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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON DECEMBER 3, 2012
FROM:	EDWARD SOLDO, P.ENG. DIRECTOR ROAD AND TRANSPORTATION ENVIRONMENTAL & ENGINEERING SERVICES
SUBJECT	TRIBUTARY 'C' STORM/DRAINAGE & STORMWATER MANAGEMENT, TRANSPORTATION AND SANITARY TRUNK SERVICING ENVIRONMENTAL STUDY REPORT MODIFICATIONS

INFORMATION

That, on the recommendation of the Director of Roads and Transportation, the following **BE RECEIVED** for information with respect to changes that were incorporated in the final Environmental Study Report (ESR) for the Tributary 'C' Storm/Drainage and Stormwater Management (SWM), Transportation and Sanitary Trunk Servicing Municipal Class Environmental Assessment Study:

- (a) The ecological buffers/setbacks size increase to the Tributary 'C' coldwater fishery system requested by the Ministry of Environment (MOE) and other approval agencies;
- (b) The recommended post-development monitoring program for the proposed Stormwater Management Facility 'A' requested by the Munsee Delaware First Nation's Peer Review Consulting Team;
- (c) A response to the concerns identified by West Kains Land Corporation in a letter dated October 31, 2012; and

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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ETC June 1997 – Riverbend Community Plan that was completed by Proctor & Redfern Limited, was accepted.

ETC 2008-10-24 - Appointment of Consulting Engineer for Municipal Class Environmental Assessment for the Tributary 'C' Drainage Area (2008-A03-00-00/W05-00,1/19/ETC).

ETC 2009-05-11 - Appointment of Consulting Engineer for Municipal Class Environmental Assessment for the Tributary 'C' Drainage Area (2009-A03-00) (AS AMENDED) (2/10/ETC).

ETC 2009-11-16 - Appointment of Consulting Engineer for Municipal Class Environmental Assessment for the Tributary 'C' Drainage Area.

BNEC 2011-02-14 - Additional Engineering Fees for Municipal Class Environmental Assessment (EA) Study for the Tributary 'C' Drainage Area.

BNEC 2011-10-31 - Status Report for Environmental Assessment Study for Tributary 'C' Drainage Area.

CWC 2012-06-19 - Phasing of Stormwater Management Facilities.

CWC 2012-07-17 - Municipal Class Environmental Assessment (EA) Study completion for the Tributary 'C' Storm/Drainage and SWM, Transportation and Sanitary Trunk Servicing Works

BACKGROUND

Purpose:

This report provides Committee and Council with an update with respect to the recommended increase in the ecological buffers/setbacks requested by the MOE, and other approval agencies (the Upper Thames River Conservation Authority, the Ministry of Natural Resources, and the Department of Fisheries and Oceans) in relation to the preservation of the Tributary 'C' Coldwater Fishery system, and to the post-development monitoring program for the proposed Stormwater Management (SWM) Facility 'A' identified by the Munsee Delaware First Nation's

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Peer Review Consulting Team and provides a response to the concerns identified by West Kains Land Corporation dated October 31, 2012 and November 19, 2012 (Appendix B).

These modifications were incorporated in the final ESR of the Tributary 'C' Municipal Class EA Study and in accordance with the Council resolution of July 25, 2012; the ESR will be deposited for the mandatory public review period of 30 days to commence at the end of December 2012.

Context:

Tributary 'C' is located in the Riverbend Community Plan Area, within the downstream Thames River Subwatershed and the Upper Thames River Conservation Authority regulated area. Tributary 'C' is a coldwater stream system that is characterized by a series of channelized waterways and culverts that ultimately flows into the Thames River. The subject land for the Tributary 'C' Municipal Class EA Study, which was initiated in May 2009, is comprised of approximately 161 ha of undeveloped and small areas of existing low density residential developments.

The coldwater fishery within the Tributary 'C' drainage area is identified as the last coldwater resource of its kind within the City of London. Cooler water supplied by the subsurface springs provides base flow and creates a habitat for resident trout and other coldwater fauna within the creek. The field information completed for the EIS confirmed a coldwater fishery designation for a majority of the existing watercourse located on the subject lands.

