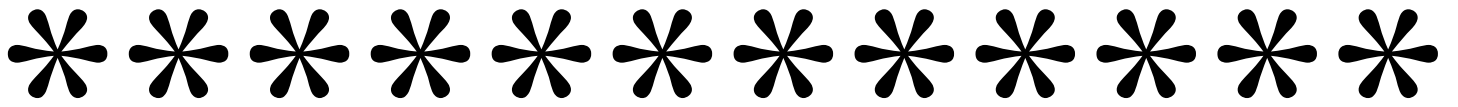




RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

August 2018 Board Packet



Agenda





Regular Board Meeting Agenda

Wednesday, August 1, 2018

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 July 11, 2018
 - B. Order Public Hearing for Review of the Preliminary 2018 Budget and Levy
 - C. Approval of Local Water Management Plans
 - i. City of Roseville – Resolution 18-02
 - ii. City of Vadnais Heights – Resolution 18-03
 - iii. City of Shoreview – Resolution 18-04
4. **Treasurer’s Report and Bill List**
5. Visitor Presentations
6. Permit Program
 - A. Applications
 - i. **18-19 Roseville Area High School Remodel**
 - ii. **18-20 3M Building 208 Annex, Maplewood**
 - iii. **18-21 Margaret Street Pedestrian & Bike Improvements, St. Paul**
 - iv. **18-22 Richardson Elementary Addition, North St. Paul**
 - B. Enforcement Action Report
7. Stewardship Grant Program
 - A. Applications - NONE
 - B. Budget Status Update
8. Action Items
 - A. **Willow Pond CMAC Bid Review and Approval**
9. PRESENTATION: Overview of Updates to District Stormwater Model and Results from Phase 1, Beltline Resiliency Study – Brandon Barnes, Barr Engineering

10. Administrator's Report
 - A. Meetings Attended
 - B. Upcoming Meetings and Dates
 - C. Minnesota Stormwater Research Council Funding Request
 - D. 2019 Budget Discussion
11. Project and Program Status Reports
 - A. Ongoing Project and Program Updates
 - i. Beltline Resiliency Study
 - ii. At Risk Subwatershed Feasibility Studies
 - iii. Snail Lake and Grass Lake Study and Berm Raise Project
 - iv. Snail, Grass and West Vadnais Lakes Outlet Permitting
 - v. West to East Vadnais Gravity Flow Evaluation
 - vi. District Wide Atlas 14 Modeling
 - vii. Kohlman Weir Test System
 - viii. Roseville High School Campus Retrofit Feasibility Study
 - ix. Frost/Kennard Spent Lime Project
 - x. Wakefield Park/Frost Avenue Project
 - xi. Targeted Retrofit Projects
 - xii. BMP Design Assistance and Review
 - xiii. Owasso Basin Improvements
 - xiv. Beltline/Battle Creek Tunnel
 - xv. CIP Maintenance/Repair 2018
 - xvi. New Technology Case Study: FilterPave
 - xvii. Natural Resources Program
 - xviii. Education Program
 - xix. Communications Program
12. Informational Items
13. Report of Managers
- 14. 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
July 11, 2018**

The Regular Meeting of July 11, 2018, 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
Brad Lindaman, Barr Engineering
Erin Anderson Wenz, Barr Engineering
Bill Bartodziej, Natural Resource Specialist
Viet-Hanh Winchell, Attorney for District
Bruce Copley, Crestview Resident
Rebecca Beduhn, SEH
Tyler Maxson, Hy-Vee

Paige Ahlborg, Project Manager
Nicole Soderholm, Permit Inspector
Simba Blood, Natural Resources Specialist
Dave Vlasin, Water Quality Technician
Chris O'Brien, Communications Coordinator
Jim Kellison, Trails Edge Apartments
Jeff Rhoda, SEH

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 June 6, 2018
- B. Change Order No. 2 – Frost/Kennard Spent Lime Filter

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

4. TREASURER'S REPORT AND BILL LIST

Motion: Lawrence Swope moved, Cliff Aichinger seconded, to approve the July 11, 2018, bill list as submitted. Motion carried unanimously.

5. VISITOR PRESENTATIONS

Bruce Copley stated that in spite of normal or below normal rainfall, there has been no drop to the levels of Snail, Grass or Wetland A. He stated that residents continue to keep a close eye on the situation and there is no flooding

of homes at this time. He stated that he would like to see the culvert lowered because of the reluctance of Grass Lake to drop and additional storage in West Vadnais. He asked if the culvert near I-694 could be checked to ensure it is functioning. He stated that a 100-year rain event would flood a few homes on Snail Lake. He asked about the status of the wetland restoration that was supposed to be done with grant funds that were received. He asked that no additional water be sent to West Vadnais, Grass, or Snail Lakes as a result of the I-694/Rice Street project.

6. PERMIT PROGRAM

A. Applications

Permit #18-13: Trails Edge Apartments – Maplewood

Nicole Soderholm stated that this project will be an apartment building near the Costco site. She stated that there will be a stormwater reuse system under the parking lot which would be used for irrigation. She noted that the existing filtration basin will be expanded and shared by this user and Costco. Manager Swope stated that perhaps when staff is working with applicants, they make the suggestion for a water reuse system for irrigation. Manager Skinner stated that perhaps the District would have cost-share funds available for those applicants. She provided details on an example that was featured in a local tour.

Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve Permit #18-13. Motion carried unanimously.

Permit #18-14: 365 Owasso Blvd – Roseville

Nicole noted that the area being disturbed is very small and a permit was triggered because of floodplain fill that will be needed for a shoreline restoration project. She stated that compensatory storage is being provided.

Motion: Dianne Ward moved, Dr. Pam Skinner seconded, to approve Permit #18-14. Motion carried unanimously.

Permit #18-15: Hy-Vee – Gem Lake

Nicole stated that the applicant proposes to build a Hy-Vee store and will use above and below ground storage. President Ebensteiner asked for details on the oil and water separation and what will be done with the oil. Tyler Maxson explained that the oil is collected in the structure and then cleaned out. Tina Carstens noted that system is typically used near a filling station or repair shop. Tyler noted that this will be a smaller store and will not be a food store, but will be a larger scale convenience store.

Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve Permit #18-15. Motion carried unanimously.

Permit #18-16: Little Canada Elementary Addition

Nicole stated that this will be an expansion of the Little Canada Elementary School.

Motion: Dr. Pam Skinner moved, Dianne Ward seconded, to approve Permit #18-16. Motion carried unanimously.

Permit #18-17: Beede Meadows – Maplewood

Nicole stated that this is a proposed small residential subdivision with seven single family homes. She stated that there are wetlands on the site, but lots are outside of that area and the wetland buffer requirements have been met.

Motion: Cliff Aichinger moved, Dianne Ward seconded, to approve Permit #18-17. Motion carried unanimously.

Permit #18-18: I-694 & Rice Street Interchange including 18-08 WCA

Nicole Soderholm stated that there have been a few discussions to introduce this project to the Board. She noted that the project is split between the District and VLAWMO. The full project area will be subject to RWMWD design requirements because they are more stringent. She stated that there is a mix of soils on the site and therefore a mix of filtration, infiltration, and a dry pond for rate control that will be used. She stated that the applicant is

providing more than the required amount of volume reduction, but the District has a 2" cap on the amount of credit that can be received. She stated that the District requires applicants to maintain or reduce the rate of water off the site as a whole. This project also reduces rates at each discharge point within the project area. She stated that the project is within a drinking water supply areas and therefore other agencies have been consulted to ensure infiltration could be incorporated into the project. Nicole referenced the wetland impacts, which were discussed at previous meetings. She noted that the 1.3 acres of impact mentioned at the last meeting included temporary impacts and the actual permanent impact will be 0.7 acres. She stated that the TEP recommended use of the BWSR local road bank for the wetland mitigation. She stated that there are no wetland banks within the watershed and therefore using the BWSR local road bank would be a variance to the District policy to have no net loss of wetlands.

Manager Skinner stated that she struggles with loss of wetland as challenging sites continue to be developed. Manager Aichinger explained that this is an intensive urbanized area and there are no opportunities to create viable wetlands. Tina Carstens noted that the floodplain storage is being mitigated through the project. Manager Aichinger stated that there have been a lot of road projects that have not resulted in wetland loss and in some cases, additional wetland is created.

Manager Skinner asked if animal habitat is a factor that the District considers. She stated that perhaps in the future the District ask that an equal amount of preserved land be provided in lieu of the wetland loss for animal habitat. Tina confirmed that is an option, but noted that on a linear road project, the bounds of the project are very tight and there is not available space. Manager Ward noted that it is difficult when the District is brought in after the design has been completed.

Manager Aichinger noted that the District has been working with the applicant for months. Nicole noted that the applicant made a presentation to the Board in October 2017 and last month to discuss the wetland impacts and obtain feedback from the Board. Manager Aichinger stated that in his opinion the project should qualify for the use of the BWSR local road bank. He noted that the permanent wetland loss is shallow marsh that is extremely degraded. Tina stated that the wetland will still be there, and the fill will occur on the outside edge of the wetland.

President Ebensteiner noted that the bigger question is how the District can stop losing wetlands. Manager Aichinger stated that is why the District has the wetland rules, which have resulted in tremendous gains over the years. Manager Skinner stated that she is okay allowing this project, as long as a precedent would not be set that would result in this continuing to occur on an annual basis. Manager Ward asked for additional information on the possibility of expanding or creating additional wetlands as discussed at the last meeting. Nicole replied that after consulting with the applicant, it was determined that the road will be in some of those locations and the other locations would pond water too close to the roadway. She provided information on the variance to the wetland buffer rule requested and noted that under existing conditions the buffer is not met. She stated that the applicant is actually creating additional upland buffer with the project.

Motion: Cliff Aichinger moved, Dr. Pam Skinner seconded, to approve Permit #18-18 with the special provisions, variance request, and wetland replacement plan.

Manager Skinner stated that perhaps staff could research additional wetland opportunities for the future to discuss with future applicants. Manager Ward commented that the volume reduction helps her to support the project.

Motion carried unanimously.

B. Monthly Enforcement Report

During June, 32 notices were sent to address: install/maintain inlet protection (10), install/maintain perimeter control (5), install/maintain construction entrance (4), sweep streets (1), stabilize exposed soils (2), contain liquid/solid wastes (2), remove discharged sediment (3), protect/maintain permanent BMPs (2), install/maintain ditch checks (1), and install/maintain energy dissipation (2).

7. STEWARDSHIP GRANT PROGRAM

A. Applications

Permit #18-13 CS: Rolling Hills – Infiltration Basin

Motion: Dr. Pam Skinner moved, Cliff Aichinger seconded, to approve Permit #18-13 CS. Motion carried unanimously.

Permit #18-14 CS: Battle Creek Elementary – Native Habitat Restoration

Motion: Dr. Pam Skinner moved, Lawrence Swope seconded, to approve Permit #18-14 CS.

Manager Ward noted that asphalt is being replaced with turf and asked if that would allow for access for people with disabilities. Tina Carstens noted that access to the playground would remain the same.

Motion carried unanimously.

Permit #18-15 CS: Maplewood City Hall – Rain Gardens

Paige Ahlborg stated that there will be a six-foot-tall, narrow art feature at the entrance. She confirmed that there would be District signage as well for the project.

Motion: Dr. Pam Skinner moved, Cliff Aichinger seconded, to approve Permit #18-15 CS. Motion carried unanimously.

Permit #18-16 CS: Menomoni Park – Infiltration Basin

Paige Ahlborg confirmed that the Board previously approved this a few years ago, but the city never moved forward and therefore the approval expired. She stated that the city is now ready to move forward and has reapplied.

Motion: Cliff Aichinger moved, Lawrence Swope seconded, to approve Permit #18-16 CS. Motion carried unanimously.

B. Budget Status Update

Paige Ahlborg provided an update on the status of the budget.

8. ACTION ITEMS

A. Willow Pond CMAC Approval of Plans and Authorization to Advertise for Bid

Erin Anderson Wenz provided details on the proposed project plans. She stated that there is instrumentation involved and the Watershed District will buy the instrumentation and the contractor will install. She provided information on the contingency that is proposed and the construction oversight costs. She stated that the overall cost estimate would be \$310,600.

Motion: Dr. Pam Skinner moved, Cliff Aichinger seconded, to approve the plans and specifications, preliminary cost estimate, and proposed schedule; and direct staff to finalize the bidding documents and advertise the project for bid. Motion carried unanimously.

Manager Skinner asked if there has been thought to expanding the pond to provide additional treatment. Erin Anderson Wenz noted that there are additional options that could be considered for optimization. She stated that expanding the basin would not be an option without removing additional trees.

9. ADMINISTRATOR'S REPORT

A. Meetings Attended Noted.

B. Upcoming Meetings and Dates Noted.

C. Solar Project Update

Tina Carstens noted that the project began today and that the loudest part of the work will be done in a few days.

D. Board and CAC Tour Planning

Tina Carstens asked if the Board has ideas on what they would like to see on the tour. Manager Aichinger stated that when he mentioned focusing on Washington County, he suggested organizing a tour for Washington County specifically and not focusing the Board tour on that area. A suggestion was made to include the Fish Creek area. Manager Skinner stated that perhaps it would be helpful to tour some of the Grass Lake area that has been added to the District. Tina stated that perhaps some of the high priority flood risk areas could be included in the tour. Manager Skinner stated that perhaps it would be helpful to include some locations that could be a good fit for large District projects in the future. Tina confirmed that mid-September would be a good time for the tour.

E. MAWD Summer Tour Update

Tina Carstens noted that the MAWD Summer bus and boat tours recently occurred.

Manager Skinner noted that the U of MN requires students to complete 24 hours of service learning and noted that other organizations take advantage of that and perhaps that would be an opportunity for the District. She stated that another District has a sandbox learning tool, which would be a great educational tool. Manager Swope stated that he was impressed with the relationships that the watersheds had with their municipalities and the cooperative efforts.

F. 2019 Budget Planning

Tina Carstens noted that the budget memo was included in the Board packet and provided a summary. It was the consensus of the Board that the reserve funds should be kept available for large District projects that may come about in the future. Tina noted that while there are not additional staff members proposed, there would be an increase proposed for existing staff. She stated that health insurance projections should be received by September. She reviewed the proposed areas of program support, building maintenance, and the natural resources program.

Tina provided information on the proposed budgeting for the stewardship grant program. She also reviewed proposed budget information on the education program, water quality monitoring, research, capital improvements planning and projects, flood damage reduction fund, targeted retrofit projects, and maintenance and repair. She stated that there were some bigger projects this year that will also be completed this year.

10. PROJECT AND PROGRAM STATUS REPORTS

A. Ongoing Project and Program Updates

Erin Anderson Wenz noted that she was not present at the last meeting, but it was her understanding that the Board would like to review the different elements included on the project and program status report. She stated that, if desired, this could be done on an annual basis. She stated that this is not all the projects, but just the projects within the status report. Erin presented on each of the projects within the report and responded to questions.

- i. Permit Application Inspection/Enforcement
- ii. Beltline Resiliency Study
- iii. At Risk Subwatershed Feasibility Studies
- iv. Snail Lake and Grass Lake Study and Berm Raise Project

Erin reviewed the work that has been done in attempt to address the Grass Lake flooding. Manager Skinner asked and received confirmation that the berm would be in place and then the mat would protect the area from erosion if it does overflow. Erin stated that the contractor is working past the contract deadline. Dave stated that the previous Friday at midnight the contract expired for a portion of the project. He estimated that another 1.5 to two weeks would be needed to complete the project. He stated that the Vadnais Boulevard pipes under the CIP contract will be a focus after the berm is completed, per the direction of the Board at the last meeting.

Manager Ward asked if the pipe would be completed by the contract end date for that item. She asked if the District is okay to allow the contractor to work past the time of the contract. Dave noted that there are liquidated damages that can be accrued. Tina Carstens stated that the deadline for the Grass Lake berm was set as July 6th and asked if there is anything the District needs to do. Manager Aichinger noted that the contractor has received extensions and there are additional costs to having staff onsite. Viet-Hanh Winchell noted that there may be a cap as to the liquidated damages that can be collected per the contract, noting that she would have to review the terms of the contract. It was confirmed that the Board would need to wait until the work is completed. Tina noted that the contractor is actively working

v. Snail, Grass, and West Vadnais Lakes Outlet Permitting

Erin provided updates on information that was sent to the DNR regarding the Grass Lake outlet. She stated that West Vadnais tends to stay high and a better understanding would need to be known in terms of an EAW or what would be needed to pursue that option. Tina noted that there are wetlands that would be impacted. Erin provided additional information on potential shoreline changes that would occur to East and West Vadnais and the information sharing with the DNR. Tyler Maxson provided information on the different discussions that are occurring regarding potential projects related to Grass Lake, East Vadnais, and West Vadnais Lakes. He advised of additional water monitoring that is occurring to gain additional information.

vi. West to East Vadnais Lakes Gravity Flow Feasibility Evaluation

vii. District Wide Atlas 14 Modeling

Erin described the process that the District and Barr have gone through to identify at risk areas within the District using the Atlas 14 figures. She stated that all the District models have been validated and the next steps will be to prioritize the areas and identify potential projects. She stated that Owasso Basin is the most flood prone area. She noted that additional information will be provided in a presentation the following month

viii. Kohlman Weir Test System

ix. Roseville High School Campus Retrofit Feasibility Study

x. 2017 Tanners Lake Alum Facility Monitoring

xi. Frost/Kennard Project

xii. Wakefield Park/Frost Avenue Project

xiii. Targeted Retrofit Projects

xiv. BMP Design Assistance and Review

xv. Owasso Basin Improvements

xvi. Beltline/Battle Creek Tunnel

xvii. CIP Maintenance/Repair 2018

xviii. Natural Resources Program

xix. Education Program

xx. Communications Program

Tina noted that the communications update is a new item and will continue to be provided monthly. She stated that an education and communications presentation will be done at the next meeting.

11. INFORMATIONAL ITEMS No comments.

12. REPORTS OF MANAGERS No comments.

13. ADJOURN

Motion: Dr. Pam Skinner moved, Lawrence Swope seconded, to adjourn the meeting at 9:02 p.m. Motion carried unanimously.

Respectfully submitted,

Dr. Pam Skinner, Secretary

Consent Agenda Item

Board Meeting Date: August 1, 2018

Agenda Item No: 3B

Preparer: Tina Carstens, Administrator

Item Description: Order a public hearing for Wednesday, September 5, 2018, for the purposes of reviewing and receiving comments on the 2019 preliminary District budget and levy.

Background:

State law requires that the District hold a public hearing on the proposed budget prior to the adoption of the preliminary budget in September. The District must certify its preliminary levy before September 30th of each year. The board will certify the levy following the public hearing at the September 5th meeting. The final levy is approved by the board in December.

Applicable District Goal and Action Item:

Goal: Manage effectively - The District will operate in a manner that achieves its mission while adhering to its core principles.

Action Items: Follow all legal requirements applicable to the watershed districts.

Staff Recommendation:

Authorize publication for the public hearing on the 2019 preliminary budget and levy on September 5, 2018, at 6:30 PM.

Financial Implications:

None.

Board Action Requested:

Authorize publication for the public hearing on the 2019 preliminary budget and levy on September 5, 2018, at 6:30 PM.

Consent Agenda Item

Board Meeting Date: August 1, 2018

Agenda Item No: 3C

Preparer: Tina Carstens, Administrator

Item Description: Local Water Management Plan Approvals

Background:

The cities of Roseville, Vadnais Heights, and Shoreview have completed their Local Water Management Plans and are seeking the District's approval on those plans. Each city has submitted their plans to the watershed districts and Metropolitan Council for review and comment and has also addressed the comments received. Review of the proposed local water management plans have shown they are consistent with the District's plan and requirements for local water management plans. Each city has a separate approval resolution attached to this agenda item.

Applicable District Goal and Action Item:

Goal: Manage effectively - The District will operate in a manner that achieves its mission while adhering to its core principles.

Action Items: Follow all legal requirements applicable to the watershed districts.

Staff Recommendation:

Approve Resolutions 18-02, 18-03, and 18-04.

Financial Implications:

None.

Board Action Requested:

Approve Resolutions 18-02, 18-03, and 18-04.



RESOLUTION 18-02

RESOLUTION PROVIDING APPROVAL OF THE CITY OF ROSEVILLE LOCAL WATER MANAGEMENT PLAN

WHEREAS, Ramsey-Washington Metro Watershed District (District) adopted its Watershed Management Plan, as required by the Metropolitan Surface Water Management Act (MS Chapter 103B); and

WHEREAS, the Metropolitan Surface Water Management Act requires the preparation of local water management plans by each city within the District; and

WHEREAS, the City of Roseville has prepared its plan and requested review and approval; and

WHEREAS, the District has reviewed the plan for consistency with the watershed management plan and has determined that the plan is in conformance with the plan;

NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the Ramsey-Washington Metro Watershed District that the City of Roseville Local Water Management Plan is hereby approved.

Adopted by the Board of Managers of the Ramsey-Washington Metro Watershed District this 1st day of August, 2018.

Marj Ebensteiner, President

Attest:

Dr. Pam Skinner, Secretary



RESOLUTION 18-03

RESOLUTION PROVIDING APPROVAL OF THE CITY OF VADNAIS HEIGHTS LOCAL WATER MANAGEMENT PLAN

WHEREAS, Ramsey-Washington Metro Watershed District (District) adopted its Watershed Management Plan, as required by the Metropolitan Surface Water Management Act (MS Chapter 103B); and

WHEREAS, the Metropolitan Surface Water Management Act requires the preparation of local water management plans by each city within the District; and

WHEREAS, the City of Vadnais Heights has prepared its plan and requested review and approval; and

WHEREAS, the District has reviewed the plan for consistency with the watershed management plan and has determined that the plan is in conformance with the plan;

NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the Ramsey-Washington Metro Watershed District that the City of Vadnais Heights Local Water Management Plan is hereby approved.

Adopted by the Board of Managers of the Ramsey-Washington Metro Watershed District this 1st day of August, 2018.

