

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing October 2024 Activities for November 6, 2024 Board Meeting
Date: October 31, 2024
Project: 23270053.14 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 October 2024.

General Services

- a. Met virtually with Administrator Jeffery and Counsel Welch on October 1, 21, and 29 to discuss actions on notice of probable violation locations, Upper Bluff Creek/Galpin Culvert cooperative agreements, upper Riley Creek draft cooperative agreement and private property access agreements, and permits.
- b. Participated in the October 2 regular meeting of the Board of Managers.
- c. Participated in the October 2 workshop of the Board of Managers.
- d. Met with Administrator Jeffery, cities of Eden Prairie, Minnetonka, and Chanhassen on October 8 discussing establishment of RPBCWD shallow groundwater monitoring network.
- e. Met with Administrator Jeffery on October 10 to strategize the North Lotus Lake stakeholder engagement and concept ideas for the artist request for proposals.
- f. Miscellaneous discussions with Administrator Jeffery about task order development, CIP projects, permits, regulatory program, and ongoing studies.

Permitting Program

- a. *Permit 2022-068 KIWATCHI*-- The applicant originally proposed a redevelopment project involving the subdivision of an existing single-family home parcel into four single-family residences with associated sewer and utilities, and the construction of an infiltration basin for stormwater management. The permit was conditionally approved at the April 12, 2023 meeting. The applicant is now seeking approval of a revised stormwater-management plan after the discovery of soil conditions that are not conducive to infiltration. The requested modification is the conversion of the constructed basin into a biofiltration basin. Reviewed October 7, 15, and 24 revised submittal and drafted the permit report for consideration at the November 6, 2024 meeting.
- b. *Permit 2023-059 Three Oaks* – The applicant proposes the subdivision of an existing single family home parcel into a 5-lot single-family residential development in Eden Prairie, including preservation of natural areas, and a wet detention basin with bioretention bench to provide runoff volume abstraction, water quality treatment, and rate control. The project triggers

- erosion preventions and sediment control Rule C, wetland and creek buffer Rule D, and stormwater management Rule J. Notified applicant of conditional approval and worked with applicant to fulfil conditions of approval.
- c. *Permit 2024-049: 11609 Leona Rd Redevelopment* – The applicant is proposing to subdivide the existing 3.44 AC parcel into two separate lots to 1) develop a one story, approximately 2,447 square foot building with a drive through, patio, and associated utility, landscape, and parking improvements and 2) demo a portion of the existing retail building and develop an approximately 18,500 square foot building with associated utility, landscape, and parking improvements. The project triggers RPBCWD erosion prevention and sediment control (Rule C and stormwater management rule (Rule J). Review October 14 revised submittal completing the application and provided review comments to the applicant.
 - d. *Permit 2024-064 CenterPoint Energy-Xcel Service Facility* – The applicant is proposing several waterbody crossings to provide natural gas service. The project triggers RPBCWD erosion prevention and sediment control (Rule C), wetland and creek buffer (Rule D), and waterbody crossings and structures rule (Rule G). Notified applicant of conditional approval and worked with applicant to fulfil conditions of approval...
 - e. *Permit 2024-072 CenterPoint Energy-Stodola Road* – The applicant is proposing a waterbody crossing to provide natural gas service. The project triggers RPBCWD erosion prevention and sediment control (Rule C), wetland and creek buffer (Rule D), and waterbody crossings and structures rule (Rule G). Reviewed October 1 revised submittal, drafted a permit review report for consideration at the November 6 Board of Managers meeting, and addressed applicant questions about financial occurrence.
 - f. *Permit 2020-051: BIOLYPH Parking* – This project is a 0.55-acre parking lot expansion at the BIOLYPH building in Chaska, MN. The permit triggers RPBCWD's Erosion Prevention and Sediment Control Rule (Rule C) and Stormwater Management Rule (Rule J). Stormwater management facilities include an underground storage system with hydrodynamic separators and a rainwater harvest and reuse system. Reviewed September 24 and October 11 submittals and provided comments. Drafted a permit review report for consideration at the November 6 Board of Managers meeting.
 - g. *Permit 2024-078 Avienda Master Plan* – The applicant is seeking approval of a regional stormwater master plan covering roughly 63 acres in Chanhassen near Lyman Boulevard and Powers Boulevard. The proposed stormwater management system includes regional detention pond, two rainwater harvest and reuse systems, biofiltration basins, a manufactured treatment device, and modifying two existing stormwater facilities on the site to provide runoff volume abstraction, water quality treatment, and rate control. The project triggers RPBCWD floodplain management rule, erosion prevention and sediment control rule, and the stormwater management rule. Reviewed September 25 submittal and informed the applicant on October 7 that the application was incomplete because of missing permit fee deposit and engineer's opinion of probable cost.
 - h. 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 24 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. Power line has been repaired and the monitoring station is operating again.
- b. Reviewed and approved MCES Lab invoice.
- c. Downloaded and reviewed data.

Task Order 24B: Silver Lake Water Quality Improvement Project

- a. Vegetation maintenance contract is underway through December 2025. PRI had funding available to end the season maintenance so additional native seeding was incorporated for a late fall maintenance visit.

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.

