

Norell Avenue Pond Retrofit

A. Project Location



Figure 1. Location map for Norell Avenue Pond Retrofit.

Project Location	Immediate Waterbodies Impacted	BMP Performance		
		TSS Reduction (lbs/yr)	N Reduction (lbs/yr)	P Reduction (lbs/yr)
The Norell Pond Stormwater Retrofit is located south of Highway 36 along Norell Avenue North in the City of Oak Park Heights, MN. (Figure 1)	Long Lake	2,000	N/A	3.8

B. Description of Facility

I. General Site Description

The Norell Avenue Pond Retrofit Project was awarded a 2015 Clean Water Fund Grant based on results from a 2013/2014 water quality study for the north Walmart Pond in Oak Park Heights Retail Area. The water quality treatment pond is approximately 23,000 ft². The water quality study demonstrated that the implementation of certain Best Management Practices resulted in a 15% increase in treatment efficiency. This efficiency would result in removal rates of 3.8 lbs/yr for Phosphorus and 1 ton/year for Sediment (TSS). The Norell Avenue Pond Retrofit consisted of the installation of vinyl sheet piling as a means to eliminate short circuiting between stormwater inflow and outflow.

Partners	Project Purpose	Drainage Size	Project Completed	Maintenance Requirement
BCWD, Oak Park Heights	Reduce pollutant, sediment, and nutrient loading to Long Lake by installing sheet piling in the pond to eliminate short-circuiting of the stormwater flow through the pond.	25 Acres	2016	25 years (2041)
Note 1: BCWD shares joint maintenance responsibility with Oak Park Heights, until superseded by the Oak Park Heights MS4 permit. Oak Park Heights is the landowner.				
Note 2: Manufacturer (Everlast Synthetic Products, LLC) has 50 year limited product warranty for vinyl sheet piling				
Costs				
Total Project Cost: \$54,360				
<ul style="list-style-type: none"> Clean Water Fund Grant: \$32,250 Local BCWD Tax Levy: \$22,110 				

II. Parts Inventory

Item #	MN/DOT SPEC. NO.	Item	Quantity	
1	2506	VINYL SHEET PILING (60' LONG BY 11' DEEP W/ 6' BURIED)	660	SF
2	2511	RANDOM RIPRAP CLASS 3 W/ GEOTEXTILE FABRIC	22	CY
3	2575	SEEDING MNDOT MIXTURE 33-261 (STORMWATER SOUTH & WEST)	0.15	AC
4	2575	SEEDING MNDOT MIXTURE 25-131 (LOW MAINTENANCE TURF)	0.25	AC
5	2503	18" HDPE PIPE AND APRON (EXISTING)	1	EA
6	2503	36" RCP PIPE, APRON, AND TRASH GUARD (EXISTING)	1	EA

III. Stormwater Management Facilities

This project was a retrofit of an existing stormwater management facility (a retention pond). There are no new stormwater management facilities as a result of this project.

IV. Accessibility

A wide upland area adjacent to the pond provides public access, which is provided by Norell Avenue North, on the eastern edge of the pond.

V. Start-Up and Operating Procedures

a. Process Description

Not Applicable for this project

b. Controls

Not Applicable for this project

c. Start – Up Procedures

Not Applicable for this project

d. Normal Operating Procedures

The following personnel can be contacted for normal operating procedure questions.

Contact Personnel		Contact Number	Organization
Primary	Karen Kill, Administrator	651-330-8220 x26	BCWD
Secondary	Derek R. Lash, P.E., CPESC, Project Engineer	651-770-8448	Emmons & Olivier Resources, Inc.

e. Common Operating Problems

Maintenance of the areas on either side of the vinyl sheet piling, where sediment collects, is the most important operational procedure for this practice.