On July 25, 2012, Council accepted the Tributary 'C' Municipal Class EA Study that included the recommended, preferred servicing option/alternative for storm/drainage and SWM servicing works 10B Enhanced that included three Regional Municipal SWMF's: one infiltration SWM Facility 'A'; one Wet SWM facility 'J'; and one on-line linear Infiltration conveyance/facility 'G' and various conveyance system and the preferred servicing option/alternative for the proposed Transportation and Sanitary servicing works 4B.

The report to Council identified that the City was in discussion with a number of agencies in regard to the issues listed below and it was the intent to address these issues prior to or during the mandatory public review period of 30 days. Substantial changes would be reported back to Council.

- The MOE issued review comments (dated April 18, 2012) for the draft ESR of the Tributary 'C' Municipal Class EA Study and identified that the recommended ecological buffers/setbacks
- The Munsee Delaware First Nation undertook a Peer Review of the draft ESR for Tributary 'C' Class EA and provided the draft review comments. The City made considerable progress in discussions with the Munsee Delaware First Nation.

These recommended modifications requested by the MOE, DFO, and other approval agencies, as well as identified by the Munsee Delaware First Nation were incorporated in the final ESR of the Tributary 'C' Municipal Class EA Study.

In September 2012, the City met with landowners and informed them about the incorporated changes to the ESR. On October 31, 2012 as well as on November 19, 2012, the City received correspondence from West Kains Land Corp that identified a number of requests and concerns (Appendix B).

Discussion:

Twenty six options were evaluated by AECOM and reviewed by City staff for this study in order to identify the preferred storm/drainage and SWM servicing option 10B.

On August 15 2012, the MOE provided review comments for the ESR report of the Tributary 'C' Class EA and requested that the recommended ecological buffers/setbacks size be increased from 15-30 m to 79 meters between the Tributary 'C' channel and the proposed SWM Facility 'A' with the provision that "this distance could be considered for reduction based upon a thermal impact analysis undertaken by a qualified expert to the satisfaction of the Ministry. The analysis is to identify actual setback distance(s) necessary to achieve a target temperature for the groundwater discharging to Trib 'C' which will not impair the coldwater fishery. In addition, the facility design shall accommodate a perimeter cooling trench to the satisfaction of the Ministry".

In August 2012, the Munsee Delaware First Nation's Peer Review Consulting Team provided the City with final comments for the ESR of Tributary 'C' Class EA and identified that main

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concerns are related to ensuring that AECOM's proposed design is intended of meeting and the Tributary 'C' requirements as the coldwater fishery will be protected and will incorporate the following by:

- providing sufficient infiltration capacity within the proposed SWM Facility 'A';
- including the adequate safety factor related to the life expectancy for this facility;
- implementing a post-development performance monitoring program for this facility for a period of 3 years; and
- including potential requirements for increasing the foot print area of SWM Facility 'A' if the facility is not able to meet the performance criteria and required protection of the coldwater fishery system.

To protect and enhance the sensitive natural heritage features and coldwater fishery within Tributary "C", an environmental management plan was developed for the proposed works that included:

- A provision for ecological buffers along the tributary and the wetland community of 79 meters between the Tributary 'C' channel and the proposed SWM Facility 'A', the distance could be considered for reduction based upon a thermal impact analysis and approval of the Ministry.
- The enhancement of buffer areas through ecological plantings and seeding with native grasses, sedges, herbaceous plants, shrubs and trees;
- An enhanced sediment and erosion control measure and monitoring during construction; and
- The implementation of an environmental monitoring program to ensure that the cold water habitat and wetland features are not adversely affected by the SWM facility operations.

The City conducted numerous meetings (approximately 25) with the owners, 3 Public meetings and approximately 6 meetings with the Munsee Delaware First Nation.

West Kains Land Corp identified the following concerns:

- The functional design needs to be completed prior to finalizing the EA that would be based on the premise that the functional design for the proposed servicing works would be required anyway upon completing the Class EA;
- The functional design should also include clarification of all monitoring requirements including timing and expectations;
- The groundwater recharge contribution area is overstated;

The functional design for the proposed storm/drainage and SWM servicing works would include thermal modeling, detailed geotechnical, hydrogeotechnical, ground water recharge area confirmation activities, fluvial geomorphological and environmental works.

