Welcome City of London Long Term Water Storage

Municipal Class Environmental Assessment Public Information Centre #2

November 28, 2018



The purpose of this Public Information Centre (PIC) is to:

- Present an overview of the results from PIC #1 (June 2018);
- Summarize the work undertaken since June; Present the evaluation of reservoir locations;
- Present the preferred alternatives: and.
- Meet the project team and get your feedback

Please take a comment form and a pen. As you review the information presented today, we encourage you to ask questions and provide feedback

City of London - AEC

Municipal Class Environmental Assessment

What is a Municipal Class Environmental Assessment?

- A Municipal Class Environmental Assessment (EA) is a process approved under Ontario's Environmental Assessment Act.
- It enables municipal infrastructure projects to be planned with a proven process for protecting the environment.
- This project is following the Municipal Class EA process for Schedule 'B' projects.
- Schedule 'B' projects must follow **Phases 1 and 2** of the Class EA process.
- At the end of the EA process, a Project File report will be prepared for public review and comment.

What is the Purpose of this Class EA?

To select a preferred storage location through a comprehensive, environmentally sound planning process that is open to public participation.

Municipal Class Environmental Assessment Process

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WE ARE HERE

Problem and Opportunity Statement

Problems and Opportunities

- The City of London's water system provides safe drinking water to residents, businesses and industries within the City limits.
- Springbank Reservoir #2 requires continued maintenance and repair and is reaching the end of its service life. The City would like to consider retiring the facility when It reaches the end of its life expectancy anticipated in 2022. As a result, comparable reservoir capacity (45ML) will need to be replaced or better located within the City's water system.
- The Arva Reservoir and Pumping Station can provide water via the Lake Huron Water Supply System to the entire City during a power outage. However, the water supply rate and pressure is reduced compared to normal operating conditions and emergency needs. The City needs to have adequate standby power to operate the Arva distribution pumps to the City and be able to utilize the volume of water in storage at the Arva
- Additional water storage is necessary to meet future growth demands to 2054 and beyond.
- The City must also consider the potential of a disruption or reduction in water supply during emergency situations in planning for the storage needs of the City's water system, as well as Ministry of Environment and Climate Change fire balancing and daily peak demand needs.

Problem and Opportunity Statement

The City of London provides water storage and distribution from the Arva, Eigin-Middlesex, Southeast and Springbank reservoirs. From these sources, water is provided for drinking water, daily household use, business and industrial needs and fine protection. Water can also be provided during water disaptions or if pressures within the City's water system are reduced. However, the existing water system is not able to provide flows at a supply rate and pressure necessary to meet peak demand, fire and/or emergency needs based on future growth. Additionally, Reservoir R2 at Springbank is subject to ongoing maintenance associated with this aging facility and is nearing the end of its service life.

This Class EA study will examine opportunities to address these issues and determine a preferred solution for future water storage that will contribute to the overall City water system to meet daily operation and emergency needs, to meet future growth.

Long Term Water Storage - Municipal Class Environmental Assessment

The Long List of Candidate Reservoir Locations (9) were evaluated and reduced to a Short List of Candidate Reservoir Locations (4).

Within 2 of these locations (Site A and Site C), multiple sites were identified



Natural Heritage, Archaeology and Cultural Heritage

City of London - AECOM

- A preliminary background review was conducted to identify existing natural heritage features at the four candidate sites. Species at Risk (SAR), Species of Conservation Concern (SOCC) and relevant Official Plan Schedules outlining natural heritage land use designations were utilized to inform the review. (See boards 8-9 for results and rankings)
- Previous reports undertaken by AECOM within the study area were also used and include:

 North Huron Subject Land Status Report (AECOM, 2015)

 Southeast Reservoir Subject Lands Status Report (Earth Tech Canada Inc., 2004)

 Southeast Reservoir & Pumping Station Environmental Impact Study (Earth Tech Canada Inc.,

Archeology A preliminary background review was conducted to document the archaeological and land use history as well as the existing conditions at the four candidate sites. Data sources included recent historical maps, previous archaeological assessments. The Ministry of Tourism Culture and Sports and Ontario Heritage Trust Databases and the City of London's heritage register mapping. (See board 8 for results and

