

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing February 2022 Activities for March 2, 2022 Board Meeting
Date: February 24, 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 February 2022.

General Services

- a. Assist with the capital improvement sections in the 2021 annual report
- b. Participated in the February 7th meeting with President Ziegler, Counsel Smith, Counsel Smith, and staff Bakkum to discuss February 9th continuance agenda.
- c. Participated in the February 24th meeting with President Ziegler, Counsel Smith, Counsel Smith, and staff Bakkum to discuss upcoming March 2nd agenda.
- d. Participated in the February 2nd regular Board of Managers meeting.
- e. Participated in the February 9th continuance of regular Board of Managers meeting.
- f. Prepared Engineer's Report for engineering services performed during February 2022.

Permitting Program

- a. *Permit 2020-061: Purgatory Creek 2nd Addition:* This proposed project involves construction of a cul-de-sac with 7 lots with the site grading, sanitary sewer, water main, storm sewer, and street construction adjacent to Sunnybrook Road in Eden Prairie. The project proposes construction of two detention/rock infiltration trenches and two rain gardens to provide stormwater quantity, volume, and rate quality control. Reviewed February 18th submittal and drafted a permit report for consideration at the March 2, 2022 regular meeting.
- b. *Permit 2020-003: Moments of Chanhassen* – This 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. The applicant submitted revised materials and a permit modification request on January 25, 2022. Reviewed revised submittal and responded with comments on February 11, 2022. The permit modification request is considered incomplete until compliance with the water quality requirements (Rule J) is demonstrated.

- c. *Permit 2021-016: Duck Lake Road reconstruction:* The project includes full reconstruction of Duck Lake Road from Duck Lake Trail to Mallard Court in Eden Prairie, MN. Provided the City of Eden Prairie review comments on the contractors dewatering plan during construction.
- d. *Permit 2021-041 Guidarini Residence Shoreline:* This permit involves grading and construction of two retaining walls on a residential property adjacent to Mitchell Lake. The applicant submitted revised materials on February 11th and indicated that the project was revised such that no grading will be done within the OHW or 100-yr floodplain of Mitchell Lake. The application remains incomplete until the permit fee deposit and confirmation that no work will be done within the OHW or 100-yr floodplain (including revisions to an existing dock) are received.
- e. *Permit 2021-063 Reserve at Autumn Woods-* The project proposes the construction of an 87-lot development West of Audubon Road and south of Autumn Wood Drive in Chaska. The project proposes construction of four infiltration basins and two ponds to provide stormwater quantity, volume, and rate quality control. Reviewed February 10th revised submittal and provided review comments on February 24th.
- f. *Permit 2021-079 Tonka-Woodcroft Improvements-* The project proposes full reconstruction of the streets within the Tonka-Woodcroft neighborhood, an area south of Minnetonka Boulevard and between Larchwood Drive, Steele Street and Hillside Terrace in Minnetonka. The project proposes over 36 acres of land-disturbing activities. The project proposes construction of four underground detention systems and seven infiltration pipes to provide stormwater quantity, volume, and rate quality control. Met virtually with the applicants engineer to discuss review comments and potential design revisions on February 22nd.
- g. *Permit 2021-089 Nor-Son Office Development –* The project proposes the redevelopment of an existing parking lot into a new office building with associated parking, utilities, and landscaping. The project includes an infiltration basin and underground stormwater infiltration system to provide volume control, water quality, and rate control. Received revised submittal on February 8th and the permit fee deposit on January 10th. Reviewed revised materials and drafted permit report for consideration at the board's March 2nd meeting.
- g. *Permit 2022-003 ISD 276 New Vantage/Momentum Building-* The project proposes the construction of a new building, parking lot and utilities near Clear Springs Elementary School in Minnetonka. The project proposes construction an underground infiltration system and using the existing stormwater pond to provide stormwater quantity, volume, and rate quality control. Reviewed revised February 11th submittal materials, provided review comments on February 20th, and drafted the permit review report for consideration at the board's March 2nd meeting.
- h. Miscellaneous preapplication calls from applicant with questions about rule applicability and criteria.

Data Management/Sampling/Equipment Assistance

- a. Reviewed and corrected data in the EQUIS Enterprise database after communication with the District.
- b. Reviewed and finalized relevant 2020 creek and lake data submittal for the MPCA.

Task Order 6: WOMP Station Monitoring

Purgatory Creek Monitoring Station at Pioneer Trail

- a. Set up 2022 datalogger files/folders.
- b. Prepare Task Order for 2022 work.

Purgatory Creek Monitoring Station at Valley View Rd

- c. Set up 2022 datalogger files/folders.
- d. 2021 Data review and QA/QC (Quality Assurance & Quality Control).
- e. Prepare Task Order for 2022 work.

Task Order 24B: Silver Lake Water Quality Improvement Project

- a. Compiled Change Order 2 related to trash rack addition.
- b. Meetings with temporary interim administrator/engineer and legal counsel to outline payment and contract termination approach including review and comment on final correspondence with contractor that lays out final payment, liquidated damages, and termination of contract.

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

- a. All winter work is completed at this time.
- b. The grading of the rain garden, soil amendments, and final restoration will occur in spring 2022.