C. Maintenance and Inspection Requirements

I. Planning Maintenance and Inspections

Inspections should be made at least once per year between the months of April and November to check for any system inefficiencies. These inspection and maintenance requirements reflect MPCA’s most recent guidance for the sediment removal process (*Managing Stormwater Sediment Best Management Practices Guidance, May 2017*).

a. Inspection Procedures

Item	Item Location	Parameter Measured	Inspection Frequency
18” HDPE Pipe / Apron	Northeast corner of the pond, and north of the vinyl sheet piling.	Debris blocking pipe, sediment buildup near pipe.	2 times per year
36” RCP Pipe, Apron, and Trash Guard	Northeast corner of the pond, and north of the vinyl sheet piling.	Debris covering trash guard, sediment buildup on apron.	2 times per year
Pond Outlet Control Structure	Northeast corner of the pond in the upland area.	Debris covering grate, debris or sediment blocking internal orifices or pipes.	2 times per year

Vinyl Sheet Piling	Northeast corner of the pond.	Appreciable movement or damage to the piling.	1 time per year
Pond	West of Norell Avenue North.	Sediment depth adjacent to the piling.	1 time per year

Inspections should include the following documentation and measurements of the following BMP components:

1. Document the presence of sediment, leaf litter, or other debris in the pond or covering the inlet or outlet of the pond.
2. Measure the depth of sediment and/or organic layer in multiple areas of the pond. Initial measurements can be taken visually or with a large stick.

b. Maintenance Procedures

Item	Corrective Action	Maintained by	Maintenance Frequency	Est. Annual Cost (Based on 2026 Est.)
18" HDPE Pipe / Apron	Clear with hand tools	City of Oak Park Heights	As determined by inspections	\$125 per visit
36" RCP Pipe, Apron, and Trash Guard	Clear with hand tools	City of Oak Park Heights	As determined by inspections	\$125 per visit
Pond Outlet Control Structure	Clear with hand tools	City of Oak Park Heights	As determined by inspections	\$125 per visit
Pond	Dredging	City of Oak Park Heights	Every 10 years	\$4,300 (\$41,000) ¹
Sediment Sampling	Evaluation and Testing of 2 samples	City of Oak Park Heights, BCWD ³	Every 10 years	\$4,000 ²
Annual inspections	N/A	BCWD	1 time per year	\$500
Anticipated Total Yearly Cost:				\$500
<p>1. Pond dredging shows an annual cost, as well as a 10-year frequency cost. The costs include contracted services and 30% for professional fees & expenses. This cost does not include disposal at a solid waste landfill.</p> <p>2. Sediment sampling cost of \$2,000/sample includes collection, drop-off, analysis, review and reporting.</p> <p>3. Shared by BCWD and Oak Park Heights until Oak Park Heights becomes an MS4 community. Oak Park Heights is an MS4 community, therefore sediment sampling solely falls under the responsibility of the City of Oak Park Heights.</p>				

Best Management Practices subject to this maintenance agreement include those installed as a part of the Norell Avenue Pond Outlet Retrofit Project. All facilities described below are located within City of Oak Park Heights (City) owned rights-of-way. These BMPs include:

1. *Stormwater retention basin with associated inlet & outlet pipe and outlet structure in the northeast corner.*

The BMPs will be inspected monthly (April through October) the first year of operation. For the second year of operation, the BMPs will be inspected every other month (April through November). For the third year of operation, the BMPs will be inspected at least annually (with more frequent inspection if needed). Inspection logs and any repair reports shall be on file with the Brown's Creek Watershed District (District) with an annual inspection summary completed within 30-days of the end of the calendar year. This maintenance plan shall be periodically updated and revised with any changes noted with the date.

