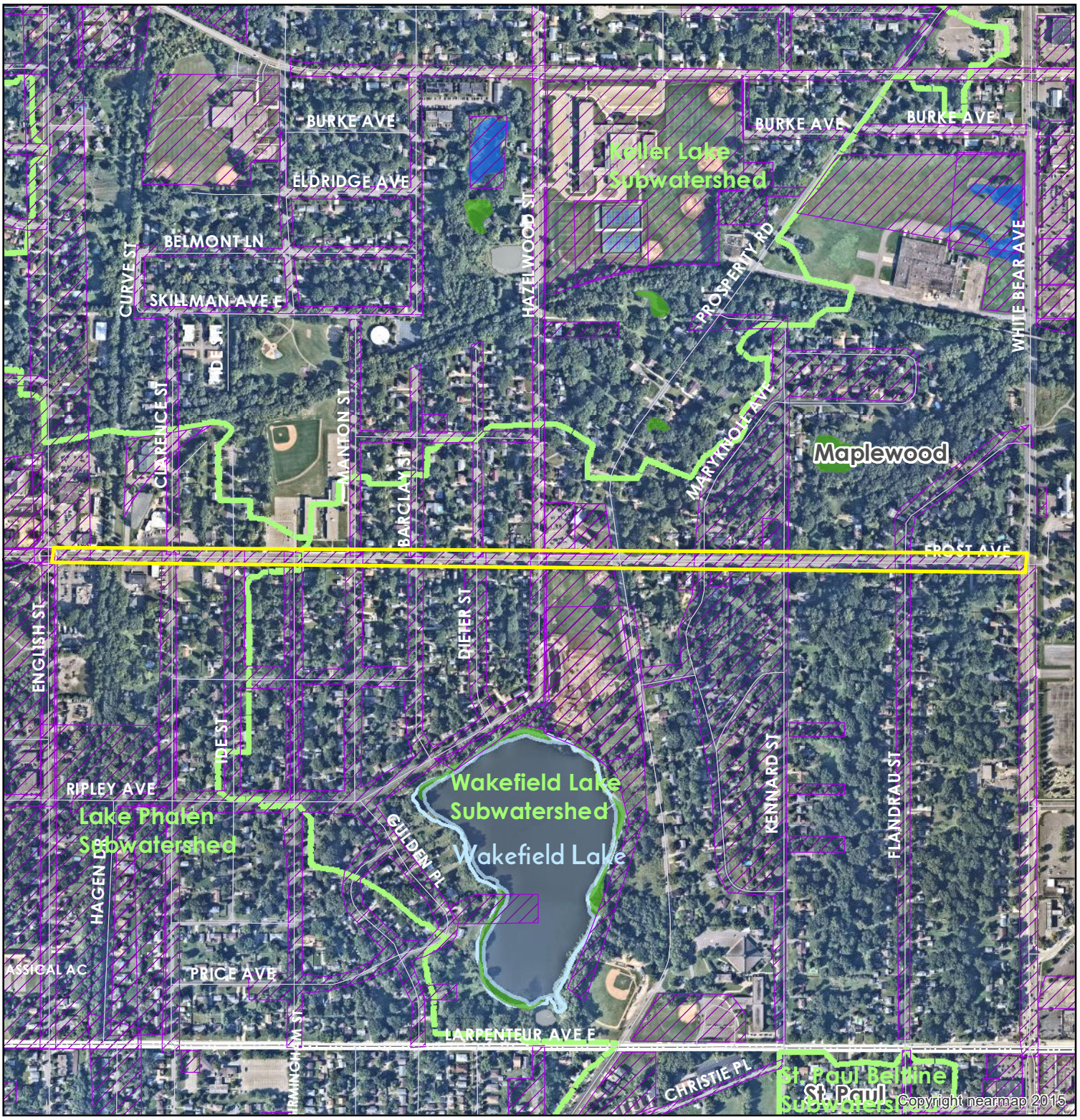
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#19-09 Gladstone Phase 3



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

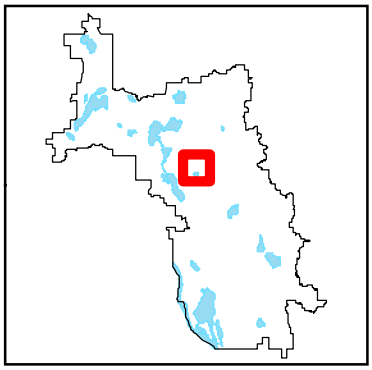
- Roads_RWMWD
- Permits
- RWMWD Boundary
- Subwatersheds
- Creeks
- Washington Co Parcels
- City Boundaries

Highlighted Areas Represent Active Permit

0 500 1,000
Feet

0 0.1 0.2
Miles

N



19-09

Special Provisions

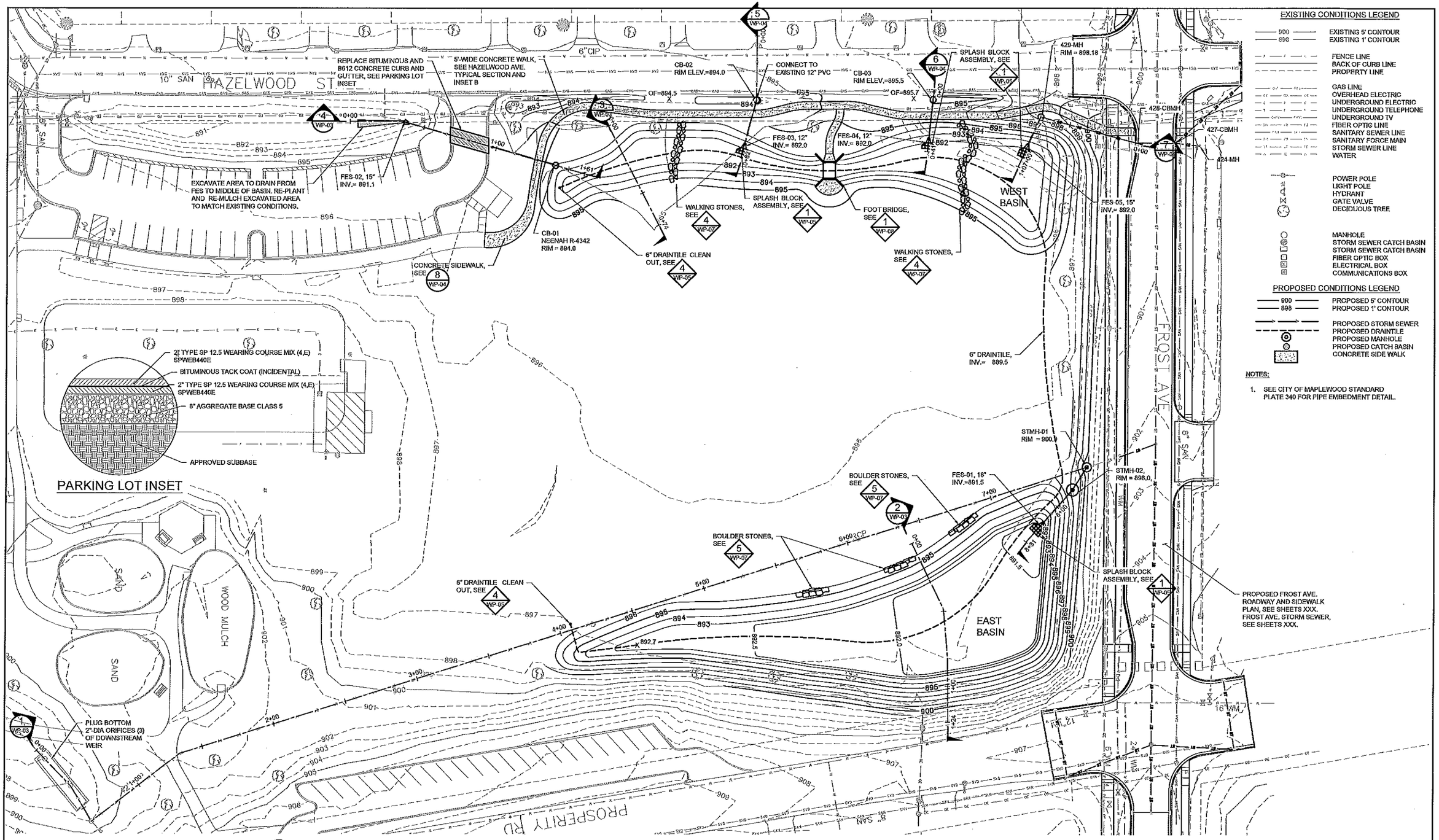
1. The applicant shall submit soil borings for proposed depressed boulevard locations.

2. The applicant shall replace District contact on SWPPP Sheet 48 with the following information: Nicole Soderholm, 651-792-7976.

3. The applicant shall submit a revised erosion control plan that shows locations of proposed rock construction exits.

4. The applicant shall submit a final, signed copy of the construction plans.

5. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit.



EXISTING CONDITIONS LEGEND

- 900 / 898 — EXISTING 5' CONTOUR / EXISTING 1' CONTOUR
- FENCE LINE
- BACK OF CURB LINE
- PROPERTY LINE
- GAS LINE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND TV
- FIBER OPTIC LINE
- SANITARY SEWER LINE
- SANITARY FORCE MAIN
- STORM SEWER LINE
- WATER
- POWER POLE
- LIGHT POLE
- HYDRANT
- GATE VALVE
- DECIDUOUS TREE
- MANHOLE
- STORM SEWER CATCH BASIN
- STORM SEWER CATCH BASIN
- FIBER OPTIC BOX
- ELECTRICAL BOX
- COMMUNICATIONS BOX

PROPOSED CONDITIONS LEGEND

- 900 / 898 — PROPOSED 5' CONTOUR / PROPOSED 1' CONTOUR
- PROPOSED STORM SEWER
- PROPOSED DRAINTILE
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- CONCRETE SIDE WALK

NOTES:

1. SEE CITY OF MAPLEWOOD STANDARD PLATE 340 FOR PIPE EMBEDMENT DETAIL.

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
A	KJN2	MAK	ELA	02/13/2019	ISSUED FOR REVIEW

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINTED NAME MICHELLE A KIMBLE
SIGNATURE
DATE 02/13/2019 LICENSE # 42912

	02/13						
CLIENT							
BID							
CONSTRUCTION							
RELEASED TO/FOR	A	B	C	0	1	2	3
DATE RELEASED							

BARR
Corporate Headquarters: Minneapolis, Minnesota
Ph: 1-800-632-2277
Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
Suite 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

Scale	AS SHOWN
Date	02/13/2019
Drawn	KJN2
Checked	MAK
Designed	MAK
Approved	ELA

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT
LITTLE CANADA, MINNESOTA

WAKEFIELD PARK INFILTRATION BASINS
MAPLEWOOD, MN

SITE PLAN

BARR PROJECT No.	23621308.00
CLIENT PROJECT No.	
DWG. No.	WP-02
REV. No.	A

CADD USER: Kelsi J. Turpin-Nagel FILE: M:\DESIGN\23621308.00\23621308.00_WP-02_PROPOSEDPLAN.DWG PLOT SCALE: 1:2 PLOT DATE: 2/14/2019 8:35 AM

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

MEMORANDUM

Date: March 6, 2019

To: Board of Managers and Staff

From: Nicole Soderholm, Permit Coordinator

Subject: February Enforcement Action Report

During February 2019:

Number of Violations: **0**

Activities:

Permitting assistance to private developers and public entities, permit review with Barr Engineering, miscellaneous inquiries, BMP O&M updates, TAC permit rule changes with CRWD and informal review period, University of Minnesota career fair, performance review, intern resume reviews, MPCA webinar: Infiltration at Sites with Potential Contamination, March training meeting planning

Project Updates:

Permit #17-31 Met Council Beltline Sanitary Sewer Rehab, St. Paul

Dewatering continued this month on the Met Council's sanitary sewer project near Warner Road and Hwy 61. Dewatering had been halted for a number of weeks due to theft of pumps. District and Barr staff will complete a post-dewatering walk-through once dewatering is complete to ensure there have been no adverse impacts to the Beltline storm sewer interceptor. A pre-dewatering walk-through was completed in December.

Permit #18-18 I-694 and Rice Street Interchange, Little Canada/Shoreview/Vadnais Heights

A preconstruction meeting for the I-694/Rice St project was held on February 14th. Weather dependent, grading is scheduled to begin in early March. Lack of accessibility due to snow cover may delay this timeline. Ramsey County will schedule weekly erosion control walk-throughs and coordinate with District staff on inspections during the project to ensure SWPPP compliance.

Permit #17-04 McDonald's Maplewood

A modified inlet structure design was submitted in early February for the infiltration basin constructed last year at the McDonald's off Cope Ave. The existing inlet was not adequate at preventing erosion in the basin. District and Maplewood staff tentatively approved the modified design, but visual inspections following rain events this spring/summer will be needed to properly assess its functionality. The District will retain the permit escrow until then.

Permits Closed in February 2019:

None

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

MEMORANDUM

Date: March 6, 2019

To: RWMWD Board of Managers

From: Nicole Soderholm, Permit Coordinator

Subject: 2018/2019 Rule Revision Update

Ramsey-Washington and Capitol Region watershed districts initiated a permit rules revision process in 2018. A Joint Rules Technical Advisory Committee (TAC) meeting was held on September 19th, 2018.

Rule Change Highlights:

- Revise language under freeboard requirements to provide added clarification
- Increase the runoff cap to BMPs from 2" to 2.5"
- Increase Stormwater Impact Fund contribution from $40,000 per acre of impervious to $100,000 per acre of impervious
- Increase linear cost cap from $30,000 per acre of impervious to $75,000 per acre of impervious
- Add language to allow for regional compliance
- Revise language to reflect electronic submittals
- Miscellaneous minor corrections, clarifications

See enclosed for a draft copy of the revised 'redline' rules following the 2-week informal review that was initiated on January 23rd, 2019. During the informal review, comments were submitted by the St. Paul Port Authority, MnDOT, and Landform engineering firm. A copy of the informal comments and responses are also enclosed.

Requested Board Action:

Authorize distribution of the enclosed revised rules for 45-day review and comment period.

The 45-day comment period will expire 45 calendar days after notice is sent (expected early March). A public hearing on the proposed rule changes will be held at the April 3rd board meeting.

(651) 792-7950
fax (651) 792-7951
office@rwmwd.org
rwmwd.org
2665 Noel Drive
Little Canada, MN 55117

Ramsey-Washington Metro Watershed District Rules

Adopted 09/06/2006
Revised xx/xx/2019

Table of Contents

Certification of Rules 2

General Policy Statement 2

Relationship to Municipalities 3

Rule A. Definitions 3

Rule B. Permit Procedural Requirements 9

Rule C. Stormwater Management 12

Rule D. Flood Control 21

Rule E. Wetland Management 24

Rule F. Erosion and Sediment Control 30

Rule G. Illicit Discharge and Connection 32

Rule H. Enforcement 37

Rule I. Variances 38

Rule J. Severability 39

Certification of Rules

I, Robert E. Johnson, Secretary of the Ramsey-Washington Metro Watershed District Board of Managers, certify that the attached is a true and correct copy of the Rules of the Ramsey-Washington Metro Watershed District having been properly adopted by the Board of Managers of the Ramsey-Washington Metro Watershed District.
Dated: September 6, 2006

General Policy Statement

The Ramsey-Washington Metro Watershed District (District) is a political subdivision of the State of Minnesota, established under the Minnesota Watershed Law, Minnesota State Statute 103d. The District is also a watershed management organization as defined under the Minnesota Metropolitan Water Management Program and is subject to its directives and authorizations. Under the Watershed Law and the Metropolitan Water Management Program, the District exercises a series of powers to accomplish its statutory purposes. The District's general statutory purpose as stated in 103d.201 is to conserve the natural resources of the state by land use planning, flood control, and other conservation projects by using sound scientific principles for the protection of the public health and welfare and the provident use of the natural resources.

As required under the Metropolitan Water Management Program, the District has adopted a Watershed Management Plan, which contains the framework and guiding principles for the District in carrying out its statutory purposes. It is the District's intent to implement the Plan's goals and policies in these rules.

Land alteration affects the rate, volume, and quality of surface water runoff which ultimately must be accommodated by the existing surface water systems within the District. The watershed is 65 square miles and highly urbanized.

Land alteration and urbanization has and can continue to degrade the quality of runoff entering the waterbodies of the District due to non-point source pollution. Sedimentation from ongoing erosion processes and construction activities can reduce the hydraulic capacity of waterbodies and degrade water quality. Water quality problems already exist in ~~all of~~ all the lakes and other water resources throughout the District. The Mississippi River is the principal~~le~~ receiving water for all runoff from the District and is listed by the Environmental Protection Agency (EPA) and Minnesota Pollution Control Agency (MPCA) as “impaired”.

Projects that do not address the increased rate or volume of stormwater runoff from urban development can aggravate existing flooding and water quality problems and contribute to or create new ones. Projects which fill floodplain or wetland areas without compensatory storage can aggravate existing flooding by reducing flood storage and hydraulic capacity of waterbodies, and can degrade water quality by eliminating the filtering capacity of those areas.

In these rules the District seeks to protect the public health and welfare and the natural resources of the District by providing reasonable regulation of the District's lands and waters: 1) to reduce the severity and frequency of flooding and high water; 2) to preserve floodplain and wetland storage capacity; 3) to improve the chemical, physical and

biological quality of surface water; 4) to reduce sedimentation; 5) to preserve waterbodies' hydraulic and navigational capacity; 6) to preserve natural wetland and shoreland features; and 7) to minimize future public expenditures to avoid or correct these problems.

Relationship of Ramsey-Washington Metro Watershed District to Municipalities

The District recognizes that the primary control and determination of appropriate land use is the responsibility of the municipalities. Accordingly, the District will coordinate permit application reviews involving land development with the municipality where the land is located.

The District intends to be active in the regulatory process to ensure that water resources are managed in accordance with District goals and policies. The District intends to begin implementing these rules effective October 1, 2006. All developments that do not have municipal approval on or before October 1, 2006 will require a District permit under these rules. Municipalities have the option of assuming a more active role in the permitting process after the adoption of a local water management plan approved by the District, and by adopting and implementing local ordinances consistent with the approved plan.

The District will also review projects sponsored or undertaken by municipalities and other governmental units, and will require permits in accordance with these rules for governmental projects which have an impact on water resources of the District. These projects include but are not limited to: land development, road, trail, and utility construction and reconstruction.

The District desires to serve as technical advisor to the municipalities in their preparation of local surface water management plans and the review of individual development proposals prior to investment of significant public or private funds. To promote a coordinated review process between the District and the municipalities, the District encourages the municipalities to involve the District early in the planning process.

Rule A: DEFINITIONS

For the purposes of these rules, unless the context otherwise requires, the following words and terms have the meanings set forth below.

References in these Rules to specific sections of the Minnesota Statutes or Rules include any amendments, revisions or recodification of such sections. References in these Rules to manuals, plans, rules, assessments, modeling methods, technical guidance or District policies shall include any revisions or amendments.

The words “shall” and “must” are mandatory; the word “may” is permissive.

Adjacent- An area of land that has a common boundary or edge with a water resource or development.

Alteration or Alter- When used in connection with public waters or wetlands, any activity that will change or diminish the course, current, or cross-section of public waters or wetlands.

Applicant- Any person or political subdivision that submits an application to the District for a permit under these Rules.

Atlas 14- National Oceanic and Atmospheric Administration's (NOAA) precipitation event frequency and magnitude estimates (replaces TP-40).

Banking Credits- Volume reduction in excess of the standard for use on subsequent projects unable to meet the standard onsite.

Beltline Interceptor- That portion of the Beltline Storm Sewer that is owned and operated by the District.

Best Management Practices (BMPs)- Measures taken to minimize negative effects on the environment including those documented in the Minnesota Stormwater Manual.

Board or Board of Managers- The Board of Managers of the Ramsey-Washington Metro Watershed District.

Clean Water Act- The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Common Plan of Development or Sale- A contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land disturbing activities may occur.