Marj Ebensteiner, President

Attest:

Dr. Pam Skinner, Secretary



RESOLUTION 18-04

RESOLUTION PROVIDING APPROVAL OF THE CITY OF SHOREVIEW LOCAL WATER MANAGEMENT PLAN

WHEREAS, Ramsey-Washington Metro Watershed District (District) adopted its Watershed Management Plan, as required by the Metropolitan Surface Water Management Act (MS Chapter 103B); and

WHEREAS, the Metropolitan Surface Water Management Act requires the preparation of local water management plans by each city within the District; and

WHEREAS, the City of Shoreview has prepared its plan and requested review and approval; and

WHEREAS, the District has reviewed the plan for consistency with the watershed management plan and has determined that the plan is in conformance with the plan;

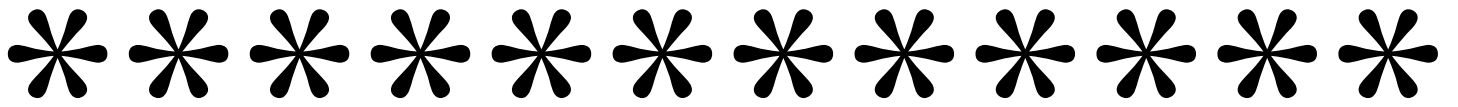
NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the Ramsey-Washington Metro Watershed District that the City of Shoreview Local Water Management Plan is hereby approved.

Adopted by the Board of Managers of the Ramsey-Washington Metro Watershed District this 1st day of August, 2018.

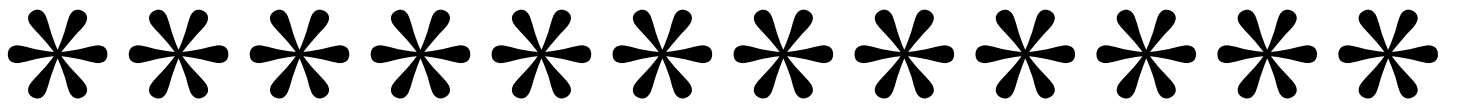
Marj Ebensteiner, President

Attest:

Dr. Pam Skinner, Secretary



Bill List



RWMWD BUDGET STATUS REPORT

Administrative & Program Budget

Fiscal Year 2018

7/31/2018

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	-	325.00	2,180.00	\$4,320.00	33.54%
	Manager expenses	4360	3,500.00	-	176.66	729.18	2,770.82	20.83%
Committees	Committee/Bd Mtg. Exp.	4365	3,500.00	-	114.43	1,602.96	1,897.04	45.80%
Employees	Staff salary/taxes/benefits	4010	1,300,000.00	-	93,636.28	694,843.31	605,156.69	53.45%
	Employee expenses	4020	10,000.00	-	246.90	1,972.75	8,027.25	19.73%
	District training & education	4350	25,000.00	-	706.95	8,778.98	16,221.02	35.12%
Administration/ Office	GIS system maint. & equip.	4170	15,000.00	-	1,102.00	3,639.02	11,360.98	24.26%
	Data Base/GIS Maintenance	4171	15,000.00	-	-	1,300.00	13,700.00	8.67%
	Equipment maintenance	4305	3,000.00	-	-	1,430.83	1,569.17	47.69%
	Telephone	4310	8,000.00	-	55.40	1,599.08	6,400.92	19.99%
	Office supplies	4320	5,000.00	-	255.42	2,984.10	2,015.90	59.68%
	IT/Internet/Web Site/Software Lic.	4325	42,000.00	-	1,063.14	17,574.58	24,425.42	41.84%
	Postage	4330	10,000.00	-	-	2,132.12	7,867.88	21.32%
	Printing/copying	4335	8,000.00	-	285.67	2,510.60	5,489.40	31.38%
	Dues & publications	4338	11,000.00	-	119.00	7,739.00	3,261.00	70.35%
	Janitorial/Trash Service	4341	17,000.00	-	824.51	7,466.07	9,533.93	43.92%
	Utilities/Bldg.Contracts	4342	18,000.00	-	1,150.10	10,655.84	7,344.16	59.20%
	Bldg/Site Maintenance	4343	70,000.00	-	17,533.96	22,991.27	47,008.73	32.84%
	Miscellaneous	4390	5,000.00	-	-	325.19	4,674.81	6.50%
	Insurance	4480	35,000.00	-	29,171.00	33,814.00	1,186.00	96.61%
	Office equipment	4703	40,000.00	-	-	11,728.92	28,271.08	29.32%
	Vehicle lease, maintenance	4810-40	43,000.00	-	1,041.74	30,873.29	12,126.71	71.80%
Consultants/ Outside Services	Auditor/Accounting	4110	50,000.00	-	2,471.76	37,585.61	12,414.39	75.17%
	Engineering-administration	4121	93,000.00	-	5,379.00	36,926.18	56,073.82	39.71%
	Engineering-permit I&E	4122	15,000.00	-	-	3,155.00	11,845.00	21.03%
	Engineering-eng. review	4123	55,000.00	-	4,206.50	33,555.94	21,444.06	61.01%
	Engineering-permit review	4124	50,000.00	-	2,086.00	21,388.50	28,611.50	42.78%
	Project Feasibility Studies	4129	735,000.00	-	17,095.50	189,939.56	545,060.44	25.84%
	Attorney-permits	4130	10,000.00	-	200.00	1,025.28	8,974.72	10.25%
	Attorney-general	4131	40,000.00	-	816.00	7,846.00	32,154.00	19.62%
	Outside Consulting Services	4160	40,000.00	-	-	7,832.00	32,168.00	19.58%
Programs	Educational programming	4370	60,000.00	-	-	16,678.65	43,321.35	27.80%
	Communications & Marketing	4371	25,000.00	-	355.00	4,077.16	20,922.84	16.31%
	Events	4372	50,000.00	-	(50.00)	29,962.10	20,037.90	59.92%
	Water QM-Engineering	4520-30	513,000.00	-	13,805.40	57,092.28	455,907.72	11.13%
	Project operations	4650	140,000.00	-	624.22	88,678.42	51,321.58	63.34%
	SLMP/TMDL Studies	4661	115,000.00	-	458.00	6,718.70	108,281.30	5.84%
	Natural Resources/Keller Creek	4670-72	100,000.00	-	16,358.76	48,293.56	51,706.44	48.29%
	Outside Prog.Support/Weed Mgmt.	4683-84	70,000.00	-	968.43	31,662.46	38,337.54	45.23%
	Research Projects	4695	100,000.00	-	1,680.00	36,531.63	63,468.37	36.53%
	Health and Safety Program	4697	2,000.00	-	439.67	2,016.77	(16.77)	100.84%
	NPDES Phase II	4698	20,000.00	-	269.00	3,937.00	16,063.00	19.69%
	Atlas 14 Watershed Modeling	4732	-	-	-	-	-	0.00%
GENERAL FUND TOTAL			\$3,976,500.00	\$0.00	\$214,971.40	\$1,533,773.89	\$2,442,726.11	38.57%
CIP's	CIP Project Repair & Maintenance	516	1,000,000.00	-	27,158.48	516,359.08	483,640.92	51.64%
	Targeted Retrofit Projects	518	800,000.00	-	4,957.00	42,598.43	757,401.57	5.32%
	District Office Building Solar Energy Retrofit	519	150,000.00	-	-	38,720.00	111,280.00	25.81%
	Flood Damage Reduction Fund	520	2,000,000.00	-	4,680.62	65,546.20	1,934,453.80	3.28%
	Debt Services-96-97 Beltline/MM/Battle Creek	526	448,951.00	-	-	387,618.43	61,332.57	86.34%
	Stewardship Grant Program Fund	528-529	800,000.00	-	25,730.75	352,535.38	447,464.62	44.07%
	Impervious Surface Volume Reduction Opportunity	531	1,500,000.00	-	-	-	1,500,000.00	0.00%
	Beltline & Battle Creek Tunnel Repair	549	-	-	162,641.50	1,563,727.09	(1,563,727.09)	---
	Frost/Kennard Enhanced WQ BMP	550	400,000.00	-	1,212.00	24,297.71	375,702.29	6.07%
	Markham Pond Dredging & Aeration	551	25,000.00	-	-	-	25,000.00	0.00%
	Wakefield Park Project	553	1,100,000.00	-	13,010.50	34,888.93	1,065,111.07	3.17%
	Willow Pond CMAC	554	400,000.00	-	22,038.00	85,037.54	314,962.46	21.26%
	District Office Bond Payment	585	194,885.00	-	-	196,983.53	(2,098.53)	101.08%
CIP BUDGET TOTAL			\$8,818,836.00	-	\$261,428.85	\$3,308,312.32	\$5,510,523.68	37.51%
TOTAL BUDGET			\$12,795,336.00	\$0.00	\$476,400.25	\$4,842,086.21	\$7,953,249.79	37.84%

Current Fund Balances:

Fund:	Beginning Fund Balance @ 12/31/17	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Fund Balance @ 07/31/18
101 - General Fund	\$4,329,903.56	-	1,488,536.63	214,971.40	1,533,773.89	4,284,666.30
516 - CIP Project Repair & Maintenance	615,041.00	-	576,098.50	27,158.48	516,359.08	674,780.42
518 - Targeted Retrofit Projects	836,989.00	-	171,505.91	4,957.00	42,598.43	965,896.48
519 - District Office Building Solar Energy Retrofit	129,623.00	-	-	-	38,720.00	90,903.00
520 - Flood Damage Reduction Fund	1,118,749.00	-	438,713.72	4,680.62	65,546.20	1,491,916.52
526 - Debt Services-96-97 Beltline/MM/Beltline-Battle Creek Tunnel Repair	359,578.00	-	234,211.69	-	387,618.43	206,171.26
528/529 - Stewardship Grant Program Fund	561,388.00	-	223,674.61	25,730.75	352,535.38	432,527.23
531 - Impervious Surface Volume Reduction Opportunity	1,484,215.00	-	-	-	-	1,484,215.00
549 - Beltline & Battle Creek Tunnel Repair	2,407,984.00	-	-	162,641.50	1,563,727.09	844,256.91
550 - Frost/Kennard Enhanced WQ BMP	119,513.00	-	13,042.17	1,212.00	24,297.71	108,257.46
551 - Markham Pond Dredging & Aeration	110,411.00	-	-	-	-	110,411.00
553 - Wakefield Park Project	351,874.00	-	391,264.88	13,010.50	34,888.93	708,249.95
554 - Willow Pond CMAC	-	-	208,674.61	22,038.00	85,037.54	123,637.07
580 - Contingency Fund	476,100.94	-	-	-	-	476,100.94
585 - Certificates of Participation	133,637.00	-	101,668.87	-	196,983.53	38,322.34
Total District Fund Balance	\$13,035,006.50	-	\$ 3,847,391.59	\$ 476,400.25	\$4,842,086.21	\$12,040,311.88

Ramsey Washington Metro Watershed Dist.
Check Register
For the Period From Jul 1, 2018 to Jul 31, 2018

Check #	Date	Payee ID	Payee	Description	Amount
EFT	07/01/18	met008	MetLife-Group Benefits	Employee Benefits	\$1,196.21
EFT	07/13/18	hea002	HealthPartners	Employee Benefits	9,203.67
70076	07/24/18	ada002	Adam's Pest Control, Inc.	Utilities/Bldg. Contracts	79.00
70077	07/24/18	all004	allstream	Project Operations	64.76
70078	07/24/18	als001	ALS Group USA, Corp	Water QM Staff	630.00
70079	07/24/18	att002	AT & T Mobility - ROC	Utilities/Bldg. Contracts	45.23
70080	07/24/18	aws001	AWS Service Center	Janitorial/Trash Service	219.51
70081	07/24/18	bar001	Barr Engineering	June/July Engineering	89,019.77
70082	07/24/18	bar004	Deborah Barnes	Employee Reimbursement	20.00
70083	07/24/18	bar008	Peter Barrett	Stewardship Grant Fund	1,118.75
70084	07/24/18	bei001	Anna D. Beining	Employee Reimbursement	34.34
70085	07/24/18	ben001	Ben Meadows Company, Inc.	Health & Safety Program	341.69
70086	07/24/18	ben002	Benefit Extras, Inc.	Employee Benefits	129.00
70087	07/24/18	blo001	Simba Blood	Employee Reimbursement	97.34
70088	07/24/18	bro003	Brooks Applied Labs	Water QM Staff	1,325.00
70089	07/24/18	cad003	Cady Building Maintenance, Inc.	Janitorial/Trash Service	605.00
70090	07/24/18	car007	Carp Solutions, LLC	Natural Resources Project	11,458.94
70091	07/24/18	cau001	Rebecca & Tim Caulfield	Stewardship Grant Fund	4,800.00
70092	07/24/18	cit011	City of Roseville	IT/Website/Software	921.88
70093	07/24/18	dnr001	Dept of Natural Resources	Training & Education	63.00
70094	07/24/18	for001	Forestry Suppliers, Inc.	Natural Resources Project	87.04
70095	07/24/18	gal001	Galowitz Olson, PLLC	June Legal Fees	1,016.00
70096	07/24/18	gil001	Gilbert Mechanical Contractors, Inc.	Bldg/Site Maintenance	1,622.78
70097	07/24/18	gla001	Glacial Ridge Drilling, Inc.	Stewardship Grant Fund	900.00
70098	07/24/18	gru001	Gruber's Power Equipment	Natural Resources Project	34.78
70099	07/24/18	hac002	Hach Company	Water QM Staff	186.79
70100	07/24/18	ing002	INGCO International, Inc.	Communications & Marketing	225.00
70101	07/24/18	inn002	Innovative Office Solutions LLC	Office Supplies/Water QM	58.63
70102	07/24/18	int001	Office of MN, IT Services	Telephone Expense	55.40
70103	07/24/18	kor001	Eric Korte	Employee Reimbursement	120.00
70104V	07/24/18	---	VOID	VOID	-
70105	07/24/18	lea004	League of MN Cities Ins.Trust P & C	Insurance-2018/2019	29,171.00
70106	07/24/18	mag004	Carrie Magnuson	Employee Reimbursement	269.30
70107	07/24/18	mei001	Meisinger Construction, Inc.	Bldg/Site Maintenance	15,850.00
70108	07/24/18	mel001	Michelle L. Melser	Employee Reimbursement	182.87
70109	07/24/18	min008	Minnesota Native Landscapes, Inc.	Construction-Maint. & Rep.	25,467.50
70110	07/24/18	nsp001	Xcel Energy	Proj.Operations/Utilities	1,223.85
70111	07/24/18	obr001	Christopher O'Brien	Employee Reimbursement	40.00
70112	07/24/18	omo001	Nicholas D. Omodt	Employee Reimbursement	28.34
70113	07/24/18	pac001	Pace Analytical Services, Inc.	Water QM Staff	688.00
70114	07/24/18	pac001	Pace Analytical Services, Inc.	Water QM Staff	1,572.00
70115	07/24/18	pci001	PCi Roads, LLC	Pay Req. #14	160,164.50
70116	07/24/18	pre003	Premium Waters, Inc.	Utilities/Bldg. Contracts	19.00
70117	07/24/18	qwe001	CenturyLink	Project Operations	225.71
70118	07/24/18	ram002	Ramsey County	Stewardship Grant Fund	16,200.00
70119	07/24/18	sod001	Nicole Soderholm	Employee Reimbursement	40.00
70120	07/24/18	swo001	Lawrence Swope	Manager Expense	176.66
70121	07/24/18	usb002	U.S. Bank	Monthly Credit Card	3,841.36
70122	07/24/18	usb005	US Bank Equipment Finance	Printing Expense	285.67
70123	07/24/18	vla001	Dave Vlasin	Employee Reimbursement	95.42
70124	07/24/18	was007	Washington Conservation District	Water QM/Outside Support	3,173.50
70125	07/24/18	whi002	White Bear Lake Superstore	Vehicle Maintenance	1,041.74
70126	07/24/18	wil007	Patrick Williamson	Employee Reimbursement	16.90
70127	07/24/18	lak007	Lakes Aquatic Weed Removal	Natural Resources Project	4,685.00
Total					<u>\$390,137.83</u>

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From July 1, 2018 - July 31, 2018

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
07/01/18	EFT	met008	MetLife-Group Benefits			\$1,196.21	
				4040-101-000	Employee Benefits-General		988.14
				2015-101-000	Employee Health-General		208.07
07/13/18	EFT	hea002	HealthPartners			9,203.67	
				4040-101-000	Employee Benefits-General		7,486.10
				2015-101-000	Employee Health-General		1,717.57
07/24/18	70076	ada002	Adam's Pest Control	4342-101-000	Utilities/Bldg. Contracts	79.00	
07/24/18	70077	all004	allstream	4650-101-000	Project Operations-General	64.76	
07/24/18	70078	als001	ALS Group USA Corp.			630.00	
				4530-101-000	Water QM-General		170.00
				4530-101-000	Water QM-General		460.00
07/24/18	70079	att002	AT & T Mobility - ROC	4342-101-000	Utilities/Bldg. Contracts	45.23	
07/24/18	70080	aws001	AWS Service Center	4341-101-000	Janitorial/Trash Service	219.51	
07/24/18	70081	bar001	Barr Engineering			89,019.77	
				4121-101-000	Engineering Admin-General Fund		5,379.00
				4698-101-000	Engineering-NPDES Phase II		269.00
				4123-101-000	Engineering-Review		4,206.50
				4129-101-000	Project Feasability-General		30.00
				4129-101-000	Project Feasability-General		7,100.50
				4129-101-000	Project Feasability-General		50.00
				4129-101-000	Project Feasability-General		782.50
				4129-101-000	Project Feasability-General		1,493.50
				4129-101-000	Project Feasability-General		618.50
				4129-101-000	Project Feasability-General		117.00
				4129-101-000	Project Feasability-General		117.00
				4129-101-000	Project Feasability-General		75.00
				4129-101-000	Project Feasability-General		960.00
				4129-101-000	Project Feasability-General		1,209.00
				4129-101-000	Project Feasability-General		4,542.50
				4170-101-000	GIS System Maint. & Equipment		1,102.00
				4520-101-000	Water QM-Engineering		1,636.15
				4520-101-000	Water QM-Engineering		2,288.00
				4124-101-000	Engineering-Permit Review		2,086.00
				4661-101-000	SLMP/TMDL Studies		458.00
				4695-101-000	Research Projects-General		1,680.00
				4650-101-000	Project Operations-General		162.00
				4128-553-000	Engineering-Wakefield		13,010.50
				4128-550-000	Engineering-Frost/Kennard		1,212.00
				4128-518-000	Engineering-School/Commer Retrofit		913.00
				4128-518-000	Engineering-School/Commer Retrofit		1,572.00
				4128-518-000	Engineering-School/Commer Retrofit		2,165.00
				4128-518-000	Engineering-School/Commer Retrofit		307.00
				4682-529-000	Stewardship Grant Program		2,295.50
				4128-528-000	Engineering-Faith Based		416.50

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From July 1, 2018 - July 31, 2018

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
				4128-554-000	Engineering-Willow Pond		22,038.00
				4128-520-000	Engineering-Flood Damage		4,596.62
				4128-520-000	Engineering-Flood Damage		84.00
				4128-549-000	Engineering-Beltline/Battle Creek		2,477.00
				4128-516-000	Engineering-Projects Maint. & Repair		325.00
				4128-516-000	Engineering-Projects Maint. & Repair		1,245.50
07/24/18	70082	bar004	Deborah Barnes	4040-101-000	Employee Benefits-General	20.00	
07/24/18	70083	bar008	Peter Barrett	4682-529-000	Stewardship Grant Program	1,118.75	
07/24/18	70084	bei001	Anna D. Beining	4020-101-000	Employee Expense-General	34.34	
07/24/18	70085	ben001	Ben Meadows Company, Inc.	4697-101-000	Health & Safety Program	341.69	
07/24/18	70086	ben002	Benefit Extras, Inc.	4040-101-000	Employee Benefits-General	129.00	
07/24/18	70087	blo001	Simba Blood			97.34	
				4040-101-000	Employee Benefits-General		40.00
				4020-101-000	Employee Expense-General		5.34
				4670-101-000	Natural Resources Project-General		52.00
				4670-101-000	Natural Resources Project-General		
07/24/18	70088	bro003	Brooks Applied Labs	4530-101-000	Water QM Staff-General	1,325.00	
07/24/18	70089	cad003	Cady Building Maintenance, Inc.	4341-101-000	Janitorial/Trash Service	605.00	
07/24/18	70090	car007	Carp Solutions, LLC	4670-101-000	Natural Resources Project-General	11,458.94	
07/24/18	70091	cau001	Rebecca & Tim Caulfield	4682-529-000	Stewardship Grant Program	4,800.00	
07/24/18	70092	cit011	City of Roseville	4325-101-000	IT/Website/Software	921.88	
07/24/18	70093	dnr001	Department of Natural Resources	4350-101-000	Training & Education-General	63.00	
07/24/18	70094	for001	Forestry Suppliers, Inc.	4670-101-000	Natural Resources Project-General	87.04	
07/24/18	70095	gal001	Galowitz Olson, PLLC			1,016.00	
				4131-101-000	Attorney General-General Fund		816.00
				4130-101-000	Attorney General-Permits		200.00
07/24/18	70096	gil001	Gilbert Mechanical Contractors, Inc.			1,622.78	
				4343-101-000	Bldg./Site Maintenance		360.25
				4343-101-000	Bldg./Site Maintenance		566.75
				4343-101-000	Bldg./Site Maintenance		695.78
07/24/18	70097	gla001	Glacial Ridge Drill, Inc.	4682-529-000	Stewardship Grant Program	900.00	
07/24/18	70098	gru001	Gruber's Power Equipment	4670-101-000	Natural Resources Project-General	34.78	
07/24/18	70099	hac002	Hach Company	4530-101-000	Water QM Staff-General	186.79	
07/24/18	70100	ing002	INGCO International, Inc.	4371-101-000	Communications & Marketing	225.00	
07/24/18	70101	inn002	Innovative Office Solutions, LLC			58.63	
				4530-101-000	Water QM Staff-General		30.64
				4320-101-000	Office Supplies-General		27.99
07/24/18	70102	int001	Office of MN, IT Services	4310-101-000	Telephone-General	55.40	
07/24/18	70103	kor001	Eric Korte	4040-101-000	Employee Benefits-General	120.00	
07/24/18	70104V	---	VOID		VOID	-	
07/24/18	70105	lea004	League of MN Cities Ins. Trust P & C	4480-101-000	Insurance-General	29,171.00	
07/24/18	70106	mag004	Carrie Magnuson			269.30	
				4040-101-000	Employee Benefits-General		113.37
				4020-101-000	Employee Expense-General		49.49
				4365-101-000	Committee/Board Meeting Expense		106.44
07/24/18	70107	mei001	Meisinger Construction, Inc.	4343-101-000	Bldg./Site Maintenance	15,850.00	

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From July 1, 2018 - July 31, 2018