The Class EA incorporated a substantial amount of engineering details including a sensitivity analyses of the potential reduction of the proposed size of SWM Facility 'A' if the groundwater recharge area will be reduced approximately 20 %. The implications on the size and foot print of the facility is minimum.

Functional design of a recommended solution is not a requirement of the Municipal Class EA. Undertaking a functional design without completing the Class EA will introduce additional delays of approximately 1 year (Class EA has already lasted over 3 years) and not allow proceeding with land development within this Class EA study's area. The Class EA study would be outside of the Municipal Class EA process under the Environmental Assessment Act (EAA) as well as further review by First Nations and interest groups.

There are no guarantees that upon completion of a functional design and the Class EA being filed that there would not be any challenges by West Kains Land Corp, other landowners or other interest groups subject to the results.

The estimated cost of the functional design including all the above-noted components is substantial approximately \$0.5 M.


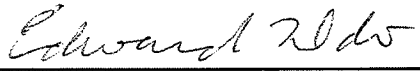

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If the City proceeds as recommended without a functional design of the preferred servicing option/alternative, the land owner may challenge the existing Class EA ESR by submitting a Part II Order, which will cause a delay to the Class EA, would facilitate a MOE review and require additional work.

Conclusion:

In accordance with the Council resolution on July 25, 2012, the ESR be filed for the mandatory public review period of 30 days that will commence at in the end of December 2012.

SUBMITTED BY:	RECOMMENDED BY:
	
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:	
	
