

Regular Council Meeting Agenda

Tuesday, February 25, 2020, 7:00 pm
Tecumseh Arena - Horwood Room, 1st Floor
12021 McNorton Street
Tecumseh, ON N8N 3C7

	Pages
A. Roll Call	
B. Order	
C. Report Out of Closed Meeting	
D. Moment of Silence	
E. National Anthem	
F. Disclosure of Pecuniary Interest	
G. Minutes	
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K. Communications - Action Required

1.	Town of Lakeshore Letter dated January 30, 2020 Re: Police Services Board	55 - 56
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Recommendation:

That the letter from The Corporation of the Town of Lakeshore, dated January 30, 2020, regarding the Police Services Board, **be referred** to the Tecumseh Police Services Board.

L. Committee Minutes

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|----|--|---------|
| 1. | Court of Revision - February 11, 2020 - Hurley Relief Drain Branch and Upper Drain | 57 - 59 |
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| | a. PBS-2020-07 Site Plan Control, Lily Jean Daniher, 5355 Manning Road | 83 - 108 |
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| | b. PWES-2020-12 Annual Summary Report for the Year 2019 - Town of Tecumseh Distribution System (260004969) | 131 - 178 |
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N. By-Laws

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|----|--|-----------|
| 1. | By-Law 2020-16 | 398 - 408 |
| | Being a by-law to authorize the execution of an Agreement between The Corporation of the Town of Tecumseh and Her Majesty the Queen in Right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario | |

2.	By-Law 2020-17	409 - 425
	Being a by-law to adopt Minimum Maintenance Standards for Municipal Highways	
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S.	Next Meeting	
	March 10, 2020	
	7:00 pm - Regular Council Meeting	
T.	Adjournment	

Regular Meeting of Council

Minutes

Date: Tuesday, February 11, 2020
Time: 7:00 pm
Location: Tecumseh Arena - Horwood Room, 1st Floor
12021 McNorton Street
Tecumseh, ON N8N 3C7

Present:

Mayor, Gary McNamara
Deputy Mayor, Joe Bachetti
Councillor, Bill Altenhof
Councillor, Andrew Dowie
Councillor, Brian Houston
Councillor, Tania Jobin
Councillor, Rick Tonial

Also Present:

Chief Administrative Officer, Margaret Misek-Evans
Director Parks & Recreation Services, Paul Anthony
Director Public Works & Environmental Services, Phil Bartnik
Director Fire Services & Fire Chief, Wade Bondy
Director Information & Communication Services, Shaun Fuerth
Director Planning & Building Services, Brian Hillman
Director Financial Services & Chief Financial Officer, Tom Kitsos
Director Corporate Services & Clerk, Laura Moy
Manager Committee & Community Services, Christina Hebert
Manager Planning Services, Chad Jeffery
Manager Roads & Fleet, Kirby McArdle
Manager Strategic Initiatives, Lesley Reeves

A. Roll Call

B. Order

The Mayor calls the meeting to order at 7:00 pm

C. Report out of Closed Meeting

There was no closed meeting.

D. Moment of Silence

The Members of Council and Administration observe a moment of silence.

E. National Anthem

The Members of Council and Administration observe the National Anthem O Canada.

F. Disclosure of Pecuniary Interest

There is no pecuniary interest declared by a Member of Council.

G. Minutes

1. Regular Council Meeting - January 28, 2020

Motion: RCM - 30/20

Moved by Deputy Mayor Joe Bachetti

Seconded by Councillor Brian Houston

That the January 28, 2020 minutes of the Regular Council Meeting, as were duplicated and delivered to the members, **be adopted**.

Carried

H. Supplementary Agenda Adoption

Motion: RCM - 31/20

Moved by Councillor Brian Houston

Seconded by Councillor Bill Altenhof

That the supplementary item added to the Regular Meeting agenda regarding communication from the Essex County Federation of Agriculture, dated February 6, 2020, **be approved**.

Carried

I. Delegations

1. Joe Barile, General Manager, and Kris Taylor, Director Corporate Strategy, Essex Power Corp

Re: Essex Power Youth in Community Fund and E-Billing and Digital Transformation

Messrs. Joe Barile and Kris Taylor with Essex Power Corp advise they are celebrating the 20th year anniversary of Essex Powerlines (EPL). Mr. Barile explains how EPL has expanded beyond its original services and how it has grown. He informs the Members on EPL rates and the impact of inflation. He further informs that these rates are reasonable based on the Ontario Energy Board and Operation, Maintenance & Administration (OM&A) Provincial ranking. Details on outages and planned outages, along with the purpose are explained. The Members are also informed of planned improvements in the future including the installation of Line

Monitors, Reclosers and upgrading Wholesale Meters to reduce the impacts of Loss of Supply events.

The EPL support for youth is being continued through the Youth In Community Fund to support youth programs. Over the last 7 years to date, EPL has donated \$280,000 towards supporting youth.

Mr. Taylor notes EPL's desire to do more for the environment and support climate change initiatives. To that end, he explains how EPL will be transitioning to paperless billing and digital services. Mandated paperless services will be implemented by January 1, 2021.

Mr. Taylor entertains questions from the Members on the functionality of the electronic billing and digital transformations. The Members offer comments on the potential impact of mandating electronic billing for all of the EPL customers depending on demographics.

Motion: RCM - 32/20

Moved by Deputy Mayor Joe Bachetti

Seconded by Councillor Brian Houston

That Report PRS-2020-03 regarding the 2020 Essex Power Youth In Community Fund and Report FS-2020-04 Essex Powerlines Mandated Paperless Billing **be moved forward** on the agenda for consideration.

Carried

Motion: RCM - 33/20

Moved by Councillor Brian Houston

Seconded by Deputy Mayor Joe Bachetti

That Report PRS-2020-03 regarding the 2020 Essex Power Youth In Community Fund, **be received** for information.

Carried

Motion: RCM - 34/20

Moved by Councillor Brian Houston

Seconded by Councillor Tania Jobin

That Essex Powerlines' Mandated Paperless Billing Initiative for Essex Powerlines Corporation (EPLC) electricity customers **be supported** by Council;

And that proceeds from EPLC's campaign for paperless billing be donated by EPLC to a registered non-profit organization to **be chosen** by Council at a later date.

Carried

2. Curtis Brown, Probe Research Inc.

Re: Findings of Customer Satisfaction Survey

The Director Information & Communication Services introduces Curtis Brown, Probe Research Inc. which conducted the 2019 Customer Satisfaction Survey. Mr. Brown presents the results of the fourth iteration of the Town's survey. Consistent with the previous surveys, the most recent survey produced a very good response. He explains the survey background and methodology. The overall citizen impression was positive. Flooding continues to be the top issue that Tecumseh residents are most concerned about, followed by infrastructure. Crime was also noted as a concern, which has not been identified in the past surveys. Satisfaction with services was at 97% for 2019 which is an excellent result.

Mr. Brown responds to inquiries from the Members regarding the responses captured in relation to traffic and parking. In response to an inquiry regarding improved communications, it was noted that residents were not always aware of the communication tools available to them. While flooding continues to be of concern, the survey is not able to capture that residents may also realize the efforts being made to address flooding in the Town. In response to a query, the Members are advised that there were no questions regarding affordable housing, development and economic development.

Overall, the Members express appreciation for the great "report card" and the efforts of Administration in delivering good quality services to residents.

Motion: RCM - 35/20

Moved by Deputy Mayor Joe Bachetti

Seconded by Councillor Brian Houston

That Report ICS-2020-01 2019 Citizen Satisfaction Survey Results, **be moved forward** on the Agenda for consideration and discussion.

Carried

Motion: RCM - 36/20

Moved by Councillor Brian Houston

Seconded by Councillor Tania Jobin

That the final report from Probe Research Inc. summarizing the results of the 2019 Citizen Satisfaction Survey, **be received**

Carried

J. Communications - For Information

There are no Communications - For Information presented to Council.

K. Communications - Action Required

1. Essex County Federation of Agriculture Letter dated February 6, 2020

Re: Bill 156, Security from Trespass and Protecting Food Safety Act

Motion: RCM - 37/20

Moved by Councillor Tania Jobin

Seconded by Councillor Rick Tonial

That the Essex County Federation of Agriculture letter **be supported;**

And that The Corporation of the Town of Tecumseh **send** a letter of support for the proposed legislation, *Bill 156: Security from Trespass and Protecting Food Safety Act, 2019* to the Honourable Ernie Hardeman, Ministry of Agriculture, Food and Rural Affairs.

Carried

L. Committee Minutes

1. Policies & Priorities Committee Meeting - January 28, 2020

Motion: RCM - 38/20

Moved by Councillor Brian Houston

Seconded by Councillor Tania Jobin

That the January 28, 2020 minutes of the Policies and Priorities Committee Meeting, as were duplicated and delivered to the members, **be adopted.**

Carried

M. Reports

1. Financial Services

- a. FS-2020-02 Financial Management Policy

Motion: RCM - 39/20

Moved by Councillor Brian Houston

Seconded by Deputy Mayor Joe Bachetti

That Report No. FS-2020-02 Financial Management Policy **be received;**

And that the Financial Management Policy as appended to FS-2020-02 **be adopted.**

Carried

- b. FS-2020-04 Essex Powerlines Mandated Paperless Billing

This Report was moved forward on the Agenda for consideration under Delegations item I.1.

2. Information & Communication Services

- a. ICS-2020-01 2019 Citizen Satisfaction Survey

This Report was moved forward on the Agenda for consideration under Delegations item I.2.

3. Parks & Recreation Services

- a. PRS-2020-03 2020 Essex Power Youth In Community Funding

This Report was moved forward on the Agenda for consideration under Delegations item I.1.

4. Planning & Building Services

- a. PBS-2020-04 CIP Grant, 1222 Lesperance Road

Motion: RCM - 40/20

Moved by Councillor Brian Houston

Seconded by Councillor Andrew Dowie

That the Grant Application for the Tecumseh Road Main Street Community Improvement Plan (CIP) Financial Incentive Program, for the property located at 1222 Lesperance Road (Roll No. 374416000007400), **be deemed eligible and approved** for the Planning, Design and Architectural Grant Program in the amount of \$3,000 in relation to the preparation of drawings for the building façade and parking lot improvements proposed for the subject property, all of which is in accordance with Section 11.3 (5) of the CIP and with PBS-2020-04.

Carried

- b. PBS-2020-05 Tecumseh Transit Service, 2019 Review

Motion: RCM - 41/20

Moved by Councillor Bill Altenhof

Seconded by Councillor Rick Tonial

That Report PBS-2020-05, Annual Status Report on the Tecumseh Transit Service for 2019, **be received**.

Carried

5. Public Works & Environmental Services

- a. PWES-2020-05 Traffic Analysis - 2019 Radar Speed Surveys

Increased enforcement and issuance of tickets for speeding, with particular attention around parks is requested.

Motion: RCM - 42/20

Moved by Deputy Mayor Joe Bachetti

Seconded by Councillor Brian Houston

That Report PWES-2020-05 Traffic Analysis – 2019 Radar Speed Surveys, **be received**.

Carried

- b. PWES-2020-06 Amendment to 2020-2024 PWES Five Year Capital Works Plan, St. Mark's Pumping Station - Pump Repair

Motion: RCM - 43/20

Moved by Councillor Brian Houston

Seconded by Councillor Bill Altenhof

That the St. Mark's Pumping Station – Pump Repair capital project **be added** to the 2020-2024 PWES Five Year Capital Works Plan;

And that the amount of \$36,433 excluding HST **be authorized and funded** out of the Storm Sewer Lifecycle Reserve.

Carried

- c. PWES-2020-07 Ontario Ministry of Transportation Authorized Requester Information Services Access to Collision Data

Motion: RCM - 44/20

Moved by Councillor Bill Altenhof

Seconded by Councillor Rick Tonial

That a by-law **be prepared** to authorize the Mayor and Clerk to execute an Authorized Requester Agreement for Access to Motor Vehicle Collision Data between the Ontario Ministry of Transportation and The Corporation of the Town of Tecumseh.

Carried

- d. PWES-2020-09 2020 Supply of Various Vehicles

Motion: RCM - 45/20

Moved by Councillor Andrew Dowie

Seconded by Councillor Tania Jobin

That Administration obtain quotations for the 2020 Supply of Various Vehicles as follows:

Public Works Vehicle Estimated Price

PW 07-11-3500 Dump Body \$65,000

PW 04-10 Single Axle Plow Truck \$275,000

Water Vehicle Estimated Price

W 04-12 2500 Service Truck \$60,000

WE 10-04 Trailer **previously approved** \$2,600

Parks Vehicle Estimated Price

P 12-09 Kubota B3030 Tractor \$35,000

P31-16 Jacobson R311T Mower \$80,000

P 22-14 Landscape Trailer \$6,000

P 23-12 Landscape Trailer \$7,500

P (32-34) -17 Kubota ZD1211 Mower (3) \$54,000

P 35-17 Kubota ZD 1211 Mower \$19,000

P 41-05 Aerator \$10,000

Building Vehicle Estimated Price

B 02-10 1500 Pickup Truck \$30,000

Recreation Vehicle Estimated Price

AE 04-98 Zamboni-**previously approved** \$110,000

M 03-20 1500 Pickup Truck-**addition to fleet** \$30,000

And that the following equipment **be declared** surplus and disposed of through Part VI, Disposal of Surplus or Scrap Materials and Equipment of the Town's Purchasing By-law:

Public Works Vehicle Unit Number Year Purchased

PW 07-11 3500 Dump Body PW 07-112011

PW 04-10 Single Axle Plow PW 04-102009

Water Vehicle Unit Number Year Purchased

W 04-12 2500 Service Truck W 04-122012

WE 10-04 Trailer WE 10-042004

Parks Vehicle Unit Number Year Purchased

P 12-09 Kubota B3030 Tractor P 12-092009

P31-16 Jacobson R311T Mower P31-162016

P 22-14 Landscape Trailer P 22-142014

P 23-12 Landscape Trailer P 23-122012

P (32-34)-17 Kubota ZD1211 Mower (3) P (32-34)-172017

P 35-17 Kubota ZD 1211 Mower P35-172017

P 41-05 AeratorP41-052004

Recreation Vehicle Unit Number Year Purchased

AE 04-98 Zamboni AE 04-981998

Building Vehicle Unit Number Year Purchased

B 02-10B 02-102010

And further that Appendix 'A' Town of Tecumseh 2020 – 2029 Ten Year Fleet Funding and Replacement Schedules and Appendix 'B' Town of Tecumseh 2020 – 2029 Ten Year Fire and Rescue Services Apparatus Funding and Replacement Schedules attached to Report PWES-2020-09, **be adopted** as amended and attached;

And furthermore that the purchase of the 2020 Supply of Various Vehicles of \$784,100 plus associated costs for outfitting of \$13,500, for a total of \$797,600, **be funded** from the Fleet Lifecycle Reserve.

Carried

- e. PWES-2020-11 Proposed Changes to the Drainage Act

Motion: RCM - 46/20

Moved by Councillor Bill Altenhof

Seconded by Councillor Brian Houston

That Report PWES-2020-11 *Drainage Act*, Summary of Proposed Changes and Administrative Comments, **be received**;

And that Report PWES-2020-11 **be submitted** to the Ontario Ministry of Agriculture, Food and Rural Affairs as comments from the Town of Tecumseh on the proposed changes to the *Drainage Act*.

Carried

N. By-Laws

1. By-law 2020-11

Being a By-law to adopt a revised Code of Conduct for Members of Tecumseh Council and Local Boards

2. By-Law 2020-12

A By-law to Appoint an Alternate Member to the Council of the County of Essex during an absence of the Mayor or Deputy Mayor

3. By-Law 2020-13

A By-law to govern the proceedings of Council and its committees/local boards, the conduct of its members and the calling of meetings

4. By-Law 2020-14

Being a By-law to approve a two year Pilot Program for Licensing Urban Hens

Motion: RCM - 47/20

Moved by Councillor Andrew Dowie

Seconded by Deputy Mayor Joe Bachetti

That By-Law 2020-11 being a by-law to adopt a revised Code of Conduct for Members of Tecumseh Council and Local Boards;

That By-Law 2020-12 being a by-law to Appoint an Alternate Member to the Council of the County of Essex during the absence of the Mayor or Deputy Mayor;

That By-Law 2020-13 being a by-law to govern the proceedings of Council and its committees/local boards, the conduct of its members and the calling of meetings;

That By-Law 2020-14 being a by-law to approve a two-year Pilot Program for Licensing Urban Hens.

Be given first and second reading.

Carried

Motion: RCM - 48/20

Moved by Deputy Mayor Joe Bachetti

Seconded by Councillor Brian Houston

That By-Law 2020-11 being a by-law to adopt a revised Code of Conduct for Members of Tecumseh Council and Local Boards;

That By-Law 2020-12 being a by-law to Appoint an Alternate Member to the Council of the County of Essex during the absence of the Mayor or Deputy Mayor;

That By-Law 2020-13 being a by-law to govern the proceedings of Council and its committees/local boards, the conduct of its members and the calling of meetings;

That By-Law 2020-14 being a by-law to approve a two-year Pilot Program for Licensing Urban Hens.

Be given third and final reading.

Carried

O. Unfinished Business

1. February 11, 2020

The Members receive the Unfinished Business listing for Tuesday, February 11, 2020.

P. New Business

OPP Traffic Enforcement

A resident who was running in the area of Arlington Boulevard and St. Gregory's Road witnessed, on three different occasions, vehicles which did not stop at the intersection and in one instance turned left on to Kensington Boulevard which is

a one-way street. Traffic enforcement by the OPP in this area is requested to monitor vehicles not abiding by the stop sign at the intersection.

Sidewalk Cleaning During Winter Months Policy

A request is made for an amendment to Policy 48/03 regarding sidewalk snow removal by deleting the wording 'north side from' in reference to Riverside Drive, under Schedule A. This request is referred to the Policies & Priorities Committee.

McAuliffe Park

The Members convey the vandalism in McAuliffe Park is unacceptable and it is hoped that the Parks & Recreation Services Department will be able to repair and have the area ready for spring. An inquiry is made regarding the status of identifying additional parking in the area, including roadside parking during peak soccer months. The Director Parks & Recreation Services explains that a Public Information Centre (PIC) will be held in March in order to advise residents of options to address parking overflow at McAuliffe Park and to receive feedback on those options. A report will be presented to Council summarizing the residents' feedback and offering recommendations, following the PIC.

