

**To: Warden and Members of County Council**

**From: Director of Public Works**

## 2021 Drinking Water System Performance

### RECOMMENDATION

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1. That County Council receive Report PW 2022-05 entitled “2021 Drinking Water System Performance”, including the attached 2021 Annual Drinking Water System Summary Reports.

### REPORT HIGHLIGHTS

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- The Ministry of the Environment, Conservation and Parks (MECP) requires that an annual status summary report on the performance of the County’s 17 municipal drinking water systems be prepared and provided to Council in accordance with the regulatory requirements of Schedule 22 and Section 11 of Ontario Regulation (O. Reg.) 170/03 under the *Safe Drinking Water Act, 2002*.
- 10 of the Oxford County (the County) municipal drinking water systems inspected since January 2021 by the MECP received 100 percent inspection ratings. At the time of preparation of this report, the MECP inspection reports for the County’s municipal drinking water systems in Drumbo-Princeton and Embro had not been finalized. The remaining five (5) systems: Dereham Centre, Ingersoll, Plattsville, Tavistock, and Tillsonburg, have not yet been scheduled for inspection by the MECP.
- A summary of annual water system capital investments and an overview of key maintenance activities that were completed on the water infrastructure assets is also noted.
- This report also summarizes the Source Water Protection program implementation efforts undertaken over the last year across various watersheds within the County’s jurisdiction.

### Implementation Points

As required by legislation, the 2021 Annual Drinking Water Systems Summary Reports (Attachment 1) will be posted on the County’s website by February 28, 2022. An update to Council will be provided after all remaining MECP inspections are complete and the findings will be provided by memorandum. In March 2022, a separate report to Council will include the results of the Management Review of the Drinking Water Quality Management System (DWQMS). In addition, staff will continue to implement Source Water Protection Plan policies to remain in compliance with the *Clean Water Act, 2006* requirements.

## Financial Impact







There are no financial impacts to date as a result of this report. Any required actions that will result in expenditures have been accounted for in the 2022 Operating or Capital Budgets of the respective drinking water systems.

## Communications

As indicated, the Drinking Water System Performance reports will be posted to the County website as legislatively required by February 28, 2022 at [www.oxfordcounty.ca/water-wastewater](http://www.oxfordcounty.ca/water-wastewater). The results of each system’s performance report will also be shared directly with area municipal CAOs and Public Works senior management respectively.

The County communicates the performance of key Public Works systems (Water, Wastewater, and Waste Management) annually to the public through an annual social media campaign after the last performance report has been submitted to Council (March 31, 2022).

## Strategic Plan (2020-2022)

					
<b>WORKS WELL TOGETHER</b>	<b>WELL CONNECTED</b>	<b>SHAPES THE FUTURE</b>	<b>INFORMS &amp; ENGAGES</b>	<b>PERFORMS &amp; DELIVERS</b>	<b>POSITIVE IMPACT</b>
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## DISCUSSION

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### Background

The Statutory Standard of Care provisions of the *Safe Drinking Water Act, 2002* make individuals with oversight responsibilities for municipal drinking water systems legally responsible for decisions made regarding the system. The intent of this Standard of Care is to ensure that owner representatives (Oxford County Council and CAO) and various levels of decision makers of the municipal drinking water systems are acting diligently and making informed decisions when required. These decisions can impact the quality and safety of the municipal drinking water provided to all customers.

Decision making authority over the County’s drinking water systems include, but is not limited to, members of municipal Council. All persons who oversee the operating authority or exercise decision-making authority must:

- exercise the level of care, diligence and skill that a reasonably prudent person would be expected to exercise in a similar situation; and
- act honestly, competently and with integrity, with a view of ensuring the protection and safety of the users of the municipal drinking water system.

Some of the ways members of Council can provide diligent oversight under the Standard of Care requirements is to have awareness of governing drinking water legislation and regulations, the County's Operational Plans and the drinking water annual reporting (the County's Operational Plans will be reviewed in the upcoming DWQMS report to Council). Of note, the Annual Drinking Water System Performance Report is the primary method Senior Management and Council demonstrate due diligence in providing oversight of the County's municipal drinking water systems and meeting their Standard of Care legal requirement.

