Riley-Purgatory-Bluff Creek Watershed District

Board of Managers Regular Meeting
Wednesday, **October 2, 2019**
7:00pm Board Meeting
DISTRICT OFFICE
18681 Lake Drive East
Chanhassen

Agenda

Regular Meeting will begin at 7:00pm

1. **Call to Order** **Action**

2. **Approval of the Agenda** **Action**

3. **Matters of general public interest** **Information**

   Welcome to the Board Meeting. Anyone may address the Board on any matter of interest in the watershed. Speakers will be acknowledged by the President; please come to the podium, state your name and address for the record. Please limit your comments to no more than three minutes. Additional comments may be submitted in writing. Generally, the Board of Managers will not take official action on items discussed at this time, but may refer the matter to staff for a future report or direct that the matter be scheduled on a future agenda.

4. **Reading and approval of minutes** **Action**
   a. Board of Manager Meeting, September 4, 2019

5. **Citizen Advisory Committee** **Action**
   a. Report
   b. Motion
   c. Staff discussion (CAC 2020)

6. **Consent Agenda**
   (The consent agenda is considered as one item of business. It consists of routine administrative items or items not requiring discussion. Any manager may remove an item from the consent agenda for action.)
   a. Accept August Staff Report
   b. Accept August Engineer's Report (with attached Inspection Report)
   c. Approve Final Pay App for Chanhassen High School
   d. Permit 2018-066 Castle Ridge– Approve permit as presented in the proposed board action of the permit report

7. Action Items **Action**
   a. Pulled consent items
   b. Accept August Treasurer's Report

c. Approve Paying of the Bills
d. Adopt Plan Amendment for St Hubert
e. Approve Manager attendance at MAWD Annual Conference

8. Discussion Items **Information**

a. Manager Report
b. Administrator Report
c. Governance
d. Chanhassen Project timing

9. Upcoming Board Topics

a. Public Hearing Rules Amendment
b. Order of Silver Lake Water Quality Improvement Project
c. Award Demolition Project for 730 and 750 Pioneer Trail (Wetland Project)
d. Award Lake Susan Park Pond Repair and Maintenance Spent Lime

10. Upcoming Events **Information**

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- Citizen Advisory Committee Meeting, September 16, 2019, 6:00pm, 18681 Lake Drive East, Chanhassen
- Walk with the Watershed, October 4, 12-1pm. Meet at Homeward hills Park, Eden Prairie
- Smart Salting for Property Managers MPCA training, October 17th, 9am-1:30pm, 18681 Lake Drive E, Chanhassen
- Healthy Shorelines Workshop, October 22nd, 6:30-8pm. 18681 Lake Drive E, Chanhassen
- Smart Salting: Winter Roads MPCA training, October 23rd, 9am-2:30pm, 18681 Lake Drive E, Chanhassen
- Chanhassen Community Clean-Up for water quality, Saturday, October 26, 9:30am-noon. Meet in the parking lot outside of Chanhassen Senior Center.

MEETING MINUTES

Riley-Purgatory-Bluff Creek Watershed District

September 4, 2019, RPBCWD Board of Managers Monthly Meeting

PRESENT:

Managers:	Jill Crafton, Treasurer	
	Larry Koch	
	Dorothy Pedersen, Vice President	
	Dick Ward, President	
	David Ziegler, Secretary	
Staff:	Claire Bleser, RPBCWD Administrator	
	Terry Jeffery, Watershed Planning Manager	
	Michelle Jordan, Communication and Project Manager	
	Louis Smith, Attorney, Smith Partners	
	Scott Sobiech, Engineer, Barr Engineering Company	
Other attendees:	Brandon Barnes, Barr Engineering Co.	Ann Miller, Chanhassen Resident
	Kristina Elfering, Elfering & Assoc.	Dan Parks, Westwood
	Sharon McCotter, CAC	JoAnn Syverson, Safe Wakes, Chanhassen

1. Call to Order

President Ward called to order the Wednesday, September 4, 2019, Board of Managers Monthly Meeting at 7:00 p.m. at the District Office, 18681 Lake Drive East, Chanhassen, MN 55317.

2. Approval of Agenda

President Ward announced that for agenda item 3 – Budget Public Hearing – a resolution has been handed out. He added to the agenda item 3a -Resolution to adopt the RPBCWD's 2020 budget and item 3b – Resolution to adopt the RPBCWD's 2020 levy. Manager Koch added to the list of upcoming events the University of Minnesota's 2019 AIS Research and Management Showcase on Wednesday, September 18. Manager Pedersen requested removing agenda item 9d – Permit 2019-028 Life Time Parking Lot – Approve permit as presented in the proposed Board action of the permit review report. President Ward added it to the agenda under Action Items 10a. Manager Ziegler moved to approve the agenda as amended. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

3. Public Hearing: Budget

Administrator Bleser displayed PowerPoint slides and presented on the RPBCWD's proposed 2020 Budget and Levy. She stated the proposed 2020 Surface Water Management levy is $3,703,000. She noted that the proposed levy represents a 2.7% increase over the District's 2019 levy and pointed out that the District's tax base increased 7.2% for 2020 over 2019. Administrator Bleser went through the proposed 2020 budget line by line. President Ward commented that the spreadsheet handed out lists the proposed 2020 budget as $6,676,000 but the

PowerPoint slide lists a different number. Administrator Bleser confirmed that the spreadsheet is correct, and the proposed 2020 budget is $6,676,000. She responded to manager questions. Manager Koch asked for a breakdown of the District's 2019 Education and Outreach expenditures. Administrator Bleser responded that previously the Board asked for a breakdown of the proposed 2020 Education and Outreach budget, which she prepared and provided. She said she doesn't have on hand the specific breakdown for 2019 but listed a general breakdown of the 2019 expenses per category. President Ward asked her to send the breakdowns out to the managers.

President Ward opened the floor for public comments. No public comments were presented. President Ward read aloud the Resolution to Adopt the RPBCWD Annual Budget in the amount of $6,676,000. Manager Crafton moved to adopt the resolution to adopt the 2020 budget. Manager Ziegler seconded the motion. By call of roll, the motion carried 5-0.

Manager	*Aye*	*Nay*	*Absent*	*Abstain*
Crafton	X			
Koch	X			
Pedersen	X			
Ward	X			
Ziegler	X			

President Ward read aloud the resolution to adopt the RPBCWD's Surface Water Management levy for 2020 in the amount of $3,703,000. Manager Crafton moved to adopt the resolution to adopt the Surface Water Management levy for 2020. Manager Pedersen seconded the motion. By call of roll, the motion carried 5-0.

Manager	*Aye*	*Nay*	*Absent*	*Abstain*
Crafton	X			
Koch	X			
Pedersen	X			
Ward	X			
Ziegler	X			

Manager Ziegler moved to close the Budget Public Hearing. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

4. Public Hearing: Silver Lake Water Quality Project at Pleasantview

Administrator Bleser briefly summarized the project and introduced Brandon Barnes of Barr Engineering Company to present the results of the project's feasibility study.

Mr. Barnes displayed a PowerPoint presentation and showed a map of the project location. He went through the project's background leading up to the feasibility study. Mr. Barnes presented details about the Best Management Projects (BMPs) evaluated in the feasibility study. He reported that the most feasible project of the five evaluated is the ditch checks with iron-enhanced sand. Mr. Barnes described the reasons the project was identified as the most feasible, including the low cost per pound of phosphorous removed, the least amount of upland area disturbed, and fewer number of trees removed.

President Ward opened the public hearing for public comments.

Ms. Ann Miller of 6165 Fox Path, Chanhassen, said she has been a resident since 1992 and is very familiar with the area around this project. She commented that there are severe slopes everywhere around Silver Lake, Christmas Lake, and Lotus Lake and many private properties around the lake where homeowners dump their leaves in the lakes. Ms. Miller said there are also many steep driveways around the lakes, and the watershed doesn't have control over what landowners do on their property around the lakes. She asked who will take care of the project once it is completed and who will prevent people from dumping stuff in the lakes. Ms. Miller commented that road construction will open a can of worms when that time comes, and she said she doesn't understand the purpose of this project. She said she knows clean water is the goal, but she doesn't think the private citizens that live along Silver Lake do a very good job of helping water quality or keeping phosphorous out of the lake. There was a brief manager discussion about the sources of phosphorous to Silver Lake. Administrator Bleser stated that 65% of the phosphorous load is attributed to direct load from the watershed. Managers offered comments on this project. Ms. Miller commented that the Board needs to listen to the taxpayers regarding this project. She said if this project goes forward, there should be a public boat landing added to Silver Lake so taxpayers can use the lake. Ms. Miller added that the cities of Shorewood and Greenwood were once part of Excelsior but seceded in 1956 because the property owners wanted more control regarding lakeshore. She brought up the severe slopes around Lotus Lake and how the soils slid into Lotus Lake off one slope in 1986. Ms. Miller said she loves the lakes and the water, too, but the District can't be ridiculous about it.

Administrator Bleser remarked that staff anticipates bringing this project back in front of the Board in November.

Manager Ziegler moved to close the public hearing on the Silver Lake Water Quality Project. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

5. Public Hearing: St. Hubert Retrofit Plan Amendment

Administrator Bleser displayed a PowerPoint presentation about the project. She explained that this project requires a minor plan amendment, and this is the public hearing on the minor plan amendment. Administrator Bleser went through the project's history and St. Hubert's goal of reducing its impact on Rice Marsh Lake. She talked about District staff scoring the project, which received a project score of 33. Administrator Bleser reminded the group that a project score of 29 and greater is a high score. She talked about the project partners including St. Hubert and Carver County Soil and Water Conservation. She described the District's goals for the watershed and the benefits that come from this project and fit within the District's prioritization, including sustainability, volume reduction, pollutant management, and habitat restoration.

Administrator Bleser explained that this plan amendment is out for public comment, and the District has received three comments so far. She added that the public comment period ends next week. She said the timeframe is to order the project in October or later, and staff will bring this minor plan amendment to the Board for adoption at the Board's October meeting.

Manager Ziegler moved to close the public hearing on the St. Hubert Retrofit Plan Amendment. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

6. Matters of General Public Interest

Ms. JoAnn Syverson of 489 Pleasantview Road, Chanhassen thanked Dr. Bleser and the District for drafting the resolution to limit wake boat activities that directly cause shoreline erosion and spread invasive species. She thanked the Board members for supporting the resolution and said people around the state will benefit from the Board's action.

7. Approval of Minutes

a. August 7, 2019, RPBCWD Board of Managers Regular Monthly Meeting

Manager Pedersen commented that on page 4, lines 103 and 104, under item 9b – Personnel Committee – the topic of discussion was to select a consultant for the District Administrator's review not to select the District Auditor. Manager Crafton noted a spelling correction on page 3, line 53 for the word "structure."

Manager Pedersen moved to accept the minutes as amended. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

8. CAC

Ms. Sharon McCotter, CAC member, reported the CAC didn't make any formal motions at its last meeting. She went through CAC meeting items, including time talking about through the process of the speaker bureau. Ms. McCotter said three presentations are ready to go and the next step is background checks for the speakers. She highlighted actions of CAC subcommittees and noted that on Tuesday, September 17 there is a clean up at Round Lake from 5:30 p.m. -7:30 p.m. with a rain date of the following Monday. Ms. McCotter announced the third annual Chanhassen Community Clean up happening on October 26 at three sites. She reported that Ms. Jordan is working on a presentation on smart salting.

9. Consent Agenda

Manager Ziegler moved to approve the Consent Agenda. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0. The items on the Consent Agenda included: 9a – Accept August Staff Report; 9b – Accept August Engineer's Report (with Attached Inspection Report); 9c – Permit 2019-024 Conifer Heights – Approve permit as presented in the proposed Board action of the permit review report; 9e – Permit 2019-032 Chanhassen Parking Lot – Approve permit as presented in the proposed Board action of the permit review report; 9f – Task Order 28a Rice Marsh Lake Water Quality Improvement Project Phase I; 9g – Authorize Watershed Planning Manager to release draft rules and supporting memorandum to review agencies and stakeholders for 45-day review and comment period; 9h – Elect to not waive the monetary limits on municipal tort liability established by Minn. Sta. 466.04 for District's insurance coverage.

10. Action Items

a. Pulled Consent Agenda items

i. Permit 2019-028 Life Time Parking Lot – Approve Permit as Presented in the Proposed Board Action of the Permit Review Report

Manager Pedersen said she and Manager Crafton have been wondering how the District could get some accommodation for ecosystem services in projects. Manager Pedersen said that it seems that even having trees in this parking lot would have benefitted this project. She said she knows that this parking lot has been designed, but she asked Engineer Sobiech if there could have been some benefits if the watershed had asked for more than just an infiltration basin. Mr. Jeffery noted that the applicant's engineer is at tonight's meeting. Mr. Jeffery remarked that District staff met with the applicant's engineer several times, and the applicant and engineer were more than willing to plant more shade trees. Mr. Jeffery explained that the City of Chanhassen did not want trees planted because the City says there is not enough success with trees growing in such locations. He said he has put on his to-do list setting up a meeting with the City of Chanhassen to talk about options for future projects. Manager Pedersen said she thinks the District needs to consider the entire ecosystem in which projects sit when the staff and Board are reviewing projects. Manager Crafton raised the idea of a credit program. Mr. Jeffery addressed the idea and said the rules are written with flexibility to allow applicants to come forward with something like that.

Ms. Kristina Elfering of Elfering & Associates, project engineer, reported on being on the site and the goal of trying to save particular trees as possible and being open to switching out types of trees.

Manager Pedersen moved to approve Permit 2019-028 Life Time Parking Lot. Manager Crafton seconded the motion. Manager Koch asked for a friendly amendment to the motion to adopt the proposed resolution to adopt Permit 2019-028 as set forth in the report because it includes the conditions. Manager Pedersen accepted the friendly amendment. Manager Crafton accepted the friendly amendment. Upon a vote, the motion carried 5-0.

b. Accept July Treasurer's Report

Treasurer Crafton communicated that the report has been reviewed in accordance with the District's internal controls and procedures. She moved to accept the Treasurer's Report as presented. Manager Ziegler seconded the motion. Manager Ziegler asked a question about an Accounts Payable item as listed on page 4 of the report. Treasurer Crafton responded. Upon a vote, the motion carried 5-0.

c. Approve Paying of Bills

Manager Ziegler moved to pay the bills. Manager Pedersen seconded the motion. Administrator Bleser explained the added bill payments, which were for LMCIT worker's compensation in the amount of $1,921, and membership in the LMCIT, and insurance in the amount of $11,411. Upon a vote, the motion carried 5-0.

d. Approve Watershed Stewardship Grant Application from the Preserve Association

Ms. Jordan commented that this season has been the District's busiest cost-share grant season, and she attributed it to the work done by the CAC and District to revamp its Cost-Share grants program. She explained this Preserve cost-share grant application from a homeowners' association is above the $10,000, so it is coming in front of the Board for a final decision. She added that the application has

already been review by the cost share grant committee. Ms. Jordan explained the project has two components, which are different in size, scope, and methods used and for these reasons the grant committee scored the two components separately. Ms. Jordan went into detail about the project and its two components. There was discussion about the project, including funding amount and signage. Manager Koch asked if maintenance costs were removed already from the proposed grant amount. Ms. Jordan said she will correct the number to reflect the removal of maintenance costs.

Manager Ziegler moved to approve the grant request for the two project components per staff recommendation and including signage as part of the project and adjusting the amounts to remove maintenance. Manager Koch seconded the motion. Upon a vote, the motion carried 5-0.

e. Permit 2019-034 Lion's Tap – Consider Variance Request from Rule J Subsection 3.1a Rate Control

Mr. Jeffery talked about the parking lot design and how in the event of 10-foot snowmelt, the runoff rate could be faster than allowed for in the District's rules. He noted that the runoff runs to a BMP. He talked about staff's evaluation of this variance request. Manager Koch read aloud the resolution to grant a variance request from Rule J Subsection 3.1a Rate Control:

Pursuant to Rule K, in order for the District to grant a variance from strict compliance with the requirement of a District Rule, the Board of Managers must find that, based on demonstration by the applicant, that because of unique conditions inherent to the subject property, which do not apply generally to other land or structures in the Riley Purgatory Bluff Creek Watershed, strict application of rule provision will impose a practical difficulty on the applicant, not a mere inconvenience.

For purposes of the Board of Managers' determination of whether a practical difficulty exists, the following factors will be considered:

1.1 How substantial the variation is from the rule provision;
1.2 The effect of the variance on government services;
1.3 Whether the variance will substantially change the character of or cause materials adverse effect to water resources, flood levels, drainage or the general welfare in the District, or be a substantial detriment to neighboring properties;
1.4 Whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance;

Economic hardship alone may not serve as grounds for issuing a variance if any reasonable use of the property exists under the terms of the District rules

1.5 How the practical difficulty occurred, including whether the landowner, the landowner's agent or representative, or a contractor, created the need for the variance; and,
1.6 In light of all of the above factors, whether allowing the variance will serve the interests of justice.

Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0.

f. Permit 2019-034 Lion's Tap – Approve Permit as Presented in the Proposed Board Action of the Permit Review Report

Manager Ziegler moved to approve Permit 2019-034. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

g. Authorize Administrator to Enter into a Cooperative Agreement, Drafted by RPBCWD Legal Counsel, with the Lower MN River Watershed District (LMRWD) to Differ Permitting Authority for TH 101 to LMRWD

Mr. Jeffery handed out a map showing the project area and summarized the project. He said District staff have been meeting with the Lower Minnesota River Watershed District, City of Chanhassen, Mn/DOT, and Carver County for about a year regarding this project.

Manager Koch moved to adopt the resolution to authorize the District Administrator and Legal Counsel to draft a cooperative agreement with the Lower Minnesota River Watershed District and containing such stipulations and requirements appropriate to fulfill the goals of the District's permitting rules. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

h. Per Diem – Meeting Preparation – Manager Koch

Manager Koch moved to authorize managers to be able to claim an additional day of per diem for Board meeting preparation. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0.

11. Discussion Items

a. Manager Report

The managers discussed dates to conduct the Administrator review in a closed session. The managers agreed to conduct the Administrator review in closed session on September 23 at 3:30 p.m. at the District Office.

b. 50th Anniversary

President Ward recapped the event and said it went really well, and the managers thanked the staff for their work on the event.

c. Cooperative Agreement with MCWD for review and permitting of trail along MN TH 5 and the addition of turn lanes on Powers Boulevard at Lake Lucy Road.

Mr. Jeffery updated the Board on these projects and said he is working with Tom Dietrich with MCWD on something to bring to the Board at a future meeting.

12. Upcoming Board Topics

President Ward noted that upcoming Board topics are listed on the agenda and include the St. Hubert minor plan amendment. Manager Pedersen brought up the Water Resources Conference happening in October. Administrator Bleser said she will add it to the Board's October meeting agenda. Manager Koch moved to authorize himself to attend the September 18 AIS Research and Management Showcase at the University of Minnesota. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0.

13. Upcoming Events

- Walk with the Watershed, Friday, September 6, Noon, Hyland Lake Park Reserve, Bloomington
- Governance Workshop (MAWD/MASWCD), September 12-13, Airport Marriott, Bloomington
- Citizen Advisory Committee Meeting, September 16, 6:00 p.m., District Office, 18681 Lake Drive East, Chanhassen

- 2019 Aquatic Invasive Species Research and Management Showcase, Wednesday, September 18, 8:00 a.m. – 5:00 p.m., University of Minnesota Aquatic Research Center
- Smart Salting for Parking Lots and Sidewalks, September 26, 9:00 a.m., District Office, 18681 Lake Drive East, Chanhassen
- Cycle the Creek, 50th Anniversary Edition, September 28, 9:00 a.m., Meet at Lake Ann Park, Chanhassen

14. Adjourn

Manager Pedersen moved to adjourn the meeting. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0. The meeting adjourned at 9:12 p.m.

Respectfully submitted,

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David Ziegler, Secretary

RPBCWD September Staff Report

Administration		Staff update	Partners
Accounting and Audit	Coordinate with Accountant for the development of financial reports. Coordinate with the Auditor. Continue to work with the Treasurer to maximize on fund investments.	Staff continues to work with Accounting and has notified Auditors of application status	
Annual Report	Compile, finalize and submit an annual report to agencies	**Task Completed.**	
Internal Policies	Work with Governance Manual and Personnel Committees to review bylaws and manuals as necessary	The Governance Committee did not meet in August.	
Advisory Committees	Engage with the Technical Advisory Committee on water conservation, chloride management and emerging topics Engage with the Citizen Advisory Committee on water conservation, annual budget and emerging topics. Facilitate recruitment of CAC members for 2019.	The CAC met for their regular monthly meeting September 16. Draft CAC minutes are included in the packet. The TAC met on September 11 to discuss prioritization of projects in flood prone areas. The City of Eden Prairie, Minnetonka, Chaska, Chanhassen, and Bloomington as well as Metropolitan Council and BWSR were present. Notes from the meeting are included at the end of this document.	
Membership		No new updates.	
District-Wide			
Regulatory Program	Review regulatory program to maximize efficiency. Engage Technical Advisory Committee and Citizen Advisory Committee on possible rule changes.	4 permit applications received. 2 permit has been issued administratively. 3 Applications are currently under review.	

	Implement regulatory program.	District staff met with DNR, Eden Prairie staff, and the consultants for Eden Prairie. We presented the findings of our modeling efforts and it was decided that Eden Prairie must show low floor openings of properties they feel may be at risk of flooding. When this information is obtained and provided, the group will reconvene to discuss appropriate elevations. Staff Jeffery is working with legal counsel to draft agreement for the CSAH 101 program. Staff Jeffery is working with MCWD to draft an agreement to address the TH 5 trail project to the arboretum and the Powers and Lake Lucy Road turn lane project. Staff Jeffery sat in on a working group regarding the TH 5 project as well as the Southwest LRT project.	
Aquatic Invasive Species	Review AIS monitoring program Develop and implement Rapid Response Plan as appropriate Coordinate with LGUs and keep stakeholders aware of AIS management activities. Manage and maintain the aeration system on Rice Marsh Lake as per the Riley Chain of Lakes Carp Management Plan. Review AIS inspection program.	Brittle Naiad scan was completed on Lotus Lake. The plant was found at locations seen in 2018, however, the density of plants seemed to be reduced. This may have occurred due to reduced water clarity. Zebra mussel monitoring plates will be picked up this coming month. The second zebra mussel veliger sampling event on Riley yielded a large number of veligers.	City of Chanhassen City of Eden Prairie University of Minnesota MN DNR Carver County

	Keep abreast in technology and research in AIS. 2019 zebra mussel veliger testing.	Carp monitoring:In the Purgatory Creek Recreational Area (PCRA) only 5 young of the year carp were captured during 24-hour fyke net surveys. This indicates a low recruitment year. A large number of adult carp captured during electrofishing transects conducted on the Upper PCRA. This indicates carp did not return to Staring Lake despite the barrier being out for multiple weeks this summer/spring. No YOY carp were captured in other lakes and adult carp populations remained similar to last year. Further electrofishing transects will be conducted on Ann, Staring, and UPCRA this fall. Bluegills in both Rice Marsh and Lucy appear to be doing well and are recovering nicely after the most recent winterkills.	
Cost-Share	Review program to determine efficiencies and needs. Recommend modification as necessary. Review applications and recommend implementation.	The Stewardship Grant Review committee met September 16th to review 2 residential grant applications and one hypothetical bee lawn grant application to determine how it would fit into the cost share program. The committee determined that, although not a high scoring grant, with One of the residential grants was recommended for funding; one required additional detail and revisions. Staff is working with the homeowner on this. One additional grant, which was placed on hold to evaluate concerns about shallow water table conditions, and later approved when additional tests were performed by staff Jeffery, has found a contractor to do the work this fall.	Carver County Soil and Water Conservation District

		B Lauer will be taking over some responsibilities for the cost-share program.	
Data Collection	Continue Data Collection at permanent sites. Identify monitoring sites to assess future project sites.	Staff completed two creek monitoring and Two lake monitoring sampling events. Assisted Chanhassen with CAMP program on Lake Susan. The auto sampling unit on upper Bluff Creek under Galpin sampled multiple times this month. Staff finalized the collection of samples from the auto sampling unit on Riley Creek under Powers for the season. They did not collect any further samples in September. Staff will assess the pollutant loads and evaluate if future creek restoration is needed. WOMP stations: Continued bi-weekly sampling of the station. All EnviroDIY stations for the pond project were deployed and running in September. Staff conducted multiple pond sampling events. Spent lime column testing-continuous water pumping through the media and the use of plaster sand was completed. The data is being used to guide enhancements to the current spent lime treatment system on Lake Susan. Regular carp monitoring was conducted this month (see Above: Aquatic Invasive Species).	Metropolitan Council City of Eden Prairie University of MN City of Chanhassen

		Service Learning students from the U of M began volunteering with data collection staff this month and will continue through the fall semester.	
District Hydrology and Hydraulics Model	Coordinate maintenance of Hydrology and Hydraulics Model. Coordinate model update with LGUs if additional information is collected. Partner and implement with the City of Bloomington on Flood Evaluation and Water Quality Feasibility.	The TAC met to discuss results from the City of Bloomington Flood modeling project. Staff is working on developing a model that would help prioritize projects.	City of Bloomington
Education and Outreach	Implement Education & Outreach Plan, review at year end. Manage partnership activities with other organizations. Coordinate Public Engagement with District projects.	Education and Outreach Assistant B Lauer began working with the district in Early September. The District's Junior Watershed Explorer Activity Book was nominated as a finalist for the MAWD program of the year. Staff Swope and Lauer visited a kindergarten classroom at Scenic Heights Elementary School in Minnetonka to conduct a hands-on lesson on storm drains and water pollutants. Four RPBCWD staff attended the Metro Children's Water Fest on September 25th. Staff ran stations on "AIS Jr Inspector" and "watershed sandbox" for nearly 1,000 4th grade students from across the metro area. The District hosted a Smart Salting for Parking lots and Sidewalks workshop of September 26th.	Children's Water Fest: CWF Committee, Nine Mile Creek Watershed District (Sandbox partner) Smart Salting Courses: MPCA (funding), Fortin Consulting Master Water Stewards: Freshwater Society Adopt a Drain: Nine Mile Creek Watershed District, City of Eden Prairie, City of Bloomington, City of Minnetonka, Hamline University.

