

**THE CORPORATION OF THE TOWNSHIP OF WELLINGTON NORTH
AGENDA OF SPECIAL COUNCIL MEETING – MARCH 3, 2021 AT 2:00 P.M.
VIA WEB CONFERENCING**

HOW TO JOIN

Join from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to join: <https://us02web.zoom.us/j/83558197663>

Or join by phone:

Canada: +1 855 703 8985 (Toll Free)

Webinar ID: 835 5819 7663

International numbers available: <https://us02web.zoom.us/j/83558197663>

	PAGE NUMBER
CALLING TO ORDER	
ADOPTION OF THE AGENDA	
Recommendation: <i>THAT the Agenda for the March 3, 2021 Special Meeting of Council be accepted and passed.</i>	
DISCLOSURE OF PECUNIARY INTEREST	
ITEMS FOR CONSIDERATION	
1. OPERATIONS	
a. OPS 2021-012 being a report on the water and wastewater technical update(s) Recommendation: <i>THAT Council of the Township of Wellington North receive Report OPS 2021-012 being a report on the water and wastewater technical update(s); AND FURTHER THAT Council direct staff to give consideration when putting forward future capital budgets to Council's preferred list of water and wastewater projects:</i> 1. <i>Arthur Wastewater Plant Project – Phase 2</i> 2A. <i>Mount Forest Water Tower</i> 2B. <i>Arthur Water Tower</i> 3. <i>Arthur Water Supply</i> 4. <i>Mount Forest Wastewater Plant Capacity</i> 5. <i>Arthur Water Treatment</i> <i>AND FURTHER THAT Council direct staff to proceed with the 2021 capital budget projects for the Mount Forest Stand-Pipe Rehabilitation (\$950,000) and Arthur Water Supply Investigation (\$100,000); and</i>	001

<i>AND FURTHER THAT Council direct staff to delete the 2020 capital budget project for the design of the Mount Forest Water Tower until the project comes forward at a future capital budget deliberation.</i>	
b. OPS 2021-005 being a report on the water and wastewater technical update(s) (January 25, 2021)	006
CONFIRMING BY-LAW	418
Recommendation: <i>THAT By-law Number 022-21 being a By-law to Confirm the Proceedings of the Council of the Corporation of the Township of Wellington North at its Special Meeting held on March 3, 2021 be read a First, Second and Third time and enacted.</i>	
ADJOURNMENT	
Recommendation: <i>THAT the Special Council meeting of March 3, 2021 be adjourned at ___:___ p.m.</i>	



WELLINGTON NORTH
SEMPER PORRO

Staff Report

To: Mayor and Members of Council Special Meeting of March 3, 2021

From: Matthew Aston, Director of Operations
Corey Schmidt, Environmental Services Manager

Subject: OPS 2021-012 being a report on the water and wastewater technical update(s)

RECOMMENDATION

THAT Council of the Township of Wellington North receive Report OPS 2021-012 being a report on the water and wastewater technical update(s);

AND FURTHER THAT Council direct staff to give consideration when putting forward future capital budgets to Council's preferred list of water and wastewater projects:

1. Arthur Wastewater Plant Project – Phase 2
- 2A. Mount Forest Water Tower
- 2B. Arthur Water Tower
3. Arthur Water Supply
4. Mount Forest Wastewater Plant Capacity
5. Arthur Water Treatment

AND FURTHER THAT Council direct staff to proceed with the 2021 capital budget projects for the Mount Forest Stand-Pipe Rehabilitation (\$950,000) and Arthur Water Supply Investigation (\$100,000); and

AND FURTHER THAT Council direct staff to delete the 2020 capital budget project for the design of the Mount Forest Water Tower until the project comes forward at a future capital budget deliberation.

PREVIOUS PERTINENT REPORTS/BY-LAWS/RESOLUTIONS

Report OPS 2021-005 being a report on the water and wastewater technical update(s) included in this agenda package.