Q. Motions

1. Confirmatory by-law

a. By-Law 2020-15

Being a by-law to confirm the proceedings of the February 11, 2020 regular meeting of the Council of The Corporation of the Town of Tecumseh

Motion: RCM - 49/20

Moved by Councillor Brian Houston

Seconded by Councillor Rick Tonial

That By-Law 2019-15 being a by-law to confirm the proceedings of the Tuesday, February 11, 2020, regular meeting of the Council of The Corporation of the Town of Tecumseh **be given** first, second, third and final reading.

Carried

R. Notices of Motion

There are no notices of motion presented to Council.

S. Next Meeting

Tuesday, February 25, 2020

5:00 pm Special Council Meeting - New Official Plan Preliminary Review

7:00 pm Regular Council Meeting

T. Adjournment

Motion: RCM - 50/20

Moved by Councillor Bill Altenhof

Seconded by Councillor Rick Toniai

That there being no further business, the Tuesday, February 11, 2020 meeting of the Regular Council **be adjourned** at 8:51pm.

Carried

Gary McNamara, Mayor

Laura Moy, Clerk

Public Meeting of Council

Minutes

Date: Tuesday, February 11, 2020
Time: 5:00 pm
Location: Tecumseh Arena - Horwood Room, 1st Floor
12021 McNorton Street
Tecumseh, ON N8N 3C7

Present:

Mayor, Gary McNamara
Deputy Mayor, Joe Bachetti
Councillor, Bill Altenhof
Councillor, Andrew Dowie
Councillor, Brian Houston
Councillor, Tania Jobin

Absent:

Councillor, Rick Tonial

Also Present:

Chief Administrative Officer, Margaret Misk-Evans
Director Parks & Recreation Services, Paul Anthony
Director Public Works & Environmental Services, Phil Bartnik
Director Fire Services & Fire Chief, Wade Bondy
Director Planning & Building Services, Brian Hillman
Director Financial Services & Chief Financial Officer, Tom Kitsos
Director Corporate Services & Clerk, Laura Moy
Manager Committee & Community Services, Christina Hebert
Manager Planning Services, Chad Jeffery
Manager Strategic Initiatives, Lesley Reeves

A. Roll Call

B. Call to Order

The Mayor calls the meeting to order at 5:09 pm.

C. Disclosure of Pecuniary Interest

Deputy Mayor Joe Bachetti declares a pecuniary interest in the subject of Official Plan and Zoning By-law Amendment applications. His parents own property within this application vicinity.

D. Introduction and Purpose of Meeting

The purpose of the second public meeting is to receive comments on the revised **Official Plan and Zoning Bylaw amendment applications** for the 0.66 hectare (1.63 acre) **parcel of land located on the northeast corner of the County Road 42 and Lesperance Road intersection**. The subject property is currently designated “Neighbourhood Commercial” in the Sandwich South Official Plan. The revised Official Plan amendment application proposes to redesignate the subject property to a “Medium Density Residential” designation with a site-specific policy that would allow for the construction of a residential development consisting of four six-unit, three-storey multi-unit dwellings, for a total of 24 dwelling units. The purpose of the associated Zoning By-law amendment was to change the zoning pertaining to the subject property from “General Commercial Zone (C1)” to a site-specific “Residential Zone 2 (R2)” to permit the proposed residential uses and establish site-specific zone provisions, such as minimum yard depths and height.

This second public meeting is to review the revised proposal and to summarize how issues identified at the first public meeting are proposed to be addressed.

E. Delegations

The Manager Planning Services provides an overview of the original proposal for the subject property and the concerns raised at the first Public Meeting, held on September 25, 2018, regarding traffic. In addition, he explains the comments provided by the County of Essex Infrastructure Services (IS) regarding access to the subject property.

As a result, a new proposal has been submitted for a residential development for the entire property which includes four six-unit, three-storey dwellings for a total of twenty-four (24) dwelling units. The commercial component has been removed from the proposal. The revised proposal includes an access drive that meets the IS's requirements.

He advises that the proposal has been reviewed with respect to traffic impact and servicing by the Town's consultants and no concerns have been identified. Furthermore, there are no adverse impacts with respect to compatibility with the surrounding land uses. The setbacks will not impact the abutting properties.

1. Jeff Sylvestre, James Sylvestre Enterprises 2003

Jeff Sylvestre conveys James Sylvestre Enterprises 2003 supports the proposed development and only concern is with respect to the capacity of the sanitary sewers. He suggests the work be done in phases if the sanitary sewers will be experiencing more flow than originally anticipated.

The Director Public Works & Environmental Services advises he met with Mr. Sylvestre last week and the County of Essex is looking to twin the sanitary sewers, which is timely as the Town is updating the sanitary sewer model to

ensure sufficient servicing to adjacent lands. He notes with respect to the subject property there will be an analysis provided with the next Planning report to Council with further recommendations.

Manager Committee & Community Services Christina Hebert joined the meeting at 5:08 pm.

F. Communications

1. Notice of Public Meeting No. 2
Re: Proposed Official Plan Amendment and Zoning By-Law Amendment

2. County of Essex Letter dated January 31, 2020
Re: Proposed Official Plan Amendment and Zoning By-Law Amendment, 2023324 Ontario Inc., Part Lot 152, Concession 3, Parts 2 & 3, 12R-20271, Municipal No. 12300, North Side of County Road No. 42

Motion: PCM - 10/20

Moved By Councillor Brian Houston

Seconded By Councillor Tania Jobin

That Communications - For Information 1 and 2 as listed on the Tuesday, February 11, 2020 Public Council Meeting Agenda, **be received**.

Carried

G. Reports

1. PBS-2020-06 D19 BASHI, Results of Public Meeting No. 1 and Proposed Revisions to Applications

Motion: PCM - 11/20

Moved By Councillor Bill Altenhof

Seconded By Councillor Andrew Dowie

That PBS-2020-06, Results from Public Meeting No. 1 and Proposed Revisions to Applications, Proposed Official Plan Amendment and Zoning By-Law Amendment, F&S Enterprises Multi-Unit Residential Development, 12300 County Road 42, **be received**;

And further that, subject to the input received during the second public meeting, draft Official Plan Amendment and Zoning By-law Amendment documents **be prepared** for consideration for adoption at a future Regular Council Meeting.

Carried

H. Adjournment

Motion: PCM - 12/20

Moved By Councillor Brian Houston

Seconded By Councillor Bill Altenhof

That there being no further business, the Tuesday, February 11, 2020 meeting of the Public Council Meeting **be adjourned** at 5:25 pm.

Carried

Gary McNamara, Mayor

Laura Moy, Clerk

JAN 23 2020

Town of Tecumseh

File No.: 37-OP-2018-006
Municipality: Town of Lakeshore
Subject Lands: North of Amy Croft Dr. and east of Manning Road

Date of Decision: January 17, 2020
Date of Notice: January 17, 2020
Last Date of Appeal: February 6, 2020

NOTICE OF DECISION

With respect to an Official Plan Amendment
 Subsection 17(35) and 21 of the Planning Act

A decision was made on the date noted above to approve Amendment No. 13 to the Official Plan for the Town of Lakeshore, as adopted by By-law 92-2018. The approval authority considered all submissions received on this application, the effect of which helped the approval authority make an informed decision.

Purpose and Effect of the Official Plan Amendment

The purpose of Official Plan Amendment No. 13, Amy Croft Secondary Plan is to update the planning framework, by identifying the planned road network and required improvements to ensure that development proceeds in a logical and phased manner, and introduce landowner cost sharing and coordination policies. The Secondary Plan will ensure that costs associated with the required infrastructure improvements are equitably shared amongst the benefitting landowners, and allow the Town to review and respond to planning applications for the development of the Secondary Planning Area. The Amendment pertains to a 27.5 hectare site and is a mixed use development area with some existing buildings and vacant lands. A copy of the decision is attached.

When and How to File An Appeal

Notice to appeal the decision to the Local Planning Appeal Tribunal (LPAT) must be filed with the County of Essex no later than 20 days from the date of this notice as shown above as the last date of appeal.

The notice of appeal should be sent to the attention of the Manager, Planning Services at the address shown below and it must,

- (1) include a completed **Appellant Form (A1)** **Planning Act** available from the LPAT website www.elfto.gov.on.ca, and
- (2) be accompanied by the prescribed filing fee in the amount of \$300.00 payable by certified cheque or money order to the Minister of Finance.

Who Can File An Appeal

Only individuals, corporations or public bodies may appeal a decision of the approval authority to the LPAT. A notice of appeal may not be filed by an unincorporated association or group. However, a notice of appeal may be filed in the name of an individual who is a member of the association or group on its behalf.

No person or public body shall be added as a party to the hearing of the appeal unless, before the amendment was adopted, the person or public body

made oral submissions at a public meeting or written submissions to the Council or, in the opinion of the LPAT, there are reasonable grounds to add the person or public body as a party.

When the Decision is Final

The decision of the County of Essex is final if a Notice of Appeal is not received on or before the last date of appeal noted above.

Getting Additional Information

Additional information about the amendment, including a complete version of the amendment, is available for public inspection during regular office hours at the County of Essex at the address noted below or from the Town of Lakeshore.

Mailing Address for Filing a Notice of Appeal:

County of Essex
 360 Fairview Avenue West
 Essex, ON N8M 1Y6

Submit notice of appeal to the attention of:

Rebecca Belanger, Manager – Planning Services
 Tel: (519) 776-6441, Ext. 1325
 Fax: (519) 776-4455

DECISION

**With respect to Official Plan Amendment No. 13
Official Plan of the Town of Lakeshore
Subsection 17(34) of the Planning Act**

I hereby approve Amendment No. 13 to the Official Plan for the Town of Lakeshore, as adopted by By-Law 92-2018.

Dated at Essex, Ontario this 17th of January 2020

ORIGINAL SIGNED

Rebecca Belanger, MCIP, RPP
Manager, Planning Services
County of Essex

February 10, 2020

Please be advised that during the regular meeting of Council on February 4, 2020 the following motion was carried;

RESOLUTION NO. 2020-058

DATE: February 4, 2020

MOVED BY: Councillor Prinzen

SECONDED BY: Councillor Bailey

Council's support for Bill 156, Security from Trespass and Protecting Food Safety Act (enforcement for safety on family farms)

WHEREAS the Township of Warwick, and many other municipalities have passed resolutions of support for Bill 156, Security from Trespass and Protecting Food Safety Act;

AND WHEREAS agriculture is the second largest industry in Ontario, contributing \$13.7 billion annually to Ontario's GDP and is essential for putting food on the tables of millions of people here and around the world;

AND WHEREAS in recent months there has been a steady increase in harassment of farmers and livestock transporters by activists opposed to animal agriculture and the consumption of animals;

AND WHEREAS maintaining proper biosecurity is essential to ensure the health and well-being of the animals cared for on these agricultural operations;

AND WHEREAS the recent attacks on farmers homes and businesses have resulted in no criminal charges laid, leaving farmers feeling unprotected by the Ontario legal system and afraid for the welfare of themselves, their families, their employees and the animals they care for;

NOW THEREFORE BE IT RESOLVED

1. **THAT** the Council for the Corporation of The County of Prince Edward requests that Hon. Doug Downey work with MPP's and agricultural leaders to find a way forward to ensure stronger enforcement of existing laws - or new legislation - to ensure the safety of Ontario's farm families, employees and animals;
2. **AND THAT** this resolution be circulated to Hon. Doug Downey, Attorney General of Ontario; Hon. Doug Ford, Premier of Ontario; Hon. Sylvia Jones, Solicitor General and Hon. Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs; AMO; and ROMA.



Mayor





February 13, 2020

To:

The Honourable Doug Ford, Premier of Ontario,
The Honourable Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs,
The Honourable Steve Clark, Minister of Municipal Affairs and Housing,
Andrea Horwath, Leader of the New Democratic Party of Ontario,
John Fraser, Interim Leader of the Liberal Party of Ontario,
Mike Schreiner, Leader of the Green Party of Ontario,
Monte McNaughton, MPP, Middlesex-Kent;
Association of Municipalities of Ontario; and
Ontario municipalities

RE: Southwest Middlesex Resolution regarding Government Bill 156

Please be advised that at its February 12, 2020 meeting, the Council of the Municipality of Southwest Middlesex passed the following resolution regarding Bill 156, *Security from Trespass and Protecting Food Safety Act, 2019*:

Moved by Councillor McGill
Seconded by Councillor Cowell

Whereas the Provincial Government of Ontario is considering Bill 156, *Security from Trespass and Protecting Food Safety Act, 2019*; and

Whereas Bill 156 is intended to protect farms, farm operations, and food safety and security by addressing unwanted trespassing; and

Whereas Ontario farmers are increasingly under threat of unwanted trespassers who are illegally entering property, barns and buildings, and safety of drivers of motor vehicles transporting farm animals which threatens the health and safety of the farm, employees, livestock and crops; and

Whereas additional protection for the agri-food industry to protect the security of the food chain, the farm owners, family and employees is the purpose of the *Security from Trespass and Protecting Food Safety Act, 2019*; and

Whereas unwanted trespassing occurs on all types of farm operations, including grain farmers, which has the potential to impact the safety and security of people and the food chain;

Now Therefore Be It Resolved That the Municipality of Southwest Middlesex supports the intent of Bill 156 and requests that the Province of Ontario expanding Bill 156 to identify and include protections against trespass for grain farm operations; and

That a copy of this Motion be sent to the Honourable Doug Ford, Premier of Ontario, The Honourable Ernie Hardeman, Minister of Agriculture, Food and Rural Affairs, the Honourable Steve Clark, Minister of Municipal Affairs and Housing, Andrea Horwath, Leader of the New Democratic Party of Ontario, John Fraser, Interim Leader of the Liberal Party of Ontario, Mike Schreiner, Leader of the Green Party of Ontario, and Monte McNaughton, MPP, Middlesex-Kent; and

That a copy of this motion be sent to the Association of Municipalities of Ontario (AMO), and Ontario municipalities.

Carried



The Corporation of the Township of Madoc

15651 Highway 62, P.O. Box 503, Madoc, Ontario K0K 2K0

www.madoc.ca

613-473-2677

Fax: 613-473-5580

February 11, 2020

Hon. Ernie Hardeman
Minister of Agriculture, Food & Rural Affairs
77 Grenville Street, 11th Floor
Toronto, Ontario M5S 1B3

Via Email: minister.omafra@ontario.ca

Dear Minister Hardeman,

Ontario farms have come under increasing threat from trespassers and activists who illegally enter property, barns and buildings, causing significant disruptions to the entire agri-food sector. These activists are trespassing under fake pretenses to gain entrance onto farm properties. They have seized private property and threatened the health and safety of Ontario farms, employees, livestock and crops. These individuals and organizations are causing health and safety concerns and undue stress to Ontario farmers, their families and their businesses. Once peaceful protests have escalated to trespassing, invading, barn break-ins and harassment. These incidents distress farmers, their families and employees, and threaten the health of the livestock and crops when activists breach biosecurity protocols, ultimately putting the entire food system at risk.

We strongly support the new proposed legislation, *Bill 156: Security from Trespass and Protecting Food Safety Act*. This new legislation is an important way to keep our farm and food supply safe for all Ontarians. Bill 156 provides a balanced approach to protecting farms while recognizing a citizen's right to protest. This new legislation will ensure farm businesses have a legal standing to protect their farm, family and employees, livestock, crops and ultimately the entire food system. *Bill 156: Security from Trespass and Protecting Food Safety Act* is good news for Ontario's agri-food industry

Sincerely,

Loyde Blackburn
Reeve, Madoc Township



2021 Division Road North
Kingsville, Ontario N9Y 2Y9
Phone: (519) 733-2305
www.kingsville.ca
kingsvilleworks@kingsville.ca

SENT VIA EMAIL (kevinh@quintewest.ca)

February 12, 2020

City of Quinte West
P. O. Box 490
Trenton, ON K8V 5R6

Attn: Kevin Heath, Manager of Corporate Services/City Clerk

Dear Mr. Heath:

**RE: KINGSVILLE TOWN COUNCIL SUPPORT OF CITY OF QUINTE WEST COUNCIL'S
RESOLUTION ON CONSERVATION AUTHORITY LEVIES**

At its Regular Meeting held Monday, January 27, 2020, Council of The Corporation of the Town of Kingsville supported City of Quinte West's Resolution passed January 13, 2020 as follows:

"74-2020

Moved By Councillor Laura Lucier

Seconded By Councillor Larry Patterson

WHEREAS the Town of Kingsville has been well served by the Essex Region Conservation Authority;

AND WHEREAS we have a working service agreement with the Authority;

AND WHEREAS we value the efforts of the Conservation Authority to monitor floods, to manage source water protection and to ensure the integrity of the watershed within our municipality and conserve our natural environment;

AND WHEREAS the Provincial government is reviewing the mandate and potential funding to Conservation Authorities;

BE IT RESOLVED THAT the Town of Kingsville supports the resolution of the City of Quinte West passed January 13, 2020 requesting that the Provincial Government improve their funding of Conservation Authorities to provide a more stable funding base that would prevent any downloading of costs to municipalities;

AND FURTHER THAT the Provincial Government will maintain and not diminish the core mandate of Conservation Authorities;

AND FURTHER THAT we forward this motion to the Minister of Environment, Conservation and Parks, the Minister of Natural Resources, the Premier, the Leaders of all opposition parties, all of our local municipal partners, and AMO to seek their support and concurrence.

CARRIED”

A copy of Mayor Harrison’s correspondence dated January 15, 2020 to Mr. McGarvey, AMO President, is enclosed.

Yours very truly,

A handwritten signature in blue ink, appearing to read "Jennifer Astrologo".