## Municipal Drinking Water System Reporting

In accordance with the *Safe Drinking Water Act, 2002*, the 2021 Annual Drinking Water Systems Summary Reports (Attachment 1) have been prepared for each of the County's 17 municipal drinking water systems. Under Schedule 22 and Section 11 of O. Reg. 170/03, drinking water system owners must prepare reports that provide the following information:

- brief description of the system;
- any incidents of adverse test results, inadequate disinfection or where any mandatory requirement was not met;
- all test results; and
- a summary of the amount of water supplied with a comparison to the system's rated capacity.

Further, the *Clean Water Act, 2006* specifies that municipalities and the Risk Management Official must report yearly on activities undertaken to meet the requirements of the Source Protection Plans (SPPs) by February 1 of the following year. A summary of the submitted reports are provided in the sections below.

## Comments

### 2021 Annual Water Systems Summary Reports

The individual annual water system reports will be available for review by the public on the County's website at [www.oxfordcounty.ca/drinkingwater](http://www.oxfordcounty.ca/drinkingwater) by February 28, 2022. Highlights include:

- 21 communities were served through 17 separate municipal drinking water systems.
- There were 62 active supply wells in 2021 receiving treatment ranging from disinfection by chlorination to more complex forms of treatment including filtration to remove parameters such as iron, manganese or hydrogen sulphide followed by disinfection through chlorination and/or Ultra Violet light (UV).
- Approximately 10.6 million cubic metres of drinking water was supplied to customers.
- 4,420 regulated bacteriological samples were collected, with 2 samples being adverse (<0.05 %). All adverse results were investigated, resampled and cleared.

- 3,401 non-reportable bacteriological samples were collected from the raw and treated water, with 499 being related to system maintenance and repair.
- Results for the approximately 60 different health-related chemical parameters tested (at 31 separate treatment points) all met MECP requirements.
- Source Water Quality:
  - Brownsville Supply Wells – Naturally occurring arsenic levels in untreated raw water remain notably present in Well 6 and are monitored quarterly. Raw water from Well 6 is currently blended with Well 5 in a reservoir to effectively manage overall drinking water arsenic levels within acceptable treated Ontario Drinking Water Standard (ODWS) limits prior to customer distribution. A Municipal Class Environmental Assessment (EA) Study for Well 6 is planned for 2022 to review any further operational enhancements.
  - Dereham Centre Supply Wells - Naturally occurring arsenic levels in untreated raw water remain notably present in Well 2. Raw water (Well 2) is treated using a new permanent treatment filtration system (completed in 2021) to remove arsenic and effectively manage overall drinking water arsenic levels within ODWS standards prior to customer distribution. Arsenic levels in the raw water (Well 2) and treated water continue to be monitored quarterly as per the Municipal Drinking Water Licence.
  - Springford Supply Wells - Naturally occurring arsenic levels in untreated raw water remain notably present in Well 4 and are monitored quarterly while the wells are in service. Water from Well 4 is blended with Well 5 to effectively manage overall drinking water arsenic levels within acceptable ODWS standards prior to customer distribution.
  - Norwich Supply Wells - Naturally occurring arsenic levels in untreated raw water remain high in Wells 2 and 5. The arsenic from the source water in these wells has been successfully reduced through filtration at the Pitcher Street Water Treatment facility (WTF) prior to distribution since 2008. Samples from the raw and treated water continue to be monitored quarterly.
  - Tillsonburg Supply Wells (Broadway Street) - Naturally occurring arsenic levels in untreated raw water remain notably present in Well 7A and are monitored quarterly. Water from Well 7A is blended with Wells 4 and 5 (North Street) at the Fairview WTF to effectively manage overall drinking water arsenic levels within acceptable treated ODWS limits prior to customer distribution. A Municipal Class EA Study for Well 7A is planned for 2022 to review any further operational enhancements.
  - Otterville Supply Wells – Nitrate levels in raw water remain notably present in Wells 3 and 4. Source water supplies from Wells 3 and 4 are blended to effectively manage nitrate levels within acceptable treated ODWS limits prior to customer distribution. In addition, the County upgraded an existing nitrate analyzer within the WTF in 2021 to continuously monitor this parameter of concern. Water samples are also taken from the treated water as part of an enhanced nitrate monitoring system.

