

**AGENDA**  
**AYLMER AREA**  
**SECONDARY WATER SUPPLY SYSTEM**  
**JOINT BOARD OF MANAGEMENT**

**May 16, 2012 – 3:00 PM**  
**South Dorchester Community Hall**  
**49431 Lyons Line, Lyons**

Invited to Attend:

**Board:**

Municipality of Central Elgin – Dave Marr  
Town of Aylmer – Pete Barbour  
Township of Malahide – Max Moore

**Staff:**

Municipality of Central Elgin – Director of Physical Services Lloyd Perrin, Tim McKenna  
Town of Aylmer – Director of Operations Rod Tapp, Manager Water Operations Bill Berry  
Township of Malahide- Chief Administrative Officer/Clerk Michelle Casavecchia,  
Director of Physical Services Rob Johnson, Director of Finance Susan Wilson, Water  
Operations Manager Mike Taylor

- (1) Disclosure of Pecuniary Interest
- (2) Adoption of Prior Minutes (Pages 1 - 3)

**Moved by:**

**Seconded by:**

**THAT the minutes of the Aylmer Area Secondary Water Supply System Joint Board of Management, dated February 8, 2012, be approved as circulated.**

- (3) Report No. AASWSS-12-04 – 2011 Schedule 11 Annual Report and Schedule 22 Summary Report (Presented by M. Taylor) (Pages 4-19)

**Moved by:**

**Seconded by:**

**THAT Report No. AASWSS-12-04 entitled “Aylmer Area Secondary Water Supply System (AASWSS): 2011 Schedule 11 Annual Report and Schedule 22 Summary Report” be received.**

- (4) Report No. AASWSS-12-05 – 2011 Third and Fourth Quarter Sample Report  
(Presented by M. Taylor) (Pages 20-22)

**Moved by:**

**Seconded by:**

**THAT Report AASWSS-12-05 entitled “Aylmer Area Secondary Water Supply System (AASWSS): 2011 Third and Fourth Quarter Sample Report” be received.**

- (5) Report No. AASWSS-12-06 – Canadian General Standards Board (CGSB): Full Scope Accreditation Report (Presented by M. Taylor) (Pages 23-24)

**Moved by:**

**Seconded by:**

**THAT Report No. AASWSS-12-06 entitled “Canadian General Standards Board (CGSB): Full Scope Accreditation Report” be received.**

- (6) Report No. AASWSS-12-07 - Elgin Middlesex Pump Station (EMPS): Pump Control Upgrades Tender Results (Presented by M. Taylor) (Page 25-28)

**Moved by:**

**Seconded by:**

**THAT the Report No. AASWSS-12-07 entitled “Elgin Middlesex Pump Station (EMPS): Pump Control Upgrades Tender Results” be received;**

**AND THAT the Aylmer Area Secondary Water Supply System Joint Board of Management approves the low bid from Selectra Inc at a cost of \$65,271.76 and also authorizes the Administering Municipality to enter into agreement and execute the necessary documents with Selectra Inc.**

- (7) New Business:

1. Elgin Middlesex Pump Station (EMPS) contract negotiation update. (R. Johnson)

- (8) Adjournment:

**Moved by:**

**Seconded by:**

**THAT the Aylmer Area Secondary Water Supply System Joint Board of Management adjourn at \_\_\_\_\_ p.m. to meet again on September 12, 2012, at 3:00 p.m.**

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**MINUTES**  
**AYLMER AREA**  
**SECONDARY WATER SUPPLY SYSTEM**  
**JOINT BOARD OF MANAGEMENT**

**Wednesday, February 8, 2012 – 3:00 p.m.**  
**South Dorchester Community Hall**  
**49431 Lyons Line, Lyons**

The Aylmer Area Secondary Water Supply System Joint Board of Management met at the South Dorchester Community Hall in Lyons at 3:00 p.m. with the following present:

**Board:**

Municipality of Central Elgin – Dave Marr  
Town of Aylmer – Pete Barbour  
Township of Malahide – Max Moore

**Staff:**

Municipality of Central Elgin – Manager of Environmental & Community Services Tim McKenna  
Town of Aylmer – Director of Operations Rod Tapp  
Township of Malahide - Chief Administrative Officer/Clerk Michelle Casavecchia,  
Director of Physical Services Rob Johnson, Director of Finance Susan Wilson, Water Operations Manager Mike Taylor

CALL TO ORDER

Chair Pete Barbour called the meeting to order at 3:00 p.m.

DISCLOSURE OF PECUNIARY INTEREST

No disclosures of pecuniary interests were declared.