The BMPs shall be maintained and repaired as follows:

1. *In the case of basins and other facilities where sediment collects, to preserve live storage and capacity at or above 50% of the original design volume:*
 - a. *The stormwater pond open water area adjacent to the vinyl sheet pile baffle shall be cleaned when sediment accumulation exceeds 50% of the total volume as shown in the as-built drawings.*
2. *In the case of conveyances and other structures, to preserve design hydraulic capacity:*
 - a. *The existing inlet and outlet pipes near the northeast corner of the stormwater pond shall be inspected and cleaned at least annually or when sediment or debris has accumulated and restricted flow out or in the pipes by 50% of the original capacity.*
 - b. *The existing outlet structure and pipes shall be inspected and cleaned at least annually or when sediment or debris has accumulated and restricted flow through the outlet structures and pipes by 50% of the original capacity.*
3. *In the case of all facilities, as necessary to preserve the integrity and intended function of the facility. Any areas of erosion, scouring, or destabilization associated with any of the aforementioned BMPs shall be corrected on an as-needed basis:*
 - a. *Inspect, at least annually, the existing inlet and outlet pipes near the northeast corner of the stormwater pond.*

Maintenance should be performed within 90-days of any noted BMP deficiency, weather dependent.

Evaluating and testing sediment

The MPCA requires the responsible parties to sample sediment to determine concentrations of 17 carcinogenic PAHs, 10 noncarcinogenic PAHs, and the metals arsenic and copper. The samples should be collected to the planned depth of excavation or greater, in two-foot intervals; the total number of samples required is dependent on the size of the dredging area, which in this case is less than one acre: two samples.

The sampling results can be compared to the MPCA's Remediation Division soil reference values (SRVs), using the "Summary of Stormwater Pond Sediment Testing Results" spreadsheet found at <http://www.pca.state.mn.us/sbiza7c>, click on the "Permit" tab, under the "Additional Items" heading.

Sediment determined to have concentrations less than Residential SRVs for all contaminants can be disposed of as unregulated fill or reused in accordance with the MPCA's BMPs for Off-Site Use of Unregulated Fill available at: <http://www.pca.state.mn.us/index.php/view-document.html?gid=13503>

Sediment with one or more contaminant exceeding Residential SRVs but not exceeding Industrial SRVs requires special management and cannot be used as unregulated fill; this sediment can be disposed of in solid waste landfills. Landfills accepting mixed municipal solid waste nearest to Brown's Creek Watershed District are the Pine Bend Sanitary Landfill, located at 2495 East 117th Street in Inver Grove Heights and the Burnsville Sanitary Landfill, located at 2650 West Cliff Road in Burnsville. A full list of landfills that accept municipal solid waste can be found at <https://www.pca.state.mn.us/sites/default/files/w-sw6-04.pdf>.

II. Corrective Actions and Modifications

Corrective actions and modifications will be necessitated based on the performance of the baffle installation, change in drainage land use, and (or) size of precipitation events.

III. In-house Verses Contracted Labor

To be determined on an as-needed basis.

IV. Sampling and Performance Monitoring

a. Sampling and Analysis

BCWD is responsible for coordination of routine sampling. Water quality sampling is to be added to normal inspection procedures.

b. Performance Monitoring

There is no additional sampling required beyond sampling for maintenance needs.

D. Maintenance Responsibilities and Agreements

There is a cooperative agreement between the City of Oak Park Heights and the Brown's Creek Watershed District for the Norell Avenue Pond Outlet Retrofit project for 25 years.

If, after the useful life period of the Project, the parties determine that the Project has become materially ineffective for its intended purposes, Oak Park Heights and BCWD will jointly develop plans for removal and disposal of all constructed elements of the Project and restoration of the Site.

Oak Park Heights will be responsible for the costs of routine maintenance and decommissioning in accordance with section 5B of this agreement of the Project. Each of the parties will bear its own costs not otherwise allocated by this agreement, as well as the administrative costs of fulfilling its responsibilities and obligations under the agreement.

I. Manufacturer's Recommendations

Not Applicable for this project

II. Safety

Not Applicable for this project

E. Records and Reporting

Records and reporting should be submitted to and maintained by BCWD.

