

ENGINEER'S REPORT
July 18, 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 2018 growing season. Invasive species management was conducted for the entire lakeshore buffer on June 8th, with most invasive occurrences found near the east beach and west boat launch accesses. Targeted species included reed canary grass (*Phalaris arundinacea*), leafy spurge (*Euphorbia esula*), sweetclover (*Melilotus officinalis*) and other annual invasives. Some volunteer willows were also cut back. The Isaak Walton League property was not managed. A follow-up management visit will occur again in about four weeks.

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 opening for Phase 2 of the project was on June 22nd and there were three bidders with base bids of; Sunram Construction - \$472,612.00, Minnesota Native Landscapes - \$477,641.00 and Blackstone Contractors - \$614,771.00. An alternative was also included as a bid item for the handling of contaminated soil, should it be encountered. The lowest base bid with the alternate include is Sunram Construction with a total bid price of \$482,612.00. See the attached memorandum for further information. We are recommending that the Phase 2 contract be awarded to Sunram Construction, the low bidder, at a bid price of \$482,612.00.

The Phase 1 work was completed by Sunram on June 29, 2018. We will now begin the monitoring of site restoration.

4. Normandale Lake Water Quality Improvement Project: Barr has been preparing the design plans and construction documents for the Normandale Lake drawdown project. A meeting was held with staff from the City of Bloomington Engineering and Parks and Recreation departments on June 25, 2018 to review and discuss various aspects of the proposed project. Barr staff collected sediment cores from the lake in late-June to better understand the strength and erosion potential of the lake bottom sediments that will be exposed during the drawdown. 90% construction drawings were submitted to District and City of Bloomington staff for review on July 3, 2018. Barr has also been preparing the project technical specifications in preparation for project bidding.

We are still awaiting receipt of permits from the MDNR and Army Corp of Engineers. Based on communications with MDNR and Corps staff, we anticipate receiving those permits soon. Final construction documents will be completed and the project will be put out to bid by July 13, 2018. Bids will be due July 31, 2018.

An aquatic plant survey for Normandale Lake was conducted on June 18, 2018, in preparation for development of a Lake Vegetation Management Plan (LVMP). Additional survey was conducted on the portion of Nine Mile Creek directly upstream of West 84th Street to identify the general location and extent of curly-leaf in these waters. This information will be used to assess whether consideration should be given to expanding a future herbicide treatment to upstream portions of the creek.

5. **District Office:** Discovery Point Phase 2 restoration continues. Planning for fall seeding and preparatory herbaceous invasive herbicide spraying and weed control continues. A change order has been prepared for additional screening adjacent to the Phase 1 restoration area, which was approved by the District Administrator. These plantings will occur in the fall. Barr staff also assisted District staff in preparing for the June 9, 2018 volunteer planting event.
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. Barr and District staff attended a June 10, 2018 community meeting hosted by the City of Edina, in which approximately 40 Lake Cornelia and Lake Edina watershed residents were in attendance. Barr staff presented information on shallow lake ecology, historic lake water quality and aquatic community data, the District's UAA process, and anticipated outcomes of the study underway.

Barr staff plans to collect sediment samples from Lake Edina this week; the lake bottom sediments will be analyzed to estimate the potential internal phosphorus loading rates. District staff have been coordinating a carp survey of Lake Cornelia (North and South), which is anticipated to be completed the week of July 16, 2018.

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 is being utilized to create a map identifying areas within the Holiday-Wing-Rose watersheds where soils are conducive for infiltration-based BMPs. This map is being prepared for residents in the Holiday-Wing-Rose watershed that are considering a residential rainwater garden program.

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