ADOPTION OF PRIOR MINUTES

**Moved by: Max Moore**  
**Seconded by: Dave Marr**

**THAT the minutes of the Aylmer Area Secondary Water Supply System Joint Board of Management, dated December 7, 2011, be approved as circulated.**

**Carried.**

ELGIN MIDDLESEX PUMPING STATION: PUMP PROJECT STATUS

**Moved by: Dave Marr  
Seconded by: Max Moore**

**THAT Report No. AASWSS-12-01 entitled "Aylmer Area Secondary Water Supply System: Elgin Middlesex Pumping Station (EMPS): Pump Project Status Report" be received.**

**Carried.**

FUTURE OPERATING AGREEMENT

**Moved by: Max Moore  
Seconded by: Dave Marr**

**THAT Report AASWSS-12-02 entitled "Aylmer Area Secondary Water Supply System (AASWSS): Future Operating Agreement" be received;**

**AND THAT the Township of Malahide, acting as the Administering Municipality for the Aylmer Area Secondary Water Supply System Joint Board of Management, be authorized to enter into negotiations with the current operating authority being the Ontario Clean Water Agency (OCWA) for a new operating agreement.**

**Carried.**

SCADA WIDE AREA NETWORK AGREEMENT

**Moved by: Max Moore  
Seconded by: Dave Marr**

**THAT Report No. AASWSS-12-03 entitled "Aylmer Area Secondary Water Supply System (AASWSS): SCADA Wide Area Network Agreement" be received.**

**Carried.**

ELGIN MIDDLESEX PUMP STATION OPERATIONS CONTRACT UPDATE

**Moved by: Dave Marr  
Seconded by: Max Moore**

**THAT the Report No. AASWSS-12-04 entitled "Elgin Middlesex Pump Station Operations Contract Update" be received.**

**Carried.**

2012 DRAFT BUDGET

**Moved by: Dave Marr**  
**Seconded by: Max Moore**

**THAT Report No. AASWSS-12-05 entitled "2012 Draft Budget Report" be received;**  
**AND THAT the 2012 Budget be approved as presented.**

**Carried.**

NEW BUSINESS

1. 2012 Water Rate Increase

The Board was advised that the Elgin Area Primary Water Supply System will be increasing water rates for 2012 which will have a corresponding impact on the AASWSS Budget.

2. New Operating Contract for Primary Board

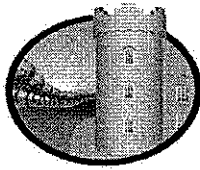
The Board was advised that the Elgin Area Primary Water Supply System has awarded a new operating contract for South Western Ontario Regional drinking water systems to the Ontario Clean Water Agency (OCWA).

ADJOURNMENT

**Moved by: Dave Marr**  
**Seconded by: Max Moore**

**THAT the Aylmer Area Secondary Water Supply System Joint Board of Management adjourn at 3:35 p.m. to meet again on April 11, 2012 at 3:00 p.m.**

**Carried.**



## **Aylmer Area Secondary Water Supply System (AASWSS): 2011 Schedule 11 Annual Report and Schedule 22 Summary Report**

### **Recommendation:**

**THAT Report No. AASWSS-12-04 entitled “Aylmer Area Secondary Water Supply System (AASWSS): 2011 Schedule 11 Annual Report and Schedule 22 Summary Report” be received;**

### **Comments/Analysis:**

The Ontario Clean Water Agency (OCWA) has prepared and submitted the 2011 Annual Report and the 2011 Summary Report for the Aylmer Area Secondary Water Supply system. The reports are completed in accordance with Schedule 22 and Schedule 11, Reg. 170/03 of the Safe Drinking Water Act. The Elgin Area Primary Water Supply System: Joint Board of Management submitted the Schedule 22 and 11 Reports for the Elgin Area Water Treatment Plant and the Aylmer Area Secondary's portion of the Elgin Middlesex Pumping Station (EMPS).

Members of the AASWSS: Joint Board of Management are to receive copies of the Schedule 11 reports by February 29 and Schedule 22 reports by March 31<sup>st</sup> of each calendar year. Copies were provided to Board members on or before the required dates by email and fax where email wasn't available.

The contents of the Schedule 22 report prepared by OCWA include:

- Overview of system.
- Compliance with Regulations.
- Corrective Actions related to non-compliances.
- Flow summary for the previous year.

The contents of the Schedule 11 report prepared by OCWA include:

- Description of the water system.
- A summary of adverse water quality incidents.
- Population served.
- Expenses incurred.
- A summary of microbiological and chemical testing over the year.

Attached for the Joint Board of Management's review are copies of the schedule 22 and 11 reports.

**Sampling:**

OCWA collected 156 microbiological samples. Samples are obtained at locations throughout the distribution system including sample stations near Centennial Road, New Sarum and at Chamber 16. There were no adverse sample results on the distribution system.

American Water Canada Corp. collected 52 microbiological samples. Samples are obtained at the EMPS on the discharge header of the AASWSS. There were no adverse sample results on the distribution system.

