

Clinton Harper
General Manager
Lambton Area Water Supply System
1215 Fort Street
Sarnia, Ontario N7V 1M1

February 19, 2020

Project #
60624749

Dear Mr. Harper:

**Subject: Scope Change – MCEA Addendum for Grid Reinforcement & Transmission Main Twinning
Sarnia/St. Clair Township Area (2011)**

In response to your request, AECOM is pleased to submit our proposal for updating the Municipal Class Environmental Assessment (MCEA) for the Grid Reinforcement & Transmission Main Twinning MCEA that AECOM completed for LAWSS in 2011. Although design work for the recommended alternative was completed, construction has not been started, so this update will be an MCEA Addendum to confirm-update the proposed improvements and effectively extend the deadline for project initiation for another 10 years in keeping with the Municipal Engineers Association (MEA) MCEA manual (as recently amended in 2015) 10-year “Lapse of Time” before construction commencement. The MCEA addendum will be completed within the framework of the 2020 LAWSS Water Master Plan Update.

1. Scope of Services

1.1 MCEA Study Update – Addendum

1.1.1 Background – 2011 MCEA

The 2011 MCEA study followed the Schedule B planning process which required completing Phases 1 & 2 of the MCEA planning process. The preferred solution – water servicing strategy was as follows:

- **Phase 1A:** Option 5C is the preferred alternative, which twins the existing water system south of LaSalle Line to Courtright Line.
- **Phase 1B:** The preliminary preferred alternative for Phase 1B is Option 5C. The need for grid redundancy south of Courtright Line has been determined through this MCEA to ensure Phase 1A servicing will be consistent with a possible future transmission main alignment. However, the 2011 MCEA identified the need for a future MCEA study to determine the preferred transmission main routing. The evaluation of Phase 1B in conjunction with Phase 1A provides a comprehensive approach to servicing the study area. The timing of the future EA would be dependent on potential industrial servicing needs resulting from future growth demands south of Courtright Line. This phase would also depend on the position of LAWSS to proceed with expansion of servicing infrastructure based on capital funding.
- **Phase 2:** Option 5D is the preferred alternative that involves grid reinforcement of the existing water system north of LaSalle Line.

See the attached Notice of Completion from 2011 and the corresponding figures that highlight the Phase 1A and Phase 2 recommended alignments.

As part of the MCEA, an extensive consultation program was undertaken to solicit input from directly affected residents, the general public, Indigenous communities and review agencies. One PIC was held (May 20, 2010), in addition to a series of meetings with directly affected Indigenous communities, namely Bkejwanong Territory First

Nations (Walpole Island) (WIFN) and Aamjiwnaang First Nations (AFN).

The 2011 MCEA Study documentation was filed for the mandatory 30-day review starting April 30, 2011. During the 30-day public review period the following comments or concerns were received and addressed:

- A neighbouring resident inquired about the impact of the potential construction to existing drainage tiles.
- Clarification was requested from Neegan Burnside Ltd. on behalf of WIFN and AFN regarding their opportunity to review field investigation methodology in the future.
- MTO provided information on the requirements for permits when encroaching on provincial highways.
- Chippewas of the Thames responded to the Notice of Completion stating that the project falls within their Traditional Territory and their consultation staff would review the project and follow up with a letter indicating their interest.

No Part II Orders were received, however, as per the MEA MCEA manual, if the period of time from the filing of the Notice of Study Completion to the proposed commencement of construction exceeds ten (10) years, the proponent is required to review the planning and design process and the current environmental setting to ensure that the Project and the mitigation measures are still valid given the current planning period. This review is to be documented in an addendum that will be required to be placed on public record.

Given the 10-year window is approaching and LAWSS does not plan to proceed with construction within this timeframe, it is necessary to complete a MCEA Addendum that will include a review of the planning and design process of the original 2011 MCEA study. The current LAWSS Master Plan Update planning process provides an efficient and cost-effective means to complete the MCEA Addendum.