JOHN BRAAM, P.ENG. MANAGING DIRECTOR ENVIRONMENTAL AND ENGINEERING SERVICES & CITY ENGINEER	

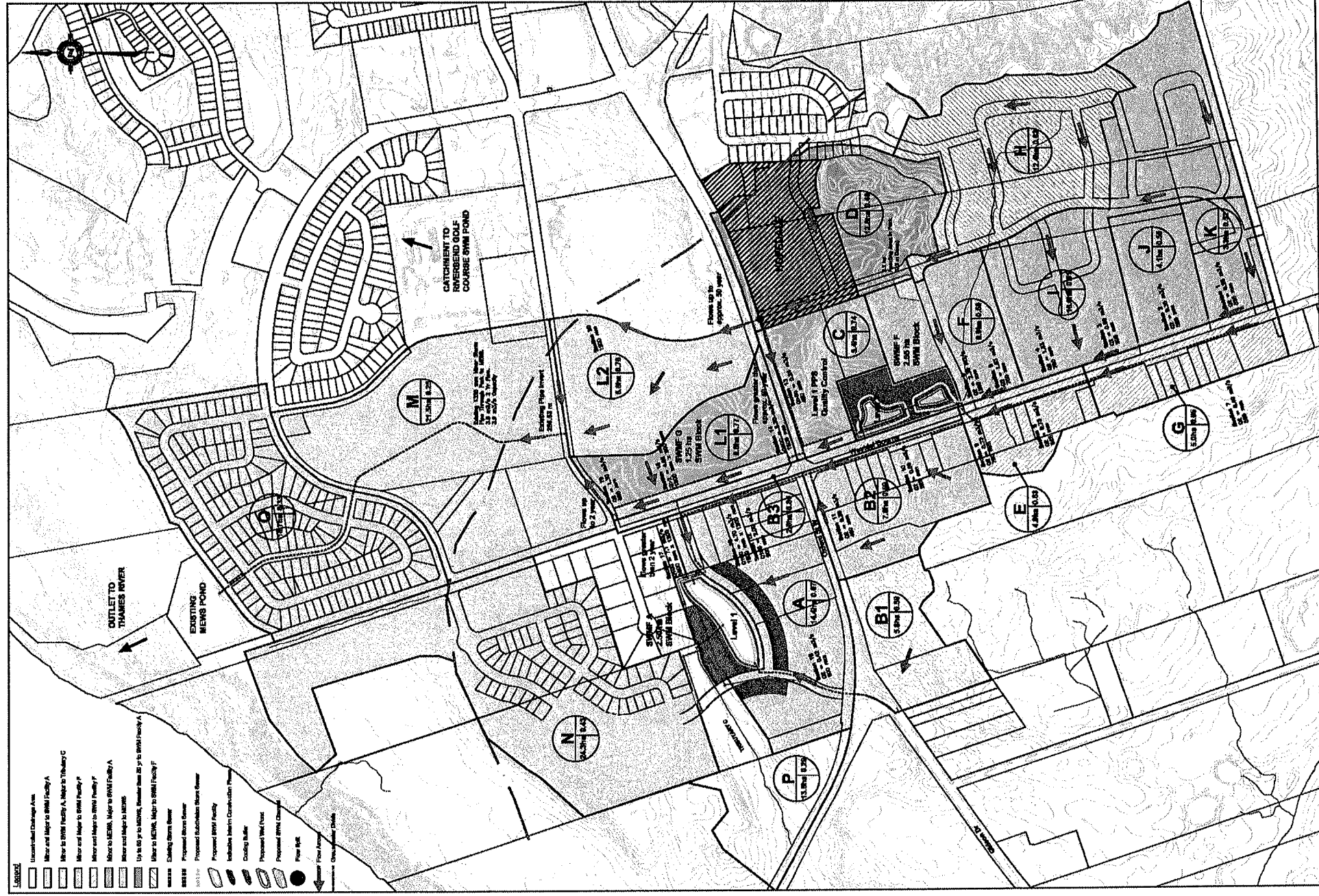
November 26, 2012

- Attach: Appendix "A" – Location Map
 Appendix "B" –Landowner letters
 Appendix "C" –Landowner letters

c.c. AECOM – John Haasen

APPENDIX 'A'

- LEGEND**
- Unsanitary Drainage Area
 - Main and Major to SWM Facility A
 - Main to SWM Facility A, Major to Tributary C
 - Main and Major to SWM Facility F
 - Main and Major to SWM Facility F
 - Main and Major to SWM Facility A
 - Main and Major to SWM Facility F
 - Main to SWM, Major to SWM Facility A
 - Main and Major to SWM
 - Up to 60 yr's return, down then 20 yr to SWM Facility A
 - Main to SWM, Major to SWM Facility F
 - Existing Storm Sewer
 - Proposed Storm Sewer
 - Proposed SWM Facility
 - Indicative Inverts Construction Phase
 - Existing Manhole
 - Proposed Manhole
 - Proposed SWM Channel
 - Tree Well
 - Stormwater Outfall



City of London
Storm Drainage & Stormwater Management, Transportation & Sanitary Trunk Servicing Works for Tributary 'C' Municipal Class Environmental Assessment

Figure EX2
 Stormwater Management
 Option 10b Enhanced
 Scale: 1:1.5



APPENDIX 'B'

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West Kains Land Corp
#301 - 100 Wellington Street
London, ON N6B 2K6

October 31, 2012

The City of London
300 Dufferin Avenue
London, ON
N6A 4L9

ATTENTION: Ms. Berta Krichker

Dear Ms. Krichker

Re: Tributary 'C'

West Kains Land Corp is providing this letter as confirmation of our outstanding concerns with respect to the current status of the Tributary 'C' Municipal Class Environmental Study Report, Schedule 'C'. It is our understanding that at this time, you wish to file the completion of the document. However, we strongly feel that the EA process is effectively incomplete as there are too many unknowns still remaining.

Firstly, we strongly believe that the functional design needs to be completed prior to the finalization of the EA. Please note that this is not an extra cost for the overall project, as the functional design was always required. We are simply requesting the timing of the functional design be advanced and completed as part of the EA. The primary reason for this is to eliminate the current uncertainty described in the EA document with regard to potential thermal impacts to the Tributary. The current Draft EA document indicates that the exact location and size of SWMF 'A' is unknown, and would only be known after thermal modelling is completed which is a component of the functional design. The functional design should also include clarification of all monitoring requirements including timing and expectations. We would point out that there is no impact to the City's operating budget in carrying out the functional design now since that work is already contemplated in the Development Charges/CSRF program.

