

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing May 2024 Activities for June 5, 2024 Board Meeting
Date: May 31, 2024

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 May 2024.

General Services

- a. Met with Administrator Jeffery on May 14 to begin the budgeting process for 2025, discuss 2025 capital projects, and 2024 ongoing capital projects.
- b. Met virtually with Administrator Jeffery, staff Nicklay, and Counsel Welch on May 15 and 28 to discuss actions on notice of probable violation locations, Upper Bluff Creek cooperative agreement, upper Riley Creek draft cooperative agreement and private property access agreements, variance requests with permit reviews, quote/bidding process for 2024 Lotus Lake alum application, and upcoming Lotus Lake subwatershed capital projects.
- c. Met with city of Chanhassen on May 17 and 30 to discuss the decant facility 30% design and other partnership projects (upper Riley stream restoration, upper Bluff Creek stream restoration and Galpin culvert crossing).
- d. Participated in the May 8 regular Board of Managers.
- e. Prepared Engineer's Report for engineering services performed during May 2024.
- f. Reviewed draft Lessard Sam Outdoor Heritage Council (LSOHC) grant text and provide feedback to Administrator Jeffery.
- g. Miscellaneous discussions with Administrator Jeffery about LSOHC grant opportunity, task order development, permits, EHAP, meeting preparations, 2025 budget, and ongoing studies.
- h. Miscellaneous discussions with Counsel Welch about technical aspects of the upper Bluff Creek Galpin crossing cooperative agreement as well as private property agreements and draft cooperative agreement with Chanhassen for upper Riley Creek restoration project.

Permitting Program

- a. *Permit 2023-077 Enclave at Manor Road* - This applicant proposes construction with driveways and patios, utilities, and stormwater management facilities. The stormwater management system includes vegetated swales, preservation of natural areas, and a bioretention basin site to provide runoff volume abstraction, water quality treatment, and rate control. Reviewed the revised submittal materials received on May 21; meet virtually with the applicant to discuss alternative design, modeling, and Board May 8 variance denial; and

drafted permit report for consideration at the June 5 manager meeting.

- b. *Permit 2024-008 Chanhassen Apartments* – The proposed project includes the redevelopment of a property into two multi-family/mixed use retail and restaurant buildings and associated onsite and under-building parking areas. The project triggers RPBCWD erosion prevention and sediment control and the stormwater management rules. Answer questions about condition of the May 8 approval.
- c. *Permit 2024-013 Chanhassen 2024 Streets – Cahn View Area*– The city is proposing to improve approximately 3 miles of roadway with a mix of full reconstruction and rehabilitation in the residential Chan View neighborhood. The project triggers RPBCWD erosion prevention and sediment control rule and the stormwater management rule. The applicant is proposing on-site BMPs and the use of a regional rainwater reuse system in the same subwatershed to provide rate control, volume abstraction, and water quality protection. Working with applicant to fulfill conditions of May 8 approval.
- d. *Permit 2024-018 Miller Park Courts* – The proposed project includes the replacing the existing basketball and tennis courts with eight (8) pickleball courts, one (1) tennis court, and one (1) basketball court. The project triggers RPBCWD erosion prevention and sediment control (Rule C), creek and wetland buffers (Rule D) and the stormwater management (Rule J) rules. Reviewed the submittal and provided review comments on May 20 informing the applicant the submittal was incomplete because of erosion prevention and sediment control at the proposed discharge location and wetland and information to demonstrate compliance with three feet of separation between the infiltration basin and redoximorphic soils. Reviewed revised submittal and drafted permit report for consideration at the June 5 manager meeting.
- e. *Permit 2024-023 Chanhassen Civic Campus* – The applicant is proposing a new city hall building, parking facilities, public parking, utility design, community site improvements, and stormwater management improvements. The applicant is proposing on-site BMPs and the use of a regional rainwater reuse system in the same subwatershed to provide rate control, volume abstraction, and water quality protection. The project triggers RPBCWD erosion prevention and sediment control rule and the stormwater management rule. Reviewed revised submittal and drafted permit report for consideration at the June 5 manager meeting.
- f. *Permit 2024-027 Hyland Boat Launch* – The applicant is proposing the reconstruction of the Hyland Lake boat launch in Bloomington. The project is part of a larger scheme of development that was approved under Permit 2018-072. The project triggers RPBCWD floodplain management (Rule B), erosion prevention and sediment control (Rule C), and stormwater management rule (Rule J). Reviewed the submittal and provided review comments on May 14 informing the applicant the submittal was incomplete because of missing plans, electronic models, and drainage maps. The application was considered complete with the receipt of revised material provided on May 20. Follow up comments regarding the separation of the filtration basin and low floor elevation of the pump house were provided on May 23.
- g. *Permit 2024-029 Lunds & Byerlys Food Holdings Improvement* – The applicant is proposing a building addition and utility improvements at the 7752 Mitchell Road in Eden Prairie. The project triggers RPBCWD erosion prevention and sediment control (Rule C) and stormwater management rule (Rule J). Reviewed the submittal and provided review comments on May 15 informing the applicant the submittal was incomplete because of missing permit fee