Compensatory Storage- Excavated volume of material below the floodplain elevation required to offset floodplain fill.

Criteria- Specific details, methods and specifications that apply to all permits and reviews and that guide implementation of the District's goals and policies.

Critical Duration Storm Event- Storm duration that produces the largest peak discharge rates within a channel or storm sewer system and the highest water surface elevation within a water body.

Development- Any land disturbance, redevelopment affecting land, or creation/replacement of impervious surface, including but not limited to, road and/or parking lot construction or reconstruction.

District- The Ramsey-Washington Metro Watershed District established under the Minnesota Watershed Law, Minnesota Statutes Chapter 103D.

Drainage Way- All water conveyance systems including but not limited to storm sewers, ditches, culverts, and open channels.

Erosion- The wearing away of the ground surface as a result of wind, flowing water, ice movement, or land disturbance.

Erosion and Sediment Control Plan- A plan of BMPs or equivalent measures designed to control runoff and erosion and to retain or control sediment on land during the period of land disturbance in accordance with the standards set forth in these Rules.

Excavation- The artificial displacement or removal of soil or other material.

Fill- The deposit of soil or other earth materials by artificial means.

Floodplain- The area adjoining a watercourse or natural or man-made water body, including the area around lakes, marshes, and lowlands, that is inundated during a 100-year flood.

Freeboard- The vertical distance between the regulatory high water elevation calculated by hydrologic modeling and the regulatory elevation on a structure or roadway.

Gross Pollutants- Larger particles of litter, vegetative debris, floatable debris, and coarse sediments in stormwater runoff.

Habitable- Any enclosed space usable for living or business purposes, which includes but is not limited to: working, sleeping, eating, cooking, recreation, office, office storage, or any combination thereof. An area used only for storage incidental to a residential use is not included in the definition of "Habitable."

Hazardous Materials- Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illicit Connection- An illicit connection is defined as either of the following:

1. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system, including but not limited to: any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a political subdivision; or
2. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps, or equivalent records and approved by a political subdivision.

~~**Illegal**~~ **Illicit Discharge-** Any direct or indirect non-stormwater discharge to the storm drain system, except as exempted in Paragraph 5 of Rule G in these Rules.

Impaired Waters- A waterbody that does not meet water quality standards and designated uses because of pollutant(s), pollution, or unknown causes of impairment.

Impervious Surface- A surface compacted or covered with material so as to be highly resistant to infiltration by runoff. Impervious surface shall include roads, driveways and parking areas, sidewalks or trails greater than three feet wide, whether or not paved, patios, tennis and basketball courts, swimming pools, buildings with roofs, covered decks and other structures.

Infiltration- A stormwater retention method for the purpose of reducing the volume of stormwater runoff by transmitting a flow of water into the ground through the earth's surface.

Infiltration Area- An area set aside or constructed where stormwater from impervious surface runoff is treated and disposed of into the soil by percolation and filtration, and includes but is not limited to: infiltration basins, infiltration trenches, dry wells, underground infiltration systems, and permeable pavement.

Iron-Enhanced Sand- Any Best Management Practices (BMPs) that incorporate filtration media mixed with iron to remove dissolved phosphorus from stormwater.

Land Disturbance- Any activity on property that results in a change or alteration in the existing ground cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include but are not limited to: development, redevelopment, demolition, construction, reconstruction, clearing, grading, filling, stockpiling, excavation, and borrow pits. Routine vegetation management and ~~road~~ pavement milling/overlay activities that do not alter the soil material beneath the ~~road~~ pavement ~~base~~ shall not be considered land disturbance. In addition, in-kind catch basin and pipe repair/replacement done in conjunction with a mill/overlay project shall not be considered land disturbance.

Linear Project- Roads, trails, and sidewalks that are not part of a common plan of development or sale.

Low Floor- ~~The finished surface of the lowest floor of a structure.~~The floor of the lowest enclosed area including the basement. An unfinished or flood-resistant enclosure, used solely for parking of vehicles, building access, or storage in an area other than a basement area shall not be considered a building's lowest floor.

Low Opening- The elevation of the lowest hydraulically connected entry point to a structure such as a door or window.

Municipal Separate Storm Sewer System (MS4)- The conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutter, ditches, man-made channels, or storm drains):

1. Owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law ~~or~~ such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an

authorized Indian organization, or a designated and approved management Agency under section 208 of the Clean Water Act (33 U.S.C § 1288) that discharges to waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR § 122.2.

Municipality- Any city wholly or partly within the Ramsey-Washington Metro Watershed District.

National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit- A permit issued by the Minnesota Pollution Control Agency that authorizes the discharge of pollutants to waters of the State.

Non-Point Source Pollution- Pollution that enters a water body from diffuse origins ~~on~~ in the watershed and does not result from discernable, confined, or discrete conveyances.

Non-Stormwater Discharge- Any discharge to the storm drain system that is not composed entirely of stormwater.

NURP- Nationwide Urban Runoff Program developed by the ~~Environmental Protection Agency~~ EPA to study stormwater runoff from urban development.

Ordinary High Water Level (OHW)- The elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape. The ordinary high water level is commonly ~~that~~ the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the OHW level is the elevation of the top of the bank of the channel. For Public Waters and Public Waters Wetlands, the Minnesota Department of Natural Resources (DNR) determines the OHW.

Owner- A person or entity who has legal title to a parcel of land or a purchaser under a contract for deed.

Parcel- A parcel of land designated by plat, metes and bounds, registered land survey, auditor's subdivision, or other acceptable means and separated from other parcels or portions by its designation.

Permittee- The person or political subdivision in whose name a permit is issued pursuant to these Rules.

Person- Any individual, trustee, partnership, unincorporated association, limited liability company or corporation.

Political Subdivision- A municipality, county, or other political division, agency, or subdivision of the state.

Pollutant- Anything which causes or contributes to pollution. Pollutants may include but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-

hazardous liquid and solid wastes; yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances and accumulations; ~~so that some may cause or contribute to pollution;~~ floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Potential Stormwater Hotspots (PSHs)- Commercial, industrial, institutional, municipal, or transportation-related operations that may produce higher levels of stormwater pollutants and/or present a higher potential risk for spills, leaks, or illicit discharges. PSHs may include, but are not limited to: gas stations, petroleum wholesalers, vehicle maintenance and repair facilities, auto recyclers, recycling centers and scrap yards, landfills, solid waste facilities, wastewater treatment plants, airports, railroad stations and associated maintenance facilities, and highway maintenance facilities.

Public Waters- Any waters as defined in Minnesota Statutes Section 103G.005, Subdivision 15.

Public Water Wetlands- Any wetlands as defined in Minnesota Statutes Section 103G.005, Subdivision 15a.

River Dependent- An activity or land use that relies on direct access to or use of the Mississippi River.

Runoff- Rainfall, snowmelt, or irrigation water flowing over the ground surface.

Seasonal High Groundwater- The highest seasonal elevation in the ground that has soil voids ~~being filled~~ that fill with water.

Sediment- Soil or other surficial material transported by surface water as a product of erosion.

Sedimentation- The process or action of depositing sediment.

Sequencing Flexibility- Deviation from the standard sequencing process as described in MN Rule 8420.0520, Subp. 7a.

Sewage- Waste produced by, including but not limited to: toilets, bathing, laundry, culinary operations, or the floor drains associated with these sources.

Soil Material- Any non-aggregate material that underlays a road or pavement section, including subbase and select grading material, in the context of the Land Disturbance definition.

~~**Special Interest Subwatershed.** An area as shown on the map in application guidance materials in which protection or improvement of water quality has been given a high priority.~~

Standards- A preferred or desired level of quantity, quality, or value.

Storm Drain System- Publicly-owned facilities by which stormwater is collected and/or conveyed, including but not limited to: ~~any~~ roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

Stormwater- Any surface flow, runoff, ~~and~~ or drainage consisting entirely of water from any form of natural precipitation and resulting from such precipitation.

Stormwater Management Plan- A plan for the permanent management and control of runoff prepared and implemented in accordance with the standards set forth in these Rules.

Stormwater Pollution Prevention Plan (SWPPP)- A document which describes the best management practices and activities to be implemented by a ~~person or business~~ permittee to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or waterbodies to the maximum extent practicable.

Structure- Anything manufactured, constructed, or erected which is normally attached to or positioned on land, including: portable structures, earthen structures, roads, water and storage systems, drainage facilities, and parking lots.

Subdivision or Subdivide- The separation of an area, parcel, or tract of land under single ownership into two or more parcels, tracts, or lots.

Wastewater- Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

Water Basin- An enclosed natural or created depression with definable banks capable of containing water that may be partly ~~fil~~ed with public waters.

Waterbody- All water basins, watercourses, and wetlands as defined in these Rules.

Watercourse- A natural or improved stream, river, creek, ditch, channel, culvert, drain, gully, swale, or wash in which waters flow continuously or intermittently in a ~~definite~~ defined direction.

Watershed- Region draining to a specific watercourse or water basin.

Wetland- Land transitional between terrestrial and aquatic systems as defined in Minnesota Statutes Section 103G.005, Subdivision 19.

Wetland Conservation Act (WCA)- Minnesota Wetland Conservation Act of 1991.

Rule B: PERMIT PROCEDURAL REQUIREMENTS

1. **APPLICATION REQUIRED-** Any person, or political subdivision undertaking an activity for which a permit is required by these Rules shall, prior to commencing work, submit to the District a permit application, engineering design data, plans, specifications, and ~~such~~ other applicable information and exhibits as may be required by these Rules. Permit applications shall be signed by the owner or the owner's authorized agent, except for activities of a political subdivision which may be signed by either an authorized agent and submitted online via the District's website. ~~except for activities of a political subdivision which may be signed by either an authorized agent of the political subdivision or the general contractor. Three copies of all supporting materials, including site plans, narratives, and hydrologic calculations, shall be submitted with the completed application. One full set, one set reduced to 11"x17", and one electronic set in .pdf format shall be submitted.~~

2. **FORMS.** Permit applications must be submitted ~~on~~ via the form provided by the District. Applicants may obtain and submit these forms online ~~at the District office or Internet Web site~~ at the District's website: www.rwmwd.org.

3. **TIME FOR APPLICATION.** A complete permit application which includes all required exhibits shall be received by the District at least 21 calendar days prior to a regularly scheduled meeting date of the Board of Managers. Late submittals or submittals with incomplete exhibits will be scheduled to a subsequent meeting date.

4. **ACTION BY BOARD.** The Board of Managers shall approve or deny an application containing all required information, exhibits and fees, in accordance with Minnesota Statutes, Section 15.99, as amended.

5. **ISSUANCE OF PERMITS.** The Board of Managers shall issue a permit only after the applicant has satisfied all requirements for the permit, has paid all required District fees, and the District has received any required surety. All activity under the permit shall be done in accordance with the approved plans and specifications unless modifications are approved by District staff as stated in Rule B.8 Modifications.

6. **COMPLIANCE.** Issuance of a permit based on plans, specifications, or other data shall not prevent the District from thereafter requiring the correction of errors in the approved plans, specifications, and data, or from preventing any activity ~~being carried on~~ in violation of these Rules.

7. **EXPIRATION.** A permit shall expire and become null and void if the approved activity is not commenced within one year from date of approval by the Board, or if the approved activity is suspended or abandoned for a period of one year, from the date the activity originally commenced. Before an activity delayed for one year or more can recommence, the permit must be renewed. An application for renewal of a permit must be in writing, and state the reasons for the renewal. Any plan changes and required fees must be included with the renewal request ~~application.~~ There must be no unpaid fees or other outstanding violations of the permit being renewed. The Board shall consider the request for renewal on the basis of the Rules in effect on the date the application is being considered for renewal.

   Any permittee may apply for an extension of time to commence the approved activity under an unexpired permit when the permittee is unable to commence the

activity within the time required by these Rules. An application for an extension of a permit must be in writing and state the reasons for the extension. Any plan changes and required fees must be included with the extension request ~~application~~. There must be no unpaid fees or other outstanding violations of the permit being extended. The application must be received by the District at least 30 days prior to the permit's expiration. The Board shall consider the application for an extension on the basis of the Rules in effect on the date the application is being considered. The Board may extend the time for commencing the approved activity for a period not exceeding one year upon finding that circumstances beyond the control of the permittee have prevented action from being taken.

8. **MODIFICATIONS.** The permittee shall not modify the approved activity or deviate from the plans and specifications on file with the District without the prior approval of District staff. Significant modifications may require Board approval.

9. **INSPECTION AND MONITORING.** After issuance of a permit, the District may perform such field inspections and monitoring of the approved activity as the District deems necessary to determine compliance with the conditions of the permit and these Rules. Any portion of the activity not in compliance shall be promptly corrected. In applying for a permit, the applicant consents to the District's entry upon the land for field inspections and monitoring, or for performing any work necessary to bring the activity into compliance at the permittee's expense.

10. **SUSPENSION OR REVOCATION.** The District may suspend or revoke a permit issued under these Rules wherever the permit is issued in error or ~~on the basis of~~ based on incorrect information supplied, or in violation of any provision of these Rules, or if the preliminary and final subdivision approval received from a municipality or county is not consistent with the conditions of the permit.

11. **CERTIFICATION OF COMPLETION.** The District shall certify completion of an activity for which a permit has been issued under these Rules and authorize the release of any required surety upon inspection and submittal of information verifying completion of the activity in accordance with the approved plans and conditions of the permit. Verification of stormwater practice functionality such as a flood test or other in-field test or observation shall be conducted in the presence of District staff or other authorized third party or documented in a report submitted to the District before completion can be certified and any surety released. Copies of documents, with evidence of recording where appropriate, that provide for maintenance of structures required by the permit shall be filed with the District before completion can be certified and any surety released. All temporary erosion prevention and sediment control BMPs must be removed following approval of a Certificate of Completion before any surety can be released. No activity may be certified as complete if there are any unpaid fees or other outstanding permit violations. If the District fails to make a determination as to compliance of an activity with the conditions of the permit within 60 days after submittal of the foregoing information verifying completion, the activity shall be deemed complete and any surety shall thereupon be released, unless seasonal conditions prohibit verification of stormwater practice functionality.

12. **PERMIT TRANSFERS.** The District may allow the transfer of a permit. No permit shall be transferred if there are any unpaid fees or other outstanding permit violations. Transfer of a permit does not alter the requirements of the permit or extend the permit term. In the event that a permit is transferred, the original permittee shall remain liable for the permit requirements unless (1) the transferee and transferor submit a Permit Transfer Form to the District or (2) the District approves a new permit for the transferee.

13. **PERMIT PROCESSING FEES.** The District shall charge the permit processing fees in accordance with a schedule adopted by written resolution of the Board of Managers and conforming to Minnesota Statutes 103D.345.

    (a) Applicant must submit the required permit processing fee to the District at the time it submits its permit application.

    (b) The processing fees described above shall not be charged to the federal government, the State of Minnesota, or a political subdivision of the State of Minnesota.

    (c) Any person or political subdivision performing an activity for which a permit is required under these Rules without having first obtained a permit from the District, shall pay, in addition to such fines, court costs or other amounts as may be payable by law as a result of such violation, a field inspection fee equal to the actual cost to the District for field inspections, monitoring, and investigation of such activity, including services of engineering, legal and other consultants. The field inspection fee shall be payable within 10 calendar days after issuance of a statement by the District. No permit shall be issued for the activity if there are any unpaid field inspection fees or other outstanding violations of these Rules.

14. **PERFORMANCE SURETY.** To assure compliance with these Rules, the District will require permit applicants to post a performance surety where the District determines that it is reasonable and necessary under the particular circumstances of any permit application filed with the District. ~~In determining whether a performance surety is reasonable or necessary, the District may consider a number of factors, including, but not limited to,: the size and scope of the proposed project, the proximity of the proposed project to waterbodies, and the permit applicant's past compliance with these Rules.~~ The District shall determine the amount of any performance surety. A performance surety will not be required of the federal government, the State of Minnesota, or a political subdivision of the State of Minnesota.

15. **OTHER PERMITS AND APPROVALS.** The applicant shall promptly provide the District with copies of all environmental permits and approvals required by other governmental entities, upon request.

Rule C: STORMWATER MANAGEMENT

1. **POLICY.** It is the policy of the Board of Managers to:

(a) Reduce runoff rates to levels that allow for stable conveyance of flow through watersheds in the District.

(b) Require rate control practices on development to preserve runoff rates at a level that shall not cause the degradation of the watershed.

(c) Limit runoff volumes by utilizing site designs that limit impervious surfaces or incorporate volume control practices such as infiltration.

(d) Minimize connectivity of impervious surfaces to the stormwater system.

(e) Require the use of effective non-point source pollution reduction BMPs in development projects.

(f) Protect and maintain downstream drainage systems to provide permanent and safe conveyance of stormwater. Reduce the frequency and/or duration of potential downstream flooding.

(g) Reduce the total volume of stormwater runoff to protect surface water quality and provide recharge to groundwater.

(h) Remove sediment, pollutants, and nutrients from stormwater to protect surface water quality.

2. **REGULATION.** No person or political subdivision shall commence a land disturbing activity or the development of land one acre or greater, unless specifically exempted by Paragraph 5 below, without first obtaining a permit from the District that incorporates and approves a stormwater management plan for the activity or development.

3. **CRITERIA.** Stormwater management plans must comply with the following criteria:

(a) **Hydrograph Method.** A hydrograph method based on sound hydrologic theory shall be used to analyze runoff for the design or analysis of flows and water levels. Reservoir routing procedures and critical duration storm events shall be used for design of detention basins and outlets.

(b) **Runoff Rate.** Runoff rates for the proposed activity shall not exceed existing runoff rates for the 2-year, 10-year, and 100-year critical storm events using Atlas 14 precipitation depths and MSE-3 storm distributions, or as approved by the District. Runoff rates may be restricted to less than the existing rates when the capacity of downstream conveyance systems is limited.

(c) **Runoff Volume.** Stormwater runoff shall be retained onsite in the amount equivalent to 1.1 inches of runoff over the new and reconstructed impervious

surfaces of the development. The required stormwater runoff volume shall be calculated as follows:

Required Stormwater Runoff Volume (ft^3) = Impervious surfaces (ft^2) x 1.1 (in) x 1/12 (ft/in)

(1) For infiltration of the required stormwater runoff volume, the following requirements must be met:

(i) Infiltration volumes and facility sizes shall be calculated using the appropriate hydrologic soil group classification and design infiltration rate from ~~Table 1~~the Minnesota Stormwater Manual. Select the design infiltration rate from ~~Table 1~~ the Minnesota Stormwater Manual based on the least permeable soil horizon within the first five feet below the bottom elevation of the proposed infiltration BMP.

(ii) The required stormwater runoff storage volume shall be provided below the invert of the low overflow outlet of the BMP.

(iii) Runoff infiltrated during a rain event will not be credited towards the volume reduction requirement.

(iv) Volume reduction credit shall not exceed the volume of 2.5 inches over the impervious surfaces of the drainage area to the BMP or the volume provided within the BMP, whichever is less.

(v) The applicant may complete double-ring infiltrometer testing to the requirements of ASTM D3385 or other District approved infiltration test measurements at the proposed bottom elevation of the infiltration BMP. The measured infiltration rate shall be divided by the appropriate correction factor selected from the Minnesota Stormwater Manual. This test must be completed by a licensed soil scientist or engineer.