- Tillsonburg Supply Wells (Brownsville Road) – Nitrate levels in raw water remain notably present in Wells 4 and 5. Raw water from Wells 4 and 5 is blended with Well 7 (Broadway Street) at the Fairview WTF to effectively manage and continuously monitor overall drinking water nitrate levels within acceptable treated ODWS limits prior to customer distribution. Water samples from the Fairview WTF are also taken as part of an enhanced nitrate monitoring system.
- Woodstock Supply Wells (Sweaburg Road) - Nitrate levels in raw water remain notably present in Wells 1, 3, 5, 8 and 11. Raw water from these wells is blended with other well supplies to effectively manage overall drinking water nitrate levels within acceptable treated ODWS limits prior to customer distribution. Continuous nitrate monitoring was implemented in 2021, in addition to raw and treated water sampling as part of an enhanced nitrate monitoring system.
- Five systems (Brownsville, Ingersoll, Lakeside, Mount Elgin and Oxford South -- Springford) have naturally occurring fluoride levels greater than 1.5 mg/L. At levels up to 2.4 mg/L, the water is considered safe for consumption; however, parents with children under the age of six are advised to limit exposure to other sources of fluoride when levels exceed 1.5 mg/L. For more information visit:  
[https://www.swpublichealth.ca/en/partners-and-professionals/resources/Health-Care-Providers/Alerts-Advisories-Updates/Advisories/ADV\\_HIA-Fluoride-20201203.pdf](https://www.swpublichealth.ca/en/partners-and-professionals/resources/Health-Care-Providers/Alerts-Advisories-Updates/Advisories/ADV_HIA-Fluoride-20201203.pdf)
- Elevated levels of naturally occurring sodium greater than 20 mg/L exist in nine systems (Bright, Brownsville, Embro, Ingersoll, Mount Elgin, Oxford South, Thamesford, and parts of Woodstock and Tillsonburg). At levels up to 200 mg/L, the water is considered safe for consumption; however, levels above 20 mg/L may be of concern for individuals on a sodium-restricted diet due to various medical conditions and illnesses. For more information visit [https://www.swpublichealth.ca/en/partners-and-professionals/resources/Health-Care-Providers/Alerts-Advisories-Updates/Advisories/ADV\\_HIA-Sodium-20201203.pdf](https://www.swpublichealth.ca/en/partners-and-professionals/resources/Health-Care-Providers/Alerts-Advisories-Updates/Advisories/ADV_HIA-Sodium-20201203.pdf)

## 2021 Water System Infrastructure Investments

As per the revised 2021 Forecast in the 2022 Business Plan and Budget, the County invested over \$10 M in rate supported water infrastructure which includes, but is not limited to, several notable capital projects as follows:

- Townships Water Facility Improvements (\$350,000)
- Tavistock New Well Supply Class EA Study and Well Exploration (\$260,000)
- Itron AMR upgrade to FCS Software with Itron Mobile (\$72,000)
- Water & Wastewater SCADA Master Plan (\$720,000)
- Ingersoll Water Facility Improvements (\$130,000)
- Ingersoll Watermain Replacements (\$950,000)
- Woodstock Watermain Replacements (\$2,145,000)
- Tillsonburg Watermain Replacement Projects/New Construction (\$1,300,000)
- OR 4/Landsdowne Watermain Extension/Looping (\$2,700,000)
- Woodstock Water Supply Feeder mains Condition Assessment (\$400,000)
- New Tillsonburg Bulk Water Station (\$125,000)

In addition to the above noted capital investments in water infrastructure, Oxford continues to prioritize the long term sustainability of its water systems. In 2022, the current asset condition of the water system will be documented as part of the overall update to the County’s 2017 Asset Management Plan, which will also identify revised asset replacement costs and sustainable long term funding requirements.

Of note, Oxford County manages its water infrastructure asset inventory, adds and tracks asset information and regularly generates asset maintenance work orders using a digital asset management system (Cartegraph). Through proactive asset management, the County strives to optimize the service life of its water assets and promote the overall long term sustainability of its water system. The County continues to integrate its water infrastructure, among other assets, within the corporate Asset Management Systems Enhancement project as part of overall compliance to O. Reg. 588/17 – Asset Management Planning for Municipal Infrastructure, under the *Infrastructure for Jobs and Prosperity Act, 2015*.

As well, Oxford County Public Works institutes industry best management standards to annually monitor the levels of service and financial performance of its water infrastructure and to ensure our water infrastructure assets are maintained in good condition through effective preventative maintenance, optimized infrastructure decision-making and strategic capital planning (replacement, repair, expansion). In this regard, the ongoing Modernization Service Delivery Review is currently assessing the most appropriate and cost effective way for Oxford County, and its service providers (Woodstock, Tillsonburg), to provide water distribution and wastewater collection services while maintaining or improving service levels.