Jennifer Astrologo, Director of Corporate Services/Clerk
Corporate Services Department

Enclosure

cc: Doug Ford, Premier of Ontario
cc: Jeff Yurek, Minister of Environment, Conservation and Parks
cc: Hon. John Yakabuski, Minister of Natural Resources
cc: Andrea Horwath, Leader of Opposition Party
cc: C. Lewis, MP Essex
cc: T. Natyshak, MPP Essex
cc: AMO
cc: County of Essex
cc: Town of Amherstburg
cc: Town of Essex
cc: Town of Lakeshore
cc: Town of LaSalle
cc: Municipality of Leamington
cc: Town of Tecumseh
cc: Conservation Ontario
cc: Essex Region Conservation Authority

CITY OF QUINTE WEST

*Office of the Mayor
Jim Harrison*



**P.O. Box 490
Trenton, Ontario, K8V 5R6**

**TEL: (613) 392-2841
FAX: (613) 392-5608**

January 15, 2020

Mr. Jamie McGarvey, President
Association of Municipalities of Ontario
200 University Ave., Suite 801
Toronto, Ontario M5H 3C6

RE: Resolution – Conservation Authorities

Dear Mr. Jamie McGarvey:

This letter will serve to advise that at a meeting of City of Quinte West Council held on January 13, 2020 Council passed the following resolution:

Moved by Cassidy
Seconded by Alyea

Whereas the City of Quinte West has been well served by both the Lower Trent Conservation Authority and the Quinte Conservation Authority and

Whereas we have working service agreements with both Authorities and

Whereas we value the efforts of the Conservation Authorities to monitor floods, to manage source water protection and to ensure the integrity of the watersheds within our municipality and conserve our natural environment and

Whereas the current Provincial government is reviewing the mandate and potential funding to Conservation Authorities

Be it resolved that the City of Quinte West requests that the Provincial Government improve their funding of Conservation Authorities to provide a more stable funding base that would prevent any downloading of costs to municipalities

And further that the Provincial Government will maintain and not diminish the core mandate of Conservation Authorities

And further that we forward this motion to the Minister of Environment, Conservation and Parks, the Minister of Natural Resources, the Premier, the Leaders of all opposition parties, all of our local municipal partners, and AMO to seek their support and concurrence. **Carried**

We trust that you will give favourable consideration to this request.

Sincerely,

CITY OF QUINTE WEST

A handwritten signature in black ink, appearing to read "Jim Harrison", with a large, sweeping flourish at the end.

Jim Harrison
Mayor



The Corporation of the Township of Madoc

15651 Highway 62, P.O. Box 503, Madoc, Ontario K0K 2K0

www.madoc.ca

613-473-2677

Fax: 613-473-5580

The Honourable Doug Ford
Premier of Ontario
Premier's Office
Room 281
Legislative Building
Queen's Park
Toronto, ON M7A 1A1

Dear Premier:

Re: Resolution from the Township of Springwater – Conservation Authorities

Please be advised that the Township of Madoc Council passed the following motion to support the resolution of the Township of Springwater regarding the Conservation Authority Levies, attached.

Motion # 19-610

Moved by: Councillor Beaton

Seconded by: Deputy Reeve Rollins

That Council direct the Clerk/Planning Coordinator to write a letter of support, supporting the resolution of the Township of Springwater regarding the Conservation Authority Levies

-Carried-

Sincerely,

Amanda Cox
Clerk/Planning Coordinator
Township of Madoc



The Honourable Doug Ford
Premier of Ontario
Premier's Office
Room 281
Legislative Building
Queen's Park
Toronto, ON M7A 1A1

Dear Premier:

November 29th 2019

Re: Resolution from the Township of Springwater – Conservation Authority Levies

Please be advised that on November 27th the Town of Plympton-Wyoming Council passed the following motion to support the Township of Springwater motion (attached) that was passed on October 16th 2019.

Motion #7 – Moved by Bob Woolvett, Seconded by Gary Atkinson that the Council of the Town of Plympton-Wyoming supports the resolution of the Township of Springwater regarding the Conservation Authority Levies.

Motion Carried.

If you have any questions regarding the above motion, please do not hesitate to contact me at the number above or by email at ekwarciak@plympton-wyoming.ca.

Sincerely,

Erin Kwarciak
Clerk
Town of Plympton-Wyoming

Cc: Renee Chaperon, Clerk – Township of Springwater
The Honourable Doug Ford, Premier of Ontario
Jeff Yurek, Minister of Environment, Conservation and Parks
Conservation Ontario
All Ontario Municipalities
Association of Municipalities of Ontario (AMO)

October 21, 2019

Nottawasaga Valley Conservation Authority
8195 8th Line
Utopia ON, L0M 1T0

RE: Conservation Authority Levies

Please be advised that at its meeting of October 16, 2019, Council of the Township of Springwater passed the following resolution:

C456-2019

Moved by: Coughlin
Seconded by: Cabral

Whereas the Township of Springwater supports the objects of balance on conservation, environmental stewardship, and sustainability to anchor its operations, planning, services, and strategic vision;

And Whereas the Township of Springwater understands the need for both the Province and its municipalities to deliver clear, costed, and sustainable programs and services for taxpayers;

And Whereas both tiers of government must assess all programs and services to eliminate duplication and balance costs on tests of affordability, health, safety, and environmental stewardship;

And Whereas the Minister of Environment, Conservation, and Parks signaled on August 16, 2019 of a need for conservation authorities to re-focus their operations related to core mandates as currently defined in the Conservation Authorities Act, 1990, R.S.O. 1990, c. C.27 and its prescribed regulations;

And Whereas the Minister of Environment, Conservation, and Parks signaled on August 16, 2019 that Conservation Authorities should not proceed with any increases to fees or levies;

Therefore Be It Resolved That the Township of Springwater supports any Provincial effort to require its municipal levy only apply to core mandated programs and services;

And That this resolution be forwarded to Premier Doug Ford, the Minister of the Environment, Conservation, and Parks, the Honourable Jeff Yurek, the County of Simcoe, all Ontario municipalities, the NVCA and Ontario's other 35 Conservation Authorities, and Conservation Ontario, signaling the Township of Springwater's

support of the Province's review, consultations and development of an updated Conservation Authorities Act and the willingness to participate in all consultations and submissions to the same.

Carried

Sincerely,



Renée Chaperon
Clerk
/cp

cc. Doug Ford, Premier of Ontario
Jeff Yurek, Minister of Environment, Conservation and Parks
The County of Simcoe
Conservation Ontario
Ontario municipalities
Ontario Conservation Authorities

Phone: 705-728-4784
Ext. 2015

Clerk's Department

Fax: 705-728-6957



Northumberland County

Resolution

Moved By

Agenda
Item 8b

Resolution No.
2020-02-19-55

Last Name Printed

Ostrander

Seconded By

Council Date: February 19, 2020

Last Name Printed

Latchford

"Whereas Northumberland County supports the important role that conservation authorities provide, including watershed management programs; and

Whereas Northumberland County believes that the Province should undertake consultations with municipalities prior to making any program or funding changes;

Now Therefore Be It Resolved That County Council receive the supporting resolutions from Ontario municipalities (including the Town of Orangeville, the Town of Collingwood and the Municipality of Strathroy-Caradoc; and

Further Be It Resolved That this resolution be forwarded to: Premier Doug Ford, the Minister of the Environment, Conservation and Parks, MPP David Piccini, the Association of Municipalities of Ontario, the Ganaraska Conversation Authority, the Lower Trent Conversation Authority, the Crowe Valley Conservation Authority and the Otonabee Region Conservation Authority, and all Ontario municipalities."

Recorded Vote
Requested by

Councillor's Name

Carried

Warden's Signature

Deferred

Warden's Signature

Defeated

Warden's Signature

Ellis, Maddison

From: Tracy MacDonald <tmacdonald@orangeville.ca>
Sent: Monday, January 27, 2020 6:34 PM
Subject: Resolution - Environmental Awareness and Action

CAUTION: External E-Mail

Good afternoon,

The Town Orangeville passed the following resolution at its January 13, 2020 Council meeting:

13.1 Councillor Peters – Environmental Awareness and Action

Resolution 2020-14

Moved by Councillor Peters
Seconded by Councillor Post

That the Town of Orangeville supports continuation of the programs and services of the CVC, both mandatory and non-mandatory, and that no programs or services of the CVC or other CAs in Ontario be “wound down” at this time; and

That the Minister of the Environment, Conservation, and Parks give clear direction as to what programs and services are considered mandatory and non-mandatory and how those programs will be funded in the future; and

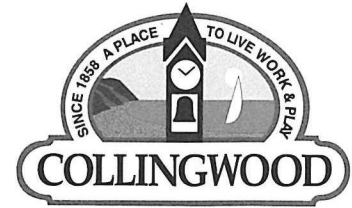
That the Minister of the Environment, Conservation, and Parks recognizes the strong and positive Provincial role Conservation Authorities (CAs) play in flood risk reduction programs and reinstates funding to the CAs of Ontario; and

That this resolution be forwarded to the Minister of the Environment, Conservation, and Parks, Premier Doug Ford, MPP Sylvia Jones, the Association of Municipalities of Ontario, the Credit Valley Conservation Authority, Conservation Ontario, and all Ontario municipalities.

Carried.

Regards,

Tracy Macdonald | Assistant Clerk | Corporate Services
Town of Orangeville | 87 Broadway | Orangeville ON L9W 1K1
519-941-0440 Ext. 2256 | Toll Free 1-866-941-0440 Ext. 2256
tmacdonald@orangeville.ca | www.orangeville.ca



TOWN OF COLLINGWOOD

Becky Dahl, Deputy Clerk

97 Hurontario St. P.O. Box 157

Collingwood, ON L9Y 3Z5

Tel: (705) 445-1030 Ex. 3230

Fax: (705) 445-2448

Email: bdahl@collingwood.ca

January 21, 2020

The Honourable Jeff Yurek
Minister of Environment, Conservation and Parks
College Park 5th Floor, 777 Bay Street
Toronto, ON M7A 2J3

Re: Conservation Authorities

On behalf of the Council for the Corporation of the Town of Collingwood, I write to advise you of the following recommendation approved at its meeting held on January 20, 2020 for your consideration:

WHEREAS the Town of Collingwood has recently declared a Climate Emergency;

AND WHEREAS the Town of Collingwood has committed to nine core principles of sustainability;

AND WHEREAS the Town of Collingwood is a beneficiary of the upstream environmental remediation work done by the Nottawasaga Valley Conservation Authority (NVCA);

AND WHEREAS the Town of Collingwood is a member of the NVCA, with representation on its Board of Directors;

AND WHEREAS under the direction of the Board of Directors, the NVCA provides programs and services addressing local priorities to the residents of Collingwood and its other member municipalities, including inclusive outdoor education and recreation, water quality monitoring, preservation of species at risk as well as protecting life and property through a variety of measures;

AND WHEREAS the NVCA provides the Town of Collingwood with expert advice on the environmental impact of land use planning proposals and that the Municipality does not have staff with comparable expertise or experience;

AND WHEREAS the Ministry of the Environment, Conservation and Parks provides approximately one percent of the budget for programs and services currently delivered by the NVCA;

THEREFORE BE IT RESOLVED THAT the Town of Collingwood supports Conservation Authority regulations under Bill 108 being completed in consultation with municipalities, the NVCA and Conservation Ontario;

AND THAT the Town of Collingwood supports continuation of the critical programs and services included in the mandate of Conservation Authorities;

AND THAT during the fulsome review and consultations the Minister of Environment, Conservation and Parks continue to allow local municipalities' designated representatives

to determine which programs will be delivered and mandatory, along with the use of a Board-directed fair municipal levy as per current Regulation;

AND THAT this resolution be forwarded to the Minister of the Environment, Conservation and Parks, Premier Doug Ford, MPP Jim Wilson, the Association of Municipalities of Ontario, Nottawasaga Valley Conservation Authority, Conservation Ontario, all Ontario municipalities, and the County of Simcoe.

Should you require anything further, please do not hesitate to contact the undersigned at 705-445-1030 ext. 3230 or clerk@collingwood.ca.

Yours truly,

~~TOWN OF COLLINGWOOD~~



Becky Dahl
Deputy Clerk, Clerk Services

c.c. Premier Doug Ford
Jim Wilson, MPP
Association of Municipalities of Ontario
Nottawasaga Valley Conservation Authority
Conservation Ontario
County of Simcoe
Ontario municipalities

Ellis, Maddison

From: Ruth Alcaininho <ralcaininho@strathroy-caradoc.ca>
Sent: Friday, January 24, 2020 10:50 AM
To: minister.mecp@ontario.ca; admin@ltvca.ca
Subject: Strathroy-Caradoc Regular Council Meeting January 20, 2020 - Approval of Resolution LTVC - Watershed Management Programs

CAUTION: External E-Mail

Please be advised the following resolution sent to member municipalities of the Lower Thames Valley Conservation Authority, was presented for consideration by Council at their regular meeting of Monday, January 20, 2020 and approved as follows:

Moved by Councillors Brennan and Kennes:

WHEREAS Conservation Authorities have been protecting people and conserving and restoring watersheds with local communities for over 50 years; and

WHEREAS Municipalities must work together to ensure resilient and healthy watersheds for residents, and

WHEREAS Conservation Authorities will be important partners in concrete and cost-effective initiatives to address climate change,

THEREFORE BE IT RESOLVED THAT: the Municipality of Strathroy-Caradoc supports the important role Conservation Authorities provide to local communities in delivering watershed management programs; and that this resolution be circulated to Municipalities, Conservation Authorities and the Provincial Government (Minister of Environment, Conservation and Parks), in Ontario. **Carried.**

Kind Regards,

Ruth

Ruth Alcaininho
Deputy Clerk/Insurance Co-Ordinator
Legal & Legislative Services
Tel: 519-245-1105 Ext 237
Fax: 519-245-6353
Email: ralcaininho@strathroy-caradoc.ca



Legal & Legislative Services
Municipality of Strathroy-Caradoc
52 Frank Street | Strathroy, ON | N7G 2R4

Visit us online at www.strathroy-caradoc.ca

Solicitor General

Office of the Solicitor General

25 Grosvenor Street, 18th Floor
Toronto ON M7A 1Y6
Tel: 416 325-0408
MCSCS.Feedback@Ontario.ca

Solliciteur général

Bureau de la sollicitrice générale

25, rue Grosvenor, 18^e étage
Toronto ON M7A 1Y6
Tél.: 416 325-0408
MCSCS.Feedback@Ontario.ca



132-2020-28

By e-mail

February 12, 2020

Ms. Laura Moy
Director Corporate services and Clerk
The Corporation of the Town of Tecumseh
lmoy@tecumseh.ca

Dear Ms. Moy:

Thank you for your letter and for sharing the resolution that was passed by the Tecumseh Town Council on 9-1-1 misdials.

Ontarians depend on reliable and effective 9-1-1 services when they seek help in the case of an emergency. Effective and timely access to emergency services is important and critical to the health and safety of all. Our government is committed to ensuring that Ontario has a 9-1-1 communications system that enables quick and effective responses to emergency situations.

The Ministry of the Solicitor General is always interested in engaging with stakeholders and partners on issues that are of the public interest. As you have noted in your letter, misdials are not unique to Tecumseh and can present a challenge for 9-1-1 call dispatchers when they receive calls for an inappropriate purpose or unintentional/accidental calls (e.g., misdials, automatic dialing, redialing or hang-ups). These calls take up important resources from first responders and can potentially delay their responses to actual emergencies where someone may be injured or in immediate danger.

The ministry understands that there are important considerations that need to be taken into account when looking at how to address the issue of 9-1-1 misdials in Tecumseh. Your request for the provincial government and other partners to lobby the telecommunications industry and smart phone manufacturers to develop a solution to 9-1-1 misdials has been noted. The ministry is working with inter-ministerial partners and stakeholders from fire, police and ambulance services to explore ways to deter inappropriate and accidental use of 9-1-1 services in the province.

Regarding other tools and supports to deter misdials, the Ontario Provincial Police (OPP) launched a public awareness campaign in 2017 to help educate the public on when it is appropriate to call 9-1-1 and how to decrease the chances of making unintentional calls. The OPP "Know when to call 9-1-1" [campaign and information page](#) contains helpful information that may be of use to your jurisdiction.

.../2

Ms. Laura Moy
Page 2

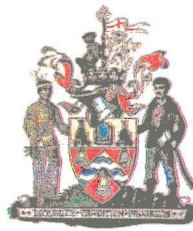
Furthermore, criminal charges can be laid against individuals who misuse 9-1-1 in some circumstances; however, it is up to the discretion of individual police services to decide to lay a charge.

I trust that this information will assist you. Thank you again for writing.

Sincerely,

A handwritten signature in blue ink, appearing to be 'S. Jones', with a stylized flourish extending to the right.

Sylvia Jones
Solicitor General



RECEIVED

FILE NO.

JAN 24 2020

Town of Tecumseh

OFFICE OF CITY CLERK

City of Belleville

169 FRONT STREET
BELLEVILLE, ONTARIO
K8V 2Y8

January 16, 2020

Laura Moy
Director of Corporate Services & Clerk
The Corp. of the Town of Tecumseh
917 Lesperance Rd.
Tecumseh, ON N8N 1W9

Dear Laura:

**RE: Request to Lobby the Telecommunications Industry and Smart
Phone Manufacturers to Develop a Solution to 911 Misdials
Council Information Matters
8.c.3.a), Belleville City Council Meeting, January 13, 2020**

Please be advised that at the Council Meeting of January 13, 2020, Council passed a resolution to "receive" your correspondence. To "receive" means Council will take no further action regarding this matter and your correspondence will remain on file with the City Clerk's Department.

I trust this is sufficient.

Yours truly,

A handwritten signature in black ink, appearing to read 'Matt MacDonald', with a stylized, flowing script.

Matt MacDonald
Director of Corporate Services/City Clerk

MMacD/nh

January 17, 2020

Town of Tecumseh
917 Lesperance Road
Tecumseh, ON N8N 1W9

Attention: Laura Moy, Director of Corporate Services & Clerk

Dear Ms. Moy,

RE: Resolution of Support – 911 Misdials

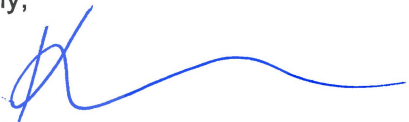
At their meeting held January 14, 2020, the Council of the Town of Lakeshore duly passed the following resolution number 4-01-2020:

Council support the resolution of the Town of Tecumseh regarding 911 Misdials.

Carried Unanimously

Should you require any additional information with respect to the above matter, please contact the undersigned.

Sincerely,



Kristen Newman
Director of Legislative and
Legal Services (Clerk)



The Corporation of the Township of
NORTH KAWARTHA

P.O. Box 550, 280 Burleigh Street
Apsley, Ontario K0L 1A0
(705) 656-4445 or 1-800-755-6931
(ext. 239) or 705-656-5189
Fax: (705) 656-4446
k.picken@northkawartha.ca
www.northkawartha.ca
www.facebook.com/NorthKawartha

January 20, 2020

RECEIVED

FEB 05 2020

Town of Tecumseh
Laura Moy, Director Corporate Services & Clerk
917 Lesperance Road
Tecumseh, Ontario
N8N 1W9

Town of Tecumseh

Re: Town of Tecumseh Resolution on 911 Misdials

Please be informed that the Council of the Township of North Kawartha passed the following motion at its regular meeting of Council held on January 14, 2020:

Town of Tecumseh Resolution re: 911 Misdials

Motion 20 - 23

"That Council support the resolution from the Town of Tecumseh to request that governments and relevant associations lobby the telecommunications industry and smart phone manufacturers to develop a solution to 911 Misdials."