Table 1. Design Infiltration Rates

Hydrologic soil group	Infiltration rate (inches/hour)	Soil textures	Corresponding Unified Soil Classification
A	1.63	gravel sandy gravel silty gravels	GW - well-graded gravels, sandy gravels GP - gap-graded or uniform gravels, sandy gravels GM - silty gravels, silty sandy gravels SW - well-graded gravelly sands
A	0.8	sand loamy sand sandy loam	SP - gap-graded or uniform sands, gravelly sands
B	0.45		SM - silty sands, silty gravelly sands
B	0.3	loam, silt loam	MH - micaceous silts, diatomaceous silts, volcanic ash
C	0.2	Sandy clay loam	ML - silts, very fine sands, silty or clayey fine sands
D	0.06	clay loam silty clay loam sandy clay silty clay clay	GC - clayey gravels, clayey sandy gravels SC - clayey sands, clayey gravelly sands CL - low plasticity clays, sandy or silty clays OL - organic silts and clays of low plasticity CH - highly plastic clays and sandy clays OH - organic silts and clays of high plasticity

Source: Minnesota Stormwater Manual

(vi) The infiltration area shall be capable of infiltrating all stormwater routed to the system through the uppermost soil surface or engineered media ~~the required volume~~ within 48 hours. for surface and subsurface BMPs. Additional flows that cannot infiltrate within the required 48 hours must be allowed to bypass the system through a stabilized discharge point.

(vii) Infiltration areas shall be limited to the horizontal areas subject to prolonged wetting.

(viii) Areas of permanent pools tend to lose infiltration capacity over time and shall not be accepted as an infiltration practice.

(ix) Stormwater runoff must be pretreated to remove solids before discharging to infiltration areas to maintain the long term viability of the infiltration areas. Additional information on sizing and approaches can be found in the ~~application guidance materials~~ Minnesota Stormwater Manual.

~~(x)~~ Design and placement of infiltration BMPs shall be done in accordance with the Minnesota Department of Health guidance ~~called "Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas"~~ and requirements.

(xi) Specific site conditions may make infiltration difficult, undesirable, or impossible. Some of these conditions are listed in Table 2 and may qualify the applicant for Alternative Compliance Sequencing. The applicant may also submit a request to the District for Alternative Compliance Sequencing for site conditions not listed below. All requests shall indicate the specific site conditions present and a grading plan, utility plan, and the submittal requirement listed in the table below.

Table ~~21.~~ Alternative Compliance Site Conditions*

MPCA has limitations for constructing infiltration BMPs if it will receive discharges from or be constructed in these areas of concern. These conditions will apply to this permit.

Type	Specific Site Conditions	Infiltration Requirements
Potential Contamination	Potential Stormwater Hotspots (PSHs)/Industrial Facilities	Prohibited
	Contaminated Soils	Prohibited
	Vehicle Fueling and Maintenance Areas	Prohibited
Physical Limitations	Low Permeability (Type D Soils)	~~Restricted~~ Prohibited- Soil borings required
	Bedrock within 3 vertical feet of bottom of infiltration area	~~Restricted~~Prohibited- Soil borings required
	Seasonal High Groundwater within 3 vertical feet of bottom of infiltration area	~~Restricted~~Prohibited- Soil borings required
	Karst Areas	~~Restricted~~Prohibited- Soil borings required
Land Use Limitations	Utility Locations	Concerned- Site Map with detailed utility locations
	Adjacent Wells	Restricted- Well Locations

***Alternative Compliance is allowed for the volume reduction portion of Rule C only.**

(2) Stormwater reuse systems shall be allowed at an approved credit as calculated by the Stormwater Reuse Calculator found in the application guidance materials, or other approved calculator.

(3) Alternative Compliance Sequencing. To the maximum extent practicable, the volume reduction standard shall be fully met onsite. If it is not possible because of site conditions listed above, the following Alternative Compliance may be achieved by any combination of the sequence below but shall be explored in the order presented.

(i) First, the applicant shall comply or partially comply with the volume reduction standard to the maximum extent practicable onsite through alternative volume reduction methods as listed below and in the application guidance materials or as approved by the District. If the applicant meets these requirements, the project is compliant, and no further sequencing steps are necessary.

- If filtration of the water quality volume is deemed necessary through alternative compliance sequencing, the "required stormwater runoff volume" shall be multiplied by 1.82 (i.e. 55% filtration credit), and the filtration BMP shall provide this storage volume below the invert of the low overflow outlet of the BMP (perforated drain pipes for filtration will not be considered the low overflow outlet).
- If filtration with iron-enhanced sand is used as a filtration media, the "required stormwater runoff volume to be infiltrated" shall be multiplied by 1.25 (i.e. 80% filtration credit), and the filtration BMP shall provide this storage volume below the invert of the low overflow outlet of the BMP (perforated drain pipes for filtration will not be considered the low overflow outlet).Iron-enhanced media shall include a minimum of 5% of iron filings by weight and shall be uniformly blended with filtration media.
- Other enhanced filtration media may be considered and credited at the sole discretion of the District.
- ~~Stormwater reuse systems shall be allowed at an approved credit as calculated by the Stormwater Reuse Calculator found in the application guidance materials, or other approved calculator.~~

(ii) Second, for the remaining volume reduction required to fully meet the standard, the applicant shall comply or partially comply with the volume reduction standard at an offsite location or through the use of qualified banking credits as determined by Rule C – 3.c.4.

- Volume reduction may be accomplished at another site outside of the project area or through the use of banked credits as long as it yields the same volume reduction benefit and is approved by the District prior to construction. When possible, offsite compliance and banking credits shall be achieved in the same drainage

area or sub-watershed as the project site. Projects that propose to construct stormwater BMPs to achieve volume reduction credits may require District permit application, review and approval.

(iii) Third, as a last alternative, for the remaining volume reduction required, the applicant shall pay into the District's Stormwater Impact Fund to cover the cost of implementing equivalent volume reduction elsewhere in the watershed. The required amount to contribute to the Stormwater Impact Fund ~~will~~ shall be set by resolution of the Board ~~annually~~.

- Money contributed to the Stormwater Impact Fund from a local government unit shall be spent within that local government unit's jurisdiction to the extent possible.
- Money contributed to the Stormwater Impact Fund shall be allocated to volume reduction projects by the District according to the Stormwater Impact Fund Implementation Plan as approved by the District Board. The volume reduction achieved by these projects shall offset the volume reduction that was not achieved on with the permitted development.

(4) Regional Stormwater Treatment Facilities

(i) For projects within the drainage area of an existing or planned future regional stormwater facility, the sequencing requirements may be waived if it has been determined by RWMWD that the benefits are equivalent or greater than an onsite treatment practice.

(ii) Applicants must either utilize volume reduction credits or contribute to the Stormwater Impact Fund.

(5) Volume reduction provided in excess of the 1.1-inch requirement may be banked for use on another project or used to compensate for under-treated drainage areas within the same project. Volume reduction credit shall not exceed the volume of 2.5 inches over the impervious surfaces of the drainage area to the BMP or the volume provided within the BMP, whichever is less.

(6) Transfer of banked volume credits between applicants is allowed. Applicants shall submit a letter to the District outlining the conditions of the transfer and confirming the volume of the transfer. The District must review and approve all credit transfers.

(7) If an applicant determines during the course of planning, design or construction of a ~~linear~~ project that the required volume reduction cannot be achieved onsite and the applicant does not possess sufficient excess volume reduction credits to offset the volume required, the District may allow the applicant to defer the construction of volume

reduction BMPs to a future identified project that the applicant will complete within two years of the date of the permit application. Failure to provide the required volume reduction by that date would obligate the applicant to pay into the Stormwater Impact Fund at the rate applicable at the time payment is made into the fund. If volume reduction is deferred, rate control requirements must still be met at any given time of the project.

(d) **Water Quality.** Developments shall incorporate effective non-point source pollution reduction BMPs to achieve 90% total suspended solids (TSS) removal from the ~~runoff generated by a NURP water quality storm (2.5" rainfall)~~ disturbed area of the project. Runoff volume reduction BMPs may be considered and included in the calculations showing compliance with achieving the 90% TSS removal requirement. Water quality calculations, documentation and/or water quality modeling ~~shall be submitted~~ may be requested to verify compliance with the standard. Documentation of 90% TSS removal is not required for projects that achieve compliance through Stormwater Impact Fund contributions.

(1) Drainage areas that directly discharge to a ~~wetland~~ waterbody shall meet the water quality standard onsite.

~~(2) For linear projects utilizing offsite locations, banking credits, or the Stormwater Impact Fund to meet the volume reduction standard:~~

~~(i) If any portion of the development falls within a Special Interest Subwatershed as shown on the map in the application guidance materials, the development shall meet the water quality standard onsite. Offsite or banked BMPs located within the same Special Interest Subwatershed as the development may be considered.~~

~~(ii) If the entire development falls outside of a Special Interest Subwatershed, the water quality standard shall be met onsite to the maximum extent practicable as determined by the District. At a minimum, BMPs shall be placed in each drainage area of a development to remove gross pollutants.~~

(e) ~~For linear projects,~~ **Linear Projects** ~~costs~~ Costs specific to satisfying the volume reduction and water quality standards on linear projects need not exceed a cost cap which will be set by resolution of the Board ~~annually~~. The cap shall apply to costs directly associated with the design, testing, land acquisition, and construction of the volume reduction and water quality stormwater BMPs only. Unit costs for construction ~~shall be set by the Board annually and~~ shall be used to determine the cost of the volume reduction and water quality BMPs, and must be reviewed and approved by the District. The District may contribute an amount above the cap in order to meet the volume reduction and water quality standards or it may allow the applicant to partially comply with the standards when the cap is met. If volume reduction is partially achieved due to the cost cap, rate control requirements must still be met at any given time of the project.

(f) **Maintenance.** All stormwater water management structures and facilities, including volume reduction BMPs, shall be maintained to assure that the structures and facilities function as originally designed. Applicants shall submit a site-specific plan, schedule and narrative for maintenance of the proposed stormwater management BMPs. The maintenance responsibilities must be assumed by either the municipality's acceptance of the required easements dedicated to stormwater management purposes or by the applicant executing and recording a maintenance agreement acceptable to the District. Documentation of the recorded agreement must be submitted to the District prior to issuance of permit. Public developments shall require a maintenance agreement in the form of a Memorandum of Agreement or an approved Local Water Management Plan that details the methods, schedule, and responsible parties for maintenance of stormwater management facilities for permitted development. A single Memorandum of Agreement for each local government unit may be used to cover all stormwater management structures and facilities required herein, including volume reduction BMPs, within the LGU's jurisdiction.

4. EXHIBITS. The following exhibits must accompany the online permit application in electronic .pdf format. ~~One set, full size; one set, reduced to 11"x17", and a copy of all submittals~~

(a) Property lines and delineation of lands under ownership of the applicant.

(b) Delineation of the drainage areas contributing runoff from off-site, proposed and existing sub-watersheds onsite, emergency overflows, and drainage ways.

(c) Aerial photo showing the locations of water bodies downstream of the site.

(d) Proposed and existing stormwater facilities' location, alignment, and elevation.

(e) Delineation of existing onsite wetlands, marshes, shoreland, and floodplain areas.

(f) Identification of existing and proposed normal, ordinary high, and 100-year water elevations onsite.

(g) Identification of existing and proposed site contour elevations with at least a 2-foot contour interval including offsite contours where overflows are directed.

(h) Construction plans and specifications of all proposed stormwater management facilities, including design details for outlet control structures.

(i) Stormwater runoff volume and rate analysis for the 2-year, 10-year, and 100-year critical storm events, existing and proposed.

(j) All hydrologic, water quality, and hydraulic computations completed to design the proposed stormwater management facilities.

(k) Narrative addressing incorporation of stormwater BMPs, including individual BMP storage volumes and pretreatment method(s) used.

(l) For non-linear projects, a site-specific plan, schedule, and narrative for ongoing maintenance of the proposed stormwater management BMPs.

(m) Onsite soil borings indicating soil type for purposes of infiltration area design.

(n) For applications proposing infiltration area(s), information shall include identification, description (soil group and texture), and field evaluation of soil permeability in accordance with ASTM 3385 procedure and delineation of site soils to determine existing and proposed conditions suitable for percolation of stormwater runoff from impervious areas.

(o) For applications proposing alternative compliance sequencing, the required exhibits listed in Table 2.

(p) All plan sheets shall be signed by a Minnesota licensed professional appropriate for the project.

5. EXCEPTIONS.

(a) Rule C and its requirements shall not apply to land disturbing activity or the development of land that ~~post-construction~~ creates 100% pervious surfaces post-construction, unless the land disturbing activity or the development of land alters the drainage boundaries shown in the District's Watershed Management Plan.

(b) Rule C and its requirements shall not apply to development less than 1 acre in size for all land uses unless the development is part of a common plan of development or sale that will ultimately exceed one acre in size.

(c) Rule C and its requirements shall not apply to construction on individual lots within a residential subdivision approved by the District, provided the activity complies with the original common plan of development.

(d) Rule C and its requirements shall not apply to bridges.

(e) Rule C and its requirements shall not apply to annually cultivated land used for farming, research, or horticulture.

Rule D: FLOOD CONTROL

1. POLICY. It is the policy of the Board of Managers to:

(a) Encourage water quantity controls to ensure no net increase in the impacts or potential for flooding on or off the site and encourage, where practical, controls to address existing flooding problems.

(b) Discourage floodplain filling for new non-river dependent developments.

(c) Only allow floodplain development in a manner that is compatible with the dynamic nature of floodplains.

2. REGULATION. No person or political subdivision shall alter or fill land below the 100-year flood elevation of any waterbody, public water, or public water wetland without first obtaining a permit from the District.

3. CRITERIA.

(a) Placement of fill within the 100-year floodplain is prohibited unless compensatory storage is provided. Compensatory storage must be provided on the development or immediately adjacent to the development within the affected floodplain.

(1) Compensatory storage shall result in the creation of floodplain storage to fully offset the loss of floodplain storage. Compensatory storage shall be created prior to or concurrently to the permitted floodplain filling.

(b) All habitable buildings, roads, and underground parking structures on or adjacent to a project site shall comply with the following flood control and freeboard requirements:

(1) See Table 3 below for freeboard requirements.

Table ~~3~~2. Flood Control and Freeboard Requirements			
Condition	**Waterbodies with Piped Outlets and Mississippi River**	**Waterbodies without Piped Outlets**	**Subsurface Stormwater Management BMPs**
New Habitable Buildings	Low floor must be a minimum of 2 feet above the 100-year flood elevation.	Low floor must be a minimum of 5 feet above the 100-year flood elevation.	Low floor must be a minimum of 2 feet above the 100-year flood elevation or one foot above the emergency overflow elevation unless flood-proofing measures are constructed with the building. **AND** Low opening must be a minimum of 2 feet above the 100-year flood elevation or one foot above the emergency overflow elevation.
Existing Habitable Buildings- Adjacent to and Potentially Affected by Flood Waters	Low opening must be a minimum of 2 feet above the 100-year flood elevation.	Low opening must be a minimum of 5 feet above the 100-year flood elevation.	Low floor must be a minimum of 2 feet above the 100-year flood elevation or one foot above the emergency overflow elevation unless flood proofing measures are constructed with the BMP. **AND** Low opening must be a minimum of 2 feet above the 100-year flood elevation or one foot above the emergency overflow elevation.
Underground Parking Structures	Low opening must be a minimum of 2 feet above the 100-year flood elevation.	Low opening must be a minimum of 2 feet above the 100-year flood elevation.	Low opening must be a minimum of 2 feet above the 100-year flood elevation or one foot above the emergency overflow elevation.
Public Roadway	Roadway shall not flood when adjacent to stormwater storage basin designed to store the 100-year storm event. Freeboard requirement set by road authority.		

(2) For waterbodies without a piped outlet:

i. The normal water level of a waterbody without a piped outlet shall be determined by a qualified licensed geologist or hydrogeologist. A groundwater analysis using existing or installed monitoring wells on or near the site and soil conditions in the basin shall be used. Ideally, the peak groundwater elevation over a continuous three-year monitoring period shall be considered the normal water level of a basin without a piped outlet, provided soil conditions allow full drainage of recent storm event within 48 hours.

ii. For existing waterbodies without piped outlets, mottled soils may be considered in establishing a waterbody's normal water level in lieu of groundwater analysis.

iii. An emergency response plan shall be developed for addressing potential flooding in homes below the overland emergency overflow swale around each waterbody without a piped outlet. The plans shall be adopted by the City and be included in a maintenance agreement for the development.

(3) For underground parking structures:

i. Underground parking structures shall be flood-protected to minimize impacts from high groundwater during flood events.

ii. All drainage structures within underground parking shall include an anti-backflow device to prevent stormwater from surcharging into the area.

(4) Emergency overflow swales or areas shall be constructed to convey the peak 100-year discharge from each waterbody to the next downstream waterbody and away from buildings.

4. EXHIBITS. The following exhibits must accompany the online permit application in electronic .pdf format. ~~One set, full size; two sets, reduced to 11"x17"; and copies of all submittals~~

(a) Site plan showing the property lines, location, delineation of the work area, existing elevation contours of the work area, ordinary high water elevations, and 100-year flood elevation.

(b) Bench marks, including datum used, to establish vertical control.

(c) Grading plan showing any proposed elevation changes including low floor elevations of adjacent buildings and 100-year flood elevations resulting from proposed development.

(d) Utility plans and details.

(e) Roadway plans and details.

(f) Preliminary plat of any proposed land development.

(g) Stormwater management plan showing all data and computations used in estimating runoff, drainage areas, stormwater storage, and flood elevations for the 2-year, 10-year, and 100-year storm events for both existing conditions and post development conditions. The plan ~~study~~ shall be prepared and signed by a qualified professional engineer licensed in the State of Minnesota or a qualified hydrologist. The plan shall include a figure of receiving waterbodies downstream of the site.

(h) Computation of change in flood storage capacity resulting from proposed grading.

(i) Erosion control plan.

(j) All plan sheets shall be signed by a Minnesota licensed professional appropriate for the project.

Rule E: WETLAND MANAGEMENT

1. **POLICY.** It is the policy of the Board of Managers to:

(a) Manage wetlands to achieve no net loss in the quantity, quality, and biological diversity of wetlands in the District.

(b) Increase the quantity, quality, and biological diversity of wetlands in the District by restoring or enhancing diminished or drained wetlands.

(c) Avoid impacts from activities that destroy or diminish the quantity, quality, and biological diversity of District wetlands.

(d) Replace affected wetlands where avoidance is not feasible and prudent.

(e) Encourage natural vegetation around wetlands to maintain the water quality and ecological functions that wetlands provide.

2. **REGULATION.** The regulation of Rule E is as follows:

(a) **AUTHORITY UNDER WETLAND CONSERVATION ACT.** The Wetland Conservation Act, as amended, and its implementing rules as set forth in Minnesota Rules Chapter 8420, as amended, are incorporated as part of this rule and shall govern draining, filling, excavating, and other alteration of a wetland in all cases where the District is the local government unit under that Act. Wetland impacts shall be governed by the Wetland Conservation Act with the following exceptions:

(1) Sequencing flexibility shall not be allowed;

(2) Wetland replacement, where permitted, shall be in accordance with the following prioritization for the location of the replacement wetland (both constructed and banked):

(i) Onsite replacement is most preferred;

(ii) Within the same subwatershed;

(iii) Within the District;

(iv) Outside of the District is the least preferred.

(b) **AUTHORITY UNDER WATERSHED LAW.** The criterion below relates to wetland buffers and water quality and is adopted under the District's watershed authority and applies whether or not the District is the Wetland Conservation Act local government unit (LGU) in the municipality where the wetland is located. No person or political subdivision shall commence a land disturbing activity or development of land one acre or greater adjacent to a waterbody, unless specifically exempted by Paragraph 5 below, without first obtaining a permit from the District.

3. CRITERIA.

(a) All stormwater must be treated to the water quality standard outlined in Rule C.d.3 before discharged to a wetland.

(b) Wetland delineations and other LGU decisions shall be completed and submitted to the District on existing wetlands on the entire parcel for development.

(1) Data sheets shall be submitted with detailed information on field indicators (soils, hydrology, and vegetation) and a summary report.

(2) Wetland delineations shall be performed and submitted for review during the normal growing season for this area of the State (May 1 – October 15). Delineations performed outside of this time frame may or may not be permitted by the District. Review and approval shall be dependent on potential wetland impact in relation to the entire development or project. This decision is at the sole discretion of the District.

(3) Wetland boundaries shall be staked in the field for review and approval.