A preliminary background review was conducted to determine whether the four candidate sites have the
potential to impact cultural heritage resources. Data sources included the City of London's Inventory of
Heritage Properties, Ontario Heritage Trust's online inventory, the Canadian Register of Historic Places
and the Directory of Federal Heritage Designations. (See board 8 for results and rankings)







Geotechnical and the Evaluation of Long Term Storage

A background review was conducted to document the historical geotechnical and hydrogeological data obtained during various field investigations completed. Repo completed in the vicinity of the proposed locations were referenced to establish los suitability. (See boards 9 for results and rankings)

Evaluation of Long Term Storage Requirements

- A preliminary background review was conducted to review and confirm system design criteria, such as minimum pressures under emergency supply conditions as well as storage sizing criteria, in general and for future growth. Available storage, estimates for storage capacity requirements for each design year and potential storage locations and configurations were also identified. An analysis of the results for each alternative storage site was completed. (Boards 10-11 outline the results and rankings)
- Previous reports reviewed by AECOM within the study area were also used and include:

 2002 Water Supply Reliability Assessment, Final Report (Dillon, 2002)

 2006 Ery of London Water Master Plan Update (City of London, 2008)

 2014 City of London Water Master Plan Update (City of London, 2014)

 Eight Area Primary Water Supply System 2008 Water Master Plan Update (Delcan, 2010)

 Lake Huron Primary Water Supply System 2008 Water Master Plan Update (Delcan, 2010)

 - 2010)
 City of London InfoWater hydraulic model (AECOM, 2014)







Evaluation Framework and Criteria

A qualitative evaluation was undertaken for the evaluation of alternatives based on the reports presented on Boards 5 and 6. Table 1 summarizes the criteria and measures including environmental components that address the broad definition of the environment as described in the Environmental Assessment Act, used for evaluation purposes, to assist in determining the best possible solution.



Evaluation of Long Term Storage Requirements

- A detailed assessment of each short listed alternative solution was completed based on the previously described evaluation components and criteria. The evaluation approach used to consider the suitability and feasibility of alternative solutions for the study was a qualitative assessment. In this evaluation approach, trade-orfs consider the advantages and disadvantages of each alternative to address the problem and opportunity statement with the least environmental effects and the most technical benefits for relative comparison between alternatives. This formed the rationale for identification of the preferred alternative.
- A comprehensive evaluation in a matrix format was prepared and used to present the evaluation of alternative solutions as shown in Boards 8 12.

Category	Criteria	Indicator
Public Health	Long/short Term impacts	Noise quality Ar quality
Social and	Property Impacts and Acquisition	. Need for Land Purchase in part or in whole
Cultural Evaluation	Residential Land Life	Potential long or short-term impacts to surrounding neighbourhoods/land use - due to project and/or construction
	Built and Cultural Heritage Resources	Potential impacts to built and cultural heritage resources
Natural Environment	Terrestrial	Potential Effects on flora, fauna and associated habitat. Potential Effects to Species at Risk (SAR)
	Aquatic	Number and nature of water crossings, including upgrade requirements. Potential Effects on aquatic species and associated habitat. Potential Effects to Aquatic SAR.
	Ground and Surface Water	Impacts to water quality
Engineering	Hydraulics	Ability to service northeast London
	Energy Optimization	Optimizes Energy use and transient protection Need for booster pumping and backup power
	Operations Improvement	 Ease of normal system operation, water turnover and quality.
	Infrastructure	Use of existing infrastructure Distribution routing/ New Water System infrastructure
	Climate	Water supply source and system/ climate resilience
Economic and	Operating Costs	Total project costs (design and

