

## Memorandum

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator  
**From:** Barr Engineering Co.  
**Subject:** Engineer's Report Summarizing July 2022 Activities for August 3, 2022 Board Meeting  
**Date:** July 28, 2022

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 July 2022.

### General Services

- a. Met virtually with City of Chanhassen on July 1<sup>st</sup> to discuss and review the environmental assessment worksheet for the Upper Riley Creek restoration project.
- b. Administrator Jeffery on June 3<sup>rd</sup>, June 9<sup>th</sup>, and June 16<sup>th</sup> to discuss capital projects under construction, upcoming capital projects, project prioritization, and planning for 2023 activities.
- c. Met with Administrator Jeffery and staff Dickhausen to continue development of RPBCWD wetland assessment project on July 7<sup>th</sup>.
- d. Continued development of the 2023 budget spreadsheet including incorporating manager comments from the July 13<sup>th</sup> workshop (e.g., projecting into future years)
- e. Met with Administrator Jeffery and staff Bakkum on July 5<sup>th</sup>, July 11<sup>th</sup>, July 20<sup>th</sup> and July 27<sup>th</sup> to work on drafting 2023 budget and workplan.
- f. Met virtually with Administrator Jeffery, President Zeigler, and Counsel Smith on July 28<sup>th</sup> to review draft agenda for the August 3<sup>rd</sup> meeting.
- g. Met virtually with Administrator Jeffery, President Zeigler, and Counsel Smith on July 7<sup>th</sup> to review draft agenda for the July 13<sup>th</sup> meeting.
- h. Attended a July 26<sup>th</sup> site meeting with the City of Chanhassen and Administrator Jeffery to discuss potential site improvements at the public works facility to enhance wetland and creek protections that could be considered for inclusion in the upper Riley Creek restoration project.
- i. Participated in the July 27<sup>th</sup> meeting with the Administrator Jeffery and City of Chanhassen to discuss coordination of the city's street reconstruction projects with the Lotus Lake subwatershed assessment.
- j. Participated in the July 13<sup>th</sup> 2023 budgeting workshop with the Board of Managers meeting
- k. Participated in the July 13<sup>th</sup> regular Board of Managers meeting.
- l. Prepared Engineer's Report for engineering services performed during July 2022.

## Permitting Program

- a. *Permit 2021-062: The Ellie:* The project proposes to redevelop 6.40 acres of land that currently comprise seven single family residences on Lincoln Lane in Eden Prairie into a four story 245-unit apartment. The applicant proposes four subsurface stormwater infiltration/detention chamber facilities, pervious asphalt in the parking stalls and green roof to provide water quality treatment, rate control, and volume abstraction. The proposed project triggers RPBCWD's erosion prevention and sediment control and stormwater management rules. Notified the applicant about the conditional approval at the board's July 13<sup>th</sup> meeting. Reviewed draft maintenance declarations and provided comments on the necessary revisions.
- b. *Permit 2021-084 Chick-fil-a Chanhassen-* The project proposed the construction of an expanded Chick-fil-a restaurant drive-thru and parking lot area near Rich Marsh Lake in Chanhassen. The project proposes the use of an existing underground detention system and vegetated swale to provide stormwater quality, volume, and rate control. Notified the applicant about the conditional approval at the board's June 1<sup>st</sup> meeting. Reviewed draft declarations and provided comments on the necessary revisions.
- c. *Permit 2022-005 Cunningham 2<sup>nd</sup> Addition-* The project proposes to split a single-family home lot into two lots with the construction of two single-family homes and driveway entrances, landscaping, and stormwater improvements on both lots at 855 Pleasant View Road, Chanhassen. Proposed stormwater features include two biofiltration basins with elevated underdrain to promote infiltration. Reviewed the revised draft maintenance declaration and provided comments to the applicant's engineer on the necessary revisions.
- d. *Permit 2022-010 Suite Living of Eden Prairie -*The project proposed to redevelop the single-family home site at 9360 Hennepin Town Road, Eden Prairie into a new assisted living facility and associated parking, driveway entrance, landscaping, and stormwater improvements. Two subsurface facilities and a rainwater harvesting system for irrigation will provide water quality treatment, rate control, and volume abstraction. Notified the applicant about the conditional approval at the board's July 13<sup>th</sup> meeting. Reviewed draft maintenance declarations and addressed the applicant's questions related to fulfilling the conditions of approval.
- e. *Permit 2022-017 Oak Point Elementary Circulation Upgrades –* The site is the Oak Point Elementary School Campus at 13400 Staring Lake Parkway in Eden Prairie. The project proposed the removal of an existing parking lot and driveway south of Staring Lake Pkwy and the rehabilitation of the existing driveway and the addition of another lane to the driveway north of Staring Lake Pkwy. Notified the applicant about the conditional approval at the board's July 13<sup>th</sup> meeting. Reviewed draft maintenance agreement and provided comments on the necessary revisions.
- f. *Permit 2022-026 Chapel Hill Building Expansion –* Expansion of the existing school building and associated parking lot modifications at 306 West 78th Street in Chanhassen. A biofiltration basin with iron enhanced sand and underlying infiltration will provide storm water quantity, volume, and quality control. Informed applicant o the July 13<sup>th</sup> conditional approval and responded to questions about the declaration.
- g. *Permit 2022-039 Taco Bell Reconstruction Minnetonka –* The project proposes a demolition and reconstruction of a Taco Bell restaurant and associated parking areas at 15110 MN-7 in

