

Project Name | Brown's Creek Cove Restoration Project**Date** | 2/5/2024**To / Contact info** | BCWD Board of Managers**Cc / Contact info** | Karen Kill, District Administrator**From / Contact info** | Mike Majeski, Dan Mossing, P.E.**Regarding** | Brown's Creek Cove Feasibility & Concept Design

Background

During routine stream assessments conducted in Brown's Creek between 2021 and 2022, EOR identified degraded stream conditions and poor riparian vegetation along an approximate 1,950-foot reach between the Millbrook Homeowners Association (HOA) and McKusick Road North (Figure 1). Degraded stream conditions identified in this stream segment included channel incision and subsequent floodplain abandonment, bank erosion, instream sedimentation, limited instream habitat for fish and macroinvertebrates, and poor riparian vegetation due to prevalence of woody invasive species. The purpose of this memo is to provide a scope of services to determine the feasibility of a project at this location, and to advance field data collection and concept level design to determine high-level project costs to seek project funding.

Scope of Services

Landowner Outreach

The proposed project would extend over four private parcels (Table 1). EOR will collaborate with BCWD staff to conduct landowner outreach to determine interest in a potential stream and riparian corridor restoration project on their property. EOR will develop materials to facilitate project discussion and will attend field or virtual meetings with landowners if requested.

Field Data Collection

A geomorphic survey of the project reach will be conducted to determine the stream bed and water surface slopes, cross sectional areas, bankfull discharge, channel dimensions, and floodplain elevations to inform the concept design and location of potential instream habitat features. The field effort will also include a bank erosion hazard index (BEHI) survey to measure bank erosion rates that will be used to develop pollutant loading estimates from the project reach.

Concept Design, High-Level Project Costs, and Draft Memo

A concept design will be completed following analysis of the geomorphic data. Included in the design will be the locations of proposed grade control riffles, streambank protection areas, and extents of riparian vegetation restoration. High-level engineering and construction cost estimates and pollutant loading calculations will be developed for use in securing grant funds to support the project. A technical memo will be prepared describing the existing creek conditions, proposed restoration options, bank erosion rates and subsequent pollutant loading estimates, and high-level construction costs. This information will be presented to the BCWD Board.

