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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON DECEMBER 3, 2012
FROM:	EDWARD SOLDO, P.ENG. DIRECTOR ROADS AND TRANSPORTATION ENVIRONMENTAL AND ENGINEERING SERVICES
SUBJECT:	CONTRACT AWARD – TENDER NO. T12-60 HYDE PARK NO. 4 STORMWATER MANAGEMENT FACILITY & STANTON DRAIN REMEDIATION (ES3020-HP4/ES2487-STNDR)

RECOMMENDATION

That, on the recommendation of the Director, Roads and Transportation, the following action **BE TAKEN** with respect to the award of a contract for the Hyde Park No. 4 Stormwater Management Facility and Stanton Drain Remediation:

- (a) the bid submitted by Bre-Ex Limited 247 Exeter Road, London, ON N6L 1A5 at its tendered price of \$5,719,479.55 (including contingency, excluding H.S.T.), for the Hyde Park No.4 Stormwater Management Facility and Stanton Drain Remediation Construction contract, **BE ACCEPTED**; it being noted that the bid received was the lowest of six (6) pre-qualified bids and meets the City's specifications and requirements in all areas;
- (b) the engineering fees for AECOM (Consultant) Citi Plaza 250 York Street, Suite 410 London, Ontario Canada, N6A 6K2 **BE INCREASED** to carry out additional design (\$36,756) inspection and general construction administration (\$327,948) and monitoring program (\$58,564) of said project in the upset amount of \$423,268, (including contingency, excluding HST), based upon the Fee Guideline for Professional Engineering Services, 2006, recommended by the Ontario Society of Professional Engineers and in accordance with Section 15, Clause 15.2(g) of the Procurement of Goods and Services Policy;
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix "A";
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work;
- (e) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchase order relating to the material to be supplied and the work to be done relating to this project (Tender 12-60); and
- (f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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CWC – June 19, 2012 – Phasing of Stormwater Management Facilities

PEC – February 21, 2012 – 2012-2016 Growth Management Implementation Strategy

PEC – February 6, 2012 – 2012-2016 Growth Management Implementation Strategy'

ETC – November 8, 2010 – Appointment of Consulting Engineering for Engineering Services for Functional and Detailed Design of Stanton Drain Remediation/Hyde Park Stormwater Management Facility No. 4

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BACKGROUND

Purpose:

This report recommends the award of contract No. 12-60 to construct the Hyde Park No. 4 Stormwater Management (SWM) Facility and Stanton Drain Remediation and to authorize the City's consultant to carry out additional design, inspection and contract administration and monitoring program necessary to complete and construct the project (location map is shown in Appendix B).

Context:

The need and justification for this project was identified in the Medway, Stanton and Mud Creeks Subwatershed Study completed in 1995, the Hyde Park Community Plan completed in 1999/2000 and the Hyde Park Community Storm Drainage and SWM Schedule 'B' Municipal Class Environmental Assessment (EA) completed in 2002. The EA identified the recommended preferred servicing option that included the six SWM facilities and the Stanton Drain remediation works to improve water quality and minimize flooding conditions for the Hyde Park Community Plan lands under existing and post-development conditions. This solution was developed in consideration of the entire Stanton Drain system whereby all projects are required to be implemented in accordance with the strategy to function effectively.

The Hyde Park No. 4 SWM facility and Stanton Drain remediation project is the fourth phase of the recommended preferred servicing option of the EA. The Hyde Park No. 1, 3E and 1B1 SWM facilities (phases 1, 2, and 3 of the recommended preferred servicing option) have been constructed and Hyde Park No. 5 and 6 SWM facilities (phases 5 and 6) will be constructed in accordance with the City's Growth Management Implementation Strategy (GMIS).

In 2004/2005, Smart Centres engaged the services of Stantec to complete a functional design of the Hyde Park No. 4 SWM facility and Stanton Drain remediation. The City was reviewing the design when Council passed the Development Charges by-law stipulating that regional SWM facilities be constructed by the City (August 2009). The City engaged AECOM to undertake a peer review of Stantec's design and determined that deviations proposed in the design from what was identified in the EA, would result in a considerable increase in project cost. On that basis, the City did not accept the design proposed by Stantec on behalf of Smart Centres.

In November 2010, the City engaged AECOM for the functional and detailed design of the Hyde Park No. 4 SWM Facility and Stanton Drain Remediation in accordance with the Hyde Park EA. The scope of the engineering services for functional and detailed design did not include phasing of the SWM facilities.

In February 2011, staff recommended that current development plans, via the GMIS, could be implemented while deferring considerable capital spending and provide savings in debt related interest costs by phasing the large stormwater management facilities. It was proposed that the Hyde Park No. 4 SWM facility and Stanton Drain remediation project be phased.

Discussion:

Based on AECOM's analysis, staff recommended to the Civic Works Committee on June 19, 2012 to phase a portion of the Stanton Drain remediation works by deferring the construction of the Fanshawe Park Road culvert and channel upstream of Fanshawe Park Road. The consultant's work plan proposal (November 2010) did not contemplate developing a strategy to phase this project, pre-qualifying contractors or undertaking utility locates at the watercourse crossing location. The work plan proposal also did not include a revision to the outlet of the design of the works due to the inability to obtain permission from a landowner to construct the works on their property. The additional costs associated with this work are \$36,756.

The consultant submitted a proposal for inspection, general construction administration fees as part of the proposal for the functional and detailed design of the project. The estimated fees (November 2011) were \$102,273 including contingency, excluding H.S.T.