1.1.2 Scope

The scope of the Addendum only applies to what has changed from the original MCEA Phases 1 & 2 Report. The MCEA Addendum will include a review of the planning and design process of the original MCEA report in light of what has changed since 2011. The MCEA Addendum report will:

- Confirm the study area – servicing boundary and document what has changed in terms of the study area's existing conditions, including natural environment, existing/future land uses and planning policy context.
- Review infrastructure servicing requirements.
- Review the 2011 servicing alternatives (options 5C and 5D) and associated phasing and confirm validity or modify as required.
- Identify temporary/permanent easements and approval requirements.
- Review the 2011 mitigation measures and confirm they are still valid given current conditions and the current planning context.
- Review stakeholder, agency, Indigenous communities and public comments and EA commitments;
- Complete and append supporting studies to the Addendum report not undertaken as part of the original MCEA. This includes:
 - Terrestrial and Aquatic Field Investigations including Species at Risk (SAR) Screening based on the current SAR listings.
 - A Stage 1 Archaeological Assessment. As per the 2011 MCEA study, AECOM will contact Aamjiwnaang First Nation (AFN) and Bkejwanong Territory First Nations (Walpole Island) (WIFN) prior to undertaking the investigations to allow the communities to review the methodologies and provide input.
 - MHTCSI (formerly MTCS) checklist to document any potential built and cultural heritage resources.
- Review and update the existing hydraulic model with updated water demand projections (if any)

- Review and update the latest hydraulic model with improvements that have been made since the 2011 Class EA Study, based on LAWSS available GIS
- Review and re-confirm design criteria with LAWSS
- Review and analyze a modelling scenario with preferred alignment and sizing of watermain previously identified in 2011 Class EA Study, which are:
 - Phase 1A:
 - Tecumseh Road – Courtright Line to LaSalle Line (10.8km) 900mm
 - Courtright Line – Tecumseh Road to Greenfield Road (4.7km) 600mm
 - Phase 2:
 - Highway 40 – McGregor Road to Indian Road (0.9km) 900mm
 - Indian Road – Highway 40 to Confederation Line (2.7km) 900mm
 - McGregor Road – LaSalle Line to Highway 40 (2.7km) 900mm
 - LaSalle Line – Tecumseh Road to McGregor Road (0.2km) 900mm
 - Indian Road – Highway 40 to existing reservoir & booster pumping station (0.3km) 900mm
- Update capital costs and conceptual drawings/plans/figures based on the preferred solution

1.1.3 Consultation Activities

As part of the communications and consultation program for the original 2011 MCEA, a Public Information Centre (PIC) was held to inform the local community of the nature and scope of the project and solicit feedback. For the MCEA Addendum the following tasks will be completed:

- Update the 2011 contact list.
- Consult with key stakeholders (e.g. City of Sarnia, St. Clair Township, St. Clair Region Conservation Authority, MNRF, MHTSCI, Lambton County) and Indigenous communities, to facilitate the exchange and review of information and preparation for meetings, where required.
- A “drop-in” style PIC for the MCEA Addendum will be held and advertised as part of the 2020 LAWSS Water Master Plan Update Notice of PIC #2 for the Master Plan Update.
- Prepare and issue the MCEA Notice of EA Addendum Commencement and Notice of EA Addendum Completion (through the 2020 LAWSS Water Master Plan Update) to the study’s contact list.

1.1.4 Indigenous Consultation

Based upon the extensive Indigenous consultation completed as part of the 2011 MCEA consultation program, current Indigenous community consultation protocols and feedback from the Notice of MCEA Addendum Commencement, the need for additional consultation efforts will be gauged and discussed with LAWSS. To this end, we have budgeted for information sharing and four face-to-face meetings (2 with Walpole Island and 2 with Aamjiwnaang First Nations). Both meeting will be facilitated by Jennifer Pereira, AECOM’s Indigenous Consultation Specialist. AECOM’s scope of services does not include any accommodation fees, fees issued by Indigenous Communities for participation in the MCEA Addendum. This similarly applies to the 2020 LAWSS Water Master Plan Update.

