

## Memorandum

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

### General Services

- a. Met with Administrator Jeffery on January 9<sup>th</sup>, 16<sup>th</sup>, and 25<sup>th</sup> to discuss/regroup about potential rule revisions, status of various CIP projects, Duck Lake outlet assessment, Lake Susan Park Pond pumping troubleshooting, and ideas to move forward with RPBCWD groundwater management portion of the plan.
- b. Met with City of Chanhassen and Administrator Jeffery on January 12<sup>th</sup> to discuss the potential opportunity project for a demonstration shoreline stabilization project at Carver Beach Park using bioengineering methods. The city is open to allowing RPBCWD to undertake this demonstration project.
- c. Met virtually with Administrator Jeffery and Counsel Welch January 3 and 17<sup>th</sup> to discuss the cooperative agreement for the Upper Riley Creek Restoration project, Chanhassen decant facility design, potential regulatory revisions, and work without permits.
- d. Participated in a planning meeting for an upcoming lake association meeting in February.
- e. Met with potential cost share applicant (Hackamore Brewery) within the same building complex as the district office to discuss the possibility of installing a tree trench as part of the proposed landscaping
- f. Met virtually with Administrator Jeffery, President Ziegler, Counsel Smith and Counsel Welch to review draft agenda for January 26<sup>th</sup> regular board of managers meeting.
- g. Participated in the January 4<sup>th</sup> workshop with the Board of Managers meeting
- h. Participated in the January 4<sup>th</sup> regular Board of Managers meeting.
- i. Prepared Engineer's Report for engineering services performed during January 2023.

### Permitting Program

- a. *Permit 2022-053 Fox Ridge (aka Fox Hill Drive)* - The project proposes to split the existing lot at 581 Fox Hill Dr. in Chanhassen into three single family home lots and an outlot. The project will also result in an additional outfall to Lotus Lake. The proposed project triggers

- RPBCWD's floodplain management, erosion prevention and sediment control, wetland and creek buffer, waterbody crossing and structures, and stormwater management rules. Responded to applicant question about review comments. Informed applicant of January 4, 2023 conditional approval.
- b. *Permit 2022-060: Groveland Elementary* – The proposed proposes to expand an existing trail into a drive lane to facilitate additional car stacking during school pick-up activities. The project triggers RPBCWD erosion prevention and sediment control rule and the stormwater management rule. Informed applicant of January 4, 2023 conditional approval
  - c. *Permit 2022-069 921 Carver Beach Road* – The project proposes construction of a new single-family home on a lot that was recently subdivided, thus it does not qualify as an existing single family home lot. The project triggers RPBCWD erosion prevention and sediment control rule, creek and wetland buffer, and the stormwater management rule. Reviewed and provided feedback on the draft declaration.
  - d. *Permit 2022-076 Tricam Addition-* – The project proposes construction of an addition onto the existing building with associated parking lot and sidewalk improvements. An underground infiltration basin will be utilized to meet the stormwater requirements. The project triggers RPBCWD erosion prevention and sediment control rule and the stormwater management rule. Reviewed January 13, 2023 submittal and draft the permit review report for consideration at the February 1, 2023 regular meeting.
  - e. *Permit 2022-077 Dunibar Court-* – The project proposes construction of a 5-lot single family residential development south of Ridgewood Road, east of Dunibar Ridge Road in Minnetonka. The project triggers RPBCWD erosion prevention and sediment control rule, creek and wetland buffer rule, and the stormwater management rule. Reviewed January 4, 2023 submittal and informed the applicant the materials remains incomplete due to missing site specific soil borings and infiltration testing, and a complete engineers opinion of cost.
  - f. *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 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 January 18, 2023 submittal and informed the applicant is incomplete due to missing site specific soil borings and infiltration testing, no waterbody crossing analysis, no wetland/creek buffer information, and missing stormwater management information on the drawings.
  - g. Preapplication meeting with the City of Eden Prairie about the reconstruction of Dell Road at Riley Creek on January 10, 2023. Discussed regulatory requirements, site restrictions, adjacent future development, and streambank stabilization as a potential exception to stormwater management.
  - h. Miscellaneous preapplication calls from applicant with questions about rule applicability and criteria.

### **Data Management/Sampling/Equipment Assistance**

- a. Prepared, loaded, and verified one RMB Laboratory (RMB) report to the database.
- b. Prepared, loaded, and verified 2022 data from Hyland Lake.
- c. Worked on the data submittal file for relevant 2021 creek and lake data in the MPCA's data specific format.
- d. Updating the EQUS Enterprise site to correct issues with downloading data.