Record of Annual Inspection and Maintenance Program:

Inspector Information				
Visit Number:				
Name				
Date:				
Identifier Number	Structure Description	Debris / Sediment	Sediment Depth (in)	Notes/Condition
1.	Inlet and outlet pipes	Y / N		
2.	Outlet control structure	Y / N		
3.	Vinyl sheet piling	Changes		
		Y / N		
4.	Pond open water area adjacent to the vinyl sheet pile baffle	Y / N		
	<i>Note: Sediment should be no closer than 48-inches from the top of the vinyl sheet pile baffle to the top of the sediment. If exceeded, this measurement would trigger pond dredging.</i>			
Maintenance Description:				
Contractor / Maintenance Crew Information				
Date:				
Name:				
Phone:				
Address:				
Maintenance Description:				

F. Emergency Plan and Operating Procedures

I. Emergency Plan

Always call 911 in a situation that presents a risk of immediate bodily harm to yourself or the surrounding community.

II. Emergency Operating Procedures

In the event of an operational emergency, please contact the following personnel for further assistance.

Contact Personnel		Contact Number	Organization
Primary	Karen Kill, Administrator	651-330-8220 x26	BCWD
Secondary	Derek R. Lash, P.E., CPESC, Project Engineer	651-770-8448	Emmons & Olivier Resources, Inc.
Secondary	Jake Rife, City Administrator	651-294-3441	City of Oak Park Heights

G. Appendices

I. Agreements

- a. Cooperative agreement between the City of Oak Park Heights and Brown's Creek Watershed District.

**COOPERATIVE AGREEMENT BETWEEN
CITY OF OAK PARK HEIGHTS AND BROWN'S CREEK WATERSHED DISTRICT
FOR THE NORELL POND RETROFIT PROJECT**

THIS AGREEMENT is made by and between the City of Oak Park Heights (Oak Park Heights), a Minnesota municipal corporation and body corporate and politic, and the Brown's Creek Watershed District (BCWD), a watershed district with purposes and powers set forth in Minnesota Statutes chapters 103B and 103D.

RECITALS

WHEREAS BCWD has authority under chapters 103B and 103D to design and implement programs and projects to improve water quality and protect water resources within the Brown's Creek watershed;

WHEREAS BCWD has an approved watershed management plan pursuant to Minnesota Statutes chapter 103B, and the plan includes a capital improvements program listing construction project the BCWD will undertake to protect and conserve water resources in the watershed;

WHEREAS in 2002 the Minnesota Pollution Control Agency added Long Lake to the list of state waters that are not meeting their designated-use classification because of excessive nutrients in the lake;

WHEREAS BCWD prepared the Long Lake Management Plan in 2006, which identified improvements to stormwater treatment in a retail area of Oak Park Heights within the area tributary to the lake as high priority for nutrient reductions and the capital improvements program in BCWD's watershed-management plan states that BCWD will undertake projects identified in and implementing the Long Lake Management Plan;

WHEREAS the Oak Park Heights owns property on which is located an existing stormwater-management pond (the Site, as shown in Exhibit A, attached to and a part of this agreement) that Oak Park Heights maintains, and a feasibility study completed by BCWD in 2014 showed that retrofitting the pond with a vinyl sheet piling would eliminate short-circuiting of stormwater flow through the pond, which causes a substantial reduction in the operational efficiency, and installation of a piling would reduce phosphorus loading to Long Lake by a minimum of 1.2 pounds per year and reduce sediment loads by 200 pounds per year (the Project);

WHEREAS BCWD has approved the feasibility study supporting the Project and the City of Oak Park Heights has agreed to collaborate with BCWD by dedicating access



to the pond for the Project and continuing maintenance of the pond subsequent to completion of the Project;

WHEREAS BCWD and Oak Park Heights enter into this cooperative agreement Oak Park Heights to further specify the parties' commitments to the success of the Project;

WHEREAS BCWD received a \$32,500 Clean Water Fund grant from the state Board of Water and Soil Resources for the Project and BCWD has entered an agreement to receive and use the funds;

WHEREAS Oak Park Heights intends to contribute to the success of the Project by modifying its ongoing maintenance regime for the pond at the Site and will implement the revised maintenance regime in accordance with this agreement;

WHEREAS the Site is owned by Oak Park Heights, with all rights concomitant with ownership;

WHEREAS Oak Park Heights and BCWD acknowledge that BCWD's ability to achieve Project objectives depends on the parties' continued cooperation.