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
07/24/18	70108	mel001	Michelle Melser			182.87	
				4040-101-000	Employee Benefits-General		90.00
				4020-101-000	Employee Expense-General		92.87
07/24/18	70109	min008	Minnesota Native Landscape, Inc.			25,467.50	
				4630-516-000	Construction Imp.-Maint. & Repair		602.50
				4630-516-000	Construction Imp.-Maint. & Repair		24,865.00
07/24/18	70110	nsp001	Xcel Energy			1,223.85	
				4342-101-000	Utilities/Bldg. Contracts		1,052.10
				4650-101-000	Project Operations-General		171.75
07/24/18	70111	obr001	Christopher O'Brien			40.00	
				4371-101-000	Communications & Marketing		
07/24/18	70112	omo001	Nicholas Omodt			28.34	
				4020-101-000	Employee Expense-General		
07/24/18	70113	pac001	Pace Analytical Services, Inc.			688.00	
				4530-101-000	Water QM Staff-General		2.00
				4530-101-000	Water QM Staff-General		72.00
				4530-101-000	Water QM Staff-General		156.00
				4530-101-000	Water QM Staff-General		102.00
				4530-101-000	Water QM Staff-General		356.00
07/24/18	70114	pac001	Pace Analytical Services, Inc.			1,572.00	
				4530-101-000	Water QM Staff-General		270.00
				4530-101-000	Water QM Staff-General		35.00
				4530-101-000	Water QM Staff-General		182.00
				4530-101-000	Water QM Staff-General		315.00
				4530-101-000	Water QM Staff-General		770.00
07/24/18	70115	pci001	PCI Roads, LLC			160,164.50	
				4630-549-000	Construction-Beltline/Battle		
07/24/18	70116	pre003	Premium Waters, Inc.			19.00	
				4342-101-000	Utilities/Bldg. Contracts		
07/24/18	70117	qwe001	CenturyLink			225.71	
				4650-101-000	Project Operations-General		
07/24/18	70118	ram002	Ramsey County			16,200.00	
				4682-529-000	Stewardship Grant Program		
07/24/18	70119	sod001	Nichole Soderholm			40.00	
				4040-101-000	Employee Benefits-General		
07/24/18	70120	swo001	Lawrence Swope			176.66	
				4360-101-000	Manager Expense-General		
07/24/18	70121	usb002	U.S. Bancorp			3,841.36	
				4320-101-000	Office Supplies-General		32.07
				4630-516-000	Construction Imp.-Maint. & Repair		14.45
				4343-101-000	Bldg./Site Maintenance		41.18
				4325-101-000	IT/Website/Software		96.03
				4530-101-000	Water QM Staff-General		252.45
				4372-101-000	Events		(50.00)
				4320-101-000	Office Supplies-General		(12.50)
				4630-516-000	Construction Imp.-Maint. & Repair		70.69
				4630-516-000	Construction Imp.-Maint. & Repair		35.34
				4320-101-000	Office Supplies-General		43.87
				4320-101-000	Office Supplies-General		24.51
				4530-101-000	Water QM Staff-General		225.00
				4320-101-000	Office Supplies-General		73.07
				4350-101-000	Training & Education-General		20.00
				4338-101-000	Dues/Publications		119.00
				4371-101-000	Communications & Marketing		10.00

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From July 1, 2018 - July 31, 2018

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
				4320-101-000	Office Supplies-General		36.35
				4320-101-000	Office Supplies-General		19.03
				4320-101-000	Office Supplies-General		4.04
				4343-101-000	Bldg./Site Maintenance		20.00
				4697-101-000	Health & Safety Program		97.98
				4350-101-000	Training & Education-General		6.49
				4350-101-000	Training & Education-General		136.73
				4365-101-000	Committee/Board Meeting Expense		7.99
				4320-101-000	Office Supplies-General		6.99
				4530-101-000	Water QM Staff-General		160.00
				4670-101-000	Natural Resources Project-General		41.00
				4350-101-000	Training & Education-General		332.00
				4350-101-000	Training & Education-General		10.22
				4350-101-000	Training & Education-General		138.51
				4530-101-000	Water QM Staff-General		1,644.03
				4371-101-000	Communications & Marketing		80.00
				4530-101-000	Water QM Staff-General		104.84
07/24/18	70122	usb005	US Bank Equipment Finance	4335-101-000	Printing-General	285.67	
07/24/18	70123	vla001	David Vlasin			95.42	
				4040-101-000	Employee Benefits-General		75.80
				4020-101-000	Employee Expense-General		19.62
07/24/18	70124	was007	Washington Conservation District			3,173.50	
				4530-101-000	Water QM Staff-General		3,062.50
				4683-101-000	Outside Program Support		111.00
07/24/18	70125	whi002	White Bear Lake Superstore	4820-101-000	Vehicle Maint.-General	1,041.74	
07/24/18	70126	wil007	Patrick Williamson	4020-101-000	Employee Expense-General	16.90	
07/24/18	70127	lak007	Lakes Aquatic Weed Removal	4670-101-000	Natural Resources Project-General	4,685.00	
						<u>\$390,137.83</u>	



**Summary of Professional Engineering Services During the Period
June 23, 2018 through July 13, 2018**

	Total Budget* (2018)	Total Fees to Date (2018)	Budget Balance (2018)	Fees During Period	District Accounting Code	Plan Imple- mentation Task Number
Engineering Administration						
General Engineering Administration	\$76,000.00	\$36,926.18	\$39,073.82	\$5,379.00	4121-101	DW-13
RWMWD Health and Safety/ERTK Program	\$2,000.00	\$1,356.00	\$644.00		4697-101	DW-13
Educational Program/Educational Forum Assistance	\$20,000.00	\$3,537.00	\$16,463.00	\$269.00	4698-101	DW-11
Engineering Review						
Engineering Review	\$55,000.00	\$33,555.94	\$21,444.06	\$4,206.50	4123-101	DW-13
Project Feasibility Studies						
Aquifer Recharge Site Search and Feasibility Study	\$15,000.00	\$0.00	\$15,000.00		4129-101	DW-10
Owasso County Park Stormwater Master Plan and Detailed Design: Phase 1 and Phase 2	\$75,000.00	\$1,726.00	\$73,274.00	\$30.00	4129-101	DW-5
Beltline Resiliency and Phalen Chain Water Level Management	\$250,000.00	\$16,759.00	\$233,241.00	\$7,100.50	4129-101	BELT-3
Beaver Lake Subwatershed Feasibility Study	\$15,000.00	\$9,137.35	\$5,862.65	\$50.00	4129-101	BL-1
Owasso Lake Subwatershed Feasibility Study	\$15,000.00	\$10,054.85	\$4,945.15	\$782.50	4129-101	LO-3
Battle Creek Lake Subwatershed Feasibility Study	\$15,000.00	\$12,659.23	\$2,340.77	\$1,493.50	4129-101	BCL-3
Create an Emergency Response Plan for Twin Lake	\$15,000.00	\$2,925.00	\$12,075.00	\$618.50	4129-101	DW-19
Create an Emergency Response Plan for Grass Lake	\$15,000.00	\$563.00	\$14,437.00	\$117.00	4129-101	DW-19
Create an Emergency Response Plan for Snail Lake	\$15,000.00	\$2,219.50	\$12,780.50	\$117.00	4129-101	DW-19
Create an Emergency Response Plan for Lake Owasso	\$5,000.00	\$4,134.00	\$866.00		4129-101	LO-2
FEMA Flood Mapping Update	\$100,000.00	\$0.00	\$100,000.00		4129-101	DW-9
West Vadnais Lake to East Vadnais Lake Water Quality Treatment	\$24,400.00	\$36,601.80	-\$12,201.80	\$75.00	4129-101	DW-9
West Vadnais Lake to East Vadnais Lake Gravity Flow	\$66,000.00	\$6,497.00	\$59,503.00	\$960.00	4129-101	DW-9
Snail Lake to Sucker Lake Reverse Pumping Evaluation	\$9,100.00	\$9,715.50	-\$615.50		4129-101	DW-9
Snail, Grass, and West Vadnais outlet permitting with the MnDNR Modeling of 95% Confidence Limit Atlas 14 District-wide (Climate Change Scenario), Flood Map Generation for Future Outreach	\$129,500.00	\$44,618.98	\$84,881.02	\$4,542.50	4129-101	DW-9
GIS Maintenance						
GIS Maintenance	\$5,000.00	\$1,102.00	\$3,898.00	\$1,102.00	4170-101	DW-13
Monitoring Water Quality/Project Monitoring						
Lake Water Quality Monitoring (Misc QA/QC)	\$10,000.00	\$238.50	\$9,761.50		4520-101	DW-2
Grass Lake WOMP station	\$10,000.00	\$0.00	\$10,000.00		4520-101	DW-3
Battle Creek longitudinal monitoring of TSS	\$15,000.00	\$843.00	\$14,157.00		4520-101	BC-3
Auto Lake monitoring systems (5)	\$50,000.00	\$9,324.43	\$40,675.57	\$1,636.15	4520-101	DW-18
Maplewood Mall Monitoring	\$10,000.00	\$4,117.50	\$5,882.50	\$2,288.00	4520-101	DW-12
Permit Processing, Inspection and Enforcement						
Permit Application Inspection and Enforcement	\$15,000.00	\$3,155.00	\$11,845.00		4122-101	DW-7
Permit Application Review	\$50,000.00	\$21,388.50	\$28,611.50	\$2,086.00	4124-101	DW-7
Lake Studies/WRPPs/TMDL Reports						
2018 Grant Applications	\$30,000.00	\$0.00	\$30,000.00		4661-101	--
Tanners Flood Response Tool Model Update	\$3,000.00	\$2,232.00	\$768.00		4661-101	TaL-1
Evaluate water quality benefit of removing accumulated sediment from south end of Wakefield Lake to improve Lake Phalen water quality	\$10,000.00	\$4,486.70	\$5,513.30	\$458.00	4661-101	WL-5
Research Projects						
New Technology Mini Case Studies (average 6 per year)	\$12,000.00	\$3,012.50	\$8,987.50		4695-101	DW-12
Kohlman Permeable Weir Test System - Implement Monitoring Plan	\$15,000.00	\$8,892.13	\$6,107.87	\$1,680.00	4695-101	DW-12
Project Operations						
2018 Tanners Alum Facility Monitoring	\$15,000.00	\$13,619.62	\$1,380.38	\$162.00	4650-101	TaL-3
Capital Improvements						
Wakefield Park/Frost Avenue Stormwater Project	\$25,000.00	\$34,888.93	-\$9,888.93	\$13,010.50	4128-553	WL-1
Frost Kennard Spent Lime BMP	\$24,000.00	\$24,297.71	-\$297.71	\$1,212.00	4128-550	WL-1
Commercial Sites Retrofit Projects 2018	\$55,000.00	\$13,280.95	\$41,719.05	\$913.00	4128-518	DW-6
School Sites Retrofit Projects 2018	\$55,000.00	\$15,651.23	\$39,348.77	\$1,572.00	4128-518	DW-6
Church Sites Retrofit Projects 2018	\$55,000.00	\$12,198.25	\$42,801.75	\$2,165.00	4128-518	DW-6
Roseville High School Campus Stormwater Retrofit (Bennett Lake Subwatershed)	\$30,000.00	\$1,468.00	\$28,532.00	\$307.00	4128-518	DW-6
BMP Incentive Fund: General BMP Design Assistance and Review	\$30,000.00	\$32,256.90	-\$2,256.90	\$2,295.50	4682-529	DW-6
BMP Incentive Fund: Faith-Based Organizations	\$20,000.00	\$1,334.50	\$18,665.50	\$416.50	4128-528	DW-6
Willow Pond CMAC Implementation	\$100,000.00	\$85,037.54	\$14,962.46	\$22,038.00	4128-554	BeL-4
Grass Lake Berm Construction Administration	\$75,000.00	\$46,442.78	\$28,557.22	\$4,596.62	4128-520	GrL-1
Phase 1 implementation from Owasso Basin Improvements Feasibility Study	\$75,000.00	\$8,971.50	\$66,028.50	\$84.00	4128-520	GC-3
District Office Solar Energy Retrofit	\$20,000.00	\$11,093.00	\$8,907.00		4128-519	DW-13
CIP Project Repair & Maintenance						
2017-2018 Beltline Repairs Construction Services	\$360,000.00	\$429,448.57	-\$69,448.57	\$2,477.00	4128-549	BELT-2
Routine CIP Inspection and Unplanned Maintenance Identification	\$75,000.00	\$11,270.25	\$63,729.75	\$325.00	4128-516	DW-5
2018 CIP Maintenance and Repairs	\$90,000.00	\$76,696.30	\$13,303.70	\$1,245.50	4128-516	DW-5
2019 CIP Maintenance and Repairs	\$150,000.00	\$0.00	\$150,000.00		4128-516	DW-5

*For projects carried over from previous years, the total budget reflects the total project budget, and not just the 2018 portion.

Subtotal **\$89,019.77**

TOTAL PAYABLE FOR PERIOD 6/23/2018 - 7/13/2018

\$89,019.77

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

Application for Payment No. 14
Beltline and Battle Creek Repairs
Ramsey-Washington Metro Watershed District

Owner: Ramsey-Washington Metro Watershed District

Contractor: PCi Roads, LLC

Engineer: Barr Engineering, Co.

For work accomplished through the date of July 17, 2018

1.0	Completed to Date:	<u>\$3,140,106.28</u>
2.0	Less Previously Billed:	<u>\$3,129,441.78</u>
3.0	Amount Completed This Period:	<u>\$10,664.50</u>
4.0	Amount Previously Retained:	<u>\$166,145.80</u>
5.0	Amount Retained This Period (See Note 1):	<u>\$0.00</u>
6.0	Total Amount Retained:	<u>\$166,145.80</u>
7.0	Retainage Released Through This Period:	<u>\$149,500.00</u>
8.0	Less Total Retainage Remaining:	<u>\$16,645.80</u>
9.0	Less Amounts Previously Paid:	<u>\$2,963,295.98</u>
10.0	Amount Due This Estimate:	<u>\$160,164.50</u>

Note 1: The specifications require 10% to be retained up to 50% of the project costs.

CONTRACTOR's Certification

The undersigned CONTRACTOR certifies that: (1) all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied to discharge in full all obligations of CONTRACTOR incurred in connection with Work covered by prior Applications for Payment numbered 1 through 13 inclusive; (2) title to all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all liens, claims, security interest and encumbrances (except such as are covered by Bond acceptable to OWNER indemnifying OWNER against any such lien, claim, security interest or encumbrance); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective as that term is defined in the Contract Documents.

SUBMITTED BY:

Name: Leo Flynn Date: 7/17/18

Title: Project Coordinator

Contractor: PCi Roads, LLC

Signature: 

RECOMMENDED BY:

Name: Nathan Campeau Date: 7/17/18

Title: Project Engineer

Engineer: Barr Engineering Co.

Signature: 

APPROVED BY:

Name: Marj Ebensteiner Date: _____

Title: President

Owner: Ramsey-Washington Metro Watershed District

Signature: _____

Beltline and Battle Creek Repairs
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through July 17, 2018 for Progress Payment No. 14

Item	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	PCi Roads, LLC		(1) Total Completed This Period		(2) Total Completed Previous Periods		(3) Total Completed To Date	
				UNIT COST	EXTENSION	Quantity		Quantity		Quantity	
A	Mobilization	LS	1	\$ 280,000.00	\$ 280,000.00	0	\$0.00	1	\$280,000.00	1	\$280,000.00
B	Water Management	LS	1	\$ 5,000.00	\$ 5,000.00	0	\$0.00	1	\$5,000.00	1	\$5,000.00
C	Erosion Control	LS	1	\$ 35,000.00	\$ 35,000.00	0	\$0.00	1	\$35,000.00	1	\$35,000.00
D	Traffic Control	LS	1	\$ 25,000.00	\$ 25,000.00	0	\$0.00	1	\$25,000.00	1	\$25,000.00
E	Cold Joint Orientation Core Hole	EA	90	\$ 440.00	\$ 39,600.00	0	\$0.00	0	\$0.00	0	\$0.00
F	Crack Repair - Hydrophobic	LF	12500	\$ 65.00	\$ 812,500.00	1.7	\$110.50	13439.15	\$873,544.75	13440.85	\$873,655.25
F	Crack Repair - Hydrophilic	LF	5000	\$ 65.00	\$ 325,000.00	0	\$0.00	3448.25	\$224,136.25	3448.25	\$224,136.25
G	Chemical Grout – Hydrophobic	GAL	3000	\$ 50.00	\$ 150,000.00	-18	-\$900.00	2211	\$110,550.00	2193	\$109,650.00
G	Chemical Grout – Hydrophilic	GAL	1200	\$ 50.00	\$ 60,000.00	0	\$0.00	638	\$31,900.00	638	\$31,900.00
H	Concrete Surface Repair*	SF	13000	\$ 63.00	\$ 819,000.00	0	\$0.00	10098.25	\$636,189.75	10098.25	\$636,189.75
I	Cementitious Mortar Patch	EA	20	\$ 1,000.00	\$ 20,000.00	-1	-\$1,000.00	16	\$16,000.00	15	\$15,000.00
J	Manhole Steps	EA	391	\$ 84.00	\$ 32,844.00	2	\$168.00	314	\$26,376.00	316	\$26,544.00
K	Root Removal	LS	1	\$ 5,000.00	\$ 5,000.00	0.95	\$4,750.00	0	\$0.00	0.95	\$4,750.00
L	Encrustation Demolition and Disposal	LS	1	\$ 35,000.00	\$ 35,000.00	0	\$0.00	1	\$35,000.00	1	\$35,000.00
M	Precast Joint Repairs	LF	200	\$ 56.00	\$ 11,200.00	0	\$0.00	440.3	\$24,656.80	440.3	\$24,656.80
N	Rubble Removal (Station 14+94)	LS	1	\$ 5,000.00	\$ 5,000.00	0	\$0.00	1	\$5,000.00	1	\$5,000.00
N	Rubble Removal (Station 15+87)	LS	1	\$ 2,000.00	\$ 2,000.00	0	\$0.00	1	\$2,000.00	1	\$2,000.00
N	Rubble Removal (Station 89+76)	LS	1	\$ 2,000.00	\$ 2,000.00	0	\$0.00	0	\$0.00	0	\$0.00
N	Rubble Removal (Station 454+65)	LS	1	\$ 2,000.00	\$ 2,000.00	0	\$0.00	1	\$2,000.00	1	\$2,000.00
N	Rubble Removal (Station 454+94)	LS	1	\$ 2,000.00	\$ 2,000.00	0	\$0.00	1	\$2,000.00	1	\$2,000.00
O	Point Repair	EA	27	\$ 900.00	\$ 24,300.00	2	\$1,800.00	20	\$18,000.00	22	\$19,800.00
O	Point Repair (Station 50+61)	EA	1	\$ 1,585.00	\$ 1,585.00	0	\$0.00	1	\$1,585.00	1	\$1,585.00
O	Point Repair (Station 79+65)	EA	1	\$ 1,585.00	\$ 1,585.00	0	\$0.00	1	\$1,585.00	1	\$1,585.00
O	Point Repair (Station 446+15)	EA	1	\$ 1,585.00	\$ 1,585.00	0	\$0.00	1	\$1,585.00	1	\$1,585.00
O	Point Repair (Station 449+12)	EA	1	\$ 1,585.00	\$ 1,585.00	0	\$0.00	1	\$1,585.00	1	\$1,585.00
O	Point Repair (Station 44+97)	EA	1	\$ 1,585.00	\$ 1,585.00	0	\$0.00	1	\$1,585.00	1	\$1,585.00
P	Invert Repair (Station 63+92)	SF	15	\$ 1,000.00	\$ 15,000.00	0	\$0.00	15	\$15,000.00	15	\$15,000.00
P	Invert Repair (Station 450+94)	SF	64	\$ 500.00	\$ 32,000.00	0	\$0.00	78	\$39,000.00	78	\$39,000.00
Q	Uncover Manhole	EA	4	\$ 1,800.00	\$ 7,200.00	0	\$0.00	4	\$7,200.00	4	\$7,200.00
R	Adjust Manhole Height	EA	4	\$ 1,800.00	\$ 7,200.00	2	\$3,600.00	0	\$0.00	2	\$3,600.00
S	CCTV Inspection	LS	1	\$ 35,000.00	\$ 35,000.00	0	\$0.00	0.9	\$31,500.00	0.9	\$31,500.00
BASE BID TOTAL					\$ 2,796,769.00	\$8,528.50		\$2,452,978.55		\$2,461,507.05	

Beltline and Battle Creek Repairs
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through July 17, 2018 for Progress Payment No. 14

				PCi Roads, LLC		(1) Total Completed This Period		(2) Total Completed Previous Periods		(3) Total Completed To Date	
Item	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	EXTENSION	Quantity		Quantity		Quantity	
BID ALTERNATE #1: REINFORCEMENT STEEL											
Item	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	EXTENSION						
T	Reinforcement Seal - 6 in.	EA	264	\$ 12.00	\$ 3,168.00	18	\$216.00	1674	\$20,088.00	1692	\$20,304.00
T	Reinforcement Seal - 12 in.	EA	2197	\$ 24.00	\$ 52,728.00	12	\$288.00	1738	\$41,712.00	1750	\$42,000.00
T	Reinforcement Seal - 24 in.	EA	882	\$ 48.00	\$ 42,336.00	4	\$192.00	991	\$47,568.00	995	\$47,760.00
T	Reinforcement Seal - 36 in.	EA	252	\$ 70.00	\$ 17,640.00	2	\$140.00	536	\$37,520.00	538	\$37,660.00
BID ALTERNATE #1					\$ 115,872.00		\$836.00		\$146,888.00		\$147,724.00
TOTAL BASE BID PLUS BID ALTERNATE #1					\$ 2,912,641.00		\$9,364.50		\$2,599,866.55		\$2,609,231.05
CHANGE ORDER - ADDITIONAL ITEMS											
1-2	Deep Concrete Surface Repair*	SF	3,000	\$ 87.00	\$ 261,000.00	0	\$0.00	3000	\$261,000.00	3000	\$261,000.00
2-2	Beaver Lake Branch Deep Concrete Surface Repair Exceeding 3,000 SF	SF	0	\$ 63.00	\$ -	0	\$0.00	1831.75	\$115,400.25	1831.75	\$115,400.25
2-3	Repair a Void at Station 440+95	LS	1	\$ 14,600.00	\$ 14,600.00	0	\$0.00	1	\$14,600.00	1	\$14,600.00
3-1	Beaver Lake Branch Crack Sealing	LS	1	\$ 119,724.98	\$ 119,724.98	0	\$0.00	1	\$119,724.98	1	\$119,724.98
4-2	Additional Battle Creek Point Repairs	EA	23	\$ 650.00	\$ 14,950.00	2	\$1,300.00	29	\$18,850.00	31	\$20,150.00
SUBTOTAL CHANGE ORDERS					\$ 410,274.98		\$1,300.00		\$529,575.23		\$530,875.23
TOTAL BASE BID PLUS BID ALTERNATE #1, PLUS CHANGE ORDERS					\$ 3,322,915.98		\$10,664.50		\$3,129,441.78		\$3,140,106.28
RETAINAGE (10% Retainage, up to 50% of Work Completion)					\$ 166,145.80		-\$149,500.00		\$166,145.80		\$16,645.80
TOTAL AMOUNT DUE:							\$160,164.50		\$2,963,295.98		\$3,123,460.48

*Change Order 1-2 results in an estimated reduction of Item H of 3,000 SF, for an estimated reduction of \$189,000. This results in an estimated net increase of \$72,000.