Secondly, it is our belief the groundwater recharge contribution area (particularly west of Westdel Bourne) as identified in the Golders report from 1997 is overstated. For all of the lands west of Westdel Bourne (where Tributary 'C' and SWMF 'A' are located), there were only two monitoring wells drilled in an attempt to model the ground water flows. Based on our experience during the construction of our lands immediately north of Tributary 'C', we strongly believe that nearly all of this area groundwater flows to the north and north west – that is to the Thames River, not Tributary 'C' itself. If the groundwater recharge area is overstated, then the recommended size of SWMF 'A' is too large. If we are correct, then the City of London stands to save considerable money related to the land purchase component of the overall costs; the savings here could be substantially higher than the cost of the functional design we are requesting. Additionally, since the city is ultimately responsible for the ongoing

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maintenance of all SWMF's, reducing the size of them could have a positive impact on future operating budgets.

Lastly, we are of the opinion that a small parcel of land north of SWMF 'A' between future Kains Road and Ashgrove Court could be utilised to provide a greater measure of safety regarding larger storm events flushing warmer waters directly into Tributary 'C'. An outlet cooling trench which would lengthen the time storm water has to cool prior to discharging to Tributary 'C' during larger rainfall events could provide added security for this unique cold water fishery resource.

We do understand that the request to include the functional design into the EA process is unique, but only because the receiving watercourse has been identified as a cold water fishery, which is unique to London itself. Additionally, without having any certainty in the EA of the final size and location of SWMF 'A', West Kains Land Corp is unable to proceed with any planning applications, The SWMF size and location will impact both future road locations, and lotting patterns.

We trust that this information is sufficient to make the decision to request additional funding at this time to complete the functional design of SWMF 'A' as part of the EA documentation. We kindly ask that you include this formal request for consideration at the Civic Works Committee meeting scheduled for Monday November 12th.

Sincerely,



Craig Linton
Land Development Project Manager
519-672-4011

APPENDIX 'C'

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West Kains Land Corp
#301 - 100 Wellington Street
London, ON N6B 2K6

City of London Stormwater Management

November 19, 2012

NOV 26 2012

The City of London
300 Dufferin Avenue
London, ON
N6A 4L9

**File No
Refer To**

ATTENTION: Chair and Members of the Civic Works Committee

Dear Chair and Committee Members

Re: Tributary 'C' Class EA

We strongly believe that the Functional Design of SWMF 'A' needs to be completed prior to the finalization of the EA. There is no impact to the City's operating budget in carrying out the functional design now since that work is already contemplated in the Development Charges/CSRF program, and would be undertaken immediately following the completion of the EA in any event.

Typically at the conclusion of a SWM EA, the facility size and location are positively identified. Currently, **the size and location of SWMF 'A' is unknown**. We have to ask ourselves one simple question: How can this EA be considered "complete" if there are still significant questions like this still unanswered? We feel the City's consultant (AECOM) has clearly provided scientific based evidence which supports SWMF 'A' being in a certain location and of a certain size. Yet, the language of the EA document itself remains ambiguous due to the concerns of external agencies. It is only through the completion of the Functional Design that the ambiguity may be eliminated.

The EA states that SWMF 'A' will be constructed prior to the development of our lands. We are concerned that we will be unable to apply for a draft plan of subdivision on the remainder of our lands when the ultimate footprint of SWMF 'A' is unknown. We understand that a monitoring period is required to determine if SWMF 'A' requires an additional expansion to increase infiltration capacity. This monitoring period is intended to take place after the development of our lands and remains undefined with respect to length of time and objectives.

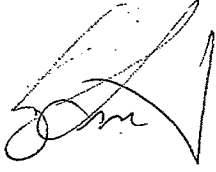
We do understand that the request to include the functional design into the EA process is unique, but only because the receiving watercourse has been identified as a cold water fishery, which is unique to London itself. The EA fails to firmly establish the size and location of SWMF 'A' despite AECOM providing science based facts that clearly show there is no reason to not positively identify the size and location of SWMF 'A' at this time.

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By copy of this letter to Ms. Berta Krichker, we respectfully request that her report to the Civic Works Committee regarding this EA be forwarded to all affected landowners as soon as possible so that we may review it thoroughly prior to the December 3 meeting.

Sincerely,



Craig Linton
Land Development Project Manager
519-672-4011