2. Deliverables

As part of the Scope of Services, AECOM would provide the deliverables outlined in Table 1.

Table 1: Project Deliverables

Deliverable Description	PDF Copy	Paper Copies
Agenda and Minutes for each Meeting	Yes	-
Notice of MCEA Addendum Commencement (Captured in the Water Master Plan Notice)	Yes	-
Draft MCEA Addendum Report (Appended to Master Plan Update)	Yes	2
Final MCEA Addendum Report (Appended to Master Plan Update)	Yes	2
Notice of MCEA Addendum Completion (Captured in the Water Master Plan Notice)	Yes	-
MCEA Addendum Close-out Memorandum	Yes	-

Two (2) weeks has been allowed for review and commenting on each submission.

3. Schedule

The estimated Schedule for the work will be in line with the 2020 LAWSS Water Master Plan Update Schedule.

4. Personnel

The personnel proposed for the work are those identified in AECOM's 2019, 2020 LAWSS Water Master Plan Update proposal submission and attached TTB.

5. Commercial Terms

We propose to perform the services on a cost-reimbursable basis to an upset limit of \$61,329.16. Refer to the attached TTM for the breakdown of the estimated cost of the work.

AECOM will perform all professional services in accordance with the standard of care customarily observed by professional consulting firms performing similar services at the same time and location. The standard of care will include adherence to all applicable published standards of the profession and laws, regulations, by-laws, building codes and governmental rules. In no event, however, will AECOM be liable for indirect or consequential damages including without limitation loss of use or production, loss of profits or business interruption. Our proposal is valid for your acceptance for 30 days, after which time, a review of the terms and conditions offered may be required.

Thank you for considering AECOM for this work. Please let us know if you have any questions.

Sincerely,
AECOM Canada Ltd.



John Haasen, C.E.T., P.M.P.
Senior Vice President
Project Delivery Excellence, Canada
John.haasen@aecom.com

Encl. TTM

cc:

TIME-TASK BREAKDOWN - Workplan, Level of Staff Commitment and Fee Schedule

Proposed Time Task Breakdown for Base Scope Consulting Services for the Lambton Area Water Supply System 2011 Grid Reinforcement & Transmission Main Twinning Sarnia/St. Clair Township Area MCEA Addendum		Project Management and Advisory		Hydraulic Modelling		Engineering			Class EA and Planning							Total Hours	Total Fees	Disbursements	Total Fees
		John Haasen, Project Manager	Joe Gemin/ Neil Awde/ Eppo Eerkes, Project Advsiors and QA/QC	Amir Samadi, Project Controls	Benny Wan, Modelling Lead	Kevin Sze/ Luke Yang, Modelling Support	Mathew Simons, Engineering Lead	Cristina Alfano, Engineering Support	Jennifer Pereira, Indigenous Consultation	Karl Grueneis, EA Planning & Consultation Lead	Samatha Zandvliet/Paul Adams/ Semyon Chaymann, Class EA & Planning Support	Adria Grant, Archaeology	Michael Seaman, Cultural Heritage	Brandon Holden, Terrestrial Ecology	Wendy Ott, Aquatic Ecology				
Hourly Rate		\$296	\$204	\$107	\$193	\$109	\$119	\$75	\$103	\$153	\$85	\$185	\$169	\$106	\$148				
Task 0 - Project Management		7	0	8	3	0	3	0	0	3	0	0	0	0	0	0	\$4,316.91	\$215.85	\$4,532.76
0.1	Project Management	4		8													\$2,036.86	\$101.84	\$2,139
0.2	Monthly Progress Conference Calls (6) - Added to Water Master Plan Update Monthly Calls	3			3		3			3							\$2,280.05	\$114.00	\$2,394
Task 1 - Collect and Review Background Information		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	\$219	\$11	\$230
1.1	Collect and review relevant reports, including hydraulic model, GIS, drawings, and SCADA data					2											\$218.97	\$10.95	\$230
1.2	Review of existing natural heritage, water resource systems, and natural hazards																\$0.00	\$0.00	\$0
1.3	Review of existing archaeological and cultural heritage resources																\$0.00	\$0.00	\$0
Task 2 -Hydraulic Analysis		0	0	0	8	29	0	0	0	0	4	0	0	0	0	41	\$5,056	\$253	\$5,308
2a	Model Update	0	0	0	6	18	0	0	0	0	0	0	0	0	0	24	\$3,126.49	\$156.32	\$3,282.81
2.1	Update existing transmission system based on projects completed since 2011 and available GIS				1	6										7	\$849.53	\$42.48	\$892
2.2	Update existing transmission with up to date demand projections				1	4										5	\$630.57	\$31.53	\$662
2.3	Update model to include improvements made since the 2011 Class EA Study				1	8										9	\$1,068.50	\$53.43	\$1,122
2.4	Review and confirm design criteria with LAWSS staff				3											3	\$577.89	\$28.89	\$607
2b	Hydraulic Analysis	0	0	0	2	11	0	0	0	0	4	0	0	0	0	17	\$1,929.21	\$96.46	\$2,025.67
2.5	Review and analyze preferred alternative identified in 2011 Class EA Study				2	8										10	\$1,261.13	\$63.06	\$1,324
2.6	Summarize hydraulic modelling results in summary memo format					3										3	\$328.45	\$16.42	\$345
2.7	Summarize hydraulic modelling results in map format										4					4	\$339.63	\$16.98	\$357
2c	Hydraulic Modeling Report															0	\$0.00	\$0.00	\$0.00
Task 3 - MCEA Addendum		16	0	0	4	0	0	0	40	36	148	32	16	60	16	368	\$45,054.71	\$2,252.74	\$47,307.45
3.1	Review 2011 Phases 1 & 2 Report including any recent background reports, Public/Agency Comments and County/City/Township Official Plans, Zoning Bylaw, Municipal Staff Reports				2					2	8					12	\$1,369.60	\$68.48	\$1,438
3.2	Update Class EA Mailing List and Prepare and Issue Notice of Class EA Addendum Commencement (and on-line PIC #2 to be part of Water Master Plan Update Notice)										4					4	\$339.63	\$16.98	\$357
3.3	Telephone/Email follow-up with Key Agencies and Land Owners										4					4	\$339.63	\$16.98	\$357
3.4	Prepare Aerial Base Plan, Specific to GRID Study Area										8					8	\$679.25	\$33.96	\$713
3.5	Update Existing Conditions - Study Area Profile/Existing and Future Land Use/Ccurrent infrastructure including Figures and Supporting studies (Stage 1 Archaeological Assessment, Cultural Heritage Screening, Ecological-Species at Risk) - Field Investigations									2		24	16	40	16	98	\$14,064.73	\$703.24	\$14,768
3.6	Review Impacts from Proposed Service Area and ??? Related alignment changes, confirm pipe sizing, need for temporary and permaneth easements, identify mitigative measures and confirm net effects										4					4	\$339.63	\$16.98	\$357
3.7	Prepare and attend meetings with City/Township, Agency/other stakeholdes (3)	12									16					28	\$4,910.70	\$245.54	\$5,156
3.8	Prepare Draft Class EA Project File Addendum Report and associated figures/appendices (including City/Township meeting to review Draft)	2			2					6	32					42	\$4,609.58	\$230.48	\$4,840
3.9	Finalize and file Class EA Addendum Report including newspaper notice of EA Addendum Completion, letter to Review Agencies/Stakeholders (to part of Water Master Plan Update Notice)									2	16					18	\$1,663.60	\$83.18	\$1,747
3.10	Monitor and resolve issues during 30-day review period	2							4	4	8			4		22	\$2,718.48	\$135.92	\$2,854
Indigenous Community Engagement																			