(4) Wetland delineations shall remain valid for five years from District approval. Field verification may be required after the initial approval and within those five years.

(c) Wetlands in the District have been classified using MnRAM 3.4 and are identified in the District's Watershed Management Plan. The classifications are used for management of wetlands in the District and to establish required buffer widths. The following steps shall be followed for challenging of a wetland classification:

(1) The wetland shall be assessed by a qualified wetland specialist using MnRAM version 3.4 or current version and between the dates of May 1 and October 15.

(2) MnRAM 3.4 or current version~~,~~ data completed by the applicant and narrative justification for classification change shall be submitted.

(3) District staff shall review the data and justification and provide a recommendation to the Board of Managers.

(4) The District Board of Managers shall approve or deny the classification change request.

(d) Wetland buffers shall be required for all developments adjacent to a wetland whether or not the wetland is located on the same parcel as the proposed development.

(1) Table 4 outlines the classifications of wetlands and the corresponding no-disturb buffer widths and minimums that must be met:

Table 4. Wetland Buffer Widths

Wetland Classification	Manage A	Manage B	Manage C
Average Buffer Width	75 feet	50 feet	25 feet
Minimum Buffer Width	37.5 feet	25 feet	12.5 feet

(2) New and existing ponds constructed for water quantity and quality adjacent to new development shall maintain a 10-foot vegetative buffer from the normal water level.

(3) Stormwater management BMPs shall not be allowed to be constructed in the buffer area.

(4) Wetland replacement through mitigation shall be allowed in the buffer area provided mitigation of buffer disturbance is also provided adjacent to wetland replacement.

(5) A permanent wetland buffer monument shall be installed at each lot line where it crosses a wetland buffer, and where needed to indicate the contour of the buffer, with a maximum spacing of two hundred (200) feet of wetland edge.

(6) Where acceptable vegetation exists in buffer areas, the retention of such vegetation in an undisturbed state is required unless an applicant receives approval by the District to replace such vegetation. A buffer strip has acceptable vegetation if it:

(i) Has a continuous, dense layer of vegetation or overstory of trees and/or shrubs that have been uncultivated or unbroken for at least five consecutive years, or

(ii) Is not composed of undesirable plant species (including, but not limited to: reed canary grass, common buckthorn, purple loosestrife, leafy spurge, and noxious weeds), or

(iii) Does not have topography that tends to channelize the flow of surface runoff.

(7) If the District determines the existing buffer to be unacceptable, the applicant shall maintain the minimum buffer in its undisturbed state but may disturb the remainder of the buffer area as long as the buffer area is re-planted with native species and maintained as a native habitat. The buffer planting must be identified on the permit application and the buffer landscaping shall comply with the following standards:

(i) Buffer areas shall be planted with a native seed mix approved by the District, with the exception of a one-time planting with an annual nurse or cover crop such as oats or rye.

(ii) The revegetation project shall be performed by a qualified contractor. All methods shall be approved by the District prior to planting or seeding.

(iii) The seed mix shall be broadcast according to the specifications of the selected mix including date of application. The annual nurse or cover crop shall be applied at a minimum rate of 30 pounds per acre. The seed mix selected for permanent cover shall be appropriate for soil site conditions and yellow tag certified free of invasive species.

(iv) Native shrubs may be allowed to be substituted for native forbs. All substitutions shall be approved by the District. Such shrubs may be bare root seedlings and shall be planted at eight foot spacing. Shrubs shall be distributed so as to provide a natural appearance and shall not be planted in rows.

(v) Any groundcover or shrub plantings installed within the buffer area are independent of any landscaping requirements required elsewhere by the municipality or county.

(vi) Compacted soils in the buffer area shall be loosened to a depth of at least 5" prior to seeding.

(vii) No fertilizer shall be used in establishing new buffer areas, except on highly disturbed sites when necessary to establish acceptable buffer vegetation and then limited to amounts indicated by an accredited soil testing laboratory.

(viii) All seeded areas shall be mulched or blanketed immediately in a method approved by the District.

(ix) Buffer areas (both natural and created) shall be protected by erosion and sediment control measures during construction in accordance with these Rules. The erosion and sediment control measures shall remain in place until the vegetation is established.

(x) Buffer vegetation shall be actively managed throughout the three-year establishment period. This includes but is not limited to: mowing, overseeding, spot weed control, prescribed burning, and watering.

(xi) Buffer vegetation shall be established and maintained in accordance with the requirements above. During the first three full growing seasons, the applicant or developer must replant any buffer vegetation that does not survive. The applicant or developer shall specify a method acceptable to the District for monitoring compliance and verifying establishment of the buffer at the end of the third full growing season.

4. EXHIBITS. The following exhibits must accompany the online permit application in electronic .pdf format. ~~One set, full size; one set, reduced to 11"x17" and a copy of all submittals~~

(a) Site plan showing:

(1) Property lines, ~~and~~ corners, and delineation of lands under ownership of the applicant.

(2) Existing and proposed elevation contours with at least a 2-foot contour interval, including the existing run out elevation and flow capacity of the wetland outlet, and spoil disposal areas. Some circumstances may require a 1-foot contour interval.

(3) Area of the wetland portion to be filled, drained, excavated, or otherwise altered.

(b) Complete delineation of the existing wetland(s), supported by the following documentation:

(1) Identification of the delineation method used in accordance with the 1987 Army Corps of Engineers Manual.

(2) Identification of presence or absence of normal circumstances or problem conditions.

(3) Basin classification using the Cowardin method and Circular 39.

(4) Wetland data sheets, or a report, for each sample site, referenced to the location shown on the delineation map. In each data sheet/report, the applicant must provide the reasoning for satisfying, or not satisfying, each of the technical criteria and why the area is or is not a wetland.

(5) A delineation map showing the size, locations, configuration, and boundaries of wetlands in relation to identifiable physical characteristics, such as: roads, fence lines, waterways, or other identifiable features.

(6) The location of all sample sites and stakes/flags must be accurately shown on the delineation map. Delineations submitted by applicants shall normally be field-verified by District staff.

(c) A replacement plan, if required, outlining the steps followed for the sequencing process and including documentation supporting the proposed mitigation plan.

(d) A wetland functions and values assessment comparison before and after the project.

(e) Buffer vegetation management and monitoring plans if necessary.

(f) An Erosion Control Plan.

5. EXCEPTIONS. Rule E and its requirements shall not apply to annually cultivated land used for farming, research, or horticulture, unless the activity results in draining or filling the wetland.

Rule F: EROSION AND SEDIMENT CONTROL

1. POLICY. It is the policy of the Board of Managers to require the preparation and implementation of erosion and sediment control plans to control the export of sediment off site, which impacts surface water quality.

2. REGULATION. No person or political subdivision shall commence a land disturbing activity of the development of land one acre or greater, unless specifically exempted by this Rule, without first obtaining a permit from the District that incorporates and approves an erosion and sediment control plan for the activity or development.

3. CRITERIA. Erosion and sediment control plans shall comply with the following criteria:

(a) Erosion and sediment control measures shall be consistent with best management practices, and shall be sufficient to retain sediment onsite as demonstrated in the ~~MPCA manual, "Protecting Water Quality in Urban Areas," as amended~~ Minnesota Stormwater Manual.

(b) Erosion and sediment control measures shall meet the standards for the General Permit Authorization to Discharge Storm Water Associated With Construction Activity Under the National Pollutant Discharge Elimination System/State Disposal System Permit Program, Permit MN R100001 (NPDES General Construction Permit), issued by the Minnesota Pollution Control Agency, except where more specific requirements are required.

(c) The activity shall be phased when possible to minimize disturbed areas subject to erosion at any one time.

(d) All construction site waste, such as discarded building materials, concrete ~~truck~~ washout, pavement or masonry cutting slurry, chemicals, litter, and sanitary and hazardous waste at the construction site shall be properly managed and disposed of so they shall not have an adverse impact on soil or water quality.

(e) ~~All~~ turbid or sediment-laden waters related to dewatering must be discharged to a temporary sediment basin on the project site unless infeasible. Permittees must provide appropriate Best Management Practices (BMPs) to water discharged to a surface water such that the discharge does not adversely affect the receiving water or downstream properties. Permittees must continuously monitor discharge to any surface water to ensure adequate treatment has been achieved. Discharge points must be adequately protected from erosion and scour through accepted energy dissipation methods.

(f) Use of temporary sediment basins are required where 10 or more acres of disturbed soil drain to a common location. Basin design and construction must comply with NPDES General Permit requirements.

(g) Erosion and sediment controls required at the beginning of the project shall be installed before commencing the land disturbing activity, and shall not be removed without District approval ~~or until the District has issued a certificate of completion~~. Applicants may phase installation of erosion and sediment controls provided the phasing plan is included in the approved erosion and sediment control plan.

(h) The permittee shall be responsible for proper operation and maintenance of all erosion and sediment controls, and soil stabilization measures, in conformance with ~~BMPs and~~ the requirements of the NPDES General Construction Permit. The permittee is responsible for the operation and maintenance of temporary erosion prevention and sediment control BMPs at the site over all of the areas of the site that have not been fully stabilized until the District has transferred the permit to another permittee, or until the site has undergone final stabilization as reviewed and approved by the District ~~and has received an approved certificate of completion.~~

4. EXHIBITS. The following exhibits must accompany the online permit application in electronic .pdf format. ~~One set, full size; one set, reduced to 11"x17", and a copy of all submittals~~

(a) An existing and proposed topographic map which clearly shows contour elevations with at least 2-foot contour intervals on and adjacent to the land, property lines, all hydrologic features, the proposed land disturbing activities, and the locations of all runoff, erosion and sediment controls, and soil stabilization measures.

(b) Plans and specifications for all proposed runoff, erosion and sediment controls, and temporary and permanent soil stabilization measures.

(1) Temporary erosion and sediment control measures, which shall remain in place until permanent vegetation is in place, shall be identified.

(2) Permanent erosion and sediment control measures such as emergency overflow swales shall be identified.

(c) Detailed schedules for implementation of the land disturbing activity, the erosion and sediment controls, and soil stabilization measures.

(d) Plans and specifications for dewatering methods and outlet of stormwater.

(e) Plans and specifications for management and containment of all solid and liquid wastes, including hazardous wastes and concrete materials.

(f) Plans, specifications, and maintenance thresholds for temporary sediment basins if required by the permit.

(g) Detailed description of the methods to be employed for monitoring, maintaining, and removing the erosion and sediment controls, and soil

stabilization measures. The name, address, and phone number of the person(s) responsible shall also be provided.

(h) For projects over one acre of disturbed area, documentation that the project applicant has applied for a NPDES General Construction Permit shall be submitted as well as the Stormwater Pollution Prevention Plan (SWPPP) prepared for the NPDES permit.

5. EXCEPTIONS.

(a) Rule F and its requirements shall not apply to development less than 1 acre in size for all land uses, unless such development is greater than 1,000 square feet and:

(1) Is within the 100-year floodplain; or

(2) Is adjacent to a public water wetland, public water or wetland.

(b) Rule F and its requirements shall not apply to annually cultivated land used for farming, research, or horticulture.

Rule G: ILLICIT DISCHARGE AND CONNECTION

1. POLICY. It is the policy of the Board of Managers to:

(a) Regulate the contribution of pollutants to the District's municipal separate storm sewer system (MS4) by any user;

(b) Prohibit Illicit Connections and Discharges to the District's MS4;

(c) Establish legal authority to carry out all inspection, surveillance, and monitoring procedures necessary to ensure compliance with this Rule;

(d) Require a District permit for new direct connections, changes to existing hydrology, and other impacts related to the proper function, access, and maintenance to the District's MS4 or easements; and

(e) ~~Not allow~~Prohibit new direct connections or other impacts to the Beltline Interceptor or other components of the District's MS4 if the connection shall cause or exacerbate water conveyance or structural problems in the system, including but not limited to surcharging and flooding.

2. REGULATION. This Rule shall apply to all water entering the storm drain system of the District's MS4 generated on any developed and undeveloped lands unless explicitly exempted by the District. A permit and stormwater management plan ~~is~~ are required under this rule for new direct connections, replacement of existing connections, changes to existing hydrology, or other impacts to the Beltline Interceptor, or other components of the District's MS4, or its easements.

3. CRITERIA.

(a) Connection to the District's MS4 System.

(1) New direct connections and replacement of existing connections shall be completed using a method that is approved by the District.

(2) Peak flow rate, the total volume of flow, and the timing of the flow for new connections must be managed to not cause new water conveyance problems or exacerbate existing water conveyance problems in the Beltline Interceptor. Enlargement of existing connections is considered a new connection.

(b) Discharge Prohibitions.

(1) **Prohibition of Illegal Discharges.** No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.

(2) **Prohibition of Illicit Connections.** The construction, use, maintenance, or continued existence of illicit connections to the storm drain system without a District permit is prohibited.

(i) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(ii) A person is considered to be in violation of this Rule if the person connects a line conveying sewage to the District's MS4, or allows such a connection to continue.

(c) Suspension of MS4 Access.

(1) **Suspension due to Illicit Discharges in Emergency Situations.** The District may, without prior notice, suspend MS4 discharge access when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the District's MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the District may take such steps as deemed necessary to prevent or minimize damage to the District's MS4 or Waters of the United States, or to minimize danger to persons or the environment.

(2) **Suspension due to the Detection of Illicit Discharge.** Any person discharging to the District's MS4 in violation of this Rule may have their MS4 access terminated if such termination would abate or reduce

an illicit discharge. The District shall notify a violator of the proposed termination of its MS4 access. The violator may petition the District for a reconsideration and hearing. A person commits an offense subject to enforcement if the person reinstates MS4 access to facilities terminated pursuant to this Section, without the prior approval of the District.

(d) Monitoring of Discharges.

(1) **Applicability.** This section applies to all facilities that have stormwater discharges associated with industrial activity, including construction activity.

(2) **Access to Facilities.**

(i) The District shall be permitted to enter and inspect facilities subject to regulation under this Rule as often as may be necessary to determine compliance with this Rule. The discharger shall make the necessary arrangements to allow access to representatives of the District.

(ii) Facility operators shall allow the District ready access to all parts of the premises for the purposes of inspection, sampling, examination, and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law.

(iii) If the District has been refused access to any part of the premises from which stormwater is discharged, the District may seek issuance of a search warrant from any court of competent jurisdiction.

(e) **Requirement to Prevent, Control, and Reduce Stormwater Pollutants by the Use of ~~Best Management Practices~~ BMPs**. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses by these structural and non-structural BMPs. Any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required by the District to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system.

(f) **Watercourse Protection.** Every person owning property through which a watercourse passes shall keep and maintain that part of the watercourse within the property free of trash, debris, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such

structures shall not become a hazard to the use, function, or physical integrity of the watercourse.

(g) **Notification of Spills.** Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which result or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, or water of the U.S., said person shall take all necessary steps to ensure the containment and cleanup of such release. In the event of such a release of hazardous materials, said person shall immediately notify emergency response agencies of the release. In the event of a release of non-hazardous materials, said person shall notify the District in person or by phone or facsimile no later than the next business day following discovery of the release.

(h) Enforcement.

(1) **Notice of Violation.** Whenever the District finds that a person has violated a prohibition or failed to meet a requirement of this Rule, the District may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

(i) The performance of monitoring, analyses, and reporting;

(ii) The elimination of illicit connections or discharges;

(iii) That violating discharges, practices, or operations shall cease and desist;

(iv) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

(v) Payment of a fine to cover administrative and remediation costs; and/or

(vi) The implementation of source control or treatment BMPs.

(2) **Abatement.** If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work shall be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

(3) **Appeal of Notice of Violation.** Any person receiving a Notice of Violation may appeal the determination of the District. The notice of appeal must be received within 5 days from the date of the Notice of Violation. Hearing on the appeal before the District Board of Managers shall take place within 15 days from the date of receipt of the notice of appeal. The decision of the District shall be final.

(4) **Enforcement Measures after Appeal.** If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 3 days of the decision of the District Board of Managers, then representatives of the District are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the District or its agents to enter upon the premises for the purposes set forth above.

(5) **Cost of Abatement.** The District may assess costs for abatement. Within 30 days after abatement of the violation, the District shall notify the property owner of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 10 days. If the amount due is not paid within a timely manner as determined by the decision of the municipal authority or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

(6) **Injunctive Relief.** It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Rule. If a person has violated or continues to violate the provisions of this Rule, the District may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

(7) **Violations Deemed a Public Nuisance.** In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Rule is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

(8) **Relation to Other Rules.** None of the enforcement provisions of this Rule shall abridge or alter the right of the District to seek remedies provided for under Rule H herein.

4. **EXHIBITS.** The following exhibits must accompany the online permit application in electronic .pdf format. ~~One set, full size; one set, reduced to 11"x17", and a copy of all submittals~~

(a) Property lines and delineation of lands identifying ownership and easements.

(b) Proposed and existing stormwater facilities' location, alignment and elevation.

(c) Identification of existing and proposed site contour elevations with at least a 2-foot contour interval.

(d) Construction plans and specifications of the proposed connection, including design details, connection method, and timing of connection.

(e) Stormwater runoff volume and rate analysis for the 2-, 10-, and 100-year critical events, existing and proposed conditions.

(f) Narrative addressing incorporation of stormwater BMPs.

(g) On-site soil boring indicating soil type.

(h) Construction dewatering plan and construction water control and treatment plan.

5. **EXCEPTIONS**.

(a) The following discharges are exempt from discharge prohibitions established by this Rule: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising groundwater, groundwater infiltration to storm drains, uncontaminated pumped groundwater, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wetland flows, swimming pools (if dechlorinated - typically less than one PPM chlorine), street wash water, fire fighting activities, and any other water source not containing Pollutants.

(b) Discharges specified in writing by the District as being necessary to protect public health and safety.

(c) Dye testing is an allowable discharge but requires a verbal notification to the District prior to the time of the test.

(d) Any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver,

or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

Rule H: ENFORCEMENT

1. **MISDEMEANOR.** A violation of these Rules, an order, or stipulation agreement made, or a permit issued by the District is a misdemeanor subject to penalties as provided by Minnesota law.

2. **METHOD OF ENFORCEMENT.** The District may exercise all powers conferred upon it by Minnesota Statutes Chapter 103D. A rule, order, or stipulation agreement made or a permit issued by the District may be enforced by criminal prosecution, injunction, action to compel performance, restoration, abatement, and other appropriate action.

3. **PERMIT REQUIREMENT.** Pursuant to the terms of the permit, the District may issue a cease and desist order when it finds that a proposed or initiated activity or project presents a serious threat of soil erosion, sedimentation, or an adverse effect upon water quality or quantity, or violates any rule of the District.

4. **ATTORNEY FEES AND COSTS.** In any civil action arising from or related to these Rules, an order or stipulation agreement made or a permit issued or denied by the District, the court may award the District reasonable attorney fees and costs.

5. **ILLICIT DISCHARGE.** In addition to the remedies provided for in this Rule, the enforcement of Rule G shall be governed by Rule G(3)(h).

Rule I: VARIANCES

1. **WHEN AUTHORIZED.** The Board of Managers shall have the power to grant variances from these Rules where they find that extraordinary and unnecessary hardships may result from strict compliance with these Rules; provided that such variances shall not have the effect of nullifying the intent and purpose of these Rules and the overall plan of the District as adopted.

2. **PROCEDURE.**

(a) A written request for a variance shall be submitted to the District at least 12 calendar days prior to a regularly scheduled meeting date of the Board of Managers stating the exceptional conditions and the peculiar difficulties claimed.

(b) The request shall be referred to the Board and they shall review the request within 30 days of the date the request was filed with the District.

(c) In considering requests for variances, the Board shall consider the effect of the proposed variance upon the entire District and the anticipated effect of the proposed variance upon the overall plan of the District as adopted.

(d) If the Board determines that the special conditions which apply to the structure or land in question are peculiar to such property, and do not apply generally to other land or structures in the District and that the granting of a variance shall not in any way impair or be contrary to the intent of these Rules and the overall plan of the District as adopted, the Board may grant such variances and impose conditions and safeguards to ensure compliance with these Rules and to protect adjacent property.

