



Item 8C.  
BCWMC 2-16-17

## Grant All-Detail Report Projects and Practices 2016

**Grant Title** - Northwood Lake Improvement Project

**Grant ID** - C16-2351

**Organization** - Bassett Creek WMC

<b>Grant Awarded Amount</b>	<b>\$400,000.00</b>	<b>Grant Execution Date</b>	<b>2/29/2016</b>
<b>Required Match Amount</b>	<b>\$100,000.00</b>	<b>Grant End Date</b>	<b>12/31/2018</b>
<b>Required Match %</b>	<b>25%</b>	<b>Grant Day To Day Contact</b>	<b>Jennifer Koehler</b>

### Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$400,000.00	\$395,018.00	\$4,982.00
Total Match Amount	\$573,515.00	\$983,060.00	\$-409,545.00
Total Other Funds	\$291,420.00	\$289,420.00	\$2,000.00
<b>Total</b>	<b>\$1,264,935.00</b>	<b>\$1,667,498.00</b>	<b>\$-402,563.00</b>

\*Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.

### Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Match
CWF Grant administration	Administration /Coordination	Current State Grant	Northwood Lake Improvement Project	\$5,000.00	\$18.00	12/31/2016	N
Construction of improvements east of lake	Urban Stormwater Management Practices	Current State Grant	Northwood Lake Improvement Project	\$352,000.00	\$352,000.00	12/31/2016	N

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction	
						Date	Match
Construction of improvements east of lake	Urban Stormwater Management Practices	Local Fund	BCWMC levy and city contribution	\$396,879.00	\$573,355.00	12/31/2016	Y
Construction of improvements east of lake	Urban Stormwater Management Practices	Other State funds not in eLINK	Clean Water Partnership Grant	\$220,817.00	\$220,817.00	12/31/2016	N
Construction of improvements west of lake	Urban Stormwater Management Practices	Current State Grant	Northwood Lake Improvement Project	\$43,000.00	\$43,000.00	12/31/2016	N
Construction of improvements west of lake	Urban Stormwater Management Practices	Local Fund	BCWMC levy and city contribution	\$9,876.00	\$194,963.00	12/31/2016	Y
Construction of improvements west of lake	Urban Stormwater Management Practices	Other State funds not in eLINK	Clean Water Partnership grant	\$68,603.00	\$68,603.00	12/31/2016	N
Project engineering, design, permitting, and coordination	Technical/Engineering Assistance	Current State Grant	Northwood Lake Improvement Project	\$0.00			N
Project engineering, design, permitting, and coordination	Technical/Engineering Assistance	Local Fund	BCWMC levy and city contribution	\$166,760.00	\$214,742.00	4/30/2016	Y
Public Education	Education/Information	Other State funds not in eLINK	Clean Water Partnership Grant	\$2,000.00			N

## Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
803M - Infiltration Trench	1	1	0.1 AC	0.1 AC
636 - Water Reuse	1	1	1 COUNT	1 COUNT
638 - Water and Sediment Control Basin	1	1	0.23 AC	0.23 AC

## Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
Construction of improvements east of lake	VOLUME REDUCED (ACRE- FEET/YEAR)	74.3 ACRE- FEET/YR	Northwood Lake	MIDS	
Construction of improvements west of lake	VOLUME REDUCED (ACRE- FEET/YEAR)	20.4 ACRE- FEET/YR	Northwood Lake	MIDS	
Construction of improvements east of lake	PHOSPHORUS (EST. REDUCTION)	16.3 LBS/YR	Northwood Lake	MIDS	
Construction of improvements west of lake	PHOSPHORUS (EST. REDUCTION)	5.7 LBS/YR	Northwood Lake	MIDS	

## Final Indicators Summary

Indicator Name	Total Value	Unit
VOLUME REDUCED (ACRE- FEET/YEAR)	10.15	ACRE- FEET/YR
PHOSPHORUS (EST. REDUCTION)	22.04	LBS/YR

## Grant Activity

Grant Activity - CWF Grant administration			
Description	Task includes administration of CWF grant. Administration of additional grant funding provided through the Clean Water Partnership is not included in this task.		
Category	ADMINISTRATION/COORDINATION		
Start Date	29-Feb-16	End Date	
Has Rates and Hours?	No		
Actual Results	grant administration updates to project page on the BCWMC website reporting to BCWMC commissioners		

Grant Activity - Construction of improvements east of lake			
Description	This task includes construction and construction observation costs for improvements located along the east side of Northwood Lake. Total cost estimate for this task, assuming a 10% contingency, is \$999,000 based on the November 2014 feasibility study. CWF grant funds of \$352,000 are requested for this task, or approximately 35% of this task.		
Category	URBAN STORMWATER MANAGEMENT PRACTICES		
Start Date	29-Feb-16	End Date	
Has Rates and Hours?	No		
Actual Results	Construction of the stormwater reuse system east of Northwood Lake - Construction to be complete in the Spring of 2017 The majority of the construction is complete including installation of the reuse tanks, rain gardens, diversion structure, etc. Work to be completed in the spring 2017 includes final installation and testing of pumping and piping.		