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

Page: 1
July 23, 2018
File No: 9M

	Balance
General Account	\$816.00
Maplewood Panera	\$200.00
	<u>\$1,016.00</u>

* * * * *

Permit Program

* * * * *

Permit Application Coversheet

Date August 01, 2018

Project Name Roseville Area High School Remodel

Project Number 18-19

Applicant Name Todd Lieser, ISD 623

Type of Development Institutional

Property Description

This project is located at 1240 County Road B2 West, south of Willow Pond in the City of Roseville. The applicant is proposing to remodel the existing high school including classroom additions, interior improvements, relocation of existing tennis courts, and associated sidewalks, drive areas, and utilities. The total site area is 13.7 acres. Volume reduction and rate control will be achieved through construction of two underground filtration systems and one above-ground filtration basin. Filtration is being proposed due to poor soils. Pretreatment will include sump structures, a grass swale, and Rain Guardian inlet.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> 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.

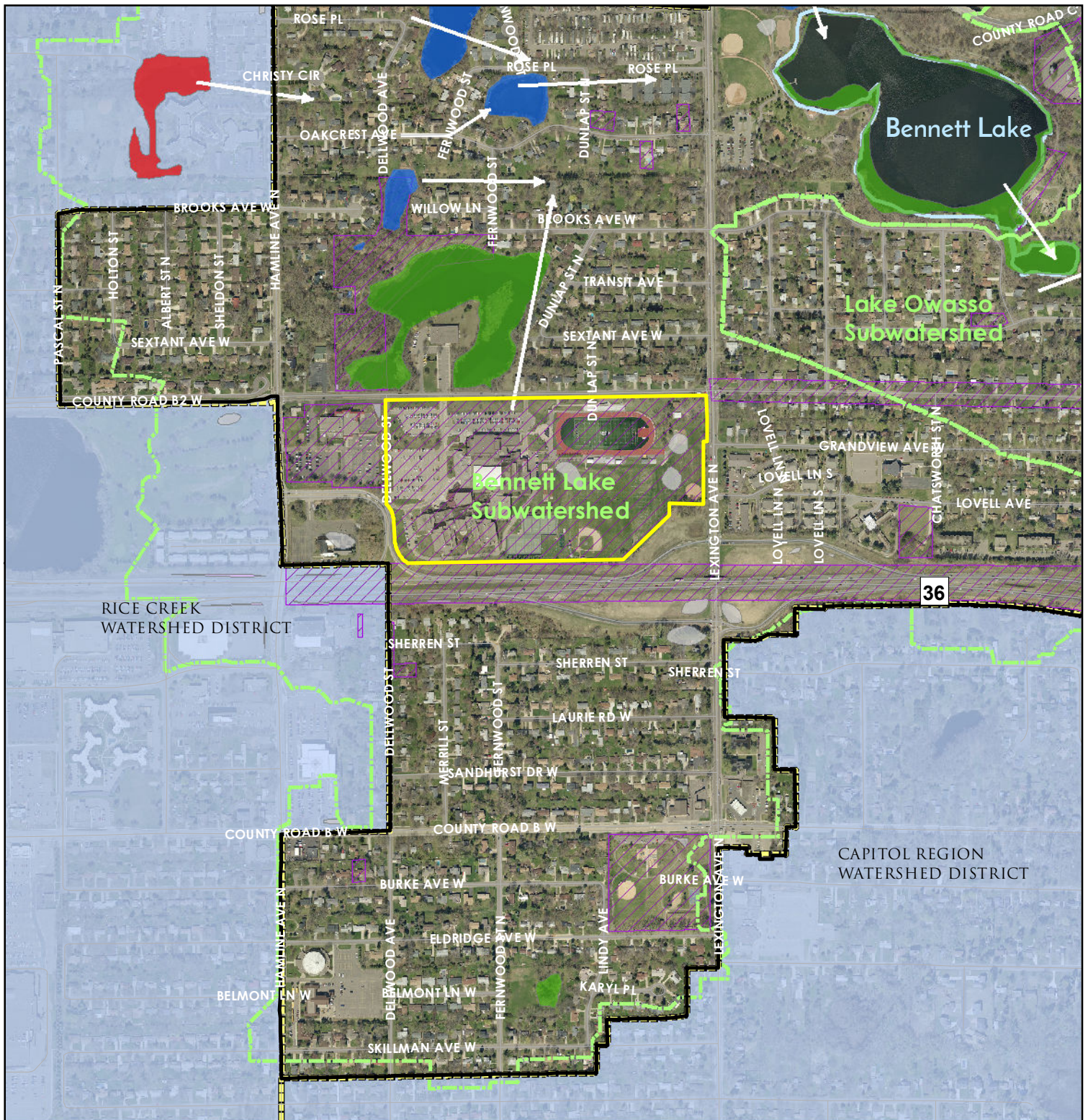
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

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

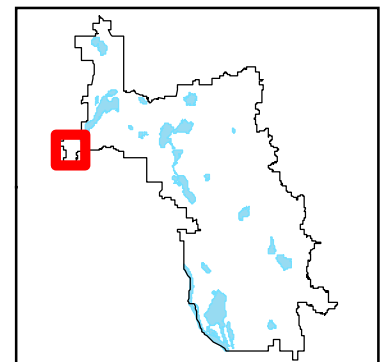
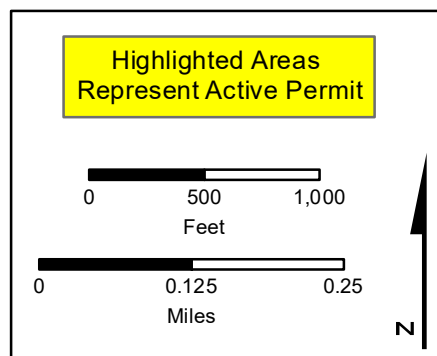
#18-19 Roseville Area High School Remodel



Note: Shaded area is outside RWMWD

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

	RWMWD Boundary
	Watershed Org
	Flow Arrows
	Major Flow Arrows
	Subwatersheds
	Creeks
	Permits
	City Boundaries



18-19

Special Provisions

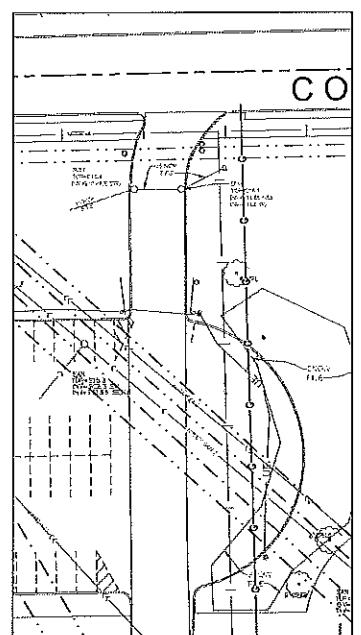
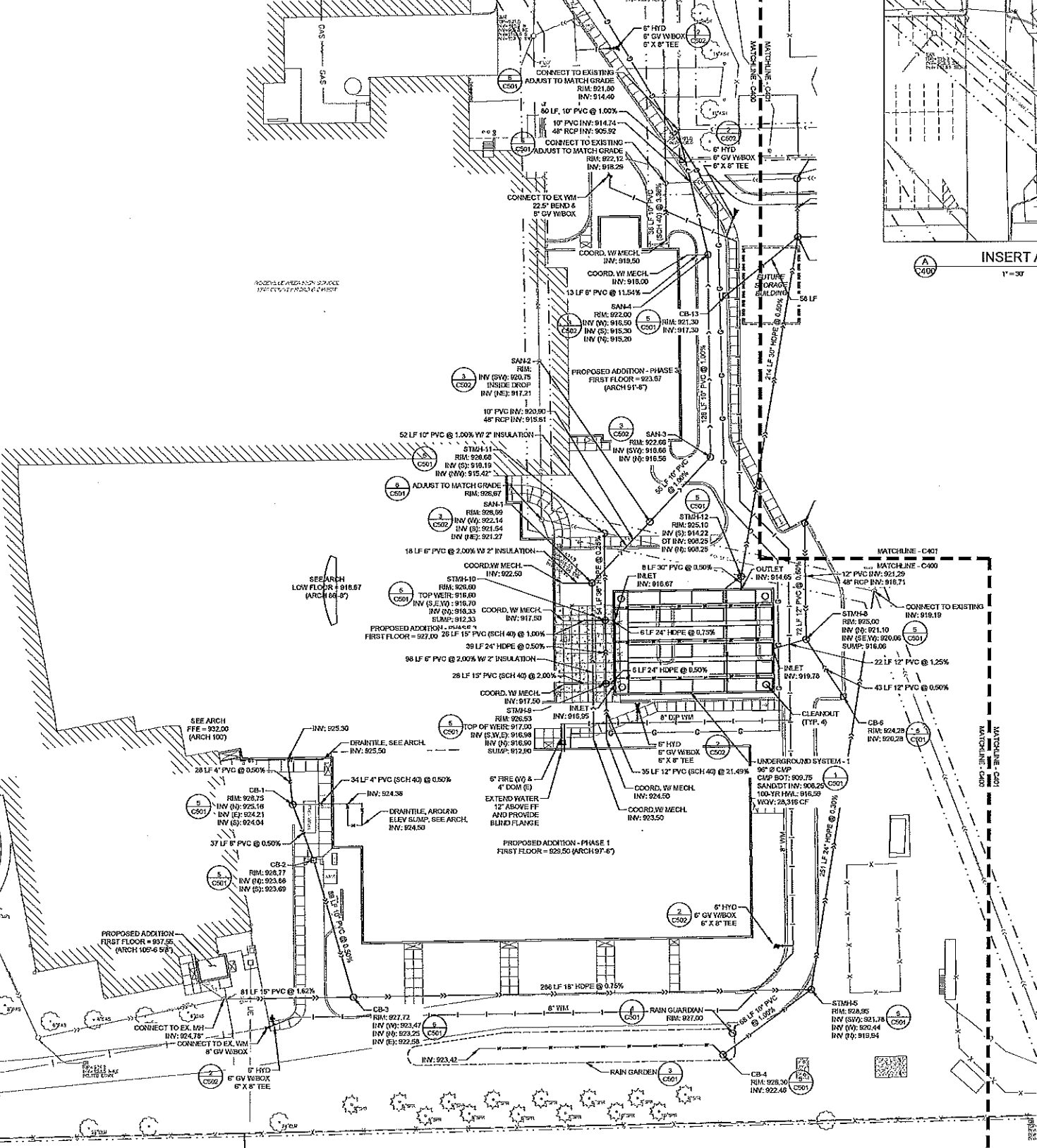
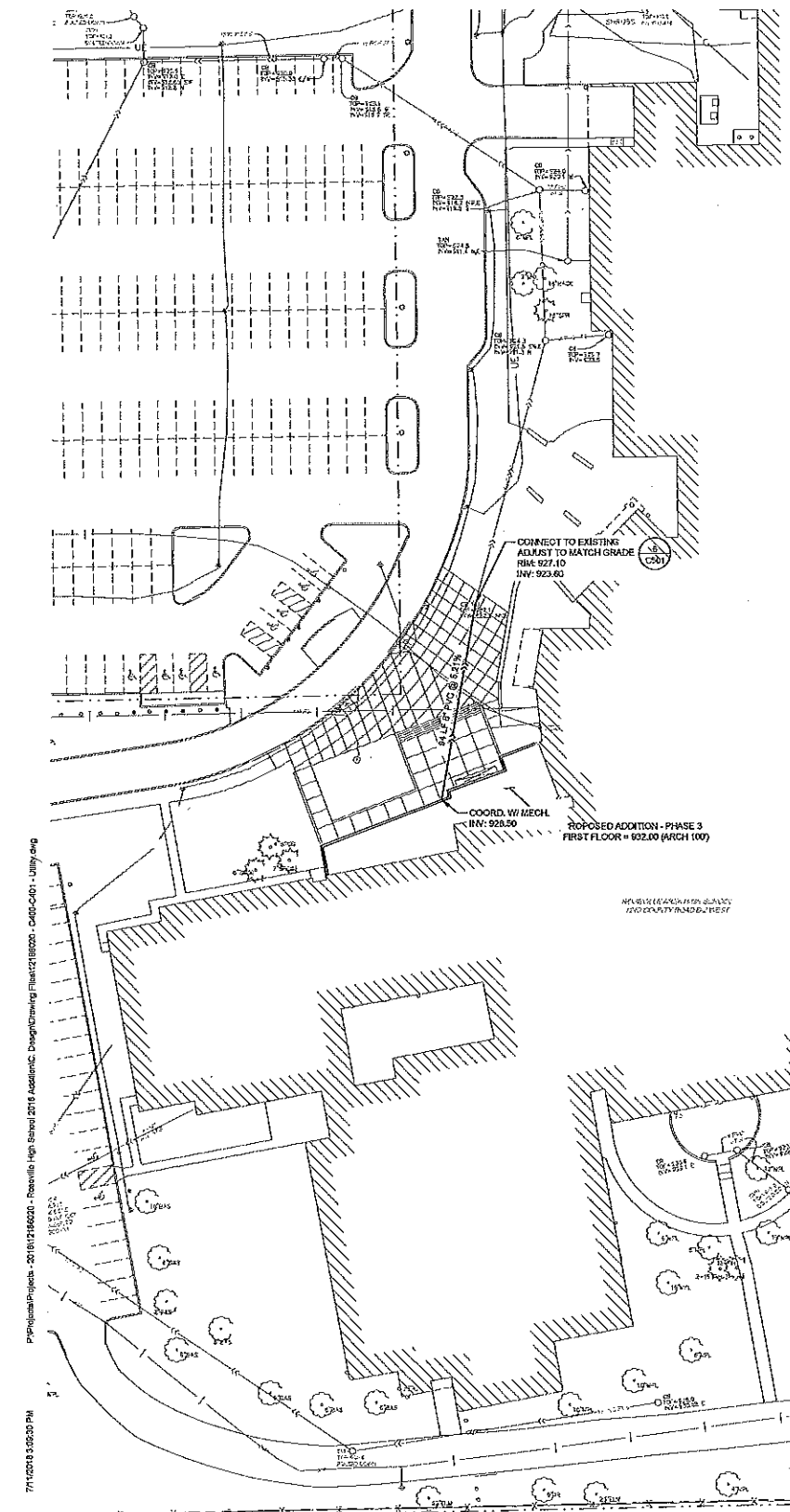
1. The applicant shall revise the narrative to incorporate the 2" treatment cap on volume reduction credit.
2. The applicant shall submit a final copy of the signed construction plans.
3. The applicant shall submit an executed joint maintenance agreement with the City of Roseville for the proposed stormwater facilities.
4. The applicant shall revise the curve number in HydroCAD and the narrative to be consistent with the infiltration rate used.
5. The applicant shall provide 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 Phase 2 Construction Permit.

LEGEND

- Legend items: CUY, OE, UE, FD, C, O, T, W, S, H, L, P, G, B, X, S, L, P.

UTILITY NOTES

- Utility notes 1-14 detailing construction requirements for sewer, storm, and water lines.



LSE ARCHITECTS

151 ARCHITECTS, INC. 100 Bedford Ave. South, Suite 100 Minneapolis, MN 55401

Roseville Area High School - Addition & Remodel

1240 County Road B2 W Roseville, MN 55113

Larson Engineering, Inc.

3524 Labore Road Voklo Boat Lake, MN 55110

Key Plan

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision...

Table with columns: No., Date, Revision Description.

BID PACKAGE #1

WATERSHED SUBMITTAL

UTILITY PLAN - WEST

Project 17.05201 Drawing Number Date July 11, 2018 Drawn by HLN Checked by ECM C400

Vertical text on the left margin: P:\Projects\Projects - 2018\17.05201 - Roseville High School 2018 Assistant Designer\Drawing Files\17.05201 - C400-C401 - Utility.dwg

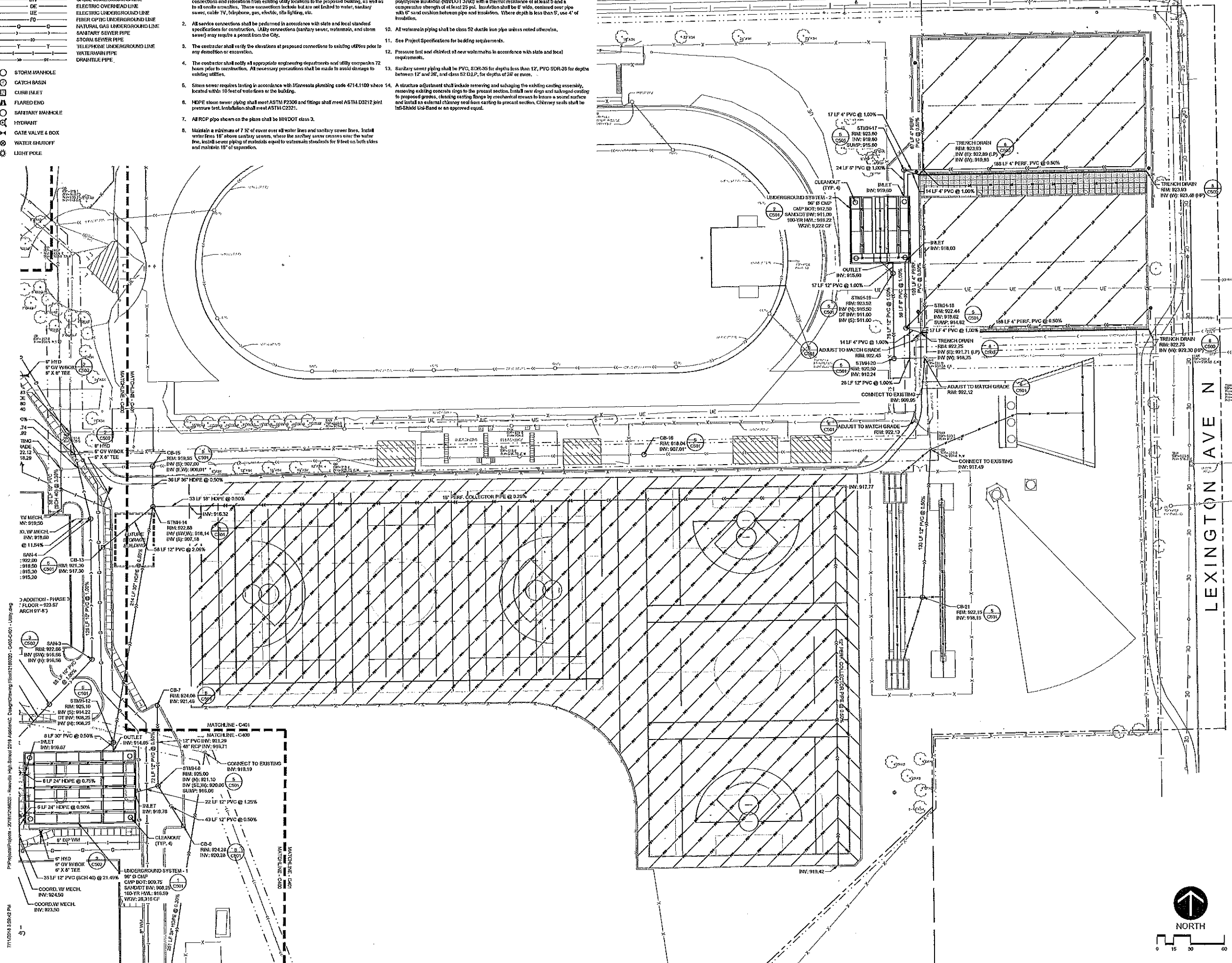
LEGEND

- CIV — CABLE UNDERGROUND LINE
- OE — ELECTRIC OVERHEAD LINE
- UE — ELECTRIC UNDERGROUND LINE
- FO — FIBER OPTIC UNDERGROUND LINE
- NGU — NATURAL GAS UNDERGROUND LINE
- SS — SANITARY SEWER PIPE
- ST — STORM SEWER PIPE
- TEL — TELEPHONE UNDERGROUND LINE
- WWP — WATER MAIN PIPE
- DW — DRAINWIRE PIPE
- STORM MANHOLE
- CATCH BASIN
- CURB INLET
- △ FLARED END
- SANITARY MANHOLE
- HYDRANT
- ⊗ GATE VALVE & BOX
- ⊗ WATER SHUTOFF
- ⊗ LIGHT POLE

UTILITY NOTES

1. It is the responsibility of the contractor to perform or coordinate all necessary utility connections and relocations from existing utility locations to the proposed building, as well as to all onsite amenities. These connections include but are not limited to water, sanitary sewer, gas, TV, telephone, gas, electric, and lighting, etc.
 2. All service connections shall be performed in accordance with state and local standards and specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
 3. The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
 4. The contractor shall notify all appropriate engineering departments and utility companies 72 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
 5. Storm sewer requires testing in accordance with Minnesota plumbing code 4714.1109 where located within 10 feet of waterlines or the building.
 6. HDPE storm sewer piping shall meet ASTM F2306 and fittings shall meet ASTM D3212 joint pressure test. Installation shall meet ASTM C2321.
 7. A/RCP pipe shown on the plans shall be MNDOT class 3.
 8. Maintain a minimum of 7' of cover over all water lines and sanitary sewer lines. Install water lines 18" above sanitary sewers, where the sanitary sewer crosses over the water line, access sewer piping of materials equal to watermain standards for 8 feet on both sides and maintain 18" of separation.
 9. Where 7' N' of cover is not provided over sanitary sewer and water lines, install 2" rigid polyethylene insulation (DIMIT 3100) with a thermal resistance of at least 5 and a compressive strength of at least 25 psi. Insulation shall be 6" wide, contained over pipe with 6" sand cushion between pipe and insulation. Where depth is less than 5', use 4" of insulation.
 10. All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
 11. See Project Specifications for bedding requirements.
 12. Pressure test and disinfect all new watermain in accordance with state and local requirements.
 13. Sanitary sewer piping shall be PVC, SDR-35 for depths less than 12', PYO SDR-26 for depths between 12' and 28', and class 52 D.I.P. for depths of 28' or more.
- A structure adjustment shall include removing and salvaging the existing casting assembly, removing existing concrete slabs to the precast section, install new slabs and salvaged casting to proposed grade, closing casting flange by mechanical means to insure a sound surface and install an internal chimney seal from casting to precast section. Chimney seals shall be In-Shell® Use Seal or an approved equal.