(e) Variances may be denied by Motion of the Board and such Motion shall constitute a finding and determination that the conditions required for approval do not exist. No application for a variance which has been denied wholly or in part shall be resubmitted for a period of six months from the date of said denial, except on grounds of new evidence or proof of change of conditions found to be valid by the District.

3. TERM. The term of a variance shall be concurrent with the associated permit.

4. VIOLATION. A violation of any condition set forth in a variance shall be a violation of the District rules and shall automatically terminate the variance.

Rule J: SEVERABILITY

If any provision of these Rules is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of these Rules shall not be affected thereby.

DATE: February 27, 2019

TO: Technical Advisory Committee

FROM: Paige Ahlborg, RWMWD
Forrest Kelley, CRWD

SUBJECT: **Response to Comments on Informal Draft Rule Amendments**

The following are responses to comments received on CRWD and RWMWD draft rules as part of an informal review period.

From St. Paul Port Authority:

1. Request to change minimum erosion control threshold from 1,000 sf to 10,000 sf.
   Response: Most wetlands in urban areas have been lost to past fill activity. The remaining wetlands have been deliberately protected from the impacts of construction activity with this disturbance threshold. This protection has been in place since 2006. No change proposed.

2. Phase-in Cost Cap and Stormwater Impact Fund Contribution over 5-10 yrs.
   Response: Most private projects will be unaffected by this change and would already be budgeting for installation of onsite treatment practice, as they cannot pay into the stormwater impact fund until Alternative Compliance Sequencing has been completed. Phasing increases over time will result in additional delay in setting the contributions at a level that more accurately reflects the cost of implementing water quality BMPs. The 2020 timeline is proposed to remain and evaluation of the cost cap and SIF will occur more frequently.

3. Request to not require NPDES application and SWPPP documentation since they are a duplicate requirement of the NPDES permit.
   Response: Applicants for projects that disturb one acre of land are already required to obtain NPDES permit coverage, and providing documentation is not be a substantial burden. This confirmation is important in avoiding enforcement issues for the applicant. Additionally, SWPPPs are not reviewed as part of an NPDES application unless a project disturbs over 50 acres within one mile of an impaired or

special water. The NPDES permit documentation will continue to be a requirement for permit issuance.

4. Move certain language from exceptions section to the regulation section.
   Response: This change could be perceived as adding regulation and has not been previously discussed with the TAC. Exceptions are referenced in the regulation statement, and no documented issues have arisen to date. To reduce confusion during this current amendment process, no change is proposed, but future discussion should be considered.

From MnDOT:

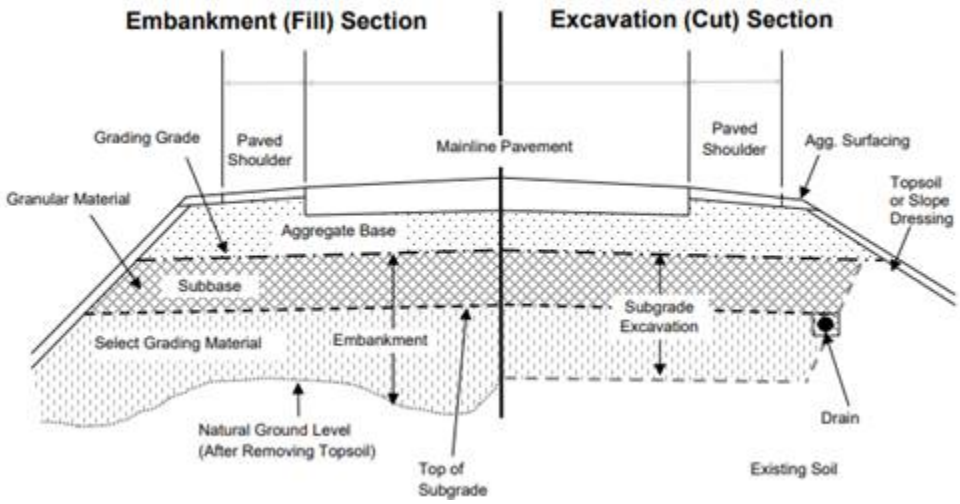
1. Request Runoff Volume be based on net new impervious rather than new/reconstructed impervious to incentivize reductions in impervious coverage.
   Response: The new/reconstructed impervious language will remain. Changing this requirement would result little to no water quality improvement within urbanized watersheds, which is inconsistent with district missions. Minimizing impervious surfaces is incentivized by requiring less treatment for less hard surface.

From Landform:

1. Remove road qualifier in "Land Disturbance" definition.
   Response: Agreed, any impervious surface mill and overlay activity that does not disturb underlying soil should meet the exception, not just road/linear projects.
   New suggested definition: "Any activity on property that results in a change or alteration in the existing ground cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to: development, redevelopment, demolition, construction, reconstruction, clearing, grading, filling, stockpiling, excavation, and borrow pits. Routine vegetation management and ~~road~~ pavement milling/overlay activities that do not alter the soil material beneath the ~~road~~ pavement ~~base~~, will not be considered land disturbance. In addition, in-kind catch basin and pipe repair/replacement done in conjunction with a mill/overlay project shall not be considered land disturbance."

2. Add definition for "Road Base" (Land Disturbance Definition).
   Response: Edits from previous question negates the need for the additional definition.

3. Add definition for "Soil Material" (Land Disturbance Definition).
   Response: Definition of soil material is proposed to include reference to the typical road section figure found below.
   New suggested definition: Any non-aggregate material that underlays a road or pavement section, including subbase and select grading material, in the context of the Land Disturbance Definition."
   i. **Adapted from 6/20/17 MnDOT Pavement Design Manual: https://www.dot.state.mn.us/materials/pvmtdesign/docs/newmanual/Chapter%203.pdf (see diagram below)**



4. Add definition for "Site" [Rule C:3(d)].
   Response: Adjustment will be made to language, see item 7 below.

5. Remove D soils from design infiltration rate table (or remove table altogether).
   Response: Table 1 will be removed from the Rules document and reference to the MN Stormwater Manual will be used as a replacement.

6. Consider allowing proprietary devices (PD) to meet volume reduction requirement.
   Response: Proprietary devices that provide the required filtration volumes as calculated between the overflow and the low outlet per Rule C:3(c)(3)(i) are allowed under Alternative Compliance Sequencing. New and emerging technologies may require review of third-party testing to ensure adequate removal efficiencies. No rule change necessary.

7. Regarding Rule C:3(d):
   Response: Adjustment will be made to section C:3(d) as follows: "Developments shall incorporate effective non-point source pollution reduction BMPs to achieve 90% total suspended solids removal from the ~~site~~ disturbed area of the project. Runoff volume reduction BMPs may be considered towards compliance with the 90% TSS removal requirement. Water quality calculations, documentation, and/or water quality modeling may be requested to verify compliance with the standard. Documentation of 90% TSS removal is not required for projects that achieve compliance through Stormwater Impact Fund contributions.

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

MEMORANDUM

Date: March 6, 2019

To: RWMWD Board of Managers

From: Nicole Soderholm, Permit Coordinator

Subject: Inspection & Enforcement Charges Increase

Watershed districts may charge field inspection fees for permitted projects pursuant to Minnesota Statute 103D.345. RWMWD has historically charged 'inspection and enforcement' fees for non-compliant sites (receiving a letter grade C or worse). Non-compliant sites trigger an extra follow-up inspection and additional staff time spent on reporting and enforcement. These fees are deducted from escrow collected at the beginning of the project. Fees do not apply to public projects.

For decades, the fee charged to non-compliant sites has been $60 per inspection. At the board's request, District staff have calculated a new inspection fee for non-compliant sites based on current employee charge-out rates, estimated staff time, and estimated travel mileage.

Requested Board Action:

Authorize an increase in permit inspection and enforcement charges to $155 per inspection, for applicable inspections going forward.

(651) 792-7950
fax (651) 792-7951
office@rwmwd.org
rwmwd.org
2665 Noel Drive
Little Canada, MN 55117

****

Stewardship Grant Program

****

Stewardship Grant Application Summary

Project Name: Shepherd of the Hills Lutheran Church Phase 2 **Application Number:** 19-04 CS

Board Meeting Date: 3/6/2019

Applicant Name: Miranda Oliver

Residential ☐ **Commercial/Government** ☑

Project Overview:

This project is located off Victoria Street and Gramsie Road in Shoreview. In 2017, the applicant received a grant (#17-14 CS) to install two rain gardens to help capture roof runoff. The church is requesting a second grant to install native plants around the building. These natives will help solve some long-term erosion issues the church has been experiencing. The church hopes to promote the pollinator friendly plantings and encourage minimal site maintenance once installed. They have a maintenance contract in place for a contractor to manage the rain gardens as well as the new planting areas.

This project is eligible for 50% coverage up to $15,000.

BMP type(s):

Native Habitat Restoration(1)

Grant Request:

$5,200.00

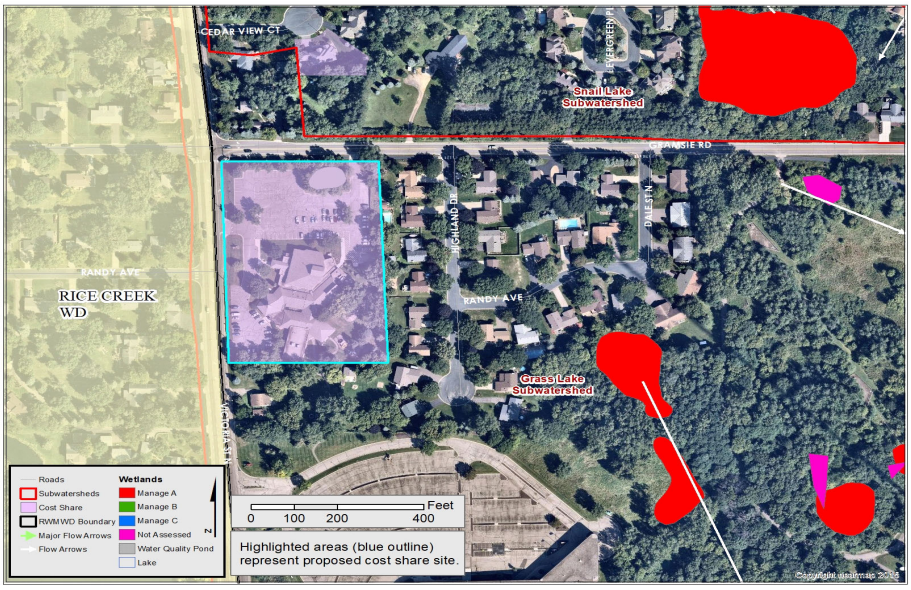
Recommendation:

Staff recommends approval of this application.

Subwatershed:

Grass Lake

Location Maps:



Stewardship Grant Application Summary

Project Name: Maplewood Community Center/YMCA **Application Number:** 19-05 CS

Board Meeting Date: 3/6/2019

Applicant Name: Robert Blick

Residential ☐ **Commercial/Government** ☑

Project Overview:

This project is located at the Maplewood Community Center which is now run as a YMCA. The owner is planning to re-landscape the front of the community center with plans to introduce more sustainable and environmentally sensitive landscape practices. The grant eligible practices include a tree trench and permeable pavers to replace existing hard surfaces and block retaining walls. Other non-eligible work includes replacing existing lights with LED lighting, reducing overall hard surface, adding a larger bike rack, and installing an outdoor seating area. The plan was reviewed by Barr Engineering and the applicant plans to incorporate feedback into the final design.
This project is located in a priority area and is eligible for 100% funding up to $100,000.

BMP type(s):

Tree Trench(1)

Grant Request:

$80,000.00

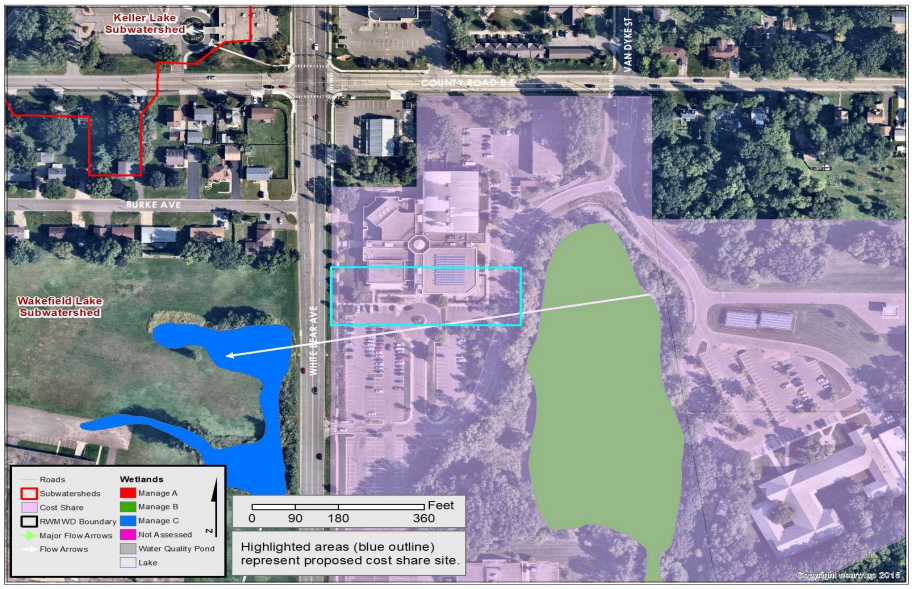
Recommendation:

Staff recommends approval of this application.

Subwatershed:

Wakefield Lake

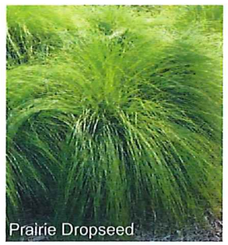
Location Maps:

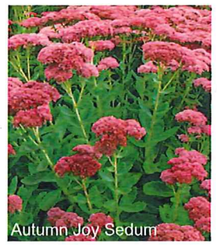


#19-05CS

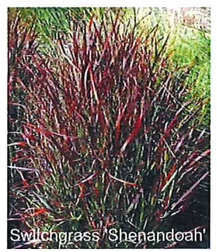
DECORATIVIE CHANNEL DRAIN COVERS

PLANT PALETTE


Prairie Dropseed


Autumn Joy Sedum

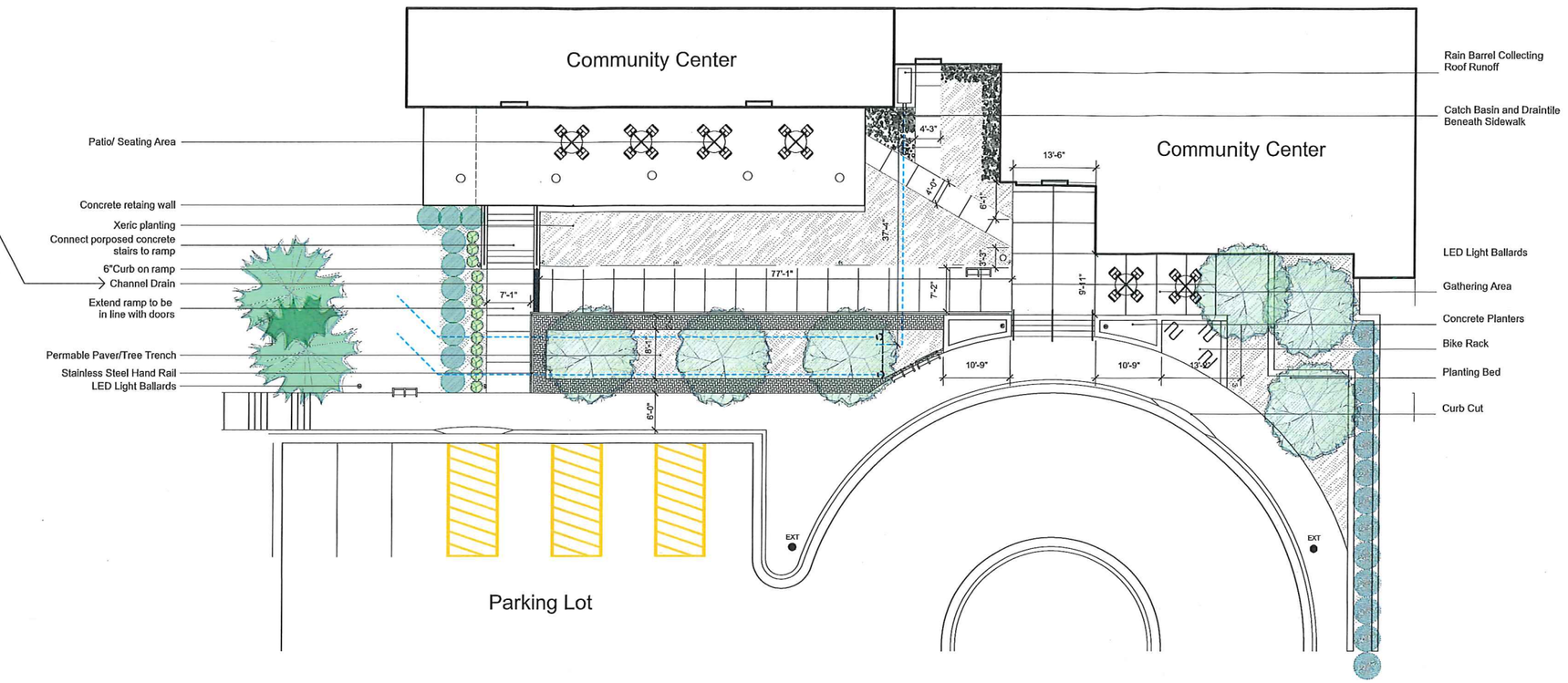

Columnar Norway Maple


Switchgrass 'Shenandoah'

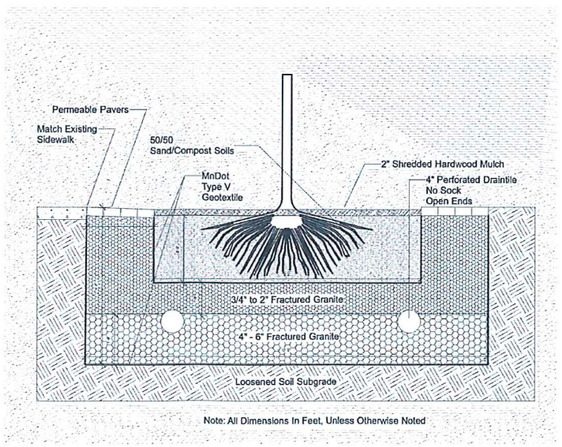

Black Eyed Susan


Purple Dome Aster

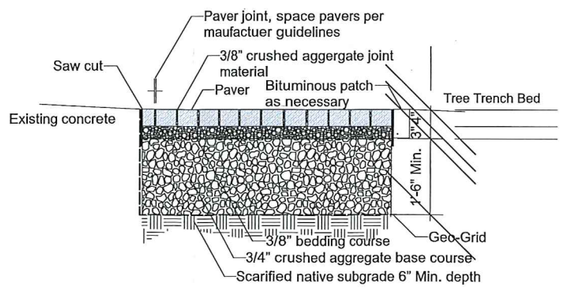

Taunton Yew



CONSTRUCTION DETAILS



4 Tree Trench
Scale: 1/2" = 1'-0"



2 Permeable Pavers
Scale: 3/4" = 1'-0"

Maplewood Community Center

2100 White Bear Ave
Maplewood, MN

Front Entrance Landscape Plan

DATE	REVISIONS

outdoor LAB Landscape Design inc.
1196 7th Street East, St. Paul, Minnesota 55106
email: info@outdoorlab.net phone: 651•202•3662

DRAWN BY	KO
CHECKED	Checked
APPROVED	Approved
SCALE	1" = 10'

Date: 07/23/2018

L1.1

Stewardship Grant Program Budget Status Update

March 6, 2019

Homeowner	Coverage	Number of Projects	Funds Allocated
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share $15,000 Max	0	$0
Rain garden w/hard surface drainage, pervious pavement, green roof	75% Cost Share $15,000 Max	0	$0
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share $15,000 Max	1	$12,000

Commercial, School, Government, Church, Associations, etc.	Coverage	Number of Projects	Funds Allocated
Habitat Restoration	50% Cost Share $15,000 Max	0	$0
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share $100,000 Max	0	$0
Priority Area Projects	100% Cost Share $100,000 Max	1	$200,000
Non-Priority Area Projects	75% Cost Share $50,000 Max	0	$0
Public Art	50% Cost Share	1	$6,000
Aquatic Veg Harvest	50% Cost Share $15,000 Max	0	$0
Maintenance	50% Cost Share $5,000 Max for 5 Years	12	$11,000
Consultant Fees			$69,200
Total Allocated			**$298,200**

2019 Stewardship Grant Program Budget	
Budget	$1,250,000
Total Funds Allocated	$298,200
Total Available Funds	**$951,800**

****

Action Items

****

Request for Board Action

Board Meeting Date: March 6, 2019 **Agenda Item No.:** 8A

Preparer: Tina Carstens, Administrator
Paige Ahlborg, Watershed Project Manager

Item Description: Snail Lake Shoreline Restoration Project Bid Review and Award

Background:
This project involves the shoreline buffer restoration of a Ramsey County Parks and Recreation site and twenty-six residential sites. Combined, the total restoration area is approximately 1.3 acres, with individual sites ranging from 400 square feet to 11,000 square feet.