Chlorine samples are obtained frequently to ensure the system is in continual compliance. In total, 364 grab samples were taken throughout the distribution system. The maximum chlorine residual obtained was 1.85 mg/l and the minimum was 0.35 mg/l. Additionally, there is a continuous on-line chlorine analyzer located at the EMPS. It's operated and maintained by American Water Canada Corporation. The maximum chlorine residual obtained was 5.00 mg/l and the minimum was 0.68 mg/l.

Trihalomethane (THM) samples are required on a quarterly basis. The maximum allowable concentration is 100 parts per billion. The distribution results for 2011: 13, 13, 22, 25. Additional THM samples were obtained by American Water Services at the EMPS.

**Compliance:**

During the 2011 Ministry of Environment inspection, the AASWSS received two minor non-compliances relating to operations manuals. The non-compliances were both against the EMPS operated by American Water Canada Corp.



American Water Canada Corp. responded to the non-compliance issues. The Ministry of Environment was satisfied with the formal responses for the two non-compliances.

**Availability of the Reports:**

Copies of the schedule 11 and 22 reports are to be made available for inspection by the public during normal working hours. Staff has posted the reports on the Township of Malahide's website and are available at the front desk. If the general public requests a copy of the report, one must be made available free of charge.

**Summary:**

The purpose of the reports is to summarize compliance with the regulations, corrective actions and flow monitoring for the previous year's operation of the water system. It also guarantees transparency between the MOE, the general public and the municipal drinking water system. It's an effective tool to confirm to both the public and the MOE that municipal drinking water systems provide a safe supply of water and adhere to legislative bodies.

Submitted by:	Mike Taylor	Approved by:		Approved for The Board by:	
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**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

March 1, 2012

Rob Johnson  
Director of Physical Services  
87 John Street South  
Aylmer, ON N5H 2C3

**Re: Safe Drinking Water Act, O. Reg. 170/03 Schedule 22 Summary Report**

Dear Mr. Johnson,

Attached is the 2011 Summary Report for the Aylmer Area Secondary Water Supply System. This report is completed in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act.

This Summary Report is to be provided to the members of the Aylmer Area Secondary Water Supply System Joint Board of Management by March 31, 2012. I have provided the members of the Board a copy of the report.

We recently forwarded a copy of the 2011 Annual Report for the Aylmer Area Secondary Water Supply System required under Section 11 of O. Reg. 170/03. Section 12 of O. Reg. 170/03, requires both the Summary Report and the Section 11 Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the township, or at a location that is reasonably convenient to the users of the water system.

Please feel free to contact me should you require any additional information regarding these reports. I can be reached at 226-377-3563.

Sincerely,

Cindy Sigurdson  
Process and Compliance Technician

c.c. Dale LeBritton, OCWA's Senior Operations Manager  
Mike Taylor, Malahide's Water/Wastewater Operations Manager



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

**Annual Summary Report**

**For the**

**Aylmer Area Secondary  
Water Supply System**

**For the Year**

**2011**

**Prepared for the Township of Malahide,  
Administering Municipality for the Aylmer Area  
Secondary Water Supply System**

**By the Ontario Clean Water Agency**

**Table of Contents**

Section Number	Contents	Page Number
1	<b>Overview of System</b>	1
2	<b>Compliance with Regulations</b> Schedule 22-2 (2)(a) List the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report	1
3	<b>Corrective Actions</b> Schedule 22-2 (2)(b) For each requirement referred to in section 2 that was not met, specify the duration of the failure and the measures that were taken to correct the failure.	1
4	<b>Flow Summary</b> Schedule 22-2 (3) <ol style="list-style-type: none"> <li>1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.</li> <li>2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.</li> </ol>	2
<b>APPENDICES</b>		
APPENDIX A Elgin Middlesex Pump Station for January 1, 2011 to December 31, 2011		

**SECTION 1: Overview**

This report is a summary of water quality information for the Aylmer Area Secondary Water Supply System, published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation for the reporting period of January 1, 2011 to December 31, 2011. The Aylmer Area Secondary Water Supply System (waterworks number 260004722) is categorized as Large Municipal Residential Drinking Water System.

The Aylmer Area Secondary Water Supply System was operated under the Certificate of Approval (CofA) #8312-7RDRJ3 dated May 20, 2009 until July 29<sup>th</sup>, 2011 when the Municipal Drinking Water Licence (MDWL) 302-101 and Drinking Water Works Permit (DWWP) 302-201 were issued.

This report was prepared by The Ontario Clean Water Agency (OCWA) on behalf of the administering authority the Township of Malahide and only includes the OCWA operated portion of the system. This portion includes the transmission main from Chamber A001 to Chamber A018 at the Aylmer/Malahide border.

