

TOTAL PROPERTY -	161,658 sq ft / 3.71 acre
TOTAL IMPERVIOUS:	74,052 sq ft / 1.71 acre
building -	40,000 sq ft / .92 acre
parking / drive -	11,800 sq ft / .27 acre
sidewalk -	2,052 sq ft / .05 acre
asphalt play area -	20,200 sq ft / .46 acre
TOTAL PERVIOUS:	87,156 sq ft / 2 acre
turf -	87,156 sq ft / 2 acre

IMPERVIOUS to BMP:	20,200 sq ft / .46 acre
asphalt play area -	20,200 sq ft / .46 acre
TOTAL IMPERVIOUS TREATED:	27.28%
27.28% Quality Credit Reduction	

- 1 Impervious Area Treated
- - - - - Drainage Area Treated
- Property Line
- - - - - ▶ Swale

Lake Harriet Lower Elementary School
 Stormwater Drainage Map
 prepared by: Metro Blooms
 for: Minneapolis Public Schools





Application for Stormwater Quality Credit

Materials Required to Complete Application

check when attached	Completed and signed application must include:
X	* Current account information
X	* Scaled drainage map with calculations of impervious areas

Submit Application to:

City of Minneapolis Stormwater Credits
 309 2nd Avenue South #300
 Minneapolis, MN 55401 - 2238

Questions? Please call Stormwater Utility Office:
 (612) 673 - 2766

1). Contact & Account Information

Property Owner	Minneapolis Public Schools
Mailing Address	807 NE Broadway
City, State, Zip Code	Minneapolis, MN 55413
Work Phone	(612) 668-0640
Cell Phone	
E-Mail Address	

School Name	Lake Harriet Lower Elementary School
Property Address	4030 Chowen Avenue South
City, State, Zip Code	Minneapolis, MN 55410
Work Phone	(612) 668-3210
Cell Phone	
E-Mail Address	

Property ID Number (PIN)	802824230084
Utility Account Number	
Monthly Stormwater Utility Fee	\$577.90

2). Measure the impervious area on the property

Impervious area for each site measured via scaled aerial imagery. Total property square footage / acreage taken from Hennepin County GIS

	sq ft	acre
Property Total	161,658	3.71
Building	40,000	0.92
Parking / Drive	11,800	0.27
Sidewalk	2,052	0.05
Other: Asphalt Play Area	20,200	0.46
Other:		0.00
Landscaping (pervious)		0.00
Turf (pervious)		0.00

Total Impervious Area	74,052
% Impervious	45.81%

3). Current Stormwater Utility Fee

Total Impervious Area (from step 2)	Divide by 1530	Multiply \$11.94
74,052	48.40	\$577.90

4). Stormwater Management Practices

Fill out the surface area of each land use type draining directly to the implemented BMP

	sq ft	acre
Building		0.00
Parking / Drive		0.00
Sidewalk		0.00
Other: Asphalt Play Area	20,200	0.46
Other:		0.00

Total Impervious Area Treated by BMP	20,200	0.46
Total % Impervious Treated	27.28%	

5). Percentage of Impervious Treated

Percentage of the total impervious surface area that drains to the implemented BMP. Used to determine amount stormwater utility fee reduction.

Total Impervious Area Treated by BMP <i>(from step 4)</i>	Divide by Total Impervious (step 2)	% of Impervious Treated for Quality
20,200	74,052	27.28%

6). Stormwater Utility Fee Reduction

Percentage of the total impervious surface area that drains to the implemented BMP. Used to determine amount stormwater utility fee reduction.

% of Impervious Treated for Quality <i>(from step 5)</i>	Divide by 2	% Reduction
27.28%		13.64%
		\$ Amount Reduction
		\$78.82

7). Ratepayer Certification

"By signing this application, I certify that I am the authorized representative from Minneapolis Public Schools. I have read this application and understand the terms and conditions of the City of Minneapolis Stormwater Utility Fee Credit Program. I certify that this application and additional attachments accurately describe stormwater management and conveyance of runoff on the property identified on this application. I grant the City of Minneapolis permission to enter this property for the sole purpose of conducting a site inspection of the stormwater management and disposal facilities on this property."

Signature

Date

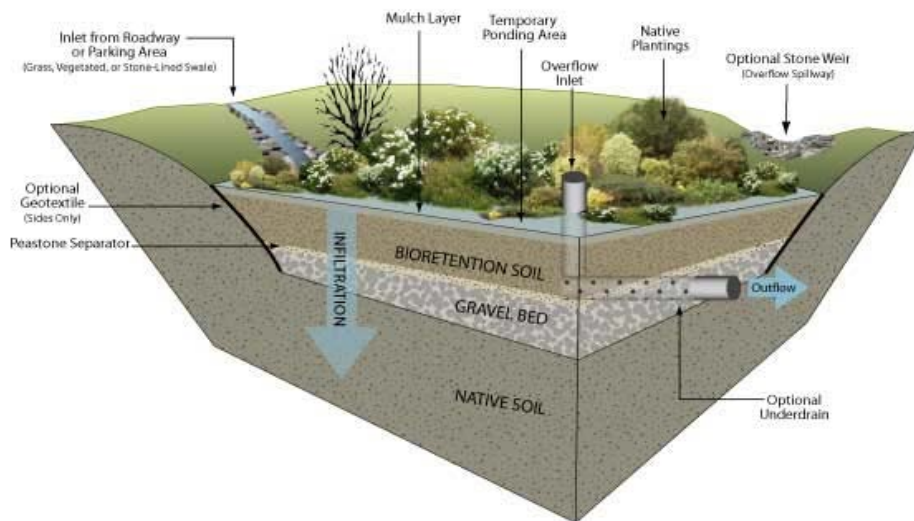
Print Name



Operations & Maintenance Plan

Bioretention / Raingarden

BMP ID		Location	<u>LLOW LAKE HARRIET</u>
Owner	Minneapolis Public Schools	Inspector	<u>Metro Blooms</u>
Date	xxxxx		