In addition, the County is currently undertaking a County-wide Water Master Plan to identify preferred water servicing strategies to meet the County’s growth needs to the year 2046 as well as provide effective on-going servicing continuity for existing settlement areas across the County as appropriate. Through this Master Plan, the long term ability of Oxford’s water system to service existing water demand, as well as future growth needs, is being assessed in detail in terms of sustainable, affordable and reliable infrastructure.

### 2021 Maintenance of Water System Infrastructure

In addition to the drinking water system capital investments noted above, several planned preventative maintenance activities are carried out annually to help optimize the useful service life and efficiency of water infrastructure assets. A number of key maintenance activities are noted below for water distribution and water supply/treatment infrastructure respectively.

#### *Water Distribution Infrastructure:*

<b>Preventative Maintenance Activity</b>	<b>Quantity</b>
Critical Valve turning	972
Non-Critical Valve turning	1945
Watermain Cleaning (Swabbing)	27,400 m
Hydrant Flushing	4188
Hydrant Maintenance	1858
Hydrant Flow Testing	772
Backflow Preventer Inspections	997

In terms of corrective maintenance, Public Works also repaired 29 distribution watermain breaks and responded to approximately 480 customer water complaints within the various water distribution systems across the County in 2021.

*Water Supply/Treatment Infrastructure:*

<b>Preventative Maintenance Activity</b>	<b>Quantity</b>
Water Supply Main Cleaning (Swabbing)	2,816 m
Specialized Rehabilitation of Supply Wells	9
Reservoir Cleaning	5
Water Plant Filter Media Maintenance/Replacement	7
Chlorine, Turbidimeter & Nitrate Analyser Calibrations	564
Ultra-Violet Disinfection System Maintenance	10
Standby Power Generator Maintenance	29
Water Plant Flowmeter Calibrations	146
Facility Backflow Preventer Inspections	68

As well, Public Works performed condition assessment of approximately 7,100 m of raw water supply transmission mains as well as performed over 200 inspections on critical water supply wells, instruments, and storage facilities.

### 2021 MECP Inspection Reports

Every year, the MECP inspects each drinking water system to assess compliance with the requirements of the *Safe Drinking Water Act, 2002* and the *Ontario Water Resource Act, 1990*. As the provincial government’s fiscal year is April to March and inspections take place throughout that period, inspection Reports are not always finalized in time to be included in the County’s annual reports.

Overall, the 2021 year marked exceptional performance at the County’s water treatment and distribution facilities as reflected in the MECP Inspection Reports and ratings. Of the 10 Inspection Reports finalized to date, all 10 received a rating of 100%. The inspection report ratings for Embro, Dereham Centre, and Drumbo-Princeton had not yet been finalized at the time of this report. The inspection of the Tavistock system has been scheduled to take place in February 2022. All other system inspections have not yet been scheduled by the MECP.

Though not considered non-compliances, some inspection reports outlined areas for improvement such as minor updates to system operations manuals and implementation of a Backflow Prevention Program.

The table below outlines the status of each system’s MECP inspection reports and ratings.

System	MECP Inspection Rating
Beachville	100%
Bright	100%
Brownsville	100%
Dereham Centre	<i>MECP inspection took place on January 25, 2022*</i>
Drumbo-Princeton	<i>MECP inspection report rating not yet finalized*</i>
Embro	<i>MECP inspection report rating not yet finalized*</i>
Hickson	100%
Ingersoll	<i>MECP Inspection not yet scheduled due to Covid-19*</i>
Innerkip	100%
Lakeside	100%
Mount Elgin	100%
Oxford South (Norwich, Otterville & Springford)	100%
Plattsville	<i>MECP Inspection not yet scheduled due to Covid-19*</i>
Tavistock	<i>MECP Inspection is scheduled for February 11, 2022*</i>
Thamesford	100%
Tillsonburg	<i>MECP Inspection not yet scheduled due to Covid-19*</i>
Woodstock	100%

\* An update to Council will be provided after all remaining MECP well inspections are complete and the findings will be provided by memorandum.

### 2021 Boil Water and Drinking Water Advisories

There were two precautionary Boil Water Advisories (BWA) in 2021:

- Bright - A precautionary BWA was enacted on September 29, 2021 for all residents following a watermain break that caused depressurization to the system. A third party contractor damaged the watermain when excavating and installing an adjacent new development watermain. Bacteriological water test samples were collected to confirm that there was no contamination to the drinking water system, and were found to be within acceptable ODWS levels.