**SECTION 2: Compliance**

The OCWA operated portion of the Aylmer Area Secondary Water Supply System was operated and maintained in such a manner that water supplied to the consumers and serviced by the system satisfied the requirements in the Safe Drinking Water Act, the regulations, the Certificates of Approval, Municipal Drinking Water Licence and Drinking Water Works Permit.

The Annual Inspection of the Aylmer Area Secondary Water Supply System on April 12, 2011 conducted by Barry Moncrieff of the Ministry of Environment identified two Non-compliances with Regulatory Requirements. These were both for the Elgin Middlesex Pumping Station operated by American Water Corporation Canada and will not be discussed in this report.

**SECTION 3: Corrective Action**

The OCWA operated portion of the Aylmer Area Secondary Water Supply System had no non-compliance events for this reporting period.

The routine MOE Inspections have an Inspection Rating Record, which evaluates the system to provide information for the owner/operator on areas that need to be improved. The particular areas that were evaluated for the Aylmer Area Secondary Water Supply System were: Capacity Assessment, Treatment Process, Distribution System, Operations Manuals, Log Books, Contingency/Emergency Planning, Consumer Relations, Certification and Training, Water Quality Monitoring, and Reporting and Corrective Actions. This system received 28 out of 555 non-compliance ratings all pertaining to the Operations Manual and as such received 94.95% for the Final Inspection Rating.

**SECTION 4: Summary and Discussion of Quantity of Water Supplied**

In accordance with Schedule 22-2(3) 1, find a summary and discussion of the quantity of water supplied during the reporting period. There are no rated capacities specified in the Municipal Drinking Water Licence, nor the previous Certificate of Approval.

Attached as Appendix A, find a summary of flow for the Elgin Middlesex Pumping Station which supplies all of the water to the Aylmer Area Secondary Water Supply System. This data is collected and provided to OCWA by American Water Canada Corporation.

The average day flow supplied to the Aylmer Area Secondary Water Supply System was 3,440m<sup>3</sup>/day, which is a 5% decrease from the previous year. The maximum daily flow for 2011 was 5,116m<sup>3</sup>/day, which is a 1% decrease from the previous year. Over the last two years the flows have decreased on the Aylmer Area Secondary Water Supply System.

**APPENDIX A**

The table below is a summary of quantities and flow rates from the Elgin Middlesex Booster Pumping Station meter for 2011 compared to 2010 values.

Month	2011 Total Flow (m <sup>3</sup> )	2010 Total Flow (m <sup>3</sup> )	2011 Average Day Flow (m <sup>3</sup> )	2010 Average Day Flow (m <sup>3</sup> )	Difference between 2010 and 2011	2011 Max Day Flow (m <sup>3</sup> )	2010 Max Day Flow (m <sup>3</sup> )	Difference Between 2010 and 2011
January	95,637	112,626	3,085	3,518	-12%	3,251	3,706	-12%
February	87,798	99,728	3,136	3,585	-13%	3,318	4,251	-22%
March	94,769	104,737	3,057	3,489	-12%	3,399	3,867	-12%
April	94,747	104,809	3,158	3,504	-10%	3,570	3,959	-10%
May	105,931	105,178	3,417	3,762	-9%	3,931	4,595	-14%
June	113,577	140,199	3,786	3,991	-5%	4,693	4,807	-2%
July	126,316	114,642	4,075	4,041	1%	5,024	5,223	-4%
August	132,554	125,993	4,276	3,997	7%	5,166	4,575	13%
September	111,239	115,842	3,708	3,848	-4%	4,667	4,375	7%
October	98,374	107,147	3,279	3,338	-2%	3,588	3,776	-5%
November	95,578	97,764	3,186	3,369	-5%	3,527	3,633	-3%
December	95,465	107,999	3,080	3,188	-3%	3,334	3,836	-13%
<b>Total Flow</b>	<b>1,251,985</b>	<b>1,336,664</b>	<b>3,440</b>	<b>3,636</b>	<b>-5%</b>	<b>5,166</b>	<b>5,223</b>	<b>-1%</b>
<b>Average</b>								
<b>Maximum</b>								

**ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	260004722
<b>Drinking-Water System Name:</b>	Aylmer Area Secondary Water Supply System (OCWA Operated Portion)
<b>Drinking-Water System Owner:</b>	Aylmer Area Secondary Water Supply System Joint Board of Management
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2011 to December 31, 2011

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Ontario Clean Water Agency 9853 Rogers Road Aylmer, ON N5H 2R4</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served:  <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</p>
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List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Aylmer Distribution System	260002136

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes [X] No [ ]



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method \_\_\_\_\_

**Describe your Drinking-Water System**

The Aylmer Area Secondary Water Supply System (AASWSS) receives water via the Elgin-Middlesex Booster Pumping Station (EMPS). The EMPS receives water via The Elgin Area Primary Water Supply System which distributes treated water from The Elgin Area Water Treatment Plant. It services approximately 300 direct connections to the main and supplies water to the following distribution systems in Central Elgin, Malahide and Aylmer.