		Master Water Stewards: the District is continuing to recruit for new stewards until applications close on October 4th. Adopt-a-dock volunteers checked their plates in early September. Lake Riley is the only lake with mussel sightings. Applications for Educator and Action grants continue to be received, reviewed, recommended, and processed. Community members continue to sign up to adopt storm drains and keep them clear of leaves, dirt, and other debris through the Adopt-a-drain.org partnership.	
Groundwater Conservation	Work with other LGUs to monitor assess and identify gaps. Engage with the Technical Advisory Committee to identify potential projects. Develop a water conservation program (look at Woodbury model)	B Lauer, Administrator Bleser, Maya Swope and Madeline Seveland from Carver County met to discuss lessons learned from the pilot study in the City of Chaska. Lauer attended a University of Minnesota turf and irrigation workshop at the MN Landscape Arboretum to learn best practices for the area. B Lauer will work with the Metropolitan Council to gather water efficiency potential data for the District and meet with local stakeholders to assess the needs and best approach to a groundwater conservation program, and attend the Grey to Green Conference.	TBD
Lake Vegetation Management	Work with the University of Minnesota or Aquatic Plant Biologist, Cities of Chanhassen and Eden Prairie, lake association, and residents as well as	No new updates.	City of Eden Prairie City of Chanhassen University of Minnesota MNDNR

	the Minnesota Department of Natural Resources on potential treatment. Implement herbicide treatment as needed. Secure DNR permits and contract with herbicide applicator. Lakes the District is monitoring for treatment include: Lake Susan, Lake Riley, Lotus Lake, Mitchell Lake, Red Rock Lake and Staring Lake. Work with Three Rivers Park District for Hyland Lake		
Opportunity Projects	Assess potential projects as they are presented to the District	The draft plan amendment was released for public comment, and a public hearing was held Wednesday, September 4th. No comments were received opposing the project. The board will be discussing approving the amendment to the plan at the next board meeting.	St Hubert Catholic Community Carver County Soil and Water Conservation District
Total Maximum Daily Load	Continue working with Minnesota Pollution Control Agency on the Watershed Restoration And Protection Strategies (WRAPS). Engage the Technical Advisory Committee.	No new updates	MPCA
Repair and Maintenance Grant	Develop and formalize grant program.	Staff Jeffery is working with the City of Minnetonka on the possibility of partnering and repairing a purgatory creek crossing between Shorewood and Minnetonka.	
University of Minnesota	Review and monitor progress on University of Minnesota grant.	The core group	Stormwater ponds partners: Bloomington, Chanhassen, Eden

	Support Dr John Gulliver and Dr Ray Newman research and coordinate with local partners. Keep the manager abreast to progress in the research. Identify next management steps.		Prairie, Minnetonka and Shorewood Plant Management: Chanhassen Eden Prairie
Watershed 50 year Anniversary	Come explore with us! Finalize anniversary program for 2019. Implement anniversary events.	On September 28th, the District hosted Cycle the Creek: 50th Anniversary Edition. Staff led participants on an 8-mile ride and a 50-mile ride, and cyclists also participated in a community art project at the ride's end point.	
Watershed Plan	Review and identify needs for amendments.	We received positive comments on the plan amendment.	
Wetland Conservation Act (WCA)	Administer WCA within the Cities of Shorewood and Deephaven. Represent the District on Technical Evaluation Panel throughout the District	No WCA application were received forDeephaven. No WCA applications have been received in Shorewood. A notice of decision was received from the City of Chanhassen for the CSAH 101 replacement plan. Chanahssen is the LGU but staff Jeffery was involved in the TEP and commented on the replacement plan. The TEP concurred that the proposed plan represented the minimum impact scenario. Chanhassen also issued a notice of decision for a boundary and type determination but this was outside	City of Shorewood City of Deephaven City of Chanhassen City of Eden Prairie MCWD BWSR DNR ACOE

		of the RPBCWD jurisdiction and was sent as a courtesy.	
Wetland Management	Identify potential restoration/rehabilitate wetlands and wetland requiring protection.	Field work continues and will continue until the first killing frost. Chanhassen will be finished this year. Staff Jeffery is working with interns to update the MNRAM database in access as well as the GIS wetland database.	City of Chanhassen MNDNR
Hennepin County Chloride Initiative	Phase 1: Develop a plan to target commercial and association-based sources or chloride pollution - businesses, malls, HOAs, property management companies and the private applicators that they hire. We will hire a consultant to facilitate focus groups with private applicators, as well as those that execute contracts with private applicators. These focus groups will help identify needs and barriers for our target audience. The consultant will compile information into a plan for implementation.	Staff is finalizing survey. Hoping to have it out at the beginning of October. Abstract was accepted at the MAWD conference. Emily Kreiter and Administrator Bleser will be presenting.	
Lower Minnesota Chloride Cost-Share Program	The Lower Minnesota River Watersheds are coming together to offer cost-share grants.	No new update.	
Bluff Creek One Water			
Chanhassen High School Re-use	Continue to work with all partners.	Staff met on-site to troubleshoot the frequent alarming that was occuring at	ISD 212 City of Chanhassen

	Complete site restoration and start system. Finalize and implement E and O for project. Monitor Project.	the reuse facility. The problem was identified (a check valve that was not opening so the UV treatment could be cooled) and repaired. We anticipate closing the project at the October board meeting.	Metropolitan Council
Bluff Creek Tributary Restoration	Implement and finalize restoration. Monitor Project.	Work on the project started Sept 16th with tree removal.	City of Chanhassen
Wetland Restoration at 101	Remove 3 properties from flood zone, restore a minimum 7 acres and as many as 16 acres of wetlands, connect public with resource, reduce volume, rate, pollution loads to Bluff Creek	Grant reimbursement has been submitted	City of Chanhassen MN DNR
Riley Creek One Water			
Lake Riley Alum	Continuing to monitor the Lake.	No updates	
Lake Susan Improvement Phase 2	Complete final site stabilization and spring start up. Finalize and implement E and O for project. Monitor Project.	Staff is troubleshooting with Peterson making sure that the system is operational. The City of Chanhassen affirms that the system has been working fine all season long.	City of Chanhassen Clean Water Legacy Amendment
Lower Riley Creek Stabilization	Coordinate agreement and acquire easements if needed for the restoration of Lower Riley Creek reach D3 and E. Implement Project. Continue Public Engagement for project and develop signage of restoration.	District is on track to start in November. The City of Eden Prairie is reviewing application.	City of Eden Prairie Lower Minnesota Watershed District
Rice Marsh Lake Alum Treatment	Continuing to monitor the Lake.	No updates.	City of Eden Prairie City of Chanhassen
Rice Marsh Lake Watershed Load Project 1	Conduct feasibility. Develop cooperative agreement with City of Chanhassen	Staff Jeffery and District Engineer Sobiech met with City of Chanhassen staff to	City of Chanhassen

		discuss limitations and potential BMP locations.	
Upper Riley Creek	Work with City to develop scope of work (in addition to stabilizing the creek can we mitigate for climate change) Conduct feasibility Develop cooperative agreement with the City of Chanhassen Order Project Start design	Discussion of this project will be on hold till the new water resources coordinator is hired. No changes	City of Chanhassen
Purgatory Creek One Water			
Berm		No new update.	
Duck Lake Water Quality Project	Work with the City to implement neighborhood BMP. Identify neighborhood BMP to help improve water resources to Duck Lake. Implement neighborhood BMPs.	Staff is waiting on the City of Eden Prairie for final confirmation on language used in agreements between homeowner and District/city for the raingarden near city streets.	City of Eden Prairie
Hyland Lake Internal Load control	Implement Hyland Lake Alum application.	Project is complete.	Three Rivers Park District City of Bloomington
Lotus Lake – Internal Load Control	Monitor treatment and plant populations.	No updates.	
Scenic Heights	Continue implementing restoration effort. Work with the City of Minnetonka and Minnetonka School District on Public Engagement for project as well as signage.	Staff will be evaluating site this fall and continues to coordinate with school.	Minnetonka Public School District City of Minnetonka Hennepin County
Silver Lake Restoration	Order project Design Project	Delayed until new city staff are on board.	City of Chanhassen

	Work with the City of Chanhassen for Design, cooperative agreement and implementation		
Professional Development			
Administrator Bleser	Administrator Bleser will be attending the Minnesota Association of Watershed Administrators.		
Grey to Green Conference	Minnesota and the Greater MSP Region are already a global center for water system technologies and there are multiple organizations and programs that support the use of green infrastructure in projects of all types and sizes. Grey to Green: Twin Cities is a unique opportunity to cross-pollinate regional work on green infrastructure in Minnesota with the cutting edge work being done in Canada and in other U.S. cities. Several staff members will be attending the conference to learn more about the use of green infrastructure and trainings the conference is offering. Administrator Bleser and will be attending the "Valuing the benefits of green infrastructure".		

Regulatory Program					
PERMIT #	APPLICANT	PROJECT	DATE SUBMITTED ON-LINE| PAPER| COMPLETE	STATUS	RULES
2018-044	United Properties	(r)Smith Village mixed use - Eden Prairie	6/8/18|6/29/18 | June 5, 2019	Incomplete-comments provided 7/9/18 & 12/11/18 & 5/21/19 On 6/5/19 received complete submittal. Rates don't conform	C-EPSC J-Stormwater
2018-066	Presbyterian Homes	(r) Castle Ridge - Eden Prairie	10/18/18| 10/23/18	Application was on-hold per email correspondence w/ engineer 11/9/18 & 11/28/18 due to Eden Prairie review comments. Additional materials provided 4/5/19. Currently under review.	C-EPSC D-Buffers J-Stormwater
2018-071	MNTKA Public Schools	LAX Field Construction	12/6/18|	Approved - conditions met Construction begun	C - EPSC J-Stormwater
2018-072	Three Rivers Park District	Parking - Bloomington	12/20/18 | 12/28/18	Approved - conditions met Construction begun.	C-EPSC D- Buffers J-Stormwater
2018-073	Eden Prairie - Streets	Preserve Blvd Reconstruction	12/20/18 |	Approved - conditions met. Construction begun.	B-Floodplain C-EPSC D-Buffers J-Stormwater
2018-074	Eden Prairie - Utilities	Ground Storage Reservoir	12/21/18 | 12/26/18 | 1/28/19	Approved - conditions met	C-EPSC J-Stormwater
2019-001	Lennar	(r) Nelson Property - Galpin Ave, Chanhassen "The Park"	1/11/19 | 1/11/19	Revised submittal received on 5/21/19. Permit conditionally approved on 7/10/19. FA and MD received. Permit issued on 8/1/19	B-Floodplain C-EPSC D-Buffers G-Water X-ing J-Stormwater K-Variances

PERMIT #	APPLICANT	PROJECT	DATE SUBMITTED ON-LINE| PAPER| COMPLETE	STATUS	RULES
2019-002	Shelangoski	Single family	1/8/19	Administratively approved Construction begun	C-EPSC
2019-003	Wooddale Builders	(r) Stable Path	1/16/19 | 1/16/19	Conditionally Approved 4/3/19. Working with City and Developer to resolve maintenance agreement. Conditions met.	C-EPSC, J-Stormwater
Not Assigned	City of Chanhassen/ MNDOT	T.H. 101 Reconstruction	No application submitted.	In design and permit application phase. There have been 5 stakeholder meetings held.	B-Floodplain C-EPSC D-Buffers G-Water X-ing J-Stormwater
Not Assigned	Moments of Chanhassen, LLC	(r) Moments Senior Living	No application submitted.	Pre-application meeting w/ city & developer held on 12/20/18. WCA delineation approved 7/19/19	C-EPSC D-Buffers J-Stormwater
2019-004	Eden Prairie - Engineering	Duck Lake Road	1/16/19 | 1/18/19	Tabled at the request of Eden Prairie until further notice.	B-Floodplain C-EPSC D-Buffers G-Water X-ing J-Stormwater K-Variances
2019-005	Eden Prairie - Engineering	Single Tree Ln Improvements	1/17/19 | 1/22/19	Administratively approved 2/5/19 Under construction.	C-EPSC
2019-006	Minnetonka - Engineering	2019 Mill & Overlay Project	1/14/19 | 1/14/19	Administratively approved on 1/15/19	C-EPSC
2019-007	Great Oaks 2nd, LLC	Beverly Hills	1/25/19 | 2/28/19 | 3/08/19	Conditionally approved at 4/3/19 meeting. Awaiting FA and MD.	C-EPSC, J-Stormwater

PERMIT #	APPLICANT	PROJECT	DATE SUBMITTED ON-LINE| PAPER| COMPLETE	STATUS	RULES
2019-008	Eden Prairie Parks	Staring Lake Pavilion	2/19/19 | 1/21/19	Conditionally approved 4/3/19 meeting. Conditions met	C-EPSC, J-Stormwater
2019-009	Marcus Reidel	Reidel Home Addition	2/18/19 | 2/6/19 | 2/19/19	Administratively approved 2/22/19	C-EPSC, J-Stormwater
2019-010	ISD #112	Chan HS Sanitary Service Repair	2/22/19 | 2/25/19	Administratively approved 3/1/19. Completed.	C-EPSC
2019-011	Bre Retail Residual Owner 6	Chase Bank	3/12/19 | 3/14/19	Conditionally approved at 5/1/19 meeting.	C-EPSC, J-Stormwater
2019-012	Andrew Costigan	Outbuilding	3/21/19 | 3/28/19 | 3/28/19	Administratively approved 4/8/19	C-EPSC, J-Stormwater
2019-013	Adam & Kelly Cozine	Pool	3/22/19 | 3/25/19	Administratively approved 4/26/19	C-EPSC, J-Stormwater
2019-014	Eden Prairie - Engineering	Hennepin Town Rd Turn Lane	3/7/19 | 3/7/19	Administratively approved on 3/22/19	C-EPSC
2019-015	Chanhassen - Engineering	Lake Dr. East M & O	3/26/19 | 3/28/19	Administratively approved 3/28/19	C-EPSC
2019-016	Center Point	Minnetonka Boulevard	4/3/19 | 4/10/19	Administratively approved on 4/10/19	C-EPSC
2019-017	ANE Group	6650 Pawnee Dr	NOPV Issued 4/12/19 | 4/17/19 |	On 5/1/19 meeting. Conditionally approved	C-EPSC, J-Stormwater
2019-018	ANE Group		NOPV Issued 4/12/19 | 4/17/19 |	On 5/1/19 meeting. Conditionally approved	C-EPSC, J-Stormwater

PERMIT #	APPLICANT	PROJECT	DATE SUBMITTED ON-LINE| PAPER| COMPLETE	STATUS	RULES
2019-019	Timothy Brown	Sheldon Place Townhomes	4/24/19| 4/26/19	Conditionally approved at 6/5/19 meeting	C-EPSC, J-Stormwater
2019-020	Lecy Bros	3993 Hillcrest	5/3/19| 5/4/19 |5/4/19	Approved. Conditions Met	C-EPSC, J-Stormwater
2019-021	Minnetonka _ Sarah Schweiger	2019 Misc Improvements	4/23/19| 4/23/19| 4/24/19	Administratively approved Under construction	C-EPSC
2019-022	Timothy Brown	Woodcrest	5/23/19|	Under review	
2019-023	Hennepin County Library	Minnetonka Library Improvements	5/29/19|	Pre-submittal meeting w/ BKBM on 3/19/19. Under review.	C-EPSC, J-Stormwater
2019-024	Capital Development LLC	Conifer Heights	5/23/19|	Pre-submittal meeting w/ Wenck on 3/22/19	C-EPSC, D-Buffers, J-Stormwater
2019-025	Eden Prairie	Homestead Circle Sump Pump Collection	5/22/19|	Administratively approved 6/11/19	C-EPSC
2019-026	Stephen Oliver	Ridgewood Church	5/29/19|	Conditionally approved at 7/10/19 meeting	C-EPSC, D-Buffers, J-Stormwater
2019-027	Eden Prairie	EP Pavement Management	6/6/19 | 6/6/19 | 6/6/19	Administratively approved on 6/6/19	C-EPSC
2019-028	Lifetime - Justin Schmidt	LifeTime Parking Expansion	6/25/19 | 6/26/19	Under review	

PERMIT #	APPLICANT	PROJECT	DATE SUBMITTED ON-LINE| PAPER| COMPLETE	STATUS	RULES
2019-029	Eden Prairie	Sheldon Ave Imp	6/28/19	Under review	Rule C - EPSC
2019-030	Matt Koeppen	Koeppen Shoreline	6/13/19	Conditionally approved.	
2019-031	Nicholas Leddy	Leddy Shoreline	4/17/19	Conditionally approved. Conditions met.	Rule F-Shoreline and Streambank Stabilization
2019-032	Solomon Group	Applebees Parking Lot Expansion	x/x/xx | 7/23/19	Under review	Rule C-EPSC, G-Floodplain, J-Stormwater
2019-033	Eden Prairie	Spring Road Pedestrian Improvements	x/x/xx | 7/18/19 | 7/18/19	Administratively Approved 8/1/19	Rule C- EPSC

TAC meeting: flood response prioritization

Small group discussion notes

- Q1: What is at risk from flooding in your community?
    - Structures
        - Trauma center
        - Schools
        - Emergency shelters
        - Shopping malls
        - Churches
        - Public safety buildings
        - Substations/ utilities
        - Nursing home facilities
        - Electric transformers
        - Wells
        - Cell towers
        - Critical infrastructure (waste water treatment, transportation, emergency vehicle routes)
        - Drift walls
        - Power infrastructure (hospitals, nursing homes)
        -
    - Transportation
        - Major roads- arterials
        - Transportation related/ low spots Emergency service routes
        - Road risk
        - Arterial roads
    - Populations
        - Retirement communities (vulnerable populations)
        - Are there other populations
        - Non-native/ cultural difference (environmental justice)
        - Vulnerable populations
    - Natural Resources
        - As time allows→ check natural resources
        - Erosive soils
        - Shoreline erosion (no wakes)
        - More inundation→ tree impacts
        - Landlocked areas and groundwater impacts
        - Use resources to buffer impact
        - Steep creek → erosion
        - GW seeps→ silting features
        - Ravine erosion- natural occurrence
        - Stream bank erosion- big issue in terms of natural resources risk
        - Ravines and streams
            - Sediment loads downstream
            - Downed trees

        - Stormwater ponds→ how does flooding affect phosphorus loads in sediment?
    - Chaska
        - Older areas (downtown)
            - River flooding
            - Infrastructure was not designed for increased flooding
        - Erosion is more of an issue in newer areas
        - Smaller, more dense housing
        - Population: less affluent (lower priced homes)
        - Hwy 41
        - Creek rd
        - 90% of Chaska has C-D soils
    - Eden Prairie
        - Older areas
        - Storm sewers are not designed for increased flooding
        - Poorer soils (D)
        - More erosion along bluffs
            - Roof drains, drain tiles, sump pumps along steep slopes

    - Over time- bluff discharge and 2' impacts
    - More frequent events
    - Consider when it rains
    - Calls with water where don't see water
    - Landlocked basins- Minnetonka
    - Critical infrastructure (lift station)
    - Utility services
    - Lower recreational benefits
    - Creek crossings- city level
    - Localized due to private
    - FEMA standard
        - Up to 2' arterial
        - Tend to build higher
        - "safe innovation"
        - Safe traffic flow
    - Sanitary. Lift stations-33 inch chan
    - I & I on sanitary interceptors (low areas)
    - Clean-up after events
    - Rec areas adjacent to features
    - Inundated from back to back
    - Snowmelt on frozen ground
    - Maintenance of infrastructure
        - Firewood blocking pipe →flooding
        - Siltation of resource/ infrastructure outcomes
            - Entire system

        - Blockages
    - $/ resources on flood fight
    - Drained wetlands→ development→wet areas
    - Health and safety
- Q2: What are variables of flood risk?
    - Position in landscape
    - Critical infrastructure areas- example dam failure
    - Moving water (flow paths and obstructions/ constrictions e.g. ice dam)
    - Cost→ damages
    - Depth and duration
    - Frequency
    - Use→ structure how to determine importance?
    - Number of people (Single family homes) or services provided for utilities
        - Prioritizing utilities that serve many vs few
    - Annual maintenance programs
    - Loss of life potential
    - FDR prioritization
    - Benefit vs cost over time
    - Should structures remain in floodplain?
    - Storage potential
    - Conveyance capacity
    - Location in watershed
    - Volume upstream
    - Rate downstream
    - Level of protection/ improvement degree
    - Social value of feature
    - Appropriate siting of BMP
    - Utilize/ maximize existing facilities
    - Regional benefit over independent benefit
    - Proximity of vulnerable items (structures and infrastructure)
    - How critical is it for emergency vehicles?
    - Types of soil
    - Cost of mitigation
    - Number of people affected→ risk communication to all
    - Access to services (businesses, haul routes, schools)
    - Lack of alternative routes and power sources
- Q3: What is the process by which your city would prioritize adaptation/ mitigation projects?
    - Emergency – Fire Chief
    - Communication
    - Public works/ maintenance
    - Carver Co. Risk emergency manager
    - Hennepin Co.
    - Housing and redevelopment authority

- Planning?
- 911→ emergency public works→ fire department
- Planning→fire department→police department
- Minnetonka
    - EMS team (public works and environmental)- who imparted?
    - High level cost?
- Bloomington
    - Emergency managers: fire, police, public works,
    - Planners→ council approval→ CIP program
        - Primary city priority
        - Haven't purchased property
- BWSR- N/A
    - Gov declares disaster county
    - Work through SWCDs
    - County has emergency management team
    - Reactionary process is significantly different
- Public works for maintenance projects →Public works & parks
    - Development review group
        - Planning
        - Building
        - Assessing
        - Public works
- Steep pipes in bluff areas (From Burr Ridge) (Purg. creek area)
- SWMP is starting point
    - CIP drive budgeting
- Emergency declaration→ council
- Starts with Public works
- Inventory and investing in existing condition
- Asset management and rankings
- Rate studies to find projects
- Waste, fire, emergency management, engineers
- Somewhat informal process
- Many haven't thought of floods
- Maybe develop an emergency plan for floods
- Chaska
    - Institutional memory
    - Engineering and public works
        - Input from public works
        - Not so much planning
- Identify areas and respond
    - Mainly public workd and engineering
- Creating working relationship between government and residents
- Respond to emergency→ now what? How do we not get hit again?

- “the only time you can get money for flood mitigation is during a flood”

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Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing September 2019 Activities for October 2, 2019, Board Meeting
Date: September 26, 2019

The purpose of this memorandum is to provide the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) Board of Managers and the District Administrator with a summary of the activities performed by Barr Engineering Co., serving in the role of District Engineer, during September 2019.

General Services

a. Met with Administrator Bleser, Watershed Planning Manager Jeffery, and Project Manager Jordan on September 4th about the capital improvement program and status of ongoing task orders. Discussion included the status of Bluff Creek Tributary restoration project, Chanhassen High School reuse project, potential meeting with Chanhassen for the Upper Riley Creek restoration project, 101 Wetland restoration property purchase and demolition, Lake Susan Park Pond operations and vegetation, Silver Lake subwatershed project, Scenic Heights Forest Restoration, and the Duck Lake subwatershed project basin designs and homeowner coordination.

b. Met with Administrator Bleser and city of Chanhassen on September 26th to discuss the proposed Highway 101 construction impacts on the RPBCWD property along the lower portion of Bluff Creek. The project needs to acquire roughly 10,000 square feet of the property for the proposed roadway reconstruction. The city is responsible for property acquisition and indicated they have already acquired the homes adjacent to RPBCWD property and intend to start demolition soon. Removal of those home and associated cul de sac will provide additional buffer to the proposed roadway. The city intends to submit a letter highlighting things the project will do to mitigate impacts and requesting dedication of the 10,000 square feet to Carver County, the entity that will be responsible for CSAH 101.

c. Attended the Bluff Creek Tributary restoration preconstruction meeting with Watershed Planning Coordinator Jeffery, City of Chanhassen and Sunram Construction.

d. Participated in September 11th technical advisory meeting to discuss flooding resiliency and adaptation strategies. Facilitated small group discussion.

e. Participated in the September 4th regular Board of Managers meeting.

f. Prepared Engineer's Report for engineering services performed during September 2019.

g. Miscellaneous discussions and coordination with Administrator Bleser about spent lime system modifications, additional assistance with the Duck Lake subwatershed project tasks, help with rainwater harvest and reuse graphics, Bluff Creek restoration, and Lower Riley restoration projects as well as upcoming Board meeting agenda.