Site G Site I
Existing Southeast Existing Arva Reservoir and

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				Reservoir Location		
Impact Criteria	Indicators	Site A Vicinity of Existing Springbank Reservoir and PS		Site C North East System: Clarke Road and Huron Road Area	Site G Existing Southeast Reservoir and PS	Site I Existing Arva Reservoir and PS
		A1	A2			
Public Health and Safety	Long/Short Term Impacts due to air and noise quality	Liffe to no change from existing for ong term. Some impacts due to construction given residential proximity	-Some change from existing for long term with impacts due to construction in closer proximity to residents.		-No change from existing in long term or due to construction in short term due to remote location.	 No change from existing in long term. Some impacts due to construction in short term given proximity to some nearby residences.
			()	0		•
Public Health and Safety Ev	aluation Summary	Ď	Ŏ	Ō		•
Social and Cultural	Need for Land Purchase in part or in whole	-City owned land for purpose, currently used as open space.	-City owned land for purpose, but ownersty used as open space.	-Some City owned land with some sites having to be purchased. -Land Intended for industrial or residential development.	-City owned land ready for purpose.	-Outside of City boundary but is owned by the Regional Water System with London being the major user. (Potential to provide land at no low cost if the decision is to have storage here to optimize the City's water supply). -Currently used as open space.
					•	
	Potential long or short term impacts to surrounding neighbourhoods/land use – due to project and/or construction.	Nepact to existing due to: loss of open- traces that can be replaced in part, reservoir dosen to esidences and higher slopes; Inhastacties work across Commissiones Road repacts sudvey and the work create is closer to existing residences.	Ampard to exhibing due to: these of open- spaces, reservoir much closes to residences, and even higher allopes; inhalastudire work across Commissioners Road Imparda roadway and the work onalis is much closer to estating residences.		-Minimal construction impact given all	Afficer impacts to existing area and/or land use with nearest indiscore being greater than 300m away from a potential separation, which is a more than sofequate buffer. Afficient impact due to construction to modey self-demons. Available side with no read works other than increased construction traffic.
			0	0		•

	Low Impact	Low to Moderate Impact	Moderate Impact	Moderate to High Impact	High Impact	Most Preferred
Legend		•	•		0	[2223]

Impact Criteria	Impact Criteria Indicators				Reservoir and PS	PS
		A1	A2			
Potential impact to archaeological / heritage resource		Moderate impact – Stage 1 archaeological work completed, requires Stage 2 study. -CHER or HIA may be required to fully availuate cultural heritage impacts.	-Moderate impact – Stage 1 scheeological work completed, requires Stage 2 study. CHER or HIA may be required to fully valuate cultural heritage impacts.	-Slight impact – Slage 1 archaeological work completed for the most part except for 2 altes. —Depending on the site chosen, CHER or HIA may be required to fully evaluate cultural heritage impacts.	No impact. Staget /2 archaeological work completed. -CHER or HIA may be required to fully evaluate cultural heritage impacts.	-Low to Moderate Impact, archaeological potential with Stage 1/2 required. -No Cultural Heritage Impacts.
				•	•	
Social and Cultural Evaluati	on Summary			•	•	
Natural Environment (3)	Terrestrial – ecological impacts resulting from removal or damage to vegetation and trees (Species at Risk).	Woodfurd in a total of 9.77 hechans of which -0.70 ha will be potential affected by proposed works. Approximately 35 trees may be affected to selected the search to the east into existing open space area.	Woodland is a total of 8.77 hechines of which -1.25 ha will be potential shecied by proposed works. Approximately 80 bees may be a shecied to well-off he reservoir to the sast into existing open space area. - More green space and refural areas repacted.	-Candidate sites primarily agricultural; however, unevaluated settlends and woodlands are present. Any proposed facility should be kept away from wethinds woodlate of significant value. If not, additional massament and mitigation work is required. -Park impacts for 1 potential site.	I Natural Fination is approximately 15 hockans in size, with approximately 1.50 ha falling within the shady area. Low sencent of impact based on Natural Heritage review and that proposed socks can be implemented without impacts to the wooded area salesedly associated to the visit of the wooded area salesed and work.	I Natural Feature in approximately 14 has with 1.29 he failing within the study area. Least amount of impact based on Natural Hesitage review and that perposed work can be implemented without impacts to woodland awas; however, he boundary of the solisting woodland would need to be confirmed through field investigations.
					•	•
	Impacts to Wildlife (Species at Risk)	Potential inspects to 18 SAR Of thesis, 15 (10 Endergowd (SND), 5 Presidency (FMB) are preliminal under Presidency (FMB) are preliminal under The other appears are little and Socialised foreasteristic Concern SSCD) and do not have any parenting amplications.	Petaretial impacts to 18 SAR Of hase, 15 (10 END, 5 THI) are incuted under the Entiangued Foundard of DDDT, Special and Entiangued Special are lated as SCC and do not lave any permitting implications.	Petertial impacts is 20 SAV Of them. I 1 (S END, 6 THM) are protected under the Endowquest of Spaces AC (EDD) SC the other species are considered SC the other species are considered to did not have any permitting implications.	Petential impaces to 13 SAR Of thems, 6, 05 EM, 3 THO year precised under the Endingment precise	Potential impacts to 11 SAR Of thesis, 10 (S END, 5 THM) are precised under the Tubelingward precised under the Tubelingward on the Tubelingward under the Tubelingward on considered SCC and does not have any permitting impacts are limited to 5 SAR other than the Tubelingward under the Tubelingward of the Tubelingward under the Tubelingward of the Tubelingward under the Tubelingward under the SCCI based on the proposed reservoir toolprint.
		0		•	•	
Low Impact is considered preferr	ed compared to moderate o	high impact.				-
	Low Impact	Low to Moderate Impact	Moderate Impact	Moderate to High Impact	High Impact	Most Preferred