- Minnetonka. The project proposes the use of an underground infiltration system to provide stormwater quality, volume, and rate control. Notified the applicant about the conditional approval at the board's July 13<sup>th</sup> meeting. Reviewed draft maintenance declarations and provided comments on the necessary revisions.
- h. *Permit 2022-044 Staring Lake Corporate Center* – The project proposes a new parking addition along the northwest side of an existing parking lot associated with the Staring Lake Corporate Center in Eden Prairie. The project proposes the use of an infiltration basin to provide stormwater quality, volume, and rate control. Notified the applicant about the conditional approval at the board's July 13<sup>th</sup> meeting. Reviewed draft maintenance declarations and provided comments on the necessary revisions. Awaiting proof of recordation with the county.
  - i. *Permit 2022-045 Eden Prairie Multi-Family*- The project proposes constructing a 5-story, multi-family building with site improvements that include both surface and underground parking areas, utilities, stormwater management, landscaping and site amenities at the NW Quadrant of Valley View Road and Topview Road in Eden Prairie. Met virtually with the applicant, City of Eden Prairie, and Administrator Jeffery to discuss review comments, variance requirements for wetland fill, regulatory timelines.
  - j. *Permit 2022-046 Dakota Retail*- The proposed redevelopment consists of improving site access, adding parking stalls, landscaping, and replacing the existing pond with an underground stormwater management BMP located at 190 Lake Drive East in Chanhassen. Reviewed submittal materials (7/22 and 7/26), assisted with resolving design concerns in a July 26<sup>th</sup> meeting, and drafted the permit review report for consideration at the boards August 3<sup>rd</sup> meeting.
  - k. *Permit 2022-051 Awes Shoreline* - The project proposes 55 feet of shoreline stabilization along Lotus Lake at 581 Fox Hill Dr. in Chanhassen. The proposed project triggers RPBCWD's floodplain management, erosion prevention and sediment control, and shoreline streambank stabilization rules. Replied to inquiries from the applicant's representative about the conditional approval items. Informed applicant o the July 13<sup>th</sup> conditional approval and responded to questions about permit issuance timeline.
  - l. *Permit 2022-058: Moments of Chanhassen* – This project was conditionally approved under permit 2020-003 in April 2020. Based on the written request from the applicant, RPBCWD extended the conditional approval to April 2, 2022, after the applicant proposed permit modification. Because the application for the proposed modifications was not complete prior the expiration date, the prior approval expired April 3, 2022. The applicant subsequently submitted a new permit application. The project consists of the construction of a 48-unit memory care residential facility located in Chanhassen, MN. The proposed project triggers RPBCWD's erosion prevention and sediment control, waterbody crossings and structures, wetland and creek buffers, and stormwater management rules. Reviewed July 15<sup>th</sup>, 22<sup>nd</sup>, and 26<sup>th</sup> submittals informing the applicant of needed revisions in response to each submittal. Drafted the permit review report for consideration at the boards August 3<sup>rd</sup> meeting
  - m. Met virtually with Administrator Jeffery, City of Eden Prairie and WSB to discuss the city plans to reconstruct the portion of Dell Road of Riley Creek. The purpose was to have early discussion about regulatory requires and partnering opportunity to streamline the regulatory process. The city is working toward construction in 2020-2026.

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- n. Miscellaneous preapplication calls from applicant with questions about rule applicability and criteria.

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

- a. Worked on electronic submittal of relevant 2021 creek and lake data to the MPCA in the agency's data specific format.

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

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

- a. No activity in July.

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

- b. Maintenance – Installed replacement datalogger, re-calibrated sensors, reset autosampler. Datalogger program edits.

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

- a) Provide recommendation for contractor to RPBCWD managers.
- b) Coordinate contract development with district legal counsel.
- c) Communicate tentative schedule with selected contractor (Prairie Restorations, Inc.)