AGREEMENT

NOW, THEREFORE, IT IS AGREED by and between Oak Park Heights and BCWD that they enter into this Cooperative Agreement to document their understanding as to the scope of the Project, grant and assign the property rights necessary for the Project, affirm their commitments as to responsibility for tasks to be undertaken, establish procedures for performing these tasks and fulfilling responsibilities, and facilitate communication and cooperation to ensure successful completion of the Project to improve water quality in Long Lake.

1 ORGANIZATION AND RELATIONSHIP OF THE PARTIES

- A. The BCWD administrator and the Oak Park Heights city administrator will serve as project leads and principal contacts for their respective organizations for the Project, charged to conduct the day-to-day activities necessary to ensure that the Project is completed in accordance with the terms of this agreement.
- B. The project leads will coordinate and communicate informally and formally to timely address any issues of concern to ensure the successful completion of the Project.

- 2 **THE PROJECT.** BCWD's construction of the Project will entail dewatering the pond on the Site, removing vegetation for access, and installing vinyl sheet piling, then restoring the normal stored stormwater level in pond and ensuring proper installation and of the piling. After completion of installation, maintenance of the Site will be in accordance with protocols established by Oak Park Heights, as modified and amended by BCWD in a schedule of protocols that will be provided by BCWD after construction of the Project (the Maintenance Plan).
- 3 **OAK PARK HEIGHTS' RIGHTS AND COMMITMENTS AND GRANT AND ASSIGNMENT OF RIGHTS FOR ACCESS AND CONSTRUCTION**
- A. On submission by BCWD of 90 percent plans and specifications for the Project, Oak Park Heights will have 30 days to review and approve. Failure to timely act will constitute approval. Oak Park Heights' right to review and approve plans and specifications will not be unreasonably exercised.
- B. For purposes the Project, Oak Park Heights hereby grants to BCWD, its contractors, agents and assigns a nonexclusive temporary easement to access and use the access, construction and maintenance areas of the Site and adjacent city streets for the corresponding purposes, as delineated on Exhibit A, and the right to dewater the pond at the Site for the purpose of construction of the Project into Oak Park Heights' storm sewer. BCWD, on reasonable notice to Oak Park Heights, may temporarily restrict or preclude public access to the Site to ensure safety while construction or maintenance activities are under way.
- C. Oak Park Heights will forbear from any activity that unreasonably interferes with the BCWD's ability to exercise its rights or meet its obligations under this agreement, including transfer of ownership of the Site. Subject to its interest in preserving public safety the Oak Park Heights will facilitate BCWD's reasonable exercise of its rights under this agreement with regard to access to and use of the Site. Oak Park Heights will not take any action within or adjacent to the Site that could reasonably be expected to diminish the effectiveness or function of the Project for the purposes intended, and after notice of completion of construction of the Project from BCWD and acknowledgement of receipt of notice by the Oak Park Heights, which will not be unreasonably withheld, Oak Park Heights will maintain the Site in a manner that preserves and enhances the performance of the Project.
- D. Oak Park Heights, as owner of the Site, will cooperate with BCWD's and its contractor's reasonable efforts to obtain permits and approvals needed for the Project and authorizes BCWD to apply for permits and approvals for the Project in its name. Oak Park Heights will facilitate the proper and efficient processing of any permits and approvals needed from the city in its regulatory capacity for



the Project. It remains the BCWD's sole responsibility to ensure the Project is compliant with any local, state or federal rules that may govern such projects and operations.