COUNTY ROAD B2 WEST



LSE
ARCHITECTS

LSE ARCHITECTS, INC.
100 Portland Ave. South, Suite 1100
Minneapolis, MN 55401
412.343.1010 office
412.3387280 fax
www.lse-architects.com

Roseville Area
High School -
Addition &
Remodel

1240 County Road B2W
Roseville, MN 55113

Larson
Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
651.481.9120 (P) 651.481.9201
www.larsoneng.com

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Key Plan

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 Architect under the laws of the State of Minnesota.

Printed Name: Eric G. Meyer, P.E.
Signature: _____
Date: 06/15/18 License #: 45992

No.	Date	Revision Description

BID PACKAGE #1

WATERSHED
SUBMITTAL

UTILITY PLAN -
EAST

Project: 18-1002-01 Drawing Number: _____
Date: July, 11, 2018
Drawn by: TLM
Checked by: EGM **C401**

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Permit Application Coversheet

Date August 01, 2018

Project Name 3M Building 208 Annex

Project Number 18-20

Applicant Name Keith Graupmann, 3M

Type of Development Office

Property Description

This project is located on Avenue K at 3M Center in the City of Maplewood. The applicant is proposing to construct an addition to an existing building with associated parking, sidewalk, and realignment of the adjacent drive area. Impervious surface will decrease by 0.06 acre. The total site area is 2.04 acres. The applicant is proposing to utilize banked volume reduction credits available from ongoing permitted projects adjacent to the project area (#17-07, 18-05).

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> 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**

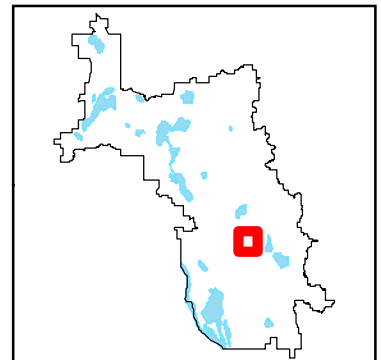
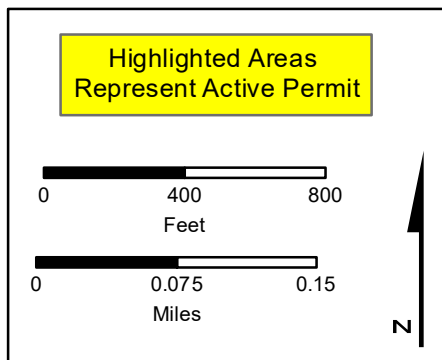
#18-20 3M Building 208 Annex



Wetlands

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

- RWMWD Boundary
- Watershed Org
- Flow Arrows
- Major Flow Arrows
- Subwatersheds
- Creeks
- Permits
- City Boundaries



18-20

Special Provisions

1. The applicant shall submit the escrow fee of \$4,080.
2. The applicant shall submit a final set of the signed construction plans.
3. The applicant shall provide contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
4. The applicant shall submit a revised SWPPP that includes receiving waters.
5. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Phase 2 Construction Permit.

Permit Application Coversheet

Date August 01, 2018

Project Name Margaret Street Pedestrian & Bike Improveme **Project Number** 18-21

Applicant Name Nick Peterson, City of St. Paul Public Works

Type of Development Trail

Property Description

This project is located along Margaret Street between Forest Street and McKnight Road, and along McKnight Road between Margaret Street and Hudson Road in the City of St. Paul. The applicant is proposing to construct a sidewalk along Margaret Street in addition to traffic circles and bump-outs. An existing sidewalk west of McKnight Road will be replaced with a mixed use bituminous trail to accommodate pedestrian and bike traffic. The total disturbed area 3.23 acres. The applicant is proposing to construct an underground infiltration system to meet rate control and the majority of the project's volume reduction requirements. The applicant has submitted cost information in order to utilize the District's linear cost cap for stormwater treatment.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> 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.

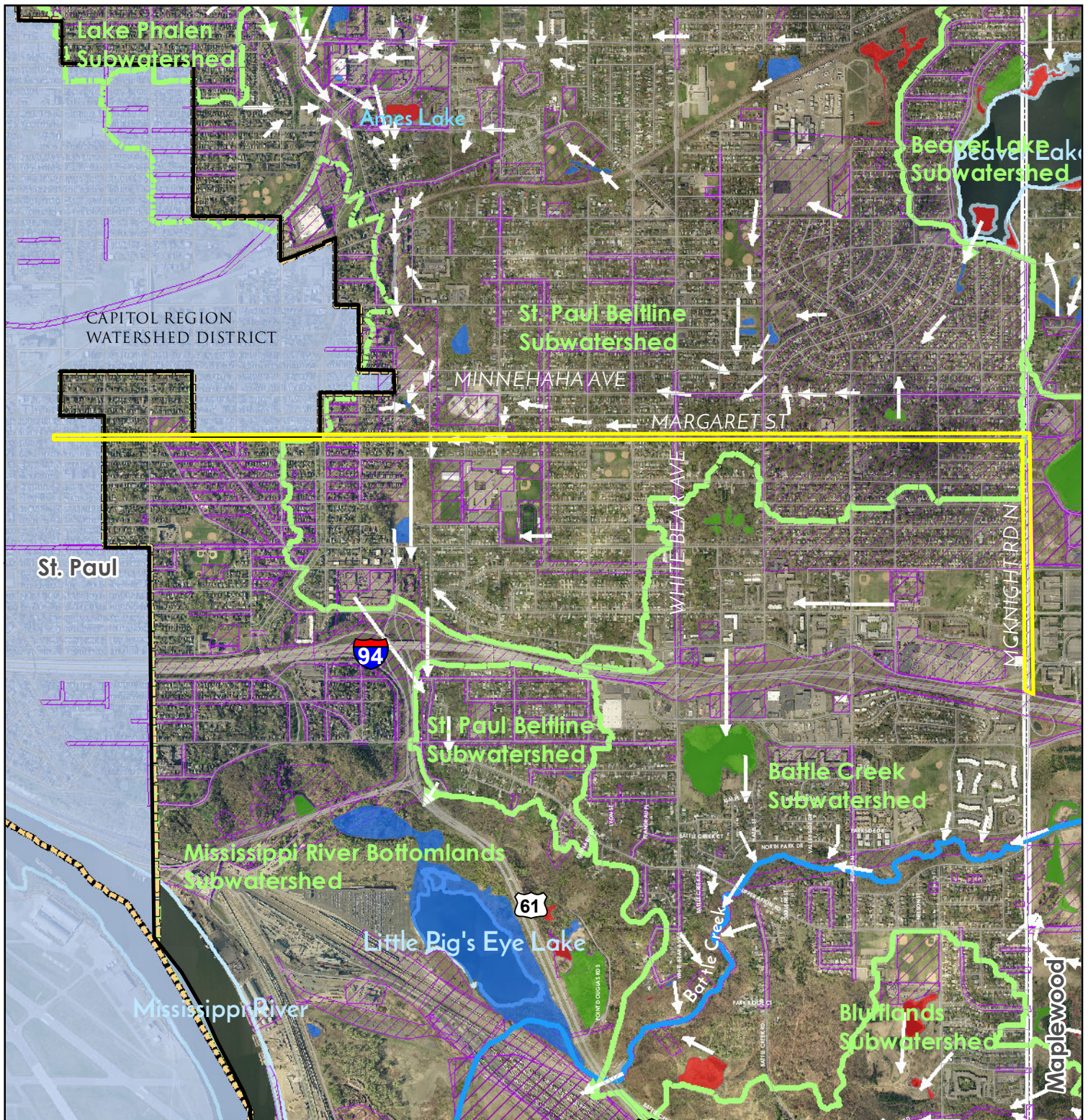
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

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

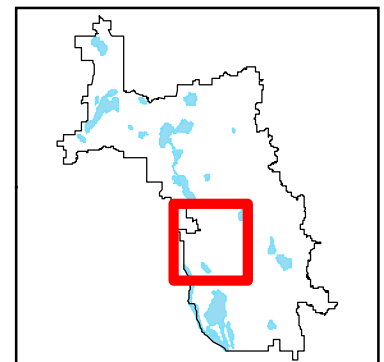
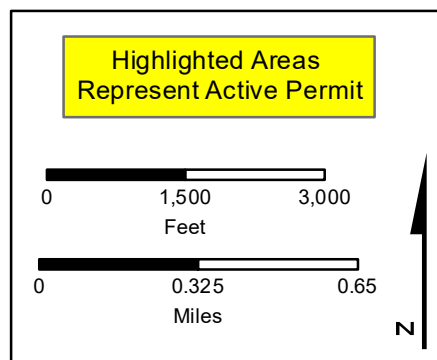
#18-21 Margaret Street Pedestrian & Bike Improvements



Note: Shaded area is outside RWMWD

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

	RWMWD Boundary
	Watershed Org
	Flow Arrows
	Major Flow Arrows
	Subwatersheds
	Creeks
	Permits
	City Boundaries



18-21

Special Provisions

1. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Phase 2 Construction Permit.

Permit Application Coversheet

Date August 01, 2018

Project Name Richardson Elementary Addition

Project Number 18-22

Applicant Name Randy Anderson, ISD 622

Type of Development Institutional

Property Description

This project is located at Richardson Elementary School, 2615 1st Street North in the City of North St. Paul. The applicant is proposing to construct three building additions, reconstruct parking lots, drive lanes, sidewalks, and recreation areas, and provide interior improvements to the existing building. The total site area is 8.9 acres. Volume reduction and rate control will be achieved through construction of two filtration basins. Filtration is being proposed due to poor soils. Pretreatment will include sumped manholes with SAFL Baffles and turrets with screened outlets.

Watershed District Policies or Standards Involved:

- | | |
|--|---|
| <input type="checkbox"/> Wetlands | <input checked="" type="checkbox"/> Erosion and Sediment Control |
| <input checked="" type="checkbox"/> Stormwater Management | <input type="checkbox"/> 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.

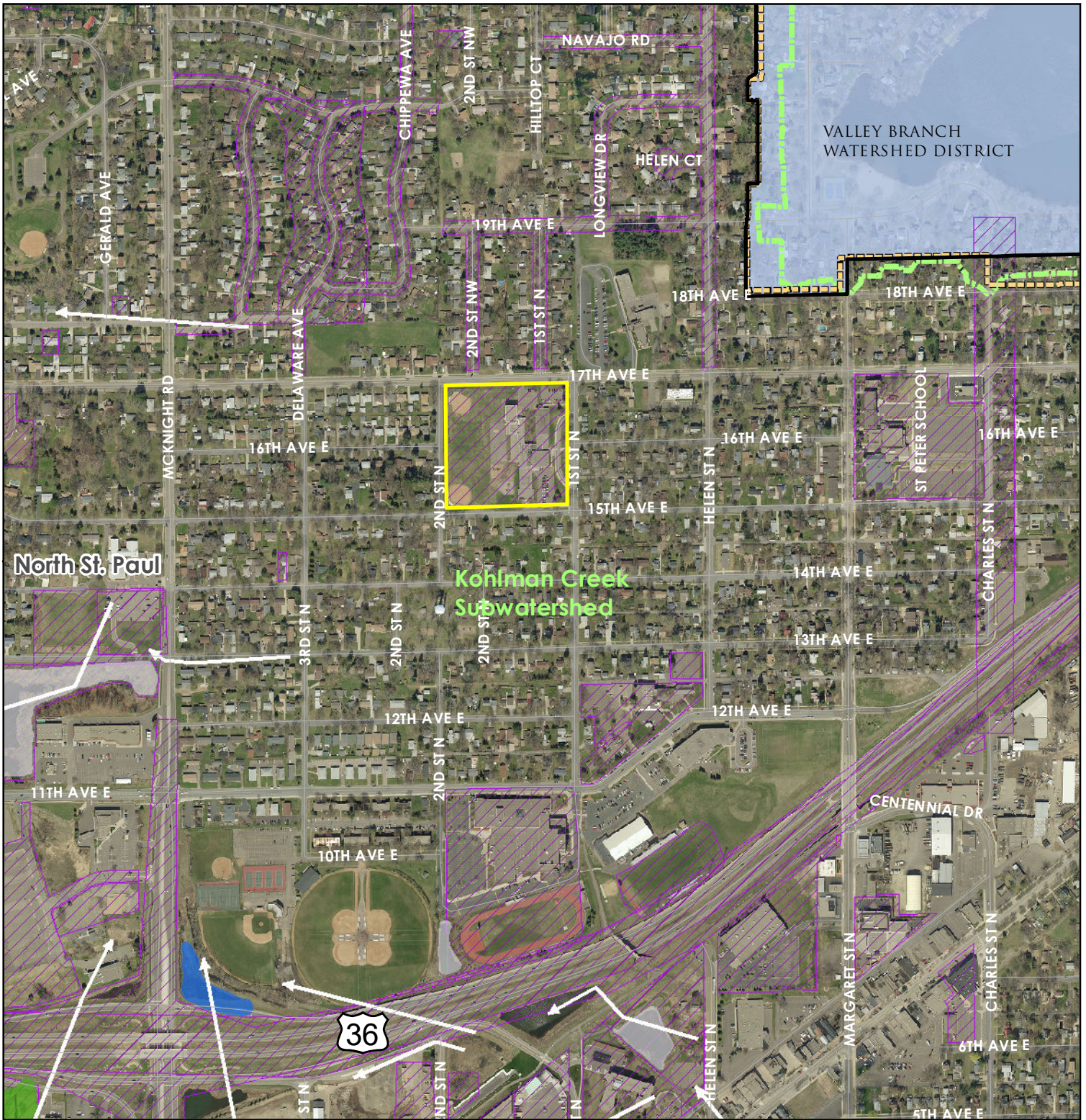
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

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

#18-22 Richardson Elementary Addition



Note: Shaded area is outside RWMWD

Wetlands

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

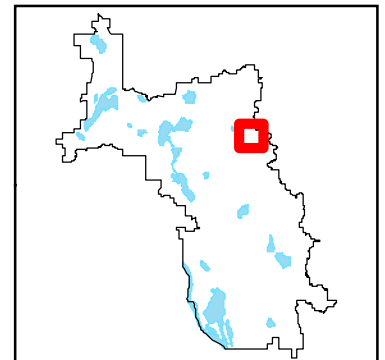
- RWMWD Boundary
- Watershed Org
- Flow Arrows
- Major Flow Arrows
- Subwatersheds
- Creeks
- Permits
- City Boundaries

Highlighted Areas
Represent Active Permit

0 500 1,000
Feet

0 0.1 0.2
Miles

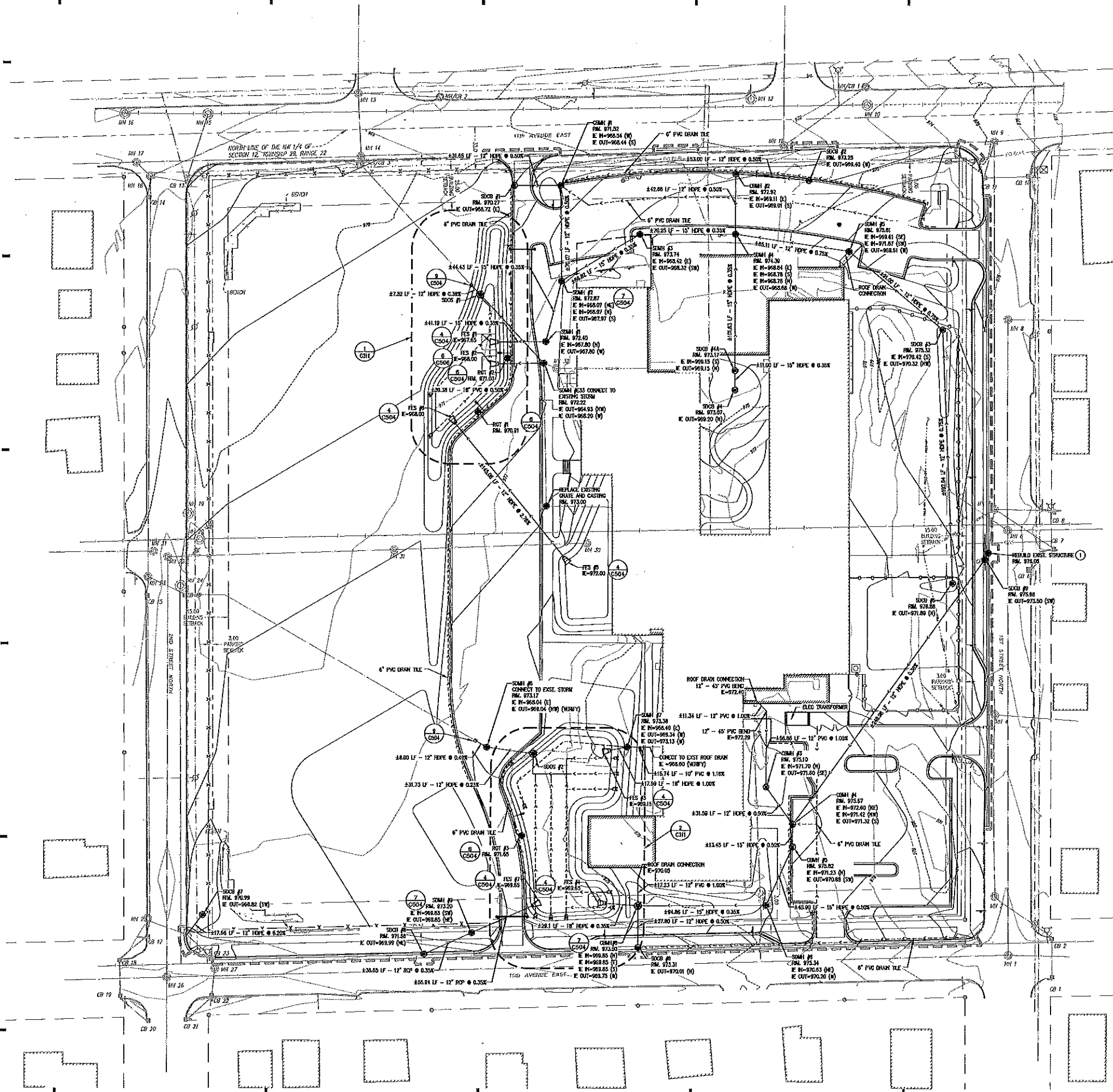
N



18-22

Special Provisions

1. The applicant shall submit the executed maintenance agreement for the proposed stormwater facilities.
2. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Phase 2 Construction Permit.
3. The applicant shall submit a revised Stormwater Pollution Prevention Plan (SWPPP) that includes a map of the receiving waters within 1 mile of the project area.
4. The applicant shall provide contact information for the trained erosion control coordinator responsible for implementing the SWPPP.
5. The applicant shall submit a revised erosion control plan that denotes perimeter control location(s), including around filtration areas until adjacent soils are restored.
6. The applicant shall submit a final copy of the signed construction plans.



SHEET NOTES

- EXISTING UTILITIES ARE BASED ON RECORD DRAWINGS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ENGINEER. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. UTILIZE THE "COMMON STATE ONE CALL SYSTEM" (1-800-252-1166) TO HAVE PUBLIC UTILITIES LOCATED WITHIN THE CONSTRUCTION LIMITS. CONTACT THE OWNER TO LOCATE PRIVATE UTILITIES LOCATED WITHIN THE CONSTRUCTION LIMITS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS.
- UNLESS OTHERWISE NOTED, ALL UTILITY TRENCHES SHALL BE CONSTRUCTED BY ACCORDANCE WITH DETAIL 1 ON SHEET C504.
- ADJUST ALL RISERS AND CASTINGS TO FINISH GRADE.
- NOT ALL FITTINGS ARE SHOWN IN THE DRAWINGS. PROVIDE ALL NECESSARY FITTINGS TO COMPLETE THE WORK.
- PREVENT CONSTRUCTION SEDIMENT, DIRT AND DEBRIS FROM ENTERING ALL FILTRATION BAPS.

SHEET KEY NOTES

- PROVIDE ECCENTRIC CONE & ROTATE OPENING OUT OF THE CUTTER LINE.

LHB
PERFORMANCE DRIVEN DESIGN.
 LHBcorp.com
 787 Washington Ave. N. Ste 200 | Minneapolis, MN 55401 | (612) 238-2029

PRELIMINARY
 NOT FOR CONSTRUCTION
 07/05/2018

CLIENT:
NORTH ST. PAUL - MAPLEWOOD - OAKDALE ISD 622

2520 EAST 12TH AVENUE
 NORTH ST. PAUL MN 55109

THIS SQUARE APPEARS 1/2" X 1/2" ON FULL SIZE SHEETS.

NO.	DATE	REVISION
2	07/20/18	REWORKED SUBMITTAL
1	07/20/18	LAND DEVELOPMENT APPLICATION
NO.	DATE	ISSUED FOR

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.
 SIGNATURE: *[Signature]*
 TYPED OR PRINTED NAME: **ADAM BEISE**
 DATE: 07/19/2018 REG. NO: 02297

PROJECT NAME:
RICHARDSON ELEMENTARY SCHOOL ADDITION AND RENOVATION
 2615 1ST STREET N
 NORTH ST. PAUL MN 55109
 DRAWING TITLE:
UTILITY PLAN

WARNING
 LOCATION OF ALL UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR.
CALL BEFORE DIGGING.
 MINNESOTA ONE-CALL SYSTEM
1-800-252-1166
 REQUIRED BY MN STATUTE 216D



RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

MEMORANDUM

Date: August 1, 2018
To: Board of Managers and Staff
From: Nicole Soderholm, Permit Coordinator
Subject: July Enforcement Action Report

During July 2018:

Number of Violations:	20
Install/Maintain Inlet Protection	4
Install/Maintain Perimeter Control	4
Install/Maintain Construction Entrance	3
Sweep Streets	2
Stabilize Exposed Soils	2
Contain Liquid/Solid Wastes	2
Remove Discharged Sediment	1
Protect/Maintain Permanent BMPs	1
Install/Maintain Ditch Checks	1

Ongoing Activities:

Erosion/sediment control inspections and enforcement, permitting assistance to private developers and government entities, monthly permit review in collaboration with Barr Engineering, miscellaneous inquiries, WCA administration, collaboration with CRWD for proposed permit rule changes, permit close-outs

Project Updates:

Permit #18-11 Whistler Pines, Shoreview

The permit for the Whistler Pines residential subdivision has been issued. Construction is slated to begin in August. A pre-construction meeting has been scheduled for early August with the developer, contractor, City of Shoreview, and District staff. An initial SWPPP inspection will be completed prior to soil disturbance.