deposit, soil borings, and stormwater management analysis.

- h. *Permit 2024-033 Les Schwab Tire Center* – The applicant is proposing to redevelop a portion of the parking lot at 17555 State Hwy 7 in Minnetonka to construct a new Tire Center building. The project triggers RPBCWD erosion prevention and sediment control (Rule C), wetland and creek buffers (Rule D), and stormwater management rule (Rule J). Reviewed the submittal and provided review comments on May 16 informing the applicant the submittal was incomplete because of missing permit fee deposit, erosion control plan, wetland delineation and MNRAM, soil borings, and stormwater management models in native electronic format, and engineers opinion of probable cost.
- i. Miscellaneous preapplication calls, emails, and meetings with future applicants with questions about rule applicability and criteria. Also answering questions from existing permit applicants about how to address comments provided during the review process and conditions of approval.

Data Management/Sampling/Equipment Assistance

- a. Prepared, loaded, and verified 12 RMB Laboratory (RMB) reports to the database.

Task Order 6: WOMP Station Monitoring

Purgatory Creek Monitoring Station at Pioneer Trail

- a. No activity.

Purgatory Creek Monitoring Station at Valley View Rd

- a. Assist RPBCWD staff with storm event sampling activities

Task Order 24B: Silver Lake Water Quality Improvement Project

- a. Vegetation maintenance contract is underway through December 2025.
- b. Garlic mustard management last season has reduced the abundance of the invasive species.

Task Order 28B: Rice Marsh Lake (RM_12a) Water Quality Improvement Project

- a. The year vegetation establishment period is in process and will continue through fall 2025.
- b. Site visit with the District Administrator is scheduled for Wednesday June 12.

Task Order 29B: Middle Riley Creek (Reach R3) Stabilization Project Design

- a. Stantec visited the site on May 2nd to assess site conditions. Treatment for removal of non-native species occurred on May 13th.

Ongoing vegetation management will continue through July 15, 2025.

Task Order 30B: Pioneer Trail Wetland Restoration Project

- a. The year vegetation establishment period is in process.
- b. Fall will be the next time for herbicide treatment.

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- c. Contractor is working on a management plan for the season and will provide to Barr soon.
- d. Contractor will complete monthly visits per the contract throughout the season. Visits will include mowing and spot spraying, as needed.
- e. Final walkthrough anticipated for late August or early September.
- f. Site visit with the District Administrator is scheduled for Wednesday June 12.

Task Order 032B: Upper Riley Creek Ecological Enhancement Project

- a. Continue working with Administrator Jeffery and RPBCWD legal on revisions to private property agreements and a draft cooperative agreement with the city of Chanhasen.
- b. RPBCWD permit is planned for submittal after plans have been updated and property owner easements are in process in summer 2024.
- c. Coordinating permitting efforts with decant facility (Task Order 41)
- d. Because property owner coordination, some permitting, the incorporation of the proposed decant facility, and project bidding remains to be complete, Barr will coordinate with Administrator Jeffery to develop a request for additional engineering and permitting budget..