- E. On completion of construction of the Project, Oak Park Heights will retain ownership of the improved Site and the Project, and will maintain the Project in accordance with the Maintenance Plan (as shown in Exhibit B, attached to and a part of this agreement) jointly developed by the City and BCWD.
- F. Oak Park Heights will cooperate with BCWD in all reasonable communications and outreach related to the Project.

4 BCWD'S RIGHTS AND COMMITMENTS

- A. BCWD, at its sole expense, will prepare plans and specifications for the Project and submit the 90 percent-complete plans and specifications to Oak Park Heights for review and approval in accordance with paragraph 3A of this agreement.
- B. As between the parties, BCWD will obtain, at its expense, for itself and Oak Park Heights all necessary permits, licenses and approvals, including approval of a wetland replacement plan as necessary, and will ensure that the Project is completed in accordance with applicable law and regulatory standards and criteria.
- C. BCWD will implement the Project as follows:
 - i. BCWD will prepare or have prepared plans and specifications and other construction documents, and will ensure that such documents provide for the restoration of the Site in accordance with this agreement and any regulatory requirements;
 - ii. BCWD will contract, in accordance with applicable law, for the construction of the Project. BCWD will require that the contractor for the Project name Oak Park Heights as an additional insured for general liability and provide a certificate showing same prior to construction. Insurance coverage will be at amounts not less than the liability limits set in Minn. Stat. sec. 466.03;
 - iii. BCWD, or the BCWD engineer on BCWD's behalf, will oversee the construction of the Project. BCWD may adjust the plans and specifications for the Project during construction with notice to the Oak Park Heights, as long as the revised plans do not require BCWD to exceed the scope of the rights granted under this agreement or create maintenance obligations not anticipated hereunder;

- iv. On completion of construction of the Project, BCWD will restore the disturbed areas, access, construction and maintenance areas of the Site to a safe and functional condition that is in materially equivalent to its preexisting condition.
 - v. BCWD will provide as-built construction drawings of the Project to Oak Park Heights within 90 days of certification of the Project as substantially complete for the intended purposes.
 - vi. BCWD will provide, at its expense, ongoing assistance with maintenance and monitoring of the performance of the Project, as may be requested by Oak Park Heights, for the duration of this agreement.
 - vii. BCWD warrants to Oak Park Heights the design of the Project for its intended purposes. This warranty is limited to the extent of the warranty on design to BCWD by the third-party engineer. .
- D. Until completion of construction, if BCWD, in its judgment, should decide that the Project is infeasible, BCWD, at its option, may declare the agreement rescinded and annulled. If BCWD so declares, all obligations herein, performed or not, will be voided; BCWD will return the Site materially to its preexisting condition or to a condition agreed on by Oak Park Heights and BCWD.

5 Replacement, Decommissioning

- A. After completion of construction, either party may initiate, though informal communication to the other, an assessment of the effectiveness of the Project. In the event the parties agree that the Project has become ineffective, Oak Park Heights and BCWD will develop and implement a plan for removal, disposal and, if agreed to, replacement of the constructed elements of the Project and, as needed, restoration of the Site.
- B. The Project is expected to have a useful life of 25 years. If, after the useful life period of the Project has run, the parties determine that the Project has become materially ineffective for its intended purposes, Oak Park Heights and BCWD will jointly develop plans for removal and disposal of all constructed elements of the Project and restoration of the Site.

6 Cost- and Credit-Sharing

- A. BCWD will be responsible for all costs of design and construction of the Project and the costs of the production of publicity, education and outreach materials related to the Project. BCWD will be responsible for the costs and fees associated with complying with regulatory requirements applicable to the Project, except that Oak Park Heights will assess no fee to BCWD for Oak Park Heights permits



required for the Project, if any. Oak Park Heights will be responsible for the costs of routine maintenance and decommissioning in accordance with section 5B of this agreement of the Project. Each of the parties will bear its own costs not otherwise allocated by this agreement, as well as the administrative costs of fulfilling its responsibilities and obligations under this agreement.