Permitting Program

a. *Permit 2018-066 Castle Ridge Redevelopment*: The project proposes to redevelopment the Castle Ridge, Broadmoor, and two adjacent owned properties at the southwest quadrant of Flying Cloud Drive and Prairie Center Drive into mixed-use senior housing, market rate apartments, hotel, and commercial/retail mixed-use project. This project will trigger RPBCWD Rules B, C, D, and J. Met with applicant on August 30th to address review comments and assist their engineer in identifying additional means to provided volume abstraction. Completed review of a revised submittal received on September 9th and notified applicant of additional design revisions to meet requirements. Received revised information (reuse calculations, water quality modeling, volume abstraction calculations, impervious area determinations, hydrologic modeling, and engineer's opinion of probable costs) on September 21, 23, 24 and 25 in support of final project design. Drafted permit report for consideration at the October 2nd board of manager's meeting.

b. *Permit 2015-036 Saville West*: The applicant is proposing a three lot development in Minnetonka. The permit was conditionally approved at the February 6, 2019 board meeting. Reviewed draft maintenance declaration and provided comments. Assisted Watershed Planning Coordinator Jeffery with permit transfer and declaration requirements.

c. *Permit 2018-043 Control Concepts:* The modified project proposes the construction of an approximately 38,000 SF Office and Warehouse facility at 8077 Century Boulevard in Chanhassen. Board conditionally approved at modification at the June 5, 2019 meeting. The project triggers the RPBCWD Erosion Control, Wetland and Creek Buffers, and Stormwater Management Rules. The consultant's engineer discovered that the piping materials specified for underground system were not readily available and needed to revise the materials. In doing so they also adjusted the footprint on the underground system to account for the change in pipe size. The project remains compliant with all RPBCWD criteria and the change was not substantive.

d. *Permit 2019-028: Lifetime Parking Lot Chanhassen:* The applicant proposed the construction of a 69,850 square foot parking lot expansion at their site located at 2932 and 2970 Water Tower Place located in Chanhassen, Minnesota. The project also proposes to add 16,438 square feet of impervious for additional parking at 2900, 2901, & 2902 Corporate Place. An underground filtration/detention system with elevated draintile to promote infiltration will provide storm water quantity and quality control. The project triggers RPBCWD Rules C and J. Permit was conditionally approved at the September 4th board of manager's meeting. Worked with applicant to review the maintenance declaration.

e. *Permit* 2019-032: West 79th St. *Chanhassen Parking Lot:* The project includes the construction of a new parking lot along the south side of West 79th Street in Chanhassen. The proposed parking lot will serve as overflow parking for the restaurant in the area. The project triggers RPBCWD Rules B, C, and J. The submittal materials received on July 23rd were reviewed and considered incomplete. Permit was conditionally approved at the September 4th board of manager's meeting. Worked with applicant to review the maintenance agreement.

f. Met with Eden Prairie School District and city of Eden Prairie on September 9th to discuss RPBCWD permitting requirements for upcoming site development at the Central Middle School site.

g. Met with Watershed Planning Coordinator Jeffery and Lower Minnesota River Watershed (LMRWD) District on September 13th to discuss a memo of understanding or joint powers agreement to delegate permit review of the Highway 101 reconstruction project to LMRWD.

h. Miscellaneous conversations with Watershed Planning Coordinator Jeffery about technical questions on permit requirements for potential development and redevelopment projects as well as permit transfers.

Data Management/Sampling/Equipment Assistance

a. Prepared, uploaded, and verified 11 RMB laboratory (RMB) reports.

b. Prepared, uploaded, and verified three months' worth of lake data collected with the mobile application.

c. Communicated with RPBCWD staff about including QC information in the mobile application.

d. Analyzed the August phytoplankton samples from Lake Riley, Lotus Lake, Lake Susan, Rice Marsh Lake, and Staring Lake.

Education and Outreach

a. Provided facilitation services to assist staff with climate resiliency and prioritization discussions at the September 11th technical advisory meeting at the request of Administrator Bleser.

Task Order 6: WOMP Station Monitoring

Purgatory Creek Monitoring Station at Pioneer Trail

a. Download and review data.

b. Storm event sampling – collect, prep, and deliver samples to MCES lab.

Purgatory Creek Monitoring Station at Valley View Rd

a. Download and review data.

b. Storm event sampling – collect, prep, and deliver samples to the MCES lab

c. Maintenance – clean up shelter from critter mess.

d. Conduct flow measurement.

Task Order 13b: Lake Susan Watershed Treatment and Stormwater Reuse Enhancements Design and Construction Administration

a. Responded to Peterson's final payment request on September 10th indicating that because there remain some outstanding items (including the plug growth) and work to be complete, it is difficult to recommend final payment. We requested a response to the outstanding items.

b. Coordinating with Peterson Companies to schedule a time for a site visit to resolve the outstanding punch list items and questions. Peterson Companies with working with the site to gain building access for the week of Sept 30-Oct 4th.

c. The revised punch list is as follows:

    1. (Peterson) Answer follow-up questions about the information that the program is currently recording and the current set points (times, runtimes, flow rates, levels, all on/off levels, etc.).

Task Order 14b: Lower Riley Creek Final Design

a. Submitted the grading permit to the city of Eden Prairie

b. Submitted application and received permit from the MPCA for managing stormwater during construction

c. Worked with the contractor to discuss their dewatering plan and how to obtain necessary permits.

Task Order 19: Chanhassen High School Stormwater Reuse Project

a. Followed up with school district staff on performance of reuse system (had followed up several times over summer and received no response). School district staff indicated that the system was not working well and was off much of the summer. Contractor had been out a few times to troubleshoot and reset reuse system.

b. Visited site with the contractor (Peterson) to troubleshoot alarms that were shutting off system. All alarms were related to the UV treatment system. Alarms from earlier in the summer had to do with the UV intensity which is related to the variability in the transparency of stormwater. The contractor adjusted the thresholds for the alarm based on guidance from WaterTronics (the treatment system provider) and no further alarms related to UV intensity have been triggered. The most recent alarms were due to high temperature in the UV bulbs – this was determined to be due to a faulty breaker on a valve that is supposed to open and circulate water to cool the UV system. Peterson should be receiving the new breaker from WaterTronics and replacing in the system the week of September 23.

c. Processed final pay application for board consideration.

Task Order 21B: Bluff Creek Stabilization Project

a. Clearing began on Tuesday, September 17. Work initially concentrated on mowing brush and understory, which was mostly buckthorn in some places, and mostly sumac in other places. Wet weather slowed progress from the initial anticipated schedule.

b. On Friday, September 20, Barr staff walked the site with the prime contractor (Sunram Construction) and the tree clearing subcontractor (Husky Construction) to review clearing completed and begin to select trees that can be salvaged for root wads. We also modified the mowed access routes to both provide better construction access and to avoid impacts to roots of selected trees that would be saved.

c. On Monday, September 23, Barr staff walked through the site with Jill Sinclair (city forester) to review clearing and marked trees.
d. Overall, the clearing is less than the construction limits shown on the plans, and the contractors have been conscious about preserving quality trees and only removing what is necessary to complete the work.
e. Following the initial walk through, the sub-contractor has been clearing some of the marked trees to be salvaged for root wads and logs vanes, and they have continued mowing brush/buckthorn ahead of the equipment being used to clear larger trees.
f. Clearing will continue through approximately the end of the month.
g. Work in the channel is expected to begin on October 2, weather permitting.

Task Order 25: Duck Lake Water Quality Improvement Project

a. Staff accompanied Project Manager Jordan on a visit with a homeowner to present a design option that would replace a portion of the driveway with permeable pavers. The homeowner was receptive and Barr is incorporating permeable pavers into the rainwater garden site design.
b. Staff developed a graphic exhibit to supplement the rainwater garden maintenance agreements between the homeowners and the RPBCWD.
c. Developed construction quantities and engineer's cost estimates for the four rainwater garden sites.
d. Discussed providing additional assistance for project coordination with Administrator Bleser to augment Project Manager Jordon's departure from RPBCWD.

Task Order 26: Stormwater Model Update and Flood-Risk Area Prioritization Identification for the Bloomington Portion of Purgatory Creek

a. Staff met with Administrator Bleser, Watershed Planning Coordinator Jeffery, and Project Manager Jordon on September 5th to review items to discuss with the TAC including, prioritization, inundation figures and potential flood-prone areas.
b. Presented model update methodology, results, and inundation figures to the TAC on September 11th. Following the presentation, staff facilitated a discussion regarding factors that TAC members consider when planning for and prioritizing flood-risk mitigation projects.
c. Following the September 11th discussion with the TAC, TAC members provided contact information for other staff that were not in attendance during the meeting.
d. Staff met with Administrator Bleser to review feedback from the TAC and next steps for developing a methodology for prioritizing flood-risk mitigation areas on September 24th.

Task Order 28a: Rice Marsh Lake Subwatershed 12a Water Quality Project

a. Led the project kick-off meeting on September 23rd with Watershed Planning Coordinator Jeffery and City of Chanhassen.

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engineering and environmental consultants

BARR

To: RPBCWD Board of Managers
From: Dave Melmer
Subject: September 20-21, 2019—Erosion Inspection
Date: September 25, 2019
Project: 23/27-0053.14 PRMT 9016

Barr staff has inspected construction sites in the Riley Purgatory Bluff Creek Watershed District for conformance to erosion and sediment control policies. Listed below are construction projects and the improvement needed for effective erosion control. The sites were inspected from September 20th and 21st, 2019.

Site Inspections

2015-010	**Children's Learning Adventure - Private - Commercial/Industrial** **Northwest Corner of Highway 5 and Galpin Avenue** **Chanhassen, Minnesota 55317** No change since last monthly inspection. Construction complete. Vegetation is established - sparse in some areas.	**2019-09-21**
2015-016	**Blossom Hill - Private - Residential** **10841 Blossom Rd Eden Prairie, Minnesota 55347** House construction at last site in development completed. All lots have been sold and have houses on them. Site is stable. All temporary BMP's have been removed. This will be last field inspection for this permit.	**2019-09-20**
2015-036	**Saville West Subdivision - Private - Residential** **5325 County Road 101 Minnetonka, Minnesota 55345** CA closed. Construction complete at 5320 Spring Lane house site. Silt fence perimeter control is down on NW side near pond. Landscaping complete/ sod installed. Silt fence installed on southwest and west side of development. Additional lot has silt fence perimeter control installed- no activity at this lot. Lots to south have been brushed/cleared.	**2019-09-21**
2015-050	**Arbor Glen Chanhassen - Private - Residential** **9170 GREAT PLAINS BLVD Chanhassen, Minnesota 55317** Open CA(s): CA opened for silt fence overtopping and silt into detention pond south of 715 Crossroads Court. Site representative was notified. Deadline: 10/1/2019 Perimeter control (silt fence) installed. Roadway and detention ponds installed. Rock entrances refreshed-installed regularly. Tracking to street/sediment at gutter--is cleaned up regularly. Catch basin protection installed. Bio-rolls installed where needed. Landscaping at some sites underway. CA opened for silt fence overtopping and silt into detention pond south of 715 Crossroads Court. Site representative was notified.	**2019-09-20**

2015-055	**Hampton Inn Eden Prairie - Private - Commercial/Industrial** **11825 Technology Drive Eden Prairie, Minnesota 55344** No change since last monthly inspection. Site construction continues. BMP's in place.	**2019-09-20**
2016-017	**SWLRT - Government - Other** **Varies Eden Prairie, Minnesota 55344** No change since last monthly inspection. Construction has begun along 95% of route. BMP's look good thru out entire site/route to date.	**2019-09-20**
2016-020	**Prairie View Enclave - Private - Commercial/Industrial** **12701 Pioneer Trail Eden Prairie, Minnesota 55347** No activity observed to date.	**2019-09-20**
2016-026	**Foxwood Development - Private - Residential** **9150 and 9250 Great Plains Blvd Chanhassen, Minnesota 55317** Final landscaping underway at multiple sites. Minor tracking to street observed-- site is swept regularly. Multiple house construction continues-BMP's look good- silt fences and rock entrances installed/ good perimeter control. Catch basin protection installed. Silt fences have been installed on unsold lots.	**2019-09-20**
2016-032	**CSAH 61 Improvements - Government - Linear** **N/A Eden Prairie, Minnesota 55347** No change since last monthly inspection. Construction continues. Slopes are covered with matting or have been spray tac'd. Area near creek crossing is completed.-- BMP's look good.	**2019-09-20**
2016-033	**Anderson Lakes-Purgatory Trail - Government - Other** **Anderson Lakes PKWY and Purgatory Creek Eden Prairie, Minnesota 55344** No construction observed to date.	**2019-09-20**
2016-041	**Chanhassen West Water Treatment Plant - Government - Other** **2070 Lake Harrison Road Chanhassen, Minnesota 55317** Silt fences installed on site. Construction complete. Landscaping and seeding complete--vegetation established. Entrance installed and paved--roadway complete. Playground installation on north side complete. South slope vegetation is established.	**2019-09-21**
2016-042	**18663 St. Mellion Place--Eden Prairie (Bear Path)** BMP's good Silt fences removed/one small section will be removed soon-biorolls removed on west side. Sod has been installed on west and southwest side of site. Front side still needs landscaping	**2019-09-20**

	completed--to be completed within one week. Driveway installation completed.	
2017-001	**Kopesky 2nd Addition - Private - Residential** **18340 82nd St Eden Prairie, Minnesota 55347** Site grading complete-house construction completed at three sites. Fourth house site construction is underway. Perimeter control installed/bio rolls along infiltration basin adequate. Minor tracking to street--rock entrance will need to be refreshed soon. Infiltration basins completed. Basin protection is good.	**2019-09-20**
2017-006	**6687 Horseshoe Curve Chanhassen** No activity observed to date.	**2019-09-21**
2017-007	**Cedarcrest Stables - Private - Residential** **16870 CEDARCREST DR Eden Prairie, Minnesota 55347** No activity observed to date.	**2019-09-20**
2017-023	**Eden Prairie Assembly of God - Private - Commercial/Industrial** **16591 Duck Lake Trail Eden Prairie, Minnesota 55346** Construction complete. Site vegetation is established. Site is stable. All temporary BMP's have been removed with exception of bio-rolls near entrance. Site representative was notified about removing bio-rolls. No change since last month (September)	**2019-09-21**
2017-024	**Prairie Bluffs Senior Living - Private - Residential** **10280 Hennepin Town Rd Eden Prairie, Minnesota 55347** Construction continues. CA remains open for street tracking -- sediment build up at curb. Site representative was notified in May /July and again in September and is aware of situations. CA's will remain open. Site grading underway on south side of site. Some landscaping underway on north end of project site. Sand delta at wetland needs to be removed. Slope to wetland not covered or stabilized. Site personnel is aware of conditions.	**2019-09-20**
2017-029	**Tweet Pediatric Dentistry - Private - Commercial/Industrial** **7845 Century Blvd. Chanhassen, Minnesota 55317** No change since last month's inspection. Vegetation is established and site is stable. Site representative was notified (July and again in September) about catch basin protection and bio-roll removal.	**2019-09-20**
2017-030	**Elevate - Private - Commercial/Industrial** **12900 Technology Drive Eden Prairie, Minnesota 55344** No change since last monthly inspection. Construction continues. Perimeter control installed. Catch basin protection re-installed. Some catch basins have bladders installed and drainage will be directed to other basins. BMP's look good. Site is well maintained.	**2019-09-20**

2017-031	**Lion's Tap - Private - Commercial/Industrial** **16180 Flying Cloud Drive Eden Prairie, Minnesota 55347** Construction has begun. BMP's installed.	**2019-09-20**
2017-032	**11193 Bluestem Lane - Government - Other** **11193 Bluestem Lane Eden Prairie, Minnesota 55347** No change since last monthly inspection. Construction complete. All exposed soils on slope are covered and stabilized--vegetation growing--areas where seed did not sprout are observed-- matting is keeping soils stable. Bio-logs installed at toe of slope. Site is in good condition. Bio-logs can be removed. New Eden Prairie site representative contacted concerning bare areas-may need to be reseeded/garlic mustard has started to invade area. Site representative was notified and will get bio logs removed.	**2019-09-20**
2017-037	**The Venue - Private - Commercial/Industrial** **525 W 78th St Chanhassen, Minnesota 55317** Construction complete. All BMP's have been removed. Site is stable. This will be last field inspection for this permit.	**2019-09-21**
2017-038	**West Park - Private - Residential** **760& 781 Lake Susan Drive 8601 Great Plains Blvd Chanhassen, Minnesota 55317** Construction continues. Street installation on north and south side completed. Rock entrance installed on south side and to individual house sites continues. Perimeter control installed. Catch basin protection installed. BMP's look good. Additional silt fences have been installed. Bare soils that are not being worked have been stabilized. Landscaping at some sites underway or completed. Street sweeping was underway during inspection. BMP's look good.	**2019-09-20**
2017-039	**Mission Hill Senior Living - Private - Residential** **8600 Grate Plains Boulevard Chanhasen, Minnesota 55317** Construction continues. BMP's installed look good. Site perimeter control installed. Catch basin protection installed. South swale has been stabilized. Areas of final grading still underway. Minor tracking to onsite.	**2019-09-20**
2017-047	**Fawn Hill - Private - Residential** **7240 Galpin Road Chanhassen, Minnesota 55331** Construction continues at additional house sites. Perimeter silt fences installed and additional silt fences installed where needed. BMP's to date look good with exception of two stock piles that still need protection. Site representative was notified.	**2019-09-21**

2017-069	**Scheels Redevelopment - Private - Commercial/Industrial** **8301 Flying Cloud Dr. Eden Prairie, Minnesota 55344** BMP's installed. Construction continues. Parking lot to west is complete. Minor tracking on south side observed. BMP's look good to date.	**2019-09-20**
2017-072	**O'Reilly Auto Parts Eden Prairie - Private - Commercial/Industrial** **8868 AZTEC DRIVE Eden Prairie, Minnesota 55347** Open CA(s): No catch basin protection. Deadline: 10/1/2019 Construction continues. Perimeter control installed. Site has been cleared. Site rock entrance installed. Inlet protection installed but must have been removed. BMP's good. CA opened for no catch basin protection. Site representative was notified.	**2019-09-20**
2017-073	**Preserve Village - Private - Residential** **9625 Anderson Lakes Pkwy Eden Prairie, Minnesota 55344** No change since last month's inspection. Construction of building complete. Landscaping is complete. All temporary BMP's have been removed except catch basin protection still installed at one location-missed during removal. Vegetation growing. Site representative was notified about removal of catch basin protection.	**2019-09-20**
2018-001	**Panera - Private - Commercial/Industrial** **531 W. 79th Street Chanhassen, Minnesota 55317** Construction complete. Filtration basin completed --appears to be functional. Vegetation growing.	**2019-09-21**
2018-004	**903 Lake Drive Chanhassen - Government - Other** **903 Lake Drive Chanhassen, Minnesota 55317** No change since last monthly inspection. Construction completed. BMP's installed. Site is in good condition. All soils covered. Site is stable. Site representative was contacted about temporary BMP removal.	**2019-09-21**
2018-014	**Eden Prairie Road Reconstruction** Construction continues on roadway. Road closed on north end. Additional silt fences installed on slope where old roadway existed. All slopes have been recently spray-tac'd or covered with matting. Steep slopes covered with matting. BMP's installed look good.	**2019-09-20**

2018-016	**Avienda - Private - Commercial/Industrial** **SW corner of Powers and Lyman Boulevard Chanhassen, Minnesota 55317** No activity observed to date.	**2019-09-20**
2018-020	**9770 Sky Lane - Existing Single-Family** **9770 Sky Lane Eden prairie, Minnesota 55347** No change since last monthly inspection. Construction complete. Site grading /boulder wall installation completed. Silt fences can be removed. Final landscaping complete. Site is stable.	**2019-09-20**
2018-021	**9810 Sky Lane - Existing Single-Family** **9810 Sky Lane Eden prairie, Minnesota 55347** Construction and landscaping completed. Temporary BMP's still in place at NW catch basin--can be removed. Contacted site representative. Site representative sent pictures to confirm removal. Site is stable. Vegetation established. All temporary BMP's have been removed. This will be last field inspection for this permit.	**2019-09-20**
2018-025	**Magellan Pipeline UCD Dig 8 through 12** No change since last inspection. Work halted until fall-winter 2019.	**2019-09-20**
2018-027	**MAMAC - Private - Commercial/Industrial** **8189 Century Boulevard Chanhassen, Minnesota 55317** No change since last inspection. Construction continues. Perimeter control silt fence installed. Temporary BMP's installed. BMP's are good.	**2019-09-20**
2018-028	**Oak Point Elementary School Parking Lot - Government - Other** **13400 Staring Lake Parkway Eden Prairie, Minnesota 55347** Construction has begun. Perimeter controls in place. Rock entrance installed. Catch basin protection installed. BMP's to date look good.	**2019-09-20**
2018-034	**Basin 05-11-A Cleanout - Government - Other** **Corner of Sequoia and Ginger Eden Prairie, Minnesota 55346** No change since last monthly inspection. Robert Ellis-site representative stated that this work will begin in 2019- contacted Robert Ellis again--work should start late 2019-early 2020. No activity observed to date.	**2019-09-21**
2018-038	**Eden Prairie Senior Living - Private - Residential** **8460 Franlo Rd Eden Prairie, Minnesota 55344** Open CA(s): Corrective Action opened for west side- silt fence maintenance required/sediment in parking areas clean up. Site representative was notified. Deadline: 10/1/2019	**2019-09-20**

	Construction continues. Perimeter control installed and updated in areas. Corrective Action opened for west side- silt fence maintenance required/sediment in parking areas clean up. Site representative was notified.	
2018-039	**Emerson Site Improvements - Private - Commercial/Industrial** **12001 Technology Drive Eden Prairie, Minnesota 55344** No change since last monthly inspection. BMP's installed. Construction completed. Area near garage has been graded and seeded-vegetation is growing. Storm water detention pond installed and BMP's are still in place.	**2019-09-20**
2018-041	**Abra Auto Body - Private - Commercial/Industrial** **13075 Pioneer Trail Eden Prairie, Minnesota 55347** No change since last monthly inspection. Construction continues. Perimeter control installed. Rock entrances installed /refreshed since last month's inspection. BMP's good.	**2019-09-20**
2018-043	**Control Concepts - Private - Commercial/Industrial** **8077 Century Boulevard Chanhassen, Minnesota 55317** Construction has begun. Site grading underway. Perimeter silt fence installed. BMP's to date look good.	**2019-09-20**
2018-044	**Smith Village - Private - Residential** **16389 Glory Lane Eden Prairie, Minnesota 55344** Demolition has begun. BMP's installed where needed.	**2019-09-21**
2018-047	**Peterson Borrow Site - Private - Commercial/Industrial** **15900 Flying Cloud Drive Eden Prairie, Minnesota 55347** No change since last monthly inspection. BMP's in place. Pit is being used. Rock ditch checks installed along with silt fences.	**2019-09-20**
2018-049	**D'Alessandro Home - Existing Single-Family** **18702 Heathcote Dr Deephaven, Minnesota 55391** Construction complete. Landscaping completed. CA closed. Final landscaping/grading underway completed. Will inspect next month for vegetation establishment.	**2019-09-21**
2018-050	**Eden Prairie Cemetery - Private - Commercial/Industrial** **8810 Eden Prairie Road Eden Prairie, Minnesota 55437** No change since last monthly inspection. Construction appears to be completed. Straw biorolls have been removed. Vegetation growing.	**2019-09-20**

2018-052	**HCRRA Culvert Replacement - Government - Linear** **Hennepin County Wayzata and Deephaven, Minnesota 55401** No change since last monthly inspection. Construction complete. BMP's installed. Vegetation growing observed and filling in; some bare areas of no growth-matting is protecting bare soils. Site is stable.	**2019-09-21**
2018-053	**Roberts Residence - Existing Single-Family** **5925 Ridge Road Shorewood, Minnesota 55331** Construction complete. Driveway installation completed. BMP's installed. BMP's good.	**2019-09-21**
2018-055	**Park Trail Improvement Project - Government - Other** **1700 W. 98th Street Bloomington, Minnesota 55431** No change since last monthly inspection. Construction complete. Grading and seeding complete. BMP's in place. Vegetation established. Bio-rolls onsite have been removed. Small area of bare soil across from Oregon Ave. --could use a reseeding--trail at Sunrise Park has bare areas at both entrances--site representative was notified-August.	**2019-09-20**
2018-056	**Bluff Creek Restoration - Government - Other** **Liberty on Bluff Creek, Outlot B Audubon Road Chanhassen, Minnesota 55317** Work delayed until fall-winter 2019.	**2019-09-20**
2018-058	**Walker Home - Existing Single-Family** **9108 Stephens Pointe Eden prairie, Minnesota 55347** Open CA(s): Silt-fence 50% full from rainfall. Neighbors path to lake washed out and silt filled to lake. CA opened for slope not covered. Site representative was notified. Ryan: 651-398-3622. Deadline: 9/20/2019	**2019-09-20**
2018-059	**Mason Point Landscaping - Existing Single-Family** **15363 Mason Pointe Eden Prairie, Minnesota 55347** No change since last monthly inspection. Construction continues. BMP's installed.	**2019-09-20**
2018-060	**Loichinger Residence** Construction continues. Perimeter silt fence installed. Biorolls installed where needed on front side on site. Minor tracking at curb-downstream. Driveway installed/some site grading underway.	**2019-09-20**
2018-061	**McCoy Lake Inlet Sediment Removal - Government - Other** **Mitchell Road and Cumberland Road Eden Prairie, Minnesota 55347**	**2019-09-20**

	No change since last monthly inspection. Access to site completed. No BMP's installed to date. No construction to date.	
2018-062	**Lower Riley Creek Stabilization Project - Government - Other** **Ridge on Riley Creek, Outlot A Eden Prairie, Minnesota 55344** Work delayed until fall-winter 2019.	**2019-09-20**
2018-063	**Lake Susan Trail Rehab 2018 - Government - Other** **903 Lake Drive East Chanhassen, Minnesota 55317** Site is stable. All temporary BMP's have been removed. This will be last field inspection for this permit.	**2019-09-21**
2018-067	**Hennepin Co Library - Eden Prairie Branch Refurb - Government - Other** **565 Prairie Center Drive Eden Prairie, Minnesota 55344** No change since last monthly inspection. Construction continues.Perimeter controls are installed. BMP's look good to date.	**2019-09-20**
2018-068	**DriSteem Warehouse Expansion - Private - Commercial/Industrial** **14949 Technology Drive Eden Prairie, Minnesota 55344** No change since last monthly inspection. Construction complete. Parking lot paved. Grading complete. Seeding completed and growing. Catch basin protection removed. Bio-rolls removed.	**2019-09-20**
2018-071	**Minnetonka High School Lacrosse Field - Government - Other** **18301 Highway 7 Minnetonka, Minnesota 55422** Construction complete. BMP's removed. Sod installed. Will inspect next month for establishment of vegetation.	**2019-09-21**
2018-072	**Hyland Park Parking Lot Improvements - Government - Other** **10145 E Bush Lake Rd Bloomington, Minnesota 55438** No changes since last inspection. Construction continues. BMP's installed. Perimeter control good. Site control good. Lower parking lot area completed--areas have been seeded.	**2019-09-20**
2018-073	**Preserve Boulevard - Government - Linear** **Preserve Boulevard Eden Prairie, Minnesota 55344** Construction continues. Minor tracking on south side due to current hauling on day of inspection. BMP's good.	**2019-09-20**
2018-074	**Eden Prairie Ground Storage Reservoir - Government - Other** **Eden Prairie Road Eden Prairie, Minnesota 55344** Site clearing and earthwork continues . Perimeter control installed. BMP's to date are good.	**2019-09-21**

