



Watershed Semi-Annual Report for Reporting Year 2017

Doc Type: Semi-Annual Report

Please complete and submit to your project manager.

- Reporting Period: January 1 through June 30 (Due August 1)
 July 1 through December 31 (Due February 1)

All information is required by the U.S. Environmental Protection Agency (EPA) and the Minnesota Pollution Control Agency (MPCA). Do not leave blanks (unless otherwise noted). This report form can be typed using your computer. Use the "tab" key to move through the fields of this form. Enter responses using text and check boxes as indicated. Keep a copy for your records.

I. General Report Information

- Project title: Northwood Lake Water Quality Improvement Project
- Project sponsor (Grantee): Bassett Creek Watershed Management Commission
- Contact name: Laura Jester
- E-mail address: laura.jester@keystonewaters.com
- Funding: 319 CWP CWP Loan Clean Water Fund Other: _____
- Contract number: 93185
- MPCA Project Manager: Rachel Olmanson
- Effective date (mm/dd/yyyy): 6/8/2015 Expiration date (mm/dd/yyyy): 6/30/2018

II. Semi-annual Report Information

1. Project activities completed during last six (6) months according to the program objectives or tasks (please be specific):

Objective 1 Task A: Design Stormwater Reuse System and Raingardens - COMPLETE (Jan 2016)

Objective 1 Task B: Design Stormwater Treatment Pond West of Northwood Lake - COMPLETE (Jan 2016)

Objective 2: Construct water reuse system and raingardens - COMPLETE (Spring 2017)

Objective 2 Task A: Redirect storm sewer and install treatment structure - COMPLETE (Summer 2016)

Objective 2 Task B: Install underground storage tank for water reuse - COMPLETE (Summer 2016)

In the summer of 2016, work on the underground storage tank was completed including installation of piping and electrical wiring. The area around the tank was backfilled in August 2016.

Objective 2 Task C: Install water reuse piping and pump house for irrigation - COMPLETE (Spring 2017)

Final installation and testing of the piping and pumping mechanisms was completed in spring 2017. The irrigation system began operating in June 2017. During this reporting period, the storage tank and water reuse system captured 530,000 gallons of stormwater that were used to irrigate ballfields.

Objective 2 Task D: Install overflow raingardens and construct curb cut - COMPLETE (Spring 2017)

Raingardens excavation and grading was completed in August 2016 and plantings on the 1st and 3rd rain gardens were installed. A curb cut on Ensign Avenue constructed in summer 2016 was redesigned to a catch basin in the street that drains directly into the rain garden. Fescue seed was installed on the 2nd rain garden in spring 2017. Some replanting occurred in spring and early summer 2017.

Objective 3 Task A: Construct storm water treatment pond west of Northwood Lake - COMPLETE (Summer 2016)

The construction of the pond is complete along with slope stabilization and seeding.

Objective 4 Task A: Educational sign design - ONGOING

The educational sign was designed and ordered in fall 2017. It will be manufactured, delivered and installed in spring 2018. Other education activities during the reporting period: In October 2017 a group of seventy 5th graders toured the park site

with city staff to learn about the storage tank, the benefits of the rain gardens for water treatment and the benefits of flowering plants for butterflies and bees. The group also learned about how the storage tank and treatment pond hold all the runoff from their school. Also in October 2017, city staff met with a local Lego League team (eight 4th and 5th graders) to learn about stormwater treatment in the park and how they could implement similar strategies at their own homes.

Objective 5 Task A: Provide project management and administration - ONGOING

The BCWMC Administrator worked to manage the grant and coordinate certain components of the project including tracking project progress, and reporting progress to the Bassett Creek Watershed Commissioners.

Objective 5 Task B: Provide technical review of project - COMPLETE (May 2016)

Objective 5 Task C: Perform grant reporting and invoicing - ONGOING

The BCWMC Administrator completed and submitted the grant report due August 1, 2017.

2. List all products (documents, pamphlets, videos, maps, etc.) produced in this reporting period:

Educational sign designed and ordered. To be installed spring 2018.

Updated BCWMC webpage dedicated to the project: <http://www.bassettcreekwmo.org/index.php?cid=228>

3. Challenges faced (optional):

No problems or issues arose during this reporting period. Rain gardens and storage tank/irrigation system are working well.

4. Summary of monitoring data collected (if applicable):

The BCWMC monitored Northwood Lake in 2016 through its regular monitoring program. Unfortunately (and as usual) the lake did not meet water quality standards for total phosphorus, chlorophyll a, nor transparency. Chloride concentrations in Northwood Lake ranged from a high of 274 mg/L, measured in April, to a low of 43 mg/L, measured in August. The complete water quality monitoring report is found at:

http://www.bassettcreekwmo.org/application/files/6814/8945/3994/2016_Northwood_Lake_Report.pdf.

Northwood Lake was monitored through the Met Council's Citizen Assisted Monitoring Program in 2017 but results are not yet available.

4a. Have all monitoring stations been established in EQUIS? Yes No N/A

4b. Are the data being routinely submitted for storage into EQUIS? Yes No NA

If yes, last submittal date (mm/dd/yyyy): _____

5. Are the Best Management Practices data being annually entered into eLINK? Yes No N/A

If yes, date last entered (mm/dd/yyyy): _____

6. Describe specific (quantifiable, if possible) results achieved during this period:

During this reporting period, the stormwater tank ran 31 cycles to irrigate the ballfields. This is a total of about 530,000 gallons of water reuse. The only times city water was used to irrigate the fields was during a brief period where the tank was offline for maintenance, and during some work associated with a ballfield project that occurred in late October after the tank was winterized.

Phosphorus Load Reduction: _____ lbs./year

Nitrogen Load Reduction: _____ lbs./year

Sediment Load Reduction: _____ lbs./year

7. Did the MPCA execute a change order or amendment for this project during this reporting period? No Yes

If yes, summarize those changes:

8 List anticipated program objectives or tasks to be completed during the next six (6) months please be specific):

Fabrication (and installation of the educational sign. Submittal of final grant report.

III. Expenditure Information for this Period

Provide a copy of your work plan budget showing cumulative expenditures and budget balances by work plan objective and task. Also, fill out the summary below.

Expenditure Report attached

Complete the table below:	Amount
Total Grant Amount	\$300,000.00
Total Match Amount (if applicable)	\$1,052,000.00
Total Project Amount	\$1,352,000.00
Grant Expenditures this period	\$502.50
Match Expenditures this period (if applicable)	\$0
Cumulative Grant Expenditures to date	\$297,144.75
Cumulative Match Expenditures to date (if applicable)	\$1,378,060.10
Total Cumulative Expenditures to date	\$1,675,204.85

Date form completed (mm/dd/yyyy): 1/25/2018