- B. All stormwater-management or nutrient-reduction capacity created by the Project, if any, may be utilized by Oak Park Heights in accounting for compliance with any applicable regulatory obligations. Oak Park Heights will determine, at its cost, available credit from the Project. BCWD makes no representation or warranty as to credit that will be available from or results that will be achieved by the Project.

7. PUBLICITY AND ENDORSEMENT. BCWD and Oak Park Heights will collaborate on the development of educational and informational signage pertinent to the Project, and BCWD, at its cost, may develop, produce and distribute educational, outreach and publicity materials related to the Project, and may install, maintain, replace or remove temporary and/or permanent signage on the Site related to the Project. All such signage and materials, whether produced by BCWD or Oak Park Heights, will also include acknowledgement of the Clean Water Legacy funding provided for the Project in accordance with Laws of Minnesota 2009, Chapter 172, Article 5, Section 10. For purposes of this paragraph, "publicity" includes notices, informational printed materials, press releases, research reports, signs and other public notices.

8. INDEPENDENT RELATIONSHIP; LIABILITY. This agreement does not create a joint powers board or organization within the meaning of Minnesota Statutes section 471.59. Each party agrees that it will be responsible only for its own acts and the results thereof to the extent authorized by the law and will not be responsible for the acts or omissions of the other party and the results thereof. Minn. Stat. chapter 466 and other applicable law govern liability of the parties. The limits of liability for the parties may not be added together to determine the maximum amount of either party's liability. This agreement creates no right in and waives no immunity, defense or liability limitation with respect to any third party. As between the parties, only contract remedies are available for a breach of this agreement.

Oak Park Heights and BCWD enter this agreement solely for the purposes of construction and maintenance of the Project to improve water quality in Long Lake. BCWD does not have, has not had, and will not be deemed to have acquired by entry into or performance under this agreement, any form of interest or ownership in or to any portion of the Site. BCWD does not exercise, has not exercised, and will not by entry into or performance under this agreement be deemed to have exercised, any form of control over the use, operation or management of any portion of the Site or property adjacent to the Project prior to the commencement of construction of the Project, so as to

have rendered BCWD a potentially responsible party for any contamination under state or federal law.

9. TERM AND TERMINATION. This agreement becomes effective when fully executed. The agreement will remain in force for 10 years, and will renew automatically for an additional five-year term and renew again every five years on the anniversary of the first renewal unless terminated by mutual agreement of the parties or otherwise in accordance with the terms of this agreement until the Project is decommissioned in accordance with paragraph 5B of this agreement. Any responsibility or obligation that has come into being before expiration, specifically including obligations under sections 3, 4, 5, 6 and 8 above, will survive expiration.

10. COMPLETE AGREEMENT. This agreement, as it may be amended in writing, constitutes the entire agreement between the parties. Any amendment to this agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original agreement or their successors in office.

11. NOTICE; COORDINATION. The parties designate the following authorized representatives, each to serve as the liaison to the other party for purposes of coordinating inspection, construction oversight and maintenance of the Project as provided in this agreement. Any written communication required under this agreement will be addressed to the other party as follows, except that either party may change its address for notice by so notifying the other party in writing:

To Oak Park Heights: City Administrator
City of Oak Park Heights
14168 Oak Park Blvd N, PO Box 2007
Stillwater MN 55082-2007

To BCWD: Administrator
Brown's Creek Watershed District
455 Hayward Ave N
Oakdale, MN 55128

10. WAIVERS. The waiver by Oak Park Heights or BCWD of any breach or failure to comply with any provision of this agreement by the other party will not be construed as nor will it constitute a continuing waiver of such provision or a waiver of any other breach of or failure to comply with any other provision of this agreement.