2019-001	**The Park- Private - Residential** **Galpin Avenue Chanhassen, Minnesota 55317** Brushing and tree removal /grading underway. Perimeter silt fence installation underway. BMP's to are good.	**2019-09-21**
2019-003	**Stable Path - Private - Residential** **Eden Prairie, Minnesota 55344** No change since last monthly inspection. Roadway and curb/gutter installed. All bare soils covered with straw. Infiltration basin installed and slopes covered. BMP's installed where needed.	**2019-09-20**
2019-007	**Beverly Hill - Private-Residential** **16540 Beverly Drive & 9800 Eden Prairie Road Eden Prairie, Minnesota 55347** Construction has begun. Perimeter controls installed. Site grading and roadway construction underway. BMP's to date look good.	**2019-09-20**
2019-008	**Staring Lake Pavilion Government - Other** **Eden Prairie, Minnesota 55344** No change since last monthly inspection. Construction continues. Site perimeter control installed. Rock entrance installed. Final grading underway. BMP's are good to date.	**2019-09-20**
2019-011	**Westwind Plaza Private-Commercial** **4795 County Rd. 101 Minnetonka, Minnesota 55345** No activity observed to date.	**2019-09-21**
2019-017	**Pawnee Drive – Private - Existing Single Family 6650 Pawnee Dr. Chanhassen, Minnesota 55317** Catch basin protection area needs clean up along with street-- Corrective Action remains open. Site has been landscaped and is stable. Will attempt to contact site representative.	**2019-09-21**
2019-018	**Deerwood Drive – Private - Existing Single Family 6657 Deerwood Dr Chanhassen, Minnesota 55317** Open CA(s): Major erosion to wetland. Deadline: 10/3/2019 Heavy sediment runoff from site. Site still needs attention to control runoff during heavy rainfall events and after each rainfall event. Corrective Action remains opened. Will attempt to contact site representative. Both sites share same drainage and contribute to runoff issues.	**2019-09-21**
2019-019	**Sheldon Place – Private- Residential** **7960 Eden Prairie Rd, Eden Prairie, Minnesota 55347**	**2019-09-21**

	No activity observed to date.	
2019-022	**Woodcrest Place – Private- Residential** **17170 Beverly Drive, Eden Prairie, Minnesota 55318** No construction activity observed to date.	**2019-09-20**
2019-023	**Minnetonka Library – Government – Other** **17524 Excelsior Blvd. Minnetonka, Minnesota 55435** Perimeter control installed. Biorolls in place. Construction has begun. BMP's installed and look good.	**2019-09-21**
2019-024	**Conifer Heights** No activity observed to date.	**2019-09-21**
2019-026	**Ridgewood Church Parking Lot – Private – Other 4420 county Road 101, Minnetonka, Minnesota 55345** Construction activity observed. Perimeter controls installed. BMP's installed.	**2019-09-21**
2019-028	**Lifetime Parking Lot Chanhassen-Private-Commercial** **2970 Water Tower Place and 2900, 2901, & 2902 Corporate Place, Chanhassen, MN 55317** No activity observed to date.	**2019-09-20**
2019-032	**West 79th St Chanhassen Parking Lot - Government - Other** **Unassigned - W. 79th St and Market Blvd Chanhassen, Minnesota 55317** No activity observed to date.	**2019-09-21**

Please contact me at 952.832-2687 or dmelmer@barr.com if you have questions on the projects listed above or any additional items that need to be addressed for the erosion control inspections.

resourceful. naturally.
engineering and environmental consultants

BARR

September 26, 2019

President Dick Ward and Board of Managers
Riley-Purgatory-Bluff Creek Watershed District
18681 Lake Dr E,
Chanhassen, MN 55317

Re: Chanhassen High School Stormwater Reuse Project – Pay Application #3
Barr Project # 23/27-0053.14-019

Dear President Ward and Board of Managers:

Enclosed is the Application for Payment #3 from Peterson Companies for the final amount to be released following system start-up in 2019, on the above-referenced project. Upon your review and approval, please sign three copies and return one copy to me, one copy to the contractor and retain the remaining copy for your files.

Peterson Companies assisted school district staff in the start-up of the stormwater reuse and irrigation system at Chanhassen High School in the late spring of 2019. Based on review of the alarm error logs, the reuse system operated from late May through late June and then from early July through late July. When the reuse system was not operated, the system successfully switched over to the potable water supply for backup. The system has not operated since July 30th. Approximately 337,000 gallons of stormwater have been pumped for irrigation in 2019. This number is lower than expected due to the following:

- 2019 being the second wettest year on record in the metro area
- The reuse system not operating continuously with no operations since July 30th (resulting because of no notification from school district staff indicating system alarms).

When notified by school district staff that alarms were triggered in the system, Peterson Companies has been responsive in trouble shooting and resolving system alarms as part of the system warranty. All the alarms triggered to date that have resulted in the system shutting down are related to the Ultraviolet (UV) treatment system.

The first alarms were related to UV intensity, which is ultimately tied to water transparency passing through the UV system. The initial UV intensity thresholds for the treatment system were tied to drinking water levels; however, even with filtration, there is more significant variability in the water quality from storm water. Peterson Companies consulted with WaterTronics and adjusted the UV intensity thresholds to better capture the variability in stormwater. Since these adjustments, no further alarms related to UV intensity have been triggered.

More recently, the UV system triggered high temperature alarms. When the system is idle (not pumping and treating water), a valve should open at regular intervals to circulate water around the UV bulbs to cool the system. After troubleshooting the system onsite and consulting with WaterTronics, it was determined that there is a faulty breaker in the system that was not opening the valve to circulate cooling water around the UV system. WaterTronics was sending a new breaker and Peterson Companies will be replacing the breaker the week of September 23, 2019.

We consider these all warranty related items and Peterson has been very responsive and helpful with the trouble shooting/corrections.

Barr Engineering has reviewed the application and is recommending the final payment in the amount of $2,000 contingent upon receipt of consent of surety to final payment and IC-134 form. Once the additional documents are received, the payment should be made directly to Peterson Companies.

Please call me at 952-832-2755 if you have any questions or concerns about the application for payment, or about any other related matters.

Sincerely,

Scott Sobiech, P.E.
Barr Engineering Co.

c: Claire Bleser, RPBCWD
Josh Flem, Peterson Companies

Enclosure #1 – Application for Payment – Progress Payment 3 - Final

P:\Mpls\23 MN\27\2327053\WorkFiles\Task Orders_TO_19_ChanhassenHighSchoolReuse\TO19_FinalDesign\Construction\7_PaymentApplications\PayApp3_Final\RPBCWD_ChanHS_PayApp3.docx

Chanhassen High School Stormwater Reuse Project
Progress Payment Number 3

1.0	Total Completed Through This Period	$279,825.75		
2.0	Total Completed Previous Period		$279,825.75	
3.0	Total Completed This Period			$0.00
4.0	Amount Retained, Previous Period		$0.00	
5.0	Amount Retained, This Period		$0.00	
6.0	Total Amount Retained		$0.00	
7.0	Retainage Released Through This Period:			$0.00
8.0	Final amount released following System Start-up (See Note 1)		$2,000.00	
9.0	Amount Due This Period			$2,000.00

Note 1: Per Change Order 1, $2,000 held until completion of system start-up in Spring 2019.
Note 2: Current Contract Price $279,685.80 (per Change Order 1)

SUBMITTED BY:
Name: Josh Flem Date: 9/26/19
Title: Project Manager
Contractor: Peterson Companies
Signature:

RECOMMENDED BY:
Name: Scott Sobiech Date: 9/26/19
Title: District Engineer
Engineer: Barr Engineering Company
Signature:

APPROVED BY:
Name: Dick Ward Date:
Title: President
Owner: Riley Purgatory Bluff Creek Watershed District
Signature:

Chanhassen High School Stormwater Reuse Project
Riley Purgatory Bluff Creek Watershed District
Summary of Work Completed through 8/30/2019 for Progress Payment Number 3

Item	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	BID - Peterson Companies UNIT COST	BID - Peterson Companies EXTENSION	(1) Total Completed Through This Period Quantity	(1) Total Completed Through This Period Amount	(1) Total Completed for Pay Application #1 Quantity	(1) Total Completed for Pay Application #1 Amount	(1) Total Completed for Pay Application #2 Quantity	(1) Total Completed for Pay Application #2 Amount	(1) Total Completed for Pay Application #3 Quantity	(1) Total Completed for Pay Application #3 Amount
1 - A	Mobilization/Demobilization	LS	1	$21,500.00	$21,500.00	1	$21,500.00	0.5	$10,750.00	0.5	$10,750.00	0	$0.00
2 - A	Erosion Control Silt Fence	LF	320	$2.10	$672.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
3 - A	Sediment Control Log	LF	766	$2.55	$1,953.30	100	$255.00	100	$255.00	0	$0.00	0	$0.00
4 - A	Inlet protection	Each	5	$133.00	$665.00	1	$133.00	1	$133.00	0	$0.00	0	$0.00
5 - A	Woodchip Construction Entrance	Each	1	$968.00	$968.00	1	$968.00	1	$968.00	0	$0.00	0	$0.00
~~6 - A~~	~~Water Treatment Shelter - Wood Framed Building~~	~~LS~~	~~0~~	~~$18,100.00~~	~~$0.00~~	~~0~~	~~$0.00~~	~~0~~	~~$0.00~~	~~0~~	~~$0.00~~	~~0~~	~~$0.00~~
7 - A	Water Treatment Shelter Foundation	LS	1	$21,644.00	$21,644.00	1	$21,644.00	1	$21,644.00	0	$0.00	0	$0.00
8 - A	Water Treatment Shelter - Electrical Fixtures and Wiring	LS	1	$3,740.00	$3,740.00	1	$3,740.00	0.5	$1,870.00	0.5	$1,870.00	0	$0.00
9 - A	Water Treatment System	LS	1	$66,300.00	$66,300.00	1	$66,300.00	0	$0.00	1	$66,300.00	0	$0.00
10 - A	Pump Station & Foundation	LS	1	$65,576.00	$65,576.00	1	$65,576.00	0	$0.00	1	$65,576.00	0	$0.00
11 - A	24" CPEP Pipe	LF	45	$30.75	$1,383.75	84	$2,583.00	0	$0.00	84	$2,583.00	0	$0.00
12 - A	3" PVC Pipe	LF	115	$22.00	$2,530.00	110	$2,420.00	0	$0.00	110	$2,420.00	0	$0.00
13 - A	Connection to Existing Irrigation Line	LS	1	$6,738.00	$6,738.00	1	$6,738.00	0	$0.00	1	$6,738.00	0	$0.00
14 - A	Reconfiguration of Existing Irrigation Box	LS	1	$6,700.00	$6,700.00	1	$6,700.00	0	$0.00	1	$6,700.00	0	$0.00
15 - A	Stilling Well	Each	1	$5,120.00	$5,120.00	1	$5,120.00	0	$0.00	1	$5,120.00	0	$0.00
16 - A	Electrical & Controls	LS	1	$37,570.00	$37,570.00	1	$37,570.00	0	$0.00	1	$37,570.00	0	$0.00
17 - A	Irrigation Control Wires - Direct Bury	LF	1875	$4.45	$8,343.75	1875	$8,343.75	1875	$8,343.75	0	$0.00	0	$0.00
18 - A	Turf Seed	SY	1144	$2.50	$2,860.00	1144	$2,860.00	0	$0.00	1144	$2,860.00	0	$0.00
19 - A	Prairie Seed	SY	173	$10.00	$1,730.00	173	$1,730.00	0	$0.00	173	$1,730.00	0	$0.00
20 - A	Erosion Control Blanket	SY	520	$3.15	$1,638.00	1140	$3,591.00	0	$0.00	1140	$3,591.00	0	$0.00
	CONSTRUCTION SUBTOTAL				**$257,631.80**		**$257,771.75**		**$43,963.75**		**$213,808.00**		**$0.00**
	Bid Alternates												
Bid Alternate C	Water Treatment Shelter - Concrete Masonry Unit	LS	1	$34,054.00	$34,054.00	1	$34,054.00	0	$0.00	1	$34,054.00	0	$0.00
CO-1	Change Order 1: Credit for Project Delays	LS	1	-$12,000.00	-$12,000.00	1	-$12,000.00	0	$0.00	1	-$12,000.00	0	$0.00
	Subtotal			**$279,685.80**	**$279,825.75**		**$43,963.75**		**$235,862.00**		**$0.00**		

Due to selection of Bid Alternate C (Water Treatment Shelter - Concrete Masonry Unit), Item 6-A removed from the project scope.

To(OWNER): Riley Purgatory Bluff Creek WD
18681 Lake Drive East
Chanhassen, MN 55317-4711

From: Peterson Companies, Inc.
8326 Wyoming Trail
Chisago City, MN 55013
(651) 257-6864

Project: Chanhassen HS Stormwater Reuse
2200 Lyman Boulevard
Chanhassen, MN 55317-4711

Via(Architect/: Engineer)

Application No: 4
Invoice No: 40380
Invoice Date: 8/28/2019
Terms: Net 30
Due Date: 9/27/2019
Period To: 8/30/2019
Project No: 18071F
Contract Date: 5/9/2018

For:

Original Contract sum.....	291,685.80
Change Orders.....	-12,000.00
Contract sum.....	279,685.80
Completed to date.....	279,825.75
Retainage.....	0.00
Total earned less retainage.....	279,825.75
Previous billings.....	277,825.75
Current payment due.....	2,000.00
Sales tax.....	0.00
Total due.....	2,000.00

To(OWNER): Riley Purgatory Bluff Creek WD
18681 Lake Drive East
Chanhassen, MN 55317-4711

Project: Chanhassen HS Stormwater Reuse
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From: Peterson Companies, Inc.
8326 Wyoming Trail
Chisago City, MN 55013
(651) 257-6864

Via(Architect/: Engineer)

For:
AM

No.	Description	Total Quantity		Unit Cost	Total Cost	Completed Units	Current Value	Prior Value	Due This Request
1-A	Mobilization/Demobilization	2		1,206.00	2,412.00	2	2,412.00	2,412.00	0.00
1-A	Mobilization/Demobilization	1		19,088.00	19,088.00	1	19,088.00	19,088.00	0.00
2-A	Erosion Control Silt Fence	320	LF	2.10	672.00	0	0.00	0.00	0.00
3-A	Sediment Control Log	766	LF	2.55	1,953.30	100	255.00	255.00	0.00
4-A	Inlet protection	5	EA	133.00	665.00	1	133.00	133.00	0.00
5-A	Woodchip Construction Entrance	1	EA	968.00	968.00	1	968.00	968.00	0.00
7-A	Water Treatment Shelter Foundation	1	LS	21,644.00	21,644.00	1	21,644.00	21,644.00	0.00
8-A	Water Treatment Shelter - Electrical Fixtures and Wiring	1	LS	3,740.00	3,740.00	1	3,740.00	3,740.00	0.00
9-A	Water Treatment System	1	LS	66,300.00	66,300.00	1	66,300.00	66,300.00	0.00
10-A	Pump Station & Foundation	1	LS	65,576.00	65,576.00	1	65,576.00	65,576.00	0.00
11-A	24" CPEP Pipe	45	LF	30.75	1,383.75	84	2,583.00	2,583.00	0.00
12-A	3" PVC Pipe	115	LF	22.00	2,530.00	110	2,420.00	2,420.00	0.00
13-A	Connection to Existing Irrigation Line	1	LS	6,738.00	6,738.00	1	6,738.00	6,738.00	0.00
14-A	Reconfiguration of Existing Irrigation Box	1	LS	6,700.00	6,700.00	1	6,700.00	6,700.00	0.00
15-A	Stilling Well	1	EA	5,120.00	5,120.00	1	5,120.00	5,120.00	0.00
16-A	Electrical & Controls	1	LS	37,570.00	37,570.00	1	37,570.00	37,570.00	0.00
17-A	Irrigation Control Wires - Direct Bury	1,875	LF	4.45	8,343.75	1,875	8,343.75	8,343.75	0.00
18-A	Turf Seed	1,144	SY	2.50	2,860.00	1,144	2,860.00	2,860.00	0.00
19-A	Prairie Seed	173	SY	10.00	1,730.00	173	1,730.00	1,730.00	0.00
20-A	Erosion Control Blanket	520	SY	3.15	1,638.00	1,140	3,591.00	3,591.00	0.00
C 1.4	Water Treatment Shelter - Concrete Masonry Unit	1	LS	34,054.00	34,054.00	1	34,054.00	34,054.00	0.00
CO 1-2	CO 1 Credit for LDs	1	LS	-12,000.00	-12,000.00	1	-12,000.00	-12,000.00	0.00
					279,685.80		279,825.75	279,825.75	0.00

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-066

Considered at Board of Managers Meeting: October 2, 2019

Received complete: August 5, 2019

Applicant: Presbyterian Homes Housing and Assisted Living, Inc

Consultant: Gretchen Schroeder, Westwood Professional Services

Project: Castle Ridge Redevelopment – redevelopment of a 19.5-acre site for a senior living housing building on Lot 1 (phase 1) and a five-story apartment building on Outlot A (phase 2). A large filtration basin, an infiltration basin with rock trench, and two rainwater harvest and reuse irrigation systems will provide storm water quantity, volume and quality control.

Location: Flying Cloud Drive and Prairie Center Drive, Eden Prairie, MN

Reviewer: Heather Hlavaty, E.I.T. and Scott Sobiech, P.E., Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the October 2, 2019 meeting of the managers:

Resolved that the application for Permit 2018-066 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2018-066 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Applicable Rule Conformance Summary

Rule	Issue		Conforms to RBPCWD Rules?	Comments
B	**Floodplain Management and Drainage Alterations**		Yes.	
C	**Erosion Control Plan**		See comment.	See rule-specific permit condition C1.
D	**Wetland and Creek Buffers**		See comment.	See rule-specific permit conditions D1-D2.
J	**Stormwater Management**	Rate	Yes.	
		Volume	Yes.	See stipulations 1 and 2
		Water Quality	Yes.	
		Low Floor Elev.	Yes.	
		Maintenance	See comment.	See rule-specific permit condition J1.
		Chloride Management	See comment.	See stipulation 3
		Wetland Protection	Yes	
L	**Permit Fee**		See comment.	$4,500 received on 8/5/2019
M	**Financial Assurance**		See comment.	The financial assurance is calculated at $545,199

Background

The applicant is proposing demolition of an existing apartment building and assisted living facility to construct a new senior living facility (Phase 1) and five-story apartment (Phase 2) on a 19.5-acre site located near the intersection of Flying Cloud Drive and Prairie Center Drive. (Replatting of the parcels that comprise the site – along with vacation and removal of a portion of Castlemoor Drive along the southern edge to become a part of the site – will create four new contiguous parcels (the site).) The present application is for construction of the senior-living facility on Lot 1 and the apartment on Outlot A. The applicant has designated Outlot B, part of the site, for a future Phase 3 project. The full build-out of the site is anticipated to take several years and at the end of Phase 2, the existing impervious areas on Outlot B will be removed and the area restored to greenspace. Only phases 1 and 2 will be authorized by this permit, if issued. When Outlot B is developed, the property owner/developer must submit a separate application with necessary supporting materials showing compliance of the proposed

work with applicable RPBCWD regulatory requirements; absent a relevant change in the RPBCWD rules, future work on Outlot B will be analyzed as part of a common scheme of development with the presently proposed work for purposes of determining stormwater-management requirements. RPBCWD's approval, if granted, of this permit 2018-066 does not represent a determination of compliance of the ultimate build-out condition of Outlot B with RPBCWD regulatory requirements which is not part of this permit.

Runoff from the Phase 1 and 2 developments is routed to a combination of proposed filtration basin, an infiltration basin with rock trench, and two rainwater harvest and reuse irrigation systems to provide storm water quantity, volume and quality control.

The 100-year floodplain of Purgatory Creek was found to inundate a portion of the property on the northwest end at an elevation of about 825.78. The project will place fill below the 100-year floodplain and will therefore must provide compensatory storage below 825.78.

A Wetland is located to the north west corner of the site. Because the creek and wetland are downgradient from the proposed land disturbing activities, wetland buffer requirements apply to the proposed project.

The project site information is summarized below:

Project Site Information	Area (acres)
Total Site Area	19.5
Existing Site Impervious	8.5
Disturbed Site Impervious Area	8.31 (97% disturbed)
Proposed Site Impervious Area[1]	7.915 (6.8% decrease)
Total Disturbed Area	19.27

[1] Proposed impervious area represents only Phase 1 and 2

The following materials were reviewed in support of the permit request:

1. Signed Application dated October 23, 2018
2. The applicant withdrew the application on November 9, 2019.
3. Notified applicant of incomplete application submittal on June 2, 2019 in response to the May 22, 2019 submittal
4. Phase 1 Construction Plan Sheets (19 sheets) dated October 3, 2018 (revised September 9, 2019 and utility plans updated September 25, 2019)
5. Phase 2 Construction Plan Sheets (11 sheets) dated May 17, 2019 (revised September 9, 2019 and utility plans updated September 25, 2019)
6. Preliminary Geotechnical Exploration and Review by American Engineering Testing, Inc. dated April 16, 2007.

7. Stormwater Management Plan dated October 3, 2018 (revised September 9, 2019)
8. WCA Wetland Delineation Report completed by Westwood Professional Services dated September 5, 2018
9. Phase I Environmental Site Assessment completed by Westwood Professional Services dated June 6, 2018
10. RPBCWD Preliminary Review Comments and Responses dated February 20, 2019
11. Electronic HydroCAD and P8 models received on May 22, 2019 and revised on September 9, 2019. P8 model were further revised on September 24, 2019.
12. Stormwater Reuse Calculator received on May 22, 2019 and revised on September 9, 2019.
13. MIDS water quality and volume model dated September 20, 2019 and revised on September 24, 2019
14. Phase 1 Site Area Irrigation Plan by Paravel dated May 17, 2019
15. Phase 2 Site Area Irrigation Plan by Paravel dated June 4, 2019
16. Phase 1 Landscaping Plan by Paravel dated May 17, 2019
17. Phase 2 Landscaping Plan by Paravel dated May 17, 2019
18. Phase 2 Irrigation Plan by Central Turf and Irrigation Supply dated June 13, 2019
19. Notified applicant of complete application on August 20, 2019
20. Response to Comments from RPBCWD dated August 5, 2019
21. Response to Comments from RPBCWD dated September 9, 2019
22. Response to Comments from RPBCWD dated September 17, 2019
23. Engineer's Opinion of probable cost dated September 24, 2019 and revised September 25, 2019

Rule B: Floodplain Management and Drainage Alterations

Because the proposed project involves the placement of fill below the 100-year flood elevation (825.78 msl) of a wetland (PH EP Wetland 1), the project activities must conform to the RPBCWD's Floodplain Management and Drainage Alterations rule (Rule B).

Because the project involves the construction of two structures, project must conform to the low floor criteria in subsection 3.1. The lowest floor elevation is 828.83 ft which is 3.05 feet above the 100-year flood elevation of the wetland, thus conforming to subsection 3.1.

The RPBCWD engineer concurs with the applicant-provided floodplain analysis that shows the floodplain fill will be fully compensated for because the proposed storage below the 100-year flood elevation will be increased by 26 cubic feet, as summarized in the following table. The analysis also confirm that the flood storage will be provided within the 100-year floodplain of wetland, thus conforming to Rule B, subsection 3.2.

Waterbody ID	Floodplain Fill (CY)	Compensatory Storage Provided (CY)
PH EP Wetland 1	683	709

The engineer concurs with the hydrologic modeling provided by the applicant's engineer confirming that the project will not alter surface flows, thus subsection 3.3 does not apply. A note on the erosion control plan sheet requires the construction to be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.6.

The proposed project conforms to the floodplain management and drainage alteration requirements of Rule B

Rule C: Erosion and Sediment Control

Because the project will involve 19.27 acres of land-disturbing activity, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1). The erosion control plan prepared by Westwood Professional Services includes installation of erosion control fence, inlet protection for storm sewer catch basins, a temporary sedimentation basin, rock construction entrances, tree protection fencing, rip rap at outfalls, decompaction of areas compacted during construction, six inches of top soil, and retention of native topsoil onsite. To conform to the RPBCWD Rule C the following revisions are needed:

C1. The name and contact information of the general contractor responsible for the site must be provided (this information does not need to be provided prior to making a recommendation to the RPBCWD Board).

Rule D: Wetland and Creek Buffers

Because PH EP Wetland 1is downgradient from the proposed land disturbing activities, the project must conform to the requirements in the RPBCWD Wetland and Creek Buffers rule (Rule D, Subsection 3). Rule D, Subsections 2.1a and 3.1b require buffer on the edge of the wetland that is downgraidnet from the activity. The onsite wetland itself will not be disturbed by the project activities.

The land-disturbing activities are located upgradient from the medium value wetland requiring a 40-foot average, 20-foot minimum buffer width according to Rule D, subsection 3.2.a.iii. As shown in the table below, the required buffer width to conform to Rule B, subsection 3.2b is met.

Buffer Features	Require (feet)	Provided (feet)
Minimum Buffer Width	20	21.3
Average Buffer Width	40	40.3

Plan documents show that disturbed areas within the buffer area will be maintained with native vegetation and maintained in a natural state (subsection 3.3). As shown on the Phase 1 and 2 plans, the buffer markers will be placed per District monumentation criteria (subsection 3.4). The following revision is needed in order to conform to the RPBCWD Rule D:

D1. Buffer areas and maintenance requirements must be documented in a declaration recorded after review and approval by RPBCWD in accordance with Rule D, Subsection 3.5. The maintenance declaration must also include an exhibit clearly showing the buffer area and monument locations.