Legend	•	•	•	O	1

				Reservoir Location			
Impact Criteria Indicators		Sit Vicinity of Existing Sprin	e A ngbank Reservoir and PS	Site C North East System: Clarke Road and Huron Road Area	Site G Existing Southeast Reservoir and PS	Site I Existing Arva Reservoir and PS	
		A1	A2				
	Aquatic - ecological impacts resulting from construction in or near water with potential to harm aquatic species (watermain crossings, Species at Risk).	-No watercourses were observed within 100 not the proposed reservoir. There was no articipated repects to SAR, however, permissi impacts cannot be determined without further study.	 No webscourses were observed within 100 on of the proposed reasons, there were on serticipated impacts to 54KP, however, principal impacts cannot be delermined without further what? 	-1. SAR species (THR) was flagged by SHIC during the hookproof review; boxwer, satables requisit hobbits was not identified during spaties; surveys in within the Sile C study seen (ACCOM, 2015). The Thomas Rever is location approximately 100 metans noth of the study area and contains SAR. Interpretic cannot be determined without further study. A moderate repract will be assured util proposed reservoir toolpriots area established.	 A serul protion of Peril Danis was denfilled in the suchwart corner of the study area and therefore also falls within the KCCA's Regulation Limit. Aquatic SAR ween not identified in the 2004 report (Each Tex., 2004). These are no anticipated impacts to SAR!. Impacts cannot be determined without further study, foreover they are less likely given the proposed location of the reservoir. 	1. SAIR species was identified during the NHC background rollers, however, DIO megoing did not flag any aquable. SAIR species. There are no anticipated impacts to SAIR species. —Impacts cannot be determined without turber study, flowers, they are less likely given the proposed location of the reservoir.	
		•	•		•	•	
	Impacts to ground/surface water quality (1)	 Minimal ground or surface water impacts but should be confirmed given soil type / goundwater conditions in the area. 	Minimal ground or surface water impacts but should be confirmed given and type (groundwater conditions in the area.	Higher ground and/or surface water impacts subject to the preferred site location of the 7 options.	-No groundwaterburtace water quality impacts. Already addressed as part of initial facility construction and allowance for expansion.	Minimal ground or surface water impacts anticipated. Subject to onsite confirmation at later project stages. -Water ponds onsite/adjacent to alte du to poor drainage currently being addressed by adjacent landowners.	
					•	•	
Natural Environment Summary			•		•	•	
Technical Considerations (4)	Ability to service northeast London (Hydraulics)	-Does not improve operation and pressure under peak/emergency response in NE London, but maintains water supply above minimum MOEC pressures.	Ocea not improve operation and pressure under peak/emergency esponse in NE London, but maintains water supply above minimum MOEC pressures.	-Best addresses systemic operation and peaklemengency response and hydraulic issues in NE London.		-Addresses system operation and peak/temergency response hydraulics issues in NE London for the most part.	

