

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing November 2024 Activities for December 11, 2024 Board Meeting
Date: December 3, 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 November 2024.

General Services

- a. Participated in the November 6 regular meeting of the Board of Managers.
- b. Participated in the November 6 workshop of the Board of Managers.
- c. Met with Administrator Jeffery, staff Dickhausen and staff Portoghese to discuss the soil data collection program and testing results.
- d. Met with Administrator Jeffery, staff Maxwell, and staff Dickhausen on November 7 to discuss the recent spent lime system monitoring results.
- e. Met with Administrator Jeffery and city of Chanhassen on November 8 about the North Lotus Lake project ideas, stakeholder engagement process and timeline.
- f. Met virtually with Administrator Jeffery and Counsel Welch on November 13 to discuss actions on notice of probable violation locations, Upper Bluff Creek/Galpin Culvert cooperative agreements, a potential Phase 2 environmental site assessment for upper Bluff Creek project, upper Riley Creek draft cooperative agreement and private property access agreements, and permits.
- g. Prepared November 2024 engineering report
- h. Miscellaneous discussions with Administrator Jeffery about task order development, CIP projects, permits, regulatory program, and ongoing studies.

Permitting Program

- a. *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. Informed applicant of conditional approval and reviewed draft declaration.
- b. *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). Reviewed November 4 and 18 revised submittals and drafted the permit report for consideration at the December 11, 2024 meeting.
- c. *Permit 2024-058 Total Wine Pavement Repair* – The applicant is proposing the conversion of the pervious parking stalls at Total Wine in Chanhassen to impervious surface because of deteriorated pavement conditions. The project triggers RPBCWD erosion prevention and sediment control (Rule C) and stormwater management rule (Rule J). The applicant proposes to meet rate, water quality, and volume control requirements through the utilization of existing subsurface rock infiltration and one proprietary water quality treatment manhole. Met with the applicant on November 18 to discuss potential for interim remedial measures to allow patching over the winter in advance of modification to the stormwater management system. Application remains incomplete.
- d. *Permit 2024-061 Pig Ate My Pizza 2.0* – The applicant is proposing the redevelopment the former fueling station portion of 10700 Bloomington Ferry Road, Bloomington into a restaurant. The project triggers RPBCWD erosion prevention and sediment control (Rule C) and stormwater management rule (Rule J). The applicant proposes to meet rate, water quality, and volume control requirements through the implementing an underground stormwater management facility. Reviewed the October 31 revised submittal and provided review comments on November 8 informing the applicant the submittal remained incomplete because of missing permit fee deposit and engineers opinion of probable cost.
- 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). Informed applicant of November 6 conditional approval, assist applicant with condition fulfillment and issued permit.
- f. *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 November 21 and 27 revised submittals for preliminary discussion with the Board of Managers at the December 11, 2024 meeting.
- g. *Permit 2024-084: Dell Road Reconstruction* – The applicant proposes the reconstruction of 0.56 miles of Dell Road by converting the road from rural roadway to curb and gutter, installing utilities, realigning the Riley Creek crossing, stabilizing a section of Riley Creek, and constructing an infiltration basin to provide volume control, water quality, and rate control. The applicant also proposes reconstruction of 0.079 miles of Turnbull Road and 0.082 miles of private Meadowcroft Driveway. The permit triggers RPBCWD's Erosion Prevention and Sediment Control Rule (Rule C), Wetland and Creek Buffers (Rule D), Shoreline and

Streambank Stabilization (Rule F), waterbody Crossings and Structures (Rule G), and Stormwater Management Rule (Rule J). Reviewed the October 25 submittal and provided review comments informing the applicant the submittal was incomplete. Met with the applicant on November 26 to discuss review comments and potential resolutions.

- h. *Permit 2024-086*: Eden Prairie Police Expansion – The applicant proposes construction of a building addition, new and rehabilitated asphalt pavements, erection of a security fence around police parking, adjacent sidewalks, retaining walls, and an infiltration basin to provide volume control, water quality, and rate control. The permit triggers RPBCWD's Erosion Prevention and Sediment Control Rule (Rule C), Wetland and Creek Buffers (Rule D) and Stormwater Management Rule (Rule J). Reviewed submittals, worked with applicant to address comments and drafted the permit report for consideration at the December 11, 2024 meeting.
- i. *Permit 2024-091*: Hwy 5 Business Center –The applicant proposes construction of an office/warehouse building, parking, utilities, and an infiltration basin to provide volume control, water quality, and rate control on a 4.5 acre site in Eden Prairie. The permit triggers RPBCWD's Erosion Prevention and Sediment Control Rule (Rule C) and Stormwater Management Rule (Rule J). Drafted the permit report for consideration at the December 11, 2024 meeting.
- j. 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 6 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. No activity.