Rule J: Stormwater Management

Because the project will disturb 19.27 acres of land-surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 will apply to the entire project site because the project will disturb more than 50% of the existing imperviousness of the entire site (Rule J, Subsection 2.3).

The developer is proposing construction of a filtration basin, an infiltration basin with rock trench, and two rainwater harvest and reuse irrigation systems to provide the rate control, volume abstraction and water quality management on the site. Sump manholes will provide pretreatment for runoff entering the filtration basin and infiltration features.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below. The proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
West	30.7	13.8	52.2	38.6	93.9	47.7	2.8	2.6
East	5.4	3.5	9.9	7.2	19.0	15.1	0.7	0.7
Northeast Wetland	2.7	2.7	5.8	5.5	12.3	11.9	0.3	0.3

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from all impervious surface of the parcel. An abstraction volume of 31,605 cubic feet is required from the 7.915 acres

(344,777 square feet) of new or reconstructed impervious area on the project for volume retention. The applicant asserts that the site qualifies as restricted under subsection 3.3 of the rule, and proposes to use an infiltration basin with rock trench and two rainwater harvesting/reuse irrigation system to abstract 9,223 cubic feet and 3,847 cubic feet (2,513cubic feet for phase 1 and 1,334 cubic feet for phase 2), respectively, of runoff from the site.

For restricted sites, Subsection 3.3 of Rule J requires rate control in accordance with Subsection 3.1a and that abstraction and water quality protection be provided in accordance with the following sequence: (a)Abstraction of at least 0.55 inches of runoff from site impervious surface determined in accordance with paragraphs 2.3, 3.1 or 3.2, as applicable, and treatment of all runoff to the standard in paragraph 3.1c; or (b) Abstraction of runoff onsite to the maximum extent practicable and treatment of all runoff to the standard in paragraph 3.1c; or (c) Off-site abstraction and treatment in the watershed to the standards in paragraph 3.1b and 3.1c.

Based on the soil borings in the Preliminary Geotechnical Exploration and Review Report conducted by American Engineering Testing, Inc. on April 16, 2007, the only areas conducive to infiltration are on the western side of the Outlot B (soil borings ST-12, ST-13 and ST-14) and near the southeast corner of the stormwater basin (soil borings ST-19 and ST-20). Because the majority of Lot 1 and Outlot A are at lower elevations than the sandy soils located in Outlot B, the site topography limits ability to gravity-drain runoff to this area with adequate depth of sand remaining for infiltration. Full infiltration for Lot 1 and Outlot A cannot be provided elsewhere due to the clay soils and high groundwater.

The northern non-roof impervious areas of Lot 1, the portion of the site road, and Outlot A are routed to the filtration portion of the stormwater basin. It is not practicable to route this imperious surface runoff to the infiltration area due to lower invert elevations coming from Outlot A and pipe cover issues.

Because the engineer concurs that the soil boring information, topography, and high groundwater support that the abstraction standard in Subsection 3.1 of Rule J cannot practicably be met, the site is considered a restricted site and stormwater runoff volume must be managed in accordance with Subsection 3.3 of Rule J.

For the Lot 1 building, the 1.937 acre roof area will discharge to a 2,550 CF cistern, which will be used to irrigate 1.45 acres of lawn area. For Outlot A, the site will discharge to a 1,350 CF cistern, which will be used to irrigate 0.77 acres of greenspace.

The infiltration basin with rock trench will use the silty sands found in ST-19 and ST-20 for infiltration. Based on the presence of silty sand at the proposed infiltration basin with rock trench location, the applicant assumed a design infiltration rate of 0.45 in/hr beneath the infiltration basin with rock trench based on the MPCA's recommended design infiltration rate for silty sand. The engineer finds that under these presumptions and design specifications, the surface infiltration basin will draw down within 48 hours (Rule J, subsection 3.1biii). The geotechnical report does not contain infiltration or hydraulic conductivity testing results at the infiltration basin with rock trench or elsewhere on the property as

required by Rule J, subsection 3.1.b.ii.C. To confirm the design presumptions and ensure the applicant has incorporated abstraction to the maximum extent practicable (Rule J, subsection 3.3b), supporting information in the form of infiltration or hydraulic conductivity testing at the proposed infiltration basin, the proposed filtration basin, and on Outlot A must be provided before the proposed BMPs are constructed. If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.3b for the proposed infiltration basin with rock trench or if infiltration capacity is found to be greater than 0.05 inches per hour in the proposed filtration basin or on Outlot A, design modifications to achieve compliance with RPBCWD requirements to maximize the abstraction will need to be submitted (in the form of an application for a permit modification or new permit).

The table below summarizes the volume abstraction for the site.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)[1]	Provided Abstraction Volume (cubic feet)
0.55	15,803	0.46	13,070

1- The abstraction depth and volume achieved on site is a combination of the infiltration basin with rock trench using an assumed infiltration of 0.45 in/hr. The reuse systems assume irrigation of Type D soils.

Groundwater was encountered at an elevation of 820 ft. The bottom of the infiltration basin with rock trench is at 823 feet. Therefore, the required 3-foot separation between the groundwater elevation and bottom of the infiltration practices was achieved.

Because the proposed water reuse irrigation systems require consistent use at a specified rate to meet District requirements, performance monitoring for the site will be required to ensure that the project is able to meet the RPBCWD volume abstraction requirement as has been proposed. In accordance with Rule J, Subsection 2.6 performance monitoring, and as a condition of issuing a permit for this project, the Applicant must submit an operations plan and agree to monitor the proposed irrigation systems to determine the ability of the systems to achieve the estimated volume abstraction as presented in the design. The operating plan, monitoring program and irrigation areas must be included in the maintenance declaration that is recorded with the County. The recorded reuse volume must be submitted to the RPBCWD on a yearly basis for five years from the date of substantial completion. If it is determined that the system is not performing as designed, the applicant will need to submit a revised design and construction plan to demonstrate that the reuse systems are providing abstraction substantially consistent with the proposal. The engineer recommends retention of $5,000 of the financial assurance for the project until the necessary reports and data are submitted in years one and two after substantial completion.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from

existing conditions. The Applicant is proposing a filtration basin with infiltration bench and a rock trench to achieve the required TP and TSS removals and submitted a P8 model to estimate the TP and TSS removals. The results of this modeling are summarized in tables below. The engineer concurs with the modeling, and finds that the proposed project is in conformance with Rule J, Subsection 3.1.c.

Annual TSS and TP removal summary:

Pollutant of Interest	Regulated Site Loading (lbs/yr)	Required Load Removal (lbs/yr)	Provided Load Reduction (lbs/yr)
Total Suspended Solids (TSS)	6266	5,640 (90%)	5,662 (90.3%)
Total Phosphorus (TP)	20.0	12.0 (60%)	16.0 (80%)

Summary of net change in TSS and TP leaving the site

Pollutant of Interest	Existing Site Loading (lbs/yr)	Proposed Site Load after Treatment (lbs/yr)	Change (lbs/yr)
Total Suspended Solids (TSS)	6,566	604	-5,962
Total Phosphorus (TP)	22.3	4.0	-18.3

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation according to Rule J, Subsection 3.6. The 100-yr HWL of the biofiltration basin is 826.66 ft. based on conditions at the end of Phases 1 and 2, and is 826.93 feet with the future anticipated development of Phase 3. The basin emergency overflow at 827.0 feet. The lowest floor elevation of the proposed Phase 1 senior housing building is 832.0 which meets the 2' freeboard requirement. The lowest floor elevation of the proposed Phase 2 apartment building is 828.83, which is 1.9' above the 100-year flood elevation. Using Plot 1 in Appendix J1 – Low-Floor Elevation Assessment, the required separation from the seasonal high-water table was determined. Two feet was added to the groundwater level to account for seasonal high-water table elevation. The required separation from the seasonal high-water table determined using Plot 1 in Appendix J1 are summarized below. According to the table, the building is sufficiently far away from the basin. Therefore, no additional elevation separation is required. The RPBCWD Engineer concurs that the proposed project is in conformance with Rule J, Subsection 3.6.

Low Floor Elevation of Building (feet)	Provided Distance from Basin (feet)	Assumed Seasonal High-Water Table Elevation[1]	Required Separation to Groundwater based on Appendix J (feet)	Provided Separation to Groundwater (feet)
828.83	190	822.0	115[2]	190

[1]The seasonal high-water table was assumed to be 2.0 feet above the groundwater elevation of 820.0 ft.

[2] Using Appendix J1 Plot 1

Maintenance

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

J1. Permit applicant must provide a maintenance and inspection declaration. A maintenance declaration template is available on the permits page of the RPBCWD website. (http://www.rpbcwd.org/permits/). A draft declaration must be provided for District review prior to recording.

Wetland Protection

The applicant has demonstrated, and the engineer concurs, that this project is in conformance with Rule J, subsection 3.10a. Because the project does not increase the drainage area or change its imperviousness characteristics, the engineer concurs that the bounce in water level and duration of inundation have not been increased from existing conditions. Because the project does not propose to use the existing wetlands for stormwater treatment, Rule J, subsection 3.10b is not applicable.

Chloride Management

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. To close out the permit and release the $5,000 in financial assurance held for the purpose, Permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.

Rule L: Permit Fee:

Fees for the project are:

Rule B, C, & J .....$4,500 (received on August 5, 2019)

Rule M: Financial Assurance:

Rules C: Silt fence: 3,734 L.F. x $2.50/L.F. = ...$9,335
Inlet protection: 16 x $100 = ...$1,600
Rock Entrance: 2 x $900 = ...$1,800
Restoration: 19.52 acres x $2,500/acre = ...$48,800
Rules D: Wetland and Creek Buffer: $5,000 = ...$5,000
Rules J: Filtration basin, infiltration bench with rock trench, two reuse systems including irrigation, sump manholes: $339,280 x 125% of engineer's opinion of cost= $424,100
Chloride Management Plan: $5,000
Contingency (10%) $49,564
Total Financial Assurance.....$545,199

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Return or allowed expiration of any remaining surety and permit close out is dependent on the permit holder providing proof that all required documents have been recorded and providing as-built drawings that show that the project was constructed as approved by the Managers and in conformance with the RPBCWD rules and regulations.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project conforms to will conform to Rules B, C, D and J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

1. A three-year permit term is recommended since the construction is anticipated to continue through 2022.
2. Approval of the permit issuance contingent upon:
    a. Continued compliance with General Requirements.
    b. Financial Assurance in the amount of $545,199.
    c. The applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.
    d. Receipt in recordation a maintenance declaration for the stormwater management facilities and wetland buffer. The declaration must also include a stormwater-reuse irrigation map, operations plan, and reuse monitoring and reporting plan. Drafts of any and all documents to be recorded must be approved by the District prior to recordation.

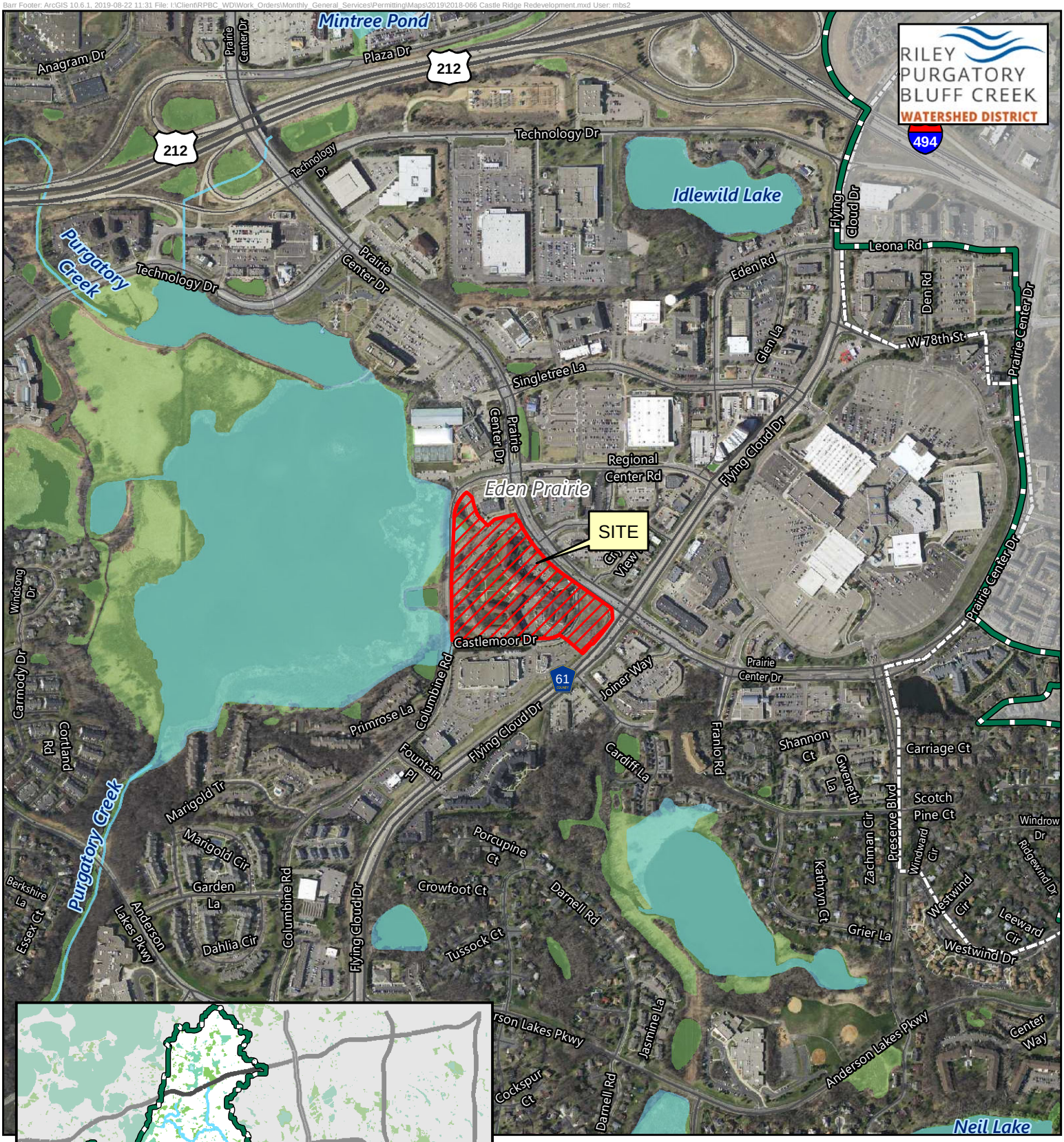
        The applicant also must provide – in the declaration or in a separate legally enforceable document – dedication of drainage and use rights to parcels relying on stormwater management provided on adjacent parcels.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule J Subsection 2.6, performance monitoring, the applicant must monitor the proposed irrigation systems. The recorded reuse volumes must be submitted to the RPBCWD annually for five years; $5,000 of the financial assurance required above will be retained to assure timely submittal of the first and second annual reports. If it is determined that the irrigation systems

are not performing as designed, a revised design must be submitted to the District for approval to demonstrate that the volume abstraction and water quality standard is achieved.

2. Per Rule J, Subsection 3.1.b.ii measured infiltration capacity of the soils at the bottom of the infiltration basin with rock trench, filtration basin, and on Outlot A must be provided before the BMPs are construction. The applicant must submit documentation verifying the infiltration capacity of the soils and that the volume control capacity is calculated using the measured infiltration rate divided by 2. If infiltration capacity is less than needed to conform with the volume abstraction requirement in subsection 3.1b for the proposed infiltration basin with rock trench or if infiltration capacity is found to be greater than 0.05 inches per hour in the proposed filtration basin or on Outlot A, design modifications to achieve compliance with RPBCWD requirements will need to be submitted (in the form of an application for a permit modification or new permit).
3. To close out the permit and release the $5,000 in financial assurance held for the purpose of the chloride management, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.
4. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.
5. Developments constructed on site under the terms of permit 2018-066, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Lot design that differs materially from the approved plans (e.g., in terms of total impervious area) will need to be the subject of a request for a permit modification or new permit, which will be subject to review for compliance with all applicable regulatory requirements.



Feet

0 1,000

Permit Location Map

CASTLE RIDGE REDEVELOPMENT

Permit 2018-066

Riley Purgatory Bluff Creek Watershed District

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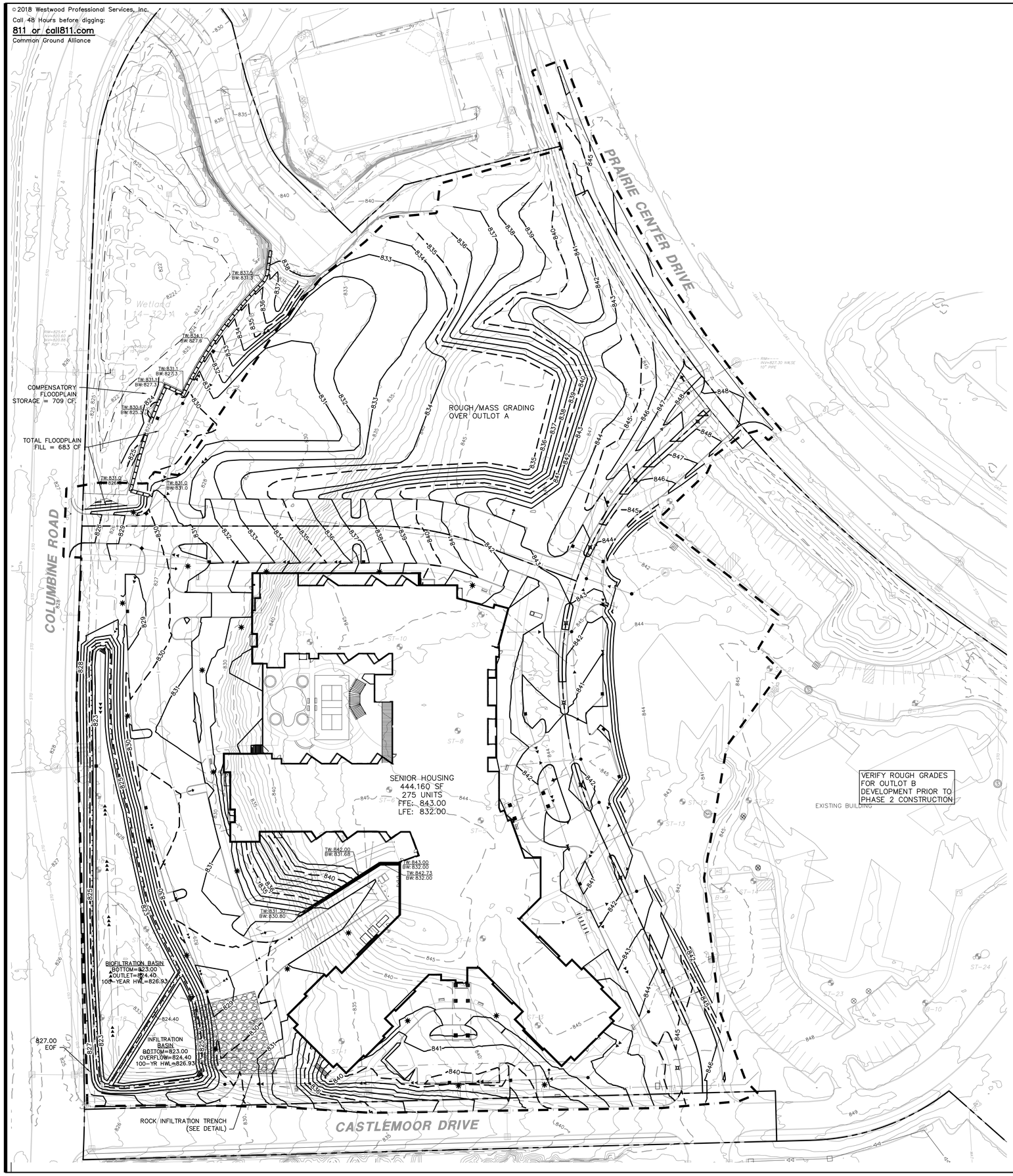
811 or call811.com
Common Ground Alliance



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19. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE.
20. THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE WILL MAINTAIN A LOG OF RESPONSIBILITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
21. ACTIVITIES MUST BE CONDUCTED TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.

Grading Legend

EXISTING	PROPOSED	
		PROPERTY LINE
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
STO	STO	STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
WAT	WAT	WATER MAIN
SAN	SAN	SANITARY SEWER
		RETAINING WALL
		DRAIN TILE
		RIDGE LINE
		PHASE 1 GRADING LIMITS
91.00	91.00	SPOT ELEVATION
	1.50%	FLOW DIRECTION
	Top=849 Bot=848	TOP AND BOTTOM OF RETAINING WALL
	E.O.F. 85.00	EMERGENCY OVERFLOW
SB-19	SB-19	SOIL BORING LOCATION

0' 40' 80' 120'

Westwood

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12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343

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FAX 952-937-5822
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Designed: DMP
Checked: GAS
Drawn: TDM
Record Drawing by/date:

Revisions:
01/18/19 City Resubmittal
02/14/19 City Comments
03/22/19 City Comments
04/30/19 City Comments
05/21/19 Watershed Submittal
06/04/19 Road Shift/City Comments
08/05/19 Watershed Resubmittal
08/30/19 Issue For Pricing
09/09/19 Watershed Resubmittal
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I hereby certify that this plan 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.

Gretchen Schroeder

Date: 09/09/2019 License No. 43019

Prepared for:

Senior Housing Partners

3116 Fairview Avenue N
Roseville, MN 55113

NOT FOR CONSTRUCTION

Castle Ridge Redevelopment

Eden Prairie, Minnesota

Phase I - Senior Housing Grading Plan

Date: 10/03/2018
Sheet: 7 OF 21

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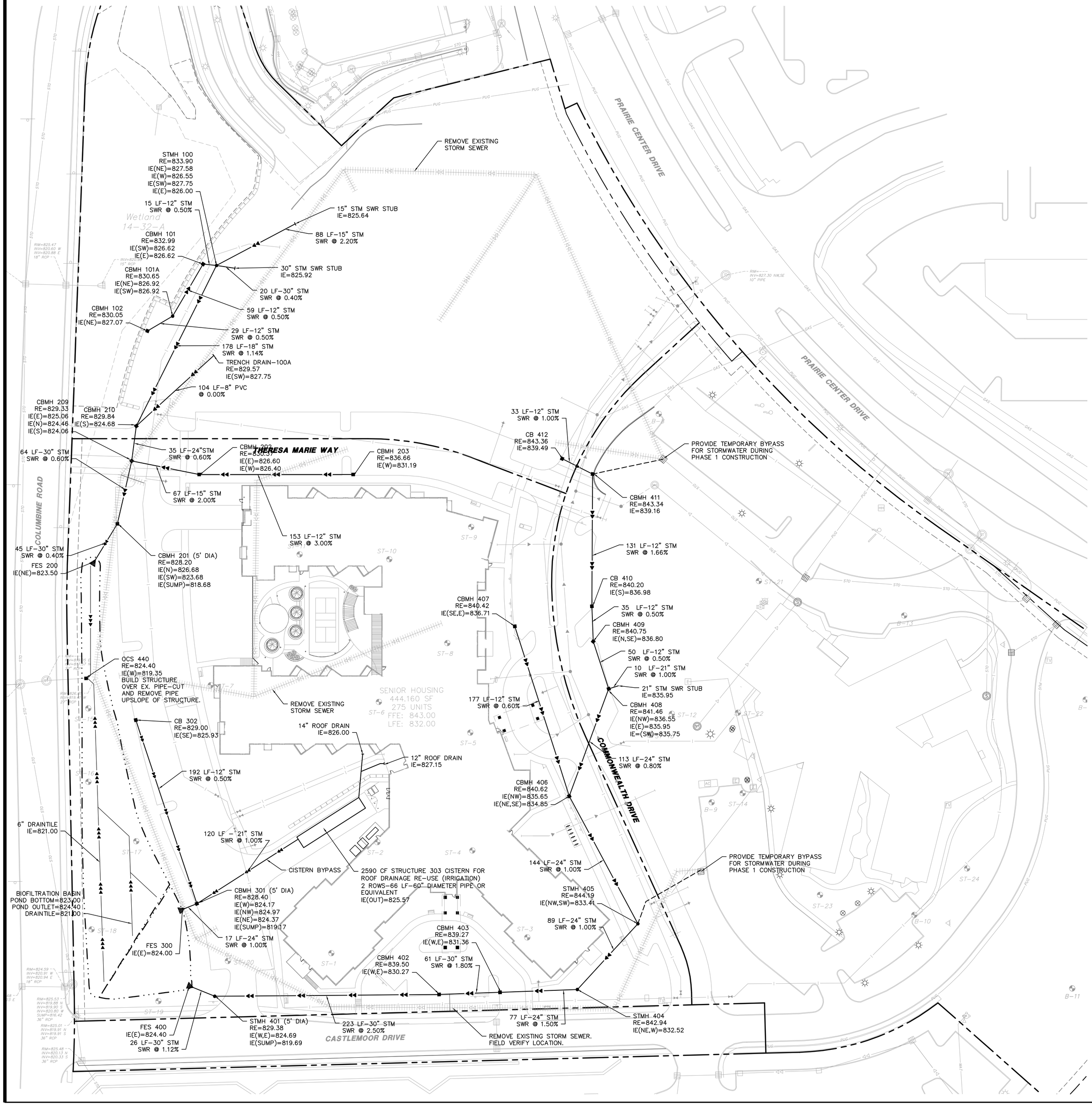
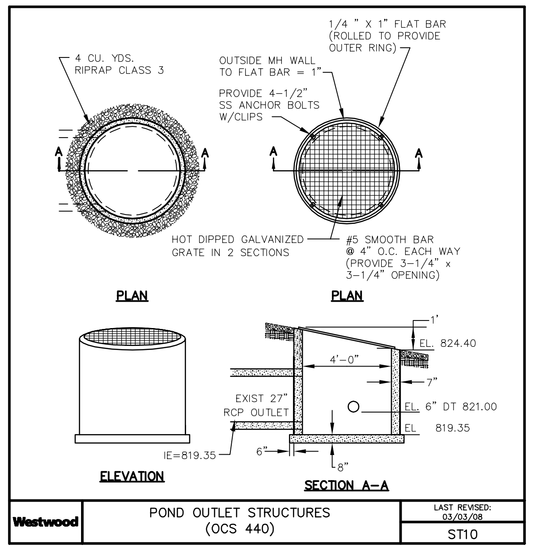


