

# 2017 Accelerated Implementation Grant: Targeting Best Management Practices on Lands Owned by Nonprofits

## Final Report

December 2019



## **Project Summary**

An Accelerated Implementation Grant was awarded to the Nine Mile Creek Watershed District (District) from the Minnesota Board of Water and Soil Resources through the Clean Water, Land and Legacy Amendment in 2017. The District received \$83,339 from the grant and provided a 25% match.

The goal of the grant was to have design plans and cost estimates prepared for stormwater best management practices (BMPs) on prioritized, nonprofit sites in the watershed, so the District could pursue project installation. The District worked with Barr Engineering, the District's engineering consultant, to complete an extensive process to identify and prioritize locations in the watershed for stormwater BMPs on lands owned by nonprofits. Through this, and an engagement process, six sites were selected for preliminary design concepts. Ultimately, the District moved forward with five sites to complete project designs.

## **Project Report**

The first component of the Accelerated Implementation Grant was to identify and prioritize high priority nonprofit sites within the Nine Mile Creek Watershed District where the District could potentially install stormwater BMPs. The ranking and selection included:

1. **Site Targeting:** Properties with nonprofit ownership (e.g., faith-based and other nonprofit organizations) were identified and prioritized based on potential impact to downstream water resources. A GIS analysis was conducted to identify targeted subwatersheds based on recommendations in past District lake diagnostic studies, the impaired waters list and high priority protection lakes and/or stream segments. The GIS analysis included identification of targeted areas in which runoff currently receives little or no stormwater treatment prior to discharge to downstream water resources.
2. **Desktop Site Analysis:** A high-level GIS assessment was conducted to evaluate the suitability of BMP installation based on aerial imagery, land availability, soils, topography, and utilities information. 58 sites were selected for a site visit based on the desktop site analysis.
3. **Site Visits:** 58 site visits were conducted over four days in July and August of 2017 by a Barr Engineering Landscape Architect and a District staff member to better understand site conditions such as available green space, potential utility conflicts, locations of catch basins, and the potential for cost-effective BMP retrofits. During the site visits, 21 properties were identified as having feasibility for BMP installation and 24 total BMPs were identified.
4. **Prioritization:** The sites that were visited that were found to have feasibility for BMP installation were then prioritized based on findings of the site visits, the site targeting, and GIS analysis. The locations and BMPs were screened using a prioritization tool that considered things such as stormwater quality benefit, constructability, concessions from property owners, and educational value. The sites were given a grade to guide outreach efforts.

The next step in the process was conducting outreach to gauge interest in the nonprofit organization having a BMP installed on their property. District staff was able to contact seventeen of the twenty-one

nonprofits that were identified as having a priority for BMP installation. Of the seventeen organizations contacted, eight meetings were held with organizations that expressed interest to garner support for partnering with the District.

At the meetings, a District staff member and Landscape Architect from Barr Engineering provided a thorough explanation of partnership expectations and the benefits and functions of a stormwater BMP. High level concept plans were also provided, along with a handout explaining the project. The District had committed to funding 100% of the installation costs of the BMP and the first two years of maintenance, if the organization would then commit to take on maintenance of the BMP.

Based on the outreach meetings, the District received commitments from six organizations to move forward with preliminary BMP design plans. The six nonprofits and projects were:

1. Bethlehem Lutheran Church (5701 Eden Prairie Rd, Minnetonka): Infiltration Basin
2. Chapel Hills United Church of Christ (6512 Vernon Ave S, Edina): Raingarden
3. Good Samaritan United Methodist Church (5730 Grove St, Edina): Raingarden
4. The Church of St. Edward (9401 Nesbitt Ave S, Bloomington): Two Raingardens
5. Oak Grove Presbyterian Church (2200 W Old Shakopee Rd, Bloomington): Raingarden
6. St. Luke's Lutheran Church (1701 W Old Shakopee Rd, Bloomington): Raingarden

The initial idea to fund the implementation of the projects was through external grant funding with the District providing match on the grants. A Projects and Practices Grant was submitted to BWSR in August 2018 for the implementation of the seven BMPs at the six nonprofits sites listed above. The District was notified in December 2018 that it did not receive funding for the implementation of the projects. Additionally, a Hennepin County Opportunity Grant was submitted to the county in December 2018, which the District did not receive.