Sincerely

A handwritten signature in black ink, appearing to read "Kelly Picken", with a stylized flourish at the end.

Kelly Picken
Deputy Clerk



BUREAU ADMINISTRATIF / ADMINISTRATION OFFICE
948 est, chemin Pleasant Corner Road East
Vankleek Hill, Ontario (K0B 1R0)

613-678-3003
(fax) 613-678-3363

January 24, 2020

RECEIVED

FEB 03 2020

Town of Tecumseh

Laura Moy
Director Corporate Services & Clerk
Town of Tecumseh
917 Lesperance Road
Ecumseh, ON N8N 1W9

Dear Ms. Moy,

RE: 911 Misdials

At its meeting of January 16, 2020, Champlain Township resolved to support the Town of Tecumseh's resolution dated November 12, 2019, requesting that the Municipal, Federal and Provincial Governments and relevant associations, including, but not limited to, the Ontario Association of Police Services Boards (OAPSB), the Ontario Association of Chiefs of Police (OACP), the Federation of Canadian Municipalities (FCM) and the Association of Municipalities of Ontario (AMO), lobby the telecommunications industry and smart phone manufacturers to develop a solution to 911 misdials.

A copy of resolution 2020-33 is attached for your records.

Yours truly,

Alison Collard
Clerk

cc: The Honourable Doug Ford, Premier of Ontario
The Honourable Bill Blair, Minister of Public Safety and Emergency Preparedness
Francis Drouin, M.P., Glengarry-Prescott-Russell
Amanda Simard, M.P.P., Glengarry-Prescott-Russell
Jamie McGarvey, President, AMO
Bill Karsten, President, FCM
Chief Paul Pederson, President, OACP
Philip Huck, Chair Director, OAPSB

Attach.
/da



TOWNSHIP OF CHAMPLAIN

RECEIVED

RESOLUTION
REGULAR MEETING

FEB 03 2020

Town of Tecumseh

Agenda Number: 13.2
Resolution Number 2020-33
Title: Resolution - Town of Tecumseh - 911 Misdials
Date: 01/16/2020

Moved By: Gérard Miner
Seconded By: Jacques Lacelle

BE IT RESOLVED THAT the Town of Tecumseh's resolution dated November 12, 2019, requesting that the Municipal, Federal and Provincial Governments and relevant associations, including, but not limited to, the Ontario Association of Police Services Boards (OAPSB), the Ontario Association of Chiefs of Police (OACP), the Federation of Canadian Municipalities (FCM) and the Association of Municipalities of Ontario (AMO), lobby the telecommunications industry and smart phone manufacturers to develop a solution to 911 misdials, be endorsed.

CARRIED

Certified True Copy of Resolution

Alison Collard Jan 23, 2020

Alison Collard, Clerk Date:

COPY

RECEIVED

FEB 05 2020

The Corporation of the
Township of Schreiber

Town of Tecumseh

Resolution # 17-20

Date: January 28, 2020

Moved by Councillor:

Seconded by Councillor:

THAT the Council of the Township of Schreiber support the resolution of the Corporation of the Town of Tecumseh with respect to 911 misdials.

Pecuniary Interest	Recorded Vote	Council Member	Nay	Yea
		Councillor K Krause		
		Councillor D McGrath		
		Councillor K Mullins		
		Councillor D Stefurak		
		Mayor D Hamilton		

CARRIED ✓

DEFEATED

Mayor: D. Hamilton

Clerk: [Signature]



The Corporation of the Town of Espanola
100 Tudhope Street • Suite 2, Espanola, Ontario P5E 1S6
Telephone: (705) 869-1540 • Facsimile: (705) 869-0083
Website: www.espanola.ca

February 3, 2020

Mayor and Council
The Corporation of the Town of Tecumseh
917 Lesperance Rd
Windsor, ON
N8N 1W9

Dear Mayor McNamara,

During the Regular Meeting of Council the following resolution was adopted:

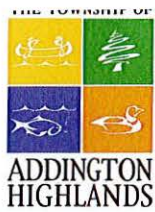
"Be It Resolved That: Council for the Town of Espanola supports The Corporation of the Town of Tecumseh's recommendation regarding 911 misdials."

We thank you for sharing the background information and report concerning the financial impact to the Town of Tecumseh as a result of escalating 911 misdials. We recognize that this issue is not unique to your Corporation and affects all municipalities in the province, therefore a copy of this letter will be forwarded to our local MP, Michael Mantha; OAPSB; OACP; FCM; and AMO in support of finding a solution to this problem.

Sincerely,



Jill Beer
Mayor



Township of Addington Highlands

February 7, 2020

The Corporation of the Town of Tecumseh
917 Lesperance Rd.
Tecumseh, ON N8N 1W9
lmoy@tecumseh.ca

Re: Letter in Support of Resolution re: 911 Misdials

To Whom It May Concern,

Please be advised that at their January 14, 2020 meeting, the Council of the Corporation of the Township of Addington Highlands resolved to support your resolution requesting all levels of government and relevant associations to lobby the telecommunications industry and smart phone manufacturers to develop a solution to 911 Misdials.

I trust you will find this letter of support satisfactory.

Sincerely,

Christine Reed
CAO/Clerk-Treasurer

cc. Hon. Sylvia Jones – sylvia.jones@pc.ola.org
Hon. Bill Blair – Bill.Blair@parl.gc.ca
Daryl Kramp, MPP Hastings-Lennox & Addington – daryl.kramp@pc.ola.org
Derek Sloan, MP – Derek.Sloan@parl.gc.ca
Federation of Canadian Municipalities – info@fcm.ca
Association of Municipalities of Ontario – amo@amo.on.ca
Ontario Association of Police Services Boards – oapsb@oapsb.ca
Ontario Association of Chiefs of Police – oacpadmin@oacp.ca



The Corporation of the Township of Madoc

15651 Highway 62, P.O. Box 503, Madoc, Ontario K0K 2K0

www.madoc.ca

613-473-2677

Fax: 613-473-5580

The Honourable Sylvia Jones
Solicitor General
George Drew Bldg, 18th Flr
25 Grosvenor Street
Toronto, Ontario
M7A 1Y6

Re: Town of Tecumseh Resolution on 911 misdials

Please be advised that the Township of Madoc Council passed the following motion to support the resolution of the Town of Tecumseh regarding 911 misdials, attached.

Motion # 20-31

Moved by: Councillor Rowe

Seconded by: Deputy Reeve Rollins

That Council direct the Clerk/Planning Coordinator to write a letter of support regarding 911 misdials

-Carried-

Sincerely,

Amanda Cox
Clerk/Planning Coordinator
Township of Madoc



The Corporation of the Town of Tecumseh

December 20, 2019

Hon. Sylvia Jones
Solicitor General
George Drew Bldg, 18th Flr
25 Grosvenor Street
Toronto, Ontario
M7A 1Y6

Re: Town of Tecumseh Resolution on 911 Misdials

On behalf of Mayor Gary McNamara and Town Council, I am writing to advise that at its meeting on November 12, 2019, Tecumseh Town Council passed the following resolution:

Whereas the calls for service for 911 Misdials have risen dramatically in recent years, correlated with the rise in cell phone use; and

Whereas 911 Misdials must be responded to as if they were legitimate emergency calls; and

Whereas each 911 call is responded to with two OPP officers at an average time per call of 1.2 hours; and

Whereas each 911 call is a billable call to the municipality; and

Whereas in 2019 alone to date, 911 Misdials in Tecumseh number 1,082 calls, which is 28.8% of all billable calls for service to date; and

Whereas 911 Misdials are not unique to Tecumseh and in fact are common across the Province at an estimated cost of millions of dollars;

Now Therefore Be It Resolved That the Municipal, Federal and Provincial governments and relevant associations, including but not limited to, the Ontario Association of Police Services Boards (OAPSB), the Ontario Association of Chiefs of Police (OACP), the Federation of Canadian Municipalities (FCM) and the Association of Municipalities of Ontario (AMO), be requested to lobby the telecommunications industry and smart phone manufacturers to develop a solution to 911 Misdials.

A copy of the report to Town Council (CAO-2019-09) on 911 Misdials is attached for your information. Should you require anything further, please contact the undersigned at lmoy@tecumseh.ca or extension 116.

Yours very truly,



Laura Moy, Dipl.M.M., CMMIII HR Professional
Director Corporate Services & Clerk

LM/ep

Attachments

1. Report CAO-2019-09 911 Misdials

cc: Hon. Bill Blair, Minister of Public Safety and Emergency Preparedness
Irek Kusmierczyk, MP
Percy Hatfield, MPP
Federation of Canadian Municipalities
Association of Municipalities of Ontario
Ontario Association of Police Services Boards
Ontario Association of Chiefs of Police
Ontario Municipalities
Telus
Bell
Rogers



RECEIVED

FEB 07 2020

Town of Tecumseh

January 30, 2020

Town of Tecumseh
917 Lesperance Road
Tecumseh, ON N8N 1W9

Attention: Laura Moy, Director of Corporate Services & Clerk

Dear Ms. Moy,

RE: Resolution of Support – Police Services Board

At their meeting held January 28, 2020, the Council of the Town of Lakeshore duly passed the following resolution number 22-01-2020:

Support the January 27, 2020 motion of the Lakeshore Police Services Board regarding a proposed two board system approximately divided between the north and south municipalities of the County for the region with billing apportioned by municipality.

Carried Unanimously

A copy of the resolution of the Lakeshore Police Services Board is enclosed for your information.

Should you require any additional information with respect to the above matter, please contact the undersigned.

Sincerely,

Kristen Newman
Director of Legislative and
Legal Services (Clerk)

Encl. Resolution of the Lakeshore Police Services Board dated January 27, 2020

LAKESHORE.CA

Town of Lakeshore

419 Notre Dame Street, Belle River, ON N0R 1A0
519.728.2700 Toll Free: 1-877-249-3367 www.lakeshore.ca

Barrette/Bain

That the Board supports a two board system approximately divided between the north and south Municipalities of the County for the region with billing apportioned by municipality.

Carried

Court of Revision Meeting

Minutes

Hurley Relief Branch Drain

Date: Tuesday, February 11, 2020
 Time: 6:00 pm
 Location: Tecumseh Arena - Horwood Room, 1st Floor
 12021 McNorton Street
 Tecumseh, ON N8N 3C7

Present: Mayor, Gary McNamara
 Deputy Mayor, Joe Bachetti
 Councillor, Andrew Dowie
 Councillor, Brian Houston
 Councillor, Tania Jobin

Also Present: Chief Administrative Officer, Margaret Misek-Evans
 Director Public Works & Environmental Services, Phil Bartnik
 Director Planning & Building Services, Brian Hillman
 Director Financial Services & Chief Financial Officer, Tom Kitsos
 Director Fire Services & Fire Chief, Wade Bondy
 Director Corporate Services & Clerk, Laura Moy
 Manager Committee & Community Services, Christina Hebert
 Drainage Superintendent/Engineering Technologist, Sam Paglia
 Manager Strategic Initiatives, Lesley Reeves

Others: Gerard Rood, P. Eng., Rood Engineering Inc.

A. Roll Call

B. Call to Order

The Mayor calls the meeting to order at 6:02 pm.

C. Disclosure of Pecuniary Interest

There is no pecuniary interest declared by a Member of Council.

D. Introduction and Purpose of Meeting

The purpose of the meeting is to hear from any affected owner who wishes to appeal his/her assessment or any part thereof as set out in the **Hurley Relief Branch Drain and Upper Part of Hurley Relief Drain** Drainage Report, prepared by Mr. Gerard Rood P. Eng., of Rood Engineering Inc., dated November 20, 2019.

E. Delegations

There are no delegations present.

The Drainage Superintendent advises that while the petitioner on this matter had inquired about a reduction to their assessment, and it was recommended to them that they attend the Court of Revision, they are not present tonight. There have been no objections or other inquiries received to date on the assessments for this project. He further notes that the drain requires maintenance in portions that are not subject to the recommendations in this Drainage Report and advises that the maintenance will be completed simultaneously with this work and assessed based on the updated schedule in this report under Section 74.

The Drainage Engineer, Gerard Rood, P. Eng, recommends adoption of the Drainage Report.

F. Communications

1. Notice of First Sitting dated January 21, 2020

Re: For the Repair and Improvement to the Hurley Relief Branch Drain and Upper Part of Hurley Relief Drain

2. By-Law 2020-07

Being a bylaw to provide for the repair and improvements to the Hurley Relief Branch Drain and Upper Part of Hurley Relief Drain

Motion: CR - 01/20

Moved By Deputy Mayor Joe Bachetti

Seconded By Councillor Tania Jobin

That Communications - For Information 1 and 2 as listed on the Tuesday, February 11, 2020 Court of Revision Agenda, **be received.**

Carried

G. Reports

1. PWES-2020-04 Request to Consider Engineer's Report - Hurley Relief Branch Drain

Motion: CR - 02/20

Moved By Councillor Brian Houston

Seconded By Councillor Andrew Dowie

That Report PWES-2020-04 Request to Consider Engineer's Report - Hurley Relief Branch Drain, **be received.**

Carried

H. Adjournment

Motion: CR - 03/20

Moved By Councillor Brian Houston

Seconded By Councillor Tania Jobin

That there being no further business, the Tuesday, February 11, 2020 meeting of the Court of Revision **be adjourned** at 6:06 pm.

Carried

Gary McNamara, Mayor

Laura Moy, Clerk

Court of Revision Meeting

Minutes

West Branch of the East Branch Delisle Drain

Date: Tuesday, February 11, 2020
Time: 6:30 pm
Location: Tecumseh Arena - Horwood Room, 1st Floor
12021 McNorton Street
Tecumseh, ON N8N 3C7

Present: Mayor, Gary McNamara
Deputy Mayor, Joe Bachetti
Councillor, Andrew Dowie
Councillor, Brian Houston
Councillor, Tania Jobin

Also Present: Councillor, Rick Tonial
Chief Administrative Officer, Margaret Misk-Evans
Director Public Works & Environmental Services, Phil Bartnik
Director Financial Services & Chief Financial Officer, Tom Kitsos
Director Fire Services & Fire Chief, Wade Bondy
Director Corporate Services & Clerk, Laura Moy
Manager Committee & Community Services, Christina Hebert
Drainage Superintendent/Engineering Technologist, Sam Paglia
Manager Strategic Initiatives, Lesley Reeves

Others: Gerard Rood, P. Eng., Rood Engineering Inc.

A. Roll Call

B. Call to Order

The Mayor calls the meeting to order at 6:30 pm.

C. Disclosure of Pecuniary Interest

Councillor Tania Jobin declares a conflict as her mother-in-law is an owner of land in the subject drainage area.

D. Introduction and Purpose of Meeting

The purpose of the meeting is to hear from any affected owner who wishes to appeal his/her assessment or any part thereof as set out in the **West Branch of the East Branch Delisle Drain** Drainage Report, prepared by Mr. Gerard Rood, P. Eng., of Rood Engineering Inc., dated November 18, 2019.

E. Delegations

There are no delegations present.

The Drainage Superintendent advises there have been no objections received to the subject Drainage Report.

The Drainage Engineer, Gerard Rood, P. Eng. recommends adoption of the Drainage Report and the schedule of assessments.

F. Communications

1. Notice of First Sitting dated January 21, 2020

Re: For the Repair and Improvement to the West Branch of the East Branch Delisle Drain

2. By-Law 2020-06

Being a bylaw to provide for the repair and improvements to the West Branch of the East Branch Delisle Drain

Motion: CR - 04/20

Moved By Councillor Brian Houston

Seconded By Councillor Andrew Dowie

That Communications - For Information 1 and 2 as listed on the Tuesday, February 11, 2020 Court of Revision Agenda, **be received**.

Carried

G. Reports

1. PWES-2020-01 Request to Consider Engineer's Report - West Branch of the East Branch Delisle Drain

Motion: CR - 05/20

Moved By Councillor Brian Houston

Seconded By Deputy Mayor Joe Bachetti

That the Report and Specifications for the West Branch of the East Branch Delisle Drain (Drain) as prepared by Mr. Gerard Rood, P. Eng., of Rood Engineering Inc. (Rood), dated November 18, 2019, (Drainage Report) **be received**.

Carried

H. Adjournment

Motion: CR - 06/20

Moved By Councillor Brian Houston

Seconded By Councillor Andrew Dowie

That there being no further business, the Tuesday, February 11, 2020 meeting of the Court of Revision **be adjourned** at 6:32 pm.

Carried

Gary McNamara, Mayor

Laura Moy, Clerk

Cultural and Arts Advisory Committee

Minutes

Date: Monday, January 20, 2020
Time: 7:00 pm
Location: Tecumseh Town Hall - Sandwich South Room
917 Lesperance Road
Tecumseh, ON N8N 1W9

Present: Councillor, Bill Altenhof
Member, Rhonda Dupuis
Member, Marian Drouillard
Member, Dwayne Ellis
Member, Manmander Matharu
Member, Christopher McNamara
Member, Rita Ossington
Member, Jelena Ristic
Member, Kyrsten Solcz

Also Present: Manager Committee & Community Services, Christina Hebert
Absent: Member, Betty Lee-Daigle
Member, Charles Gray

A. Call to Order

The Manager Committee & Community Services calls the meeting to order at 7:08 pm.

B. Roll Call

1. Election of Chair and Vice Chair

The Manager Committee & Community Services opens the floor to nominations for Chair and Vice Chair for the Cultural & Arts Advisory Committee, for a one (1) year term, ending December 31, 2020.

Motion: CAAC - 1/20

Moved By Member Rhonda Dupuis

Seconded By Member Rita Ossington

That Member Charles Gray be appointed Chair of the Cultural & Arts Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

Motion: CAAC - 2/20

Moved By Member Dwayne Ellis
Seconded By Member Christopher
 McNamara

That Member Marian Drouillard be appointed Vice-Chair of the Cultural & Arts Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

C. Disclosure of Pecuniary Interest

None reported.

D. Delegations

None.

E. Communications

1. Cultural and Arts Advisory Committee Minutes - November 25, 2019

Motion: CAAC - 3/20

Moved By Member Rhonda Dupuis
Seconded By Member Jelena Ristic

That the minutes of the November 25, 2019 meeting of the Cultural and Arts Advisory Committee as were duplicated and delivered to the members, **be adopted**.