Structural components incorporated to achieve the design were not anticipated at the design proposal stage and resulted in additional geotechnical inspection and testing as well as a longer construction duration. These tasks result in an increase in fees of approximately \$225,675 (including contingency, excluding H.S.T) from the previous estimate.

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Approval for the project was issued by the Ministry of the Environment, Fisheries and Oceans Canada, and the Upper Thames River Conservation Authority (see approvals attached in Appendix C). The Ministry of Natural Resources had no objection to the project proceeding and the City's Parks, Planning and Design Division provided their sign-off on the project. Consents from landowners were also obtained for construction of the project.

Environmental monitoring requirements, stipulated in the approvals, as well as due diligence activities to protect the ecological and environmental health of the system, associated with the works, are \$58,564 (including contingency, excluding H.S.T.) and were not anticipated to be as extensive at the proposal stage.

The engineering fees including contingency and excluding H.S.T. requested to date for this project are as follows:

1.	Functional and detailed design for Hyde Park No. 4 SWM facility and Stanton Drain Remediation project	\$397,617
2.	Additional design work for phasing considerations, pre-qualifying contractors, utility locates and amended outlet design	\$36,756
3.	Environmental monitoring requirements stipulated in approvals	\$58,564
4.	Inspection and general contract administration	\$327,948
	Total	\$820,885

AECOM has completed the functional and detailed design for this facility and has demonstrated extensive knowledge of the City's storm/drainage and SWM infrastructure requirements within the drainage area. As such, AECOM is recommended to proceed with additional design, inspection, general construction administration and monitoring for the Hyde Park No. 4 SWM facility and Stanton Drain Remediation project at an upset limit of \$423,268 (including contingency, excluding H.S.T.).

This construction project implemented a pre-qualification process which closed on August 15, 2012 in which the City received a total of seventeen (17) responses from various contractors throughout Ontario.

After a thorough review of the documentation received, seven (7) qualified contractors were selected based on previous relevant work experience with similar construction projects which allowed them to submit bids for the construction of the Hyde Park No. 4 SWM Facility and Stanton Drain Remediation.

Tenders for the Hyde Park No. 4 Stormwater Management Facility and Stanton Drain Remediation construction were opened on November 14, 2012. Six (6) contractors submitted tenders including contingency allowance of \$500,000, excluding H.S.T. as follows:

CONTRACTOR		TENDER PRICE SUBMITTED*
1.	Bre-Ex Limited	\$5,719,480
2.	J-AAR Excavating Limited	\$6,519,725
3.	L82 Construction	\$6,600,629
4.	Blue Con Construction	\$7,187,706
5.	Van Bree Drainage and Bulldozing	\$7,527,591
6.	DeKay Construction	\$8,431,700

*Prices include corrections

All tenders were checked by AECOM. The tender estimate prior to tender opening was \$6,885,218 (including contingency, excluding H.S.T.). It is noted that despite the challenges associated with the project, as reflected in the increase in engineering fees, the project is expected to remain within budget subject to unforeseen circumstances.

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Further, by deciding to advance with the City's design team and in accordance with the recommended alternative of the EA, the City is expected to achieve a savings of approximately \$4.1 M on this project compared to implementing the design that was underway in August 2009.

Conclusions:

It is recommended that Bre-Ex Limited be awarded the construction of the Hyde Park No. 4 Stormwater Management Facility and Stanton Drain Remediation contract in the amount of \$5,719,480 including contingency, excluding H.S.T. and that the engineering fees of the City's consultant (AECOM) be increased by \$423,268 including contingency, excluding H.S.T. to carry out additional design, inspection and contract administration and monitoring program for the project.

SUBMITTED BY:	RECOMMENDED BY:
<i>B. Krichker</i>	<i>Edward Soldo</i>
BERTA KRICKER, M.ENG., F.E.C., P.ENG. MANAGER OF STORMWATER STORMWATER MANAGEMENT UNIT	EDWARD SOLDO, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION
REVIEWED & CONCURRED BY:	
<i>John Braam</i>	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR ENVIRONMENTAL AND ENGINEERING SERVICES & CITY ENGINEER	

November 23, 2012

Attach: Appendix "A" – Sources of Financing
Appendix "B" – Location Map

c.c. Pat Shack – Budget Analyst
John Freeman – Manager, Purchasing and Supply
Bre-Ex Limited
AECOM

Chair and Members
Civic Works Committee

November 23, 2012
(Award Contract)

RE: Hyde Park No. 4 Stormwater Management Facility & Stanton Drain Remediation
Capital Project ES2487 - Stanton Drain Remediation Work
Capital Project ES3020-HP4 - SWM Facility - Hyde Park 4
Bre-Ex Limited - \$5,719,479.55 (excluding H.S.T.)
AECOM - \$820,885.00 (excluding H.S.T.)