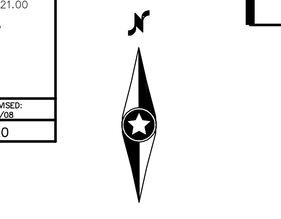
Utility Legend

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		CURB AND GUTTER
SAN		SANITARY SEWER
FM	FM	SANITARY SEWER FORCE MAIN
STO		STORM SEWER
WAT		WATER MAIN
WAT		HYDRANT
GAS	GAS	GAS
PUG	PUG	UNDERGROUND ELECTRIC
POH	POH	OVERHEAD ELECTRIC
TUG	TUG	UNDERGROUND TELEPHONE
TOH	TOH	OVERHEAD TELEPHONE
FOP	FOP	TELEPHONE FIBER OPTIC
CTV	CTV	CABLE TELEVISION
		DRAIN TILE
		GATE VALVE
		FLARED END SECTION (WITH RIPRAP)
		LIGHT POLE
		VERTICAL UTILITY SEPARATION

General Utility Notes

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SANITARY SEWER, STORM SEWER AND WATER MAIN INSTALLATIONS SHALL BE PER MINNESOTA PLUMBING CODE AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE AND LOCAL PERMITS FOR THE PROPOSED WORK OR VERIFY WITH THE OWNER OR ENGINEER THAT PERMITS HAVE BEEN OBTAINED. PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE ARRANGED WITH THE OWNER.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF DOORWAYS, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY CONNECTION LOCATIONS.
5. ALL PRIVATE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48–HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. WATER MAIN LENGTHS AS SHOWN ARE APPROXIMATE HORIZONTAL LENGTHS. ALLOW FOR ADDITIONAL PIPE WHEN INSTALLING ON SLOPES OR WHEN DEFLECTIONS ARE REQUIRED. THE JOINT DEFLECTIONS SHALL NOT EXCEED THE MAXIMUM RECOMMENDED BY THE PIPE MANUFACTURER OR BY LOCAL GOVERNING SPECIFICATIONS. FITTINGS REQUIRED TO CONSTRUCT WATER MAIN SHALL BE INCLUDED IN WATER MAIN CONSTRUCTION.
8. PROVIDE WATER MAIN THRUST RESTRAINTS PER CITY STANDARD REQUIREMENTS.
9. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER MAIN CROSSINGS WITH SANITARY SEWER OR STORM SEWER.
10. UTILITY SERVICES TYPICALLY TERMINATE 5' OUTSIDE BUILDING WALL UNLESS OTHERWISE SHOWN OR NOTED.
11. ALL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY.
12. ALL WATER LINES SHALL BE DUCTILE IRON WRAPPED IN POLYETHYLENE, CLASS 52 WITH 7.5' MINIMUM COVER. PROVIDE MINIMUM SEPARATION OF 18" FROM SANITARY SEWER & STORM SEWER. INSULATE WATER MAIN IF LESS THAN 7.5' OF COVER.
13. INSULATION SHALL BE DOW STYROFOAM HI BRAND 35 OR EQUIVALENT, WITH 4 INCHES OF THICKNESS.
14. SANITARY SEWER PIPE OUTSIDE THE BUILDING ENVELOPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 OR 26. SDR 26 IS REQUIRED FOR DEPTHS GREATER THAN 15 FEET. SANITARY SEWER PIPE WITHIN 5 FEET OF BUILDING AND UNDER FOOTINGS, PIPE SHALL BE PVC SCHEDULE 40.
15. STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED) WITH R–4 GASKETS, OR HDPE STORM SEWER PIPE IF ALLOWED BY THE CITY. HDPE STORM PIPE SHALL MEET REQUIREMENTS OF ASTM F2648. PIPE SHALL BE WATER TIGHT ACCORDING TO ASTM D3212 REQUIREMENTS. SEE PLAN FOR LOCATIONS WHERE RCP IS REQUIRED. PVC STORM SEWER PIPE SHALL BE SCHEDULE 40 PIPE. FLARED END SECTIONS SHALL BE RCP WITH TRASH GUARDS & RIP–RAP.





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09/09/19 Watershed Resubmittal
09/25/19 Watershed Resubmittal
-
-

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Gretchen Schroeder

Date: 09/09/2019 License No. 43019

Prepared for:

Senior Housing Partners

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Roseville, MN 55113

NOT FOR CONSTRUCTION

Castle Ridge Redevelopment

Eden Prairie, Minnesota

Phase I - Senior Housing Storm Sewer Plan

Date: 10/03/2018
Sheet: 12 OF 21

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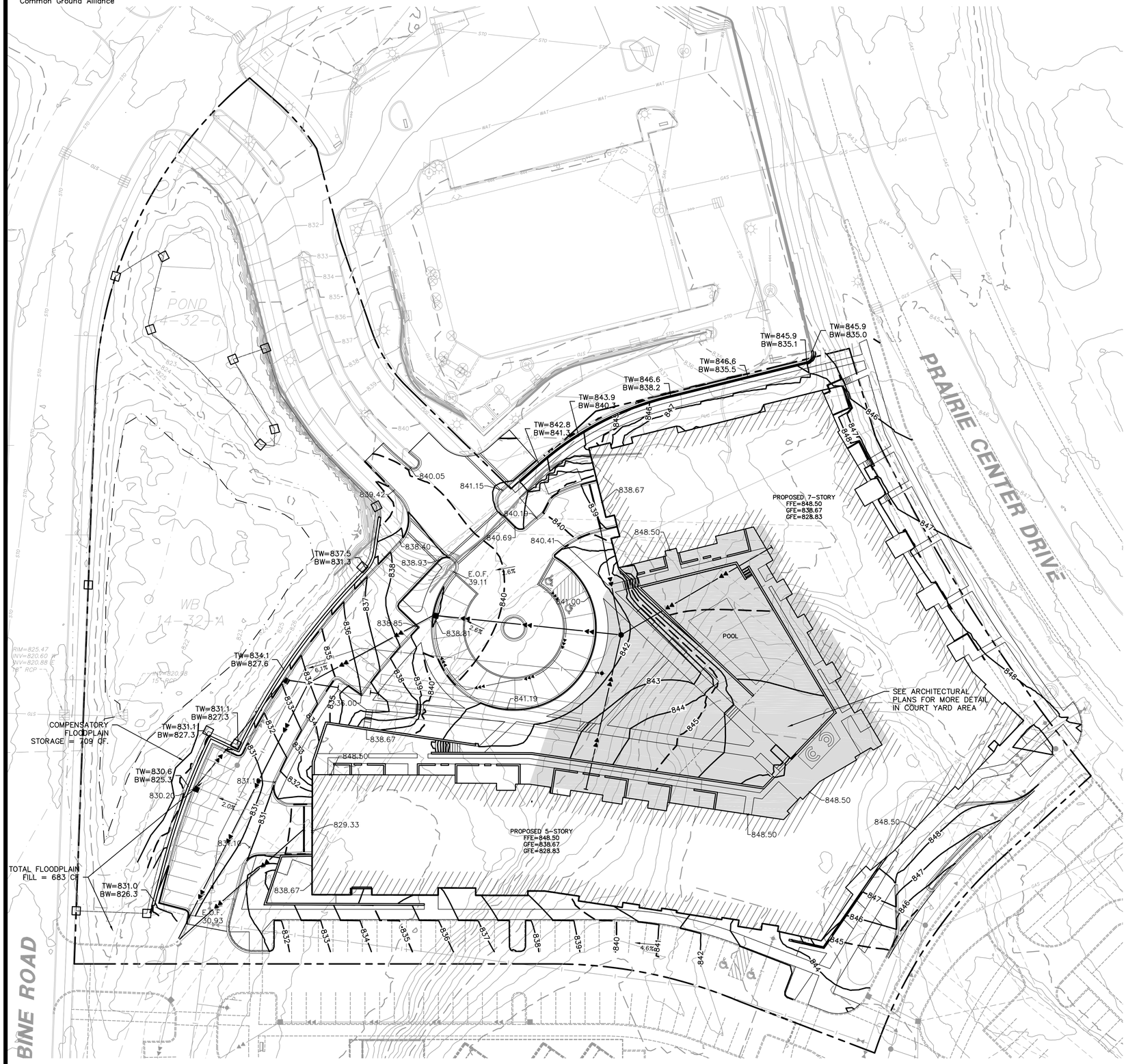

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		DRAIN TILE
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	T=888.0 R=876	TOP AND BOTTOM OF RETAINING WALL
	E.O.F. 85.00	EMERGENCY OVERFLOW
SB-19	SB-19	SOIL BORING LOCATION

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0' 30' 60' 90'

PRELIMINARY

Westwood

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Minnetonka, MN 55343

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FAX 952-937-5822
TOLL FREE 1-888-937-5150

www.westwoodps.com

Designed: BCW
Checked: BCW
Drawn: JJN
Record Drawing by/date:

Revisions:
07/19/19 – City Comments
08/05/19 – Watershed Resubmittal
09/03/19 – City Comments
09/09/19 – Watershed Resubmittal

I hereby certify that this plan 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.

Brad C. Wilkening
Date: 09/09/19 License No. 26908

Prepared for:

Timberland Partners Inc.

8000 Norman Center Drive, Suite 830
Bloomington, MN 55437

Castle Ridge Phase II

Eden Prairie, MN

Phase II Grading Plan

Date: 05/17/19
Sheet: 7 OF 11

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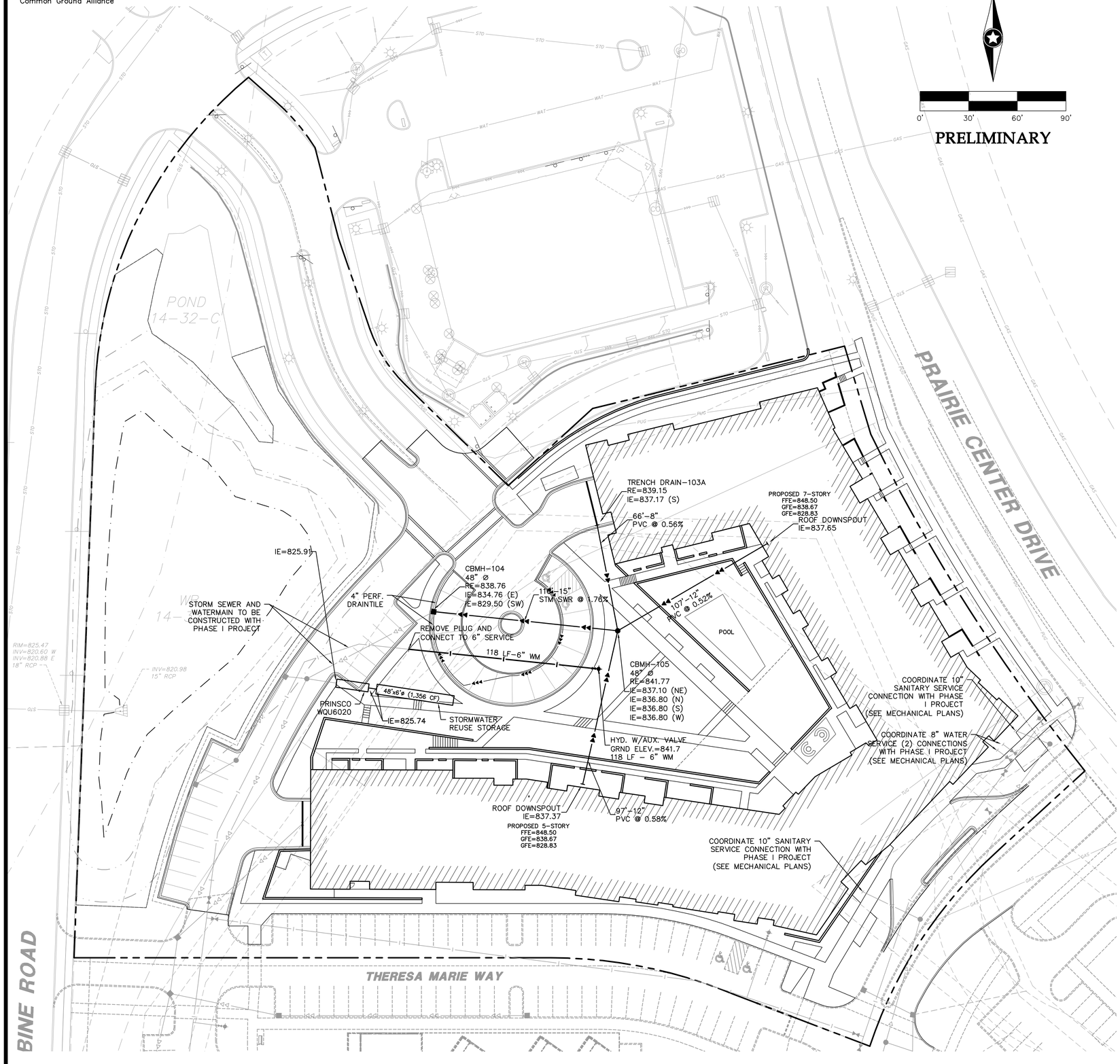
Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance



Utility Legend

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		CURB AND GUTTER
SAN		SANITARY SEWER
STO		STORM SEWER
WAT		WATER MAIN
WAT		HYDRANT
GAS		GAS
PUG		UNDERGROUND ELECTRIC
POH		OVERHEAD ELECTRIC
TUG		UNDERGROUND TELEPHONE
TOH		OVERHEAD TELEPHONE
FOP		TELEPHONE FIBER OPTIC
CTV		CABLE TELEVISION
		DRAIN TILE
		GATE VALVE
		FLARED END SECTION (WITH RIPRAP)
		LIGHT POLE

General Utility Notes

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SANITARY SEWER, STORM SEWER AND WATER MAIN MATERIAL AND INSTALLATIONS SHALL BE PER CITY REQUIREMENTS, MINNESOTA PLUMBING CODE, AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF DOORWAYS, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY CONNECTION LOCATIONS.
4. ALL PRIVATE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. WATER MAIN LENGTHS AS SHOWN ARE APPROXIMATE HORIZONTAL LENGTHS. ALLOW FOR ADDITIONAL PIPE WHEN INSTALLING ON SLOPES OR WHEN DEFLECTIONS ARE REQUIRED. THE JOINT DEFLECTIONS SHALL NOT EXCEED THE MAXIMUM RECOMMENDED BY THE PIPE MANUFACTURER OR BY LOCAL GOVERNING SPECIFICATIONS. FITTINGS REQUIRED TO CONSTRUCT WATER MAIN SHALL BE INCLUDED IN WATER MAIN CONSTRUCTION.
7. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER LINE CROSSINGS WITH SANITARY SEWER OR STORM SEWER. THE WATER LINE SHALL NOT HAVE JOINTS OR CONNECTION WITHIN 10-FEET OF THE CROSSING. INSULATE CROSSINGS WITH STORM SEWER.
8. DUCTILE IRON WATER LINES SHALL BE CLASS 52, PER AWWA C115 OR C151. COPPER WATER LINES SHALL BE TYPE K PER ASTM B88. PVC WATER LINES SHALL BE PER AWWA C900 AND INSTALLED PER AWWA C605 IF ALLOWED BY CITY.
9. ALL WATER LINES SHALL HAVE 8' MINIMUM COVER. INSULATE WATER MAIN IF LESS THAN 8' OF COVER. INSULATION SHALL BE DOW STYROFOAM HI BRAND 35 OR EQUIVALENT, WITH 4 INCHES OF THICKNESS.
10. SANITARY SEWER PIPE OUTSIDE THE BUILDING ENVELOPE SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40 PER ASTM D2665. ALL PLASTIC SANITARY SEWER SHALL BE INSTALLED PER D2321. SOLVENT WELD JOINTS MUST INCLUDE USE OF A PRIMER WHICH IS OF A CONTRASTING COLOR TO THE PIPE AND CEMENT. ALL SANITARY SEWER SHALL BE TESTED ACCORDING TO MINNESOTA PLUMBING CODE, PART 712.0.
11. STORM SEWER PIPE:
    A. RCP AND HDPE PIPE MAY BE INSTALLED WITH APPROVAL OF LOCAL GOVERNING AGENCY.
    B. REINFORCED CONCRETE PIPE SHALL BE CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED, PER ASTM C76 WITH R-4 GASKETS.
    C. HDPE STORM PIPE 4- TO 10-INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF AASHTO M252. HDPE STORM PIPE 12- TO 60-INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF ASTM F2306. FITTINGS SHALL BE PER ASTM D3212 AND INSTALLED PER ASTM D2321.
    D. PVC STORM SEWER PIPE AND FITTINGS SHALL BE SCHEDULE 40 PIPE PER ASTM D2665 AND INSTALLED PER ASTM D2321.
    E. ALL STORM SEWER JOINTS AND STRUCTURE CONNECTIONS SHALL BE GASTIGHT OR WATERTIGHT AS REQUIRED BY MINNESOTA PLUMBING CODE, PART 707.3. STORM SEWER LOCATED WITHIN 10-FEET OF A BUILDING AND/OR WATER LINE SHALL BE TESTED PER MINNESOTA PLUMBING CODE, PART 712.
15. ALL NONCONDUCTIVE PIPE SHALL BE INSTALLED WITH A LOCATE (TRACER) WIRE PER MINNESOTA RULES, PART 7560.0150.
16. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR TO VERIFY WITH OWNER OR ENGINEER WHETHER A PLAN WITH POST-CONSTRUCTION ELEVATIONS IS REQUIRED.

Westwood

Westwood Professional Services, Inc.
12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343

PHONE 952-937-5150
FAX 952-937-5822
TOLL FREE 1-888-937-5150

www.westwoodps.com

Designed: BCW
Checked: BCW
Drawn: JJN
Record Drawing by/date:

Revisions:
07/19/19 – City Comments
08/05/19 – Watershed Resubmittal
09/03/19 – City Comments
09/09/19 – Watershed Resubmittal
09/20/19 – For Owner Review
09/25/19 – Watershed Resubmittal

I hereby certify that this plan 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.

Brad C. Wilkening
Date: 09/09/19 License No. 26908

Prepared for:

Timberland Partners Inc.

8000 Norman Center Drive, Suite 830
Bloomington, MN 55437

Castle Ridge Phase II

Eden Prairie, MN

Phase II Utility Plan

Date: 05/17/19
Sheet: 9 OF 11

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REDPATH AND COMPANY

September 26, 2019

Claire Bleser
District Administrator
Riley Purgatory Bluff Creek Watershed District
18681 Lake Drive E.
Chanhassen, Minnesota 55317

Dear Claire:

Enclosed please find the checks and Treasurer's Report for Riley Purgatory Bluff Creek Watershed District for the one month and eight months ending August 31, 2019.

Please examine these statements and if you have any questions or need additional copies, please call me.

Sincerely,

REDPATH AND COMPANY, LTD.

Mark C. Gibbs, CPA
Enclosure

REDPATH AND COMPANY

To The Board of Managers
Riley Purgatory Bluff Creek Watershed District
Chanhassen, Minnesota

Accountant's Opinion

The Riley Purgatory Bluff Creek Watershed District is responsible for the accompanying August 31, 2019 Treasurer's Report in the prescribed form. We have performed a compilation engagement in accordance with the Statements on Standards for Accounting and Review promulgated by the Accounting and Review Services Committee of AICPA. We did not audit or review the Treasurer's Report nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by the Riley Purgatory Bluff Creek Watershed District. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on the Treasurer's Report.

Reporting Process

The Treasurer's Report is presented in a prescribed form mandated by the Board of Managers and is not intended to be a presentation in accordance with accounting principles generally accepted in the United States of America. The reason the Board of Managers mandates a prescribed form instead of GAAP (Generally Accepted Accounting Principles) is this format gives the Board of Managers the financial information they need to make informed decisions as to the finances of the watershed.

GAAP basis reports would require certain reporting formats, adjustments to accrual basis and supplementary schedules to give the Board of Managers information they need, making GAAP reporting on a monthly basis extremely cost prohibitive. An independent auditing firm is retained each year to perform a full audit and issue an audited GAAP basis report. This annual report is submitted to the Minnesota State Auditor, as required by Statute, and to the Board of Water and Soil Resources.

The Treasurer's Report is presented on a modified accrual basis of accounting. Expenditures are accounted for when incurred. For example, payments listed on the Cash Disbursements report are included as expenses in the Treasurer's Report even though the actual payment is made subsequently. Revenues are accounted for on a cash basis and only reflected in the month received.

Redpath and Company, Ltd.

REDPATH AND COMPANY, LTD.
St. Paul, Minnesota
September 26, 2019

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

Treasurers Report

August 31, 2019

REPORT INDEX

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Cash Disbursements
August 31, 2019

Accounts Payable:

Check #	Payee	Amount	
4937	League of Minnesota Cities	$11,411.00	Issued 9/4/19
4938	League of Minnesota Cities	1,921.00	Issued 9/4/19
4939	Aeon for Ocean	500.00	
4940	Barr Engineering	42,061.82	
4941	Carver Soil & Water Conservation District	3,987.40	
4942	CenturyLink	587.00	
4943	Coverall of the Twin Cities	375.09	
4944	CSM Financial, LLC	7,847.28	
4945	Dorsey & Whitney LLP	3,788.00	
4946	Dunn & Semington, LLC	115.70	
4947	ECM Publishers, Inc.	880.60	
4948	Freshwater Society	500.00	
4949	HealthPartners	4,686.56	
4950	Amy Herbert, LLC	1,419.57	
4951	Olivia R. Holstine	646.05	
4952	Iron Mountain	89.95	
4953	Kari Jo Johnson	300.00	
4954	Limnotech	525.00	
4955	Lincoln National Life Insurance	448.21	
4956	League of Minnesota Cities	1,954.00	
4957	Metro Sales, Inc.	750.60	
4958	Metropolitan Council	310.50	
4959	David & Candi O'Hara	3,705.00	
4960	Purchase Power	106.43	
4961	Redpath & Company, Ltd.	1,755.62	
4962	RMB Environmental Laboratories	1,959.00	
4963	RMB Environmental Laboratories	2,412.00	
4964	Safe Fast, Inc.	327.90	
4965	Smith Partners	19,701.64	
4966	Southwest News Media	1,324.08	
4967	Watson Development	20,000.00	
4968	Wenck, Inc.	9,329.58	
4969	Woodcraft Design Build	5,000.00	
4970	Xcel Energy	821.82	
4971	Peterson Companies	2,000.00	
4972	Olivia R. Holstine	575.19	
4973	Larry Koch	463.95	
	Total Accounts Payable:	**$154,587.54**	

Payroll Disbursements:

	Payroll Processing Fee	219.80
	Employee Salaries	44,354.96
	Employer Payroll Taxes	3,682.49
	Employer Benefits (H.S.A. Match)	525.00
	Employee Benefit Deductions	(396.26)
	Staff Expense Reimbursements	240.91
	PERA Match	2,660.60
	Total Payroll Disbursements:	**$51,287.50**
	VISA	12,085.07
Check #4967	Watson Development - Surety Release	(20,000.00)
Check #4969	Woodcraft Design Build - Surety Release	(5,000.00)
TOTAL DISBURSEMENTS:		**$192,960.11**

Memos
The 2019 mileage rate is .58 per mile. The 2018 rate was .54.5
Old National VISA will be paid on-line.