TIME-TASK BREAKDOWN - Workplan, Level of Staff Commitment and Fee Schedule

		Project Management and Advisory			Hydraulic Modelling		Engineering			Class EA and Planning									
Proposed Time Task Breakdown for Base Scope Consulting Services for the Lambton Area Water Supply System 2011 Grid Reinforcement & Transmission Main Twinning Sarnia/St. Clair Township Area MCEA Addendum		John Haasen, Project Manager	Joe Gemin/ Neil Awde/ Eppo Eerkes, Project Advsiors and QA/QC	Amir Samadi, Project Controls	Benny Wan, Modelling Lead	Kevin Sze/ Luke Yang, Modelling Support	Mathew Simons, Engineering Lead	Cristina Alfano, Engineering Support	Jennifer Pereira, Indigenous Consultation	Karl Grueneis, EA Planning & Consultation Lead	Samatha Zandvliet/Paul Adams/ Semyon Chaymann, Class EA & Planning Support	Adria Grant, Archaeology	Michael Seaman, Cultural Heritage	Brandon Holden, Terrestrial Ecology	Wendy Ott, Aquatic Ecology	Total Hours	Total Fees	Disbursements	Total Fees
Hourly Rate		\$296	\$204	\$107	\$193	\$109	\$119	\$75	\$103	\$153	\$85	\$185	\$169	\$106	\$148				
3.11	Review past MCEA correspondence, identify anticipated issues.								4	2	4					10	\$1,057.41	\$52.87	\$1,110
3.12	Undertake pre-consultation with local Indigenous Communities (letter/email/follow up)								4	2	8					14	\$1,397.03	\$69.85	\$1,467
3.13	Face-to-face staff and leadership meetings (4), prepare/issue meeting minutes								24	16	12	8		8		68	\$8,266.35	\$413.32	\$8,680
3.14	Document issues resolution and outstanding work, share information										12			8		20	\$1,867.52	\$93.38	\$1,961
3.15	Maintain communications log.								4		12					16	\$1,431.57	\$71.58	\$1,503
4.0	Conceptual Design / Capital Cost Estimate	0	0	0	0	0	14	28	0	0	0	0	0	0	0	42	\$3,762.44	\$188.12	\$3,950.56
4.2	Provide-update cost estimates						6	12								18	\$1,612.47	\$80.62	\$1,693
4.6	Finalize conceptual drawings/plans/figures						8	16								24	\$2,149.96	\$107.50	\$2,257
5.0	Provisional - Note: Nnot included with "Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	\$0.00	\$0.00
5.1	Cultural Heritage Assessment Report (if required by MTCS)																\$0.00	\$0.00	\$0.00
TOTALS		23	0	8	15	31	17	28	40	39	152	32	16	60	16	451	\$58,408.73	\$2,920.44	\$61,329.16
Total Cost		\$6,808	\$0	\$853	\$2,889	\$3,394	\$2,020	\$2,099	\$4,127	\$5,949	\$12,906	\$5,928	\$2,696	\$6,365	\$2,375				

Notice of Project Completion

The Lambton Area Water Supply System (LAWSS) initiated a Municipal Class Environmental Assessment (Class EA) for grid reinforcement of the south Sarnia/LAWSS network and transmission main twinning to St. Clair Township to ensure an uninterrupted supply of water to all users in this area. AECOM Canada Ltd. was retained to assess alternative solutions as per Municipal Engineers Association Class EA requirements.

As part of the Class EA project, an extensive First Nations, agency and public consultation program was completed seeking input from directly affected residents, the general public, Aboriginal communities and review agencies. One public meeting was held (May 20, 2010) for all stakeholders to review the work completed and provide comments on the project. In addition, a series of meetings with directly affected First Nation communities was also undertaken. Input was received and incorporated as part of the recommendations where appropriate.