FINANCE DEPARTMENT REPORT ON THE SOURCES OF FINANCING:

Finance Department confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Director, Roads and Transportation, the detailed source of financing for this project is:

	Approved Budget	Financing/ Budget Adjustment 2)	Revised Budget	Committed to Date	This Submission	Balance for Future Work
ESTIMATED EXPENDITURES						
ES2487 - Stanton Drain Remediation Work						
Engineering	\$470,437		\$470,437	\$39,719	\$430,718	\$0
Construction	649,282		649,282	30,528	618,754	0
	1,119,719	0	1,119,719	70,247	1,049,472	0
ES3020-HP4 - SWM Facility-Hyde Park 4						
Engineering	767,875		767,875	417,875		350,000
Land Purchase	282,335		282,335			282,335
Construction	5,721,389	(520,000)	5,201,389		5,201,389	0
City Related Expenses	6,101		6,101	6,101		0
	6,777,700	(520,000)	6,257,700	423,976	5,201,389	632,335
NET ESTIMATED EXPENDITURES	\$7,897,419	(\$520,000)	\$7,377,419	\$494,223	\$6,250,861	\$632,335
SOURCE OF FINANCING:						
ES2487 - Stanton Drain Remediation Work						
Debenture Quota	\$39,719	(\$39,719)	\$0			\$0
Drawdown from Sewage Works Reserve Fund	2) 769,300	(497,781)	271,519	17,034	254,485	0
Drawdown from City Services - Mjr SWM Reserve Fund (Development Charges)	4) 310,700	537,500	848,200	53,213	794,987	0
	1,119,719	0	1,119,719	70,247	1,049,472	0
ES3020-HP4 - SWM Facility-Hyde Park 4						
Debenture Quota	3) 1,008,720		1,008,720		847,008	161,712
Debenture Quota - tsf from ES2487-Stanton Drain Remediation Work	3) 39,719	39,719	39,719			39,719
Drawdown from Sewage Works Reserve Fund-tsf from ES2487-Stanton Drain Remediation Work	2) 497,781	497,781	497,781	135,081	362,700	0
Drawdown from Sewage Works Reserve Fund-tsf from ES3040-12 2012 Minor Surface Flooding	2) 210,000	210,000	210,000		210,000	0
Drawdown from Sewage Works Reserve Fund-tsf from ES2428-12-2012 Erosion Remediation	2) 237,480	237,480	237,480		237,480	0
Debenture Quota (Serviced through City Services-Mjr SWM Reserve Fund (Development Charges)	3&4) 5,768,980	(1,504,980)	4,264,000	288,895	3,544,201	430,904
	6,777,700	(520,000)	6,257,700	423,976	5,201,389	632,335
TOTAL FINANCING	\$7,897,419	(\$520,000)	\$7,377,419	\$494,223	\$6,250,861	\$632,335

1) **Financial Note:**

	ES2487 Construction	ES3020-HP4 Construction	Total Construction	ES2487 Engineering	Total Engineering & Construction
Estimated Expenditure				\$820,885	
Less: Amount Previously Approved by Council Nov. 1/10 (ES3018)				397,617	
Contract Increase/Price	608,052	5,111,428	5,719,480	423,268	6,142,748
Add: HST @13%	79,047	664,486	743,533	55,025	798,558
Total Contract Price Including Taxes	687,099	5,775,914	6,463,013	478,293	6,941,306
Less: HST Rebate	68,345	574,525	642,870	47,575	690,445
Net Contract Price	\$618,754	\$5,201,389	\$5,820,143	\$430,718	\$6,250,861

- 2) The Hyde Park SWMF No.4 facility is a transitional Development Charges project which was initiated prior to the 2009 Development Charge Study Stormwater policy changes. This project began as an Urban Works Reserve Fund (UWRF) financed project and as part of the 2009 Development Charge process was transferred to the City Services Reserve Fund (CSRF). The purchase of the land required for the Hyde Park SWMF No. 4 facility was funded by the Urban Works Reserve and dedicated to the City in 2009 at a cost of \$890,548. The estimate provided in the 2009 Development Charge Background Study for the Hyde Park SWMF No. 4 facility also mistakenly incorporated a cost for the land purchase.

The 2009 Development Charge Background Study provided a growth split of costs for the combined Hyde Park SWMF No. 4 and Stanton Drain Improvement projects of 88% growth and 12% non-growth. This allocation of costs was updated as part of the Hyde Park SWMF No.4 functional design and updated to a value of 79% growth and 21% non-growth. The impact of this change is a lower proportion of the costs (approximately \$967k) being paid out of the City Services Reserve Fund (Development Charges) and a greater portion of the costs being paid from the user rates. The additional financing requirement of \$447,480 is available from ES2487 - Stanton Drain Remediation Work, ES3040-12-2012 Minor Surface Flooding and ES2428-12 - 2012 Erosion Remediation.

As noted in the June 19, 2012 Civic Works Committee titled "Phasing of Stormwater Management Facilities" an additional budget of \$820,000 will be required in 2016 to complete the second phase of the Stanton Drain Improvement component of this project. This budget request will be incorporated into the 2014 budget request and the 2014 Development Charges Background Study.

NOTE TO CITY CLERK:

- 3) Administration hereby certifies that the estimated amounts payable in respect of this project does not exceed the annual financial debt and obligation limit for the Municipality of Municipal Affairs in accordance with the provisions of Ontario Regulation 403/02 made under the Municipal Act, and accordingly the City Clerk is hereby requested to prepare and introduce the necessary authorizing by-laws.

An authorizing by-law should be drafted to secure debenture financing for Project ES3020-HP4 - SWM Facility - Hyde Park 4 for the net amount to be debentured of \$5,312,439.

- 4) Development charges have been utilized in accordance with the underlying legislation and it should be noted that the provided growth/non-growth splits provided in the Development Charges Background Studies completed in 2009 have been revised as discussed in Note 2.

