

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing October 2023 Activities for November 1, 2023 Board Meeting
Date: October 26, 2023

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 2023.

General Services

- a. Met virtually with Administrator Jeffery and Chanhassen staff on October 4 to discuss the potential decant facility location, cost, and funding constraints.
- b. Participated in the October 4 regular Board of Managers meeting.
- c. Met virtually with Administrator Jeffery and staff Bakkum on October 12 to discuss the upcoming workshop agenda items.
- d. Developed presentation materials and participated in the October 19 workshop to discuss the upper Bluff Creek project.
- e. Continued to develop task orders for the Upper Bluff Creek restoration project and a district wide groundwater monitoring network.
- f. Meeting virtually with Administrator Jeffery, President Ziegler, Counsel Smith and Counsel Welch on October 30 to review draft agenda for November 1 regular board of managers meeting.
- g. Prepared Engineer's Report for engineering services performed during October 2023.
- h. Miscellaneous discussions with Administrator Jeffery about CIP, permits, EHAP, grants, and ongoing studies.

Permitting Program

- a. *Permit 2023-003 Galpin Boulevard Reconstruction* – The project proposes the reconstruction of roughly 2 miles of Galpin Boulevard (CR 117) between Hwy 5 and the Chanhassen/Shorewood border by converting the roadway from rural roadway to an urbanized section with curb and gutter. The project triggers RPBCWD floodplain management rule, erosion prevention and sediment control rule, creek and wetland buffer rule, waterbody crossing and structures rule, and the stormwater management rule. Reviewed October 9 resubmittal. Drafted the permit report for consideration at the November 1, 2023 regular meeting of the Board of Managers.
- b. *Permit 2023-012 Audubon Business Park* – The proposed work will develop a 28-acre site at

- the southwest corner of Hwy 5 and Audubon Road Chanhassen, Minnesota. The applicant proposes constructing 2 office/warehouse buildings and associated site improvements on an undeveloped lot. The stormwater management system includes the construction of filtration and infiltration basins to provide water quality treatment, rate control, and volume abstraction. The project triggers RPBCWD floodplain rule, erosion prevention and sediment control rule, creek and wetland buffer rule, and the stormwater management rule. Reviewed draft declaration and design revisions to address conditional approval items.
- c. *2023-055 Ridgewood Ponds* – The applicant proposes the subdivision of an existing single family home parcel into an 11-lot single-family residential development in Eden Prairie, including the construction of two infiltration basins for stormwater management. The project triggers erosion preventions and sediment control Rule C, wetland and creek buffer Rule D, and stormwater management Rule J. Reviewed several versions of the draft maintenance declaration..
 - d. Miscellaneous preapplication calls from future applicants with questions about rule applicability and criteria.

Data Management/Sampling/Equipment Assistance

- a. Prepared, loaded, and verified 19 RMB Laboratory (RMB) reports to the database.
- b. Prepared, loaded, and verified lake data collected in 2023 that was collected with the Survey123 mobile application.

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. Download and review data.
- b. Storm event sampling - set station, collect, prep, and deliver sample.
- c. Maintenance – Mouse/pest control and clean up.
- d. Review MCES lab invoice for Qtr. 2 and set up new login for MCES Lab data website.

Task Order 24B: Silver Lake Water Quality Improvement Project

- a. Meeting with RES to stake locations of wetland buffer signage.
- b. Vegetation maintenance contract is underway through December 2025.

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

- a. The year vegetation establishment period is in process.
- b. The maintenance plan for the project has been completed and provided to the City of Chanhassen staff on October 6.
- c. The contractor removed the blockage in CB-MH at Dakota Lane and re-connected the rain garden drain tile. The sinkhole near Dakota Lane has now been repaired so replanting along

the east side of the rain garden can take place this fall.



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

- a. Ongoing vegetation management will continue through July 15, 2025.

Task Order 30B: Pioneer Trail Wetland Restoration Project

- a. The three-year vegetation establishment period is in process.