- Tillsonburg - A precautionary BWA for 12 residents was enacted on May 5, 2021 following a watermain break until bacteriological samples were collected to confirm that there was no contamination to the drinking water system. A third party contractor damaged the watermain during excavation for a reconstruction project. After the watermain break was repaired and flushed, water test samples were taken and were confirmed to be within acceptable ODWS levels.

There was one operational Adverse Water Quality Incident (AWQI) in 2021:

- Mount Elgin – A low chlorine residual of 0.03 mg/L in the water distribution system was reported to the MECP and Medical Officer of Health (MOH) on November 26, 2021. The system was subsequently flushed, tested, and restored to an acceptable ODWS concentration (above 0.05 mg/L).

There were two bacteriological AWQIs in 2021:

- Woodstock – A bacteriological sample result for total coliforms of 2 cfu/100 mL in the water distribution system was reported to the MECP and MOH on June 30<sup>th</sup>, 2021. Resamples were collected at the site and two nearby locations and were determined to be within acceptable ODWS levels.
- Dereham Centre – A bacteriological sample result for total coliforms of 8 cfu/100 mL in the water distribution was reported to the MECP and MOH on July 21<sup>st</sup>, 2021. Resamples were taken at the site and two nearby locations and were determined to be within acceptable ODWS levels.

There were six chemical AWQIs in 2021:

- Dereham Centre - Four AWQIs related to arsenic concentrations (greater than 10 µg/L) in the treated water were reported to the MECP and MOH in May 2021. All four AWQIs were reported during the commissioning of a new water filtration system, which since being placed into service (late May 2021) has effectively managed (reduced) arsenic concentrations to within acceptable ODWS levels. The new treatment system has been designed to adequately manage the naturally occurring elevated levels of arsenic in the source water.
- Woodstock – A treated water sample for sodium had a concentration of 73 mg/L. Although drinking water is considered safe for consumption at sodium levels up to 200 mg/L, water containing levels greater than 20 mg/L are required to be reported to the MECP and MOH. A confirmatory resample was taken and had sodium concentration of 93.5 mg/L. These sodium concentrations are considered typical for this drinking water system which has naturally elevated sodium levels.
- Mount Elgin - A treated water sample for fluoride had a concentration of 1.62 mg/L. Although drinking water is considered safe for consumption at fluoride levels up to 2.4 mg/L, levels greater than 1.5 mg/L are required to be reported to the MECP and MOH. A confirmatory resample was taken and had fluoride concentration of 1.71 mg/L. While Oxford County does not add fluoride to its municipal drinking water, naturally occurring levels of Fluoride are common in groundwater sources.

## 2021 Source Water Protection Program

In Q4 2021, a new Source Water Protection Coordinator was appointed as Risk Management Official for Oxford County and will be working with Area Municipalities and County Staff to continue to implement Source Protection Plan policies from the four Source Protection Areas.

Source Protection Plan implementation within the Catfish Creek Source Protection Area is 100% complete while implementation efforts continue in the Grand River, Long Point Region, and Upper Thames River Source Protection Areas. Across the four Source Protection Plans, it is estimated that their overall implementation to address potential drinking water threat activities on existing properties is 59% complete. It should be noted that amendments to the Long Point Region Source Protection Plan and Grand River Source Protection Plan included re-delineation of Wellhead Protection Areas (WHPAs) at several Oxford County municipal water supply wells, which resulted in a slight increase in the overall inventory of potential drinking water threats.

### 2021 Source Protection Undertakings

On February 1, 2022, the County submitted summary reports to each of the four Source Protection Regions summarizing the County's 2021 source water protection implementation actions which included:

- Issuing 14 Notices to Proceed (under Section 59 of the *Clean Water Act, 2006*) allowing development activities near municipal drinking water supplies (vulnerable areas) to proceed to planning approval stage as no risk to these water sources was identified during planning and building permit application screening. Staff continue to screen all development applications and building permits in vulnerable areas that have the potential to introduce a new threat to municipal drinking water.
- Reviewing 86 application reviews that did not require any source water protection measures (Notices to Proceed, Risk Management Plans etc.).
- Conducting 26 site drinking water threat inspections at industrial, commercial, residential and agricultural properties where there is a potential risk to municipal drinking water.
- Finalizing two Risk Management Plans with property owners to manage agricultural threat activities (manure application, manure storage, livestock grazing or pasturing of land, pesticide application, fertilizer application, and fertilizer storage and handling) using best management practices.
- Area Municipalities are responsible for sewage maintenance inspections under the Source Protection Plans and Part 8 of the *Building Code Act, 1992*. Septic systems, which are identified as potential significant drinking water threats, are required to be inspected every 5 years. In 2021, 14 septic tank maintenance inspections were completed by Norwich Township while South-West Oxford completed 11 of 37 planned septic tank maintenance inspections.