Carried

2. **Cultural and Arts Advisory Committee Terms of Reference**
3. **Procedural By-Law No. 2017-62**
4. **Cultural and Arts Advisory Committee 2020 Budget**

Motion: CAAC - 4/20

Moved By Member Rhonda Dupuis

Seconded By Member Jelena Ristic

That Communications - For Information 2 through 4 as listed on the Monday, January 20, 2020 Cultural and Arts Advisory Committee Agenda **be received.**

Carried

F. Reports

None.

G. Unfinished Business

1. 2020 Project Initiatives

1. Soirée Coffee House

A brief overview of the annual Soirée Coffee House event is provided for the benefit of the new Members.

The Members concur with scheduling the event on the first Friday in May, consistent with previous years.

Motion: CAAC - 5/20

Moved By Member Christopher
McNamara

Seconded By Member Dwayne Ellis

That direction be given to the Manager Committee & Community Services to proceed with coordinating the annual Soirée Coffee House to be held at l'Essor High School on the first Friday in May, subject to availability.

Carried

2. Culture Days

Discussion ensues regarding the 2020 theme for Culture Days – ‘Unexpected Intersections’ - and ways to enhance the event with various participating locations and/or more than one day of activities. The Members will begin brainstorming ideas.

3. Cultural and Arts Survey 2020

The Members recommend that focused questions be utilized on the cultural and arts survey to endeavour to understand what types of initiatives and events are of interest to the community. The Members commit to developing specific questions for discussion at the next meeting.

H. New Business

None.

I. Next Meeting

February 24, 2020

J. Adjournment

Motion: CAAC - 6/20

Moved By Member Christopher
 McNamara

Seconded By Member Rita Ossington

That there being no further business, the Monday, January 20, 2020 meeting of the Cultural and Arts Advisory Committee **be adjourned** at 8:09 pm.

Carried

Marian Drouillard, Vice Chair

Christina Hebert, Manager Committee
& Community Services

Heritage Committee

Minutes

Date: Monday, January 20, 2020
Time: 6:00 pm
Location: Tecumseh Town Hall - Sandwich South Room
917 Lesperance Road
Tecumseh, ON N8N 1W9

Present: Councillor, Bill Altenhof
Member, Chris Carpenter
Member, Marian Drouillard
Member, Rhonda Dupuis
Member, Rita Ossington
Member, Scott Robinson

Absent: Member, Amanda Deshaies
Member, Dwayne Ellis
Member, Charles Gray
Member, John Levesque

Also Present: Manager Committee & Community Services, Christina Hebert

A. Call to Order

The Manager Committee & Community Services calls the meeting to order at 6:07 pm.

B. Roll Call

1. Election of Chair and Vice Chair

The Manager Committee & Community Services opens the floor to nominations for Chair and Vice Chair for the Heritage Committee, for a one (1) year term, ending December 31, 2020.

Motion: HC - 1/20

Moved By Member Rita Ossington

Seconded By Member Rhonda Dupuis

That Member Marian Drouillard be appointed Chair of the Heritage Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

Motion: HC - 2/20

Moved By Chair Marian Drouillard

Seconded By Member Rita Ossington

That Member Chris Carpenter be appointed Vice Chair of the Heritage Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

C. Disclosure of Pecuniary Interest

None reported.

D. Delegations

None.

E. Communications

1. Heritage Committee Minutes - October 21 and November 25, 2019

Motion: HC - 3/20

Moved By Member Rita Ossington

Seconded By Member Rhonda Dupuis

That the minutes of the October 21, 2019 and November 25, 2019 meeting of the Heritage Committee as were duplicated and delivered to the members, **be adopted**.

Carried

2. Community Heritage Ontario News

Re: Fall Edition

3. Heritage Committee Terms of Reference

4. Procedural By-law No. 2017-62

5. Heritage Committee 2020 Budget

Member Rita Ossington highlights the President's Message in the Community Heritage Ontario News regarding The Amended *Ontario Heritage Act*, as well as the White Is Black article.

The Manager Committee & Community Services will investigate training opportunities provided by the Ministry with respect to Bill 108.

Motion: HC - 4/20

Moved By Member Rhonda Dupuis

Seconded By Member Rita Ossington

That Communications - For Information 2 through 5 as listed on the Monday, January 20, 2020 Heritage Committee Agenda **be received**.

Carried

F. Reports

None.

G. Unfinished Business

1. Heritage Property Listing

1. Ontario Heritage Tool Kit - Heritage Property Evaluation

2. Ontario Heritage Act - Criteria for Determining Cultural Heritage Value or Interest

An overview of the Ontario Heritage Toolkit and *Ontario Heritage Act* resources which serve as a valuable guide and framework for listing, researching and evaluating cultural heritage properties is provided, for the benefit of the new Members.

The Members review the research compiled by the Chair respecting St. Mark's By The Lake Church, St. Mary's Catholic Church, and St. Mary's Catholic Cemetery for inclusion in the report recommending the subject properties be moved forward on the Listing.

It is suggested the current property inventory be reviewed at the next meeting.

2. Tecumseh Heritage Articles

The Chair explains the premise behind the heritage articles for the new Members.

The next article will include information on the properties currently identified to move forward on the Listing, subject to approval.

H. New Business

None.

I. Next Meeting

February 24, 2020

J. Adjournment

Motion: HC - 5/20

Moved By Member Rita Ossington

Seconded By Member Rhonda Dupuis

That there being no further business, the Monday, January 20, 2020 meeting of the Heritage Committee **be adjourned** at 7:04 pm.

Carried

Marian Drouillard, Chair

Chris Carpenter, Vice-Chair

Youth Advisory Committee

Minutes

Date: Monday, January 20, 2020
Time: 4:30 pm
Location: Tecumseh Town Hall - Sandwich South Room
917 Lesperance Road
Tecumseh, ON N8N 1W9

Present: Member, Jacob Altenhof
Member, Michael Altenhof
Member, Brendan Froese
Member, Tamsyn King
Member, Kurtis Hengl Lachance
Member, Suzie Sawicki
Member, Cameron Skinner

Also Present: Manager Committee & Community Services, Christina Hebert

Absent: Councillor, Rick Tonial
Member, Kristi Koutros
Member, Tia-Lynne McCann
Member, Ava Ruuth

A. Call to Order

The Manager Committee & Community Services calls the meeting to order at 4:33 pm.

B. Roll Call

1. Election of Chair, Vice Chair, Secretary and Treasurer

The Manager Committee & Community Services opens the floor to nominations for the Chair, Vice Chair, Secretary and Treasurer for the Youth Advisory Committee, for a one (1) year term, ending December 31, 2020.

Motion: YAC - 1/20

Moved By Member Brendan Froese

Seconded By Member Cameron Skinner

That Member Suzie Sawicki be appointed Chair of the Youth Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

Motion: YAC - 2/20

Moved By Chair Suzie Sawicki

Seconded By Member Michael Altenhof

That Member Kurtis Hengl Lachance be appointed Vice Chair of the Youth Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

Motion: YAC - 3/20

Moved By Member Tamsyn King

Seconded By Vice-Chair Kurtis Hengl
Lachance

That Member Kristi Koutros be appointed Secretary for the Youth Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

Motion: YAC - 4/20

Moved By Chair Suzie Sawicki

Seconded By Member Cameron Skinner

That Member Jacob Altenhof be appointed Treasurer for the Youth Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Carried

C. Disclosure of Pecuniary Interest

None reported.

D. Delegations

None.

E. Communications

1. Youth Advisory Committee Minutes - October 21 and November 25, 2019

Motion: YAC - 5/20

Moved By Member Brendan Froese

Seconded By Member Michael Altenhof

That the minutes of the October 21, 2019 and November 25, 2019 meeting of the Youth Advisory Committee as were duplicated and delivered to the members, **be adopted**.

Carried

- 2. Youth Advisory Terms of Reference**
- 3. Procedural By-Law No. 2017-62**
- 4. Youth Advisory Committee 2020 Budget**

Motion: YAC - 6/20

Moved By Vice-Chair Kurtis Hengl
Lachance

Seconded By Treasurer Jacob Altenhof

That Communications - For Information 2 through 4 as listed on the Monday, January 20, 2020 Youth Advisory Committee Agenda **be received.**

Carried

F. Reports

None.

G. Unfinished Business

1. Family Game Night

The Members advise the Air Hockey table, which is widely used by attendees, is in need of repair.

Friday, February 21 is the next FGN and volunteers are needed. A reminder is provided regarding the supervision duties and that it is the Member's responsibility to coordinate coverage of their shift amongst the other Members should a matter arise.

2. Local Government Week

The Manager Committee & Community Services advises the Local Government Week (LGW) school tours saw a record high attendance of approximately three hundred forty-four (344) students. The LGW contest winners were recognized at the December 10 Regular Council Meeting and presented with prize packs.

3. Youth Career Fair

Discussion ensues regarding the successful Youth Career Fair, held on November 7, 2019.

This year's event saw a further increase in participation with over five hundred (500) students attending from area secondary schools. Students were able to visit and dialogue with twenty-two (22) diverse local businesses to gain insight into the educational needs for the respective career opportunities.

The event was held from 10:00 am - 6:00 pm to accommodate students and parents wishing to attend with their child(ren) after work hours. It is noted approximately six (6) persons attended after school hours.

Positive feedback was received from both the students and the vendors, as well as encouragement to continue to host the event annually during school hours.

4. RBC Future Launch Community Challenge Grant

Further to the YAC successfully receiving the RBC Future Launch Challenge Grant in the amount of \$15,000 for the 'Mind Break Before Study Break' initiative, planning will be underway shortly.

The Manager Committee & Community Services reminds the Members as part of the grant, youth must assist in leading the decisions and activities for the project.

The project proposes hosting two (2) Wellness Fairs to emphasize the importance of mental well-being, particularly during exam season by providing skills and techniques to help with related stresses to local secondary students.

The Members are encouraged to share ideas for activities related to mental health exercises, proper nutrition, study habits to make available at the wellness fairs, as well as contacts for persons who provide the service.

H. New Business

1. 2020 Project Planning

Manager Recreation Programs and Events, Email dated December 18, 2019 Regarding 2020 Events.

The Members review the 2020 recreation events outlined in the Manager Recreation Programs and Events email.

It is noted the Earth Day Celebration will take place on a weekday. Further details will be shared as become available.

The Members commit to checking their availability and making themselves available, where schedule permits, to assist.

2. Town of Lakeshore Youth Advisory Committee - Networking Meeting

The Manager Committee & Community Services apprises the Town of Lakeshore's Youth Advisory Committee would like to meet with its counterparts in Essex County to facilitate networking with engaged youth in the region, discuss opportunities to share information and best practices and potential collaboration efforts.

The Members concur with arranging a joint meeting in the spring and are agreeable to meeting at the Town of Lakeshore. The Manager Committee & Community Services will coordinate with the Town of Lakeshore.

I. Next Meeting

February 24, 2020

J. Adjournment

Motion: YAC - 7/20

Moved By Treasurer Jacob Altenhof

Seconded By Member Michael Altenhof

That there being no further business, the Monday, January 20, 2020 meeting of the Youth Advisory Committee **be adjourned** at 5:10 pm.

Carried

Suzie Sawicki, Chair

Kurtis Hengl Lachance, Vice-Chair

Senior Advisory Committee

Minutes

Date: Thursday, January 23, 2020
Time: 6:00 pm
Location: Tecumseh Town Hall - Sandwich South Room
917 Lesperance Road
Tecumseh, ON N8N 1W9

Present: Member, Suzanne Beneteau
Member, Gabrielle McMillan
Member, Dara Pfeifer O'Connor
Member, Nancy Tennant

Also Present: Manager Committee & Community Services, Christina Hebert

Absent: Councillor, Rick Tonial
Member, Paul Morand
Member, Dorothy Nagy
Member, Loretta Stoyka Henderson

A. Call to Order

The meeting was adjourned at 6:15 pm due to a lack of quorum. No discussion was held and no decisions were made.

B. Roll Call

1. Election of Chair and Vice Chair

Motion: SAC- 1/20

That Member _____ be appointed Chair of the Senior Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

Motion: SAC- 2/20

That Member _____ be appointed Vice Chair of the Senior Advisory Committee for the Town of Tecumseh for a one (1) year term, ending December 31, 2020.

C. Disclosure of Pecuniary Interest

D. Delegations

E. Communications

1. Senior Advisory Committee Minutes - December 5, 2019

Motion: SAC- 3/20

That the December 5, 2019 minutes of the Senior Advisory Committee as were duplicated and delivered to the members, **be adopted**.

2. Senior Advisory Committee Terms of Reference

3. Procedural By-Law No. 2017-62

4. Senior Advisory Committee 2020 Budget

Motion: SAC- 4/20

That Communications - For Information 2 through 4 as listed on the Thursday, January 23, 2020 Senior Advisory Committee Agenda **be received**.

F. Reports

None.

G. Unfinished Business

1. Seniors Lunch N' Learn Workshops

H. New Business

1. Fall Prevention Clinic

I. Next Meeting

February 27, 2020

J. Adjournment

Motion: SAC- 5/20

That there being no further business, the Thursday, January 23, 2020 meeting of the Senior Advisory Committee **be adjourned** at _____ pm.

Gabrielle McMillan, Vice-Chair

Christina Hebert, Manager Committee
& Community Services



The Corporation of the Town of Tecumseh

Corporate Services & Clerk

To: Mayor and Members of Council

From: Laura Moy, Director Corporate Services & Clerk

Date to Council: February 25, 2020

Report Number: CS-2020-06

Subject: Minimum Maintenance Standards for Roads

Recommendations

It is recommended:

That CS-2020-06 entitled “Minimum Maintenance Standards for Roads” **be received;**

And that By-law No. 2020-17 being a by-law to adopt Minimum Maintenance Standards for Municipal Highways, **be adopted**, as appended to the Agenda for the February 25, 2020 meeting of Council.

Background

The *Municipal Act*, 2001, S.O. 2001 c. 25 (Act) in subsection 44 (1) states that:

“a municipality that has jurisdiction over a highway or bridge shall keep it in a state of repair that is reasonable in the circumstances, including the character and location of the highway or bridge.”

A municipality that defaults in complying with subsection (1) is, subject to the *Negligence Act*, liable for all damages any person sustains because of the default.

Under subsection 44 (3) of the Act, a municipality is not liable for failing to keep a highway or bridge in a reasonable state of repair if,

- a) it did not know and could not reasonably have been expected to have known about the state of repair of the highway or bridge;
- b) it took reasonable steps to prevent the default from arising; or
- c) at the time the cause of action arose, minimum standards established under subsection (4) applied to the highway or bridge and to the alleged default and those standards have been met.

Clause c) was added to the Act in 1996 and was the Province's response to municipalities' requests for relief from onerous court decisions. Subsection 44(4) was also added to the Act to recognize that:

"The Minister of Transportation may make regulations establishing minimum standards of repair for highways and bridges or any class of them."

To enable this defence to be used, the Minister of Transportation filed Ontario Regulation 239/02: Minimum Maintenance Standards for Municipal Highways (MMS). The MMS came into effect on November 1, 2002.

At the September 23, 2003 meeting of Council, By-law No. 2003-65, being a by-law to adopt Minimum Maintenance Standards for Municipal Highways from Ontario Regulation 288/03 under the *Municipal Act*, was adopted.

Comments

By-law No. 2003-65 was adopted over 16 years ago based on the recommendation of the Director of Public Works to the Public Works Committee at their meeting held March 5, 2003. The body of the by-law included the MMS provisions, as amended by O. Reg. 288/03, and did not take into consideration any future amendments to the MMS.

Since the adoption of By-law No. 2003-65, there have been a number of further amendments, besides O. Reg. 288/03, to the MMS under O. Reg. 613/06, O. Reg. 23/10, O. Reg. 47/13, and most recently O. Reg. 366/18.

The Town's minimum standards for maintaining its highways and bridges pursuant to subsection 44 (1) of the Act should be at least consistent with the MMS in order to be able to rely on the defence in subsection 44 (3) (c) of the Act, as well as for risk management and liability purposes.

By-law No. 2020-17 has been prepared for Council's consideration in order to adopt the MMS, as amended to date. This draft by-law appends a Schedule A, the current O. Reg. 239/02, as amended by the above referenced O. Regs., rather than incorporate the provisions of the MMS in the body of the by-law for ease of future amendments.

By-law No. 2020-17, as drafted, also indicates that, to the extent the Province of Ontario lawfully enacts mandatory minimum standards of repair for highways under municipal jurisdiction other than those currently provided in O. Reg. 239/02, as amended, they shall be deemed to be incorporated into this By-law.

It is recommended that By-law No. 2020-17 be adopted by Council and that it be reviewed at least annually for any future amendments to the MMS.

Consultations

Public Works & Environmental Services
Town Solicitor

Financial Implications

There are no financial implications with respect to the adoption of By-law No. 2020-17. The potential legal fees and liability costs for not acting in accordance with the MMS are undeterminable.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input checked="" type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input checked="" type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐

Social Media ☐

News Release ☐

Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Laura Moy, Dipl. M.M., CMMIII HR Professional
Director Corporate Services & Clerk

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
None	None



The Corporation of the Town of Tecumseh

Planning & Building Services

To: Mayor and Members of Council

From: Brian Hillman, Director Planning & Building Services

Date to Council: February 25, 2020

Report Number: PBS-2020-07

Subject: Site Plan Control
Lilly Jean Daniher
5355 Manning Road
OUR FILE: D11 DANIHER

Recommendations

It is recommended:

That a by-law authorizing the execution of the “Lilly Jean Daniher” site plan control agreement, satisfactory in form to the Town’s Solicitor, which allows for the construction of a 572 square metre (6,157 square foot) pole barn and associated on-site services/works on 4.8 hectare (11.8 acre) parcel of land situated on the west side of Manning Road (5355 Manning Road), approximately one kilometre south of its intersection with Highway 401, **be adopted**, subject to the following occurring prior to the Town’s execution of the Agreement:

- i) final stormwater management design and stormwater management calculations, and associated drawings being approved by the Town;
- ii) the Owner executing the site plan control agreement; and
- iii) the Owner posting security for performance pursuant to paragraph 6.1 of the agreement;

And that the execution of such further documents as are called for by the site plan control agreement approved above including, but not limited to, the execution of the acknowledgement/direction required to register the site plan control agreement on title to the lands and such other acknowledgements/directions for any related transfers or

real property registrations contemplated by the site plan control agreement, by the Mayor and Clerk, **be authorized.**

Background

Property Location

The subject 4.8 hectare (11.8 acre) parcel of land is situated on the west side of Manning Road (5355 Manning Road), approximately one kilometre south of its intersection with Highway 401 (see Attachment 1). Daniher Topsoil, which supplies topsoil and various landscaping mulch products, has been operating from the property for several decades.