The AASWSS consists of a 13.8 km 450mm PVC transmission main from the EMPS to the Town of Aylmer, ending at Chamber 16--the Malahide/Aylmer boundary. There are two main water metering chambers along with five tertiary line metering chambers along the transmission main. Nineteen chambers are located along the main for isolation, metering, air relief, and draining. There are fire hydrants and samples stations along the main for flushing and water quality monitoring.

**List all water treatment chemicals used over this reporting period**

No chemicals are used in the Ontario Clean Water Agency operated portion of the Aylmer Area Secondary Water Supply System.

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment

**Please provide a brief description and a breakdown of monetary expenses incurred**

Replaced Air Release Valves (\$10,000)  
 EMPS Surge Anticipating Valve—replacement for check valve (\$17,000)  
 Chamber Repair on Talbot and Roger Rd. (\$6,000)  
 Complete SCADA System (\$3,500)





Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
n/a	n/a	n/a	n/a	n/a	n/a

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Distribution	156	0-0	0-0	95	<10-60

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Chlorine	364	0.35-1.85	mg/L

*NOTE: For continuous monitors use 8760 as the number of samples.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
n/a	n/a	n/a	n/a	n/a

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
n/a	n/a	n/a	n/a	n/a

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	n/a	n/a	n/a	n/a
Distribution	n/a	n/a	n/a	n/a

**Summary of Organic parameters sampled during this reporting period or the most recent sample results**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM (NOTE: show latest annual average)	2011-01-17	13	µg/L	No
	2011-04-11	13	µg/L	
	2011-07-18	22	µg/L	
	2011-10-18	25	µg/L	
		Annual Average= 18.25		

**List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.**

Parameter	Result Value	Unit of Measure	Date of Sample
n/a	n/a	n/a	n/a



<b>Drinking-Water System Number:</b>	260004722
<b>Drinking-Water System Name:</b>	<b>Elgin Middlesex Pumping Station (EMPS) – Aylmer Secondary Water Supply System</b>
<b>Drinking-Water System Owner:</b>	Aylmer Secondary Water Supply System Board of Management c/o Township of Malahide
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2011 through December 31, 2011

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [X] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> <p>Lake Huron and Elgin Area Water Supply Systems c/o Regional Water Supply Division 235 North Centre Road, Suite 200 London, ON N5X 4E7 <a href="http://www.watersupply.london.ca">http://www.watersupply.london.ca</a></p> <p>Elgin Area Water Treatment Plant 43665 Dexter Line, Union, ON</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b>  <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </p> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b>  <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </p> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

**Systems that receive their drinking water directly from the Aylmer EMPS:**

Drinking Water System Name	Drinking Water System Number
Aylmer Secondary Water Supply System	260004722

**Systems that receive their drinking water indirectly from the Aylmer EMPS:**

Drinking Water System Name	Drinking Water System Number
Municipality of Central Elgin	260004761
Malahide Distribution System	260004774
Aylmer Distribution System	260002136



# Ontario Drinking-Water Systems Regulation O. Reg. 170/03

18

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes  No

Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method News Release

### Describe your Drinking-Water System

The Elgin Middlesex Pumping Station (EMPS) receives water from the Elgin Area Primary Water Supply System, which is located to the east of Port Stanley. Through various secondary water supply systems, the EMPS serves the Cities of London and St. Thomas, Town of Aylmer, and Municipalities of Central Elgin, Malahide and Southwold.

The EMPS is a shared facility encompassing a twin celled reservoir with a total capacity of 54,600m<sup>3</sup>. Booster pumps are dedicated to directing water to the City of London, St. Thomas Secondary and/or Aylmer Secondary Water Supply Systems. A gas chlorine system is utilized to provide re-chlorination for water being directed to the St. Thomas and Aylmer Secondary Supply Systems. The facility also houses a 600kW standby diesel generator that provides emergency power and can be used to pump water into the St. Thomas and Aylmer systems during a power interruption.

Three pipelines exit the EMPS: one exits to the south of the EMPS property and extends west to service the St. Thomas Secondary System; the second services the City of London distribution system; the third pipeline services the municipalities on the Aylmer Secondary System.

