

Engineer's Report

September 19, 2018

Edina Stream Stabilization Project: A pay request for Sunram for the Phase 1 work has been submitted in the amount of \$190,794.79, which includes \$168,180.34 for work completed this spring and summer, and \$22,614.45 representing partial payment (1/2) of the retainage being held. Remaining retainage will be held through the vegetation maintenance period. The work completed for this pay application included:

- Connecting the excavated meanders to the main channel and filling in the old channel and Reaches 2 and 11
- Installation of a storm sewer extension to the new meander on Reach 11
- Replacing broken flared end sections on Reach 1
- Restoring access paths
- Native seed with erosion control blanket or straw mulch
- Planting trees and shrubs throughout the project area
- Miscellaneous work, including demobilization, control of water, traffic control, and site clean-up

Phase 2 of the project has begun with tree clearing starting on August 23rd. The re-meandering of the section of creek in Reach 11 was completed on September 7th. This was also the substantial completion date for this specific work, otherwise liquidated damages would begin to be assessed.



Phase 2 excavated and seeded stream remeander.



Phase 2 stream remeander with rootwads.



Phase 2 stream remeander with root wads.



Large turtle in Nine Mile Creek.

Normandale Lake Water Quality Improvement Project: The Normandale Lake drawdown is underway. The temporary weir was installed within the channel of Nine Mile Creek just upstream of Normandale Lake the week of August 20th to maintain water levels in the wetland/creek area upstream of the lake. The pumps also began discharging water the week of August 20th. As of September 4th the lake had dropped approximately two feet (to elevation 806), but bounced up 0.8 feet following the September 4th rainfall (approximately one inch of rainfall across the watershed). The lake level is currently dropping about 0.2 feet per day. This drawdown rate will vary depending on lake elevations and creek inflows, but should increase as the lake levels lower due to the bathymetry of the lake.

A pay request for Rachel Contracting has been submitted in the amount of \$95,380.10, which covers work completed through the end of August. Rachel plans to install the new 36-inch bypass pipe once the lake level is drawn down. This work is tentatively scheduled for mid- to late-September, but will be weather dependent.

Results of the recent fish survey, conducted by Riley Purgatory Bluff Creek Watershed District staff, indicate the amount of carp in Normandale Lake is over the carp management biomass threshold of 100 kg/ha, with all of the carp captured by electrofishing being large sized (> 20 inches). Given this high biomass estimate, Barr and District staff have begun discussing carp management options for Normandale Lake. Barr plans to prepare a memo in the upcoming weeks discussing carp management options for consideration.



Grey heron fishing at upstream temporary weir.



Exposed lake bottom at lake outlet structure.



Pumps are discharging lake water downstream of outlet.



Turtle fencing and educational signage is installed along the lake perimeter.

Bush Lake Outlet Project: On September 5th shoreline vegetation management was conducted excluding the Izaak Walton League shoreline property. Target mowed species included flowering invasives and flowering Canada goldenrod (*Solidago canadensis*). Target sprayed species included leafy spurge (*Euphorbia esula*), purple loosestrife (*Lythrum salicaria*), Canada thistle (*Cirsium arvense*), and other invasives.

Another vegetation management site visit will occur within the next 3-4 weeks targeting cool-season grasses, primarily reed canary grass, followed by woody/willow control in specific areas in late fall.



Shoreline vegetation management at Bush Lake.

Lake Cornelia and Lake Edina Use Attainability Analysis (UAA): Barr continues to work on updating the Lake Cornelia Use Attainability Analysis (UAA) and developing a UAA for Lake Edina. Work on the project over the past month has included developing and calibrating in-lake water quality models for each lake basin. We anticipate meeting with District and City of Edina staff in September to discuss potential watershed and in-lake management strategies.

Pentagon Park Stormwater Management (in partnership with the cities of Edina and Bloomington): No new activities.

Cherokee-Chamberlain Drainage System Analysis (in partnership with the city of Eden Prairie): Results of the analysis were summarized in a technical memo, which was provided to the City of Eden Prairie January 12, 2018. No response has been received from the City of Eden Prairie.

District Office (Discovery Point): Planning, sit inspection, and meetings with Minnesota Native Landscapes continued in anticipation of the fall seeding of the Phase 2 restoration area. Seed mix and plan substitution requests were reviewed and approved. Ecological Master Plan document updates and revisions were discussed for future design over the winter.

Regional Stormwater Volume Reduction Opportunity Study: Barr has conducted a district-wide, screening-level GIS analysis to identify potential sites for infiltration-based volume reduction best management practices (BMPs) within the Nine Mile Creek watershed. The suitability of sites within the watershed for infiltration-based BMPs has been assessed primarily based on soil characteristics, as well as topography, land use, public ownership, and partnership opportunities. Study results will be compiled based on feedback received from the Board of Managers at the August 15, 2018 meeting.

Wetland Conservation Act Administration:

- Respond to questions from Ross Bintner at the City of Edina and provide information regarding application requirements for the Rabun Pond and Braemar Blvd. sediment removal projects.
- Review wetland information for 11001 Bren Road East in Minnetonka – Permit #2018-52. Discuss wetland issues with applicant’s agent Kjolhaug Environmental Services and Jo Colleran at the City of Minnetonka. Providing wetland summary information for permit review and compliance with NMCWD wetland rules.

Status of Permitted Construction Projects: The monthly inspection report is provided for the Managers review.