



Union Water Supply System

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SENT BY: EMAIL

November 2, 2020

Municipality of Leamington
38 Erie St. N.
Leamington, Ontario
N8H 2Z3

Attention: Mr. Peter Neufeld, Chief Administrative Officer

Town of Kingsville
2021 Division Road North
Kingsville, Ontario
N9Y 2Y9

Attention: Mr. John Norton, Chief Administrative Officer

Town of Essex
33 Talbot Street South
Essex, Ontario
N8M 1A8

Attention: Mr. Chris Nepszy, Chief Administrative Officer

Town of Lakeshore
419 Notre Dame Street
Belle River, Ontario
N0R 1A0

Attention: Mr. Truper McBride, Chief Administrative Officer

Dear Colleagues:

RE: Proposed Allocation of Remaining UWSS Treatment Capacity

At the October 21st, 2020 meeting of the Union Water Supply System Joint Board of Management (Board), the UWSS General Manager presented a report to the Board on the significant increase in potable water demand over the last few years and its effect on water treatment capacity, water storage and transmission capacity. The report highlighted the following:

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- Potable water demand for 2020 is projected at 4,112 million imperial gallons (MIG) or 18.71 million cubic metres (m3). This is approximately 30% greater than 2015 annual demand and over 11% greater than 2019 demand.
- Potable water demand increases over the last 4 years are associated with increased residential development in each of the 4 owner municipalities and significant growth in greenhouse development since 2017. The main driver in the potable water demand appears to be greenhouse sector development.
- Peak day water treatment plant production reached 21.4 million imperial gallons per day (MIGD) or 100.1 million litres per day (ML/day) in 2020. This is the highest peak day demand since 2007 and the first time that peak day demand has been over 20 MIGD since 2007.
- During the late June and early July 2020 hot weather period, there were a number of days where daytime afternoon water demand exceeded hourly production capacity of the water treatment plant. When hourly demand is greater than production capacity, this results in depletion of water stored in the water towers and reservoirs thus putting the UWSS potable water supply at risk.
- Capital infrastructure upgrades will be required in the near future to mitigate potable water demand increases should the recent trend continue. These upgrades would likely include a new reservoir at the treatment plant, with an estimated cost of \$20 million.

The approved maximum treatment capacity of the UWSS' Ruthven Water Treatment Plant is 27.4 MIGD (124.5 ML/day). Based on available data from various sources including municipal partner data and greenhouse data, the majority of UWSS' treated water production (approximately 55%) is used by greenhouse operations. The remaining water use is from residential and commercial/industrial sectors. As of October 15, 2020 there were 2,716 acres of existing greenhouse operations being serviced from the UWSS treatment plant, with an additional 1,067 acres approved (including treated water allocations) but not yet constructed.

Based on the UWSS' water treatment plant production capacity of 27.4 MIGD and approved treated water allocations and proportional peak day water demands from residential, commercial, industrial and greenhouse sectors, the UWSS can likely support an additional 2.0 MGD in additional water demand for growth under the current approved treatment capacity.

Due to limited remaining available treatment supply for allocation, the UWSS proposes that the remaining water treatment capacity be allocated to each owner municipality based on the latest system interest calculations dated 2017.

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Table 1 provides the current ownership share for each municipality based on the 2017 System Interest calculations and the proportionate share of remaining treatment plant allocations.

Municipality	2017 System Interest	Proportional Share of Remaining Treatment Plant Capacity (Imp. Gallons/day)
Leamington	50.55%	1,011,000
Kingsville	40.33%	806,600
Essex	5.97%	119,400
Lakeshore	3.15%	63,000

The UWSS General Manager is seeking support from the administration of owner municipalities on the proposed allocation of remaining UWSS treatment capacity prior to making a recommendation of approval to the UWSS Board at the November 2020 UWSS Board meeting.

Should you have any questions or concerns, please do not hesitate to contact me at your earliest convenience.

Yours truly,



Rodney Bouchard, General Manager
Union Water Supply System Joint Board of Management
RB/kmj