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Fund Performance Analysis - Table 1
August 31, 2019

	2019 Budget	Fund Transfers	Revised 2019 Budget	Current Month	Year-to-Date	Year-to Date Percent of Budget
REVENUES						
Plan Implementation Levy	$3,602,500.00	-	$3,602,500.00	-	1,845,612.60	51.23%
Permit	50,000.00	-	50,000.00	5,800.00	30,122.50	60.25%
Grant Income	708,079.00	-	708,079.00	4,500.00	272,440.00	38.48%
Investment Income	35,000.00	-	35,000.00	8,553.54	71,205.07	203.44%
Miscellaneous Income	-	-	-	1,444.25	1,445.25	---
Past Levies	2,511,789.00	-	2,511,789.00	-	-	0.00%
Partner Funds	432,000.00	-	432,000.00	-	-	0.00%
TOTAL REVENUE	**$7,339,368.00**	**$0.00**	**$7,339,368.00**	**$20,297.79**	**$2,220,825.42**	**30.26%**
EXPENDITURES						
Administration						
Accounting and Audit	42,000.00	-	42,000.00	1,975.42	33,058.79	78.71%
Advisory Committees	5,000.00	-	5,000.00	-	931.42	18.63%
Insurance and bonds	20,000.00	-	20,000.00	13,332.00	13,332.00	66.66%
Engineering Services	106,000.00	-	106,000.00	7,825.50	72,574.90	68.47%
Legal Services	78,000.00	-	78,000.00	5,623.85	47,339.74	60.69%
Manager Per Diem/Expense	20,000.00	-	20,000.00	1,748.37	9,212.72	46.06%
Dues and Publications	12,000.00	-	12,000.00	1,954.00	13,273.50	110.61%
Office Cost	144,000.00	-	144,000.00	13,106.07	97,918.74	68.00%
Permit Review and Inspection	135,000.00	(25,000.00)	110,000.00	16,175.13	117,879.28	107.16%
Permit and Grant Database	-	39,900.00	39,900.00	-	1,480.75	3.71%
Recording Services	10,000.00	-	10,000.00	1,419.57	8,613.90	86.14%
Staff Cost	550,000.00	-	550,000.00	48,706.06	373,319.10	67.88%
Subtotal	**$1,122,000.00**	**$14,900.00**	**$1,136,900.00**	**$111,865.97**	**$788,934.84**	**69.39%**
Programs and Projects						
District Wide						
10-year Management Plan	5,000.00	-	5,000.00	10,947.35	21,950.85	439.02%
AIS Inspection and early response	75,000.00	-	75,000.00	106.43	5,461.23	7.28%
Cost-share	267,193.00	(14,900.00)	252,293.00	8,282.40	52,337.75	20.74%
Creek Restoration Action Strategies Phase	-	-	-	-	-	---
Data Collection and Monitoring	186,000.00	-	186,000.00	18,166.78	129,053.83	69.38%
District Wide Floodplain Evaluation - Atlas 14/SMM model	30,000.00	18,000.00	48,000.00	533.00	27,545.00	57.39%
Education and Outreach	119,000.00	-	119,000.00	8,805.54	66,862.71	56.19%
Plant Restoration - U of M	42,000.00	-	42,000.00	-	8,295.85	19.75%
Repair and Maintenance Fund *	177,005.00	-	177,005.00	-	6,209.00	3.51%
Wetland Management*	145,272.00	-	145,272.00	2,980.94	11,950.26	8.23%
District Groundwater Assessment	-	-	-	-	-	---
Groundwater Conservation*	130,000.00	-	130,000.00	-	-	0.00%
Lake Vegetation Implementation	75,000.00	-	75,000.00	-	7,293.76	9.73%
Opportunity Project*	200,000.00	-	200,000.00	-	9,999.00	5.00%
TMDL - MPCA	10,000.00	-	10,000.00	-	-	0.00%
Stormwater Ponds - U of M	86,092.00	-	86,092.00	-	12,507.33	14.53%
Hennepin County Chloride Initiative	120,800.00	-	120,800.00	1,105.65	2,964.71	2.45%
Lower Minnesota Chloride Cost-Share	217,209.00	-	217,209.00	-	-	0.00%
Subtotal	**$1,885,571.00**	**$3,100.00**	**$1,888,671.00**	**$50,928.09**	**$362,431.28**	**19.19%**
Bluff Creek						
Bluff Creek Tributary*	291,091.00	-	291,091.00	3,594.57	11,110.72	3.82%
Chanhassen High School *	41,905.00	-	41,905.00	2,104.00	2,620.00	6.25%
Wetland Restoration at Pioneer	561,870.00	-	561,870.00	3,788.00	543,855.28	96.79%
Subtotal	**$894,866.00**	**$0.00**	**$894,866.00**	**$9,486.57**	**$557,586.00**	**62.31%**
Riley Creek						
Lake Riley - Alum Treatment*	5,000.00	-	5,000.00	-	-	0.00%
Lake Susan Water Quality Improvement Phase 2 *	13,420.00	-	13,420.00	157.50	157.50	1.17%
Rice Marsh Lake in-lake phosphorus load	73,983.00	-	73,983.00	-	13,414.87	18.13%
Rice Marsh Lake Water Quality Improvement Phase 1	150,000.00	-	150,000.00	-	-	0.00%
Riley Creek Restoration (Reach E and D3)	1,680,562.00	-	1,680,562.00	112.00	19,319.38	1.15%
Lake Riley & Rice Marsh Lake Subwatershed Assessment	72,500.00	-	72,500.00	6,107.96	32,070.53	44.24%
Upper Riley Creek Stabilization	425,000.00	-	425,000.00	-	-	0.00%
Subtotal	**$2,420,465.00**	**$0.00**	**$2,420,465.00**	**$6,377.46**	**$64,962.28**	**2.68%**
Purgatory Creek						
Purgatory Creek Rec Area- Berm/retention area - feasibility/design	50,000.00	-	50,000.00	-	-	0.00%
Lotus Lake in-lake phosphorus load control	105,772.00	-	105,772.00	-	1,666.30	1.58%
Silver Lake Restoration - Feasibility Phase 1	168,013.00	-	168,013.00	455.00	455.00	0.27%
Scenic Heights	111,226.00	-	111,226.00	210.00	52,228.25	46.96%
Hyland Lake in-lake phosphorus load control	120,000.00	-	120,000.00	-	128,612.41	107.18%
Mitchell Lake Subwatershed Assessment	87,500.00	-	87,500.00	5,129.62	32,284.54	36.90%
Duck Lake watershed load	213,955.00	-	213,955.00	8,507.40	77,619.02	36.28%
Subtotal	**$856,466.00**	**$0.00**	**$856,466.00**	**$14,302.02**	**$292,865.52**	**34.19%**
Reserve	**$160,000.00**	**($18,000.00)**	**142,000.00**	-	-	0.00%
TOTAL EXPENDITURE	**$7,339,368.00**	**$0.00**	**$7,339,368.00**	**$192,960.11**	**$2,066,779.92**	**28.16%**
EXCESS REVENUES OVER (UNDER) EXPENDITURES	**$0.00**	**$0.00**	**$0.00**	**($172,662.32)**	**$154,045.50**	

***Denotes Multi-Year Project - See Table 2 for details**

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Muti-Year Project Performance Analysis - Table 2
August 31, 2019

		FUNDING SOURCE			Month Ended	Year	Lifetime	
	Total Project	District funds	Partner Fund	Grants	08/31/19	To-Date	Costs	Remaining
Programs and Projects								
District Wide								
District Wide Floodplain Evaluation - Atlas 14/SMM model	**48,000.00**	48,000.00	-	-	533.00	27,545.00	27,545.00	20,455.00
Repair and Maintenance Fund	**202,005.00**	177,005.00	-	-	-	6,209.00	31,209.00	170,796.00
Wetland Management	**150,000.00**	150,000.00	-	-	2,980.94	11,950.26	41,678.57	108,321.43
Groundwater Conservation	**130,000.00**	130,000.00	-	-	-	-	-	130,000.00
Opportunity Project*	**200,000.00**	200,000.00	-	-	-	9,999.00	9,999.00	190,001.00
Hennepin County Chloride Initiative	**120,800.00**	19,000.00	-	101,800.00	1,105.65	2,964.71	2,964.71	117,835.29
Lower Minnesota Chloride Cost-Share	**217,209.00**	20,000.00	-	197,209.00	-	-	-	217,209.00
Stormwater Ponds - U of M	**86,092.00**	44,092.00	42,000.00	-	-	12,507.33	12,507.33	73,584.67
Subtotal	**$1,154,106.00**	**$788,097.00**	**$42,000.00**	**$299,009.00**	**$4,619.59**	**$71,175.30**	**$125,903.61**	**1,028,202.39**
Bluff Creek								
Bluff Creek Tributary*	**292,362.00**	242,362.00	50,000.00	-	3,594.57	11,110.72	106,770.26	185,591.74
Chanhassen High School *	**508,000.00**	208,000.00	100,000.00	200,000.00	2,104.00	2,620.00	453,715.10	54,284.90
Wetland Restoration at Pioneer	**561,870.00**	450,000.00	-	111,870.00	3,788.00	543,855.28	543,855.28	18,014.72
Subtotal	**$1,362,232.00**	**$900,362.00**	**$150,000.00**	**$311,870.00**	**$9,486.57**	**$557,586.00**	**$1,104,340.64**	**$257,891.36**
Riley Creek								
Lake Riley - Alum Treatment 1st dose *	**260,000.00**	260,000.00	-	-	-	-	254,999.83	5,000.17
Lake Susan Water Quality Improvement Phase 2 *	**662,491.00**	330,000.00	99,091.00	233,400.00	157.50	157.50	649,228.30	13,262.70
Rice Marsh Lake in-lake phosphorus load	**150,000.00**	150,000.00	-	-	-	13,414.87	89,432.81	60,567.19
Riley Creek Restoration (Reach E and D3) *	**1,565,000.00**	1,265,000.00	300,000.00	-	112.00	19,319.38	199,814.53	1,365,185.47
Lake Riley & Rice Marsh Lake Subwatershed Assessment	**72,500.00**	12,500.00	5,000.00	55,000.00	6,107.96	32,070.53	32,070.53	40,429.47
Upper Riley Creek Stabilization	**450,000.00**	450,000.00	0.00	-	-	-	-	450,000.00
Subtotal	**$3,159,991.00**	**$2,467,500.00**	**$404,091.00**	**$288,400.00**	**$6,377.46**	**$64,962.28**	**$1,225,546.00**	**$1,934,445.00**
Purgatory Creek								
Purgatory Creek Rec Area- Berm/retention area - feasibility/design	**50,000.00**	50,000.00	-	-	-	-	-	50,000.00
Lotus Lake in-lake phosphorus load control	**345,000.00**	345,000.00	-	-	-	1,666.30	240,893.34	104,106.66
Scenic Heights	**260,000.00**	165,000.00	45,000.00	50,000.00	210.00	52,228.25	201,002.01	58,997.99
Mitchell Lake Subwatershed Assessment	**87,500.00**	12,500.00	5,000.00	70,000.00	5,129.62	32,284.54	32,284.54	55,215.46
Duck Lake watershed load	**220,000.00**	220,000.00	-	-	8,507.40	77,619.02	83,663.52	136,336.48
Subtotal	**$962,500.00**	**$792,500.00**	**$50,000.00**	**$120,000.00**	**$13,847.02**	**$163,798.11**	**$557,843.41**	**$404,656.59**
Total Multi-Year Project Costs	**$6,638,829.00**	**$4,948,459.00**	**$646,091.00**	**$1,019,279.00**	**$34,330.64**	**$857,521.69**	**$3,013,633.66**	**$3,625,195.34**

Riley Purgatory Bluff Creek Watershed District
Balance Sheet
As of August 31, 2019

ASSETS

Current Assets

General Checking-Old National	$1,907,160.47	
Checking-Old National/BMW	46,115.29	
Investments-Standing Cash	8,289.53	
Investments-Wells Fargo	4,384,831.75	
Accrued Investment Interest	22,486.64	
Due From Other Governments	25,021.73	
Taxes Receivable-Delinquent	29,411.16	
Pre-Paid Expense	27,361.36	
Security Deposits	7,244.00	
Total Current Assets:		**$6,457,921.93**

LIABILITIES AND CAPITAL

Current Liabilities

Accounts Payable	$260,433.87	
Retainage Payable	23,657.38	
Salaries Payable	18,208.79	
Permits & Sureties Payable	805,481.00	
Deferred Revenue	29,411.16	
Total Current Liabilities:		**$1,137,192.20**

Capital

Fund Balance-General	$5,166,684.23	
Net Income	154,045.50	
Total Capital		**$5,320,729.73**
Total Liabilities & Capital		**$6,457,921.93**

RILEY PURGTORY BLUFF CREEK WATERSHED DISTRICT
Old National Bank VISA Activity
August 31, 2019

DATE	PURCHASED FROM	AMOUNT	DESCRIPTION	ACCOUNT #	RECEIPT
08/20/19	MAWD	250.00	Continuing Education	10-00-4265	Y
08/21/19	Green Roofs	789.00	Grey to Green Conference Registration	10-00-4265	N
08/22/19	Verizon	1,471.50	Telecommunications	10-00-4240	Y
08/22/19	Amazon	30.97	Office Supplies	10-00-4240	Y
08/22/19	Amazon	96.50	Office Supplies	10-00-4200	Y
08/27/19	Randy's Sanitation	91.74	Trash Collection	10-00-4220	Y
09/06/19	Interest Reversal-Old National	(17.21)	Interest/Bank Charges	---	N
09/09/19	Office Depot	139.76	Office Supplies	10-00-4200	Y
09/09/19	Jimmy John's	51.13	Team ReGroup	10-00-4321	Y
09/12/19	Lunds & Byerly's	17.97	Office Supplies	10-00-4260	Y
09/12/19	Chipotle	228.17	TAC Meeting	10-00-4810	Y
09/13/19	U of M Continuing Learning	44.06	MAISRC Registration	10-00-4010	Y
		$3,193.59	**General Administration Total**		
08/19/19	Uprinting	116.19	Anniversary Event	20-08-4260	Y
08/19/19	U of M Continuing Education	375.00	Continuing Education	20-13-4265	Y
08/19/19	Uline	32.13	Anniversary Event	20-08-4260	Y
08/21/19	MN Historical Society	21.45	Anniversary Event	20-08-4260	Y
08/21/19	Costco	72.58	Property Manager Workshop	20-08-4260	Y
08/22/19	Jimmy John's	227.76	Property Manager Workshop	20-08-4260	Y
08/22/19	Gander	10.74	Data Collection Supplies	20-08-4260	Y
08/22/19	Michael's	38.58	Anniversary Event	20-08-4260	Y
08/22/19	MN Historical Society	58.07	Anniversary Event	20-08-4260	Y
08/22/19	MN Historical Society	11.60	Anniversary Event	20-08-4260	Y
08/22/19	Brueggerse	68.09	Property Manager Workshop	20-08-4345	Y
08/23/19	Home Depot	26.20	Data Collection Supplies	20-05-4260	Y
08/23/19	Amazon	50.94	Anniversary Event	20-08-4260	Y
08/23/19	Michael's	21.40	Anniversary Event	20-08-4260	Y
08/23/19	MN Historical Society	6.60	Anniversary Event	20-08-4260	N
08/26/19	Home Depot	24.48	Data Collection Supplies	20-05-4260	Y
08/27/19	Eddie Bauer	(35.99)	Education & Outreach	20-08-4260	Y
08/28/19	Office Max	198.73	Anniversary Event	20-08-4260	Y
09/05/19	Holiday Stations	5.07	Gas for Vehicles	20-05-4322	Y
09/05/19	Amazon	21.99	Anniversary Event	20-08-4260	Y
09/05/19	Amazon	56.97	Anniversary Event	20-08-4260	Y
09/05/19	Holiday Stations	65.07	Gas for Vehicles	20-05-4322	Y
09/06/19	Boat Motor Recyclers	945.58	Fix Boat Motor	20-05-4635	Y
09/06/19	Fraud	3,868.82	Fraud Charges	---	N
09/06/19	Fraud	(3,868.82)	Fraud Charges	---	N
09/06/19	Hach	44.58	Data Collection Supplies	20-05-4635	Y
09/06/19	Hach	379.94	Data Collection Supplies	20-05-4635	Y
09/10/19	Holiday Stations	58.75	Gas for Vehicles	20-05-4322	Y
09/12/19	Office Depot	63.87	Education & Outreach	20-08-4260	Y
09/12/19	Facebook	5.00	Education & Outreach	20-08-4260	Y
		$2,971.37	**District-Wide Total**		
		$6,164.96	**GRAND TOTAL**		

9.13.a St Hubert Catholic School Opportunity Project

Need

Early 2016, The District completed the Rice Marsh Lake and Lake Riley Use Attainability Analysis Update. This effort involved a review of water quality data, land use within these watersheds and potential measures to protect water quality in these lakes. The assessment showed that Rice Marsh Lake is not meeting MPCA shallow lake water quality standards. More than half (64%) of the phosphorus load is from external sources, namely watershed runoff (44%) and discharge from Lake Susan into Rice Marsh Lake (20%). In 2018, the District implemented an Alum Treatment on Rice Marsh Lake to reduce internal phosphorus load. It is important to control both external and internal sources of phosphorus loading to Rice Marsh Lake. However, the effectiveness and longevity of measures to control internal phosphorus load are enhanced by maximizing management of external load.

In 2018, District staff were contacted by St. Hubert Catholic School in Chanhassen about the possibility of partnering on a rain garden at the school. Initial consultation identified the potential for multiple best management practices on the site. With the adoption of the District's 10 Year Plan (the Plan) in July of 2018, the Opportunity Projects program was created specifically to address previously unidentified projects and partnerships. A stormwater retrofit of the school campus was identified as a potential project for this program. The District and school stakeholders worked together to identify potential Best Management Practices that would meet District goals.

In April 2019, SRF published a memo (*St. Hubert's Catholic School Opportunity Projects*, April 2019) which identified projects that would reduce runoff volume and rate (Goal WQuan2), improve water quality (WQual 1), ecological biodiversity (WQual 3), educational opportunities and aesthetics of the property. Four project areas with multiple practices were identified (Figure 9.7).

Description

Project Area 1 includes a retrofit of the parking lot median to incorporate a tree trench that would collect water from the adjacent parking lot.
Project Area 2 includes retrofitting an existing playground to incorporate underground storage of stormwater runoff from the school roof.
Project Area 3 includes repair of a storm sewer inlet and associated eroded gully and reduction of impervious area with incorporation of native plants and possible rain garden.
Project Area 4 includes restoration of a turf grass parcel into a native prairie with possible shallow depressions to catch/treat stormwater.

The project is expected to treat 3.6 acres runoff, remove 455 lbs of TSS and 1.8 lbs of P per year, reduce volume by 0.33 acre-ft per year, add 0.7 acres of prairie restoration, and will over 600 students, 100 staff members and over 2600 families.

Scoring

Staff scored the campus retrofit project (including all practices) following the project prioritization scheme detailed in Section 4 of the Plan. The project scored a 33, comparable to other projects in the Plan implementation table for the Riley Creek Watershed as seen in table 9-1.

Table 9-6 Scoring of St Hubert Catholic School Opportunity Project

District goals	Sustainability	Volume Reduction	Pollutant management	Habitat restoration	Shoreline Restoration	Watershed Benefit	Partnership opportunities	Public access Education	**Total**
3	7	3	1	5	1	3	7	3	**33**

Estimated Construction Cost: $277,000 [All Project Areas]

Funding

The District would expect to fund this project by means of its watershed-wide ad valorem levy. However, staff is exploring cost-sharing and grant opportunities with other public agencies and will partner as opportunity allows.

APPENDIX A: CONCEPT PLAN LAYOUT

St. Hubert Catholic School Opportunity Projects

APRIL 3, 2019

RESOLUTION NO. 19-

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
BOARD OF MANAGERS

RESOLUTION TO ADOPT PLAN AMENDMENT TO WATERSHED MANAGEMENT PLAN FOR ST. HUBERT CATHOLIC SCHOOL OPPORUNITY PROJECT

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

WHEREAS the Riley Purgatory Bluff Creek Watershed District (District) is responsible for the preparation, adoption and implementation of a watershed management plan for the Riley Purgatory Bluff Creek watershed pursuant to Minnesota Statutes section 103B.231, subdivisions 3 through 10;

WHEREAS in 2018, the District adopted its fourth-generation Watershed Management Plan (the Plan), which details the existing physical environment, land use and development in the watershed and establishes a plan to manage water resources and improve water quality, prevent flooding and otherwise achieve the purposes of Minnesota Statutes chapters 103B and 103D; the District's plan states a goal of addressing all impairments in water resources in the District's jurisdiction and removing all District waterbodies from the State of Minnesota impaired waters list;

WHEREAS in early 2016, the District completed the Rice Marsh Lake and Lake Riley Use Attainability Analysis Update which showed that Rice Marsh Lake fails to meet MPCA shallow lake water quality standards, and that 64% of phosphorus loading into the lake comes from external sources, 44% from watershed runoff and 20% from discharge from Lake Susan into Rice Marsh Lake;

WHEREAS in 2018, the District was contacted by St. Hubert Catholic School (St. Hubert's) in Chanhassen about possibly partnering on a rain garden on St. Hubert's campus (site), and the District's initial consultation of the site identified multiple potential best management practices;

WHEREAS the District's Opportunity Projects program was created with the adoption of the Plan in 2018 specifically to address previously unidentified projects and partnerships, and a stormwater retrofit of the site was identified as a potential project for this program;

WHEREAS in April 2019, consultant SRF, retained by the District to work with St. Hubert's stakeholders to identify potential best management practices for the site that would meet District goals, produced a memo, St. Hubert's Catholic School Opportunity Projects, identifying projects that would reduce runoff volume and rate from the site, improve water quality, enhance ecological biodiversity, and develop educational opportunities, and specifically developed four project areas and associated practices (St. Hubert's campus retrofit project);

WHEREAS District staff scored the St. Hubert's campus retrofit project according to the Opportunity Project prioritization rubric in the Plan, resulting in a score of 33; the project is expected to treat 3.6 acres runoff, remove 455 pounds of Total Suspended Solids and 1.8 pounds of Phosphorus per year, reduce volume of stormwater runoff by 0.33 acre-ft per year, add 0.7 acres of prairie restoration, and will be visible to over 600 students, 100 staff members and over 2600 families;

WHEREAS on September 4, 2019, the District held a duly noticed public hearing to receive public comment on the proposed minor plan amendment for the St. Hubert's campus retrofit project, and no comments were received;

WHEREAS the most recent cost estimate for the project is approximately $277,000; the District expects to fund this project by means of its watershed-wide ad valorem levy and will explore cost-sharing or grant opportunities with other public agencies as available;

NOW, THEREFORE, BE IT RESOLVED that the Riley Purgatory Bluff Creek Watershed District Board of Managers hereby adopts the Plan amendment attached as Exhibit A;

BE IT FURTHER RESOLVED, that Board of Managers directs the administrator to transmit a copy of the Plan amendment to all reviewing agencies and the clerks of each of the local governmental units within the watershed and to Hennepin County and Carver County.

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

	Yea	**Nay**	**Abstain**	**Absent**
CRAFTON				
KOCH				
PEDERSEN				
WARD				
ZIEGLER				

Upon vote, the chair declared the resolution adopted.

Dated:

_____

David Ziegler, Secretary

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

I, David Ziegler, secretary of the Riley Purgatory Bluff Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcription thereof.

IN TESTIMONY WHEREOF, I set my hand this ___th day of _____

_____
David Ziegler, Secretary

2019 ANNUAL MEETING AND TRADE SHOW

December 5-7

Arrowwood Conference Center

MINNESOTA ASSOCIATION OF WATERSHED DISTRICTS, INC

Land and Water Shall be Preserved

Program Schedule Overview

WEDNESDAY, DECEMBER 4

9 A.M.-2 P.M.	MN Association of Watershed Administrators (MAWA) Meeting - Lake Nokomis
5 P.M.-7 P.M.	MAWD Board of Directors Meeting - Lake Nokomis

THURSDAY, DECEMBER 5

PRE-CONFERENCE SESSIONS

8 A.M.-9 A.M.	Registration and Breakfast - Ballroom Lobby
9 A.M.-4 P.M.	Basic Watershed Management Workshop - Lake Nokomis
9 A.M.-4 P.M.	Minnesota Drainage Seminar - Lake Itasca and Lake Vermillion
9 A.M.-4 P.M.	Staff Development l Mindfulness - Lake Minnewaska
12 P.M.	Lunch - Lake Miltona

ANNUAL MEETING

6 P.M.-9 P.M.	Registration, Trade Show Opening and Welcome Reception - Tennis Center
5 P.M.-9 P.M.	Night at the Movies - Lake Minnewaska

FRIDAY, DECEMBER 6

7 A.M.-9 A.M.	Breakfast - Trade Show Floor, Tennis Center
8 A.M.-10:45 A.M.	MAWD Business Meeting and Resolutions Hearing - Lake Itasca
8 A.M.-11:40 A.M.	Morning Concurrent General Sessions, check schedule for room locations.
11:15 A.M. -12 P.M.	Regional Caucuses
	Region 1 - Rafters (5th Floor)
	Region 2 - Boadroom I (5th Floor)
	Region 3 - Boardroom II (5th Floor)
12 P.M.-2 P.M.	Luncheon - Ballroom
	Keynote Speaker: Kenneth Blumenfeld, Ph.D., Sr. Climatologist, MNDNR
	DNR Watershed District of the Year
	BWSR Watershed District Employee of the Year Awards
	Trade Show Door Prizes
2 P.M.-4:30 P.M.	Afternoon Concurrent General Sessions, check schedule for room locations
5 P.M.-6:30 P.M.	Social Hour and Live Music - Ballroom
6:30 P.M.-8 P.M.	Dinner and Awards - Ballroom
	Watershed District Program of the Year Award
	Watershed District Project of the Year Award
	MAWD Convention Award - Night at the Movies “Best Picture”
	MAWD Convention Award - Watershed District - Share your Best Idea Award

SATURDAY, DECEMBER 7

7 A.M.-9 A.M.	Last Chance Networking Breakfast - Ballroom
9 A.M.-11 A.M.	MAWD Board of Directors Meeting - Lake Miltona

Minnesota Drainage Seminar

Pre-Conference Workshop | Thursday, December 5, 2019 | 9 AM - 4 PM

8:00 – 9:00 AM REGISTRATION AND CONTINENTAL BREAKFAST

9:00 – 9:05 AM WELCOME AND AGENDA

9:05 – 9:45 AM DRAINAGE WORK GROUP, 2019 LEGISLATIVE AND MDM GRANT UPDATES

Tom Gile, Resource Conservation Section Manager – Board of Water and Soil Resources

- Drainage Work Group (DWG) Update – What's the DWG Working on now?
- 2019 Legislative Updates
  - Runoff Based Drainage Assessments for Repair Projects
  - Miscellaneous Drainage Law Changes
- Update on Clean Water Fund Multipurpose Drainage Management Grants

9:45 – 10:15 AM DNR PERMITTING FOR REPAIR PROJECTS – What has changed since one year ago?

Steve Colvin - MN Department of Natural Resources

15-minute COFFEE and SNACK BREAK

10:30 – 11:00 AM RE-ESTABLISHMENT OF RECORDS – What was impact of MN Supreme Court decision?

John Kolb – Rinke Noonan

60-minute LUNCH BREAK (Provided)

11:00 AM – NOON RE-ESTABLISHMENT OF RECORDS – Case Studies

Chris Otterness, PE - Houston Engineering

Chuck Brandel and Bailey Griffin, ISG

60-minute LUNCH BREAK (Provided)

1:00 – 2:00 PM ENVIRONMENTAL CONSIDERATIONS AND REQUIREMENTS UNDER DRAINAGE REVIEW

Kale Van Bruggen and John Kolb - Rinke Noonan

Chris Otterness, PE - Houston Engineering

2:00 – 3:00 PM DRAINAGE INSPECTOR'S PERSPECTIVE ON LANDOWNER INTERACTION – WD and County

Tom Schmidt, Inspector - Rice Creek Watershed District

Craig Austinson, Ditch Manager and Ryan Hiniker, Drain Management Specialist – Blue Earth County

15-minute COFFEE and SNACK BREAK

3:15 – 4:00 PM CONNECTING DRAINAGE TO 1W1P – County and WD

Robert Olsen, Environmental Office Administrator - Lincoln County

Chad Engels, PE - Bois De Sioux Watershed District

#mawd19

Association of Minnesota Counties

MINNESOTA ASSOCIATION OF WATERSHED DISTRICTS, INC
Land and Water Shall be Preserved

Navigating Troubled Waters Mindfulness

Pre-Conference Workshop | Thursday, December 5, 2019 | 9 AM - 4 PM

8:00 – 9:00 AM REGISTRATION AND CONTINENTAL BREAKFAST

9:00 – 9:05 AM WELCOME

Diane Lynch, District Administrator, Prior Lake-Spring Lake Watershed District

Diane will introduce this topic and the reason it was chosen for water resource professionals.