### List all water treatment chemicals used over this reporting period

Gas Chlorine

### Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

### Please provide a brief description and a breakdown of monetary expenses incurred

Chlorine gas system commissioning  
 Painted pumps, and associated piping  
 Replaced Self Contained Breathing Apparatus (SCBA) with a Scott unit  
 Condensate traps installed on chlorine system  
 Diesel generator batteries replaced  
 SCADA deficiencies corrected  
 UPS SCADA backup system replaced



**Notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre**

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
N/A	N/A	N/A	N/A	N/A	N/A

**Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.**

	Number of Samples	Range of E.Coli Results (CFU/100 mL) (min #)-(max #)	Range of Total Coliform Results (CFU/100 mL) (min #)-(max #)	Number of Heterotrophic Plate Count (HPC) Samples	Range of HPC Results (CFU/1 mL) (min #)-(max #)
<b>Distribution</b>	52	(0) – (0)	(0) – (0)	52	(<10) – (10)

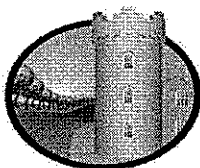
**Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.**

Analyte	Number of Grab Samples (Continuous Monitoring)	Min	Max	Avg
<b>Free Chlorine Residual (mg/L)</b>	8760	0.68	5.00	0.99

*Note: The free chlorine residual spiked on occasion during 2011. Each spike corresponded with a pump start-up. None of the spikes lasted longer than 5 minutes after pump start-up.*

**Summary of Organic parameters sampled during this reporting period or the most recent sample results**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<b>THM</b> (NOTE: result value is based on latest annual average)	January 18, 2011 April 7, 2011 July 14, 2011 October 4, 2011	0.0139	mg/L	NO



**Aylmer Area Secondary Water Supply System (AASWSS): 2011 Third and Fourth Quarter Sample Report**

**Recommendation:**

THAT Report No. AASWSS-12-05 entitled “Aylmer Area Secondary Water Supply System (AASWSS): 2011 Third and Fourth Quarter Sample Report” be received;

**Background:**

This report is a summary of water sample results for the third and fourth quarters of 2011. This report is submitted to the Board to satisfy the requirements of the QEMS (Element 16) of the Aylmer Area Secondary Water Supply System Operational Plan. This approach ensures the Owner's of the water system are kept informed of water quality on a continual basis by top management.

**Comments/Analysis:**

Attached for the Board's review are the sample results for the third and fourth quarters of 2011.

25 microbiological tests were taken by the Operating Authority (American Water Services) on the Aylmer Secondary discharge header at the EMPS. There were no adverse samples.

78 microbiological tests were taken by the Ontario Clean Water Agency (OCWA) at various points throughout the secondary system. There were no adverse samples. Samples are tested for E.coli, fecal coliforms and HPC. Samples are shipped to SGS laboratories. SGS Laboratories is an accredited laboratory.

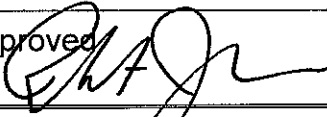
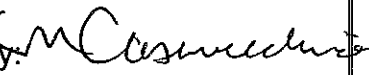
The Operating Authority tested for chlorine residuals at each location where a sample is obtained. These records are stored electronically at the Aylmer Lagoons. The Operating Authority continues to meet or exceed the provincial regulations pertaining to microbiological sampling requirements.

Trihalomethane testing is required quarterly. The maximum allowable concentration is 0.10 parts mg/l or 100 parts per billion (PPB). The quarterly sample results for July and October were 22 and 25 ppb.

**Summary:**

The AASWSS continues to meet or exceed the requirements of the regulation 170/03. Results indicate the residents receive a continual safe supply of potable water.

The distribution system receives water from the Elgin Middlesex Pumping Station via the Elgin Area Water Treatment Plant.

Submitted by: Mike Taylor	Approved by: 	Approved for The Board by: 
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## Analytical Test Results: (All values are reported in mg/L unless otherwise indicated)

Water System: Aylmer Area Secondary Water Supply System: 2011 Third and Fourth Quarter Sample Results

DWQMS Element #: Element 16: Sampling, Testing & Monitoring

### Microbiological Parameters (Required Testing under O.reg. 170/03)

Frequency of Sampling: at least eight distribution samples are taken every month, with at least one of the samples being taken in each week and tested for *Escherichia coli* & total coliforms

Microbiological Parameters	MAC or IMAC	# of Samples	# of Detectable Results	# of Adverse Results	Method	Sampling Date	Results			Comments
							Min.	Max.	Avg.	
Total Coliform (count/100ml)	Not Detectable	78	0	0	MF	July - Dec.	0	0	0	Parameter is used to test for the presence of fecal matter. A zero result indicates the absence of Total Coliform.
E. Coli (counts/100ml)	Not Detectable	78	0	0	MF	July - Dec.	0	0	0	Parameter is used to test for the presence of fecal matter. A zero result indicates the absence of E. Coli.
Heterotrophic Plate Count (counts/1ml)	N/A	52	2	N/A	MF	July - Dec.	<10	20	<10	Parameter is used to test for the possible deterioration of water quality. No MAC as parameter revoked from O.Reg 170/03

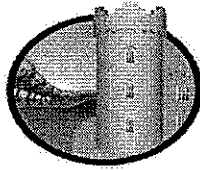
Operational Parameters	MAC or IMAC	Objective (express as mg/l)	# of Samples	Sampling Date	Results			Comments
					Min.	Max.	Avg.	
Chlorine Residuals, expressed as mg/l)	N/A	0.2-1.0	78	July - Dec.	0.80	1.41	1.14	Maintaining Chlorine residuals is essential to the protection of all residents. Residuals less than 0.05 mg/l is a reportable non-compliance event.