Task Order 033: Wetland Assessment – Phase 1

- a. Continued drafting Phase 1 report to define ecosystem services and describe methodology for assessing each service.
- b. Continued data analysis for final report.

Task Order 036B: Upper Bluff Creek Reach 5 Design

- a. Draft plans and specs for the riffle design at the outlet of the City's proposed Galpin Boulevard culvert replacement were provided to the District Administrator and City on May 24 for review.
- b. SQT analysis will take place on June 3-4
- c. The Phase I ESA and Cultural Resources Assessment were shared with Administrator Jeffery in May.
- d. Proposed conditions modeling of the wetland outlet structure is underway. Proposed design seeks to mimic pre-development conditions hydrology through the wetland and downstream creek.

Task Order 037: Sediment Analysis

- a. Continued drafting technical memorandum summarizing results.
- b. The Lake Susan and Lake Susan wetland memos will be delivered together by the first week of June 2024.

Task Order 039A: Lotus Lake Water Quality Project – Preliminary Engineering

- a. Continued developing a scope of work for the project design phase.

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- b. Assisted Administrator Jeffery with presentation preparation for the city of Chanhassen Parks commission.

Task Order 040B Lotus Lake Alum Administration

- a. Kicked off development of plans and specifications for the Fall alum treatment on Lotus Lake.
- b. Reviewed approach selected in Task 40 and updated calculations and cost estimates.
- c. Began drafting plans and specifications for legal and staff review.
- d. Draft plans and specifications to be delivered to staff and legal counsel mid-June.

Task Order 41: Chanhassen Decant Facility

- a. Submitted 30% design and met with the District and City staff to review design.
- b. Started on 60% design.

Task Order 43: Ecosystem Health Action Plan

- a. Continued writing the final chapter of the EHAP which addresses the actions the District will take moving forward.
- b. Met with Terry to discuss project progress and completion. This project is nearly complete.

Task Order 44: Lake Susan Park Pond Reuse Intake Modification

- a. **Coordinating with contractor on construction schedule.**

Task Order 45: Development of District-Wide Groundwater Monitoring Network

- a. Meeting held with District Administrator on May 6th to discuss initial well location screening and next steps.
- b. District staff are meeting with property owners regarding potential well locations.

Task Order 46: Duck Lake Outlet Modifications

- a. Determined the plugged condition of the pre-2014 outlet that most closely approximates the observed water elevations between 1979 and 2014.
- b. Continued modeling potential outlet modifications to allow the outlet to function more closely to the original 1969 design while maintaining the current normal water level. The potential outlet will most likely be a multi-stage design with orifice(s) and weir(s) to control the outflow rates at different elevations.
- c. Project is slightly behind schedule but a lot of progress has been made in the end of May and the budget spending is on track for the work that has been completed. Anticipate having preliminary outlet concepts ready in early June.