Permit #16-28 Hazelwood Medical Office Building, Maplewood

Staff reported to the applicant in May and June that the filtration basin constructed for the project was holding water. Staff met with the contractor onsite in July to discuss potential solutions. The basin has since been cleaned out and is now functioning properly. A final inspection checklist was sent to the applicant in order to move forward with the permit closure process.

Permit #18-10 Maplewood 2018 SIP

Construction has started on the Maplewood street reconstruction project northwest of Tanners Lake. Staff met with the contractor and city inspector in mid-July to discuss SWPPP requirements and to walk the project area. The contractor requested and received a map of discharge points from the project area so that they can be checked periodically during construction to ensure the inlet protection devices are filtering stormwater properly. Changes were requested to the site's construction entrances as they did not match the approved specifications for the project.

Permit #15-16 Sherwood Parkview, Maplewood

Residents continue to express concern about the vegetation management in the filtration basin adjacent to their backyards. The builder responsible for restoring the basin has hired a landscaping subcontractor to complete herbicide application and reseeding of the basin. Staff met with the subcontractor in mid-July to determine the plant species that are being treated with herbicide vs. the native plants that are being preserved in the basin. The native seed mix used is a wild aesthetic that the residents do not prefer, so District staff continue to work on education to the residents with regard to the native plants in the basin. Reseeding is scheduled for the fall.

Permit #17-18 Owasso Park Improvements, Shoreview

Work continues on Ramsey County's Owasso Park project in Shoreview. This project represents Phase 1 of a larger effort between the county, city, and watershed district to implement a collaborative stormwater treatment plan for the park and Owasso Blvd, which crosses through it. Storm sewer and pervious pavement for Phase 1 are complete with work left to be done on the park buildings. Phase 2 design will be underway soon. Barr will work with the city's engineering consultant to have 60% plans done by approximately November. Phase 2 is expected to be constructed next year. The Board will review a separate permit when the city is ready to begin Phase 2.

Permits Closed in July 2018:

- 16-25 Hmong Village Parking Lot Expansion, St. Paul
- 16-36 Met Council Phalen Interceptor Rehab, St. Paul
- 16-37 Lapham Hickey Steel Building Addition, Little Canada (Withdrawn)
- 17-06 4255 Snail Lake Blvd, Shoreview

* * * * *

Stewardship Grant Program

* * * * *

Stewardship Grant Program Budget Status Update

August 1, 2018

Homeowner	Coverage	Number of Projects	Funds Allocated
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share \$15,000 Max	4	\$9,959.41
Rain garden w/hard surface drainage, pervious pavement, green roof	75% Cost Share \$15,000 Max	2	\$9,650
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share \$15,000 Max	1	\$14,000

Commercial, School, Government, Church, Associations, etc.	Coverage	Number of Projects	Funds Allocated
Habitat Restoration	50% Cost Share \$15,000 Max	4	\$19,240
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share \$100,000 Max	0	\$0
PRIORITY AREAS:	100% Cost Share \$100,000 Max	6	\$486,378.73
NON-PRIORITY AREAS:	75% Cost Share \$50,000 Max	2	\$64,830
Aquatic Veg Harvest	50% Cost Share \$15,000 Max	1	\$8,500
Maintenance	50% Cost Share \$5,000 Max for 5 Years	8	\$7,000
Consultant Fees			\$70,907
Total Allocated			\$690,465.14

2018 Stewardship Grant Program Budget	
Budget	\$800,000.00
Total Funds Allocated	\$690,465.14
Total Available Funds	\$109,534.86

* * * * *

Action Items

* * * * *

Request for Board Action

Board Meeting Date: August 1, 2018

Agenda Item No: 8A

Preparer: Tina Carstens, Administrator

Item Description: Willow Pond Continuous Monitoring and Controls (CMAC) Project Bid Review and Approval

Background:

Willow Pond is a water basin upstream of Bennett Lake. Bennett Lake is impaired for excess nutrients. As the TMDL was prepared for Bennett Lake, this site was identified as a location for a potential project. The board approved a budget for 2018 to construct a spent lime filter using the CMAC technology adjacent to Willow Pond. Barr has completed the bid documents (100-percent plans and specifications) for the CMAC filtration system, and the project was advertised for bid. The bids will be opened on July 30 and will be reviewed; the selected bidder will be recommended to the board for approval at the August meeting. If the managers deem it appropriate, they should award the project to lowest responsive and responsible bidder who they think will be in the best interest of the project. Shortly thereafter, notice of award will be issued, and upon fulfilling the submittal requirements, the form of agreement will be signed, and the notice to proceed will be issued. The DNR work in public waters permit application was submitted this period, and we are awaiting approval. Finally, a joint permit application will be completed and submitted to the DNR, the U.S. Army Corps of Engineers, and the RWMWD.

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 Items: Expand use of innovative water quality improvement methods as necessary to address sites with limited land area for conventional treatment techniques.

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 board approved a budget of \$400,000 in 2018 for this project.

Board Action Requested:

Accept the bids and award the Willow Pond CMAC Project to _____. Direct staff to prepare and mail the notice of award, prepare the draft agreements and review the required submittals.

* * * * *

Administrator's Report

* * * * *

MEMO

TO: Board of Managers and Staff
FROM: Tina Carstens, Administrator
SUBJECT: August Administrator's Report
DATE: July 26, 2018

A. Meetings Attended

Monday, July 9	12:00 PM	Staff training meeting
Tuesday, July 10	12:30 PM	One Water Summit presentation
Wednesday, July 11	9:00 AM	Meet with VLAWMO
	6:30 PM	Board meeting
Thursday, July 12	8:00 AM	Water Resources Conference planning
Tuesday, July 24	10:00 AM	GovDelivery meeting
	10:30 AM	Budget planning with Barr staff
	2:00 PM	Meet with Larry re: Grass Lake area
	3:00 PM	Owasso Blvd meeting
Wednesday, July 25	9:00 AM	Tierney Technology Showcase
Thursday, July 26	12:30 PM	Tour MM w/ Legislative Water Commission

B. Upcoming Meetings and Dates

September Board Meeting	Wednesday, September 5, 2018
Board/CAC Tour	TBD
October Board Meeting	Wednesday, October 10, 2018
November Board Meeting	Wednesday, November 7, 2018
Watershed Excellence Awards	TBD
MAWD Annual Meeting	November 29 – December 1, 2018
December Board Meeting	Wednesday, December 5, 2018

C. Minnesota Stormwater Research Council Funding Request

In 2017, the Minnesota Stormwater Research Council (MSRC) organized their first request for funding and request for research proposals. For more background on the MSRC including the framework for the organization, click on this [link](#). Manager Aichinger is a member of the board and can answer any questions you may have. Last year, the board allocated \$25,000 from the District research budget to be a funding agency for the statewide research council. The money that was raised was then used to fund two research projects. The information on those projects as well as the mid-project presentations that were given at a meeting in June of 2018 can be found on the link to the MSRC also.

Again, in 2018 the MSRC is requesting funding partners to continue to offer research opportunities. During the 2018 budget planning cycle, you, the District board, earmarked another \$25,000 towards this effort. The funds are available in the research fund. I wanted to give you an update on the project to date and confirm your continued commitment to statewide research efforts.

Attached is the request for funding for 2018.

D. 2019 Budget Discussion

Attached to this memo is the 2019 preliminary budget table and line by line narrative. We will walk through these items at the board meeting. This month we will discuss the potential changes to the budget from last year. I will take your comments and direction and amend the budget table in preparation for the September board meeting where we will hold a public hearing and certify the preliminary levy.

Minnesota Stormwater Research Council

June 27, 2018

2018 Applied stormwater research project funding request

The Minnesota Stormwater Research Council (Council) in partnership with the University of Minnesota Water Resources Center (WRC) is requesting funds to complete collaborative applied research to address priority stormwater management needs for Minnesota.

Pooled funds from watersheds, cities, and other organizations will be used to complete applied research in the following areas:

- Stormwater reuse including research on suitability of application, characterization of the water within systems, treatment options and effectiveness analysis for cost, pollution, and volume reduction
- Chloride use and effectiveness, deicing alternatives, and advances in application that could include research on changing applicator behaviors.
- Development of or evaluation of stormwater practices and technologies including temporary, permanent and pre-treatment BMPs for new development and retrofit applications.

Your organization's financial contribution to the Council directly supports research important to you. Furthermore, your organization's financial support leverages funds from the Clean Water Fund allocated for stormwater research and technology transfer.

Two ways to provide financial support to the Council to fund applied stormwater research

- Use the online form: [2018 Minnesota Stormwater Research Council](#) to indicate your organization's financial support
- Request an invoice by sending an email to msrc@umn.edu

To help us select this year's research proposals, your support is appreciated before August 31, 2018, but welcome at any time during the year.

Management and use of funds



The use of pooled applied research funds will be managed by the Council in partnership with the WRC. Submissions and projects will be reviewed, ranked, and awarded as determined by the Council and the WRC. Any and all researchers, professionals, and experts will be invited to submit proposals. Organizations and their staff that contribute funds are eligible to apply. The Council has a process to manage conflicts of interest in its review, ranking, and awarding of projects.

Building from success in 2017

In 2017, the Council pooled approximately \$94K in funding from watershed districts, cities, and through the Minnesota Cities Stormwater Coalition. The following contributed in 2017:

- South Washington Watershed District
- Ramsey-Washington Metro Watershed District
- Valley Branch Watershed District
- Capitol Region Watershed District
- Mississippi Watershed Management Organization
- City of Edina
- Minnesota Cities Stormwater Coalition

Thirteen applied research proposals were received and two were funded demonstrating the need for more funding and effort to address unanswered questions related to more efficient and effective stormwater management. The two 2017 funded projects were:

-  Field performance assessment of sediment and gross solids removal from surface inlet pretreatment practices for bioretention
-  Determining which iron minerals in iron-enhanced sand filters remove phosphorus from stormwater runoff

More information about these projects can be found on the website and we recently posted mid-project presentations from the Council's June 2018 meeting. Visit wrc.umn.edu/msrc

About the Minnesota Stormwater Research Council

Learn more about how cities, watersheds, consultants, state agencies, and research institutions are coming together to guide stormwater research in the [Minnesota Stormwater Research Council Framework](#) (also available at wrc.umn.edu/msrc).

We want to hear from you. Please contact one of the following representatives to provide input or for more information:

Ross Bintner, RBintner@edinamn.gov or 952-903-5713
Bob Fossum, bob@capitolregionwd.org or 651-644-8888
Cliff Aichinger, cliff6450@q.com or 651-238-4448
John Bilotta, jbilotta@umn.edu or 612-624-7708
Ann Lewandowski alewand@umn.edu or 612-624-6765

This letter is distributed on behalf of the Minnesota Stormwater Research Council Board.

**Fiscal Year 2019 Budget V1
August Budget Discussions**

Budget ID Number	Budget Item	FY 2018 Budget	FY 2019 Budget Fund Source				Total Proposed 2019 Budget	Increase (decrease) from 2018 Budget
			General Fund	Capital Improvements	Carry-over Funds	Grant Funds		
1	Engineering Administration	93,000	93,000				93,000	0
2	Engineering Review	55,000	55,000				55,000	0
3	Permit Application Review	50,000	55,000				55,000	5,000
4	Permit Inspection and Enforcement	15,000	10,000				10,000	(5,000)
5	Project Feasibility Studies	735,000	420,000		314,000	80,000	814,000	79,000
6	GIS Maintenance	5,000	5,000				5,000	0
7								
8	Attorney General	40,000	40,000				40,000	0
9	Permit Enforcement	10,000	10,000				10,000	0
10								
11	Managers Meeting Per diems	6,500	6,500				6,500	0
12	Managers Expenses	3,500	3,500				3,500	0
13								
14	Auditor/Accounting Auditor/Accounting	50,000	55,000				55,000	5,000
15								
16	Miscellaneous Dues & Publications	11,000	11,000				11,000	0
17	Insurance	35,000	35,000				35,000	0
18	Committee & Board Meeting Expenses	3,500	3,500				3,500	0
19	Miscellaneous	5,000	5,000				5,000	0
20								
21	Administrative Salary & Benefits	1,300,000	1,570,000				1,570,000	270,000
22	Employee Expenses	10,000	10,000				10,000	0
23	Janitorial/Trash Services/Snow Plowing	17,000	17,000				17,000	0
24	Building Maintenance	70,000	300,000				300,000	230,000
25	Utilities (gas,electric, water, sewer, maintenance)	18,000	20,000				20,000	2,000
26	Office Supplies	5,000	5,000				5,000	0
27	Copying/Printing	8,000	8,000				8,000	0
28	Postage/Delivery	10,000	10,000				10,000	0
29	Office Furniture & Computer Equipment	40,000	40,000				40,000	0
30	Office Equipment Maintenance	3,000	3,000				3,000	0
31	Training/Education	25,000	25,000				25,000	0
32	Telephone	8,000	8,000				8,000	0
33	District Vehicles/Maintenance	43,000	43,000				43,000	0
34	GIS System Maintenance & Equip.	15,000	10,000				10,000	(5,000)
35	Data Base Improvements	10,000	5,000				5,000	(5,000)
36	IT Services/Internet/Website/Software Licenses	42,000	45,000				45,000	3,000
37	Outside Program Support	60,000	57,000				57,000	(3,000)
38	Outside Consulting Services	40,000	40,000				40,000	0
39								
40	Program Lake Studies/WRPPs/TMDL Reports	115,000	68,000				68,000	(47,000)
41	Activities Natural Resources Program	100,000	115,000				115,000	15,000
42	Water Monitoring-Lab Costs & Equip.	513,000	200,000				200,000	(313,000)
43	Lake Macrophyte Monitoring	10,000	10,000				10,000	0
44	Research Projects	100,000	115,000				115,000	15,000
45	Project Operations	140,000	160,000				160,000	20,000
46	Education Program	60,000	60,000				60,000	0
47	Communications and Marketing	25,000	25,000				25,000	0
48	Events	50,000	50,000				50,000	0
49	NPDES Phase II	20,000	10,000				10,000	(10,000)
50	Health & Safety Program/Staff In-House Training	2,000	3,000				3,000	1,000
51								
52	Capital Improvements 1997-98 Beltline Repair Debt Service (Completed)	49,916		0			0	(49,916)
53	Summary Maplewood Mall SRF Loan Debt Service	92,272		91,950			91,950	(322)
54	Beltline and Battle Creek Tunnel Repair Debt Service	306,763		307,163			307,163	400
55	District Office Building Bond Payment	194,885		194,885			194,885	0
56	Targeted Retrofit Projects	800,000		100,000	700,000	78,760	878,760	78,760
57	BMP Incentive Fund	800,000		800,000			800,000	0
58	Project Repair & Maintenance	1,000,000		1,120,000			1,120,000	120,000
59	Wakefield Park Project	1,100,000		0	973,154	126,846	1,100,000	0
60	Frost/Kennard Enhanced WQ BMP	400,000		0			0	(400,000)
61	Markham Pond Dredging and Aeration	25,000		0			0	(25,000)
62	Willow Pond CMAC	400,000		0	300,000		300,000	(100,000)
63	694/494/94 Water Quality Treatment	0		575,000			575,000	575,000
64	Impervious Surface Volume Reduction Opportunity Fund	1,500,000		0	1,500,000		1,500,000	0
65	District Office Building Solar Energy Retrofit	150,000		0			0	(150,000)
66	Flood Damage Reduction Fund	2,000,000		1,000,000	1,500,000		2,500,000	500,000
	Totals	12,795,336	3,839,500	4,188,998	5,287,154	285,606	13,601,258	805,922

	Budget Total	Budget Total By Fund		Proposed Prelim Levy
		General Fund	CIB	
2019 Budget Total and totals by fund	13,601,258	4,233,500	9,367,758	6,931,548
2018 Budget Total and totals by fund	12,795,336	3,976,500	8,818,836	6,565,860
2019 Budget Increase or (Decrease) from 2017 Budget	805,922	257,000	548,922	365,688
2019 Budget % change from 2018 Budget	6.30%	6.46%	6.22%	5.57%

Historical Budget and Levy Information			
Year	Levy	General Fund Budget	Capital Improvement Budget
2017	\$6,565,860	\$3,297,500	\$7,530,612
2016	\$6,493,385	\$2,955,500	\$6,969,381
2015	\$6,538,700	\$3,070,500	\$4,204,200
2014	\$5,999,219	\$3,489,000	\$3,636,719
2013	\$5,034,479	\$3,120,000	\$3,278,479
2012	\$3,759,879	\$3,260,500	\$3,985,379
2011	\$3,610,379	\$3,149,000	\$4,635,379
2010	\$3,525,379	\$2,969,000	\$2,969,379
2009	\$3,284,879	\$2,829,500	\$1,994,379
2008	\$3,254,779	\$2,699,500	\$1,423,279

2019 Budget Program Line Item Breakouts

Project Feasibility Studies (Line 5)	
Owasso County Park Stormwater Master Plan and Detailed Design: Phase 1 and Phase 2	\$50,000
Beltline Resiliency Study (2018 carry over)	\$250,000
Emergency Response Planning for top priority areas	\$50,000
FEMA Flood Mapping Update Assitance (\$80K grant)	\$90,000
Climate Adaptation Workshops with Cities	\$100,000
95% Confidence Limit Atlas 14 Modeling (2018 carry over)	\$64,000
Snail, Grass, West Vadnais Outlet Permitting	\$100,000
Hillcrest Golf Course & Gold Line BRT Planning	\$45,000
Wetland Restoration Planning and Site Search	\$25,000
Priority Pond Assessment	\$20,000
Contingency	\$20,000
Total =	\$814,000

Outside Program Support (Line 37)	
Watershed Partners	\$10,000
Blue Thumb	\$3,000
East Metro Education	\$13,000
Cooperative Weed Management Program	\$10,000
GIS Users Group	\$1,000
Contingency	\$20,000
Total =	\$57,000

Lake Studies (Line 40)	
Grant Applications	\$30,000
Tanners Flood Response Tool Model Update	\$3,000
Internal Load Management Discussions	\$10,000
Contingency	\$25,000
Total =	\$68,000

NR Program (Line 41)	
Ongoing Site Maintenance	\$25,000
Owasso Carp Management	\$40,000
Phalen Chain Carp Management	\$10,000
Keller Creek Phase 4	\$20,000
New Equipment (4x4 and trailer)	\$15,000
Contingency	\$5,000
Total =	\$115,000

Water Monitoring (Line 42)	
WQ Equipment Replacement and Repair	\$40,000
Lab Costs	\$90,000
Engineering Stats Assistance	\$15,000
Special Project Monitoring: Maplewood Mall, Battle Creek	\$40,000
New Lake Level Monitoring: Grass, Owasso, Snail, Phalen, Wabasso + WOMP for Grass area	\$15,000
Total =	\$200,000

Research (Line 44)	
Minnesota Stormwater Research Council	\$25,000
Kohlman Test Weirs	\$15,000
Spent Lime Pond Application	\$20,000
Iron Aggregate Pond Application	\$20,000
Internal Research/Contingency	\$35,000
Total =	\$115,000

Education/Events/Communications (Lines 46-48)	
Master Water Stewards	\$10,000
Adopt a Drain Program	\$5,000
Rain Barrel Program	\$5,000
Tracy L School Work	\$25,000
Education Contingency	\$15,000
Communications and Marketing	\$25,000
WaterFest	\$34,000
Watershed Excellence Awards	\$6,000
Events Contingency	\$10,000
Total =	\$135,000

Project Repair and Maintenance (Line 58)	
2019 Project Repair and Maintenance Contract	\$550,000
Routine Inspections and Unplanned Maintenance ID	\$75,000
BMP Maintenance Program	\$100,000
Lake Macrophyte Management	\$45,000
Wakefield Lake South End Dredging	\$250,000
Contingency	\$100,000
Total =	\$1,120,000

2019 BUDGET NARRATIVE

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
General Fund Budget Summary:			
1	<p>Engineering - Administration Oversight of all District Engineering activities, supervising staff assigned to projects, responding to general inquiries of the public and the Board, and preparing correspondence and billings. Engineering attendance at meetings of the District-covers Board and related project meetings, mini case studies, data collection, analysis, preparation of reports as requested by the managers and assisting in District water management planning activities.</p>	93,000	0
2	<p>Engineering - Review Review and comment on plans and proposals submitted to the District for review relative to District regulations, policies and concerns. Assist communities and counties with data and information needs related to projects and plans.</p>	55,000	0
3	<p>Engineering - Permit Application Review and Processing Provides for Engineering assistance in review of all permit applications, clarifying problems with the developer, meet developer on-site, coordinate permit issues with communities, counties, and other regulatory bodies.</p>	55,000	5,000
4	<p>Engineering - Permit Inspection & Enforcement Inspect projects when a designed improvement is involved and requested by District staff.</p>	10,000	(5,000)
5	<p>Engineering - Project Feasibility Studies This item provides a budget item for annual feasibility studies in preparation of future capital improvement projects. See attached list.</p>	814,000	79,000
6	<p>Engineering - GIS Maintenance Provides funds for maintenance and assistance of the District GIS system.</p>	5,000	0

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
8	Attorney - General Legal advice at meetings, research on various issues for Board consideration, preparation and publication of legal notices, preparation of Board resolutions, and other matters requiring legal counsel.	40,000	0
9	Attorney - Permit Enforcement Legal advice on permit sites including enforcement activities, letter and legal action as necessary.	10,000	0
11	Manager per Diems Manager per diems for regular and special meeting attendance.	6,500	0
12	Manager Expenses Manager Expenses incurred in the performance of official manager duties, such as attendance at conferences and meetings and related expenses.	3,500	0
14	Auditor/Accounting Preparation of the District's annual audit and provide monthly accounting services.	55,000	5,000
16	Dues & Publications Dues for appropriate organization memberships (MAWD, Metro MAWD, League of MN Cities, etc.) and for purchase of necessary publications and reference materials.	11,000	0
17	Insurance & Bonds District General Liability, Property/Casualty, Public Official Liability insurance, and Position Schedule Bonds.	35,000	0
18	Committee & Board Meeting Expenses Budget to cover miscellaneous expenses related to the duties and activities of District advisory committees, such as, meeting refreshments, supplies, public information materials, etc.	3,500	0

