

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing June 2022 Activities for July 13, 2022 Board Meeting
Date: July 7, 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 June 2022.

General Services

- a. Met with Interim Administrator Jeffery on June 3rd, June 9th, and June 16th to discuss capital projects under construction, upcoming capital projects, project prioritization, and planning for 2023 activities.
- b. Met with Administrator Jeffery and staff Dickhausen to continue developing a strawman work plan related to a soil health initiative.
- c. Met with Administrator Jeffery and staff Bakkum on June 14th and June 28th to work on drafting 2023 budget and workplan.
- d. Met virtually with Interim Administrator Jeffery and Counsel Welch on June 29th to review cooperative agreement addendum and change order for Middle Riley Creek related to Bearpath taking on additional construction responsibilities.
- e. Participated in the June 1st prioritization workshop with the Board of Managers meeting
- f. Participated in the June 1st regular Board of Managers meeting.
- g. Attended the June 2nd Board of Managers special meeting.
- h. Participated in the June 8th continuance of special Board of Managers meeting.
- i. Attended the June 28th special board meeting.
- j. Prepared Engineer's Report for engineering services performed during June 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. Reviewed submittal materials received on June 14th and drafted the permit review report for consideration at the board's July 13th meeting.

- b. *Permit 2021-068 Erhart Farm-* The project proposes the construction of a 21-lot development to the west of Hwy 101 in Chanhassen. The project proposes construction of a wet pond and two infiltration basins, and biofiltration basins and wetland buffers to provide stormwater quantity, volume, and rate quality control. The proposed project triggers RPBCWD's erosion prevention and sediment control, wetland buffers, and stormwater management rules. Worked with applicant to answer questions related to conditions of approval. Reviewed draft declarations and provided comments.
- c. *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 1st meeting.
- d. *Permit 2022-005 Cunningham 2nd 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 draft maintenance declaration and provided comments to the applicant's engineer on the necessary revisions.
- e. *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. Reviewed submittal materials on June 27th and drafted the permit review report for consideration at the board's July 13th meeting.
- f. *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. Reviewed submittal materials related to modification request and drafted the permit review report for consideration at the board's July 13th meeting.
- g. *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. Reviewed submittal materials related to modification request and drafted the permit review report for consideration at the board's July 13th meeting.
- h. *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. Reviewed revised submittal materials received on June 30th and drafted the permit review report for consideration at the board's July 13th meeting.
- i. *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. Reviewed submittal materials received on May 23rd and submitted comments to the applicant on June 14th.

- j. *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. Reviewed submittal materials and informed the applicant on June 16th that the submittal was incomplete because of missing floodplain analysis for wetland fill, in-situ infiltration testing, wetland protection analysis, and opinion of probable cost.
- k. *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 material and informed the applicant on June 17th that the submittal was incomplete because of missing permit fee, floodplain analysis for fill an existing stormwater facility, electronic stormwater models, and opinion of probable cost.
- l. *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. Reviewed submittal materials and drafted the permit review report for consideration at the boards July 13th meeting.
- m. Met with Administrator Jeffery to define permit review responsibilities on June 24th.
- 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 June.

Purgatory Creek Monitoring Station at Valley View Rd

- b. Maintenance – troubleshooting datalogger issues likely related to power outage, Programmed, and tested replacement datalogger.
- c. Invoice review and approval for MCES Lab and phone service.

Task Order 24B: Silver Lake Water Quality Improvement Project

- a. Compile recommended actions for Silver Lake site based on site inspection and review with District Administrator.

- b. Coordinate quotes to perform recommended actions for the Silver Lake site.

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

- a. The rain garden and soil amendments were installed the week of June 6th.
- b. Finish grading, trail repair, and erosion control blanket was installed the week of June 13th.
- c. Seeding with bee lawn and native seeding, as well as planting native plants, was initiated the week of June 13th and was completed the week of June 20th. Temperatures were high, so close monitoring of soil moisture and watering of the plants will continue as the plants try to establish.
- d. Survey of finish grade near the Erie Circle parking lot confirm that on-site drainage would flow south over the trail before flowing north onto private property.
- e. City of Chanhassen staff conducted a site walkthrough with Barr staff on June 15th.

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

- c. Participated in a June 1st virtual meeting with Sunram, Cardno (vegetation restoration subcontractor) to discuss options for site prep and seeding the strip of bare soil at the north site.
- d. Representatives from Cardno were on site June 2nd and 3rd to prepare seeding area, seed, and finish planting live plugs, trees, and shrubs.
- e. Provided additional direction regarding soil prep, seeding, and weed management.



Photo of south site, looking upstream at VRSS and live stakes

- f. Representatives from Cardno visited the site on June 20th to treat an area near Hole 16 for thistle.

- g. As noted in previous monthly reports, the engineering services during construction budget is exhausted. A change order request is included in this month's board packet.

Task Order 30B: Pioneer Trail Wetland Restoration Project

- a. Change Order 2, which includes the work to modify the outlet flares and placement of small rock to prevent erosion, was completed the week of June 6th.
- b. Seeding of dry areas and planting of plugs occurred the week of June 6th.
- c. Second seeding of the additional areas that were previously wet was conducted the week of June 20th.

Task Order 032B: Upper Riley Creek Ecological Enhancement Project

- a. The draft Environmental Assessment Worksheet (EAW) was approved by the district Administrator for submitted to the City of Chanhassen for review, comment, and approval. Minnesota Rules 4410.4300, Subpart 27 require preparation of an EAW to assess potential project impacts since the project will alter more than one acre of Riley Creek, which is a Minnesota public water. A coordination call to discuss the City's EAW review comments is scheduled for July 1, 2022.
- b. The City of Chanhassen provided bathymetry survey data for the outlet to Lake Susan and the stormwater pond south of the City's Public Works building.
- c. A tree survey is ongoing and includes marking trees that the project intends to save.
- d. Project design drawings are drafted, including surfaces generated from survey data obtained as part of Task Order 032A and bathymetric data provided by the City. These drawings are currently undergoing internal review.
- e. The existing PC-SWMMM model for Upper Riley is being modified using topographic survey information obtained as part of Task Order 032A.
- f. A 30% concept level design is planned to be submitted to the City of Chanhassen for coordination in early-July 2022, with a 60% design planned for late August 2022.

Task Order 033: Wetland Assessment – Phase 1

- a. 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. 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.

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- b. 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.
- c. This summer, following model validation, staff will simulate design events and develop inundation maps to identify areas at risk of flooding.
- d. 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. Addressed Administrator Jeffery's comment on the draft report. Finalized report and deliver to Administrator for distribution.

Task Order 037: Sediment Analysis

- a. Continued preparation of Lake Sediment Analysis Technical Memorandums.