The preferred alternatives for the project include the following:

Phase 1A - the construction of a 600 mm diameter watermain along Courtright Line from Greenfield Road to Tecumseh Road; the construction of a 900 mm diameter watermain along Tecumseh Road north to LaSalle Line (Figure 1).

Phase 2 - the construction of a 900 mm diameter watermain along McGregor Road from LaSalle Line to Churchill Road, along Churchill Road west to Indian Road; south along Indian Road to the West Lambton Reservoir and Pumping Station; and north along Indian Road to Confederation Street (Figure 2).

By this notice, the draft Screening Report for this project will be placed on public record on May 9, 2011, for thirty (30) days to be reviewed by members of the public and/or any other interested party at the following locations:

Lambton County Library

Sarnia Branch
124 Christina Street South
Sarnia ON, N7T 8E1

Hours:

Monday-Thursday 9:30 am – 9:00 pm
Friday 9:30 - 5:30 pm
Saturday 9:30 am – 5:30 pm
Sunday 2:00 pm – 5:00 pm

St. Clair Civic Centre

1155 Emily Street
Mooretown ON, N0N 1M0

Office hours:

Monday-Friday 8:30 am – 4:30 pm

The Class EA process entitles members of the public, First Nation communities, interested groups and review agencies who have significant concerns about the project, to request the Minister of Environment to issue an order to comply with Part II of the EA Act (if such concerns cannot be resolved). This is known as a “Part II Order”, bumping up the status of this project to a full Individual Environmental Assessment. The procedure for a “Part II Order” request is as follows:

- First, the person with concerns directs them to the Lambton Area Water Supply System and AECOM Canada Ltd. during the 30 day review period for consideration and mitigation.
- Second, if the concerns cannot be resolved, the person may submit a “Part II Order” request to the Minister of Environment, at 135 St. Clair Avenue West, 12th Floor, Toronto, Ontario, M4V 1P5, by June 7, 2011 with a copy of the request being sent to the Lambton Area Water Supply System and AECOM.

Please contact the following project team leaders if you have any questions or comments on the information provided in the draft Screening Report no later than June 7, 2011.

Ms. Corri Marr,
Project Manager - AECOM Canada Ltd.