For 2022, 52 septic tank inspections are planned by South-West Oxford (including 26 that were deferred in 2021), 9 septic tank inspections are planned by East Zorra Township, 11 septic tank inspections are planned by Zorra Township and 9 septic tank inspections are planned by Blandford-Blenheim Township.

Technical work was completed in 2021 to update the WHPAs for five of Oxford's municipal drinking water well supply systems (Beachville, Embro, Innerkip, Mount Elgin and Thamesford). Pending approval by the respective Source Protection Authorities, this work will be incorporated into an update to the Thames–Sydenham and Region Source Protection Plan in 2022. Similar technical WHPA delineation work is ongoing at Oxford's municipal drinking water well supply system in Ingersoll.

Updated modeling of the vulnerable areas around the County's municipal wells using the most up-to-date science and incorporating the latest technical field and operational data serves to ensure that Source Protection Plan policies applied and implemented in the appropriate geographical land areas.

### *Issue Contributing Areas*

When municipal raw water (before treatment) demonstrates an exceedance of an ODWS or increasing trend of a contaminant of concern, the *Clean Water Act, 2006* allows local Source Protection Authorities (SPAs) to designate municipal wellhead protection areas as Issues Contributing Areas (ICA). An ICA delineates an area where certain current/past land use have or are likely inferred to contribute to the elevated contaminant concentration in raw water supplies.

In Oxford County, the local SPAs have identified and delineated three nitrate ICAs within the following water systems:

- *Woodstock*: Sweaburg Wells 2 and 4 have a nitrate ICA in place which is intended to manage and regulate surrounding area land uses (agriculture) which have been inferred to be contributing to the raw water supply nitrate issue due to historical nutrient loading (fertilizer and manure application activities).

These similar activities may also be impacting nitrate levels in other Sweaburg water supplies (Wells 1, 3, 5, 8 and 11). Accordingly, the County is currently working with the University of Waterloo and the Upper Thames River SPA to further understand the potential land-use impacts on nitrate raw water quality at these wells and to potentially expand the delineation of the current Nitrate ICA as an enhanced source protection measure.

- *Tillsonburg*: Local SPAs had identified a nitrate ICA around Tillsonburg Wells 4 and 5 and instituted advanced source protection plan policy requirements to manage surrounding area land uses (agriculture) which have been inferred as contributing to the nitrate issue due to nutrient loading (fertilizer and manure application). Risk Management Plans are being implemented to manage land use drinking water threat activities being undertaken by several landowners within the nitrate ICA.
- *Otterville*: Local SPAs designated a nitrate ICA around Wells 3 and 4 in 2020 and instituted advanced source protection plan policy requirements to manage surrounding area land uses (agriculture) which have been inferred as contributing to the nitrate issue due to nutrient loading (fertilizer and manure application). Work has begun to verify potential landowner drinking water threat activities within the Otterville nitrate ICA from which future Risk Management Plans will be developed.

## **Conclusions**

The 2021 Annual Water Systems Summary Reports demonstrate Public Works' continued oversight of the County's Municipal Drinking Water Systems in order to provide a safe, reliable and sustainable supply of municipal drinking water for its residents and businesses. The County continues to institute industry best management standards to annually monitor the levels of service and financial performance of its water infrastructure and to ensure water infrastructure assets are maintained in good condition through effective preventative maintenance, optimized infrastructure decision-making and strategic capital planning (replacement, repair, and expansion).

In this regard, the ongoing Modernization Service Delivery Review is currently assessing the most appropriate and cost effective way for the County, and its service providers (City of Woodstock and Town of Tillsonburg), to provide water distribution and wastewater collection services at levels which are consistent with industry standards and best practices.

## **SIGNATURES**

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### **Report Author:**

Original signed by:

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Don Ford, BA, CMM III, C.Tech.  
Manager of Water and Wastewater Services

### **Departmental Approval:**

Original signed by:

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David Simpson, P.Eng., PMP  
Director of Public Works

### **Approved for submission:**

Original signed by

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Michael Duben, B.A., LL.B.  
Chief Administrative Officer

## **ATTACHMENT**

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Attachment 1: 2021 Annual Drinking Water System Summary Reports