Task Order 032B: Upper Riley Creek Ecological Enhancement Project

- a. Bid package and associated drawings were provided to RPBCWD legal in September for review.
- b. A public open house was held on October 23, 2023.
- c. RPBCWD permit is planned for submittal after plans have been updated and property owner easements are in process in November.
- d. Barr has completed the following out of scope tasks to support the project. These items have caused the project design and permitting budget to be nearly exhausted. Because property owner coordination, some permitting, and project bidding remain to be complete, it is anticipated that a budget increase will be requested at the December 2023 meeting:
 - a. Additional coordination and site visit with the Chanhassen City Forester to confirm trees marked for preservation.
 - b. Design a stream re-meander between Park Drive and Park Road at District's request. This concept was abandoned due to it requiring additional private easements.
 - c. Develop concepts for the bone-yard area prior to authorization of a decant facility task order.
 - d. Because the stream reach is within a detailed FEMA floodplain, substantially more hydrologic and hydraulic modeling was needed than planned to confirm conformance with the City's floodplain ordinance and FEMA's no-rise requirements.

Task Order 033: Wetland Assessment – Phase 1

- e. Continued drafting Phase 1 report to define ecosystem services and describe methodology for assessing each service.

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing October 2023 Activities for November 1, 2023 Board Meeting
Date: October 26, 2023
Page: 4 of 5

- f. Continue internal discussions to align the wetland plan with the Ecosystem Health Assessment currently in development for the district.

Task Order 036B: Upper Bluff Creek Reach 5 Design

- a. A scope of work for detailed design of the Upper Bluff Creek Reach 5 wetland and stream restoration project has been shared with Administrator Jeffery for consideration at the October Board workshop meeting.

Task Order 037: Sediment Analysis

- a. Sediment results for the Lake Susan wetland expected in November 2023.
- b. The Lake Susan and Lake Susan wetland memos will be delivered together in November.

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

- a. Finalizing draft feasibility study report including text, tables, and figures.
- b. Compiling summary of all concepts and developing project recommendations.

Task Order 040: Alum Application on Lotus Lake

- a. Draft memo was delivered to the District Administrator in early June 2023.
- b. Next steps include incorporating comments from the District once received.

Task Order 41: Chanhassen Decant Facility

- a. Delivered revised evaluation of site layout options.

Task Order 43: Ecosystem Health Action Plan

- a. Met twice monthly with District staff to discuss team efforts.
- b. Developing strategies for ecosystem improvement through potential District rules and city ordinance revisions that will be suggested in the EHAP. Conducted internal discussions to refine ideas.
- c. Wrote the report section (draft) on the historic and current ecosystem conditions of the District. GIS staff has been developed maps that were presented to the Board during the August workshop. Accompanying text has been written on the story of ecological change within the District and how it manifests today.
- d. Began writing the Ecosystems Function section of the EHAP that describes impacts to the District ecosystem and potential solutions to these issues.
- e. Planning and scheduling Workshop 4 with city and agency staff to discuss potential strategies for addressing ecosystem degradation. Three separate round-table discussions will be conducted with groups centered around 1. City planning, 2. Natural resources, and 3. Water resources.

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing October 2023 Activities for November 1, 2023 Board Meeting
Date: October 26, 2023
Page: 5 of 5

Task Order 44: Lake Susan Park Pond Reuse Intake Modification

- a. Reviewed three quotes received on October 20 and developed a recommendation to the Board of Managers for consideration at the November 2023 meeting.

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%	45%	3-year vegetation management underway
Bluff Creek Reach 5 Restoration	100%	100%	25%						Public hearing held in Aug 2022. Project Ordering planned for December 2023 along with authorization to begin design.
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%	45%	Establishing O&M documents in cooperation with the city. 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. 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%					Quotes received 10/20/23 with recommendation to award at November meeting
Chanhasen Decant Facility				15%					Discussing funding constraints and alternative location with city.
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. Second dose planned in fall 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 2 of 5 year financial contributions.
Lotus Lake Watershed Improvement Project (LL_1, LL_3, LL_7, LL_8)	100%	90%							Finalizing assessments and developing draft feasibility study
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%							

Ongoing Studies									
Ecological Health Action Plan		50%							The 3 of 4 Advisory Panel workshops have been completed. Several sections of the report are drafted and under review by RPBCWD.
Lotus Lake LVMP		100%						100%	
Eden Prairie Climate Resilience Modeling		100%						100%	
Wetland Assessment Phase 1		95%						95%	
Sediment Analysis - Riley, Rice Marsh, Susan		90%							Lake Susan and Lake Susan wetland memos will be delivered together in November 2023