9:05 – 9:45 AM LIVING IN THE PRESENT

Diane Lynch, District Administrator, Prior Lake-Spring Lake Watershed District

We will explore the origins of mindfulness, what it means, and how to integrate it into our lives. Diane will provide a snapshot of experts in the field of integrative medicine and personal transformation along with some of their fundamental teachings.

9:45 – 10:30 AM MIRACLE MORNING

Emily Javens, Executive Director, MAWD

Emily will introduce Hal Elrod's concept of a starting each day with six steps that include silence, affirmations, visualizations, exercise, reading, and journaling. The group will be led through a mini practice session and leave with resources to continue a practice at home.

15-minute COFFEE and SNACK BREAK

10:45 – 12:15 PM MINDFULNESS YOGA

Elsa Wadsworth, Owner, Yoga One

Yoga has its roots in ancient India and means "union." Yoga is meant to bring about enlightenment through the union of body and mind. Elsa will provide an overview of the styles of yoga and will guide participants in simple, gentle stretching with poses that match your breath with the motion of your body. This will NOT be rigorous. Just bring a mat, towel or blanket to lay on.

12:15-1:15 PM LUNCH (Provided)

1:15 – 2:00 PM FENG SHUI

Speaker TBD, Invited: Practitioner from Energetic Alignments

Feng Shui is an ancient art and science that started over 3,500 years ago in China. It teaches how to balance and harmonize with energies in any space and is often used in interior design and architecture. Feng shui involves the five elements: wood, fire, earth, metal and water. Participants will learn more about this ancient technique, about a mapping chart called a "bagua" and create a simple bagua for their home or office. The instructor will review the baguas with the class.

2:00 – 2:45 PM MINDFULNESS MEDITATION

Speaker TBD, Invited: Laughing Buddha Meditation Center, Alexandria, MN

Recent research shows that meditation can help preserve the aging brain. Stress, anxiety and pain can all be reduced through meditation by focusing thoughts. Techniques include paying attention to breath, an idea or a feeling or a mantra. With mindfulness mediation, thoughts and feelings can be observed and released. The instructor will provide helpful techniques and then lead participants through a guided meditation. Participants will find they are energized for writing their mindfulness plan.

15-minute COFFEE and SNACK BREAK

3:00 – 4:00 PM THE MINUTE CLINIC & WRITING YOUR MINDFULNESS PLAN

Diane Lynch, District Administrator, Prior Lake-Spring Lake Watershed District

When the going gets rough, we need to know what to do to get us back on track—to ground us. Participants will learn techniques to put in motion on cue, such as tapping, controlled breathing, visualization, setting intentions and inner smile, among others. They will then be guided through an exercise to put a mindfulness plan together that will remind them of what they learned in the workshop and how to develop mindfulness as a habit. For those interested, volunteers will join a network of colleagues who will share how they applied what they've learned and ideas they want to share with others.

Basic Watershed Management Workshop

Pre-Conference Workshop | Thursday, December 5, 2019 | 9 A.M.-4 P.M.

9:00 – 9:15 WELCOME AND INTRODUCTIONS

9:15 – 10:30 YOUR ROLE as a WATERSHED DISTRICT

Understanding Watershed District Legal Powers and Purposes – Watershed districts have their own compact chapter of law – MN Chapter 103D and metro watershed districts also have 103B. This legal overview will provide insight into why watershed districts were created, and the legal authorities given to districts to pursue their missions.

Watershed Districts, BWSR, and the World – Your watershed district is just one organization in a world full of state, federal, non-profit, citizen, and municipal interests with their own mandates to do work for the public good. Sort out who's who and consider how partnerships could maximize your impact.

15-minute COFFEE and SNACK BREAK

10:45 – 12:15 YOUR ROLE as a WATERSHED "MOVER and SHAKER"

Every organization on the planet from the Girl Scouts to the US Army has some sort of strategic plan to guide them. Watershed district plans set priorities, outline strategies, and identify targeted and measurable goals. Learn the process for how to develop or update your plan and discover tips for getting those plans implemented.

60-minute LUNCH BREAK (Provided)

1:15 – 2:45 YOUR ROLE as a GOVERNMENT OFFICIAL

Has this happened to you?

1. Prior to the board meeting, another manager calls to encourage you to vote for an issue on the agenda. How should you respond?
2. The board treasurer is giving a report to the board. You spot a check to a vendor for a larger amount than what the board had previously authorized. What's the appropriate response?
3. A junior staff person tells you there have been inappropriate jokes in the workplace. Now what?
4. A county commissioner has let you know how she expects you to vote on an issue. Now what?
5. A citizen lets you know that the board did a terrible job approving a "stupid project." You happen to agree it wasn't a great project, but yours was one of only two dissenting votes. How do you respond?

This session will discuss how to respond to these and other scenarios that will help you do your job well and stay away from legal trouble and will provide an understanding of the Open Meeting Law, Data Practices Act, Freedom of Information Act, and other relevant rules and regulations.

15-minute COFFEE and SNACK BREAK

3:00 – 4:00 YOUR ROLE as a WATERSHED LEADER

Your county appointed you to the Board and they probably expect you to make sure the organization does more than just exist. Learn some techniques that contribute to the art of "boardsmanship" that will help your district excel.

Concurrent General Sessions
Friday, December 6

Time	Location	Topic	Description	Presenters
8am - 8:40am	Lake Miltona A + B	Demonstrating Quantifiable Progress Toward Water Goals	Is your organization's path to reaching its goals a 'clear road map' or a 'black box'? Public agencies are accountable to the local citizens that they serve, which is why it is crucial to demonstrate effective use of public funds and quantify progress toward goals. With limited time and funding, cost-benefit analysis becomes increasingly important. CLFLWD aims to utilize BWSR's Prioritized, Targeted, Measurable (PTM) method to demonstrably reach water quality goals at a fraction of the originally-anticipated cost. For example, to reach the Lower St. Croix Watershed's phosphorus load reduction goal, the difference between implementing highly cost-effective projects (<$500/lb phosphorus removed) and less cost-effective projects (>$1,500/lb phosphorus) could be up to $1.1 billion. PTM discussions at the regional and statewide scale are necessary to implement this philosophy in a more impactful way. This presentation aims to continue these discussions in order to improve public agency effectiveness on a broad scale.	Mike Kinney, Comfort Lake Forest Lake WD; Meghan Funke, Emmons & Olivier Resources
8am - 8:40am	Lake Osakis	Banking Groundwater	Managing groundwater recharge may be needed for communities with competing aquifer uses or depleted natural systems. Changes in groundwater dependence, seasonality and intensity of precipitation, evapotranspiration and hydrology impact recharge. Evaluating economic, policy, engineering and geologic considerations now will allow us to deploy aquifer recharge when, where and if needed. A team led by the Water Resources Center convenes experts across disciplines to evaluate the need for and barriers to implementing managed aquifer recharge. Specific geologic conditions in four study areas control the physical realities: Fargo-Moorhead, the Straight River, S. Washington Co. and Rochester. Water sources like treated surface water or wastewater must be evaluated along with energy use and infrastructure costs that affect the economics. The Groundwater Protection Act of 1989 appears to prohibit recharge; these and other policy barriers will be evaluated. The 18-month project culminates in a report to the legislature.	Carrie Ellen Jennings, Freshwater Society; John Bilotta, Water Resources Center; Peter Kang, Department of Earth and Environmental Sciences; Anthony Runkel, Minnesota Geological Survey; Bill Arnold, University of MN
8am - 8:40am	Lake Minnewaska	Building a Basin Wide Educational Program	Most citizens are largely unaware of their local river's origins and where it travels downstream. The River of Dreams (ROD) program seeks to increase watershed understanding and sense of place among elementary students, making the next generation more aware of connections within their watershed to other rivers, lakes, oceans, and the people who utilize them. ROD is a fun and impactful education experience that gives participants a better understanding of their local rivers geography. Students are exposed to watershed concepts multiple times in ways that leave a lasting impression through writing activities, virtual tours, and a canoe launch event at a local river. IWI has grown this program from five schools to thirty-five schools in the last five years. Learn what it takes to develop and implement a basin wide education program.	Danielle Graham; Asher Kingery and Taylor Lemieux; International Water Institute

Time	Location	Topic	Description	Presenters
9am - 9:40am	Lake Miltona A + B	Comparing ACPF, PTMApp and HSPF-SAM	Identification of targeted locations at field scales for implementing conservation practices in an agricultural watershed has become a prerequisite to sustainable land use management. Understanding how to relate multiple fields and riparian zones at the small watershed scale is critical to managing water quality goals. We compared the outcomes of three models/decision support tools in the Plum Creek watershed near Redwood Falls, Minnesota. Prioritize, Target and Measure Application (PTMApp) and Agricultural Conservation Planning Framework (ACPF) were applied to a HUC 12 sub-watershed scale using high-resolution LiDAR-based hydro-conditioned digital elevation model (DEM) to achieve following objectives: 1) develop comparative assessment of these tools in identifying critical areas and conservation practices at field scales; and 2) develop a scenario based field-scale decision support framework to achieve nutrient reduction goals, build soil health for enhancing crop production within and below the fields and riparian management in a cost-effective manner.	R. Srinivas, University of MN; Matt Drewitz, BWSR; Joe Magner, University of MN,
9am - 9:40am	Lake Osakis	Implementation and Assessment of a Targeting Street Sweeping Program	The City of Forest Lake drains to five significant lakes: Forest, Shields, Keewahtin, Comfort and Clear Lake. Two of the five are listed as impaired for nutrient/eutrophication, with the others at risk for impairment. These lakes are high-value recreational resources with a combined 5 public launches among them. CLFLWD worked with the City and Rice Creek WD to implement an enhanced street sweeping program, using the CLFLWD's 2018 comprehensive street sweeping plan, which will result in a cumulative estimated phosphorus load reduction of 167 lb/yr. Samples of swept material were lab-tested to quantify actual load reductions. Results will be available later this year and discussed in this proposed presentation. Lab results will be used to measure progress toward load reduction goals and to modify the sweeper route, if needed. The combined cost of the sweeping plan and implementation is $320,000. CLFLWD and the City received CWF grants for each, respectively.	Mike Kinney, Comfort Lake Forest Lake WD; Paula Kalinosky, Emmons and Olivier Resources;
9am - 9:40am	Lake Minnewaska	Multi-benefit Storage and Water Quality Solutions in the South Heron Lake Watershed	This presentation will outline how the Heron Lake Watershed District is achieving multi-benefit solutions that address drainage system improvements, while also increasing flood resiliency and improving water quality through the leveraging of drainage dollars with state and federal grant funds.	Jan Voit, Heron Lake WD; Jacob Rischmiller and Staci Williams, ISG
10am-10:40am	Lake Miltona A + B	Geomorphic and Habitat Assessments of Trout Streams in the Lower Minnesota River Watershed District	Rosgen level I geomorphic reconnaissance was utilized to conduct exploratory assessment of the streams as a whole and to identify key areas for further investigation. This was followed with level II data collection in representative reaches. Habitat assessments conducted on each stream incorporated the modified MSHA worksheet to assess current habitat conditions on cold water streams. Temperature and dissolved oxygen (DO) concentrations were measured using a field sonde placed at the bottom of the stream channel. Results suggest cold ground water with DO is present to support trout fisheries. However, some streams showed channels filling with sand limiting pool habitat and other channels where degraded by increased runoff. This information will help prioritize district restoration actions and explore protective watershed measures.	Linda Loomis, LMRWD; Joe Magner and Brenda DeZiel, University of MN; Jeff Weiss, Barr Engineering; Della Young, Young Environmental

Time	Location	Topic	Description	Presenters
10am-10:40am	Lake Osakis	A Partnership Model for Predicting, Measuring, Managing, & Communicating Water Level Impacts	Between 2013-2018 the Twin Cities metro experienced the wettest period six-year period on record. During those six years an extra year's worth of precipitation fell (~30 inches), meaning the area received seven years' worth of rain in a six-year period. 2019 has continue this exceptionally wet trend and currently ranks as the second wettest year to date. How can water managers successfully predict how much rain is coming, track how much rain has fallen, monitor the effects to water bodies, and communicate the impacts to their communities? To manage the impacts of this record precipitation, MCWD has formed a multi-disciplinary partnership with the National Weather Service, the U.S. Geological Survey, and Hennepin County Emergency Management. Using the expertise of this multi-agency partnership, MCWD has been able to predict, observe, and manage the impacts from wet weather and limit the duration of high water in spite of the record precipitation.	Tiffany Schaufler, MCWD; Eric Waage, Hennepin County Emergency Management
10am-10:40am	Lake Minnewaska	Small Town Flood Protection: The Ada Levees	Surrounded by the Wild Rice and Marsh Rivers to the south and Judicial Ditch 51 on the north, the city of Ada has been plagued by flooding over the years. After the catastrophic flood of 1997 and subsequent flooding, this small community came together to take necessary actions that identified the problems and found feasible solutions to protect their residents. Ada's story illustrates the importance of partnerships and the use of sound science and engineering, while navigating funding constraints and regulatory approvals. From devastating floods to certified flood protection, the city of Ada is a story about success.	Alexa Ducioame, Moore Engineering, Inc., Kurt Lysne, Moore Engineering, Inc;
11am-11:40am	Lake Miltona A + B	Targeting Channel Restoration Projects to Inform Implementation Efforts	Within the Buffalo-Red River Watershed, stream bank erosion contributes to sediment impairments and serves as a stressor to aquatic life. As such, the Buffalo-Red River Watershed District sought to prioritize its efforts to restore and stabilize rivers and streams. This presentation will show a new approach for rapidly targeting implementation within riparian corridors relative to measurable goals in a One Watershed, One Plan. The results will demonstrate how targeting information can be used to develop and investment guide for weighing upstream versus in channel management actions.	Drew Kessler and Erik Jones, Houston Engineering
11am-11:40am	Lake Osakis	The Role of Aquatic Plants in Shallow Lake Reclamation	It is increasingly clear that aquatic plants play a central role in the restoration of shallow lakes. Still, effects on shallow lake nutrient balances is not well known. In fact, aquatic plants are often not included in TMDLs. This presentation includes what we have learned by conducting thorough lake-wide aquatic plant biomass evaluations and nutrient analyses of aquatic plant tissue and by building a custom lake model to tease out the effect of aquatic plants on nutrient balances. The study lakes are Kohlman Lake (Ramsey Washington-Metro Watershed District) and Normadale Lake and Smetana Lake (Nine Mile Creek Watershed Districts). Even though the public very often has a negative view of aquatic plants, the issue of aquatic plants and shallow lakes is emerging and is not going to go away and it will be important for us to better understand the role of aquatic plants in shallow lake restoration.	Keith Pilgrim and Janna Kieffer, Barr Engineering

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11am-11:40am	Lake Minnewaska	Regionalization - Escape the Site	While keeping stormwater onsite in a manner that mimics natural conditions remains a worthy and productive goal of watershed district regulatory frameworks, challenges presented by some properties demand regional solutions. Cost-effective and politically savvy public-private partnerships can support more than just water-resource protection: better site design and more efficient use of land, integration of diverse land-uses, etc. The session will explore legal and technical frameworks for successful regional stormwater management, giving attendees tools and inspiration they can put to work in their own watersheds.	Michael Welch, Smith Partners PLLP; Karen Kill, Brown's Creek WD; Randy Anhorn, Nine Mile WD; James Wisker, Minnehaha Creek WD
2pm-2:40pm	Lake Miltona A	Managing Risks and Forging Watershed Partnerships	Our watersheds are facing unprecedented challenges from climate change, impaired water quality, and loss of habitat, and governance. This presentation will explore key principles of risk management to embrace from start to finish in every watershed undertaking, and pursue the success that comes from creating effective partnerships. We will examine how the Minnehaha Creek Watershed District has developed Balanced Urban Ecology, an integrated approach to land use and water resource planning that has forged collaboration with local communities and private partners. In the Minnehaha Creek corridor, the District has partnered with two cities, a hospital, a major printing company, and Target to restore the creek, create new trails, access to green space, and treat polluted stormwater. We will also trace a similar undertaking in the Midtown Greenway of Minneapolis that transformed a neglected railroad trench into a multimodal greenway that stimulated 4,000 new units of adjacent housing.	James Wisker, Minnehaha Creek WD; Louis Smith, Smith Partners PLLP
2pm-2:40pm	Lake Miltona B	Helping Mother Nature…Buffalo River Restoration Challenges and Outcomes	This presentation tells the story of a stream restoration project along a 2-mile stretch of the Buffalo River, near Hawley, Minnesota. The stream was straightened in the 1950s which resulted in an unstable stream that lacked quality habitat and had bank erosion issues. The Buffalo-Red River Watershed District along with MN DNR and the City of Hawley worked together to achieve mutual benefits. We will highlight the design process, hurdles to implementation, permitting requirements and ultimately how the constructed restoration has evolved since being built and after the 2019 flood. Additionally, project partnerships and funding opportunities for stream restoration projects will be discussed.	Amanda Hillman, MNDNR; Erik Jones, Buffalo-Red WD
2pm-2:40pm	Lake Osakis	Inclusivity: Are you embracing others or only embracing yourself?	Local governments are striving to enhance diversity in their offices and embrace the diversity found within their communities. While a watershed district may have a diverse board and staff and may be reaching a broader audience than ever before, is this diversity linked with efforts to be inclusive? A district that is inclusive promotes a sense of belonging, which makes people want to become part of the watershed district family. Building an inclusive organization is hard work. But, when it is achieved, you attract the best staff who wants to stay with the organization for the long-term. Attendees to this session will learn about some attitudes, behaviors, and policies that can enhance the inclusivity of your organizations. While the session's focus will be on gender inclusivity, the concepts can be generalized to other diversity frameworks.	Jason Weinerman, BWSR

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2pm-2:40pm	Lake Minnewaska	Developing a Targeted Watershed Management Implementation Plan Using Innovative Technologies in the Minnesota River Headwaters	Through a Clean Water Fund grant, the Upper Minnesota River Watershed District developed a Targeted Watershed Management Implementation Plan for the entirety of its 505 square mile area within the Upper Minnesota River Headwaters Watershed. This plan (1) identified sediment and nutrient sources on the landscape from within the District and from upstream sources in the Dakotas, (2) identified opportunities for field-scale landscape conservation to address those sources, (3) utilized the Prioritize, Target, and Measure Application, along with other geospatial analysis, to assess both cost and benefit of field-scale practices relative to others in each subwatershed, and (4) developed a comprehensive plan that considered conservation practice benefit to achieve water quality goals across dozens of subwatersheds. This plan will provide the District with the information it needs to address its critical water quality needs while better informing District residents and leaders what investment is necessary to sustain healthy aquatic systems.	Kris Guentzel, Houston Engineering; Amber Doschadis, Upper Minnesota River WD; Mark Deutschman, International Water
2:45pm-3:30pm	Lake Miltona A	Watershed Assessment and Planning Using an Ecosystem Service Approach	Watershed management in Minnesota has traditionally been driven by the desire to prevent and relieve flooding, protect water and natural resources, and improve water quality. While this approach effectively implements regulatory programs, it ignores or only broadly defines other key components of watershed management including ecological health, connectivity, and habitat and does not provide a holistic assessment of watershed health. We will explore the use of an ecosystem service planning and assessment framework that directly links human benefits and the natural environment, using the newly developed E-Grade framework for the Minnehaha Creek Watershed. Through E-grade managers and residents in the watershed will be able to more broadly assess watershed health and to connect actions in their watershed with conditions in their natural environment.. This framework supports better policy development and planning by clearly defining the impacts of degraded environments to those who work and recreate in the watershed.	Joe Bischoff and Diane Spector, Wenck Associates
2:45pm-3:30pm	Lake Miltona B	Financing Multipurpose Drainage Projects	Watershed districts play a key role in the integrated management of water resources and public drainage systems. State policy strongly favors multipurpose drainage projects that integrate drainage system improvements with water quality, habitat, and flood mitigation elements. Nevertheless, integrating the governance and finance of such projects among watershed districts and counties can pose challenges. This program will highlight the success of Heron Lake Watershed District in obtaining funding to design and build multipurpose drainage projects, and also explore the legal and policy challenges with cooperative financing. We will show the watershed benefits of multipurpose projects and pursue the case for enhancing the authority of watershed districts to finance such projects or cooperate with counties to do so.	Jan Voit, Heron Lake WD; Louis Smith, Smith Partners PLLP; Chuck Brandel, ISG Engineers;

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2:45pm-3:30pm	Lake Osakis	Maintaining an active Citizen Advisory Committee	State Statute 103D.331 requires watershed districts to have advisory committees. From statute: "The managers must annually appoint an advisory committee to advise and assist the managers on all matters affecting the interests of the watershed district and make recommendations to the managers on all contemplated projects and improvements in the watershed district." This session will include brief presentations by several watershed districts with active advisory committees. Each panelist will answer some basic questions regarding: Principals for Public Participation CAC Role and Work Plan Benefits and Challenges of Active CAC After the brief presentations, a moderator will facilitate an open discussion between the panelists and audience.	Mark Doneux, Capitol Region WD
2:45pm-3:30pm	Lake Minnewaska	Hennepin County Chloride Partnership: Developing a strategic plan to increase adoption of best management practices with private applicators.	Watershed Organizations and other Local Government Units in Hennepin County in 2018 decided to allocate targeted watershed funds to a Chloride Reduction Initiative. Hennepin County felt well-informed about the winter maintenance practices on public roadways, but the practices of private salt applicators and property managers were a gap in knowledge. The Minnesota Pollution Control Agency was able to take a lead in engaging property managers, so the Hennepin County focused efforts on private applicators. During the summer of 2019, the partnership conducted qualitative research with private applicators to better understand barriers to salt reduction and needs of the industry. The research was also supplemented with a survey that was sent to this targeted audience. The needs and barriers were then translated into short- and long-term actions. This presentation will present the results from this research and the next steps for the partnership.	Emily Kreiter, University of MN; Claire Bleser, Riley Purgator Bluff Creek WD
3:35pm-4:20pm	Lake Miltona A	Viewing and Technology	Until recently, ditch viewing has been done the same for many decades. Most of the reporting has been done via the old pen and paper methods. Utilizing experience, technology and vision to provide innovative and strategic solutions to our customer's water resource and information needs. Introducing automated processes to increase efficiencies and accuracy to viewing. Stressing the importance of GIS based benefit classification maps for unlimited future uses to the Drainage Authorities as a key step in the information process. High-tech, high-resolution maps which allow the Drainage Authority to easily handle future parcel splits, manage future improvements, combining systems, additions and removal of lands, as well as work with entities sharing the same core goals as the Drainage Authorities to protect, enhance, and restore the state's water resources.	Bryan Murphy, H2Over Viewers LLC

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3:35pm-4:20pm	Lake Miltona B	Long-term Conservation Easement Enforcement: Strategies & where to start	Your organization has successfully obtained permanent conservation easements as part of your program. Now what? This presentation will cover the basics of conservation easement stewardship, including the steps involved in annual monitoring of conservation easements and techniques for handling challenges and resolving violations. Over the last several years, the easement compliance rate for the conservation easements in the Prior Lake-Spring Lake Watershed District has risen from 40% in 2015 to nearly 80% compliance in 2019. A successful easement stewardship program requires good documentation and policies, but also includes good landowner relations and consistency. We will discuss lessons learned and strategies we have used to help resolve easement violations. Come with questions about particular issues or challenges you may have encountered.	Kathryn Keller-Miller and Maggie Karschnia, Prior Lake Spring Lake WD
3:35pm-4:20pm	Lake Osakis	Sooo ..... you want to own your own building	Many watershed districts own their office buildings, and many do not. This interactive session will feature five watershed districts discussing the details of their office projects. The panel will first each answer a few basic questions: 1) What were the primary reasons to build/remodel your own office facility? 2) How did you get to the decision to own versus leasing? 3) What were the key planning elements that your district considered the “must haves” for your building? 4) How did you tie your building to your mission? 5) How much did your building costs for acquisition, planning/design, construction, O & M? 6) How did your district finance your new building? 7) How did your district plan for office space, storage, parking, meeting rooms and staff areas? 8) What do you like the best about owning your own space? 9) What advice would you give to others about owning your own space?	Mark Doneux, Capitol Region WD; Scott Henderson, Sauk River WD; TIm Kelly, Coon Creek WD; Tina Carstens, Ramsey Washington Metro WD; Myron Jesme, Red Lake WD
3:35pm-4:20pm	Lake Minnewaska	Stormwater Quality Trading: Accelerating Watershed Improvements While Reducing Costs	Minnesota’s municipal separate storm sewer system (MS4) permitted entities are faced with high costs for implementing stormwater quality projects in urban settings. Yet these investments in stormwater improvements may not yield significant improvements to stormwater quality. The Shell Rock River Watershed District (SRRWD) is working with the City of Albert Lea to develop a stormwater quality credit trading pilot program to address this challenge. This pilot program will test innovative options to accelerate the implementation of projects and practices that will result in improved water quality while reducing costs. Implementing a stormwater quality credit trading program also helps to build a stronger rural-urban community relationship and creates a mutual vested interest in the health of the watershed, by setting up both sides for success. This presentation will focus on the essential stormwater quality trading program components and the potential to expand the program other areas of Minnesota.	Courtney Phillips, Shell Rock River WD; Julie Blackburn, Respec