Note: MAC represents the Maximum Allowable Concentration of a parameter determined by the MOE. Method of Sampling: MF represents Membrane Filtration. This is the method the lab uses to sample the required parameters.

There were no adverse test results for the third and fourth quarter.

Chlorine residuals indicated in this spreadsheet are taken at the same time as the microbiological samples. The Operating Authority also tests for chlorine residuals on non-sampling days throughout the distribution system.





**Canadian General Standards Board (CGSB): Full Scope Accreditation Report**

**Recommendation:**

**THAT Report No. AASWSS-12-06 entitled “Canadian General Standards Board (CGSB): Full Scope Accreditation Report” be received;**

**Background:**

In 2010 OCWA applied to the CGSB for accreditation under the Limited Scope – Entire DWQMS accreditation option which requires the operating authority to complete twenty of the twenty one elements in the Operational Plan. This is a phased-in process in which the municipality is required to submit for full scope accreditation (all 21 elements) within 12 months of receiving a certificate of accreditation for the limited scope – Entire accreditation.

On March 11, 2011 the Aylmer Area Secondary Water Supply System (AASWSS) Joint Board of Management was granted limited scope – Entire accreditation of OCWA's QEMS Operational Plan by the Canadian General Standards Board.

**Comments/Analysis:**

**Application for Full Scope Accreditation:**

On March 11, 2012 OCWA applied to the CGSB for the full scope accreditation of the operational plan. Staff are currently waiting for the CGSB's review of the application. If there are any non-conformities with the operational plan, the CGSB will issue a corrective action report for each non-conformity and OCWA will be required to make the corrections and submit to the CGSB for approval. Once approved, a CGSB auditor will conduct an on-site audit of the drinking water system to verify that the documentation provided previously (table top audit) has been implemented and effective.

**Financial Implications to Budget:**

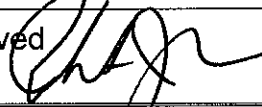
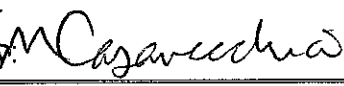
The 2012 costs associated with the DWQMS are as follows:

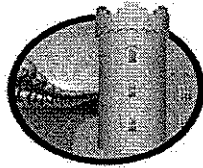
- Application fee for full scope accreditation: \$500.00
- External table top audit: \$1,500.00
- Internal audit: \$1,100.00
- Corrective Action Report: To be determined
- External on-site verification audit: To be determined

The Water system has not yet undergone the external on-site verification audit so it is difficult to estimate the actual costs of this audit.

**Summary:**

Once full scope accreditation has been granted, the operational agreement is valid for a period of three years which then re-accreditation is required. It's anticipated the on-site audit will take place in 2012 or 2013, however the Ministry of the Environment has terminated the agreement with the CGSB and are now in the process of selecting a new auditing body for the Municipal Drinking Water Licensing Program.

Submitted by: Mike Taylor	Approved by: 	Approved for The Board by: 
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**Elgin Middlesex Pumping Station (EMPS): Pump Control Upgrades Tender Results**

**Recommendation:**

**THAT Report No. AASWSS-12-07 entitled “Elgin Middlesex Pumping Station (EMPS): Pump Control Upgrades Tender Results” be received;**

**AND THAT the Aylmer Area Secondary Water Supply System Joint Board of Management approves the low bid from Selectra Inc at a cost of \$65,271.76 and also authorizes the Administering Municipality to enter into agreement and execute the necessary documents with Selectra Inc.**

**Background:**

In 2011, the Aylmer Area Secondary Water Supply System (AASWSS) retained the services of Stantec Consulting to design and tender for the replacement of the existing soft-start pumps to variable frequency drive's at the Elgin Middlesex Pumping Station (EMPS). The primary objective of upgrading the existing pumps to Variable Frequency Drives (VFD's) is to minimize the transient wave currently being observed along the transmission main to Aylmer. Transient waves are known to cause pipe cavitation resulting in main breaks.

**Comments/Analysis:**

On March 26, 2012, four qualified electrical contractors were invited to submit bids for the pump control upgrades. A fifth contractor (Dielco) was invited on April 4<sup>th</sup>. Three of the five contractors invited submitted bids for this project. Comstock and Eaton did not submit a tender for the work.