The project scope includes site-wide management for invasive and non-desirable species, bank and shoreline stabilization, and revegetation using a combination of native seed and plant plugs. The purpose of completing this work is to establish a diverse, natural shoreline buffer, as well as provide wildlife and pollinator habitat, runoff interception and filtration, competition for invasive species, and landscape aesthetics. Individual site design and revegetation components were developed for this project based on needs for shoreline use by landowners; in addition to, important site circumstances such as elevation, remnant plant communities, and anticipated soil and hydrologic conditions.

Site preparation for the project will begin as soon as conditions allow in spring 2019. Stabilization of upland soils and vegetation will shortly follow, allowing the contractor to closely monitor water level elevations for timing and favorable conditions to plant the aquatic and transitional zones. Active water levels during the contract period will dictate the extent waterward at which the aquatic plantings can be established. The overall project shall be substantially completed by fall of 2020. Long-term monitoring and maintenance for all individual project sites will continue beyond the completion date, for the 2021 and 2022 growing seasons. Cost estimate for the proposed project is $337,500 which includes two years of maintenance.

Final plans and specs went out for public bid on February 15th and will be due on March 1st. Staff will bring a contractor recommendation to the board of managers at the March 6th meeting.

Applicable District Goal and Action Item:

Goal: Achieve healthy ecosystems – The District will manage water and related natural resources to create and preserve healthy ecosystems.

Action Items: EC3 – Lead ecological restoration projects to improve water resources and associated upland habitats.

Staff Recommendation:

Staff recommends that the Board award the project to the responsive bidder whose bid was the lowest and whose involvement would be in the best interest of the District. Staff also recommends the Board direct staff to prepare and mail the Notice of Award, prepare the draft agreement and request and review the required submittals.

Financial Implications:

The Snail Lake Shoreline Restoration Project budget is included in the 2019 BMP Incentive Program budget.

Board Action Requested:

Accept the bids and award the Snail Lake Shoreline Restoration Project to _____. Direct staff to prepare and mail the notice of award, prepare the draft agreements and review the required submittals.

Request for Board Action

Board Meeting Date: March 6, 2019 **Agenda Item No.:** 8B

Preparer: Tina Carstens, Administrator

Item Description: BMP Maintenance Program Selection of Contractor(s)

Background:
The purpose of this program is to provide an affordable, high-quality opportunity for best management practice (BMP) owners to keep their BMPs functional and attractive.

For the first two years, the district conducted a pilot of this program, which included maintenance of BMPs at Maplewood Mall, Maplewood Living Streets, and a select number of sites in the city of Little Canada. In 2015 and 2016, the District rolled out a complete program that continued the maintenance of these sites, in addition to numerous others, both District projects and city/county partner sites, which were reimbursed. In 2017, we hired maintenance contractors for 2 years and are again looking to hire contractors for 2019 and 2020.

This time we have twenty sites on the list including Maplewood Mall and inlet repair at the Casey Lake neighborhood rain gardens. The others include schools and churches that had BMPs installed through our targeted retrofits program.

A Request for Qualifications (RFQ) for the 2019-20 maintenance program was posted last month. The deadline for submitting the RFQ is Friday, March 1st. We will bring the submitted proposals to the board meeting along with our recommended selection(s).

Applicable District Goal and Action Item:

Goal: Achieve quality surface water - The District will maintain or improve surface water quality to support healthy ecosystems and provide the public with a wide range of water-based benefits.

Action Item: WQ9 - Maintain District water quality improvement projects and consider opportunities to support the maintenance activities of others.

Staff Recommendation:
Staff recommends awarding the 2019-2020 BMP Maintenance Contract to _____.

Financial Implications:
This program is included in the approved 2019 budget for $130,000.

Board Action Requested:
Award the 2019-2020 BMP Maintenance contract to _____ and direct staff to prepare the necessary documents and work with the selected contractor.

****

Administrator's Report

****

MEMO

TO: Board of Managers and Staff

FROM: Tina Carstens, Administrator

SUBJECT: March Administrator's Report

DATE: February 28, 2019

A. Meetings Attended

Monday, February 4	10:00 AM	Meet with Manager Aichinger
	12:00 PM	Staff Training Meeting
Tuesday, February 5	10:30 AM	Meet with Barr re: number of projects
Wednesday, February 6	5:00 PM	Administrator Review
	6:30 PM	Board Meeting
Thursday, February 7	8:00 AM	Water Resources Conference Planning
Friday, February 8	7:30 AM	VLAWMO Technical Advisory Meeting
Monday, February 11	9:30 AM	Intereum Meeting re: Board Room Updates
	1:00 PM	MPCA Miss River Monitoring Meeting
Tuesday, February 12	Various	Staff Performance Reviews
Wednesday, February 13	Various	Staff Performance Reviews
	3:00 PM	Meet with Little Canada re: Twin Lake
Thursday, February 14	Various	Staff Performance Reviews
Wednesday, February 20	9:00 AM	MAWA Meeting and MAWD Legislative
Tuesday, February 26	10:00 AM	Meeting with City of Shoreview
	2:00 PM	Metro-INET Meeting
Wednesday, February 27	10:00 AM	Meet with St. Paul Urban Tennis Center
Friday, March 1	10:30 AM	Meet with Target
	1:00 PM	Snail Lake Shoreline Bid Opening

B. Upcoming Meetings and Dates

Environmental Forum	Monday, March 4, 2019
Twin Lake Public Meeting	Tuesday, March 12, 2019
Metro MAWD Meeting	Tuesday, April 16, 2019
CAC Meeting	Tuesday, April 23, 2019
2019 Water Summit	Thursday, May 9, 2019
WaterFest	Saturday, June 1, 2019

C. Staff Updates

We are just wrapping up our intern resume submittal time with the deadline ending on March 1st. While the number of applicants is lower than previous years, it appears we have some very qualified candidates. Staff will start the selection and interview process in the next couple of weeks. We will be hiring seven interns this year to address the considerable amount of work to be accomplished in 2019! We will have three natural resources interns, two water quality interns, one permit inspection intern and one communications intern.

In addition to our intern selection, we will be bringing on board our new Natural Resources Technician before the end of the month. Matt Doneux was an intern with us in the 2017 field season and also had other natural resources field experience prior to that work. He is currently employed with Pace Analytical. Matt is a great fit for our staff and we are all looking forward to him coming on board.

D. Twin Lake Public Meeting

District and Barr staff have worked with the City of Little Canada to answer some questions the city and residents had about the higher water levels in Twin Lake. We presented the information to the city staff and mayor a couple of weeks ago and now a public meeting has been schedule for March 12th at 6:00 pm. Just wanted you to be aware that the meeting is being held and invite you to attend if you would like to represent the District at that meeting. Brandon Barnes from Barr will be presenting the information we have collected for the City of Little Canada. I will also be in attendance.

E. CAC Update – Carrie Magnuson

The Citizen Advisory Commission met on February 26th, 2019. The group included staff liaison Carrie Magnuson and Board liaison, Cliff Aichinger. The following initiatives were discussed and further developed

a. Connecting with our Cities – The CAC would like to collaborate with staff to improve interaction with city staff and elected officials.
b. Communicating with residents and local businesses about the use of de-icing salts and the resulting chloride pollution - This effort would include supporting legislation aimed at reducing liability of salt applicators (HF1502), simplifying messaging for small businesses (possibly develop signage to be given out), staffing event outreach, or supplying educational materials for cities or businesses to pass out to residents.
c. Utilizing the Nextdoor App – RWMWD as an organization is not allowed to have an account on Nextdoor, but CAC members with the app are willing to share

prepared scripts with hyperlinks, events, stewardship behaviors, etc. from their own accounts to their neighborhood.

d. Developing invasive species outreach – CAC will create a sub-committee that will develop a display about invasive species. Specifically they want to educate residents about the problem with releasing aquarium pets like goldfish. Goldfish grow and school with carp and can be just as detrimental to lake health. This display will be developed and staffed by CAC at 2019 WaterFest.

The group also reviewed major projects being done by RWMWD staff and partners. Future meetings: April 23rd, June 11th, September 24th, October 22nd, December 10th.

F. Upcoming Board Information and Education Efforts

There have been a number of items that we've talked about in the last few board meetings that I have said would be coming in future meetings so thought I would give you an update on those things.

Staff plans to bring discussion on our role in groundwater and potential actions and projects at the April meeting.

At the May meeting, we have invited a BWSR representative as well as a Barr staff member to host a discussion on wetlands and wetlands impacts, replacement and restoration work.

We've also talked about all the opportunities we've identified through communications with our partners and the various subwatershed studies we have completed. District and Barr staff are working on a way to compile all that information that is useful for staff and the board. I envision an interactive map to display the information and make it accessible.

G. MAWD Legislative Updates

New this year, Ray Bohn will be providing weekly legislative updates via video. I will be forwarding them on to you as they come to me by email. I have also attached the latest written update for your information as well. Here is a link to this week's video.

https://drive.google.com/file/d/1dJYQl69ThV1moxYeRTT9ZjWDCplPJivr/view

Legislative Update: Feb 20, 2019

MN Association of Watershed Districts

With six weeks of the session already history and the seventh week underway, the 2019 Legislative Session is starting to kick into high gear. As of Monday, Feb 18 the Senate has introduced 1,473 bills, while the House is at 1,409 introductions. The revisor's office has indicated that they are busier than normal with bill drafting and had a two week backlog.

MAWD and the Red River Watershed Management Board have been working to get bills introduced from our respective legislative programs. We have been making progress but have encountered significant resistance on the proposed general levy increase. Because this is primarily a rural watershed district issue, we need to garner support from House and Senate rural members to move forward on this legislation. If you haven't talked to your local house or senate member you need to double down and ask them to sign onto this important bill to meet and keep pace with our general fund needs.

Governor Walz introduced his budget on Tuesday, Feb 19th and Walz's proposal for 2020 and 2021 would be a more than 8 percent increase from the roughly $46 billion current two-year budget. He also proposed a 20 cent per gallon gas tax increase. We will be reviewing the governor's budget in the next few weeks to determine who are the winners and losers in this first round of the budget process.

We have not seen any bill introductions attacking watershed districts and our authorities. We have been told to expect something in the near future, so for now please stay tuned for any future developments.

Committee deadlines have been announced. In addition, for the first time in memory the leadership and governor have agreed on deadlines for a smooth session conclusion. These deadlines include:

- 1st Policy Committee Deadline – March 15, 2019
- 2nd Policy Committee Deadline – March 29, 2019
- Finance Committee Deadline – April 12, 2019

Please review the bills below that we are working on and our legislative priorities for the session. Please share this MAWD Legislative Update with your managers, staff and key partners. – Ray Bohn, MAWD Lobbyist

TOP Legislative Priorities

INCREASE GENERAL FUND LEVY LIMIT **MN Statute § 103D.905 subd. 3**

Remove (or increase) the $250,000 general fund levy limit while keeping the not-to-exceed levy limit of 0.048 percent of estimated market value.

- Bill drafted to eliminate $250,000 cap, lobbyist seeking authors in House and Senate (see comments above).
- Will probably need to redraft legislation to retain a dollar cap in our bill. Legislators don't like open ended levies that could raise over $4 million for several watershed districts and greatly increase others from the present $250,000 cap.

UPDATE THE PROJECT LEVY STATUTE **MN Statute 103D.905**

Modify the project tax levy statute to allow this option to be applied for ALL types of state and federal grants, not just for Clean Water Partnership (CWP) grants.

- SF 1391 WD construction or implementation fund and project tax levy sources of financing expansion
  - Senate Authors: Andrew Lang , Dan Sparks, Kent Eken, Mark Johnson, Bill Weber
  - 2/18/19 Referred to **Environment and Natural Resources Policy and Legacy Finance** committee
- We are still working on author signatures for the House file.

INCREASE OUTSTANDING LOAN LIMITS FOR WDs **MN Statute § 103D.335 subd. 17**

Remove (or increase) the $2M limit on outstanding loans watershed districts, especially for those entities that serve as drainage authorities.

- After further review of this proposal, questions have arisen if the borrowing limit cited only applies to projects undertaken under Chapter 103D. The borrowing limit does not appear to pertain to 103E drainage projects. Because this legislation was intended to deal with 103E projects drainage we are still in discussions on the need for this legislation.

IMPROVE COORDINATION BETWEEN LOCAL/STATE WATERSHED PLANS **MN Statutes 114D and 103B**

Improve coordination and remove duplicative efforts of water management planning being conducted at both the local and state levels.

- HF 0875 Clean Water Legacy Act modified, and coordinated watershed management provided for
  - House Authors: Peter Fischer, Paul Torkelson, John Poston, Jeff Brand
  - 2/07/19 – Referred to **Environment and Natural Resources Policy (ENR-P)** committee
  - 2/13/19 – Hearing in **ENR-P** committee. Emily Javens (MAWD) and LeAnn Buck (MASWCD) testified.
  - 2/13/19 – Bill referred to the **Ways and Means** committee
- SF 1069 Clean Water Legacy Act modification; coordinated watershed management establishment
  - Senate Authors: Mark Johnson, Carrie Ruud, Charles Wiger
  - 2/11/19 – Referred to **Environment and Natural Resources Policy and Legacy Finance (ENR-PLF)** committee
  - 2/25/19 – Hearing scheduled in the **ENR-PLF** committee. Javens will testify.

REINFORCE RIGHTS TO MAINTAIN AND REPAIR 103E PUBLIC WATERS DRAINAGE SYSTEMS **MN Statute 103E**

Reinforce existing rights to maintain/repair drainage systems that operate under MN Statute 103E.

- Drafting legislation to clarify several 103E statute provisions dealing with repair and maintenance in public waters.
- Held meeting with DNR to discuss issues surrounding their pubic waters drainage guidance document.
- Plan on additional meetings with DNR and to introduce legislation.

INCREASE MANAGER COMPENSATION (PER DIEMS) **MN Statute § 103D.315 subd. 8**

Increase maximum daily manager per diem rates.

- Rep. Rick Hanson, chair of the House Environment & Natural Resources Finance Committee, has agreed to author our per diem increase to $125 but asked that we also include the SWCDs in the legislation. After discussions with MASWCD, we are in the process of drafting a new bill to include them in our bill.
- MAWD is exploring options for expanding the activities that would be eligible for per diems. For instance, watersheds may be allowed to pay a per diem for meeting prep. More details will follow.

REMOVE COMMERCIAL FISHING MONOPOLY ON COMMON CARP **MN Statute § 103D.905 subd. 3**

Remove permitting restrictions when hiring contractors to remove common carp from lakes.

- After consultation with DNR we have agreement on legislation to exempt local units of government from the requirements of the Commercial Fishing Areas statute (97C.815). This bill is being drafted and Sen. Pratt will author the legislation in the Senate, and we are working with a member to chief author the bill in the House. Rep. Tony Albright will co-author the bill in the House. DNR supports the legislation.

FLOOD HAZARD MITIGATION PROGRAM **CAPITAL BUDGET BILL (BONDING BILL)**

The Governor's Capital Budget Recommendations (bonding bill) we believe will be released soon. We have been told that it is doubtful that the Governor will include any funding for the Flood Hazard Mitigation Program. If that turns out to be the case, watershed districts impacted by a no funding recommendation will need to redouble efforts with their local legislators to insure the program is adequately funded for our ongoing flood programs.

For more detailed information on specific bills, visit www.mnwatershed.org/policy-issues and watch for legislative updates delivered to your inbox starting next week. Thank you for your assistance in our legislative efforts!

****

Project and Program Status Reports

****

resourceful. naturally.
engineering and environmental consultants

Project Work Plan

Original Date: February 22, 2019

Project: Cottage Place Wetland Restoration

Project: 23/62-1306.00

Project Team

District Staff: Paige Ahlborg, Tina Carstens

Barr Staff: Erin Anderson Wenz, Fred Rozumalski, Katie Turpin-Nagel, Jennifer Brekken, Karen Wold, Brendan Dougherty

Barr Team Roles

Project Management:	Fred Rozumalski
Design:	Fred Rozumalski, Brendan Dougherty
Hydraulic and Hydrologic Modeling:	Katie Turpin-Nagel
Engineering Review:	Erin Anderson-Wenz, Katie Turpin-Nagel
Landscape Architecture:	Fred Rozumalski, Brendan Dougherty
Wetland Delineation and Permitting:	Karen Wold

City of Shoreview Staff

City Engineer: Tom Wesolowski

Parks & Rec Director: Tracy Peterson

Scope of Work

Cottage Place wetland is a degraded wetland that has lost much of its ecological value and stormwater treatment capacity due to changes within the watershed and direct alterations by people. A portion of the wetland has been filled with bituminous asphalt, concrete and possibly other unknown materials that are visible as distinct dump truck piles overgrown with cottonwood and boxelder trees. The property is owned by the City of Shoreview and the Church of St. Odelia. This site provides many opportunities to meet District goals including:

- to restore ecological value
- to provide additional stormwater treatment
- to clean up environmental contamination
- to serve as an educational facility
- to restore wildlife habitat
- to provide passive recreation

Task 1 will involve conducting a site analysis and a visioning workshop. Existing information on hydrology, soils, plant community, potential environmental contamination and adjacent land uses will be gathered and mapped in preparation for a visioning workshop. Barr staff will then facilitate a visioning workshop with District and City staff, and Church of St. Odelia representatives to produce goals and objectives for the project along with a vision of what the site would ideally become.

Task 2 involves the process of environmental investigation and cleanup. The first step is to conduct a Phase 1 environmental site assessment (ESA) to evaluate the potential sources and areas of soil and groundwater contamination based on historical land use and current site conditions. The Phase I process involves a desktop study of regulatory and historical records, interviews and a site visit, which will be documented in a Phase I ESA report. A Phase I ESA helps inform plans for collecting environmental samples, and is required when seeking MPCA review and approval of investigation and cleanup, and grant funding. A meeting will be conducted to share the Phase 1 investigation results with the District and City staff.

Upon District approval to proceed, Barr will conduct a limited Phase 2 investigation to assess soil conditions and collect environmental samples. For this site, it is anticipated that Barr will collect soil samples with assistance from a backhoe operator subcontracted to Barr to excavate within the fill piles, complete field observations for contamination, categorize the debris, and collect soil samples for laboratory analysis. The results of the Phase 2 investigation will be used to make clean-up recommendations through the preparation of a Response Action Plan (RAP). It will be determined if shallow groundwater samples are necessary based on the nature and extent of the contamination identified in the backhoe investigation. If so, shallow groundwater samples would be collected in a separate event by installing temporary wells with a push-probe drilling equipment.