Legend U G C

				Reservoir Location		
Impact Criteria	Indicators	Site Vicinity of Existing Sprin		Site C North East System: Clarke Road and Huron Road Area	Site G Existing Southeast Reservoir and PS	Site I Existing Arva Reservoir and PS
		A1	A2			
	Optimizes Energy use	No improvement or detriment to transient protection under peak/emergency conditions. Much reduced energy costs due to gravity lead and acreswhat improved operations with the Arva PS.	No improvement or detriment to sanismt protection under peak/emergency conditions. Much sduced energy costs due to gravity and arms what improved operations with the Arva PS.	-Decreased transient protection with increased energy needs (highest of all the alternatives)	 No improvement or detriment to transieré protection or increase in energy costs but pumping intensive. 	No improvements or detriment to translant protection but pumping internative. Energy costs can be optimized at PS with storage in place.
				0	•	
	Operational	No significant improvement or detriment to existing operations. Longer water residence time oncessibiling operational changes at he Arva PS. Gravity based operation.	No significant improvement or siniment to existing operations longer water residence time operations time pacessitating operational changes at te Arva PS. Gravity based operation.	-Water system operation more complex with a 4º major reservoir and PS. Mahristen water quality but increases water turnover necessitating Arva PS operational changes.	No significant improvement or detirent to existing operations. New storage not fully utilized and reliant on Eligin water supply expansion. Additional pumping capacity required.	No significant improvement or detriment to solisting CDV water operations, with improved potential for Regional Water Supply for filling. Maximizes rows neseroid volumes use with pumping capacity optimized.
				•	0	
		Replaces existing 50ML being retired. An additional 50ML can be constructed on available land and connected to the existing reservoir with some height and slope issues.	Replaces existing SOML being retired. An additional SSML can be constructed in available land and connected to the oxisting reservoir with greater height, existinly and slope lissues.	-New greenfield, land to be purchased and revised land use for City owned. -Does not maximize use of existing infrastructure.	-Existing infrastructure already in place as facility is designed for 113 ML expansion. Additional pumping capacity required.	Connecting to existing reservoir on existing land for purpose.
			<u> </u>	0	•	•
		No PS or backup power required gravity system).	No PS or backup power required gravity system).	-Yes, a new PS and backup power is required.	 No new PS or backup power is required but additional pumping capacity is needed. 	No new PS or pumping capacity is sequired, but emergency backup power is needed to access full reservoir capacity.
	power.			0		
	Distribution routing / New Water System	Interconnection to existing PS and Reservoirs only.	Interconnection to existing PS and seservoirs only.	-New infrastructure and connections required to the Clarke Road watermain.	-No new infrastructure required.	-Interconnection to existing PS and Reservoir only.
	infrastructure	_	<u> </u>	0		•
Low Impact is considered prefer	ed compared to moderate or	high impact.				
Legend	Low Impact	Low to Moderate Impact	Moderate Impact	Moderate to High Impact	High Impact	Most Preferred

				Reservoir Location		
Impact Criteria	Indicators		e A ngbank Reservoir and PS	Site C North East System: Clarke Road and Huron Road Area	Site G Existing Southeast Reservoir and PS	Site I Existing Arva Reservoir and PS
		A1	A2			
	Water Supply Source and System/Climate Resilience	servicing to all of London under all	Lake Huron supply, gravity based servicing to all of London under all conditions. Lowest climate impacts.	Lake Huron supply for NE London only. New infrastructure and pumping nequired with backup power for emergency operations. Increased climate impacts.	Lake Erie supply for SE London, with infrastructure and backup power in place for pumped operations. Current storage necessitates additional supply from Lake Erie. Greatest impact to climate.	power required for improved emergency
				•	0	
Technical Considerations E	valuation Summary	•				
Economic and Financial	Capital and Land Costs	- Lowest capital cost with no land cost.	 3" Lowest capital cost but with no land cost. 	-2" Highest capital and land costs of all alternatives.	-Lowest capital cost of all alternatives with no land costs. -However recessitates Elgin Water system expansion at highest cost.	-2 rd lowest capital cost with no land cost and some potential capital cost that could be mitigated with Regional Water Supply.
			•	•	0	•
	Operating Costs	-Lowest operating cost.	-Lowest operating cost.	-Highest operating cost.	-3rd lowest operating cost.	-2" lowest operating.
Economic and Financial Eva	aluation Summary	Ŏ		Ŏ	Ŏ	
Overall Summary / Recommendation			Ā	Ď	Ă	À