Citi Plaza 250 York Street
Suite 410 London ON, N6A 6K2

Tel: 519-963-5872
Fax: 519-673-5975
Email: corri.marr@aecom.com

Ms. Susan MacFarlane, Ph.D., P.Eng.
LAWSS Manager

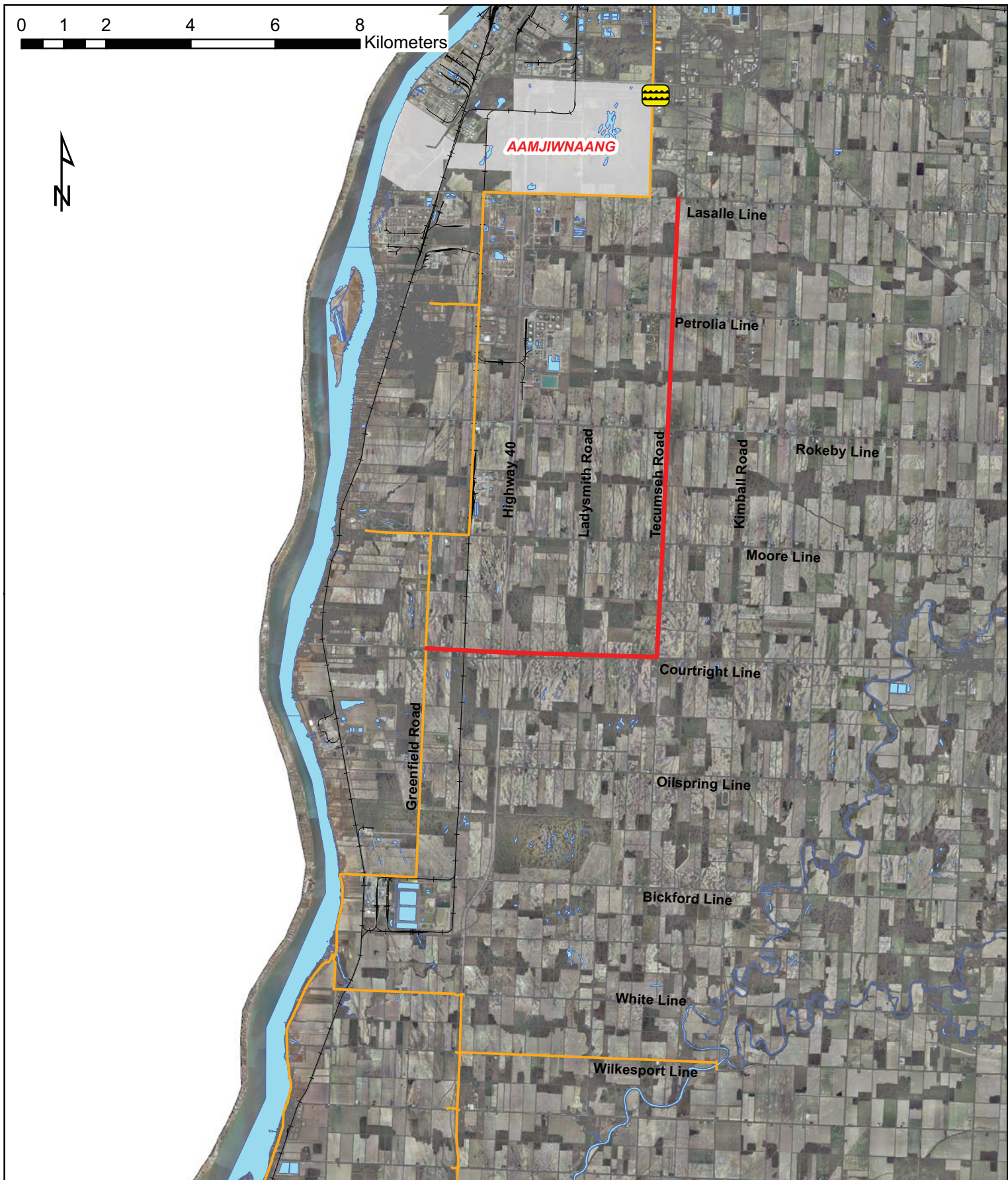
1215 Fort Street
Sarnia, ON N7V 1M1

Tel: (519) 344-7429 (ext. 250)
Fax: (519) 344-4337
Email: susan.macfarlane@lawss.org

