

ENGINEER'S REPORT

June 20, 2018

- 1. Bush Lake Outlet Project:** The monthly on-going control of the invasive species along the shoreline of the lake have begun for the 2108 growing season. Weeds of focus this year will be reed canary grass, common buckthorn, purple loosestrife, sweet clover, sandbar willow, wild parsnip and leafy spurge. Two new invasive species, narrowleaf bittercrest and Japanese hedge parsley, to the area have been spotted in a few places around the lake and will be the target of focused eradication. It's possible to eradicate these species while just a few plants exist on the site. Management will occur monthly through October.

- 2. Eden Prairie Lakes UAA:** No new activities are associated with this project.

- 3. Edina Stream Stabilization Project:**

We are continuing to work with the District Administrator in obtaining easements and permissions for Phase 2 of the project. The plans and specifications are out for bid with a pre-bid meeting scheduled for June 12th. The bid opening for Phase 2 of the project is scheduled for June 22nd. We are working with the residents in the Phase 1 area regarding the location of trees and plantings along the areas disturbed. Sunram is scheduled to begin work as soon as the MDNR restrictions for work in the creek end in the diversion of creek flow into the remeandered sections of the creek constructed last year. The sections of the old stream channel abandoned will be filled and revegetated.

- 4. Normandale Lake Water Quality Improvement Project:** Barr has completed preliminary (60%) design for the Normandale Lake drawdown, which included conducting a topographic site survey, preliminary design of the temporary water level control structure to maintain water levels upstream of West 84th Street during the anticipated lake drawdown and of the proposed new bypass pipe. Barr updated the lake bathymetry information based on data collected in May by City of Bloomington staff; the updated bathymetry was incorporated into the lake level water balance model to further assess bypass pipe sizing and drawdown timing.

Permit applications were submitted to the MDNR and Army Corp of Engineers on June 1, 2018 for the lake drawdown, initiating the permitting process based on the 60% preliminary design. The permit application included analysis of potential impacts on 100-year flood elevations for properties upstream of West 84th Street due to the proposed temporary water level control structure in the channel of Nine Mile Creek downstream of the West 84th Street crossing. Barr has been working with District staff to provide additional information to MDNR, as requested, including additional information on the anticipated timing of the lake drawdown.

Barr participated in a conference call with District staff and legal counsel on May 31, 2018 to review comments received on the EAW and discuss responses. Barr then

prepared draft responses to the comments, which were provided to the Managers via email on June 11, 2018. Barr has also been working with District staff and legal counsel in development of the draft project agreement with the City of Bloomington.

An aquatic plant survey for Normandale Lake will be conducted on June 18, 2018, in preparation for development of a Lake Vegetation Management Plan (LVMP), which will be a permit requirement for the proposed spring-2019 herbicide treatment.

5. **District Office:** The first herbicide application has taken place, both in the Phase 2 area but site wide as well in order to manage herbaceous invasive plants such as garlic mustard and narrow-leaved bittercress. Due to the long, wet spring, full native seeding of the Phase 2 area is now set for early fall. This will avoid the risk of seed germination, followed by a hot and dry period that could lead to a large loss of seed. A fall seeding also allows for additional herbicide applications to ensure a weed-free seedbed prior to seed installation.

Assessment of the Phase 1 restoration Area has identified some screening trees and shrubs due for replacement as part of the warranty period. Additional plants will be added to this screening area as part of Phase 2.

6. **Pentagon Park Stormwater Management (in partnership with the cities of Edina and Bloomington):** No new activities.
7. **Lake Cornelia and Lake Edina UAA:** Barr has begun working on updating the Lake Cornelia Use Attainability Analysis (UAA) and developing a UAA for Lake Edina, which will include incorporating recent modeling and monitoring results and developing a lake and watershed management implementation plan. The City of Edina is coordinating a stakeholder meeting, tentatively scheduled for the evening of Tuesday, July 10th. District staff have also been coordinating a carp survey of Lake Cornelia (North and South) and several upstream ponds, to help understand the amount of carp in the lake system and their potential impact on water quality.
8. **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.
9. **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.

The soils information developed as part of this project was utilized recently to create a map of areas within the Minnetoga Lake watershed where soils are most conducive for infiltration-based BMPs. This map was prepared for residents in the Minnetoga Lake watershed that are considering a residential rainwater garden program.
10. **Status of Construction Projects:** The monthly inspection report is provided for the Managers review.