Proposed Development

The property is subject to site plan control approval in accordance with Section 41 of the *Planning Act, R.S.O. 1990*. Lilly Jean Daniher (“the Owner”) has filed an application for site plan control in order to facilitate the construction of a 572 square metre (6,157 square foot) pole barn that is proposed to be located on the northern end of the property. Approximately one-quarter of the proposed pole barn will house a top-soil bagging facility, with the remainder of the building being used for maintenance and servicing of equipment and trucks associated with the business. A gravelled maneuvering area and associated stormwater management swales are also proposed to accommodate the pole barn construction. In addition, an existing 300 square metre (3,200 square foot) showroom/greenhouse that is located at the far southeast corner of the property will be demolished as part of this development proposal.

More specifically, the proposed site plan drawing (see Attachment 2) depicts:

- All existing buildings and structures associated with the permitted use, along with the identification of the building proposed to be demolished;
- The proposed 572 square metre (6,157 square foot) pole barn, gravelled maneuvering area and associated stormwater management swales at the northern end of the property;
- The location of all existing outdoor storage areas of aggregate, topsoil and other landscaping materials; and
- Existing vehicular access lanes that are used to access the various outdoor storage areas on the property.

The corresponding site plan agreement establishes the following site-specific requirements:

- A maximum height of 7.6 metres (25 feet) for all outdoor storage piles; and

- The Owner agrees to relocate the existing piles of soil (currently on the abutting agricultural property to the west) so that they are located wholly within the limits of the subject property.

Comments

Official Plan and Zoning

The proposed development and corresponding site plan conform to the Agricultural land use policies contained in the Official Plan. In addition, the site plan complies with all regulations established by the property's site-specific "Agricultural Zone (A-13)" zone (see Attachment 3).

Servicing

A Stormwater Management Study and associated drawings, which includes quantity and quality control measures, has been reviewed by Town Administration. As a result, revisions are currently being finalized by the Owner's consultant. The site plan control agreement establishes that the Stormwater Management Study and associated drawings shall be finally approved by the Town prior to the issuance of a building permit. Public Works and Environmental Services has advised that it has no concerns with the proposed development.

Summary

In summary, it is the opinion of the writer, along with Town Administration, that the proposed site plan control agreement will result in appropriate development that is based on sound land use planning principles. Town Administration has reviewed the proposed site plan agreement and is prepared to recommend approval of the document and the attached drawing. Wolf Hooker Law Firm (Town Solicitor) has drafted the attached amending agreement (see Attachment 4, with site plan drawing attached thereto as Schedule B) which facilitates the subject development. As has been the practice of the Town to date, the agreement establishes that a security deposit in the amount of \$5,000 (cash or letter of credit) is required as a condition of approval to ensure all performance obligations of the Owner are fulfilled.

Consultations

Public Works & Environmental Services
Town Solicitor

Financial Implications

None

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input checked="" type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐

Social Media ☐

News Release ☐

Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Enrico DeCecco, BA (Hons), MCIP, RPP
Junior Planner

Reviewed by:

Chad Jeffery, MA, MCIP, RPP
Manager Planning Services

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

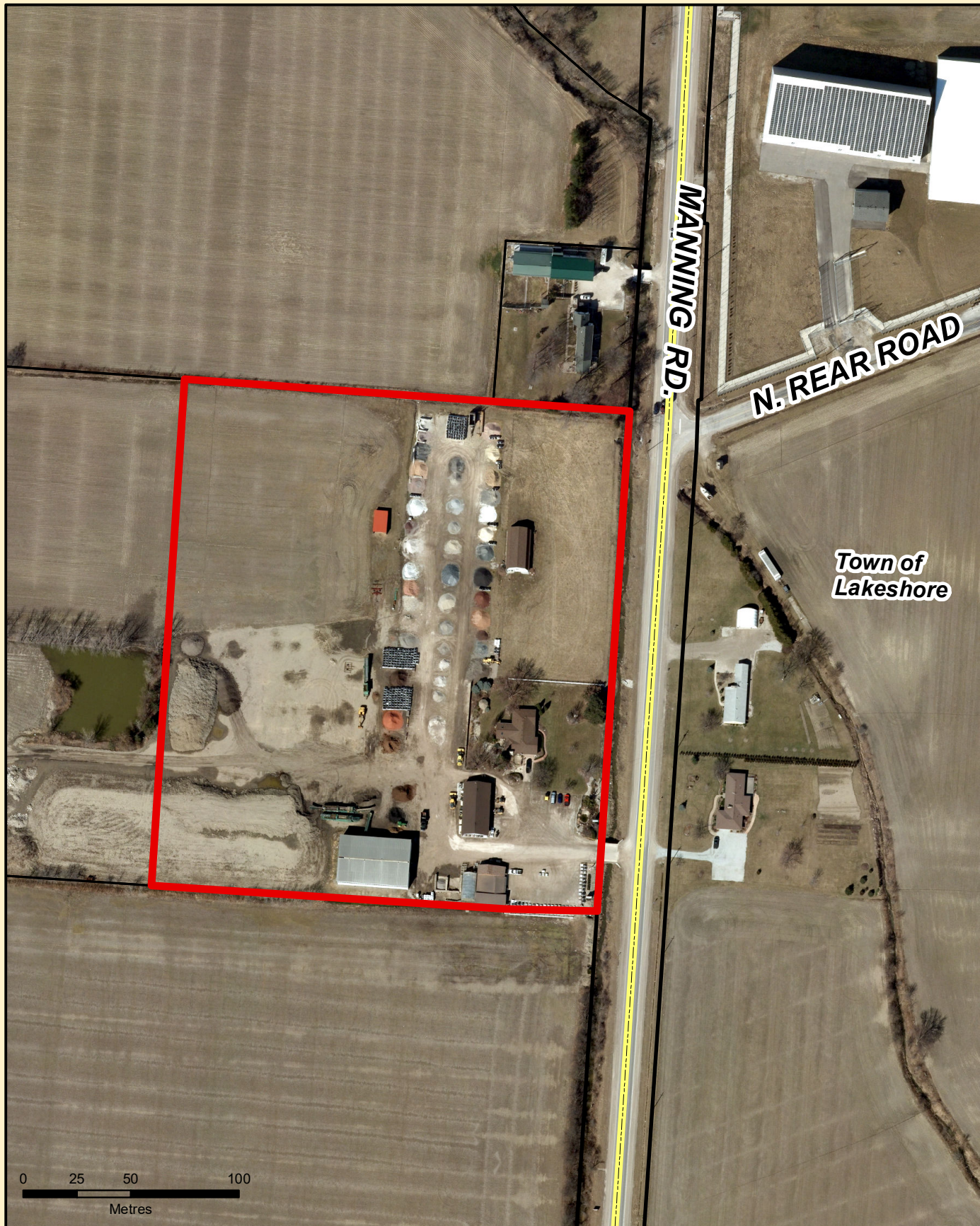
Reviewed by:

Brian Hillman, MA, MCIP, RPP
Director Planning & Building Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	Subject Property Map
2	Proposed Site Plan, Detail View
3	Zoning Map
4	Site Plan Control Agreement



0 25 50 100
Metres



Prepared By:
Tecumseh Planning and
Building Services Department



Legend:

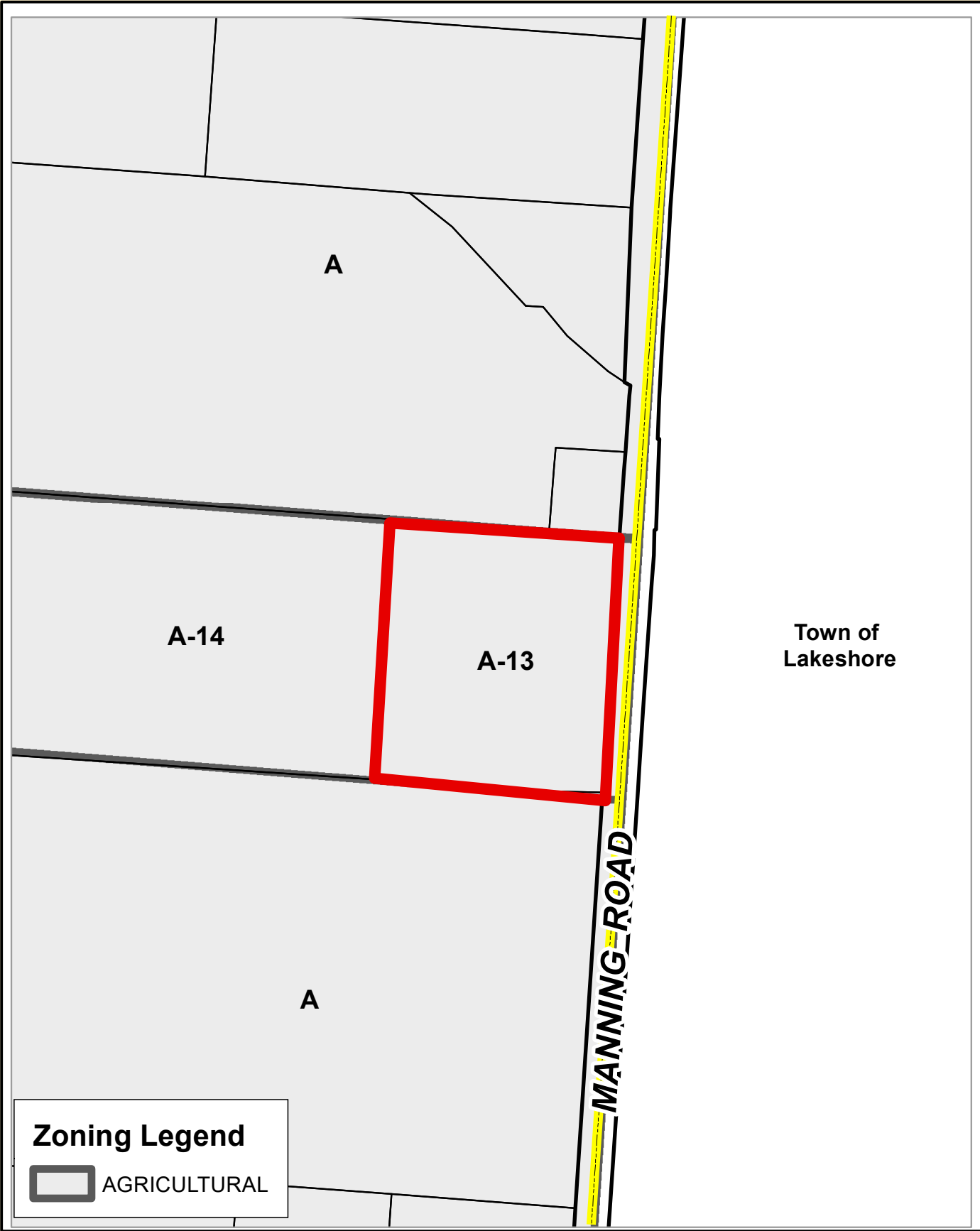


Subject Property



Municipal Boundary

Attachment 1
Site Plan Control
Lilly Jean Daniher
5355 Manning Road
Subject Property



Town of
Lakeshore

Zoning Legend


 AGRICULTURAL

MANNING ROAD



Prepared By:
Tecumseh Planning and
Building Services Department

Legend:

 Subject Property

 Municipal Boundary

Attachment 3
Site Plan Control
Lilly Jean Daniher
5355 Manning Road
Zoning

Attachment 4
Site Plan Control
Lilly Jean Daniher
5355 Manning Road
Site Plan Control Agreement

SITE PLAN CONTROL AGREEMENT

Between:

The Corporation of the Town of Tecumseh

-and-

Lilly Jean Daniher

PREPARED BY:

WOLF HOOKER PROFESSIONAL CORPORATION

Barristers & Solicitors
72 Talbot Street North, Suite 100
Essex, Ontario
N8M 1A2

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SITE PLAN CONTROL AGREEMENT

THIS AGREEMENT made in triplicate this _____ day of _____, 2020.

B E T W E E N:

THE CORPORATION OF THE TOWN OF TECUMSEH,
hereinafter called the "**Municipality**" or "**Town**"

OF THE FIRST PART

-and-

LILLY JEAN DANIHER
hereinafter called the "**Owner**"

OF THE SECOND PART

HEREINAFTER collectively referred to as the "Parties"

RECITALS

WHEREAS the Owners, own certain lands situated within the corporate limits of the Municipality, said lands being more particularly described in Schedule "A" hereto (the "Lands");

AND WHEREAS the Municipality has enacted a by-law designating the Land as a site plan control area, pursuant to Section 41(2) of The Planning Act, R.S.O 1990, c.P.13 and amendments thereto;

AND WHEREAS where site plan control is in effect, Section 41 of The Planning Act, R.S.O. 1990, c.P.13 and amendments thereto, states that the approval of plans by Municipal Council is required prior to development of the Lands, and that the Municipality may require the Owners to enter into an Agreement with the Municipality respecting certain prescribed matters;

AND WHEREAS as a condition of agreeing to development, the Municipality has requested the Owner enter into a Site Plan Agreement;

AND WHEREAS the Owner covenants and agrees to develop the Lands in accordance with this agreement;

AND WHEREAS the proposed development of the Lands is in accordance with the Official Zoning Plan and Zoning By-Law of the Municipality as of the date of this Agreement;

WITNESSETH that in consideration of these presents, and other good and valuable consideration, the Parties hereto mutually covenant, promise and agree as follows:

ARTICLE I

MUNICIPALITY CONSULTANTS

1.1 MUNICIPALITY TO RETAIN

In addition to persons in the employ of the Municipality, the Municipality shall retain the following professionals:

a) a consulting/professional civil engineer registered with the Professional Engineers of Ontario (the “Municipality’s Engineer”), for the purpose of reviewing all plans, specifications, engineering documents, contracts, details, elevations and other relevant information as well as the occasional inspection of the construction, repair and maintenance of the Services;

b) the Municipality’s solicitor for the purpose of reviewing all necessary legal matters incidental to the development of the Lands, including, without limiting generality, the preparation of this agreement together with all other documentation required by the Municipality to give effect to this Agreement and/or the development of the Lands;

ARTICLE 2

THE OWNER AGREES

2.1 OWNER AGREES

The Owners jointly and severally make the following covenants, all of which shall be carried out at the Owner's expense:

2.1.1 Owner to Provide

The following facilities, works or matters shall be provided by the Owner to the satisfaction of and at no expense to the Municipality: all buildings, landscaping, fencing, parking, storage and access areas, lighting, walkways, garbage disposal facilities, grading and provision for storm, surface and waste water in accordance with the attached site plan set out in Schedule "B" (the Site Plan) in accordance with all the applicable provisions of the Municipality's By-Laws;

2.1.2 Construction and Maintenance

The Owners agree that the development of the Lands shall be constructed and forever maintained in accordance with the Site Plan. The Owner further agrees to relocate the existing piles of soil (currently on abutting property to the West) so that they are located wholly within the limits of the Lands, do not exceed twenty-five (25') in height from the average surrounding grade of the Lands and otherwise in accordance with the Site Plan;

2.1.3 The Development

The owners shall construct, install and provide the facilities and works required in and for the development at its own expense and in accordance with the Site Plan and other provisions of the Agreement.

2.1.4 Plans

2.1.4.1 Criteria

All plans, construction, installation, facilities and works shall be completed in accordance with:

- a) Sound engineering practice;
- b) The criteria laid down by governmental authorities having jurisdiction including, without limiting the generality of the foregoing, the Municipality, the Corporation of the County of Essex, the Essex Power Corporation or Ontario Hydro Corporation (whichever is the applicable hydro authority), the Ministry of the Environment and Energy, the Ministry of Transportation and the Essex Region Conservation Authority (ERCA);
- c) Such criteria as approved by Council of the Municipality.

2.1.4.2 Preparation of Plans

The Owner shall, at its own expense and prior to issuance of a building permit:

- a) prepare the Site Plan delineating the Owner's plans for the development of the Lands, which site plan shall be subject to the approval of the Municipality. It is hereby acknowledged that the Site Plan required to fulfill this condition has been prepared and approved, and is attached hereto as Schedule "B";
- b) prepare and submit to the Municipality all plans for off-site and on-site Services not detailed or fully described in the Site Plan, which plans shall also be subject to approval of the Municipality; and
- c) provide to the Municipality all requisite copies of the Site Plan and the said plans for Services as may be required by the Municipality.

2.1.4.3 Lot Grading Plan

The Owner further agrees, if required by the Municipality's Chief Building Official, and/or ERCA to submit to the satisfaction of the Chief Building Official and/or ERCA, a lot grading plan covering the subject lands for their approval prior to the issuance of any building permits. The Owner also agrees to have the approved elevation as per the lot grading plan verified by an Ontario Land Surveyor at the following stages of construction:

- (a) Prior to the pouring of footings (top of forms elevation); and
- (b) Following completion of construction;

Where the finished grade of lot deviates from the original lot grading plan presented to and accepted by the Municipality's Chief Building Official and/or ERCA, the Owner shall either submit a new lot grading plan to the satisfaction of the Municipality's Chief Building Official and/or ERCA or regrade the lands to the elevations indicated on the original lot grading plan.

2.1.4.4 Drainage Plan

The Owner shall provide for grading and drainage of the subject lands all in accordance with a Drainage Plan and the Engineering Data. Drainage facilities and requirements shall be constructed and installed contemporaneously with the construction of the development. The Owner shall supply, construct or install all facilities and works necessary to connect the Owner's drainage system to the Municipality's storm sewer system, and shall pay to the Municipality any connection charges associated therewith.

2.1.4.5 Landscaping Plan

The Owner shall landscape the subject lands all in accordance with the Site Plan. The Owner further agrees to maintain such landscaping for so long as the buildings exist on the lands. Any topsoil removed from the subject lands during grading operations shall be stockpiled thereon in areas compatible for the reception of the same and the Owner covenants and agrees that it will not remove such topsoil from the boundaries of the lands without the approval of the Municipality. Any topsoil excavated but not immediately required for landscaping or for grading purposes shall be contoured and bermed to the satisfaction of the Municipality. Alternatively, the Owner, at its sole risk and expense, shall move such topsoil to such area within the Municipality as may be designated by the Municipality or, in the further alternative, the Owner shall, after receiving permission from the Municipality, at its sole risk and expense, remove such topsoil out from within the boundaries of the Municipality.