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
19	Miscellaneous Expenses Expenses of the District not elsewhere classified. Examples include: miscellaneous financial charges and expenses, District tour expenses, pass through expenses, etc.	5,000	0
21	Staff Salaries, Taxes & Benefits Includes salary, taxes, insurance and benefits for existing full time staff, plus summer interns. This budget includes an allowance for a salary increases and increased benefit costs.	1,570,000	270,000
22	Employee Expenses This includes mileage, parking, and supply expenses incurred by the District's staff.	10,000	0
23	Janitorial/Trash Services/Snow Removal Contract services required for office building and winter snow removal.	17,000	0
24	Building Maintenance Building repairs, equipment and landscape maintenance expenses. Increase will cover larger maintenance needs including needs for our roof top HVAC unit, interior painting, carpet, parking lot maintenance and budget for more regular maintenance needs as the building ages.	300,000	230,000
25	Utilities (gas, electric, water, sewer) Provides for office building utility expenses.	20,000	2,000
26	Office Supplies Office supply costs for district operations.	5,000	0
27	Copying/Printing Photocopying and commercial printing expenses.	8,000	0
28	Postage/Delivery District postage and delivery expenses.	10,000	0

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
29	Office Furniture and Computer Equipment Acquisition of necessary new and replacement office equipment and furniture. The increase accounts for the potential of upgrading the board room audio/video equipment, as well as office and computer needs for new staff hires.	40,000	0
30	Office Equipment Maintenance To fund office equipment maintenance.	3,000	0
31	Training/Education Training and education expenses for the District staff.	25,000	0
32	Telephone District telephone expenses. Includes office phone system and support costs.	8,000	0
33	Vehicle Replacement, Equipment and Maintenance Provides for fleet maintenance and equipment. The decrease is because we won't need to purchase any new vehicles in 2018.	43,000	0
34	GIS System Maintenance & Equipment Provides for continuous upgrading of GIS system data files and equipment as needed.	10,000	(5,000)
35	Database Improvements Provides for maintenance and minor improvements to existing District database system.	5,000	(5,000)
36	IT Services/Internet/Web Site/Software Licenses Provides for maintenance and upgrades to computer network and software upgrades.	45,000	3,000
37	Outside Program Support Provides budget for financial support of programs that provide support to the District and its goals. Includes Watershed Partners, Blue Thumb, East Metro Education, Cooperative Weed Management, GIS Users group, AIS Support, Clean Water Summit. The decrease is from a lesser need to support AIS efforts as the support need in 2017 was unknown. This budget amount more closely matches the needs for 2018.	57,000	(3,000)

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
38	Outside Consultant Services Provides funds for contracting special services with outside consultants as needs arise in the year.	40,000	0
40	Lake Studies/TMDL Reports This item is for various water body quality studies and other topics. See attached list.	68,000	(47,000)
41	Natural Resources Program This item includes funding for project to enhance ecological diversity within the District – habitat restoration projects, site maintenance, studies and research. See attached list for breakdown.	115,000	15,000
42	Water Quality Monitoring Includes lab costs and equipment for lake sampling, BMP monitoring and performance monitoring. The increase includes the need for replacement sampling equipment as well as additional equipment for new monitoring sites.	200,000	(313,000)
43	Lake Macrophyte Monitoring Program to collect annual or bi-annual lake plant data to monitor changes in District lakes.	10,000	0
44	Research Projects This account provides funds for conducting research into various water and resource management issues and problems. The budget includes contributions to the Minnesota Stormwater Research (MSR) program, Kohlman test weir research, as well as other potential internal research projects. See attached list.	115,000	15,000
45	Project Operations This budget provides funds for the ongoing operational costs for District projects that incur utility or supply costs.	160,000	20,000
46	Educational Programming Production of materials and programs designed to improve the understanding and knowledge of the school children, general public, city and county staff, developers and others of the District's programs and watershed management. This includes	60,000	0

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
	continued support of Master Water Stewards Program, as well as increased support of the Adopt-a-Drain program and rain barrel sales.		
47	Communications and Marketing This will be used to support our communications and marketing plan.	25,000	0
48	Events Provide funds for the annual WaterFest program and Watershed Excellence Awards program.	50,000	0
49	NPDES Phase II Provides funds for meeting the requirement of the Federal/State required Phase II permit program. These funds will also be used to assist Cities with implementation of required minimum measures, prepare feasibility studies as needed, and update the District SWPPP.	10,000	(10,000)
50	Health & Safety Program/Staff In-house Training Provides funds to support the District staff safety program, training costs, equipment.	3,000	1,000
Capital Improvement Budget Summary:			
52	Beltline Interceptor Repair Debt Service We completed payment on this debt service in 2018.	0	(49,916)
53	Maplewood Mall SRF Loan Debt Service Annual payment for the new State Revolving Fund (SRF) loan for Maplewood Mall Phase IV project.	91,950	(322)
54	2016 Beltline and Battle Creek Tunnel Repair Debt Service This is the principal and interest payment for a new bond issue approved in 2016.	307,163	400

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
55	District Building Bond Payment Provides funds for the annual bond payment for the District office building.	194,885	0
56	Targeted Retrofit Projects This budget includes \$800,000 for our targeted retrofit BMP program. I anticipate much of this coming from carry-over, with a small amount being levied. Watershed based grant funds for Washington County projects will also be included in this budget.	878,760	78,760
57	BMP Incentive Fund Provide funds for cost-share assistance to local road authorities, churches, public and private developers and homeowners for funding of volume reduction practices above the requirements of District rules.	800,000	0
58	CIP Maintenance & Repair Provides funds for the maintenance of District projects and trunk conveyor system. Also includes funds for continuation of a BMP maintenance program and a contingency fund. See attached list.	1,120,000	120,000
59	Wakefield Park and Frost Avenue Project This is carry over project with the City of Maplewood from 2018. Plans and specs will be completed in 2018 with construction in 2019. This is all carry over and watershed based grant funding (Ramsey County portion).	1,100,000	0
60	Frost/Kennard Enhanced WQ BMP This project will be completed in 2018.	0	(400,000)
61	Markham Pond Dredging and Aeration This project will be closed out in 2018.	0	(25,000)
62	Willow Pond CMAC Project This project will be bid in 2018, but may not be completed until spring of 2019. This is all carry over funds.	300,000	(100,000)

Budget Line No.	Item & Description	Budget Amount	Change from '18 increase (decrease)
63	<p>694/494/94 Water Quality Treatment</p> <p>This is a new potential project that would provide water quality treatment for Battle Creek Lake as part of the upcoming MnDOT reconstruction of the roads and ramps in this vicinity. We are early in conversations with MnDOT on this project, but could budget for this potential project or plan to use the opportunity fund if it moves forward.</p>	575,000	575,000
64	<p>Impervious Surface Volume Reduction Opportunity Fund</p> <p>This fund allows the District to capitalize on short-range improvement opportunities that would be lost if we waited for the next year's budget cycle. This is carry over funds.</p>	1,500,000	0
65	<p>District Office Building Solar Energy Retrofit Improvement</p> <p>This will be completed in 2018.</p>	0	(150,000)
66	<p>Flood Damage Reduction Fund</p> <p>Provides funds for flood control projects including acquisition or flood proofing of existing flood prone structures. Assistance to cities to reduce flood risks in areas identified by District modeling of Atlas 14 storm events could also be included. Budget is also allocated for implementation of the Owasso Basin study. This is for an additional \$1,000,000 to be levied in 2019 in addition to the carry over funds.</p>	2,500,000	500,000

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Project and Program Status Reports

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Memorandum

To: Board of Managers and Staff
From: Tina Carstens and Brad Lindaman
Subject: Project and Program Status Report – August 2018
Date: July 26, 2018

Permit processing, inspection, and enforcement

System-wide evaluation of flood control options/Beltline resiliency study (Barr project manager: Erin Anderson Wenz; 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 involve using 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 on homes adjacent to RWMWD-managed water bodies.

This period, staff finalized documentation summarizing the methodology, simulation results, and potential system modifications within the Owasso Basin and Gervais Creek subwatersheds to remove existing structures from the floodplain. As part of the documentation, we developed concept-level, opinion-of-cost estimates for each modification to the stormwater system. We estimated the low structure elevation based on available topographic information and evaluated modifications to the system model that could potentially lower 100-year flood levels below those that impact habitable structures (i.e., homes and businesses).

Also, recently staff began compiling information for the second phase of the study, which includes Willow Lake and Kohlman Creek subwatersheds. We estimated low structure elevations and reviewed potential system modifications. In the next few months, we will evaluate modifications to the stormwater system to address flood-prone areas in the Willow Lake and Kohlman Creek subwatersheds. The study is phased so that flood-prone areas in the upstream portion of the watershed are addressed first working downstream.

If the study proves successful, recommendations for actual field modifications will be offered for future capital improvement programming.

At-risk lakes subwatershed feasibility studies (Barr project manager: Josh Phillips; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to evaluate BMP opportunities throughout the Beaver, Owasso, and Battle Creek Lake subwatersheds. These lakes are all considered to be “at risk” for nutrient impairment.

To: Board of Managers and Staff
From: Tina Carstens and Brad Lindaman
Subject: Project and Program Status Report – August 2018
Date: July 26, 2018

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Barr is developing a draft report and will send it to RWMWD staff for comment in August. This work is expected to be presented at the September board meeting and as a part of on-going 2019 work program discussions.

Snail Lake/Grass Lake optimization study and berm raise project (Barr project manager: Brad Lindaman; RWMWD project manager: Tina Carstens)

The purpose of this study is to evaluate the potential for optimization of the existing Snail Lake/Grass Lake system (from Snail Lake to Grass Lake to Highway 694), with the goal of lowering flood levels in the system's water bodies in order to reduce flood risk to habitable structures and lessen impacts to surrounding properties.

During June, the contractor remobilized to the area and restarted the work. To date (July 24), the pathway has been removed and the overflow pipe installation in Gramsie Road is complete. In addition, the emergency overflow swale has been constructed and the berm construction is underway. Barr expects that the work will be complete and ready for final payment in mid-August.

An oral update on this work will be provided to the board on August 1.

Snail, Grass, and West Vadnais lakes outlet permitting with the Minnesota Department of Natural Resources (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 Minnesota DNR.

Barr has sent the maps and charts presented at last month's board meeting to the DNR, as well as questions about the next steps that will be required before a permit to lower Grass, West, and East Vadnais lakes can be issued. We will check in with DNR staff on progress in the coming weeks.

West Vadnais Lake to East Vadnais Lake gravity flow feasibility evaluation (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

The purpose of this study is to understand the feasibility of lowering East Vadnais Lake levels and encouraging subsurface flow by gravity from West Vadnais Lake into East Vadnais Lake in order to reduce flooding in the Grass Lake area of the RWMWD. The scope of the study will give a better understanding of hydrologic dynamics between the connected water bodies, and if lowering East Vadnais Lake is a sufficient measure to reduce flooding while meeting the requirements of all involved stakeholders.

The water-quality and geotechnical investigations for West Vadnais Lake and the berm separating it from East Vadnais Lake is currently being coordinated with the land owner. In addition, we are in contact with St. Paul Regional Water Services about its proposed work plan for water-quality sampling to finalize the scope and answer questions. Additionally, we have been in communication with Ramsey County to finalize the access agreements for the planned soil borings on the berm between West

To: Board of Managers and Staff
From: Tina Carstens and Brad Lindaman
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Date: July 26, 2018

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Vadnais Lake and East Vadnais Lake and to discuss what is known about the composition of the berm. The field investigations work will likely occur in September.

Modeling of 500-year Atlas 14 district-wide (climate change scenario): flood map generation for future outreach efforts (Barr project manager: Erin Anderson Wenz; 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.

This period, Barr finished validating the stormwater models and prepared model documentation summarizing modifications made to the models, model parameters, and simulation results. In the next month, we will begin simulating design rainfall events to estimate the uncertainty in the 100-year floodplain.

Kohlman 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.

Material was placed and the first round of monitoring conducted in May. Four different media were placed in the cells: 1) spent lime, 2) spent lime with oxidized iron, 3) limestone aggregate (CC17), and 4) sand and biochar. There was measurable flow through all of the test cells except for the sand-biochar mixture. There is not enough head loss through the weir to force water through the sand; hence, this type of media will not be useful at the site. Monitoring data have been received and evaluated. All three treatment media remove phosphorus, but there were clear differences in the performance of the three media. Testing will be conducted again in the fall to evaluate if continuous treatment from May through October has impacted treatment performance.

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

The purpose of this project is to evaluate the feasibility of a regional stormwater infiltration or filtration project and other local stormwater infiltration projects at Roseville High School. The school is designing an addition to the southeast end of the building, so the project will also include coordination with Roseville High School and its design engineers to place stormwater BMP retrofits.

The scope of work for the feasibility study is complete and the work will begin in August, with the first task being a review of the information provided by the high school to better understand the existing

storm water system and site drainage patterns and infrastructure. Staff are also engaged in intermittent discussions with the school district regarding the possible BMP retrofits being considered.

Capital improvements

Frost/Kennard enhanced water-quality treatment BMP (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens/Paige Ahlborg)

The purpose of this project is to prepare plans and specifications, conduct project bidding, and observe construction for the water-quality BMP enhancement retrofit of the existing infiltration basin located on the parcel owned by the City of Maplewood. The parcel is located in the southwest quadrant of the intersection of Frost Avenue and Kennard Street.

Construction is nearly complete. The filter remains offline until a backflow preventer and the monitoring equipment is installed. Construction is expected to be complete and the monitoring equipment installed in late July/early August.

Wakefield Park/Frost Avenue stormwater project (Barr project managers: Erin Anderson Wenz and Fred Rozumalski; 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.

Conceptual design of the stormwater infiltration system within Wakefield Park is complete. A summary memo describing the project and the stormwater treatment effectiveness was provided to district staff for comment on July 17. City of Maplewood staff members were copied on the memo, and they will submit the project to their city council for approval along with their Frost Avenue improvement plans in the near future. A construction plan set will be developed after city council approval. It is anticipated that the project will go out for bid late this year.

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.

Surveying is complete on six sites throughout the RWMWD, including Cornerstone Montessori, Boys and Girls Club Eastside, and Roosevelt Community Center in St. Paul; New Horizon Day Care in Woodbury; House of Prayer Lutheran Church in Oakdale; and the Roseville School District office. These sites were identified with the BMP incentive fund program. Barr is developing concept designs for each of these potential BMPs. Meetings are currently being scheduled to review these concepts with the property owners and verify complete buy-in to the BMP program. It is anticipated that the New Horizon Day Care,

House of Prayer, and Roseville School District office projects will be built in fall 2018, while the other sites will be constructed 2019.

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 out opportunities for cost-share projects throughout the RWMWD.

Staff continues to update the mobile geographic information system (GIS) mapping program that focuses on underserved communities within the watershed. Additional site visits are currently being scheduled with property owners in St. Paul as a result of recent meetings with local business community leaders.

Additional site reviews are planned in the coming weeks to identify more BMP locations for future projects.

Phase 1 implementation from Owasso Basin improvements feasibility study (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

The purpose of this project is to evaluate flood control options for Owasso Basin and the surrounding area.

As described last month, Barr has completed our evaluation of alternatives for flood control in and around Owasso Basin. We are using the RWMWD XP-SWMM hydrologic and hydraulic model of Grass Lake, Owasso Basin, and surrounding areas to evaluate how much additional storage would be required to keep the 100-year, 96-hour storm event (which was determined to be the critical event for the area) from overflowing the berm along the western edge of Owasso Basin, and from flooding the mobile-home park on the basin's south side. We also evaluated options that would divert flows to other locations without raising the potential for further flooding downstream. Barr developed a technical memorandum for the RWMWD that describes the various options and their costs and benefits. This project is linked to the system-wide evaluation of flood control options/Beltline resiliency study, described above; essentially, it serves as the first phase of the Beltline resiliency study. This work will be presented at the August board meeting to allow for further discussion with the board.

CIP project repair and maintenance

Beltline and Battle Creek tunnel repair construction services (Barr project manager: Nathan Campeau; RWMWD project manager: Dave Vlasin)

The purpose of this project is to perform ongoing maintenance and repairs of the Beltline tunnel system to significantly increase the service life of the tunnel.

During this period, Barr worked on the construction report. PCi is preparing the final closeout documentation, and we anticipate closing out the project and completing the construction report in the next period. An oral update will be provided at the August 1 meeting.

To: Board of Managers and Staff
From: Tina Carstens and Brad Lindaman
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CIP maintenance/repairs 2018 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 was recently performed on the Vadnais Boulevard pipes. We anticipate that the CIP 2018 maintenance and repair work at Battle Creek Lower Ravine Park and at the West Vadnais Lake pipe outlet will be done shortly after the Vadnais Blvd. pipe work is complete.

Frost/Kennard enhanced water-quality treatment BMP (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens/Paige Ahlborg)

The purpose of this project is to prepare plans and specifications, conduct project bidding, and observe construction for the water-quality BMP enhancement retrofit of the existing infiltration basin located on the parcel owned by the City of Maplewood. The parcel is located in the southwest quadrant of the intersection of Frost Avenue and Kennard Street.

Construction is nearly complete. The filter remains offline until a backflow preventer and the monitoring equipment is installed. Construction is expected to be complete and the monitoring equipment installed in late July/early August.

New-technology mini case studies

FilterPave® (Barr project manager: Matt Kumka; RWMWD project manager: Tina Carstens)

Innovative technology	FilterPave is a poly-bound porous-pavement alternative to permeable concrete, asphalt, and paver stones that has up to two times more pore space.
Use	FilterPave can be used as a pavement alternative for parking areas, golf cart pathways, trails/walkways, sidewalks, driveways, plazas, and boat ramp landings.
Benefits of technology	<ul style="list-style-type: none"> ▪ Reduces impervious area and runoff in highly urbanized areas ▪ Reduces the amount of pollutants reaching surface water ▪ Infiltrates up to two times more runoff than permeable asphalt and concrete ▪ Clogs less than traditional pervious pavements, resulting in less maintenance ▪ Poly binder allows for better freeze/thaw/heat expansions and contractions ▪ Contributes to LEED credit
Drawbacks	<ul style="list-style-type: none"> ▪ More expensive than typical pavement options ▪ Still can clog if not maintained properly; regular maintenance is needed
Case studies/ applications	<ul style="list-style-type: none"> ▪ Far Rockaway Bust Station (New York) ▪ Prairie Crossing School (Illinois) ▪ International Crane Foundation (Wisconsin)
Suppliers/contacts	<p>FilterPave 780 County Road 122 Higbee, MO 65257 660-248-1974 http://filterpave.net</p>
Conclusion	FilterPave offers an alternative to impervious pavement that allows for infiltration of runoff, and offers an alternative to typical permeable pavements that requires less regular maintenance and performs better.

Technology description

FilterPave is a poured-in-place mix of 100-percent post-consumer recycled glass, regionally sourced stone, or a glass/stone combination that is bonded with a proprietary BASF polyurethane elastomeric binder. The porosity is 39 percent, compared to other permeable pavements that have porosities of approximately 20 percent or less. FilterPave can be used in applications such as driveways, pedestrian plazas, tree wells, parking lots, golf cart pathways, sidewalks, and other trails or walkways.

FilterPave differs from other traditional permeable pavements in that its composition allows for twice the void space in the aggregate slab. This increase results in faster infiltration rates, less clogging of the material, and reduced maintenance efforts to keep up performance.

This technology reduces stormwater runoff from impervious area, infiltrating runoff and reducing both volume and nutrient loads to surface waters. Additionally, FilterPave is comprised of 50-percent recycled material and provides LEED credit towards applicable projects.



Figure 1: FilterPave slab and golf cart path application

The coating of FilterPave surfaces is 40-percent post-consumer recycled glass and 60-percent stone aggregate per FPPS specifications, combined with a polyurethane binder, pigmented dispersion, and aliphatic polyurea surface overcoat. A pigmented dispersion matching the color added to the binder may be added to the standard aliphatic polyurea surface overcoat, which will be decided on a per job basis. FPLLC recommends that samples are pre-approved by the customer. It is not for use on roadways or in commercial parking lots, and is not recommended for use under conditions of constant traffic from gross vehicle loads above 8,000 pounds. Intermittent use of gross vehicle loads from 8,000 pounds up to 80,000 pounds, such as emergency equipment, is allowable.

Design and performance

The design of FilterPave is similar to other permeable pavement designs. For parking lot applications, a 3-inch layer of the polysurface layer is recommended, with a 1.5-inch underlayer of coarse crushed aggregate, and 6 inches of uncompacted subgrade (see figure 2).

FilterPave also comes in several color options including amber brown, Sedona red, sapphire blue, jade green, and topaz brown (see figure 3).

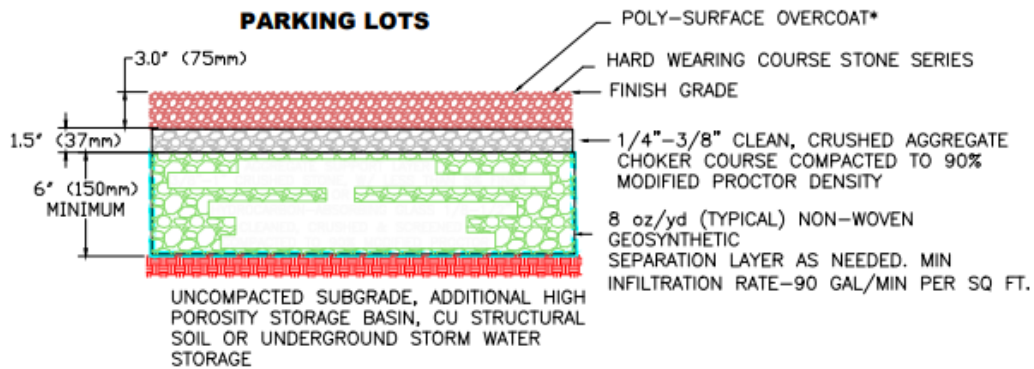


Figure 2: FilterPave parking lot, recommended cross-section design

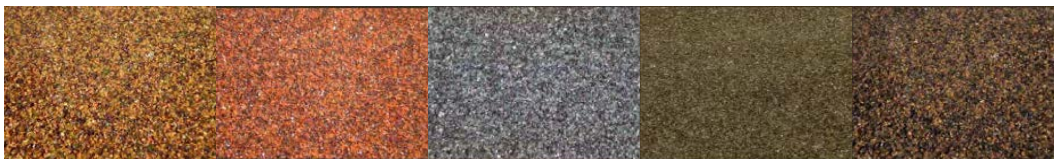


Figure 3: FilterPave color options

Infiltration rates for FilterPave range from 6.2 to 33.1 inches per hour depending on the lifecycle of the surface and recent maintenance activities performed. Based on a 25-year design storm (8.4 inches per hour), a 33-percent reduction in phosphorus and nitrogen was achieved. Greater reductions are expected for less-intense storms.