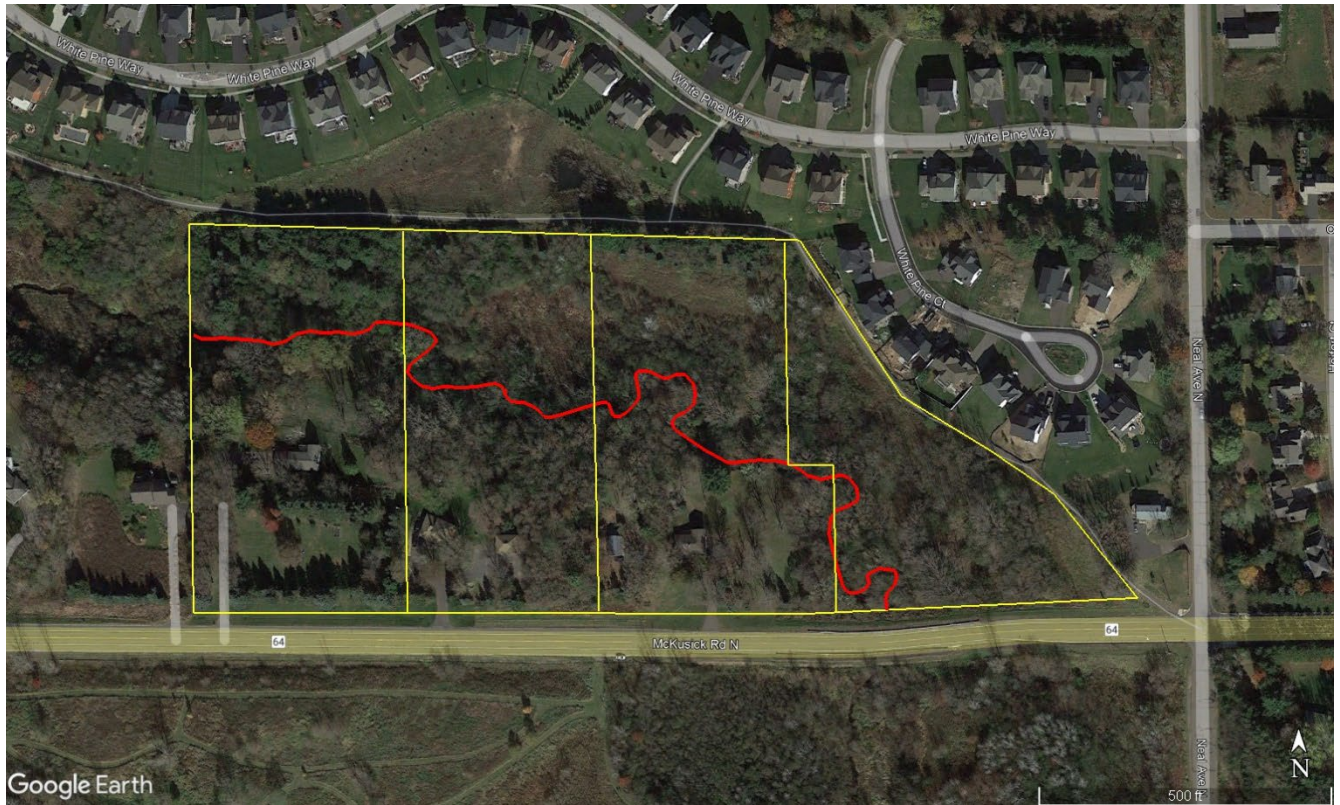


Figure 1. Potential Brown’s Creek restoration project (red line) between the Millbrook HOA property and McKusick Road North. Yellow lines are approximate parcel boundaries.

Table 1. Parcel Data (listed west to east)

Parcel ID	NAME	ADDRESS
1903020130002	HOLLAND FAMILY REV LIV TRS	12720 MCKUSICK RD N, STILLWATER, MN 55082
1903020140006	BROCHMAN MICHAEL R TRS & CHERYL M BROCHMAN TRS	12770 MCKUSICK RD N, STILLWATER, MN 55082
1903020140005	STONE TRS	12850 MCKUSICK RD N, STILLWATER, MN 55082
1903020140060	BROWNS CREEK COVE HOMEOWNERS ASSOC INC	1836 WHITE PINE CT, STILLWATER, MN 55082

Cost Estimate

Table 2 summarizes the breakdown of tasks and estimated hours to conduct landowner outreach, field data collection, and develop a concept design, high-level engineering and construction cost estimates, and a technical memo.

Table 2. Cost estimate for the Brown's Creek Cove concept design scope

TASK	HOURS	ESTIMATED COST*
1. Public Outreach with BCWD Staff, Provide Materials for Landowner Engagement	12	\$2,482
2. Conduct Geomorphic Survey, Quantify Bank Erosion and Pollutant Loading Estimates for Potential Grant Funds	28	\$4,605
3. Develop Concept Design and High-Level Cost Estimates, Draft Project Memo, Board Presentation, and Project Management	58	\$10,228
TOTAL	98	\$17,315

* Estimated cost includes mileage & expenses.

Next Steps

1. Assuming the Board is interested in advancing this scope of services:
 - a. Conduct outreach with the four landowners to gauge interest in the stream project.
 - b. If the landowner is interested in the project, obtain permission to collect preliminary field data (geomorphic survey and bank erosion estimates).

Board Action

1. Approve Task 1 for \$2,482 from account 947-0022 to conduct landowner outreach for the four parcels along the proposed stream project. Remaining tasks to be determined / refined following results from the landowner outreach effort.