Ideas:

(1) Geoschoical and Hydrogestechnical Summary (October 2018)

(2) Water Storage Options EA - Draft Preliminary Background Review - Archaeology /Cultural Heritage (October 2018)

(3) Water Storage Options EA - Draft Preliminary Background Review - Natural Heritage Background Review (October 2018)

(4) Evaluation of Long Term Storage Requiements (October 2017)

Legend	Low Impact	Low to Moderate Impact	Moderate Impact	Moderate to High Impact	High Impact	Most Preferred
	_	_	•	_		11

Evaluation of Candidate Sites: Recommendations

Springbank Reservoir:

100ML of additional storage capacity be implemented at the existing Springbank Reservoir Site (Option A1) by 2024 to replace the existing 45 ML of storage to be retired, and meet storage deficit/growth projections to that point in time as per table 4.1 from the Evaluation of Long Term Storage Requirements Study.

Evaluation of Long Term Storage Requirements Table 4.1 – Required Storage Capacity – 48 hour Emergency

Ye	ear	Demand	s (ML/d) (1)		Em	ergency - MD	D / ADD (2 da	ys)	
		ADDw	MDD	Required Storage (ML)	Elgin Supply Volume (ML)	Total Supply (ML)	Net Required Storage (ML)	Available Storage (ML)	Storage Surplus (defecit) (ML)
	Existing	133.2	267.3	482.7	80.0	80.0	403	312	-91
0	2014	134.4	269.8	486.9	115.0	115.0	372	312	-60
5	2019	140.1	281.5	507.1	115.0	115.0	392	312	-80
10	2024	145.9	293.3	527.4	115.0	115.0	412	283	-130
15	2029	151.6	304.9	547.4	170.0	170.0	377	283	-95
20	2034	157.4	316.9	568.0	170.0	170.0	398	283	-115
25	2039	163.3	328.9	588.7	170.0	170.0	419	283	-136
30	2044	169.4	341.4	610.2	170.0	170.0	440	283	-157
35	2049	175.8	354.4	632.5	170.0	170.0	462	283	-180
40	2054	182.4	267.0	655.7	170.0	170.0	486	283	-203

Future Storage

- A further 100ML of additional storage capacity to be implemented at the existing Arva Reservoir Site (Option I) by 2044 to meet storage deficit/growth projections to that point in time as per Table 4.1 from the Evaluation of Long Term Storage Requirements Study dated October 2017.
- October 2017.
 Additional Storage capacity to be implemented at the existing Southeast Reservoir Site (Option G) once the Etgin Water Supply System treatment aupply capacity is expanded to meet future growth needs in addition to or as part of the further 100ML of additional storage capacity recommended at the Avar Reservoir Site (Option 1).

Natural Environment

- Work with the UTRCA/MNRF/DFO/City of London to address potential impacts to natural features

- Ensure all regulatory requirements to protect the environment are followed.
 Ensure construction occurs outside of the nesting bird window.
 Ensure construction occurs outside of the nesting bird window.
 Ensure opportunities to provide a net benefit to ecosystem function be explored.
 Consideration of the London Invasive Plant Management Strategy (Clean Equipment Protocol).

Social Environment

- Access to existing park amenities, businesses, institutions and commercial areas are maintained
- (where possible) during and after construction.

 Meet with affected property owners during detailed design to explain how and when construction
- is expected to take place.

 Comply with City of London noise by-law (day time works)

 Provide advance notification to affected property owners prior to construction, including estimated timing/durations and project contact information for asking questions and requesting intermeting times.