Environmental clean-up is anticipated to involve removing trees, likely leaving some debris in place, grading and covering debris or contamination to allow for landscape installation, unless significant contamination is identified in the investigations. Costs for cleanup will be developed in conjunction with project planning. Barr will also determine if grant funding is available to assist with the clean-up and provide recommendations and assistance for grant applications.

Typical schedule for Phase I/II is up to 3 months. RAP development typical occurs concurrently with project design and MPCA review of RAP is typically about 2 months.

Task 3 will include the conceptual design of a wetland regeneration plan. Barr will develop a conceptual drawing of the wetland regeneration project with (if identified in the visioning workshop) the layout of additional stormwater treatment, habitat improvements, recreational/educational facilities and other aspects set forth in the initial workshop. The conceptual design will be presented to District staff and then

presented to City staff and Church representatives to determine best course forward for both the District and the land owners.

Task 4 will involve the assessment of stormwater improvement possibilities. Modeling will be conducted using XPSWMM to verify flood elevations (hydraulics) and P8 to analyze water quality benefit.

Task 5 will involve the wetland permitting process necessary if the wetland is to be altered.

Task 6 will involve the creation of plans and specifications for Cottage Place wetland. These plans will be reviewed by District staff, City staff and park staff to ensure that the project meets desired goals.

Budget

Barr will complete the work outlined above on a time and expense basis, for an estimated **$100,000.**

Project Tracking

Project Milestones

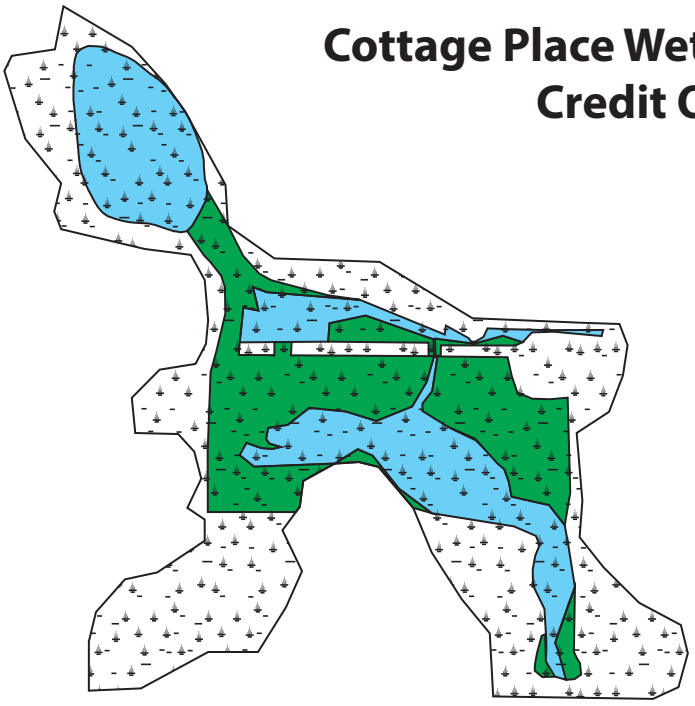
Milestone	Estimated Completion Date	Actual Completion Date
Site Assessment & Workshop	March, 2019	
Phase 1 environmental investigation	March, 2019	
Phase 2 environmental investigation	May 15, 2019	
Conceptual planning & stormwater modeling	May 15, 2019	
Wetland permitting	August 1, 2019	
Final plans and specifications	September 15, 2019	

Monthly Updates

Month	Budget Spent $$ / %
January, 2019	
February, 2019	
March, 2019	
April, 2019	
May, 2019	

Month	Budget Spent $$ / %
June, 2019	
July, 2019	
August, 2019	
September, 2019	

Cottage Place Wetland Restoration Credit Options



Original pre-development wetland size 9.24 acres

Current wetland size 2.34 acres

Potential restoration (due to property ownership and existing infrastructure 2.2 acres

Credit Options

USACE bank site

Not feasable or practical due to small size

Specific off-site project wetland replacement

Cottage Place restoration must coincide with proposed impact site construction

Credits needed for impact site must be comparable to credits available from Cottage Place restoration (note 2:1 replacement requirements)

Cottage Place restoration could be used to compensate for a project with wetland impacts to meet the District's 1:1 no-net loss policy, regardless of whether state or federal credits will be achieved.

Method of tracking must be established

Impact vs restoration for District "bank" system

Regulations for Working in Wetlands

WCA

Cottage place restoration must be designed to meet WCA no-net-loss criteria

Options:

- approved replacement plan
- removing sediment or debris
- excavation in Type 1 and 2 wetlands out of scope (not regulated)

USACE

- waiting for approved jurisdictional determination
- if Water of the U.S., design project to avoid mitigation

Application Process

Wetland replacement plan for credits

- Joint Application Form would be completed by the applicant responsible for wetland impacts
- Cottage Place wetland would be the wetland restoration plan

Site improvements - not for credit

- RWMWD is the applicant on the Joint Application Form documenting work in the wetland
- Attachment B of the Joint Application Form documenting wetland replacement/mitigation not required

resourceful. naturally.
engineering and environmental consultants

Project Work Plan

Original Date: February 22, 2019

Project: Wetland Restoration Site Search

Project: 23621200.19 004

Project Team

District Staff: Paige Ahlborg, Carrie Magnuson, Tina Carstens
Barr Staff: Erin Anderson Wenz, Karen Wold, Josh Vosejpka, Mark Jacobson, Katie Turpin-Nagel

Barr Team Roles

Project Management: Karen Wold
GIS: Josh Vosejpka
Wetland Evaluation: Karen Wold, Mark Jacobson, Katie Turpin-Nagel

Scope of Work

Staff will conduct a desktop review to identify potential wetland restoration sites within the District. This evaluation is warranted at this time for the following reasons:

- Minnesota Wetland Conservation Act (WCA) rules and statute changes focus wetland replacement outside of the District.

  WCA Statute changes:

  - The 2015 WCA Statute eliminated the requirement for impacts in the seven-county metropolitan area to be replaced in the seven-county metropolitan area.
  - The 2015 Statute also includes a change in wetland replacement siting which skips the first two priorities of: 1) replacing on site or in the same minor watershed and 2) replacing in the same major watershed as the impacted wetland if replacement is done through banking. Therefore, the priority order begins at replacement in the same county or wetland bank service area (BSA). This will not become effective until established in the WCA Rules. New WCA Rules are expected soon.
  - The 2017 WCA Statute eliminated "County" as a factor in the priority order, and pre-settlement areas are no longer a restriction for replacement proposed within the same BSA. The high-priority areas for wetland replacement that are currently being designated by the Minnesota Board of Water and Soil Resources (BWSR) are generally outside of both the District and the Twin Cities metropolitan area.

    - When the new WCA Rules are established, applicants can replace anywhere in the BSA with no regard to the vicinity of the impact location, which means that wetland replacement sites can be located significantly distant from the wetland impact location. For example, BSA 7 extends into parts of Aitkin County and Renville County, so a wetland impact in Ramsey County could potentially be replaced 100 miles away.

- The District has a policy to achieve no-net loss of wetlands within the District. In addition, under District Rule E(2)(a)(2), wetland replacement (both constructed and banked) locations shall be in accordance with the following prioritization:
    - On site
    - Within the same sub-watershed
    - Within the District
    - Outside of the District (least preferred)
- There are currently no wetland bank sites within the District. Generally speaking, throughout Minnesota, project-specific wetland replacements have often been unsuccessful. Project-specific wetland replacements are often excavated areas that may not be suitable or sustainable for wetland development. Sites in the metropolitan area typically experience invasion from adjacent non-native vegetation and are not large enough to be self-sustaining and maintain sufficient wetland functions. In addition, applicants often have a history of not following through with their responsibilities to monitor and maintain a wetland replacement site to meet designated performance standards.
- Under Minnesota Rules 8420.0522 Subpart 7 F, regulatory agencies, local government units, and other entities involved in wetland restoration must collaborate to identify potential replacement opportunities within their jurisdictional areas.

Therefore, because changes in the WCA are resulting in wetland replacement locations outside of the District, and because the District stands by its no-net loss policy, it is worthwhile to look throughout the District for wetland restoration options. If the District can identify potential wetland restoration areas, preferably multiple sites within several different sub-watersheds, these areas can be provided to applicants to help meet both WCA and District rules. The site search will be focused on finding opportunities that have the potential to achieve sustainable wetland communities. The ideal site would be sufficient in size and suitability to be established as a wetland bank. Even if a site is not suitable for bank establishment, however, it could be identified as an option for site-specific wetland replacement to meet District rules. In addition, we may find places that aren't suitable for banking but would be good restoration sites, nonetheless, like the Cottage Place wetland site being evaluated in 2019.

The tasks involved in completing this work are described below.

Task 1 – Review potential wetland restoration sites that were identified from previous Minnesota Routine Assessment Method for Evaluating Wetland Functions (MNRAM) wetland assessments and evaluate their potential for wetland bank sites, project-specific wetland replacement or other restoration opportunities.

Some sites were identified when MNRAMs were completed in 2013 for the Grass Lake Watershed. Potential restoration sites may not have been identified when MNRAMs were completed initially for the entire District. For this task, we propose to use MNRAM results to identify degraded wetlands, existing high-quality wetlands, and high-priority areas for wetland restoration throughout the District.

Task 2 – Complete a desktop analysis within the District legal boundaries using available data sets including hydric soil mappings; LIDAR topography; digital elevation model data; National Wetland Inventory areas indicated as having been ditched, drained, or partially drained; land ownership; USGS topographic maps; multiple years of aerial imagery; habitat connectivity; and other data sets to identify potential wetland restoration areas. Utilize existing data from previously completed broad-scale evaluations. Identify high-priority areas by sub-watershed where restoring previously degraded wetlands will contribute to achieving watershed goals.

Task 3 – Prepare a summary of results which identify potential wetland restoration areas prioritized through identification of adjacent habitats or buffers, flood storage potential, habitat connectivity, potential to benefit water quality, connectivity with or between important resources, proximity to other protected lands, ground water sensitivity, projected land use, size of restoration, ease of restoration, number of landowners, and other factors.

Budget

Barr will complete the work outlined above on a time and expense basis, for an estimated **$25,000.**

Project Tracking

Project Milestones

Milestone	Estimated Completion Date	Actual Completion Date
Task 1	May 1, 2019	
Task 2	July 1, 2019	
Task 3	September 30, 2019	

Monthly Updates

Month	Budget Spent $$ / %
January 2019	
February 2019	

Month	Budget Spent $$ / %
March 2019	
April 2019	
May 2019	
June 2019	
July 2019	
August 2019	
September 2019	

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

resourceful. naturally. engineering and environmental consultants BARR

Memorandum

To:	Board of Managers and Staff
From:	Tina Carstens and Brad Lindaman
Subject:	Project and Program Status Report – March 2019
Date:	February 28, 2019

Project feasibility studies

Owasso County Park stormwater master plan and detailed design: phases I and II (Barr project manager: Matt Metzger; RWMWD project manager: Paige Ahlborg)

The purpose of this study is to assist City of Shoreview Public Works and Ramsey County Parks with creating a holistic "living streets" retrofit design for North Owasso Road and best management practice (BMP) design for new parking lots in Owasso County Park.

The City of Shoreview anticipates submitting the roadway project feasibility study to the city council on March 4 and beginning 100-percent design in March 2019. Utility construction will likely begin this year, with the majority of roadway and stormwater management feature construction occurring in 2020. Barr and RWMWD staff will be engaged in the construction portion of the project to verify that the stormwater design implementation meets RWMMD standards and expectations.

System-wide evaluation of flood control options/Beltline resiliency study (Barr project manager: Brandon Barnes; RWMWD project manager: Tina Carstens)

The purpose of this study is to evaluate system-level flood-damage-reduction options, including real-time mechanical alteration of Lake Phalen and Keller Lake channel outlet structures, as well as other critical system infrastructure, to actively manage stormwater runoff from flood-prone areas tributary to the Beltline storm sewer in an effort to reduce flood levels that would otherwise impact homes. The evaluation will use the RWMWD stormwater model to simulate system-level modifications to evaluate how adjustments to outlet structures during a flood event may be able to optimize the existing system performance to reduce flooding impacts to homes adjacent to RWMWD-managed water bodies.

Barr prepared a draft geographic information system (GIS) story map to incorporate system modifications for the second phase that includes Willow Creek and Kohlman Creek. Potential system modifications were presented to the RWMWD administrator, and we are incorporating comments. Results in Willow Creek and Kohlman Creek will be presented to the managers at the April Board meeting.

Barr also continued evaluating modifications to the outlet control structures on Keller Creek and Lake Phalen to identify a feasible operational plan to reduce upstream flood risk without adversely impacting downstream structures. Several structures upstream and downstream of the outlet control structures and the Phalen Chain of Lakes may be prone to flooding, so identifying a feasible operation plan is an iterative process that is anticipated to take several months. While evaluating outlet control structures

on the Phalen Chain of Lakes, Barr started to evaluate the impact of modifying the outlet from Lake Owasso to divert some flow to Gervais Creek. However, since there are several potentially flood-prone structures in the Gervais Creek and downstream watersheds, identifying feasible modifications is an iterative process.

The study is phased so that flood-prone areas in the upstream portion of the watershed are addressed first, working downstream. If the study is successful, recommendations for actual field modifications will be offered for future capital improvement programming.

Emergency response plan for Lake Owasso (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

The purpose of this project is to evaluate the level of flood risk that Lake Owasso's 100-year flood elevation poses to habitable structures along the lake's shoreline and to provide an emergency response plan for protecting at-risk structures to the City of Roseville for implementation during a flood event.

This period, the updated Lake Owasso emergency response plan was turned over to the City of Roseville for its commissioners and other stakeholders, including affected homeowners, to consider. Plan implementation will be the city's responsibility. However, the RWMWD will provide lake-level, hydrologic, and general technical guidance should flooding appear imminent.

Twin Lake public meetings (Barr project manager: Brandon Barnes; RWMWD project manager: Tina Carstens)

The purpose of this project is to provide technical assistance for the City of Little Canada to respond to resident questions regarding the high water levels in Twin Lake.

In October 2018, Barr and RWMWD staff attended a neighborhood meeting facilitated by the City of Little Canada in response to several residents reporting higher-than-normal water levels in Twin Lake. Barr provided background on the drainage patterns of the Twin Lake watershed, recent survey information for storm sewer pipes, historic rainfall records, general groundwater characteristics, water quality measurements, and lake levels. Following that meeting, the City of Little Canada requested the RWMWD's assistance with responding to additional questions from residents, including how the unweave-the-weave project affected lake levels, whether East Vadnais Lake has ever overtopped into Twin Lake, and identifying when the water level in Twin Lake increased. The city informed residents that a second public meeting will be scheduled for spring 2019.

This past month, the City of Little Canada facilitated a meeting with city staff and the city mayor. Barr presented the additional information related to high water levels on Twin Lake, and city staff and mayor provided comments. Barr is planning to incorporate the comments, which will presented to residents at an upcoming public meeting facilitated by the city in March 2019.

Federal Emergency Management Agency (FEMA) flood mapping updates (Barr project manager: Brandon Barnes; RWMWD project manager: Tina Carstens)

The purpose of this project is to apply Minnesota Department of Natural Resources (DNR) grant funding to use the RWMWD's updated stormwater model to develop information required to update the FEMA floodplain maps.

Barr prepared a memorandum requesting a review from the Inter Agency Hydrology Review Committee (IAHRC). The IAHRC reviews hydrologic models and calculations prior to models being used to update FEMA floodplain maps. The memorandum summarizes the methodology used to calculate hydrologic parameters, updates to the model based on information provided by the DNR, and results of the model validation that was completed last year. We anticipate submitting the request to the DNR in early March.

Also in March, Barr will begin developing preliminary floodplain maps and completing floodway analyses for the outlet of Lake Wabasso and channel upstream of PCU Pond, where the FEMA maps delineate a floodway. We will continue to communicate with the DNR regarding additional information to incorporate into the RWMWD's model, including comments from the IAHRC review. The process for updating the FEMA floodplain maps will continue through April 2020.

West Vadnais lakes outlet permitting with the DNR (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

The purpose of this project is to coordinate permitting efforts for the proposed Snail, Grass, and West Vadnais lakes outlets with the DNR.

On February 8, Barr met with the Vadnais Lake Area Water Management Organization's (VLAWMO) technical commission to discuss potentially lowering the West Vadnais Lake outlet, and how best to evaluate impacts to the wetlands on the north end of the lake. At the meeting, we presented the need for the project and its potential impacts, and answered the committee's questions. Barr learned that this year, VLAWMO plans to conduct a bathymetric survey of West Vadnais Lake, as well as a Minnesota Routine Assessment Method (MnRAM) assessment of the wetlands in this area. This information is essential in determining what, if any, wetland impacts would occur as a result of lowering West Vadnais Lake to provide more live storage for the Grass Lake area of the RWMWD. Wetland impacts are the greatest concern to VLAWMO when considering future changes to the level of West Vadnais Lake.

Modeling of 500-year Atlas 14 district-wide (climate change scenario): flood map generation for future outreach efforts (Barr project manager: Brandon Barnes; RWMWD project manager: Tina Carstens)

The purpose of this project is to use measured water-surface elevations to verify and fine-tune water surface elevations calculated by the RWMWD stormwater model. Following validation, the model will be used to simulate larger rainfall events, including the 500-year rainfall depth. The confidence limit (or uncertainty) associated with the 500-year flood elevation will be used to develop inundation maps that will allow for evaluation of how future climate change may affect flood inundation areas within the

RWMWD and will be used for discussion with stakeholders when evaluating future flood-risk reduction projects within the RWMWD.

In the near future, the RWMWD's model will be used to simulate rainfall events with different recurrence intervals now that the model has been updated with information provided by the DNR to update the FEMA floodplain maps. Updates to the models are anticipated to be substantially complete in February 2019, and simulation of design rainfall events could begin in March. This effort will help us better understand how lesser storms, other than the 100-year and 500-year events, affect (or do not affect) low-lying structures in order to help prioritize projects in areas that flood during more frequent events.

Water-quality/project monitoring

Auto Lake monitoring systems (Barr project manager: Chris Bonick; RWMWD project manager: Eric Korte)

The purpose of this project is to install an automated system to monitor lake levels throughout the RWMWD and allow real-time transfer of data to the RWMWD's website for public consumption.

Barr continues to set up, program, and bench test the equipment for the Phalen, Wabasso, and Owasso stations. Ramsey County Parks is still considering the proposed monitoring stations on Grass and Snail Lakes. We anticipate that these stations and their locations will be approved for installation on county property. However, the approvals are not expected until spring 2019. These monitoring stations will be used in conjunction with the emergency response plans to help guide plan implementation to protect homes.

Maplewood Mall monitoring (Barr project manager: Matt Kumka; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to assess the functionality of the Maplewood Mall stormwater retrofit project as it enters its fifth year of total completion. Features that will be inspected include all stormwater infrastructure, plantings, and tree growth. The findings, including site improvement and maintenance recommendations, will be summarized and presented to the Board.

Barr presented the assessment, findings, and recommendations memo to the Board at the February meeting. After a lengthy discussion, the Board directed Barr to pursue the recommended tree replacements and other maintenance activities proposed by the memo. We will prepare a scope of work to implement the tree replacements in 2019.

Kohlman Basin weir test system (Barr project manager: Keith Pilgrim; RWMWD project manager: Bill Bartodziej)

The purpose of this project is to test new filtration media on a routine basis.

Kohlman basin weir test in Maplewood

Field activities and monitoring are complete for 2018. A memo of the 2018 results has been drafted and delivered to RWMWD staff for review. Testing is planned for 2019 using two existing materials and two new materials. We have tentatively identified a new material that is a byproduct of making aluminum and steel. This byproduct primary consists of calcium oxide, which, when in contact with water, causes the pH to rise. This material may be used in conjunction with another solid media to enhance dissolved phosphorus removal. We will test it with CC17, a crushed limestone product. This may be a suitable treatment media, as it will filter out particulate phosphorus, organically bound dissolved phosphorus, and ortho-phosphorus.