IN WITNESS WHEREOF, the parties have executed this agreement, intending to be legally bound.



BROWN'S CREEK WATERSHED DISTRICT,
a political subdivision of the State of Minnesota

Craig Leiser
By Craig Leiser
Its president
Dated: 12/4/15

Approved as to form and execution
[Signature]
BCWD counsel

CITY OF OAK PARK HEIGHTS,
a municipal corporation and body corporate and politic of the State of Minnesota

Mary McComber
By Mary McComber
Its mayor
Dated: 11-20-15

Approved as to form and execution
[Signature]
City attorney 11/18/15

Exhibit A
Site Plan



60TH STREET NORTH

NORELL AVENUE NORTH

CONSTRUCTION ACCESS FROM 2-LANE NORELL AVENUE

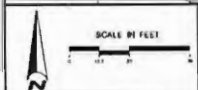
PROPOSED VINYL SHEET PILING

CONSTRUCTION LIMITS (TYP.)

EXISTING POND

EXISTING STORM SEWER

MAINTENANCE LOCATION



SUBMISSION DATE: 03/06/2015
DESIGN BY: DHE DRAWN BY: DHE
EON PROJECT NO: 0004-1400

EOR Emmons & Olivier Resources, Inc.
651 Hale Avenue North
Oakdale, MN 55128
Tele: 651.770.8448
www.eorinc.com

BROWN'S CREEK WATERSHED DISTRICT
1380 W FRONTAGE RD HWY 36
STILLWATER, MN 55082

NORELL AVENUE POND OUTLET RETROFIT
OAK PARK HEIGHTS, MN
STATE PROJECT NO. CITY PROJECT NO.

EXHIBIT A - SITE PLAN
SHEET 01 OF 01 SHEETS

Exhibit B
Maintenance Plan



Exhibit B - MAINTENANCE PLAN FOR:

NORELL AVENUE POND OUTLET RETROFIT, OAK PARK HEIGHTS, MN

Best Management Practices (BMPs) subject to this maintenance agreement include those installed as a part of the Norell Avenue Pond Outlet Retrofit Project. All facilities described below are located within City of Oak Park Heights (City) owned rights-of-way. These BMPs include:

1. Stormwater retention basin with associated inlet & outlet pipe and outlet structure in the northeast corner.

Inspections:

Inspection summaries shall be completed and shared with both the Brown's Creek Watershed District (District) and the City within 30-days of the inspection.

District Inspection Responsibility:

The District will inspect the BMPs monthly (April through October) the first year of operation. For the second year of operation, the BMPs will be inspected every other month (April through October) by the District.

City Inspection Responsibility:

Oak Park Heights will inspect the BMPs at least annually.

Maintenance:

The City is projected to be permitted under the MN Pollution Control Agency's Stormwater Program for Municipal Separate Storm Sewer Systems (MS4) by 2018. The City's MS4 permit will supersede this Maintenance Plan for the BMP.

If the stormwater pond open water area adjacent to the vinyl sheet pile baffle has sediment accumulation exceeding 50% of the total post-construction volume as shown in the as-built drawings prior to the City's MS4 permit, the City and BCWD shall work together to jointly determine maintenance timing and funding to jointly perform any needed remediation activities.

The BMPs shall be maintained and repaired by the City within 90-days, weather dependent, of the following BMP deficiencies:

- a. The existing inlet and outlet pipes near the northeast corner of the stormwater pond shall be maintained by the City when sediment or debris has accumulated and restricted flow through pipes by 50% of the original capacity.
- b. Any areas of erosion, scouring, or destabilization associated with any of the aforementioned BMPs shall be corrected by the City on an as-needed basis. If any areas of erosion, scouring, or destabilization associated with any of the aforementioned BMPs are caused by the direct actions of the District, the District shall be responsible for the costs associated with such repairs and stabilization.