Tenders were received and opened publicly at the office of the Township of Malahide on April 11<sup>th</sup>, 2012. The low tender by Selectra Inc. came in at 40% less than then the estimate provided by Stantec. The initial estimate was based on 2011 market conditions in which contractors were extremely busy resulting in higher costs. The current market conditions have resulted in an excellent price for this project.

All bids received complied with the terms and conditions of the tender documents. The tender results are as follows:

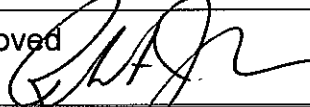
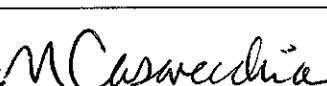
SELECTRA INC.	\$ 65,271.76
ASCENT	\$ 74,968.72
DIELCO INDUSTRIAL CONTRACTORS LTD.	\$ 83,810.97

**Financial Implications to Budget:**

The proposed project is included in the 2012 budget under capital expenditures. The budget allocated \$110,000.00 for construction, design and inspection fees. Therefore, the approval of this project will have no impact on the budget as adopted by the Joint Board of Management.

**Stantec Recommendation:**

Stantec provided a letter to the Administering Municipality on April 23, 2012, recommending the tender submitted by Selectra Inc for \$65,271.76 be accepted and a contract awarded. Selectra has previous work experience relating to water infrastructure and is fully able to undertake the scope of work noted in the tender documents. It's anticipated this work if approved, will be completed by September 28, 2012 as identified in the tender documents.

Submitted by: Mike Taylor	Approved by: 	Approved for The Board by: 
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Stantec Consulting Ltd.  
 800 - 171 Queens Avenue  
 London ON N6A 5J7  
 Tel: (519) 645-2007  
 Fax: (519) 645-6575

**Stantec**

April 24, 2012

File: 165500686

Township of Malahide  
 87 John Street S.  
 Aylmer ON, N5H 2C3

**Attention: Mike Taylor – Water/Wastewater Operations Manager**

**Reference: Aylmer Area Secondary Water Supply System – Pump Control Upgrades**

Tenders for the above-noted project were received on Wednesday, April 11, 2012. In total, five (5) preselected Contractors were invited to submit a tender for the work, with a total of three (3) tenders submitted prior to closing. Table 1 summarizes the tender prices received.

**Table 1 – Summary of Tenders Submitted**

<b>Contractor<sup>1</sup></b>	<b>Total Contract Price (incl. H.S.T.)</b>	<b>+ / - Lowest Bid</b>	<b>Rank</b>
SELECTRA INC.	\$65,452.24	\$0.00	1
ASCENT SOLUTIONS INC.	\$74,968.72	\$9,516.48	2
DIELCO INDUSTRIAL CONTRACTORS	\$83,810.97	\$18,358.73	3

1. Comstock and Eaton were also invited, but did not submit a tender for the work.

At the time of the tender opening, the bid values of the Tenders received were reported at the Township's office. Subsequent to this, Stantec reviewed and confirmed each bid value as well as to have included the requisite tender security (i.e. \$ 10,000) and bonding agreement in accordance with requirements. All tenderers acknowledged receipt of the one (1) Addenda issued. Copies of all three tenders' Form of Tender sections were provided to Stantec for review. The two lowest tenders were from Selectra Inc. and Ascent Solutions Inc.

Based on the results of the tender opening, Selectra Inc. has submitted the lowest tender.

Given the scope of work required and to ensure that appropriately qualified personnel undertake the required works, this tender was provided only to Contractors with whom we have had previous work experience, and therefore we are familiar with each company's capability to complete this project. With regards to Selectra Inc., we have worked with them on the construction of the Dorchester Water Treatment Plant (Thames Centre), Thorndale Wastewater Treatment Plant (Thames Centre), and Wonderland Pumping Station (City of London). Selectra Inc. has completed municipal infrastructure projects throughout southwestern Ontario.

**Stantec**

April 24, 2012  
Page 2 of 2

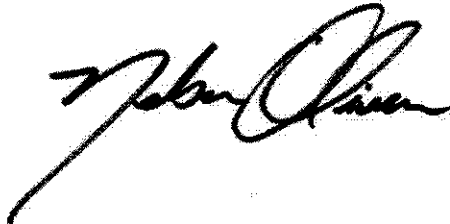
**Reference: Aylmer Area Secondary Water Supply System – Pump Control Upgrades**

Our previous company work experience confirms that Selectra Inc. has demonstrated the ability to undertake the scope of work noted within the tender documents.

On the basis of the foregoing and upon the Township's criterion for acceptance of tenders, we find no reason why the Township should reject the tender of Selectra Inc. who are the lowest bid.

Yours truly,

**Stantec Consulting Ltd.**

A handwritten signature in black ink, appearing to read 'Nelson Oliveira', written in a cursive style.

Nelson Oliveira, P.Eng.  
Practice Leader, Water

Attachments: Tender submissions