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

- a. Vegetative plantings will be installed at both sites in Spring 2022.
- b. We continue to closely monitor the engineering services during construction budget which has been exhausted. Depending on the demand associated with remaining site restoration and vegetation establishment a future request for additional funding might be pursued.

Task Order 30B: Pioneer Trail Wetland Restoration Project

- a. All winter work is completed at this time and final restoration will occur in spring 2022.
- b. Reviewing contractor's third application for payment.

Task Order 032B: Upper Riley Creek Ecological Enhancement Project

- a. Developed design task list, milestone schedule, and preparations for field data collection once weather conditions are suitable (early spring 2022).
 - a. Project design drawings are started, including surfaces generated from survey data obtained as part of Task Order 032A.
 - b. A 30% concept level design is planned to be submitted to the City of Chanhassen for coordination in June 2022, with a 60% design planned for late August 2022.

- b. Initiated development of the Environmental Assessment Worksheet (EAW) for the project. 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. The EAW is planned to be distributed for public and agency review and comment in March 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 adding overland flow routes required to simulate surface inundation during the 500-year 24-hour duration event.
- b. This summer RPBCWD staff installed temporary water level monitoring stations in stormwater ponds and wetlands (in addition to the water levels that are measured in Lakes throughout the District). The water surface elevation measurements collected in 2021 will be used to identify rainfall events for model validation. This month staff have been processing water level measurements, reviewing rainfall information, and identifying rainfall events that will be used to validate the model.
- c. Monitoring information indicated that there were two potential events that could be used for model validation in September of 2021. Staff have downloaded rainfall radar information for those events, and started processing radar information for input into the model. Using radar information allows for a detailed accounting of how individual storm cells traveled over the watershed.
- d. Staff submitted the Interim Project Status report for the MPCA. The interim progress report is a required submittal per the grant agreement for the project.
- e. City of Eden Prairie staff anticipate providing as-built and record drawings containing additional storm sewer information for Purgatory Creek within the next month. When additional information is available, it will be imported into the District's stormwater model.
- f. Over the next couple months staff will complete initial model validation simulations to verify that the models are still able to simulate measured water levels.
- g. This summer, following model validation, staff will simulate design events and develop inundation maps to identify areas at risk of flooding.
- h. The schedule for this task order extends through 2022. Later this year, work will include model validation, 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. Continued to expand the analysis to assess upstream wetland and land use impacts based on the Board's authorization at the January 5th meeting.

Task Order 037: Sediment Analysis

- a. Provided input on sampling locations and parameters.
- b. Completed sediment analysis for Lake Riley and Lake Susan.
- c. Presented results at the RPBCWD annual lake summit.

Task Order 038: Temporary Interim Administrator

- a. Held weekly staff team meetings to discuss workloads, progress on various projects and programs, HR items, staff needs from the administrator and board, upcoming activities, and foreseeable needs to improve district functionality. Staff is very talented, self-motivated and self-sufficient.
- b. Developed agendas for February 9th continuance meeting and March 2nd meeting
- c. Assist Manager Crafton and staff Bakkum with 2021 Budget reconciliation efforts
- d. Participate in February 9th continuance meeting
- e. Attend February 11th Governance Committee meeting
- f. Attend February 16th Personnel Committee meeting
- g. Work with DDA (recruiter) to provide RPBCWD profile information, input on position attributes, district goals and innovative pursuits, and RPBCWD budget.
- h. Meeting with Houston Engineering to discuss Permitting database and potential 2022 scope of services to expand database to cover cost-share applications
- i. Work with staff and legal counsel to respond to data requests
- j. Attend February 21st Citizen Advisory Committee meeting
- k. Meeting with Chanhassen's new water resources coordinator (Joe Siedl) to discuss improved coordination on permitting requirements including efforts to minimize duplication and potential joint pre-application meetings.
- l. Work with legal counsel to develop and issue letter about Silver Lake project contract termination

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- m. Participate in a February 4th meeting with staff Dickhausen and Barr Engineering (Joe Bischoff) about postponing progress on RPBCWD wetland functional assessment tool in favor of coordinating with BWSR/WiDNR state-wide efforts to develop a replacement for MNRAM. Staff is also trying to get on committees as part of the state-wide effort. Staff will continue to collect field data, including floristic quality assessments, and complete the district's wetland inventory.
- n. Lead a February 11th meeting between RPBCWD staff and Barr GIS staff to discuss RPBCWD's web map needs for the new web site and data sharing. Staff will review examples provided and follow-up to better define wants and needs for web maps.
- o. Assist with 2021 annual report development.
- p. Visit 15252 Boulder Pointe Rd, Eden Prairie to inspect shoreline work without a RPBCWD permit. Coordinating efforts for restoration and permitting with city of Eden Prairie and DNR.
- q. Develop packet materials for March 2nd meeting
- r. Miscellaneous discussions and coordination with staff and legal counsel about contract review, regulatory program, administrator authorization for specific permit issuances, groundwater grant program, financials, aquatic vegetation management (including DNR grant), green corps member application, and upcoming Board meeting agenda.
- s. Routine day-to-day operational activities including but not limited to respond to email inquiries, invoice processing, HR related discussions with staff, contract review, etc.