Overview of Bioretention / Raingardens

Raingarden Operations:

Bioretention works by routing stormwater runoff into shallow, landscaped depressions. These landscaped depressions are designed to hold and remove many of the pollutants in a manner similar to natural ecosystems. During storms, runoff ponds above the mulch and engineered soil mix in the system. Runoff from larger storms is generally diverted past the facility to the storm drain system. The runoff remaining in the bioretention facility filters through the Engineered Soil Mix. The filtered runoff can either be designed to enhance groundwater infiltration or can be collected in an under drain and discharged per local stormwater management requirements.

Raingarden Inspection:

Inspection of the rain garden is required after each major rain (more than 1" of rainfall) or at least 4 times per year during the growing season (March - November).

During inspection the following should be noted on the inspection form

- *Presence of any trash, debris and soil accumulation*
- *Presence of weeds*
- *Depth of mulch material present*
- *Condition of plants (note any plants that appear to be dead or dying)*
- *Condition of rain garden overflow structure.*
- *Visible indication of rain garden clogging or overtopping.*

Raingarden Maintenance:

Routine rain garden maintenance shall be done as prescribed in the approved plan, and when an inspection reveals any of the following conditions:

- *Trash, debris and soil accumulation*
- *Soil accumulation*
- *Rain Garden Design depth is not sufficient*
- *Presence of weeds*
- *Presence of invasive plants or weeds (Canada Thistle, Garlic Mustard and any tree seedlings)*
- *Mulch depth less than 3 inches (Use only shredded hardwood mulch material)*
- *Overflow structure in need of cleaning (ex: grate covered with grass/leaves)*
- *Any damage to the inlet structure exists.*
- *Any indication that rain garden has insufficient capacity (debris on pavement surrounding the rain garden, etc.).*

Inspection Activities - Bioretention / Raingardens

Activity	Frequency	Outcome / Actions
<i>Visual inspection for trash and debris in pre-treatment, inlet, bioretention area, and outlet.</i>	<i>Weekly and following large storm events</i>	<i>Notify Metro Blooms of need for service.</i>
<i>Erosion in pretreatment, inlet, bioretention area, and outlet</i>	<i>Weekly and following large storm events</i>	<i>Notify Metro Blooms of need for service.</i>
<i>Sediment accumulation in pretreatment, inlet, bioretention area, and outlet</i>	<i>Weekly and following large storm events</i>	<i>Notify Metro Blooms of need for service.</i>
<i>Vegetation & Mulch</i>	<i>Annual inspection for dead or diseased plants and void areas; Monthly inspections during growing season for weeds and vegetation damage.</i>	<i>Notify Metro Blooms of need for service.</i>
<i>Inspect inlet and outlet structural components (if applicable)</i>	<i>As part of all inspection visits</i>	<i>Notify Metro Blooms of need for service of any observed structural damage</i>
<i>Inspect for standing water</i>	<i>Annually and following large storm events</i>	<i>Notify Metro Blooms of need for service if there is standing water at the surface or in observation wells (underdrain systems) 48 hours after a storm event</i>
<i>Mulch condition and depth</i>	<i>Annually and following large storm events</i>	<i>Mulch depth should be 3" to 5". Add mulch whenever mulch levels are less than 3' using only a double shredded hardwood mulc.</i>

Maintenance Activities - Bioretention / Raingardens

Activity	Frequency	Procedure
<i>Trash and debris removal from pretreatment, inlets, bioretention area, and outlets</i>	<i>Spring, Summer, Fall maintenance visits</i>	<i>Handwork by MN Conservation Corps with Metro Blooms Oversight</i>
<i>Erosion repair</i>	<i>When Identified</i>	<i>Handwork by MN Conservation Corps with Metro Blooms Oversight</i>
<i>Sediment removal</i>	<i>As required when infiltration is reduced.</i>	<i>Handwork by MN Conservation Corps with Metro Blooms Oversight</i>
<i>Vegetation management</i>	<i>As needed based upon inspection</i>	<i>Follow appropriate vegetation management guidelines. Handwork by MN Conservation Corps with Metro Blooms Oversight</i>
<i>Mulching</i>	<i>Replace all mulch every 2-3 years and as needed to cover eroded or void areas</i>	<i>Handwork by MN Conservation Corps with Metro Blooms Oversight</i>
<i>Standing Water</i>	<i>As needed based upon failure to drain within 48 hours of a storm event</i>	<i>Handwork by MN Conservation Corps with Metro Blooms Oversight. Handwork (sediment removal; surface raking; core/disc aeration; punching holes in filter fabric lining, etc.)</i>
<i>Soil Replacement</i>	<i>When infiltration capacity is reduced</i>	<i>Remove clogged layer of soil from bioretention area with appropriate equipment and replace with new material. By MN Conservation Corps with Metro Blooms Oversight</i>
<i>Repair structural components</i>	<i>As needed per inspection</i>	<i>Dependent on type of damage; Repair structure per manufacturer's recommendations. By School facilities department unless designated</i>