2.1.4.6 Reference Plan

The Owner, at the Owner's expense, shall engage a registered Ontario Land Surveyor to prepare, submit and register a Reference Plan, which must delineate the all of the Lands. The Owner, at the Owner's expense, shall initially provide Two (2) copies and (1) diskette of the Plan. All files are to be projected to North American Datum (NAD 83) UTM Zone 17 Geographic Coordinate System. The Owner at the Owner's expense shall provide additional copies of the subdivision plan in the required format upon the request of the Town. Any additional Reference Plans required to describe any portion of the Lands for which an interest (in fee simple or otherwise) is to be conveyed by the Owner shall be prepared, registered and copies supplied to the Municipality in the manner indicated above and at the expense of the Owner.

2.1.5 Engineer

The Owner shall employ at its expense a Consulting Engineer to:

- a) Design and submit drawings with respect to all services required (herein “the Engineering Data”).
- b) Visit the site as required by the Municipality and inspect all services, etc.
- c) Submit to the Municipality (and all other authority having jurisdiction) "as-built" details and elevations.

2.1.6 Services

2.1.6.1 Stormwater Management

The Owner agrees that stormwater management measures shall be applicable to the development of the Lands, in a manner which is in accordance with the provisions of The Drainage Act, R.S.O. 1990, c.D.17 and amendments thereto, and to the satisfaction of the Municipality's Engineer.

2.1.6.2 Sanitary Sewers

The Owner, at its own expense, shall supply, construct or install all sanitary sewer connections necessary to service the site all in accordance with the Engineering Data. No work shall be carried out until the Engineering Data has been approved by the Town.

2.1.6.3 Water Services

The Owner, at its own expense, shall supply, construct or install all water connections necessary to supply water to the site all in accordance with the Engineering Data. No such work shall be carried out until the Engineering Data has been approved by the Town. Remote registry water meters shall be installed as specified by the Town. All costs of connecting water services to existing services shall be borne by the Owner. Existing services at the date of the Agreement are anticipated to be satisfactory.

2.1.6.4 Electrical Services

The Owner, at its expense, shall supply, construct or install all underground hydro services in the manner, location and design depicted in the Engineering Data but subject to the manner, design and specifications established from time to time by Ontario Hydro and the Essex Power Corporation for such services. All costs of connecting hydro services to existing services shall be borne by the Owner.

2.1.6.5 Underground Telephone and Gas

The Owner shall ensure that all Bell Canada and Union Gas Company installations shall be underground.

2.1.6.6 Notification and Permits

The owner hereby agrees to notify all local, Provincial or Federal authorities having jurisdiction as to its proposed development, and to obtain all necessary permits and/or approvals which may be required from any authority having jurisdiction with respect thereto.

2.1.6.7 Co-ordination of Services

The Owner shall be responsible for co-ordinating the installation of all facilities and works including without limitation the services to be installed by Bell Canada and Union Gas Company. The Municipality will send to the Owner's engineer all plans of installations received from time to time from Bell Canada and Union Gas Company.

2.1.7 Traffic Signs

The Owner shall provide, install and maintain suitable traffic direction and information signs, all in accordance with The Highway Traffic Act of Ontario, R.S.O. 1990, c.H.8 and amendments thereto, and The Public Transportation and Highway Improvement Act, R.S.O. 1990, c.P.50 and amendments thereto, to the satisfaction of the Municipality. The Owner shall provide, install and maintain suitable traffic direction and information signs painted or otherwise marked on the surface of the parking area and driveway approaches, all to the satisfaction of the Municipality.

2.1.8 Entrances

The Owner hereby agrees to construct and install all entrances, driveways, and curbing to the satisfaction of the Municipality and the County of Essex Road Department if applicable; and further agrees that the same shall be barrier free. The Owner shall maintain all entrances and driveways on the Lands to the satisfaction of the Municipality and the County of Essex Road Department if applicable. Any driveway approaches which become redundant following the development of shall be closed and the area restored to the satisfaction of the Municipality.

2.1.9 Repair

The Owner agrees that any Municipal property, including without limiting the generality of the foregoing, curbs, gutters, pavements, sidewalks, or landscaped areas on the public highway, and any property belonging to a third party, which are damaged during construction or otherwise, shall be restored by the Owner at its expense, and to the satisfaction of the Municipality. The Owner shall keep the subject lands in a state of good repair (including the cutting of weeds) and upon written notice from the Municipality shall correct deficiencies in the state of repair within ten (10) days thereof.

2.1.10 Dirt and Debris

The Owner further agrees to keep the public highways adjacent to the subject lands free from dirt and debris caused by the construction of the subject lands, and to provide reasonable dust control for the site and adjacent municipal streets during the course of construction.

2.1.11 Address Sign

The municipal address of the building shall be provided in a prominent location on the site and shall be designed to be easily readable from the adjacent street(s).

2.1.12 Environmental Laws

The Owner shall at all times in connection with the development and the implementation of this agreement comply fully with all environmental laws.

2.1.13 Noise By-Laws

The owner shall at all times insure that the provisions of the noise by-law for the Municipality be strictly adhered to.

2.1.14 Local Improvements / Drainage Act

The owner agrees to sign Local Improvement petitions for, and agrees not to oppose, any municipal services proposed by the Municipality to be constructed pursuant to

a) the provisions of the Municipal Act S.O., 2001, c.25, including but not limited to Ontario Regulation 119/03, or

b) the Drainage Act of Ontario R.S.O. 1990 c.D.17 and amendments thereto, which shall directly or indirectly benefit the lands.

2.1.15 Parking, Driveways and Loading Areas

The Owner at its own expense shall provide parking driveways and loading areas in accordance with the Site Plan and/or the Site Services Plan. All such areas shall be paved with asphalt or concrete. All handicapped parking areas shall be identified with signage and logos to the satisfaction of the Municipality and identified as such using the then-current form available from the Office of the Clerk of the Municipality.

2.1.16 Snow Removal

The Owner, and not the Municipality, shall be responsible for keeping the parking and

access areas free and clear of all snow and ice regardless of who owns those improvements or the lands upon which they are situated. No snow or ice from the subject lands shall be deposited on any municipal streets.

2.1.17 External Lighting

The Owner shall erect exterior lighting on the subject lands as depicted in the Site Plan all in accordance with the Engineering Data. The Owner shall not erect any exterior lighting on the subject lands, other than that provided for in the Engineering Data or depicted in the Site Plan, unless the consent therefor is first had and obtained from the Municipality. The Owner further agrees that all lighting of the said lands shall be oriented and its intensity so controlled as to prevent glare on adjacent roadways and residential properties.

Should the Municipality, in its sole discretion determine that the lighting of the said lands has an adverse impact on the adjacent roadways or residential properties, then the Owner shall take all necessary measures to correct the adverse impact to the satisfaction of the Municipality. Measures to reduce the impact may include but shall not be limited to, the relocation of the lighting fixtures, the shielding of the lighting fixtures, the replacement of the lighting fixtures, replacing the lamps with lamps of lower intensity, reducing the time period when the lighting is activated or the removal of the lighting fixture.

2.1.18 Signs

The Owner shall not erect any signs on the subject lands other than signs which are allowed by this Agreement, as shown on the Site Plan and are otherwise consistent with the Town's Sign Bylaw or which are otherwise required by applicable law.

2.1.19 Refuse Collection

The Owner agrees to provide on-site facilities for refuse collection. Such facilities shall be screened from view in accordance with the requirements of the Municipality. The Owner, and not the Municipality, shall be responsible for the removal of any garbage, refuse or other wastes from the waste storage facility.

ARTICLE 3

TIMING

3.1 CONDITIONS

3.1.1 Conditions Precedent

It is a condition precedent to the coming into force of this Agreement that the Owner complete the following simultaneously with the execution of this Agreement:

- a) Security for performance is posted pursuant to Paragraph 6.1;
- b) Construction lien deposit pursuant to Paragraph 6.3;

3.1.2 Conditions Subsequent

It is a condition subsequent of this Agreement that the Owner complete the following as soon as is reasonably possible subsequent to the execution of this Agreement failing which, the Town may at its option elect to terminate this Agreement:

- a) Workers' Compensation Board Clearance Certificate issued if required;
- b) Proof of Insurance is provided pursuant to Paragraph 6.4 if required;
- c) Due registration against the title of the land of this Agreement;
- d) Postponement to this Agreement by all encumbrances;
- e) Receipt of the opinion of the Owner's lawyer confirming 3.1.2(c) and 3.1(d) if required by the Town;

3.2 BUFFER AREA

The Owner agrees to landscape all of the buffer and/or planting areas shown on the Site Plan.

3.3 COMPLETION

The Owners agree to fulfil all of the covenants set out herein to the satisfaction of the Municipality within ONE (1) year of the date of execution of this Agreement.

ARTICLE 4

PAYMENTS

4.1 COSTS

The Owner shall reimburse the Municipality for all the Municipality costs with respect to the development, including without limiting the generality of the foregoing, the fees and disbursements of its Engineer, and Solicitor. The Municipality shall deliver invoices to the owner in a timely fashion payment for which shall be due immediately.

4.2 DEVELOPMENT CHARGES

The Owner agrees to pay development charges with respect to the development in accordance with the Municipality's Development Charges By-Law.

ARTICLE 5

CONVEYANCES

5.1 EASEMENTS

The Owner shall convey or dedicate to the Municipality upon demand and without cost and free of encumbrance the easements provided for in the Engineering Data and Site Plan, in, through, over and under the subject lands as required for drainage purposes, sewers, hydro, gas, watermains, telephones etc. If the Municipality determines that additional easements are required, the Owner shall also convey or dedicate such additional easements upon demand and without cost and free of encumbrance.

5.2 ROAD WIDENING

The Owner shall convey or dedicate to the Municipality upon demand and without cost and free of encumbrance the lands shown on the Site Plan for road widening. If the Municipality determines that additional lands are required for road widening, the Owner shall also convey or dedicate such additional lands for road widening upon demand and without cost and free of encumbrance.

ARTICLE 6

SECURITY

6.1 PERFORMANCE

The Owner agrees, so as to assure the performance by the Owner of each of the terms and conditions of this Agreement during the development of the Lands, that the Owners shall, upon execution of this Agreement, forthwith deposit with the Municipality security in an amount which is equal to \$5,000.00 plus an amount equal to the value of the road work, if any, to be completed within any municipal road allowance (as calculated by the Owner's Engineer and approved by the Municipality). For greater certainty, the amount of said

security shall be subject to approval by the Municipality's Clerk and Solicitor.
Said security shall be either by way of

- a) cash, or
- b) a Standby Letter of Credit pursuant to UCP500 only, issued by a chartered bank of Canada in form satisfactory to the Municipality's Clerk and Solicitor. (not a Letter of Guarantee or Bond)

Provided that in no event shall the Municipality be required to pay interest on this security.

6.2 RELEASE OF SECURITY

The Municipality agrees to return the said security to the Owner upon the completion and final approval of the works specified in this Agreement which approval is at the Municipality's sole discretion.

6.3 CONSTRUCTION LIENS

In as much as the Owner is obligated at the Owner's entire expense and not at the expense of the Municipality, to make improvements to the municipal infrastructure, the Owner shall deposit with the Municipality, in order to satisfy the requirements of Section 17(4) of the Construction Lien Act, R.S.O. 1990, c.C.30 and amendments thereto, cash or a letter of credit in form satisfactory to the Municipality and its Solicitor and in an amount of the holdbacks (under Part IV of the Construction Lien Act, R.S.O. 1990, c.C.30 and amendments thereto) that would have been required were the improvements made at the expense of the Municipality. The Owner may, at its option, obtain a single letter of credit with respect to its responsibilities pursuant to Paragraph 6.1 of this Article, provided that the Municipality and its solicitor is satisfied that the Municipality's security under each paragraph, if read separately, would not be compromised by the Letter of Credit proposed by the Owner.

Provided that in no event shall the Municipality be required to pay interest on this security.

6.4 INDEMNITY AND INSURANCE

The Owner shall indemnify and save harmless the Municipality, and the Essex Power Corporation, from and against all actions, claims, loss, damage and liability connected with the development as contemplated herein arising directly or indirectly out of the negligence or unlawful performance or the non-performance of any obligation of the Owner or any contractors to the Owner under this Agreement. While any of the facilities and works herein have not been approved by the Municipality, the Owner shall maintain in full force and effect a policy of personal liability and property damage insurance in form and amount satisfactory to the Municipality's solicitor wherein the Owner, the Municipality, and the Essex Power Corporation, shall be insured as principals against such liability to the limits approved. The Owner shall provide the Municipality with a certified copy of such policy prior to the commencement of construction of any of the facilities and works referred to herein.

ARTICLE 7

DEFAULT

7.1 STOP WORK

In the event of any default by the Owner in the performance of any of the terms and conditions of this Agreement, the Municipality at its discretion shall, in addition to other remedies available to the Municipality, be entitled to refuse building permits with respect to the development and/or shall be entitled to refuse building and/or occupancy permits with respect to any buildings, and/or shall be entitled to issue stop work orders with respect to any matters in respect of which a building permit has been issued and/or may refuse to

grant to the Owner any permissions, permits, certificates, approvals or authorities of any kind or nature which the Owner would have been entitled to receive had the Owner otherwise complied with the Municipality's requirements in this agreement, and/or shall be entitled to refuse to issue releases, all of which may be done until such time as the default has been cured in a manner satisfactory to the Municipality.

7.2 MUNICIPALITY MAY COMPLETE

The owner acknowledges that this agreement is entered into pursuant to section 41(11) of the Planning Act, R.S.O. 1990 c.P.13 and amendments thereto, and that a bylaw has been passed by the Municipality approving the entering into of this Agreement by the Municipality and incorporating the terms of this Agreement into that bylaw, and further that section 446 of The Municipal Act, S.O. 2001, c.25 and amendments thereto, applies to all requirements of this Agreement. If the Owner neglects to undertake any matter or thing required to be done by this Agreement and such default continues after SEVEN (7) days of the Owner being given written notice by the Municipality of such default, in addition to other remedies available to the Municipality, the Municipality may direct that such matter or thing shall be done at the expense of the Owner, and the Municipality may recover the costs incurred in doing it, by action or by adding such costs to the tax role and collecting them in the same manner as taxes; the Owner hereby authorises the Municipality (including, without limiting the generality of the foregoing, its employees, agents and servants) to enter upon the Lands to do any such matter or thing.

ARTICLE 8

REGISTRATION AND CONSENTS

8.1 REGISTRATION AND ENFORCEMENT

Pursuant to Section 41(10) of the said Planning Act, R.S.O. 1990, c.P.13 and amendments thereto, this Agreement may be registered against the Lands to which it applies, as a first charge, at the Owner's expense, and the Municipality is entitled to enforce the provisions hereof against the Owners, who shall be jointly and severally liable for the Owners' covenants and obligations outlined herein, and, subject to the provisions of The Registry Act, R.S.O. 1990, c.R.20 and amendments thereto, and the Land Titles Act, R.S.O. 1990, c.L.5 and amendments thereto, against any and all subsequent owners of the Lands.

8.2 CONSENT

The Owners hereby consent to the registration of this Agreement on the title of the Lands, said registration (as well as the preparation of this Agreement) to be at the Owners' expense.

8.3 MORTGAGEES

The owners agree to obtain a postponement of any mortgages or other encumbrances which may affect the Lands.

ARTICLE 9

MISCELLANEOUS

9.1 COMMUNICATION

Subject to the express provisions of this Agreement, all communications provided for or permitted hereunder shall be in writing, personally delivered to an officer of the addressee or sent by registered and receipted mail, charges prepaid, or by facsimile transmission or other means of recorded telecommunication, charges prepaid, to the applicable address set forth below or to such other address as either party hereto may from time to time designate to the other in such manner.

Communications sent to the Municipality shall be addressed to:
917 Lesperance Road, Tecumseh, Ontario N8N 1W9

Communications sent to the Owner shall be addressed to:
5355 County Road 19, Maidstone, ON N0R 1K0

Any communication so personally delivered shall be deemed to have been validly and effectively given on the date of such delivery. Communications so sent by registered and receipted mail shall be deemed to have been validly and effectively given on the Business Day next following the day on which it is received, as evidenced by the postal receipt. Communications so sent by facsimile transmission or other means of recorded telecommunication shall be deemed to have been validly and effectively given on the Business Day next following the day on which it is sent. Any party may from time to time change his or its address for service on written notice to the others.

“**Business Day**” means any day, other than a Saturday, Sunday or any other day on which the principal chartered banks located in the Town are not open for business during normal banking hours

9.2 TIME OF ESSENCE

Time shall be of the essence of this Agreement and of every part thereof.

9.3 WAIVER

No waiver by any part of a breach of any of the covenants, conditions and provisions herein contained shall be effective or binding upon such party unless the same shall be expressed in writing and any waiver so expressed shall not limit or affect such party's rights with respect to any other future breach.

9.4 FURTHER ASSURANCES

Each of the Parties covenants and agrees that he, his heirs, executors, administrators and assigns will sign such further agreements, assurances, waivers and documents, attend such meetings, enact such by-laws or pass such resolutions and exercise such votes and influence, do and perform or cause to be done and performed such further and other acts and things as may be necessary or desirable from time to time in order to give full effect to this Agreement and every part thereof.

9.5 HEADINGS

The headings of the Articles of this Agreement are inserted for convenience only and do not constitute part of this Agreement.

9.6 SUCCESSORS AND ASSIGNS

The covenants hereunder shall run with the land and this Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors and assigns.

9.7 GENDER

All words and personal pronouns relating thereto shall be read and construed as the number and gender of the party or parties referred to in each case require and the verb shall be construed as agreeing with the required word and pronoun.

9.8 SEVERABILITY

If any covenant or provision contained herein is determined to be in whole or in part, invalid or unenforceable by reason of any rule of law or public policy, such invalidity or unenforceability shall not affect the validity or enforceability of any other covenant or provision contained herein and, in the case of partial invalidity or unenforceability of a

covenant or provision, such partial invalidity or unenforceability shall not affect the validity or enforceability of the remainder of such covenant or provision, and such invalid or unenforceable covenant or provision or portion thereof, as the case may be, shall be severable from the remainder of this Agreement.

9.9 ENTIRE AGREEMENT

This Agreement expresses the final agreement among the parties hereto with respect to all matters herein and no representations, inducements, promises or agreements or otherwise among the parties not embodied herein shall be of any force and effect. This Agreement shall not be altered, amended or qualified except by a memorandum in writing, signed by all the parties hereto, and any alteration, amendment or qualification thereof shall be null and void and shall not be binding upon any such party unless made and recorded as aforesaid.