Task Order 24B: Silver Lake Water Quality Improvement Project

- a. **Vegetation maintenance contract is underway through December 2025.**

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

- a. The three-year vegetation establishment period is in process and will continue through fall 2025.
- b. Pay App #8 for Year 2 vegetation establishment will be provided to Board for approval at December meeting.

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

- a. Stantec will replace live stakes during the dormant season 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. Three year vegetation establishment period is in process.
- b. Overseeding occurred in November 2024. Water levels are a little higher than usual this time of year, so the stoplogs in the water level control structure were removed.
- c. Pay App #8 for Year 2 vegetation establishment will be provided to Board for approval at December meeting.

Task Order 032B: Upper Riley Creek Ecological Enhancement Project

- a. Continue working with Administrator Jeffery and RPBCWD legal on revisions to private property agreements.
- b. Submitted draft documents for the cooperative agreement with the city of Chanhassen.
- c. Submitted MCES Encroachment Agreement application October 4, anticipate agreement to be finalized in December.
- d. RPBCWD permit application submitted December 3 with plans updated 11-19-2024 to reflect latest city comments.
- e. Coordinating permitting efforts with decant facility (Task Order 41)

Task Order 036B: Upper Bluff Creek Reach 5 Design

- a. Wetland outlet structure design will likely require excavation of compensatory flood storage.
 - a. Presented pros and cons of excavating within the riparian corridor where contaminants may be present at the November Board meeting. Board requested Barr draft a change order to complete a Phase II Environmental Site Assessment to determine extent of contamination.
- b. Developing a Change Order to execute the Phase II ESA to evaluate the extent of the potential contamination at the ravine dump sites.
 - a. Currently working with District Administrator and Legal to address Legal's concerns on disturbing the potentially contaminated areas.
 - b. Working to determine a path forward, either to proceed with trying to clean up ravine dump or to avoid potentially contaminated materials altogether.
- c. 60% design of stream restoration elements is ongoing.

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

- a. A community engagement event led by District staff was held 11/2/24 to gather resident

- input. Nineteen (19) guests signed into the event, and eight (8) completed the park/lake use survey. Visitors provided feedback on the initial concepts developed during the feasibility study and walked the site with Barr staff to share how the site is currently used.
- b. A Request for Qualifications for artists was distributed, and on November 15, 2024, seven (7) qualifications packages were delivered to the District via Barr for consideration. Qualifications will be reviewed by District staff to select artist(s) for interview.
 - c. District staff developed a project website with the surveys and for information sharing. <https://rpbcwd.org/whats-happening/projects/north-lotus-lake-park-water-quality-improvement-project>



Figure - Community engagement event at N. Lotus Lake Park in early November

Task Order 41: Chanhassen Decant Facility

- a. Contract documents are ready for bid, plan to go out for bid in December, pending Board authorization.
- 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 46: Duck Lake Outlet Modifications

- a. Finalized the technical memorandum summarizing the potential outlet modifications, modeling results and potential impacts to Duck Lake.
- b. Presented the project's findings at the November 6 board meeting.

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

- a. Developed basemaps for each lake.
- b. Began developing P8 models.
- c. Continued organizing data for management plans.

Task Order 48: Districtwide Shoreline and Aquatic Plant Management Plan

- a. Continued working to schedule a kick-off meeting with District staff.

Task Order 49: Districtwide Fisheries Management Plan

- a. Continued working to schedule a kick-off meeting with District staff.

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

- a. Developed basemaps for the lakes.
- b. Continued organizing and reviewing P8 models for updates.
- c. Reviewed data provided by the City of Eden Prairie.
- d. Continued 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%	35%	5%				Proposed wetland outlet design and stream restoration element design is underway, developing Change Order to conduct Phase II ESA to evaluate extent of contaminants and debris removal with compensatory storage excavation 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%	100%	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.
Chanhasen Decant Facility				100%	75%				Contract documents are ready for bid, plan to go out for bid in December. 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%	100%	100%	100%	Second alum application complete in October 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%							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%							
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		100%							Finalized report, presented results at November 6 board meeting