BACKGROUND

As a part of the 2020 capital budget, technical updates to the existing Master Plans for drinking water and wastewater, in Arthur and Mount Forest, was approved. The resulting reports were

presented at the February 8, 2021, meeting of Council and these reports have since been added to the Township website:

Water and Sanitary Systems Technical Study-Arthur September 2020 Triton Engineering Services Limited

<https://wellington-north.com/content/government/departments/public-works/water-sewer/water-and-wastewater-technical-update-arthur.pdf>

Mount Forest Sanitary and Water Servicing Technical Update January 2021 B.M. Ross and Associates Limited

<https://wellington-north.com/content/government/departments/public-works/water-sewer/water-and-wastewater-technical-update-mount-forest.pdf>

Township staff and our engineering consultants focussed on large dollar value projects in developing this report. Linear infrastructure replacement and developer funded sanitary pumping stations have been excluded from this report. The replacement of existing linear infrastructure (watermains, sanitary sewers) continue to remain an important part of the annual capital budget.

Some additional considerations:

- Environmental Compliance Approval for Arthur Wastewater Treatment project specifies that construction is to start five years from the approval date of September 2020;
- Water Towers in both Arthur and Mount Forest will be required within the next five to ten years; and
- Nominal amounts of funding should continue to be invested in the Arthur Water Supply and Mount Forest Wastewater Treatment capacity upgrade projects until additional information becomes available.

It should be noted that items 2A and 2B in the recommendation to this report were used to denote a tie for these projects, however, as more information becomes available over the next five years the intent is a preferred project will become evident.

FINANCIAL CONSIDERATIONS

\$100,000 in 2021 Capital Budget for new Arthur water supply

\$75,000 in 2020 Capital Budget for Mount Forest Water Tower Design

\$950,000 in 2021 Capital Budget for Mount Forest Stand-Pipe Rehabilitation

Project	Estimated Cost*
Arthur Wastewater Plant Project – Phase 2	\$8.3 Million (2018)
Mount Forest Water Tower	\$5 Million (2021)
Arthur Water Tower	\$4 Million (2020)
Arthur Water Supply	Unknown
Mount Forest Wastewater Plant Capacity	Unknown
Arthur Water Treatment	Unknown

*- Estimate costs are approximate and parenthesis' indicate year of engineered estimate.

ATTACHMENTS

Schedule A - Memorandum from Triton Engineering dated February 25, 2021

STRATEGIC PLAN 2019 – 2022

Do the report's recommendations align with our Strategic Areas of Focus?

 Yes No N/A

Which priority does this report support?

 Modernization and Efficiency Partnerships Municipal Infrastructure Alignment and Integration**Prepared By:**Matthew Aston, Director of Operations
Corey Schmidt, Environmental Services
Manager**Recommended By:**Michael Givens, Chief Administrative Officer *Michael Givens*



Memorandum

DATE: February 26, 2021
 TO: Matt Aston
 FROM: Ray Kirtz & Dustin Lyttle
 RE: Arthur Major Capital
 Projects; Identified &
 Prioritized
 FILE: A5514B & A5514C

Introduction:

The following is brief summary of the significant capital projects identified in the 2020 Technical Study (Study) including; the future need for increased sewage treatment capacity, a new elevated water storage facility (i.e., tower) and increased municipal water supply.

These projects, and our opinion regarding prioritization of them, is discussed below.

Wastewater Treatment Capacity Expansion:

The Wastewater Class EA previously completed by CIMA+ had identified that a two-phase approach to the expansion of the Arthur Wastewater Treatment Plant (WWTP) was the preferred alternative. Phase 1 has already been completed, achieving an Average Day Flow (ADF) treatment capacity of 1,860m³/day.

Phase 2 of the WWTP expansion will allow for treatment of 2,300m³/day (ADF). Based on the growth assumptions presented in the Study, Phase 2 should be completed at some point between 2025 and 2030.

However, based on the current development proposals put forth within the community, we expect that by the end of 2025 there will be no additional uncommitted reserve capacity available, and development within Arthur will be halted once again.

For this reason, we suggest that Phase 2 of the WWTP expansion be scheduled for completion by the year 2025. However, annual review of the Wastewater reserve capacity is imperative to track both available capacity and near-term development requirements so that adjustments to this schedule can be made as required.