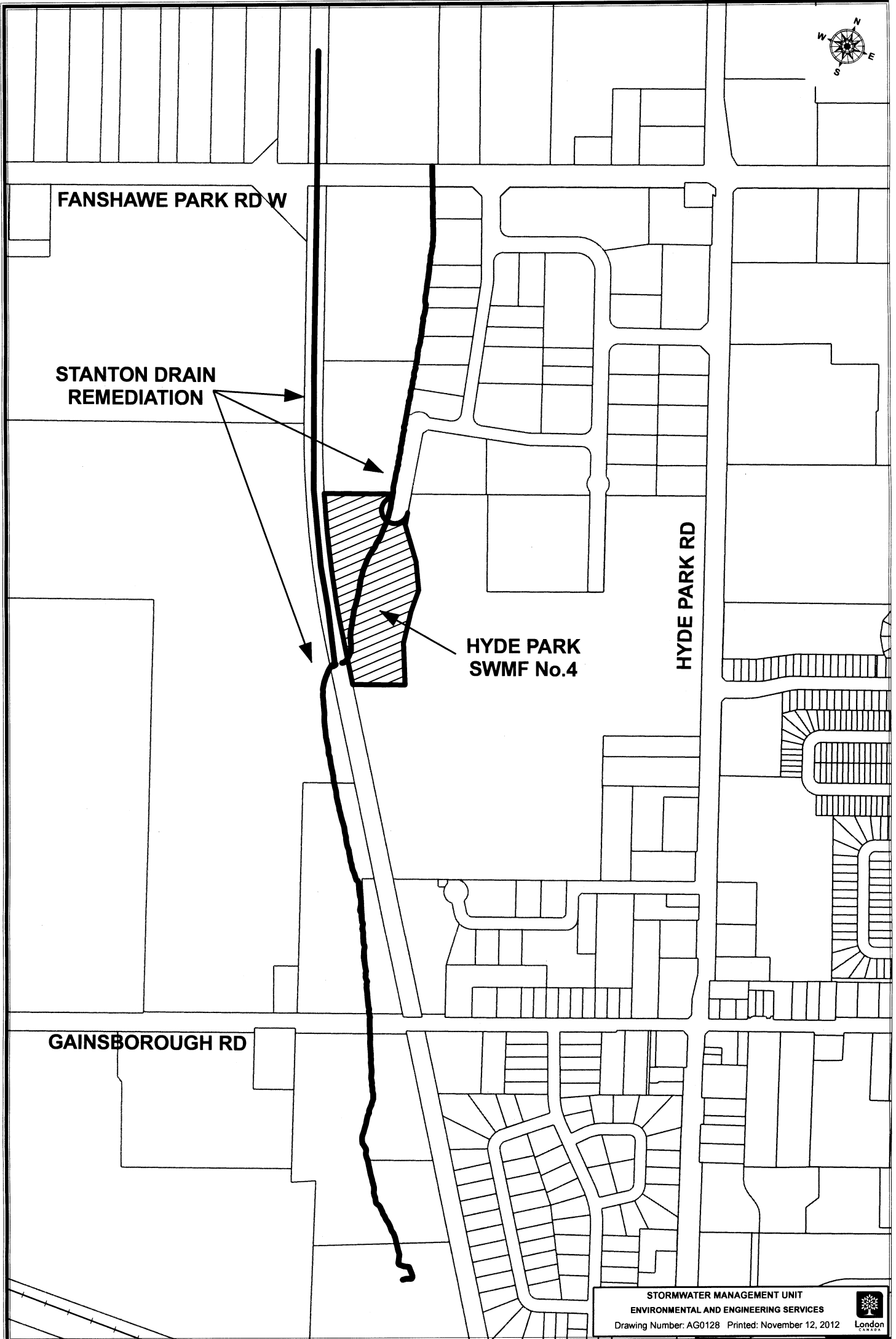


Alan Dunbar
Manager of Financial Planning & Policy

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APPENDIX 'B'



APPENDIX 'C'



Ministry of the Environment
Ministère de l'Environnement

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 3765-8U6RXX

Issue Date: August 16, 2012

The Corporation of the City of London
300 Dufferin Ave P.O. Box 5035
London, Ontario
N6A 4L9

City Clerk

No. 2778

Subject ECA - 1590 Woodcock
Place

AUG 20 2012

Site Location: 1590 Woodcock Place
1590 Woodcock Pl
London City, County of Middlesex

Ref. J. Braam

C.C. I. Abushohada U. DeBenedictis
File

SCANNED

DATE: Aug 20/12

You have applied under section 20.2 of Part II.1 of the *Environmental Protection Act*, R.S.O. 1990, c. E. 19
(*Environmental Protection Act*) for approval of:

The construction of the Hyde Park SWM Facility No. 4 and the remediation of the Stanton Drain to service future development in the catchment and to address current flooding and servicing deficiencies in the area west of Hyde Park Road north and south of Fanshawe Park Road.

The Hyde Park SWM Facility No. 4 providing normal (Level 2) water quality control and partial extended detention and peak flow attenuation for approximately 196 ha of light industrial, auto-oriented commercial and low density residential land use has the following components:

Inlet Structures

- 75 m – 1800 x 3000 mm storm sewer with three 2000 x 600 mm side grate openings (to divert major flows around the facility) connected to a 25 m long 1200 x 3000 mm storm sewer that discharges to the north forebay.
- a 14 m – 900 mm x 1800 mm concrete box inlet storm sewer.
- A trapezoidal weir with a top width of 26 metres, a bottom width of 20 metres and a bottom width of 0.3 metres for major flows east of the facility.