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

- a. Stantec will replace live stakes during the dormant season this fall or next spring at the north site. Site inspections will resume in the spring prior to May 15th and continue until the end of the 2025 growing season or later, until vegetation establishment has reached final acceptance conditions.

Task Order 30B: Pioneer Trail Wetland Restoration Project

- a. The year vegetation establishment period is in process.
- b. Fall herbicide treatment completed in early October.

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 Chanhassen.
- b. Submitted MCES Encroachment Agreement application October 4, anticipate agreement to be finalized in November.
- c. RPBCWD permit is planned for submittal in early November with updated plans to reflect latest city comments.
- d. Coordinating permitting efforts with decant facility (Task Order 41)

Task Order 033: Wetland Assessment – Phase 1

- a. Phase 1 report to define ecosystem services and describe methodology for assessing each service remains on hold pending BWSRs proposed new wetland assessment protocols.

Task Order 036B: Upper Bluff Creek Reach 5 Design

- a. Wetland outlet structure design will likely require excavation of compensatory flood storage. Will be discussing pros and cons of excavating within the riparian corridor where contaminants may be present.
- b. 60% design of stream restoration elements is ongoing.

Task Order 039B: Lotus Lake Water Quality Project – Park Concept

- a. Stakeholder engagement led by District staff has been initiated, and a community event will be held 11/2/24 to gather resident input.
- b. A Request for Qualifications for artists has been distributed with a November 15, 2024 due date. Qualifications will be reviewed by District staff to select artists for interview. The community engagement event will also serve as an information session for artists interested in submitting a qualifications package to support the park design.

Task Order 040B Lotus Lake Alum Administration

- a. Alum treatment completed October 1-4, 2024.

Task Order 41: Chanhassen Decant Facility

- a. Submitted 90% design Drawings and Specifications for City to review.
- b. Additional unbudgeted scope items incorporated into the Project include the following and have resulted in the design and permitting effort exceeding the authorized budget:
 - a. Relocating the Project site after 30% Design.
 - i. Revisions to design and reissuance of 30% Design.
 - ii. Additional survey and geotechnical investigation required for relocated site.
 - iii. More extensive Stormwater Management design and permitting coordination due to proximity of wetlands, flood plain, and MCES easement.
 - b. Addition of electrical and lighting design.

Task Order 44: Lake Susan Park Pond Reuse Intake Modification

- a. Continue coordinating with contractor to complete the revisions to the new suction piping to align with the project specifications and scheduling the testing and commissioning of the system.

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

- a. Meet with city of Minnetonka, Chanhassen and Eden Prairie to discuss potential well

locations on city property. After concurrence with property owners on well locations bids will be sought for well installation in 2025.

Task Order 46: Duck Lake Outlet Modifications

- a. The purpose of this task order is to evaluate modifications to the Duck Lake outlet that maintain the existing runout elevation of 913.45 but better approximate the stage-duration curve before the outlet was modified in 2014.
- b. Responded to stakeholder comments on the draft of the technical memorandum summarizing the potential outlet modifications, modeling results and potential impacts to Duck Lake.

Task Order 47: Lucy, Ann and Susan Lake and Watershed Management Plans

- a. Conducted an internal kick-off meeting for model updates.
- b. Began organizing and reviewing P8 models for updates.
- c. Began organizing data for management plans.

Task Order 48: Districtwide Shoreline and Aquatic Plant Management Plan

- a. Working to schedule a kick-off meeting with District staff.

Task Order 49: Districtwide Fisheries Management Plan

- a. Working to schedule a kick-off meeting with District staff.

Task Order 50: Mitchell and Red Rock Lake and Watershed Management Plans

- a. Conducted an internal kick-off meeting for model updates.
- b. Began organizing and reviewing P8 models for updates.
- c. Began organizing data for management plans.

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%	20%	5%				Proposed wetland outlet design and stream restoration element design is underway, conversations with private property owners to discuss opportunities for compensatory storage to remove debris and contaminants within Bluff Creek.
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%	75%				DNR and USACE permit received. District permitting pending. Anticipate bidding in fall 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%	60%	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%	100%	80%			Contractor completed installation of concrete intake structure, associated pond excavation, and site restoration.
Chanhassen Decant Facility				90%	50%				City is reviewing 90% design and comments will be incorporated as the project moves toward 100% design. Coordinated with MCES on permitting requirement to work in their sanitary sewer easement.
Purgatory Creek									
Purgatory Creek Rec Area- Berm/retention area	100%			50%					
Lotus Lake in-lake phosphorus load control	100%	100%	100%	100%	100%	50%	50%	50%	Project let for bid on August 14, 2024 for second application. Low bid was 2% over engineer's opinion of probable cost, recommended Solitude Lake Management for the fall application.
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%							Managers approved scope for additional stakeholder engagement, city coordination, and concept development at the September 2024 meeting. Working with staff on engagement opportunities.
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		100%							Finalize report and discussed at August 7 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		100%							
Development of Groundwater Monitoring Network		45%		50%					Location siting and selection underway. Specifications for bids ready to be sent once concurrence of property owners obtained for well locations.
Duck Lake Outlet Modification		99%							Responding to stakeholder comments to draft memorandum summarizing potential outlet modifications, model results and impacts to Duck Lake water levels.