New Elevated Storage Facility:

Based on the assessment presented within the Study, the storage provided by the existing facilities is only sufficient to accommodate the existing population, with no surplus available to provide for future development.

However, the calculations used to determine storage requirements do not account for the surplus supply which currently exists within the community. This surplus does have an impact on the realistic storage available, however due to operational and demand variation it can be difficult to quantify. In an effort to estimate the impact of this surplus supply, it would be reasonable (and conservative) to assume that the surplus supply from the Municipal Wells will provide the equalization storage (B) component of the storage required.

There is currently a surplus supply of **683m³/day** available to be discounted from the equalization storage requirement, based on the current three-year maximum day demand of 1,572m³/day and Firm Capacity of 2,255m³/day.

Additionally, it is our understanding that the multi-leg Tower storage (227m³) may require significant upgrades/replacement within the near future. Therefore, this volume should be removed from the current available storage.

The amended storage requirement calculations are provided below, based on the MECF guidelines noted:

MECP design guidelines for water distribution systems require municipal storage facilities to be designed to allow maintenance of adequate flows and pressures in the distribution system during peak hour water demand and to meet critical demands during fire and emergency events. MECP design guidelines use the following equation to determine water system storage requirement:

$$\text{Total Treated Water Storage Requirement (m}^3\text{)} = A + B + C$$

Where: A (m³) = fire storage

B (m³) = equalization storage (25% of Maximum Day Demand)

C (m³) = emergency storage (25% of (A + B))

Planning Period (years)	Population	Fire Flow (L/s)	A (m ³)	Max. Day Demand (m ³)	B (m ³)	C (m ³)	Total Required (m ³)	Total Available (m ³)
2020	2,410	100	720	1,572	393	278	998	1,137
2025	3,351	110	792	1,675	419	303	1,095	
2030	3,698	120	864	1,849	462	332	1,196	
2035	4,046	120	864	2,023	506	342	1,206	
2040	4,391	130	936	2,195	549	371	1,307	
2045	4,736	130	936	2,368	592	382	1,318	

Note: the emergency storage (C) has not been revised, and reflects the necessary volume if the equalization storage was not discounted.

Based on the above, the increase in storage is not recommended until sometime after the year 2025, but before 2030. A new water tower is a Schedule B Class EA, and therefore will require sometime for planning. As such the EA should be initiated no later than 2025, with the Tower constructed by the year 2030. However, annual review of the water reserve capacity and storage requirements is imperative to track both available surplus supply and near-term development requirements so that adjustments to this schedule can be made as required.

Increased Municipal Water Supply

Existing Water Supply infrastructure is expected to have sufficient capacity to supply up to the year 2040, however this will depend on development growth and usage rates. Therefore, it is imperative that the Township continue to complete annual water supply reserve capacity calculations to track these items.

Finding new water sources can be a very long and complicated process, therefore we recommend that at this time, the town complete two things:

- 1) An update to the Well Exploration program completed in 2003. (It is our understanding that this is currently underway.)
- 2) An evaluation of the existing municipal water supply systems.

The evaluation of the water supply systems should be a holistic review of the existing and potential sources in order to establish the water quality and supply rates sufficient to meet the future demands.

Based on the above, we recommend that the above background studies be completed to a point that future source(s) are identified with confidence (i.e., pumping test, quality testing). However, putting the new source into production should be held off until a future supply deficit is identified within the Water Reserve Capacity calculations.

If you have any questions, please contact us.



Staff Report

To: Mayor and Members of Council Meeting of January 25, 2021

From: Matthew Aston, Director of Operations
Corey Schmidt, Environmental Services Manager

Subject: OPS 2021-005 being a report on the water and wastewater technical update(s)

RECOMMENDATION

THAT Council of the Township of Wellington North receive Report OPS 2021-005 being a report on the water and wastewater technical update(s);

AND FURTHER THAT Council direct staff to post these reports on the Township website.

PREVIOUS PERTINENT REPORTS/BY-LAWS/RESOLUTIONS

2020 Capital Budget

BACKGROUND

As a part of the 2020 capital budget, technical updates to the existing Master Plans for drinking water and wastewater, in Arthur and Mount Forest, was approved. The attached are the resulting reports.