Sediment Forebays

- a north forebay with a max width of 40 m, a max length of 120 m and a depth of 1.5 m.

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- a south forebay with a max width of 35 m, a max length of 60 m and a depth of 1.5 m.

Permanent Pool:

- a permanent pool volume of approximately 19,400 cubic metres at a depth of 1.5 m.

Active Storage:

- Approximately 7,960 cubic metres of extended detention storage. The extended detention storage will discharge through a 1500 mm diameter perforated riser complete with an 430 mm diameter orifice over 24 hours.
- Approximately 26,430 cubic metres (over and above the extended detention storage volume) of peak flow attenuation will be provided and will discharge through a trapezoidal channel (0.5 m base width, 11.9 m top width, 3:1 side slopes).

The total pond depth is 3.0 m (including the permanent pool).

Outlet Structures:

- Low Flow Outlet;
 - a 1500 mm diameter perforated riser discharging into a 675 mm diameter pipe complete with an 430 mm diameter orifice at its inlet. The sewer discharges into the remediated Stanton Drain described below
- High Flow Outlet
 - an outlet weir with a bottom width of 0.5 metres and a top width of 11.9 metres and a depth of 1.4 metres
 - an emergency overflow spillway with a bottom width of 20.0 metres and a top width of 6.0 metres and a depth of 0.3 metres

The Stanton Drain remediation consists of the following components:

- 1090 m of channel remediation downstream of the outlet of the facility that includes a 3 m wide by 0.7 m deep low flow channel with rock shoaling and other habitat enhancing material / plantings. The high flow portion of the channel includes approximately 200 m of retaining wall (100 m on each side of the drain) to maintain the extent of existing channel conveyance width;
- a 1050 m long major flow conveyance channel from 300 m north of Fanshawe Park Road southwards to the outlet of the facility;
- 500 m of regrading and establishing storm channel profile upstream of the facility to Fanshawe Park Road;

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- a new 3000 x 2400 mm box culvert crossing at Fanshawe Park Road complete with 500 mm of material placed as substrate;
- a 14 m span pedestrian bridge crossing capable of conveying the 250 year storm downstream of the proposed SWM facility;
- an upgrade of the existing Gainsborough Road culvert to a 3600 mm x 3000 mm box culvert complete with 600 mm of material placed as substrate;

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" means this entire document and any schedules attached to it, and the application;

"Director" means a person appointed by the Minister pursuant to section 5 of the *EPA* for the purposes of Part II.1 of the *EPA*;

"District Manager" means the District Manager of the London District Office;

"EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

"Ministry" means the ministry of the government of Ontario responsible for the *EPA* and *OWRA* and includes all officials, employees or other persons acting on its behalf;

"Owner" means The Corporation of the City of London and its successors and assignees;

"OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;

"Regional Director" means the Regional Director of the Southwestern Region of the Ministry;

"Source Protection Plan" means a drinking water source protection plan prepared under the Clean Water Act, 2006; and

"Works" means the sewage works described in the *Owner*'s application, and this *Approval*.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

(1) The *Owner* shall ensure that any person authorized to carry out work on or operate any aspect of the *Works* is notified of this *Approval* and the conditions herein and shall take all reasonable

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measures to ensure any such person complies with the same.

(2) Except as otherwise provided by these conditions, the *Owner* shall design, build, install, operate and maintain the *Works* in accordance with the description given in this *Approval*, and the application for approval of the *Works*.

(3) Where there is a conflict between a provision of any document in the schedule referred to in this *Approval* and the conditions of this *Approval*, the Conditions in this *Approval* shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.

(4) Where there is a conflict between the documents listed in the Schedulesubmitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The Conditions of this *Approval* are severable. If any Condition of this *Approval*, or the application of any requirement of this *Approval* to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this *Approval* shall not be affected thereby.

2. EXPIRY OF APPROVAL

The approval issued by this *Approval* will cease to apply to those parts of the *Works* which have not been constructed within five (5) years of the date of this *Approval*.

3. CHANGE OF OWNER

The *Owner* shall notify the *District Manager* and the *Director*, in writing, of any of the following changes within thirty (30) days of the change occurring:

(a) change of *Owner*;

(b) change of address of the *Owner*;

(c) change of partners where the *Owner* is or at any time becomes a partnership, and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c.B17 shall be included in the notification to the *District Manager*; and

(d) change of name of the corporation where the *Owner* is or at any time becomes a corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C39 shall be included in the notification to the *District Manager*.

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4. OPERATION AND MAINTENANCE.

(1) The *Owner* shall ensure that the design minimum liquid retention volume(s) is maintained at all times.

(2) The *Owner* shall inspect the *Works* at least once a year and, if necessary, clean and maintain the *Works* to prevent the excessive buildup of sediments and/or vegetation.

(3) The *Owner* shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook for inspection by the *Ministry*. The logbook shall include the following:

(a) the name of the *Works*; and

(b) the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of any materials removed.

5. MONITORING

The *Owner* shall conduct quantitative sampling and assessment of the benthic invertebrate community of Stanton Drain at a location upstream of the approved works and at a location downstream of the approved works within one year before the project commences and again within one year after the project is complete. The quantitative sampling and assessment methods shall be consistent with those used by the City of London in other stormwater projects. Within one year of the final sampling, an interpretive report of the results including raw data shall be provided to the MOE Southwestern Region.

6. SEDIMENT AND EROSION CONTROL

(1) The *Owner* shall conduct inspections of all sediment and erosion control measures outlined in the application for approval, once every two (2) weeks and after each significant storm event.