Applications/case studies

Far Rockaway Bus Terminal parking lot (HDR)

FilterPave was installed in approximately one third of parking stalls in the parking lot of the Far Rockaway Bus Terminal in New York, and was tested against porous pavement and standard asphalt. Over three years of monitoring and 96 storms, FilterPave consistently captured 100 percent of volume on site for all rainfall depths. The standard asphalt and porous asphalt showed variable results, but for higher rainfall depths captured very little runoff volume. The FilterPave experienced some wear and tear during the monitoring period.

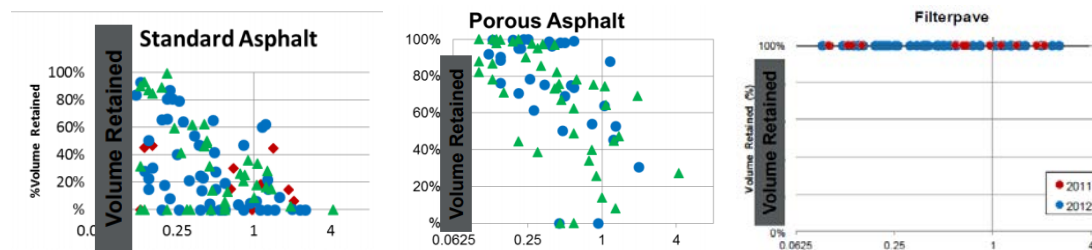


Figure 4: Monitoring results for pavement performance at Far Rockaway Bus Station (Queens, New York)

<https://www.state.nj.us/dep/dwq/pdf/cso-ppt-green-infra-perform-nyc.pdf>

Prairie Crossing School (Grayslake, Illinois)

Students at the Prairie Crossing School replaced 1,400 square feet of sidewalk with FilterPave, receiving the 2011 Waste Management Environmental Stewardship Award. The cost of the project was approximately \$20,000 and reduced surface runoff, chloride pollution, and erosion from the property.



Figure 5: Prairie Crossing School FilterPave sidewalk

International Crane Foundation (Baraboo, Wisconsin)

At the International Crane Foundation, 5 acres (1,700 linear feet, 12 feet wide) of walking paths were replaced with FilterPave. The addition of FilterPave reduced the need for any additional stormwater infrastructure, as all runoff was infiltrated. Additionally, the freeze-thaw dynamics of Wisconsin did not affect performance of FilterPave.



Figure 6: FilterPave walking path at the International Crane Foundation

Other applications

FilterPave has also been installed in locations such as Revision House (Nevada), BASF Headquarters (New Jersey), Western Oregon University (Oregon), and the Evergreen Arboretum (Washington).

Cost

FilterPave's cost varies depending on composition type (glass, stone, mixture) and intended application use. The cost of FilterPave can range from \$8.50 to \$18 per square foot, compared to traditional pavement costs ranging from \$0.50 to \$6 per square foot. Other permeable pavement (porous asphalt, concrete, and pavers) can range from \$2 to \$10 depending on the type and use of the permeable pavement.

Maintenance

The frequency of cleanings will vary depending on site conditions, including frequency of traffic, local climate, and surrounding environment, but should be performed once in the spring and once in the fall—after leaves have fallen and before snow (if applicable)—to assure long functional life. To minimize required cleanings, care should be taken through good site design to prevent adjoining landscaped areas from releasing loose soil onto the FilterPave areas. A cutoff perimeter to prevent sediment run-on to the FilterPave surface through the use of swales, cobble rock bands, or other mechanisms to reduce particulate transport should be utilized. In smaller settings such as residential applications, more frequent rinsing of the FilterPave surface with a standard garden hose and spray nozzle is all that is necessary to flush the sediment through the pores to keep a steady infiltration rate. If a pressure washer must be used on the pavement, use a maximum pressure of 3500 psi and keep the nozzle of the washer at least 2 feet above the pavement surface at all times.

For snow removal, plows with poly cutting blades are required. With their use, no alterations to typical snow removal are required. Use of any other type of snow removal system may void the manufacturer and installer's warranty. Sand should not be used for deicing and should not be necessary. Sand will prematurely clog the porous pavement system.

Conclusion

FilterPave offers a new and innovative permeable pavement alternative that significantly reduces stormwater runoff and water quality of runoff for downstream water sources. Additionally, FilterPave has been shown to perform better than current permeable pavement technologies, infiltrating almost twice the amount of water than porous asphalt and concrete. FilterPave has also shown to work well in cold climates (Wisconsin and Canada) that experience freeze-thaw cycles throughout the year. Perhaps the primary drawback of FilterPave is its high cost when compared to traditional pavement options, and even other permeable pavement options. However, because of its increased porosity, maintenance costs may be decreased and offset the high material cost.

Natural Resources Update – Bill Bartodziej and Simba Blood

Owasso Chain Carp Management

Our second season of common carp management on the Owasso Chain of Lakes is well underway. This spring, strategically-placed barriers prevented carp from reaching shallow spawning grounds; and now we are in the process of using baited (corn) box-nets to remove adult carp from Lakes Owasso and Wabasso. Below is a summary of these management efforts.

Barriers to Inhibit Spawning Migrations

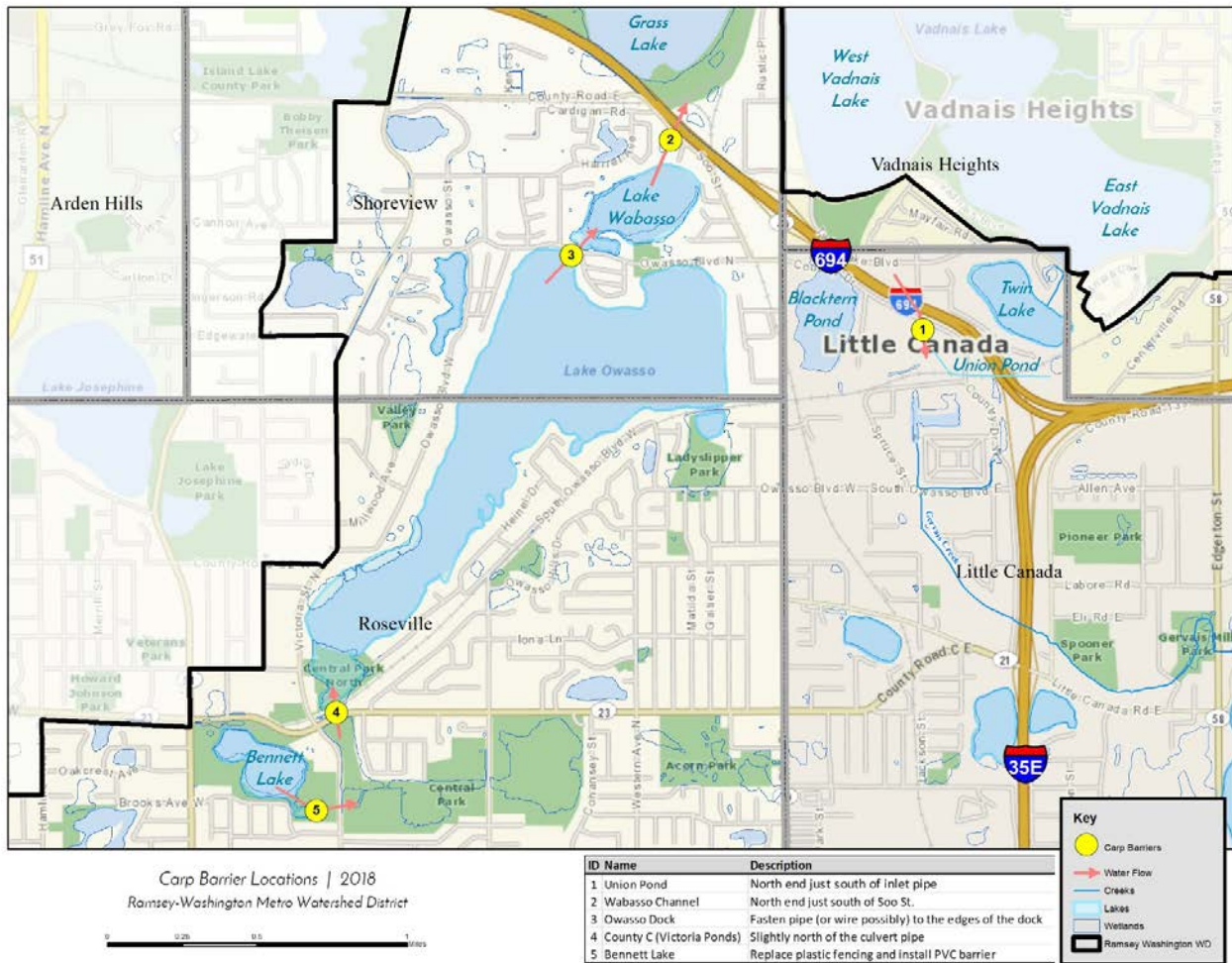
Shortly after ice out in May, we installed temporary PVC and wire mesh barriers at five key locations on the Owasso Chain. The barriers prevent carp from migrating through shallow channels into marshy ponds and wetlands where they prefer to spawn. Carp spawning success is much more limited in main lakes where their eggs and young become easy food for native fish, primarily bluegill.

District staff check the barriers daily, often finding schools of carp nosed up against the barriers. Using handheld nets and electroshocking equipment, we've removed a good number of carp from these locations. This is significant when you consider that many of these carp were enroute to prime spawning grounds.

Below are preliminary carp capture data at the barriers (see map on next page for locations):

1. Union – outletting West Vadnais into the Phalen Chain: 8
2. Wabasso outlet feeding Grass Lake: 212
3. Owasso outlet into Wabasso: 0 (just installed)
4. Railroad: 2 (observed many more but did not capture due to challenging area)
5. Bennett: 181

Total Removed: 425





This barrier is preventing carp from moving into a wetland complex just south of Lake Owasso. The blue circle is highlighting four common carp.

Baited Box Nets

Last year, we found that a baited box net filled with dried corn was an efficient method to remove carp in Lake Owasso. The process is fairly simple. A large mesh net with collapsed sides is staked in place on the lake bottom. Over a period of about a week, dried corn is placed on the net bottom. Once a large number of carp are feeding on top of the net, the sides are quickly pulled up at night, effectively trapping the carp. During daylight, the carp are then removed from the net and transported back to shore in a boat. This year, we currently have three nets set in Owasso and one in Wabasso. So far, we have captured 186 adult carp in Wabasso and 466 carp in Owasso, for a grand total of 652 in both lakes.



A box net site – the poles protruding out of the water support the sides of the net when triggered.

We will continue to trap carp over the next 1-2 months. We will also be monitoring the carp barriers and pull out carp whenever possible. With over 1,000 adult carp captured this year out of the Owasso Chain, we are continuing to make progress in substantially reducing this invasive fish population. We are also beginning to learn migration avenues and identifying key spawning areas. Lastly, we will be able to produce a more refined overall population estimate for the Chain. We will keep you updated as more data become available.

Public Involvement and Education Program – Sage Passi

Tours Can Be Great Teachers



July is a great month for show and tell. The flowers in our rain gardens are in full color, the gardens are lush, energy is high and people want to be out and about. This month, both young and not so young people with curiosity and a sense of adventure climbed into vans and headed out to see some of the sites in our watershed district.

We don't tire of showing off Maplewood Mall and its stormwater features to curious teachers from around the metro area and beyond. It's become a tradition to offer a July tour around our own watershed district office grounds and the mall to a new group of environmental educators who each year attend a week-long course through Hamline University.

It was a nice addition to have the construction of our new solar panels in process the day of the tour and offer some background about our efforts to make our site more energy self-sufficient.

Stonecrest Seniors Investigate their Watershed Community



Anna Barker engages Stonecrest seniors in a discussion about changes in Woodbury over the last 50 years.

Twenty five Stonecrest elders who live at a senior housing residence in Woodbury near Central Park and



Stanford Library attended a slide show preview by Sage Passi on July 10 about their upcoming watershed tour to be held later that week. These two events grew out of the residents' discussion about the rain gardens near the library and their potential need for revitalization. Meetings with Watershed and Stonecrest staff, residents and Master Water Stewards over the winter eventually evolved into a plan for a summer "Watershed Awareness Week" for this community.

The Friday tour stopped at an overlook with a view of Tamarack Nature Preserve, included a drive by the large scale rain gardens at Woodbury Elementary, a stop at Battle Creek Lake to see where the stormwater from Central Park eventually ends up and then ended at Trinity Presbyterian Church where the participants got off the bus to see examples of the church's stewardship projects including multiple large rain gardens, a swale, a pervious patio and cistern that help capture run-off from their site before it heads downstream to Tamarack Nature Preserve. Stonecrest visitors also got a chance to watch a video depicting the effectiveness of the rain garden during a heavy downpour.



Trinity Presbyterian's recently installed rain gardens visited by Stonecrest seniors.

Stonecrest Life-Enrichment and Volunteer Director Renee Vaughan reported that Master Water Stewards, Stephanie Wang and Anna Barker “did a magnificent job narrating/educating the residents on the van tour in a way that was understandable and engaging”. She added, “Please keep us in mind when you are finally able to remake the Central Park rain gardens. We will be your support and cheerleaders!”

Alternative Turf/Bee Lawn Demonstration Site Installed in Shoreview

In mid-July, Master Water Stewards Paul Gardner (Shoreview) and Rachel Hanks (St. Paul) teamed up with Ramsey County Master Gardener intern, Amy Jacky, to install a bee lawn/alternative turf demonstration project in Gardner’s front yard. This is not the first project that Paul has initiated in his community. For his 2016 Master Water Stewards capstone project; he organized a distribution of 100 rain barrels in Shoreview while providing homeowners with installation advice and consultation.



The alternative turf project in Paul’s yard is the next step in his efforts to model the conservation of water, provide pollinator habitat and reduce run-off in his suburban yard. The eight rain barrels capturing run-off and the multiple LEAP award winning rain gardens already in his yard further attest to his commitment to protecting water resources. Paul attended a workshop for Master Water Stewards and Master Gardeners that was sponsored by Blue Thumb, Metro Bloom, RWMWD and Capitol Region Watershed District in early May.

Recruitment for Next Season’s Class of Master Water Stewards is Underway



RWMWD is partnering with Freshwater Society, Capitol Region Watershed District, Rice Creek Watershed District and Washington Conservation District to hold Info sessions from 5:30 to 6:30 PM on Tuesday, August 14 at Harriet Alexander Nature Center (2520 Dale Street N., Roseville) and Tuesday, August 28, at Washington Conservation District (455 Hayward Ave N., Oakdale) to provide details about the Master Water Steward program to prospective participants of the program. We’ve already received several applications and intend to engage four Master Water Stewards in the upcoming season. Classes start in October.

Communications Update – Chris O’Brien

Grass Lake update

We posted an update on Grass Lake berm construction and drainage optimization projects to our website July 16 and also included a link in our July 18 Ripple Effect email newsletter. A news release with photos was also sent to the Shoreview Press, Vadnais Heights Press and the Shoreview – Arden Hills Bulletin. The [Shoreview Press](#) ran the story July 24.



Water Quality Technician Dave Vlasin looks over a constructed wetland (left) designed to accept water from Grass Lake’s new overflow path (right).

Lake Phalen Floating Library

The Pioneer Press ran an [article](#) about the Lake Phalen Floating Library, and Bill had the idea of submitting our *Lake Phalen Shoreline Restoration Walking Tour and Plant Guide*. Library creator Sarah Peters was excited about the idea, so we sent her a copy and the guide is now available to Phalen visitors this summer.

THINGS TO DO

Need a beach read? Canoe out to the Floating Library on Lake Phalen this weekend

[f](#) [t](#) [t](#) [s](#)

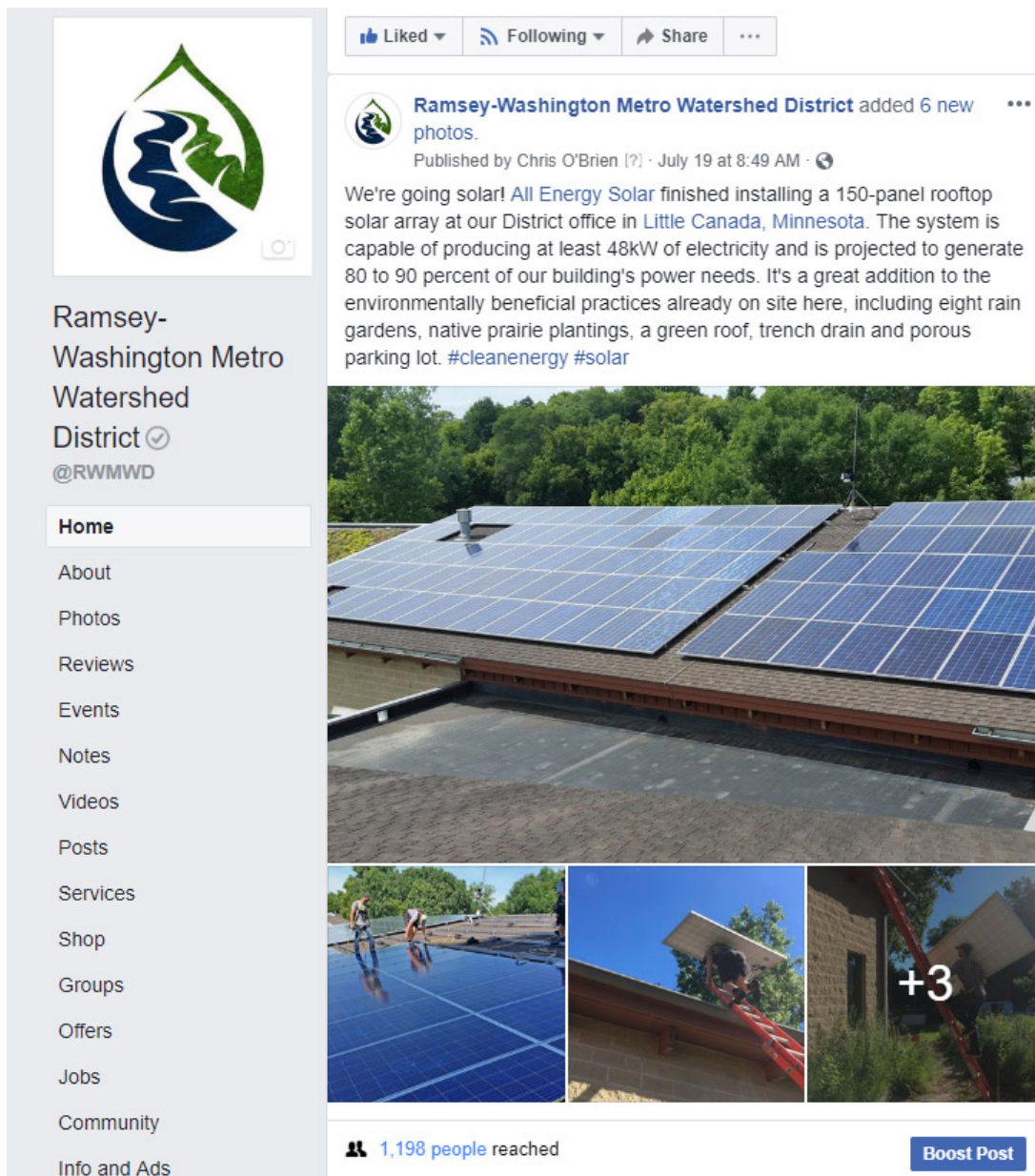


The Floating Library, 2014, on Lake Wilhona. (Photo by Sarah Peters)

By **KATHY BERGAN** | kbergan@pioneerpress.com | Pioneer Press
July 19, 2018 at 2:21 pm

Solar rooftop installation

We shared updates of the solar installation on social media, including a Facebook post that reached 1,200 people. The [District Office Site](#) page on our website has also been updated to reflect this new feature. Barr Engineering is scheduling a meeting with All Energy Solar for us to review projected energy savings and get details about an online tracking tool for the system, which could potentially be added to our website as well.



The image is a screenshot of a Facebook post from the Ramsey-Washington Metro Watershed District. On the left is the profile information, including the logo (a stylized water drop with a tree and a person) and the name "Ramsey-Washington Metro Watershed District" with the handle "@RWMWD". Below the name is a navigation menu with options: Home, About, Photos, Reviews, Events, Notes, Videos, Posts, Services, Shop, Groups, Offers, Jobs, Community, and Info and Ads. The main post area shows the district's profile picture, the name "Ramsey-Washington Metro Watershed District", and the text "added 6 new photos." It is published by Chris O'Brien on July 19 at 8:49 AM. The post text reads: "We're going solar! All Energy Solar finished installing a 150-panel rooftop solar array at our District office in Little Canada, Minnesota. The system is capable of producing at least 48kW of electricity and is projected to generate 80 to 90 percent of our building's power needs. It's a great addition to the environmentally beneficial practices already on site here, including eight rain gardens, native prairie plantings, a green roof, trench drain and porous parking lot. #cleanenergy #solar". Below the text are three photos: a large view of the solar array on a flat roof, a close-up of workers installing panels, and a worker on a ladder. At the bottom, it says "1,198 people reached" and has a "Boost Post" button.

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Social media and email marketing (behind-the-scenes)

Facebook recently changed their advertising policies and flagged all government-related content as “political”, and therefore denied our ability to boost posts or place ads. To fix this, Chris completed an ID verification process that even included Facebook sending a required numeric code by postal mail.

We also switched our Instagram account over to a business account, which offers improved features and better ability to promote posts.

On July 24, we met with representatives from Granicus, which operates the GovDelivery Communications Cloud used by state agencies, cities and other public organizations. This tool could potentially help us grow our email list by cross-promoting our sign-up form through other GovDelivery clients such as the Minnesota DNR, Pollution Control Agency and Ramsey County. We are currently evaluating whether GovDelivery features would warrant a switch from our current MailChimp account.