Township staff feel these reports should be added to the Township website.

Township staff feel the following are the priority projects, excluding existing linear infrastructure rehabilitation:

- Consideration for improvements to the Arthur drinking water infrastructure including storage, treatment and well supply (well exploration in Arthur was included as part of the 2021 capital budget);
- Consideration for when Phase 2 of the Arthur Wastewater Treatment Plant (WWTP) upgrades happen; and
- Continuing to work through the re-rating of the Mount Forest WWTP.

Some considerations:

- Arthur drinking water system would benefit from redundancy;
- Phase 2 of Arthur WWTP is designed and ready for construction; and
- Tons of risk related to re-rating of Mount Forest WWTP.

I think in the rear-view mirror, we need to keep in focus:

- Mount Forest will require new water storage within the next 5-10 years (update evaluates three alternatives, final selection of preferred alternative is likely subject to Schedule B Class Environmental Assessment);
- Mount Forest stand-pipe project (approved in 2021 Capital Budget) is required to buy Wellington North 5-10 years;
- Drinking water treatment in Arthur is challenge because of the lack of sanitary sewers local to our drinking water wells (Well Street, Jones Baseline) to address; and
- Dollars need to continue to be put forward re-rate the Mount Forest WWTP.

FINANCIAL CONSIDERATIONS

\$100,000 in 2021 Capital Budget for new Arthur water supply
 \$75,000 in 2020 Capital Budget for Mount Forest Water Tower Design
 \$950,000 in 2021 Capital Budget for Mount Forest Stand-Pipe Rehabilitation

Both technical studies identify significant Future Capital Project Estimates

ATTACHMENTS

Water and Sanitary Systems Technical Study-Arthur September 2020 Triton Engineering Services Limited

Mount Forest Sanitary and Water Servicing Technical Update January 2021 B.M. Ross and Associates Limited

STRATEGIC PLAN 2019 – 2022

Do the report's recommendations align with our Strategic Areas of Focus?

Yes No N/A

Which priority does this report support?

Modernization and Efficiency Partnerships
 Municipal Infrastructure Alignment and Integration

Prepared By: Matthew Aston, Director of Operations
 Corey Schmidt, Environmental Services
 Manager

Recommended By: Michael Givens, Chief Administrative Officer *Michael Givens*

**THE CORPORATION OF THE
TOWNSHIP OF WELLINGTON NORTH**

BY-LAW NUMBER 022-21

**BEING A BY-LAW TO CONFIRM THE PROCEEDINGS OF THE
COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF
WELLINGTON NORTH AT ITS SPECIAL MEETING HELD ON
MARCH 3, 2021**

WHEREAS Section 5 of the Municipal Act, S.O. 2001 c.25 (hereinafter called "the Act") provides that the powers of a Municipal Corporation shall be exercised by its Council;

AND WHEREAS Section 5(3) of the Act states, a municipal power, including a municipality's capacity, rights, powers and privileges under Section 9, shall be exercised by by-law, unless the municipality is specifically authorized to do otherwise;

NOW THEREFORE the Council of The Corporation of the Township of Wellington North hereby **ENACTS AS FOLLOWS**:

1. The action of the Council of the Corporation of the Township of Wellington North taken at its meeting held on March 3, 2021 in respect of each motion and resolution passed and other action taken by the Council of the Corporation of the Township of Wellington North at its meeting, is hereby adopted and confirmed as if all such proceedings were expressly embodied in this By-law.
2. That the Mayor and the proper officials of the Corporation of the Township of Wellington North are hereby authorized and directed to do all things necessary to give effect to the action of the Council of the Corporation of the Township of Wellington North referred to in the proceeding section hereof.
3. The Mayor and the Clerk are authorized and directed to execute all documents necessary in that behalf and to affix thereto the Seal of the Corporation of the Township of Wellington North.

**READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED
THIS 3RD DAY OF MARCH, 2021.**

ANDREW LENNOX, MAYOR

KARREN WALLACE, CLERK