(2) The *Owner* shall maintain a log book which shall be made available for inspection by the *Ministry*, the *Municipality*, and the *Upper Thames River Conservation Authority*, upon request. The log shall include the name of the inspector, date of inspection, and the remedial measures undertaken to maintain the sediment and erosion control measures, if any. The inspections and maintenance of the log-book shall continue in the sole discretion of the *Ministry*, it is no longer required.

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7. RECORD KEEPING

The *Owner* shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this *Approval*.

8. SOURCE WATER PROTECTION

The *Owner* shall, within sixty (60) calendar days of the Minister of the Environment posting approval of a *Source Protection Plan* on the environmental registry established under the Environmental Bill of Rights, 1993 for the area in which this *Approval* is applicable, apply to the *Director* for an amendment to this *Approval* that includes the necessary measures to conform with all applicable policies in the approved *Source Protection Plan*.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the *Works* are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the *Approval* and the practice that the *Approval* is based on the most current document, if several conflicting documents are submitted for review.
2. Condition 2 is included to ensure that, when the *Works* are constructed, the *Works* will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.
3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to approved *Works* and to ensure that subsequent owners of the works are made aware of the *Approval* and continue to operate the works in compliance with it.
4. Condition 4 is included to require that the *Works* be properly operated and maintained such that the environment is protected .
5. Condition 5 is added to minimize the amount silt laden run off from entering the Stanton Drain.
6. Condition 6 is included to ensure that the proposed sediment and erosion control measures are effective in protecting the aquatic habitat in the Stanton Drain.
7. Condition 7 is included to require that all records are retained for a sufficient time period to adequately evaluate the long-term operation and maintenance of the *Works*.
8. Condition 8 is included to ensure that the works covered by this *Approval* will conform to the significant threat policies and designated Great Lakes policies in the *Source Protection Plan*.

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In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

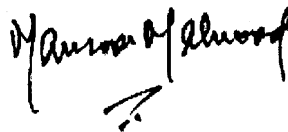
AND

The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 16th day of August, 2012



Mansoor Mahmood, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

APPENDIX 'C'

SK/

c: District Manager, MOE London - District
Brian Richert, AECOM

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**UPPER THAMES RIVER
CONSERVATION AUTHORITY**

"Working in Partnership with the Community for a Healthy Watershed"



May 25, 2012

VIA E-MAIL

The Corporation of the City of London
300 Dufferin Avenue
P. O. Box 5035
London, Ontario
N6A 4L9

Attention: Berta Krichker, P. Eng., Manager of Stormwater Unit

Dear Ms. Krichker:

**Re: UTRCA Application #9/12
Stanton Drain Remediation and Hyde Park SWM Facility 4**

The Upper Thames River Conservation Authority acknowledges receipt of the following in support of the above-noted project:

- Application form
- Permit fee in the amount of \$1000 forwarded by electronic transfer
- Scoped EIS by AECOM dated September 2, 2011 and revised January 25, 2012
- Technical Design Brief – Final Report by Parish Geomorphic dated August 2011
- Functional Design Report by AECOM dated August 2011
- Hydrological and Geotechnical Assessment by exp Services Inc. dated May 2011
- AECOM letter of February 1, 2012 to Aylmer MNR Re: Scoped EIS
- AECOM and Parish Geomorphic responses to agency concerns, dated February 1/12, February 10/12 and January 12/12 respectively
- AECOM letter to UTRCA dated April 23, 2012

Additional meetings have taken place regarding this project and we understand that additional correspondence will be provided by AECOM for clarification purposes specifically in response to concerns expressed by the Ministry of Natural Resources. Based on our review we are prepared to approve Application #9/12, subject to the following terms and conditions:

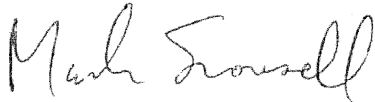
1. Work must proceed in full accordance with the terms and conditions listed on the attached permit.
2. Work must proceed in full accordance with plans submitted with the application (drawings C1 to C22, prepared by AECOM).
3. A set of 11 x 17" project drawings, stamped by a qualified engineer must be forwarded to the UTRCA.
4. Any drawing revisions must be forwarded to the UTRCA.

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5. The City of London shall conduct quantitative sampling and assessment of the benthic invertebrate community of Stanton Drain at a location upstream of the approved works and at a location downstream of the approved works within one year before the project commences and again within one year after the project is complete. The quantitative sampling and assessment methods shall be consistent with those used by the City of London in other stormwater projects. Within one year of the final sampling, an interpretive report of the results including raw data shall be provided to the MOE Southwestern Region and the UTRCA. This monitoring will be in addition to the monitoring outlined in the AECOM Functional Design Report referenced below.
6. A sediment and erosion control plan must be implemented as outlined in the Hyde Park SWM Facility 4 & Stanton Drain Remediation Functional Design Report by AECOM (Section 7, pages 27 to 30).
7. Any pre-construction meeting scheduled with the contractor shall devote time to explaining the importance of effective erosion and sediment control and the UTRCA must be invited to attend.
8. All work must be completed within one year or a request for an extension must be received in writing no later than May 25, 2013.

We understand that an authorization from DFO is pending and we will continue to work in cooperation with DFO regarding aspects of this project which are of mutual concern. If you have any questions regarding this letter and UTRCA requirements, please contact the undersigned.