Capital Project	Project Phase (% Complete)								Comments
	Regional Analysis	Feasibility Study	Project Ordering	Design	Permitting	Construction	Substantial Completion	Final Completion	
Bluff Creek									
Bluff Creek Tributary Restoration	100%	100%	100%	100%	100%	100%	100%	100%	Project Closed-out and Final payment in October 2023
Pioneer Wetland Restoration	100%	100%	100%	100%	100%	100%	100%	60%	3-year vegetation management underway
Bluff Creek Reach 5 Restoration	100%	100%	100%	15%	5%				Cultural and environmental resources report complete, preliminary sheets set up complete, riffle design at Galpin Blvd culvert outlet sent to District and City, updated existing conditions hydrologic model complete, proposed wetland outlet design underway
BT3	100%								
B4	100%								
B3	100%								
Riley Creek									
Lake Riley - Alum Treatment	100%	100%	100%	100%	100%	100%	100%	100%	
Rice Marsh Lake in-lake phosphorus load	100%	100%	100%	100%	100%	33%	33%	33%	The first of three alum doses applied in 2018
Rice Marsh Lake Water Quality Improvement Phase 1	100%	100%	100%	100%	100%	100%	100%	60%	3-year vegetation management underway
Riley Creek Restoration (Reach E and D3) (aka Lower Riley Creek Restoration)	100%	100%	100%	100%	100%	100%	100%	100%	
Upper Riley Creek Stabilization (aka Upper Riley Creek Ecological Enhancement Project)	100%	100%	100%	99%	50%				DNR and USACE permit received. District permitting pending. Anticipate bidding in later summer after the decant facility is incorporated into the project as directed by the Administrator. Assisting staff with property access agreements (private and public)
Middle Riley Creek Restoration	100%	100%	100%	100%	100%	100%	100%	45%	3-year vegetation management underway
St. Hubert Water Quality Project	100%	100%	100%	100%	100%	100%	100%	45%	3-year vegetation management underway
Lake Susan Park Pond	100%	100%	100%	100%	100%	100%	100%	100%	
Susan In-Lake	100%								
LU-A1.10c	100%								
LU-A3.4	100%								
Lake Susan Park Pond Reuse Inlet Enhancement				100%	90%	5%			Contractor contract executed, city and district permits obtained, and reviewing shop drawings.
Chanhasen Decant Facility				35%	5%				City and RPBCWD Administrator approved boneyard location and directed the design be rolled into the Upper Riley Creek Restoration Plans and specs for a single bidding.
Purgatory Creek									
Purgatory Creek Rec Area- Berm/retention area	100%			50%					
Lotus Lake in-lake phosphorus load control	100%	100%	100%	50%	100%	50%	50%	50%	The first of two alum doses applied in 2018. Board authorized Barr to finalize dosing and develop specification for second dose in late 2024.
Silver Lake Water Quality BMP	100%	100%	100%	100%	100%	100%	100%	45%	3-year vegetation management underway
Scenic Heights Forest Restoration	100%	100%	100%	100%	100%	100%	100%	100%	
Hyland Lake in-lake phosphorus load control	100%	100%	100%	100%	100%	100%	100%	100%	Three Rivers Park took over project.
Duck Lake Watershed Load	100%	100%	100%	100%	100%	100%	100%	100%	
Duck Lake Road Partnership (aka bridge)			100%				100%	100%	Partnership project with Eden Prairie. RPBCWD limited to financial contribution. Construction is complete. RPBCWD has fulfilled 3 of 5 year financial contributions.
Lotus Lake Watershed Improvement Project (LL_1, LL_3, LL_7, LL_8)	100%	100%							Report Finalized and presented at February 2024 regular meeting. Working with Administrator on scoping design efforts and city coordination.
Staring Lake StL_21	100%								
Lotus Lake LL_9	100%								
Staring Lake StL_1	100%								
Red Rock Lake RRL_7	100%								
Staring Lake StL_17	100%								
Mitchell Lake ML_3	100%								
PC_1	100%								
PC_2	100%								
Kerber Ravine	100%	100%							Incorporated summary into Lotus Lake Water Quality project to assess impact with respect to other BMPs being considered.

Ongoing Studies									
Ecological Health Action Plan		80%							Working on finalizing draft report for discussion at an upcoming Board workshop.
Lotus Lake LVMP		100%						100%	
Eden Prairie Climate Resilience Modeling		100%						100%	
Wetland Assessment Phase 1		95%						95%	
Sediment Analysis - Riley, Rice Marsh, Susan		95%							Lake Susan and Lake Susan wetland memos will be delivered together in June 2024.
Development of Groundwater Monitoring Network		40%		20%					Location siting and selection underway. Specifications for bid in development.
Duck Lake Outlet Modification		30%							Modeling of possible Duck Lake outlet modifications underway.