#### **Task Order 25: Duck Lake Raingardens**

- a. The Contractor completed a final maintenance site visit for the two sites.
- b. Worked with the contractor on their request for final payment and began processing for consideration at the September board meeting.

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

- a. Contractor requested substantial completion walk through scheduled for 7/27.
- b. Application for Payment #4 will be presented at the August Board meeting.



**Soil Amendment Profile B – facing east (6-15-22)**

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**Rain Garden by Dakota Ln – facing northwest (6-23-22)**      **Soil Amendment Profile A – facing south (6-23-22)**

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

- a) Conducted site walk-through on July 6<sup>th</sup> with representatives of Bearpath and Sunram to identify punch list of items to complete related to substantial completion.
- b) Representatives from Cardno (now Stantec) treated thistle on July 7<sup>th</sup> and placed sod at the construction laydown area for the north site and planted shrubs on July 15<sup>th</sup>.
- c) Provided additional direction regarding vegetation management plan.



**Photo of south site, looking upstream at remeander**      **Photo of north site, looking downstream**

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

- a. Substantial Completion walk through was conducted with contractor, Barr staff, and District Administrator on 7/22. A final punch list was sent to the contractor on 7/25.
- b. The contractor submitted a vegetation management plan on 7/25 which is currently under review by Barr.
- c. Mowing of the site will occur on 7/27.

- d. Application for Payment #4 will be presented at the August Board meeting.



**Pioneer Trail wetland outlet – facing southwest towards Pioneer Trail (7-6-22)**



**Pioneer Trail wetland outlet – facing northeast (7-6-22)**

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

- a. Assisted the City of Chanhassen with procedural step for submitting and noticing the Environmental Assessment Worksheet (EAW). The city submitted the EAW to the Environmental Quality Board (EQB) the week of July 18<sup>th</sup>.
- b. Project design drawings were provided to the City of Chanhassen for review and comment on July 6, 2022.
- c. The City provided comments on 30% design drawings on July 21, 2022.
- d. Met with representatives of the City of Chanhassen (Public Works and Engineers) and District Administrator Jeffery on July 25, 2022 at the City's Public Works building. Topics of discussion included a request for assistance in designing decanting bays (+ treatment) for Public Works, a request to evaluate a second stormwater pond for maintenance, and review of the 30% stream stabilization concept drawings.
- e. Conducted sediment sampling at Lake Susan and the stormwater pond south of the City's Public Works building on July 25<sup>th</sup>. A tree survey of the entire project reach was finished in mid-July, and data is being added to 60% drawing set.
- f. The existing PC-SWMMM model for Upper Riley is being modified using topographic survey information obtained as part of Task Order 032A.
- g. A 60% design is planned for late August 2022.

#### **Task Order 033: Wetland Assessment – Phase 1**

- a. Met with Administrator to discuss plan for completing the report.
- b. Continued drafting Phase 1 report to define ecosystem services and describe methodology for assessing each service.

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

- a. Drafted figures and tables for report.
- b. Continued drafting Aquatic Vegetation Management Plan

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

- a. This month staff completed model calibration and validation. Staff have prepared calibration plots presenting model simulation results and measured water levels at multiple locations throughout Riley Creek and Purgatory Creek watersheds.
- b. Staff have started discussions with City staff to schedule a meeting to review model calibration results, discuss methodology for identification of flood-prone areas, and identify data needs for information required to prioritize flood-prone areas.
- c. Next month staff will meet with Administrator Jeffery and City of Eden Prairie staff to review the model calibration. If the group agrees the model adequately characterizes runoff from the watershed and simulates measured water levels, the model will then be used to simulate design rainfall events, which will be used to develop inundation maps and identify flood prone areas.
- d. Following development of inundation maps, staff will identify flood-prone areas, buildings, and infrastructure. The results will be input into the prioritization framework RPBCWD developed to create a prioritized list of flood-prone areas, or areas that should be studied first for flood-risk mitigation options based on criteria and priorities identified by the RPBCWD and the TAC.
- e. The schedule for this task order extends through 2022. Later this year, work will include simulation of design events, inundation mapping, identification and prioritization of flood prone areas, and documentation.

**Task Order 036A: Bluff Creek Reach 5 Concept Design**

- a. Worked with Administrator Jeffery to prepare for the August 3<sup>rd</sup> public hearing.

**Task Order 037: Sediment Analysis**

- a. Conducted data analysis of sediment data
- b. Continued preparation of Lake Sediment Analysis Technical Memorandums.

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

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- a. Coordinate kickoff meeting with district and City of Chanhassen Staff.
- b. Compile information from historic studies for use in preliminary engineering study and evaluation.
- c. Develop basemaps for watershed BMP sites.