Yours truly,
UPPER THAMES RIVER CONSERVATION AUTHORITY



Mark Snowsell
Land Use Regulations Officer

MS/ms

c.c. Bill Armstrong and Shiraz Khimji - MOE London
Dave Gibson - DFO London/Burlington
Amanda McCloskey - Aylmer MNR
Gary Epp and Brian Richert - AECOM

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Fisheries and Oceans
Canada

Bayfield Institute

867 Lakeshore Road
P.O. Box 5050
Burlington, Ontario
L7R 4A6

Pêches et Océans
Canada

Institut Bayfield

867, chemin Lakeshore
C.P. Box 5050
Burlington (Ontario)
L7R 4A6

July 17, 2012

Our file *Notre référence*

SA-04-3602

Berta Krichker
Manager of Stormwater Unit
The Corporation of the City of London
300 Dufferin Avenue
P.O. Box 5035
London Ontario.
N6A 4L9.

Dear Ms. Krichker:

SUBJECT: Authorization for the harmful alteration, disruption or destruction of fish habitat pursuant to subsection 35(2) of the *Fisheries Act*

The harmful alteration, disruption or destruction of fish habitat arising from the construction of Hyde Park Stormwater Management Facility 4 and the creation of a barrier to fish migration in Stanton Drain is hereby authorized pursuant to subsection 35(2) of the *Fisheries Act*. This Authorization shall be conditional upon implementation of mitigation and compensation measures specified on the attached document.

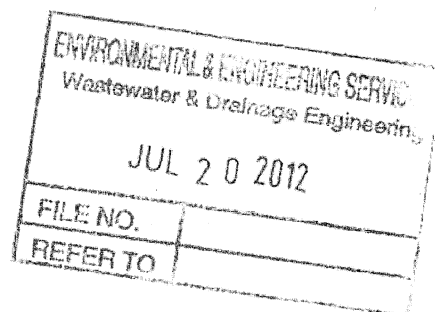
On July 6, 2012, CEAA (2012) came into effect. As a result of this new legislation, a screening level environmental assessment was no longer required for this project.

Failure to comply with any of the conditions specified on the attached Authorization may result in a contravention of the *Fisheries Act*.

Please contact Dave Gibson at our Burlington District Office by phone at (905) 639-8269, by Fax at (905) 639-3549 or by email at Dave.Gibson@dfo-mpo.gc.ca should you have any questions or require additional information.

Sincerely,

Edwin R. DeBruyn
Area Director - Ontario Great Lakes Area
Fisheries and Oceans Canada/ Pêches et Océans Canada



Copy by email: Mark Snowsell, Upper Thames Conservation Authority,
snowsellm@thamesriver.on.ca

Canada

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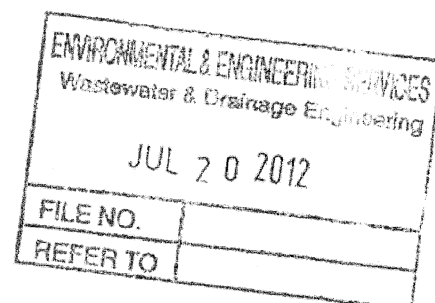
Fisheries and Oceans Canada
Pêches et Océans Canada

DFO File No.: 04-HCAA-CA4-03602
Authorization No.: SA-04-3602

FISHERIES ACT AUTHORIZATION

Authorization issued to:

Berta Krichker (*hereafter referred to as the "Proponent"*)
Manager of Stormwater Unit
The Corporation of the City of London
300 Dufferin Avenue
P.O. Box 5035
London Ontario.
N6A 4L9.



Location of Proposed Development

Nearest community: City of London
Municipality, district, township, county: Middlesex County, Hyde Park, City of London
Province: Ontario
Name of watercourse, waterbody: Stanton Municipal Drain
Latitude: 043°00'07" N Longitude: 081°20'29" W

Valid Authorization Period for Impacts to Fish and Fish Habitat

The valid period of this Authorization for the harmful alteration, disruption or destruction of fish habitat pursuant to subsection 35(2):

From	To
Date of Issue	March 14, 2014

The valid authorization periods for other conditions of this Authorization are set out below as **Conditions of Authorization**.

Description of Proposed Development

Within the upper reaches of the Stanton drain, Stormwater Management Facility 4 will be constructed that will prevent fish access further upstream. Channel modifications will be

Canada

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DFO File No.: 04-HCAA-CA4-03602
Authorization No.: SA-04-3602

undertaken using natural channel design principals to remove barriers to fish migration, reduce erosion and improve water quality upstream and downstream of the proposed Stormwater Management Facility 4.

Description of Authorized Impacts to Fish and Fish Habitat

Authorized impacts to fish and fish habitat resulting from the works, undertakings, operations or activities associated with the proposed development described above include:

- 725 meters of fish habitat within Stanton Drain will no longer be accessible to downstream fish populations.
- No fish mortality is expected

Conditions of Authorization

1 Conditions that relate to the Proponent's Plan:

- 1.1 The conditions of this Authorization notwithstanding, should the above authorized impacts to fish and fish habitat in the opinion of the Fisheries and Oceans Canada (DFO) be greater than previously assessed, then DFO may suspend any works, undertakings, activities and/or operations associated with the proposed development, to avoid or mitigate adverse impacts to fish and fish habitat. DFO may also direct the Proponent and its agents, and contractors, to carry out at the Proponent's expense any modifications, works or activities deemed necessary by DFO to avoid or mitigate further adverse impacts to fish and fish habitat. In circumstances where DFO is of the view that greater impacts may occur than were contemplated by the parties DFO may also modify or rescind this Authorization. If the Authorization is to be changed the Proponent will be given an opportunity to discuss any proposed modifications or rescission.
- 1.2 The Proponent confirms that all plans and specifications relating to this Authorization have been duly prepared and reviewed by appropriate professionals working on behalf of the Proponent and acknowledges that they are solely responsible for all design, safety and workmanship aspects of all the works associated with this Authorization.
- 1.3 The works, undertakings, activities and operations must comply with the means and conditions as identified within this Authorization. Impacts to fish and fish habitat other than that specifically identified within this Authorization are not permitted.