### **Task Order 6: WOMP Station Monitoring**

#### ***Purgatory Creek Monitoring Station at Pioneer Trail***

- a. Complete 2023 Task Order.

#### ***Purgatory Creek Monitoring Station at Valley View Rd***

- a. Download, review, and QAQC data.
- b. Process utility bills.
- c. Complete 2023 Task Order.
- d. Set up 2023 datalogger files.

### **Task Order 14B: Lower Riley Creek Stabilization Project**

- a. Developed progress payment application #10 and continued working with the contractor to finalize and close out the project.

### **Task Order 24B: Silver Lake Water Quality Improvement Project**

- a. This project will have no other activity until vegetation maintenance starts in spring 2023.

### **Task Order 28B: Rice Marsh Lake (RM\_12a) Water Quality Improvement Project**

- a. The three-year vegetation establishment period is in process.
- b. This project will not have other activity until spring 2023 when vegetation maintenance work will occur.

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

- a. The 3-year vegetation maintenance plan is in process, additional live plugs will be planted in Spring 2023.

### **Task Order 30B: Pioneer Trail Wetland Restoration Project**

- a. The three-year vegetation establishment period is in process.
- b. Application for Payment No. 6 for the payment of final seeding and installation of live stakes and bare root shrubs was submitted by the contractor on 1/13/2023.

### **Task Order 032B: Upper Riley Creek Ecological Enhancement Project**

- a. Conducting additional hydraulics analysis to modify the proposed design to achieve a “No Rise” in the 100-year floodplain because this reach of Riley Creek is within a FEMA flood hazard zone with an AE designation, meaning a detailed study of this reach was conducted FEMA and imposing unanticipated analysis requirement on the project. This has resulted in the project timeline extending.
- b. Moving forward with further detailed design to incorporate into 90% drawings, planned for draft in February 2023 for RPBCWD staff and City staff review.
- c. Targeting permit submittal in February 2023.

### **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. Draft report expected to be delivered late-February

### **Task Order 034: Lotus Lake Aquatic Vegetation Management Plan**

- a. Draft Aquatic Vegetation Management Plan is complete except for areas where stakeholder input is required.
- b. Met with the Lotus Lake Association on December 20, 2022.
- c. Input from the Lotus Lake Association was added to the report and the final report delivered prior to the February Board meeting.
- d. Final report was delivered to the Administrator.

### **Task Order 035: Eden Prairie Stormwater Model Update and Flood-Risk Area Prioritization**

- a. This month staff received comments from City staff on the draft inundation extents and prioritized list of flood-prone areas. In general, the initial list generally characterized areas City staff were anticipating to see towards the top of the list. However, staff provided comments to improve the use of the Excel tool, and comments for modifying the scoring tool to better align with the City's goals.
- b. Barr is working to addressing comments received from City staff and preparing a draft report to document the model updates. Staff anticipate providing a draft report for City staff and Administrator Jeffery to review next month.

### **Task Order 037: Sediment Analysis**

- a. Draft Lake Sediment Analysis Technical Memorandums for Lake Riley, Lake Susan, and Rice Marsh Lake to be delivered by late-February.
- b. Working with District staff it was determined to postpone Lake Susan wetland sampling until Spring of 2023 due to low water levels and to further investigate wetland sediment analytical approach.

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

- a. Ongoing development of proposed BMP concepts for Lotus Lake sites based on site visits including concept graphics and inputs for BMP concept evaluation
- b. Development of proposed conditions H&H and water quality modeling.
- c. Perform Threatened and Endangered Species review for project areas
- d. Begin drafting feasibility study report
- e. Meeting with district staff to review North Lotus Lake Park BMP concept (LL\_1) and check-in on general project concepts

### **Task Order 040: Alum Application on Lotus Lake**

- a. Draft memo will be delivered to the Administrator in February.

### **Task Order 41: Chanhassen Decant Facility**

- a. Held kick-off meeting at the Chanhassen Public Work Facility with District staff and City staff.
- b. Hansen Thorp Pellinen Olson, Inc. (HTPO), surveying subcontractor, continued surveying and utility locate activities at the Chanhassen Public Work Facility.
- c. Began preliminary design.

### **Task Order 42: Bluff Creek Culvert Reconstruction**

- a. Determination of four culvert replacement alternatives
- b. Evaluation and comparison of upstream and downstream impacts of culvert replacement alternatives using the District's existing conditions H&H model
- c. Evaluation and comparison of ecological benefits of the culvert replacement alternatives
- d. Cost estimates of the four culvert replacement alternatives