In early 2019, the District chose to undertake a minor plan amendment to add the nonprofit best management practices project to its watershed management plan capital improvement program. Resolution #19-01 was adopted at the April 17, 2019 Special Board Meeting that added the project to the District's Water Management Plan. A feasibility study for the project is found at: [http://www.ninemilecreek.org/wp-content/uploads/Nonprofit-Project-Feasibility-Study\\_March-2019-1.pdf](http://www.ninemilecreek.org/wp-content/uploads/Nonprofit-Project-Feasibility-Study_March-2019-1.pdf).

Following the verbal commitments from the organizations, Barr Engineering completed site surveys and utility locates and created preliminary BMP design plans. District and Barr staff continued to meet with the partner organizations to review the preliminary design plans and discuss responsibilities required for the projects. In moving forward with planning and design, District and Barr staff determined it was not feasible to move forward with construction at one site (Bethlehem Lutheran Church in Minnetonka) due to the lack of water quality benefits that became apparent after further investigations of the site. At St. Luke's Lutheran Church in Bloomington an adjacent nonprofit property owner was included in the project. This allowed Barr staff to optimize the raingarden location.

The District decided to split implementation of the projects into two phases, with three projects going out for quotes in June 2019. However, the quotes came in high and the District's Board chose not to accept any quotes for the project. After this, the District decided to package the project sites together and go out to bid in January 2020 for installation of the project during 2020. The District also worked with the partner organizations to get cooperative agreements in place that laid out partner responsibilities.

The final project sites and stormwater BMPs were:

1. Chapel Hills United Church of Christ (6512 Vernon Ave S, Edina): Raingarden
2. Good Samaritan United Methodist Church (5730 Grove St, Edina): Raingarden
3. The Church of St. Edward (9401 Nesbitt Ave S, Bloomington): Two Raingardens
4. Oak Grove Presbyterian Church (2200 W Old Shakopee Rd, Bloomington): Raingarden
5. St. Luke's Lutheran Church (1701 W Old Shakopee Rd, Bloomington)/Mt. Olivet Rolling Acres (1601 W Old Shakopee Rd, Bloomington): Raingarden

### **Project Results**

One of the primary goals of the District is to maintain or reduce impacts to downstream waterbodies by reducing stormwater runoff rates, volumes and pollutant loadings (2017 District Water Management Plan (WMP), Table 5-1, Pg 5-2). The BMPs selected for these project sites will work to accomplish these goals by reducing phosphorus, sediment and water volume from reaching District waterbodies. The prioritization process used in the accelerated implementation grant allowed the District to locate key sites in the District for the BMPs to help meet District goals. Additionally, with the District being an urbanized watershed, much of which developed before stormwater management standards were in place, retrofitting existing properties to target pollutants of concerns is one of a few options to maintain or improve water quality. The raingardens are all going in on highly impervious sites that aren't going to receive stormwater treatment through the redevelopment process anytime soon.

In addition, it is difficult to find partners that have resources and willingness to maintain or install stormwater BMPs. However, through the engagement process used in the grant that allowed for multiple visits and time to explain the process and benefits of partnering, willing partners were found. When installed, these projects will be highly visible and will potentially reach thousands of additional residents in the community, inspiring them to take a proactive approach to the water quality impacts from their personal and business properties. The introduction of the mission of the District to broad audiences also allows for invaluable broadcasting of programs such as the District's cost share grants and education programs, like adopt-a-drain. There has been a positive impact due to the active engagement of the organizations in the BMP siting and design and, in the future, the installation and maintenance process. Organizations have asked for additional workshops on water related topics, newsletter articles, and have been interested in making other positive environmental changes to their sites. The District also engaged Master Water Stewards to help with education efforts at two of the sites.

The outcomes of the grant were that the District created a system for how to identify and prioritizing project locations in the watershed, which can be replicated for other projects. Site concepts were created for seven locations and design plans were created for six sites. Six raingardens will ultimately be installed at five sites. The successful engagement strategy used in this project can be shared with others and lessons will be implemented in other District projects. Multiple people were engaged and taught about stormwater BMPs, the watershed district, and the role that their organization plays in watershed health. The number of people engaged will greatly increase once these highly visible projects are in the ground.

## References

Nine Mile Creek Watershed District Water Management Plan (2017, Amended 2019):

[http://www.ninemilecreek.org/wp-content/uploads/2017\\_Oct\\_Final\\_9-Mile\\_WMP\\_Amended\\_April\\_2019.pdf](http://www.ninemilecreek.org/wp-content/uploads/2017_Oct_Final_9-Mile_WMP_Amended_April_2019.pdf)