Activity Action - Underground Storage Tank			
Practice	636 - Water Reuse	Count of Activities	1
Description			
Proposed Size / Units	1.00 COUNT	Lifespan	30 Years
Actual Size/Units	1.00 COUNT	Installed Date	
Mapped Activities	1 Point(s)		

Final Indicator for Underground Storage Tank			
Indicator Name	VOLUME REDUCED (ACRE-FEET/YEAR)	Value	9.11

Indicator Subcategory/Units	STORMWATER MANAGEMENT ACRE-FEET/YR	Calculation Tool	MIDS
Waterbody	Northwood Lake		
Final Indicator for Underground Storage Tank			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	5.27
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	MIDS
Waterbody	Northwood Lake		

Activity Action - Rain garden			
Practice	803M - Infiltration Trench	Count of Activities	1
Description			
Proposed Size / Units	0.10 AC	Lifespan	30 Years
Actual Size/Units	0.10 AC	Installed Date	
Mapped Activities	1 Line(s)		

Final Indicator for Rain garden			
Indicator Name	VOLUME REDUCED (ACRE-FEET/YEAR)	Value	1.04
Indicator Subcategory/Units	STORMWATER MANAGEMENT ACRE-FEET/YR	Calculation Tool	MIDS
Waterbody	Northwood Lake		
Final Indicator for Rain garden			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	11.07
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	MIDS
Waterbody	Northwood Lake		

Grant Activity - Construction of improvements west of lake			
Description	This task includes construction and construction observation costs for improvements located along the west side of Northwood Lake. Total cost estimate for this task, assuming a 10% contingency, is \$123,000, based on the November 2014 feasibility study. CWF grant funds of \$43,000 are requested for this task, or approximately 35% of this task.		
Category	URBAN STORMWATER MANAGEMENT PRACTICES		
Start Date	29-Feb-16	End Date	31-Jul-16
Has Rates and Hours?	No		
Actual Results	Construction of water quality pond west of Northwood Lake completed in July 2017. No additional work for this project.		

Activity Action - Water Quality Pond west of Northwood Lake			
Practice	638 - Water and Sediment Control Basin	Count of Activities	1
Description	Water Quality Pond		
Proposed Size / Units	0.23 AC	Lifespan	30 Years
Actual Size/Units	0.23 AC	Installed Date	31-Jul-16
Mapped Activities	1 Point(s)		

Final Indicator for Water Quality Pond west of Northwood Lake			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	5.7
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	MIDS
Waterbody	Northwood Lake		

Grant Activity - Project engineering, design, permitting, and coordination			
Description	This task includes engineering and design, as well as BCWMC review of 50% plans, 90% plans. This task also includes coordination with partners, miscellaneous administration costs, and grant administration for non-CWF grants. The estimated cost of this task is \$255,000. No CWF funding is sought for this task.		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	1-Aug-15	End Date	01-Apr-16
Has Rates and Hours?	No		
Actual Results	Development of Construction Plans, Specs, and Bidding documents		

Grant Activity - Public Education			
Description	Public Education		
Category	EDUCATION/INFORMATION		
Start Date		End Date	
Has Rates and Hours?	No		
Actual Results			

## Grant Attachments

Document Name	Document Type	Description
<b>2016 Competitive Grant</b>	Grant Agreement	2016 Competitive Grant - Bassett Creek WMC
<b>2016 Competitive Grant executed</b>	Grant Agreement	2016 Competitive Grant - Bassett Creek WMC
<b>Application</b>	Workflow Generated	Workflow Generated - Application - 08/28/2015
<b>Northwood Lake Improvement Project Summary</b>	Grant	Northwood Lake Improvement Project
<b>Work Plan</b>	Workflow Generated	Workflow Generated - Work Plan - 12/16/2015
<b>grantmap_14419_2015-08-27_12-43-12-PM.jpg</b>	Grant	Northwood Lake Improvement Project



Please complete and submit to your project manager.