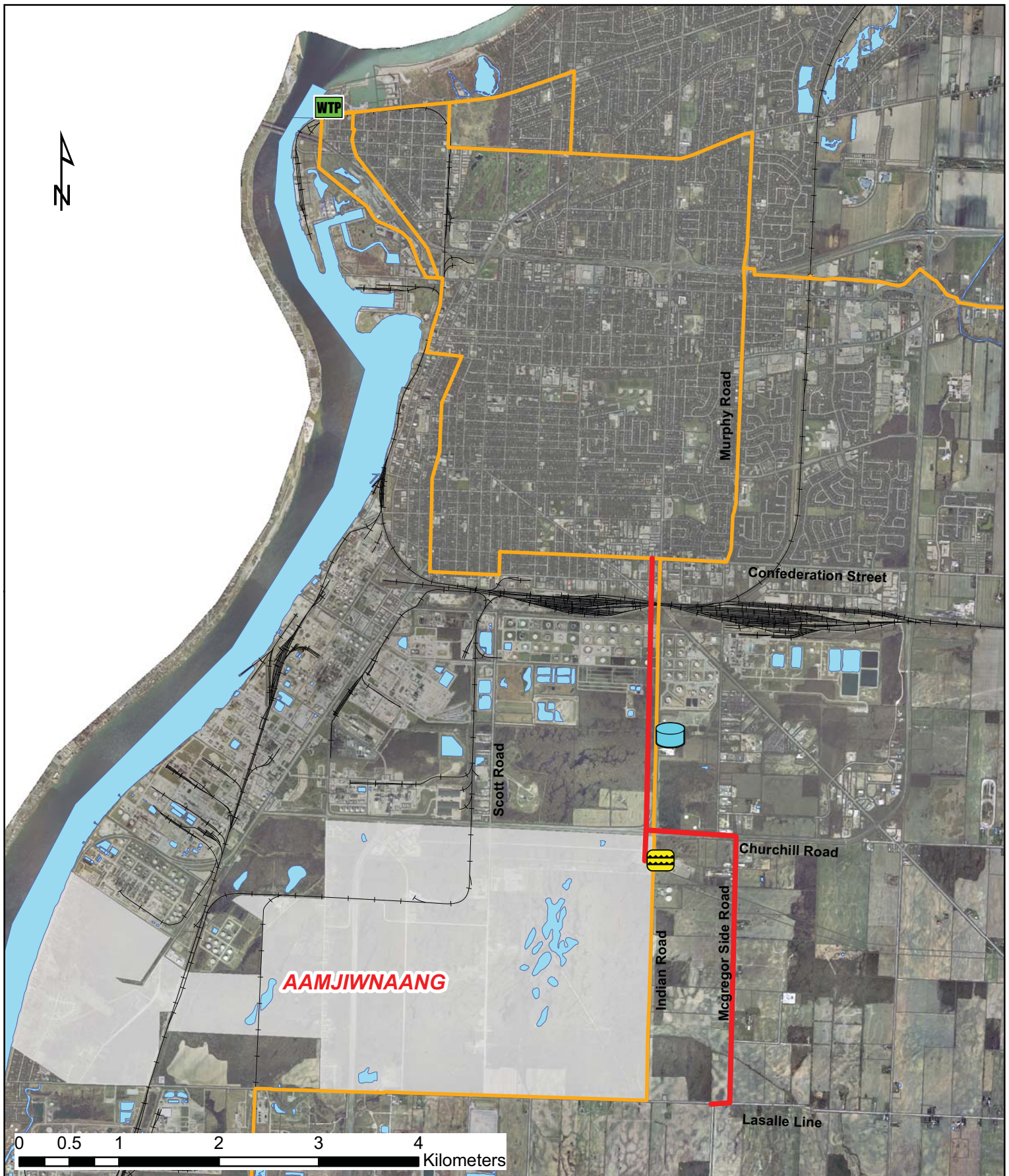
With the exception of personal information, all comments received will become part of the public record.

Subject to the comments received as a result of this notice and receipt of necessary approvals, implementation of the recommended works can proceed.

This notice issued on April 27, 2011.



<p>Legend</p> <p> West Lambton Reservoir and Pumping Station</p> <p> Phase1A Option5C</p> <p> Existing LAWSS Water Line</p> <p> Water</p> <p> Lot Lines</p>	<p>GRID REINFORCEMENT & TWINNING OF THE LAWSS TRANSMISSION MAIN IN THE SARNIA/ST. CLAIR TOWNSHIP AREA</p> <p> LAWSS Lambton Area Water Supply System</p> <p> AECOM</p>	<p>Figure 1</p> <p>Recommended Option Phase 1A</p> <p>Scale: As Shown PN: 106801</p> <p>Date: June 2010</p> <p>Datum: NAD83 UTM Zone 17N</p>
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**GRID REINFORCEMENT & TWINNING
OF THE LAWSS TRANSMISSION MAIN
IN THE SARNIA/ST. CLAIR
TOWNSHIP AREA**








Figure 2

**Recommended Option
Phase 2**

Scale: As Shown PN: 106801

Date: June 2010

Datum: NAD83 UTM Zone 17N

-  LAWSS Water Treatment Plant
-  West Lambton Reservoir and Pumping Station
-  Indian Road Tower
-  Phase 2 Option 5D
-  Existing LAWSS Water Line