Archeological

A Stage 2 archaeological assessment must be conducted for all lands determined to retain archaeological potential that will be used for construction or that will be subject to ground disturbance.

Ensure UTRCA and City resources are allocated effectively

Restoration

All disturbed areas will be restored to equal or greater than existing condition.

Monitoring

- Monitor post construction performance to ensure effectiveness
 Take corrective actions as required.

DETOUR



Water Reservoir/Facility Decommissioning

Water reservoir or facility decommissioning occurs when a facility is taken out of service or when an 'offline' facility is being physically removed.

As part of this study, the City is considering decommissioning three water facilities to better optimize the overall water system for the City. Each of these facilities have been or will be considered no longer necessary for operational purposes.

Location	Date of Construction	Anticipated End of Service Life	Replacement
Springbank Reservoir #2	1920	2022	Replace capacity at new reservoir (TBD)
McCormick Reservoir	1959	Not in service	No replacement necessary
White Oak Filter Plant	1959	Not in service	No replacement of treatment or reservoir capacities is proposed. Future bulk water facility and chamber for the new Pressure Zone.

The Municipal Engineers Association Municipal Class EA document defines decommissioning as:

'taking out of operation, abandonment, removal, demolition or disposal of a road, sewage, stormwater management or water facility for which approval under the Environmental Assessment Act would have been necessary for its establishment and includes, sale, lease, or other transfer of the facility for purposes of taking out of operation, abandomment, removal, demolition or disposal'.

Each of the above facilities were constructed prior to the initiation of the *Environmental Assassment Act*, however, the implementation of each of these projects would have require approval under the Act. As such, it is determined that the decommissioning of each of these facilities is considered an <u>Schedule A+</u> Class EA undertaking.

Schedule A+ projects require that the public be notified of the work prior to construction or



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Backup Power – Standby Power Systems

Backup Power or standby power systems are needed to ensure pumping can maintain service in the event that primary power supplies fail.

Currently, no backup power supply exists for the Arva PS. In the event of an emergency and/or to service under day to day or peak water need conditions, water supply and minimal pressure would be provided by the Lake Huror Water Supply System to the City of London water system by opening by pass valves at the Arva PS. As part of this study AECOM assessed:

- Dual power supplies from London Hydro and/or Hydro One from separate feeds, complete with the required transmission and/or switchgear infrastructure needed to provide backup power to the Arva PS.
 The provision of a standby generator set in a new or existing structure to provide backup power to the Arva PS.

Both alternatives would allow the Arva PS to meet the City's day to day, peak or emergency needs.

O.Reg. 524/98 Environmental Compliance Approvals defines standby power systems as:

"standby power system" means any apparatus, mechanism, equipmen or other thing, and any related fuel tanks and piping, that includes one or more generator units and that is intended to be used only for the provision of electrical power during power outages or involuntary power reductions;

The Arva PS was constructed prior to the initiation of the Environmental Assessment Act, however, the implementation of this project would have required approval under the Act. As such, the state of the Act and the installation of standby power equipment located in a new building or structure is considered an Schedule A Class EA undertaking. Should the standby power equipment be installed in an existing building the undertaking would be considered a Schedule A-Class EA.

Schedule A+ projects require that the public be notified of the work prior to construction of decommissioning occurring

Schedule A projects are preapproved activities whereby the proponent may proceed without following the procedures set out in this Class EA.



Next Steps

- Comments received from the general public, stakeholders, the City and Approval Agencies will be considered.
 The preferred servicing strategy will be confirmed.
 A report will be prepared and made available for public review for 30 days.
 If no issues are raised within the 30 days review period, the City can proceed to detailed design, approvals and construction.



Please remember to drop off your completed comment form before you leave or send it to us before December 12 2018.

Next Steps

- We appreciate the time you have taken to learn more about the Project.
 We value your input to this study and encourage you to stay connected
 Please visit the City's website:
- Please visit the City's website: http://www.london.adrisdlents/Environment/EAs/Pages/LongTermWater StorageOptions.aspx. Join our mailing list: leave us an email or mailing address so we can keep you up-to-date as the project progresses. Contact us with additional comments or questions at any time.

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