- Reporting Period: [ ] January 1 through June 30 (Due August 1)
[ X ] 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

- 1. Project title: Northwood Lake Water Quality Improvement Project
2. Project sponsor (Grantee): Bassett Creek Watershed Management Commission
3. Contact name: Laura Jester
4. E-mail address: laura.jester@kestonewaters.com
5. Funding: [ ] 319 [ X ] CWP [ ] CWP Loan [ ] Clean Water Fund [ ] Other:
6. Contract number: 93185
7. MPCA Project Manager: Rachel Olmanson
8. 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):

In August 2015, the BCWMC entered an agreement with the City of New Hope to design and construct the Northwood Lake Water Quality Improvement Project. The City and their consultant, Stantec, began project designs in August 2015. Work was completed on the objectives and tasks listed below.

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 - NEARLY COMPLETE

During the summer and fall 2016, the contractor completed nearly all of the construction of the stormwater storage tank, water reuse system, and raingardens. The City of New Hope posted weekly updates and photos of the progress and construction activities on its website at: http://www.ci.new-hope.mn.us/departments/publicworks/2016infrastructure.shtml. (Please note the updates include information on adjacent city projects that include utility work, road work, additional storm sewer work, and park upgrades.)

Objective 2 Task A: Redirect storm sewer and install treatment structure - COMPLETE

In the summer of 2016, work was completed on the installation of a new 36-inch storm sewer along the west side of Boone Avenue which redirects drainage flowing from the north of the project site. The new storm sewer was routed through a storm water treatment structure to capture course sediment as a means of pre-treatment of runoff prior to discharging to the underground storm water storage system.

Objective 2 Task B: Install underground storage tank for water reuse - COMPLETE

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 - NEARLY COMPLETE



The irrigation forcemain connection was installed in September of 2016. The system was successfully tested by the contractor in October. Piping and pumping mechanisms were partially installed so that storm water in the storage tank can be used for irrigating adjacent ball fields. Final installation and testing will occur in spring 2017.

Objective 2 Task D: Install overflow raingardens and construct curb cut - NEARLY COMPLETE

Raingarden excavation and grading was completed in August 2016 and plantings on the 1st and 3rd rain gardens were installed. Fescue seed will be installed on the 2<sup>nd</sup> rain garden in spring of 2017. A curb cut on Ensign Avenue was redesigned to a catch basin in the street that drains directly into the rain garden. This was constructed in summer 2016.

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

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

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, 2016.

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

Virtual tour of project site and BMPs completed in collaboration with photography and environmental studies students from The Blake School, Minneapolis. Final product includes 360-degree photo of Northwood Park and "call out" bubbles, each with information about the project and aspects of the environment. The project (which also included three other BCWMC CIP projects) was featured for several weeks on the BCWMC homepage. The press release is available here <http://www.bassettcreekwmo.org/news/new-perspective-blake-school-and-bcwmc-collaborate-photograp> and the virtual tour is location on the project webpage here <http://www.bassettcreekwmo.org/index.php?cID=228>.

Weekly updated New Hope webpage noting current construction activities (which also includes updates on adjacent, related projects): <http://www.ci.new-hope.mn.us/departments/publicworks/2016infrastructure.shtml>

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

**3. Challenges faced (optional):**

Higher than expected construction costs resulted in additional match needed from the city and the BCWMC.

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

Water quality data were collected on Northwood Lake in 2016. Results and analyses are expected in March 2017.

**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:**

Construction of most project components is complete. The project has been implemented on time. Pollutant load reductions will be available once the project is fully constructed.

Phosphorus Load Reduction: NA lbs./year

Nitrogen Load Reduction: NA lbs./year

Sediment Load Reduction: NA 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):**

Minor miscellaneous restoration/planting activities and punch list items will be completed in spring 2017. Educational signs will be developed and installed in spring/summer 2017. The stormwater re-use system will begin operating in the spring to irrigate adjacent ballfields.

### 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

<b>Complete the table below:</b>	<b>Amount</b>
Total Grant Amount	\$300,000
Total Match Amount (if applicable)	\$1,052,000
<b>Total Project Amount</b>	<b>\$1,352,000</b>
Grant Expenditures this period	\$201,206.95
Match Expenditures this period (if applicable)	\$448,941.63
Cumulative Grant Expenditures to date	\$296,139.75
Cumulative Match Expenditures to date (if applicable)	\$1,341,031.70
<b>Total Cumulative Expenditures to date</b>	<b>\$1,637,171.45</b>

Date form completed (mm/dd/yyyy): 01/18/2017