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Authorization No.: SA-04-3602

1.4 The Proponents Plan includes:

- 1.4.1 Stanton Drain Remediation and Hyde Park SWM Facility 4 – Scoped Environmental Impact Study. Prepared by AECOM. Dated January 25, 2012
- 1.4.2 Hyde Park SWM Facility 4 & Stanton Drain Remediation Functional Design Report. Prepared by AECOM. Dated October 2011.
- 1.4.3 Hydrological and Geotechnical Assessment Hyde Park Storm Water Facility Area Study London Ontario. Prepared for AECOM by exp Services Inc. Dated May 2011.
- 1.4.4 Stanton Drain – Hyde Park SWM 4 Facility Technical Design Brief dated August 2011. Prepared by Parish Geomorph. Dated August 2011.

2 Conditions that relate to the **mitigation** of potential impacts to fish and fish habitat:

- 2.1 No in water work or construction activity shall occur from **March 15 to July 15**, without the specific written permission from Fisheries and Oceans Canada
- 2.2 Sediment and erosion control measures must be in place and shall be upgraded and maintained as required to prevent impacts to fish and fish habitat.

3 A monitoring program shall be implemented during and after construction to ensure that the mitigation measures specified in the proponents plan are installed, maintained and function as intended. The monitoring program shall include the following:

- 3.1 A photographic record showing that all works have been completed according to the proponent plan and terms of this Authorization.
- 3.2 The photographic record shall include a record of existing conditions, the work phase including sediment and erosion control measures, and completed works.
- 3.3 Photographs for each period of documentation shall be taken from the same vantage points, direction and angle of view.
- 3.4 All photographs shall be labelled with the date, location and viewing direction. The photographic locations and viewing directions shall be indicated on a plan view drawing of the work site and clearly indexed to the photographs.
- 3.5 The photographic record and site diagram shall be submitted to Fisheries and Oceans Canada –Ontario Great Lakes Area on or before December 30, 2013

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Authorization No.: SA-04-3602

- 3.6 Details shall be provided of any contingency measures that were used to prevent impacts greater than allowed by this Authorization in the event that mitigation measures did not function as described in the Proponent Plan.
- 4 Conditions that relate to the **compensation** for the authorized impacts to fish and fish habitat:
- 4.1 A channel following natural channel design concepts shall replace the existing channel above and below the stormwater management facility and in the adjoining branch as described in the proponents plan. The new channel shall remove existing barriers to fish passage, show improved sediment passage, and improved water quality for fish.
- 4.2 The new channels shall have replacement vegetation planted as specified in the planting plan.
- 4.3 All fish habitat compensatory works shall be completed and functioning according to the criteria below by March 14, 2014.
- 4.4 If at any time the Proponent becomes aware that the compensatory habitat is not completed and/or functioning according to the above criteria, the Proponent shall carry out any works which are necessary to ensure the compensatory habitat is completed and/or functioning as required by this Authorization.
- 5 Conditions that relate to monitoring and reporting of **compensation** (described above):
- 5.1 The Proponent shall conduct monitoring of the compensatory habitat according to the approved schedule and criteria below:
- 5.1.1 Photos of the completed compensation works, live planted trees shall be sent to Fisheries and Oceans Canada 304-3027 Harvester Road, Burlington, Ontario, L7R 4K3 by April 30, 2014.

Authorization Limitations and Application Conditions

The holder of this Authorization is hereby authorized under the authority of section 32 and/or subsection 35(2) of the *Fisheries Act*. R.S.C., 1985, c.F. 14 to carry out the works, undertakings, activities and/or operations as described herein. This Authorization is valid only with respect to fish and fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

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Authorization No.: SA-04-3602

The holder of this Authorization is also authorized under section 73 of the *Species at Risk Act*, (SARA) S.C. 2002, c.29 to engage in the activities described in this Authorization.

This Authorization does **not** permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish except under conditions that can only be authorized by regulations made by Governor in Council.

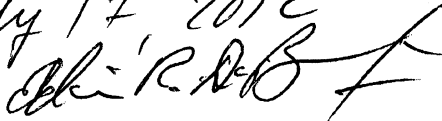
In the event that a new SARA listed species is identified or a new aquatic species becomes listed under SARA, this authorization does not permit harm, harassment or killing of any species at risk (SARA section 32), the damage or destruction of residence (SARA section 33) or the destruction of critical habitat (SARA section 58).

Failure to comply with any condition of this Authorization may result in charges being laid under the *Fisheries Act* and/or the *Species at Risk Act*.

This Authorization should be held on site and work crews should be made familiar with the conditions attached.

The Proponent shall advise DFO in advance if the ownership or responsibility for the conditions of this Authorization changes.

Date of Issuance:

July 17, 2012


Approved by:

Edwin R. DeBruyn
Area Director
Ontario-Great Lakes Area
Central and Arctic Region
Fisheries and Oceans Canada