Capital improvements

Wakefield Park/Frost Avenue stormwater project (Barr project managers: Michelle Kimble; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to work with the City of Maplewood and its consultants to develop a site plan that involves stormwater management features with associated educational elements for the northern portion of Wakefield Park.

As stated last month, the Maplewood city council has approved the entire project (Wakefield Park stormwater improvements and the narrowing of Frost Avenue), and the project will soon be put out to bid as a whole. The project was submitted on February 13 to the RWMWD for permit approval at the March 6 Board meeting. Bid opening is expected on March 21, with contract award on April 8. Construction is anticipated to be completed by November 1, 2019.

Targeted retrofit projects (Barr project manager: Matt Kumka; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to design, provide bid assistance for, and oversee construction of BMP retrofits on previously identified commercial, school, and faith-based properties throughout the RWMWD.

BMP retrofits at Redeemer Lutheran Church in White Bear Lake and Cornerstone Montessori in St. Paul are ready to be sent out for construction proposals this month. These projects include three rain gardens, a shoreline buffer installation, and an erosion-control repair at the school's play yard. Proposals will be due March 22, with construction completed by fall of 2019.

Roseville High School campus stormwater retrofit (Barr project manager: Leslie DellAngelo; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to complete the conceptual-level design of BMP retrofit projects on the campus of Roseville Area High School, coordinate the design and construction of the BMP retrofit projects with Roseville Area High School and its engineers, develop final designs, complete construction documents (plans and specifications), bid the project, and oversee construction.

Barr has completed the conceptual-level design of the BMP retrofit projects, including one regional filtration BMP and eight local bio-infiltration/filtration BMPs. Cost estimates and water quality benefits were updated, and results will be summarized in a February memorandum. The memo results and recommendations will be discussed with stakeholders later this winter.

BMP incentive fund: general BMP design assistance and review (Barr project manager: Matt Kumka; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to respond to requests for assistance to find cost-share opportunities from RWMWD partners and to seek opportunities for cost-share projects throughout the RWMWD.

Barr has continued working with the RWMWD and Ramsey County Conservation District on the Snail Lake shoreline restoration project. We are providing guidance in the bidding process and reviewing the Ramsey County Conservation District design. The project went to bid on February 15, and bids will be opened March 1. Bid results will be presented to the Board at the March meeting as a part of the BMP incentive/cost-share program discussion.

Markham Pond aeration project and grant reporting (Barr project manager: Keith Pilgrim; RWMWD project manager: Bill Bartodziej)

The purpose of this project is to obtain the necessary permits and install aeration to prevent winter fish kill in Markham Pond.

Barr will prepare the DNR permit application in March that will allow the RWMWD to purchase and install equipment and power prior to the grant's expiration in August 2019.

Aldrich Arena site design (Barr Project Manager: Matt Metzger; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to incorporate green infrastructure stormwater management into the renovations to the Aldrich Arena campus. The parking lot will be milled and overlayed and/or full-depth reclaimed by Ramsey County, which would not trigger the need for a RWMWD permit. The partnership between the RWMWD and Ramsey County will achieve treatment of the runoff from the parking lots where none currently exists.

At the February Board meeting, a preliminary concept plan of the site's stormwater management features was presented to the Board. The Board instructed Barr to "dream big" in terms of stormwater improvements features, public art, and landscaping. The importance and visibility of the site were discussed at length.

Barr has since had additional meetings with Ramsey County and its design/build consultant to further the design. We are working to complete design documents by April. This schedule will allow construction to begin in August 2019.

CIP project repair and maintenance

CIP maintenance/repairs 2019 project (Barr project manager: Greg Nelson; RWMWD project manager: Dave Vlasin)

The purpose of this project is to maintain the existing systems and infrastructure owned and operated by the RWMWD and to assist and facilitate stormwater pond cleanouts to allow other public entities to meet their MS4 requirements.

Work continues to progress well and on schedule. Weekly progress meetings are keeping the project on track and all parties informed. Meeting minutes are available upon request if the Board is interested in the details of the weekly discussions. Payment application 2 is included in the bill list for the Board's consideration.

Natural Resources Update – Bill Bartodziej and Simba Blood

New Common Carp Research Funding – Clears a major hurdle

We just learned that the Clean Water Council approved a $500,000 pilot project to continue the study of carp management in Metro Area lakes. Bill, Matt Kocian (Rice Creek WD) and Dr. Przemyslaw Bajer (U of MN) submitted the grant proposal last September. The study will be included in the Clean Water Council's biannual funding package and sent to the Minnesota Legislature and the governor for final approval this spring. The grant will be administered through the U of MN's Aquatic Invasive Species Research Center. The RWMWD and the RCWD will be lead partners on this project. As it stands currently, research may start as quickly as July of this year, and run for at least two years. The research approach is fairly dynamic at this point. However, there is a good chance that one or more of the Owasso Chain of lakes will be a component of the study. Of course, it goes without saying that staff is thrilled to have a chance to contribute to a larger study that will have broad lake and watershed management implications. We will keep you updated on the progress.

Excerpts from the proposal can be found below:

Carp management in Metro Lakes

Matt Kocian, M.S., Rice Creek Watershed District
Bill Bartodziej, M.S., Ramsey-Washington Metro Watershed District
Przemyslaw G Bajer, PhD. Carp Solutions LLC.

Significance – Why fund this program?

Watersheds in the Metro area are directed to improve the water quality of lakes that are considered "impaired" by the Minnesota Pollution Control Agency (MPCA). The management of lakes having elevated total phosphorus (P) involves Total Maximum Daily Load (TMDL) studies that look for management practices to reduce P inputs from both watershed and in-lake sources.

The two most common practices for reducing in-lake P inputs are alum treatments and the reduction of bottom feeding fish, such as the common carp (*Cyprinus carpio*). This invasive species is known to dominate many lakes in Minnesota, including Metropolitan systems (Bajer et al. 2016). These fish disturb bottom sediments, accelerate nutrient release from sediments into the water and destroy rooted aquatic macrophytes (Vilizzi et al. 2015). Carp can also undermine effectiveness of alum applications (Huser et al. 2016). Fragmentary evidence also suggests that carp management is more cost effective than other management strategies and may increase the overall effectiveness of other nutrient reduction strategies (Bartodziej et al. 2017), including traditional watershed 'best management practices.

This program aims to increase the efficacy and cost-effectiveness of nutrient reduction strategies by developing comprehensive carp management programs and documenting their effectiveness.

Objectives

This pilot program has three main objectives:

- Develop comprehensive carp management programs by field-testing new management tools in a select number of metro area systems
- Link carp management with lake monitoring programs to better understand changes in nutrient dynamics and ecosystem services that result from carp management
- Develop a roadmap for incorporating carp management programs into broadly-defined nutrient reduction strategies in watersheds

Carp Management Background

Traditionally, carp management had a singular approach and mainly focused on using commercial seining to remove aggregations of adult fish under the ice. But over the last decade, a broader management philosophy and new methods are being developed to more efficiently capture adult fish and control recruitment in spawning areas. For instance, low-voltage electric guidance technologies are being developed to guide carp into traps during spawning migrations (Bajer et al. 2018). Species-specific baits are being tested to induce summer aggregations of carp and semi-autonomous traps designed to remove those fish (Bajer et al. 2010). Electronic antennas have been developed to autonomously monitor carp migrations and aggregations (Lechelt et al. 2017). Winter aeration is often used to sustain populations of bluegill sunfish in shallow lakes to control carp eggs and larvae (Bajer et al. 2015). The number of application-ready management methods has increased in recent years. However, substantial financial support and diligent monitoring is needed to determine their effectiveness and how to best apply in comprehensive carp management programs.

Major data gaps exist in our understanding of the effect of carp on nutrient dynamics. For example, many experiments show reduced N and P concentrations in lakes where carp were removed and aquatic macrophytes were restored. However, nutrient concentrations are typically measured only during the growing season, while annual nutrient cycles are unknown. Aquatic plants that become abundant in carp-free lakes may reduce nutrient concentrations in the summer, but nutrients are released in fall and winter upon decomposition. Effects of carp removal on denitrification are practically unknown. Removal of P with carp biomass is also poorly documented. Finally, effects of carp management on nutrient export from lakes into other lakes and streams located downstream, and eventually from entire watersheds is unknown. However, modeling suggests that carp management may play an important role in reducing nutrient export from watersheds. Effects of carp removal on biodiversity is also largely also unknown.

Approach & Partners

This pilot program will be conducted through a partnership between Metro watershed districts, and a University of Minnesota startup company, Carp Solutions, that specializes in innovative carp management methods, and experts that specialize in nutrient dynamics in lakes. We propose to work in watersheds were carp management knowledge and infrastructure are in place. Rice Creek and Ramsey-Washington Metro Watershed Districts have robust lake monitoring programs, completed carp population assessments, and own management equipment (e.g. nets, electric barriers, and migrations monitoring

systems). Other watershed districts will also be solicited for collaboration where appropriate. By leveraging these existing efforts, the impact of this proposed project will be greatly increased.

Data gaps in our understanding of the benefits of carp management on lake ecology and water quality will be filled by employing a robust monitoring program that will parallel carp management efforts in each lake. These data gaps are mainly related to monitoring water quality and nutrient dynamics year-round, and not just in summer months. We will also document the overall increases in biodiversity (this is almost never done except for aquatic plants) and ecosystem services (e.g. nutrient retention). These data gaps will be addresses by collaborating with academic researchers.

Experience & Expertise

Matt Kocian has led common carp management efforts in Rice Creek Watershed District since 2010. Several small to mid-level carp management efforts were undertaken between 2010 and 2014. Since 2014, the Rice Creek Watershed District has dramatically increased its carp management capacity with the completion of the BWSR Long Lake Targeted Watershed Grant. As part of that grant, the RCWD has collaborated with the U of M and Carp Solutions to monitor carp migration, model carp populations, and test innovative new low-voltage electric guidance systems. Those efforts are leading toward a holistic long-term carp management program.

Bill Bartodziej collaborated on carp research and management in urban lake systems since 2008. Research in the Phalen Chain of Lakes helped to shape current carp management techniques in the Metro area. He has experience with managing shallow lakes and storm water ponds that act as prime carp recruitment areas. He led research to determine nutrient dynamics in a shallow lake after carp elimination. He published over ten peer-reviewed publications on aquatic plant, fish, and lake management efforts.

Przemyslaw Bajer conducted research on carp management and ecology since 2006. He published over twenty peer-reviewed publications on the subject. He has also led extensive carp management efforts in over a dozen lakes. He is the founder and owner of Carp Solutions LLC. The company is currently piloting new management tools (including new removal methods) in over a dozen lakes in Minnesota.

Dissemination

Results of this work will be published in international peer-reviewed journals and will be also made available as detailed management reports.

Public Involvement and Education Program – Sage Passi

Phalen Freeze Fest 2019 Warms Up the Crowds

Phalen Freeze Fest on February 23 was a big hit this year. We dodged the snow emergencies, cold temperatures and blizzards of this past month and lucked out with a 35 degree day for this winter event that drew hundreds to Lake Phalen. Our Watershed moved out onto the ice this year to gain more visibility and set up our tent. We recruited over 35 JR ROTC volunteers from Johnson, Harding and Washington Tech High Schools to help with the event and engaged several Master Water Stewards to assist visitors at our tent in learning about wise salting practices. We also worked with Urban Roots youth to prepare for and offer craft activities and a puppet parade for this celebration on Lake Phalen.

We were excited to try out our new watershed display complete with a map of our subwatersheds. We focused on smart salt use at our table and invited people to put a dot on the map where they live and answer questions like, “How much salt does it take to pollute 5 gallons of water? Below what temperature should you not use sodium chloride? How much salt should be used to cover a typical parking lot? How far apart is it best to spread salt on a sidewalk or driveway?” We distributed Smart Salting tip cards, a website for liability legislation updates and promoted WaterFest 2019. Participants had the opportunity to try out many winter activities on the ice including ice fishing, kick-sledding, snowshoes, cooking over a fire and a Story Walk. St. Paul Parks and Recreation and many other local organizations were our other main partners in preparing for and implementing this outdoor event.

Winter Monitoring at Beaver Lake – Weathering Minnesota's Changing Temperatures

This is our fourth year of introducing L'Etoile du Nord fourth graders to winter water quality monitoring. We began with a hands-on lesson in the classroom and gave an additional focus to the issue of chlorides in our lakes and streams. Lyndsey Provost, our District's Water Quality Technician, met the groups out on the Beaver Lake boardwalk a couple days later on February 14 to introduce them to the use of the Sonde and provide data for them to record while Rachel Hanks and Sage helped rotating small teams from the three classrooms conduct tests for pH, temperature, dissolved oxygen and clarity on shore. Halfway through the afternoon, the wind really picked up and snow began to fall, but these hardy troopers carried on with their water quality testing and walked the mile back to school! But with these last two challenging winters, I think we'll change to a spring visit next year!

Gathering Art Ideas for the Lake Phalen Mural to be installed this Spring

We met with Urban Roots youth and community members on February 5 and February 21 to solicit ideas to incorporate into the mural to be installed at Lake Phalen this spring. Sage and Liv Novotny, the mural artist, introduced the project at each session and participants were encouraged to create drawings and collages with images and themes that could be potentially integrated into this mural project. Farnsworth third graders and L'Etoile du Nord fifth graders also submitted design ideas. Sage, Chris and Kate Clayton from Friends of the Mississippi River held a phone meeting on February 11 with Eric Thompson, the City of St. Paul Volunteers and Public Art Manager, to narrow down the location for the mural. The sidewalk bridge over Phalen Creek in Phalen Park where it flows into Phalen Lake is the proposed location. Novotny will draft a proposed design and submit it to the city for approval by late March.

Ames Lake Sculpture Project Is Moving Forward

Randee Edmundson introduced this sculpture project to Urban Roots on February 5 and passed out applications to several youth who expressed interest in applying to be a part of this project. Randee and Aloun Phoulavan, a local artist and District 622 teacher, will give a presentation about the project to the Boys and Girls Club on February 27. Other outreach is planned. The sculpture will replace a bronze great blue heron that stood at Ames Lake until 2016. Two student artists who are chosen for this project will create their own design using ideas from the local community. They will make a prototype, a full-size clay model, and finally a plaster mold of the sculpture to be cast in metal. The sculpture will celebrate the importance and beauty of our neighborhood wetlands. Ames Lake, located at the site of a former shopping center, was restored in 1999 and is home to a variety of native plants and wildlife.

Classrooms in Action: Seeds, Pond Sampling, Water Cycle, Groundwater and Water Bar

Seed planting has been in full force in classrooms during the month of February and will continue into March. Sage worked with thirteen Ramsey County Master Gardeners with four third grade classes at Farnsworth, two third grade classes at L'Etoile du Nord and three classrooms at Mounds Park Academy to start trays of native plants.

Sage and Lyndsey Provos brought in water from Mounds Park Academy pond adjacent to the school and introduced a ninth grade science class to water quality monitoring and provided Sonde data that was collected from the pond on site. A slide show about chlorides was also presented. The class intended to go outside to witness Lyndsey in action, but the hillside and parking lot were sheer ice that day and it wasn't safe to walk outside so we improvised!

At St. Peter Catholic School, Lauren Haydon, EMWREP educator, provided a water cycle lesson, and demonstrated the groundwater model. Sage provided a water bar with samples of water from the city of North St. Paul, Little Canada, Minneapolis and Riley Creek spring water. This spring, the St. Peter fourth graders will visit a North St. Paul drinking water well and then correspond with L'Etoile du Nord fourth graders who visited the St. Paul Regional Water Services earlier this winter. Each will exchange information about their experiences in learning about their sources of drinking water. North St. Paul's drinking water comes from groundwater while St. Paul's water comes from the Mississippi River.

Plans Completed for Lionsgate Academy Project and Chris Strong's Capstone Project

Paige and Sage met with Lionsgate Academy's administrative staff Ron Berger and Sarah Hauer and science teachers, Patrick Kosher and Sarah Nevin and Michael Schumann from Ramsey County to finalize planting plans for the school's landscaping and rain garden project to be completed this spring and early summer in Shoreview. Sciences classes will help plant a portion of the rain garden and potentially some of the upland native buffer area. The contractor will install a large area of alternative turf around the rain garden and native buffer area. Sage and Master Gardeners have begun classroom introductions to this project and will continue to prepare them for the spring planting.

Chris Strong, a Master Water Steward from the 2018 class, has been working with an east St. Paul resident Laura Laes on her capstone project for nine months. Both are Ramsey County Master Gardeners who live just to the east of Lake Phalen. Chris has been working with Laura to develop a curb

cut rain garden to be installed in Laes' front yard this spring/early summer. The plans are now completed and the project will be presented for Board approval at the April 2019 meeting.

Washington County Master Water Stewards Meet with Churches in Woodbury

Stephanie Wang, Anna Barker, Sage and Simba met with Rector Anna Doherty from Christ Episcopal Church and Reverend Doctor April Davis Campbell from Trinity Presbyterian Church and several church grounds committee members to discuss possible involvement in a pilot project, Adopt A Church Rain Garden in 2019 to be implemented by Stephanie and Anna. It was determined that Christ Episcopal Church's rain garden does not need this support, although the church has several other potential projects that may require some consultation from the Watershed. Trinity Presbyterian intends to participate in the pilot project. They have multiple rain gardens and could use help from volunteers. The Master Water Stewards will recruit volunteers, organize a training and coordinate several work days this year.

Communications Update – Chris O'Brien

New banner with District map

We recently purchased a portable banner stand to use at events (Phalen Freeze Fest was the maiden voyage). The banner features a map of the district with each subwatershed in a different color so that residents can see which one they live in.

The design was done in-house by Carrie and Chris, and the sign came from Advantage Signs on Owasso Boulevard, just down the road from our office. It comes with detachable feet that can be sandbagged to withstand moderate wind when displayed outdoors, and its sturdy construction should hold up to years of use.

Chloride legislation update

A new salt training and limited liability bill, HF1502 was introduced February 21 in the Minnesota House. Lead author for the bill is Rep. Peter Fischer, (D-Maplewood), and Sen. Carrie Ruud (R-Breezy Point) is planning to introduce a companion bill in the Senate. With the Board's support, we plan to contact other local representatives and ask them to sign on to the bill.

Drone photography for Phalen Chain

We are working with Maplewood drone photographer Sarah Cade to capture aerial footage of the Lake Phalen Chain for an upcoming video project. The goal is to capture all four seasons from the air, although flying in the winter is tricky.

Sarah was scheduled to fly during Phalen Freeze Fest on Feb. 23, but visibility was only 1.5 miles instead of the 3 miles required by law. Temperature and dew point are also a factor in the winter, so we will work on scheduling another date soon when the weather (finally!) improves.

For an example of Sarah's work, take a look at this video captured entirely by drone: https://vimeo.com/292516387

WaterFest planning

To commemorate 20 years of WaterFest, we are working with a graphic designer on a special logo, which should be ready to unveil in late March or early April. In addition, we are looking into the feasibility of a WaterFest mobile app, which was a suggestion that came up in our January volunteer planning session. If the price is reasonable, we'd like to pursue this idea and help enhance the festival experience with "how to/where to" information available through the app.

Communications intern

We are finalizing a position description for a communications intern to help with content creation, photo archiving and event coordination. This would likely be a college student or recent graduate with the same pay scale as other District interns. Hopefully, we can have someone in place this spring as field season gets underway.

Adopt-a-Drain update

Working with Hamline's Center for Global Environmental Education, we are finalizing plans for Adopt-a-Drain outreach this spring. The tentative plan is for us to flyer the neighborhood west of Lake Phalen with help from Johnson High School students. We'll also be reaching out to staff at the cities of Maplewood and Roseville as Adopt-a-Drain rolls out metro-wide this spring.

Meanwhile, the City of Saint Paul is planning to promote Adopt-a-Drain in the Battle Creek neighborhood, along with parts of Capitol Region Watershed District.

A brand new Adopt-a-Drain website should launch in April, and we plan to help promote the site through social media and email.