9.10 EXECUTION IN COUNTERPARTS

This Agreement may be executed in one or more counterparts, each of which when so executed shall be deemed to be an original and all of which together shall constitute one and the same instrument.

9.11 JURISDICTION

This Agreement and all other agreements, security and documents to be delivered in connection with this agreement shall be governed by and construed in accordance with the applicable laws of the Province of Ontario and of Canada.

9.12 ASSIGNMENT

Subject to the terms of this agreement, this agreement is not assignable by the owner prior to completion of the works without the consent of the Municipality.

9.13 TRUE COPY

All of the parties hereto acknowledge having received a true copy of this document.

9.14 SCHEDULES

Those Schedules marked as Schedules "B" have been signed by the parties and are on file with the Municipality. A reduced copy of those schedules are annexed hereto. A reduced copy of those schedules are annexed hereto which copy may be removed prior to registration on title should the Land Registry Office so determine or require.

9.15 CONTRA PROFERENTEM RULE NOT APPLICABLE

It is agreed and acknowledged that both parties, directly or through their agents, principals, representatives and/or solicitors, have participated in the preparation and/or negotiation of the provisions of this agreement.

Should any provision of this agreement require judicial interpretation, mediation or arbitration, it is agreed that the court, mediator or arbitrator interpreting or construing the same shall not apply a presumption that the terms thereof shall be more strictly construed against one party or so as to disadvantage any party on the basis that such party and/or its solicitor or agent:

- a. *Prepared this agreement or any part of it; or*
- b. *Seeks to rely on this agreement or any part of it."*

9.16 INDEPENDENT LEGAL ADVICE

To the extent that the solicitors of Wolf Hooker Professional Corporation has been involved in the preparation of this agreement, such solicitors act solely as solicitors for the Town and with regard to the interests of the Town and not for any other party to this agreement. It is strongly recommended that all other parties to this agreement obtain independent legal advice prior to signing this agreement. Each such party acknowledges:

- 1) having obtained independent legal advice from his, her, or its’ own solicitor with respect to the terms of this Agreement prior to its execution or having otherwise been given a reasonable opportunity to obtain such advice and declined to so;
- 2) that he *or* she *or* it understands the terms, and his *or* her rights and obligations, under this Agreement.

IN WITNESS WHEREOF the Parties hereto have hereunto set their hands and seals.

SIGNED, SEALED AND DELIVERED	}	
in the presence of	}	
	}	
	}	THE CORPORATION OF THE
	}	TOWN OF TECUMSEH
	}	
	}	Per: _____
	}	Gary McNamara – MAYOR
	}	
	}	_____
	}	Laura Moy - CLERK
	}	
	}	_____
	}	Lilly Jean Daniher

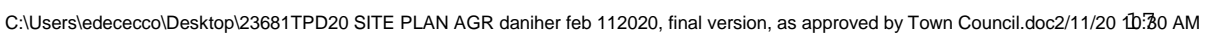
SCHEDULE "A"

THE LANDS

PT LOT 10 CON 12 GEOGRAPHIC TOWNSHIP OF SANDWICH SOUTH
DESIGNATED AS PT 2 PL 12R21779; NOW IN THE TOWN OF TECUMSEH

Being all of PIN 75237-0170 (LT)

SITE PLAN





The Corporation of the Town of Tecumseh

Planning & Building Services

To: Mayor and Members of Council

From: Brian Hillman, Director Planning & Building Services

Date to Council: February 25, 2020

Report Number: PBS-2020-08

Subject: 2019 Year End Permit Report

Recommendations

It is recommended:

That Planning and Building Services Report No. PBS-2020-08, "2019 Year End Permit Report," **be received**

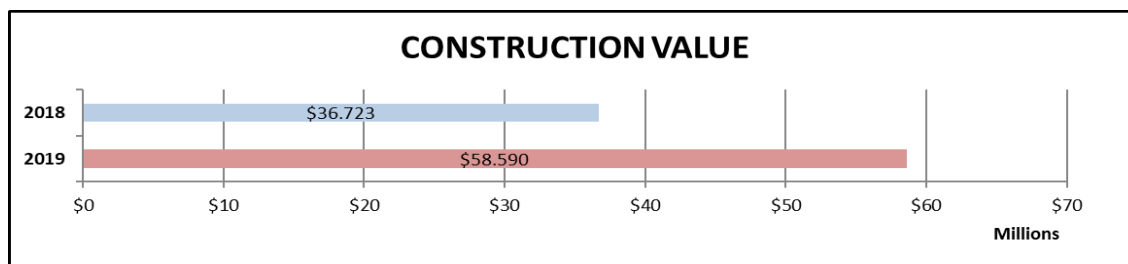
Background

This Report summarizes the permits issued for the year of 2019 (January-December) and compares the values of the same period of the previous year.

Comments

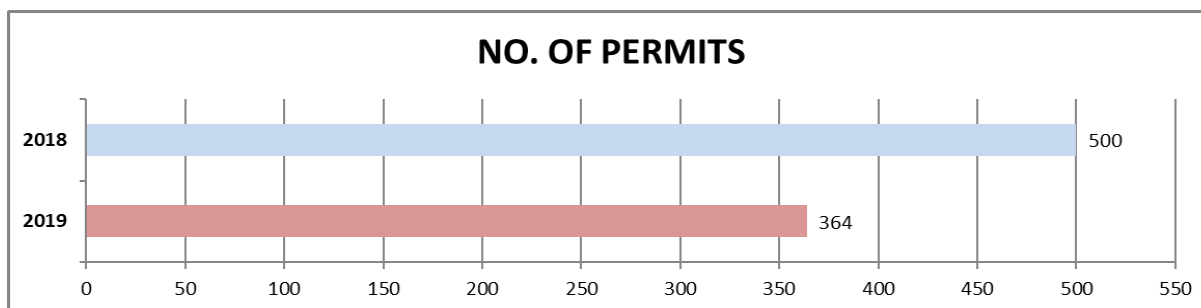
1. Construction Value:

The following chart summarizes the reported construction value of permits for the period. Construction value was reported at \$58,589,778, which is up by \$21,866,511 or 60 percent over last year. This substantial increase is a function of a number of large non-residential building additions, one of which had an individual value of \$15,000,000.



2. Number of Permits:

The following chart summarizes the total number of permits issued for the period. The number of permits is down by 136 or 27 percent. This is due in part to a decrease in residential additions and improvements permits.



3. Permit Types:

The following chart summarizes the number of permits issued by type for the period. A total of 19 new dwelling unit permits were issued, which resulted in 20 new residential units. For the same period last year there were 24 new residential units. 39 backwater valve permits were issued for the period.

Permits		
Types of Permits	No of Permits	
	2019	2018
New Residential Buildings	19	24
New Multi-Residential Buildings	1(2 units)	0
Residential Additions and Improvements	153	221
New Non-Residential Buildings	7	10
Non-Residential Additions and Improvements	57	88
Swimming Pools	37	35
Lot Grading	6	10
Fences	23	39
Signs	10	15
Portable Signs	36	41
Demolitions	15	17
Totals	364	500

Consultations

None

Financial Implications

Total revenue for the period is reported at \$398,706, which is \$63,906 or 19 percent higher than the budgeted amount of \$334,800.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐ Social Media ☐ News Release ☐ Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Mike Voegeli
Manager Building Services & Chief Building Official

Reviewed by:

Brian Hillman, MA, MCIP, RPP
Director Planning & Building Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
None	None



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Environmental Services

Date to Council: February 25, 2020

Report Number: PWES-2020-10

Subject: Highway 3/County Road 11 Watermain Replacement Project
Ontario Ministry of Transportation Agreement and
Tender Award

Recommendations

It is recommended:

That By-law No. 2020-16 being a by-law to authorize the Mayor and Clerk to sign and execute an agreement between The Corporation of the Town of Tecumseh and Her Majesty the Queen in right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario, in a form satisfactory to the Town's Solicitor, for the watermain replacement located in part within the provincially owned Highway 3 lands from Oldcastle Road westerly to approximately 450m west of County Road 11 (Walker Road) and along County Road 11 from McCord Lane southerly to just south of Highway 3, **be approved**;

And that the tender for the Highway 3/County Road 11 Watermain Replacement Project in the amount of \$1,390,658, excluding HST, **be awarded** to Shearock Construction Group Inc. and that the Mayor and Clerk **be authorized** to execute an agreement, satisfactory in form to the Town's Solicitor, with Shearock Construction Group Inc. following receipt of the fully executed MTO Agreement and receipt of the required MTO permit.;

And further that project funding allocations, reflecting a \$490,400 decrease, **be adjusted** as follows:

- Watermain Reserve Fund – decrease from \$2,316,700 to \$1,826,300

Background

At the December 12, 2017 regular meeting of Council, Council approved works on the Highway 3/County Road 11 Watermain Replacement Project as part of the 2018-2022 Public Works & Environmental Services Capital Works Plan (Motion: RCM-441/17). This project involves the replacement of the existing 150mm and 200mm diameter ductile iron watermain at the Highway 3/County Road 11 intersection from Oldcastle Road westerly to approximately 450m west of County Road 11 (Walker Road) and along County Road 11 from McCord Lane southerly to just south of Highway 3 with new 200mm and 300mm diameter watermain.

At the December 10, 2019 regular meeting of Council, Council approved the recommendation of report number PWES-2019-49 titled "2020-2024 Public Works & Environmental Services Five Year Capital Works Plan" that authorized the construction of the Highway 3/County Road 11 Watermain Replacement Project in 2020.

Administration has undertaken significant consultation with the Ontario Ministry of Transportation with regard to obtaining the required Agreements and approvals to allow this project to proceed within the Highway 3 corridor. In addition, the project was tendered in January 2020.

Comments

Ontario Ministry of Transportation

Highway 3 is a provincially owned and maintained highway. Any works proposed within the Highway 3 corridor require an approval from the Ontario Ministry of Transportation (MTO). Prior to issuing their approval, MTO requires the Town of Tecumseh to enter into and execute an Agreement to replace the municipal water infrastructure located at the Highway 3/County Road 11 intersection from Oldcastle Road westerly to approximately 450m west of County Road 11 and along County Road 11 from McCord Lane southerly to just south of Highway 3.

The Agreement includes, without limitation, the Town's obligations related to construction, maintenance and repair of the water infrastructure, insurance and any regulatory approvals required to complete the proposed works. The Agreement also includes the following clause:

4.1. The Municipality, at its own expense, at any time on the receipt of written notice from MTO, shall suspend operations, remove, alter, or relocate any or all of the Plant contemplated herein as may be required by MTO to facilitate any MTO construction project, reconstruction project, or maintenance project within the Highway which requires the construction of buried foundations, or any other works, at the same location as the buried Plant. MTO agrees that it shall act reasonably in the design and specification of any such construction or reconstruction project, and prior to requiring any such removal, alteration, or relocation of any portion of the Plant, MTO shall assess all reasonable design alternatives which do not necessitate any removal or relocation of the Plant.

With regard to this clause, Administration has received confirmation from MTO that there are currently no planned highway improvement projects for this section of Highway 3.

The Agreement is appended to this report as Attachment 1. This Agreement has been reviewed by the Town solicitor, Wolf Hooker. Administration recommends that the Mayor and Clerk be authorized to execute this agreement with the MTO.

Tender Call and Award

In accordance with the Town's Purchasing By-law 2017-63 and accompanying Purchasing Policy, a Request for Tenders (RFT) was prepared for the Highway 3/County Road 11 Watermain Replacement Project.

A tender call was advertised on the Town's website on January 10, 2020 along with direct notification to the Windsor Construction Association. Seven (7) tenders were received by the Purchasing Officer on January 30, 2020. The Tenders were opened publicly at Tecumseh Town Hall in the presence of Administration.

Stantec has reviewed the tenders and provided the attached report (Attachment 2). The tender results are summarized as follows:

Contractor	Tender (excluding HST)
Shearock Construction Group Inc.	\$1,390,658.00
Sterling Ridge Infrastructure Inc.	\$1,487,363.00
D'Amore Construction (2000) Ltd.	\$1,579,250.00
Major Construction (2010) Ltd.	\$1,819,805.00
J & J Lepera Infrastructures Inc.	\$1,989,600.00
Coco Paving Inc.	\$2,138,420.00
Sherway Contracting (Windsor) Limited	\$2,828,325.00

One (1) addendum was issued during tendering. All seven tenderers acknowledged receipt of the addendum and included a copy in their respective tenders. A 10% bid bond was also included with each tender.

The tenders were checked for inconsistencies, omissions, unbalanced pricing and other items that would raise concerns. Prices submitted by Shearock Construction Group Inc. for some items were significantly lower than prices submitted by other tenderers, however, none of these items are considered major items in the project and no detrimental effect is expected. The tender submitted by J & J Lepera Infrastructures Inc. included a price for one tender item

that was significantly higher than other tenderers, however, no further action was taken since J & J Lepera was the fifth lowest bidder.

The tenders were also checked for mathematical errors. A mathematical error was noted in the tender submitted by Major Construction (2010), however, this error did not impact their total tender price and Major Construction (2010) Ltd. remained the fourth lowest bidder.

Based on their low tender submission, Administration, in consultation with Stantec, recommends that Council award the tender for the Highway 3/County Road 11 Watermain Replacement Project in the amount of \$1,390,658, excluding HST, to Shearock Construction Group Inc. and that the Mayor and Clerk be authorized to execute an agreement, satisfactory in form to the Town's Solicitor, with Shearock Construction Group Inc. following receipt of the fully executed MTO Agreement and receipt of the required MTO permit.

Consultations

Corporate Services & Clerk
Financial Services
Ontario Ministry of Transportation
Stantec Consulting Ltd.
Wolf Hooker Barristers & Solicitors

Financial Implications

Council had previously approved an allocation of \$2,316,700 from the Watermain Reserve Fund for the Highway 3/County Road 11 Watermain Replacement Project (Motion: RCM-401/19). The tendered/projected costs are summarized below:

Cost Item	Amount
Construction (tender)	\$1,390,700
Engineering	\$240,000
Topographic and Legal Survey	\$16,750
Permit Fees (MTO, County, ERCA)	\$3,500
Geotechnical	\$32,750
Utilities/Locates	\$11,000
Budgetary Contingency	\$100,000
Subtotal	\$1,794,700

Cost Item	Amount
Non-rebateable HST (1.76%)	\$31,600
Total	\$1,826,300

The total tendered/projected cost is under the approved allocation of \$2,316,700 by \$490,400.

Administration recommends that project funding allocations, reflecting a \$490,400 decrease, be adjusted as follows:

- Watermain Reserve Fund – decrease from \$2,316,700 to \$1,826,300

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐

Social Media ☐

News Release ☐

Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

John Henderson, P.Eng.
Manager Engineering Services

Reviewed by:

Laura Moy, Dipl. M.M., CMMIII HR Professional
Director Corporate Services & Clerk

Reviewed by:

Tom Kitsos, CPA, CMA, BComm
Director Financial Services & Chief Financial Officer

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

**Attachment
Number**

**Attachment
Name**

1

MTO Agreement

2

2020-02-11 Stantec Tender Summary and Award Recommendation

BETWEEN: THE CORPORATION OF THE TOWN OF TECUMSEH
(“The Municipality”)
and
HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF
ONTARIO, REPRESENTED BY THE MINISTER OF
TRANSPORTATION FOR THE PROVINCE OF ONTARIO
(“MTO”)

- A. MTO represents that it is the owner of the lands described as the Highway which is defined in paragraph 1.2;
- B. The Municipality has proposed to construct a watermain, defined in paragraph 1.4 as the Plant, crossing the Highway by jack and bore; and,
- C. It is deemed expedient to enter into this Agreement to give effect to the Municipality proposal of constructing the Plant within the Highway at the Location defined in paragraph 1.3.

- 1.1. “As-constructed Drawings” shall mean the drawings signed and sealed by a licenced Professional Engineer that reflect all elements of the completed works. The drawings shall depict coordinates and elevations at 30m intervals and at all test pit locations along the completed installation based on a geodetic datum and a typical detail cross-section where the watermain is being installed at a consistent depth. Any watermain highway crossing, elevations shall be obtained from the bore pits at either end of the crossing. The highway paved road surface and granular shoulders shall be excluded and not disturbed in any way from obtaining these elevations;
- 1.2. “Highway” shall mean Highway 3 under the jurisdiction and control of MTO in Essex County, designated as Controlled Access Highway;
- 1.3. “Location” shall mean the area of Highway 3 chainage as per Stantec Engineered Drawings C-101 to C-106, Project 165620142 Aug. 01, 2019 from starting chainage 0+000 to 0+935.
- 1.4. “Plant” shall mean the installation of a 200mm and 300mm new watermain within MTO’s ROW as per Stantec Engineered Drawings C-101 to C-106, Project 165620142 Aug. 01, 2019 as illustrated in Schedule “A”.
- 1.5. “PTHIA” shall mean the Public Transportation and Highway Improvement Act, R.S.O. 1990, c. P.50 and any amendments thereto from time to time.

- 2.1. The Plant shall conform to the drawing contained in Schedule “A” and be installed as per the agreed upon specifications. minimum of 1.5m below the bottom of existing Highway ditch.
- 2.2. The Municipality, following the execution of this Agreement, may construct, at no cost to MTO, the Plant within the Highway in accordance with this Agreement, including Schedule “A” and Schedule “B” as applicable.

- 2.3. Construction of the Plant shall be in accordance with the geotechnical investigation report prepared by Wood Environmental & Infrastructure Solutions (a Division of Wood Canada Limited) dated May 30, 2019.
- 2.4. Within three (3) months of the completion of construction of the Plant, the Municipality will provide As-constructed Drawings to MTO.

3. **Maintenance and Repair**

- 3.1 The Municipality, under the terms of this Agreement, is hereby deemed to be under an obligation to effect, and shall effect at no cost to MTO, all required maintenance and repair to the Plant according to the standards of the Municipality, any other agencies as required for their approvals, and to the satisfaction of MTO. The Municipality, at no cost to MTO, shall keep the area of the Highway occupied by the Plant in a neat and tidy condition according to the standards of the Municipality, any other agencies as required, and to the satisfaction of MTO. The Municipality shall also obtain the necessary approvals/permits from MTO for all required maintenance and repair to the Plant.
- 3.2 In the case of maintenance and repair (emergency or otherwise), all costs associated with the repair of MTO infrastructure as a result of this activity shall be borne by the Municipality. Further, MTO will coordinate and implement the required traffic management and infrastructure repair in accordance with MTO standards in consultation with the Municipality, at the cost of the Municipality.

4. **Relocation and/or Temporary Diversion in whole or in part within the Highway**

- 4.1. The Municipality, at its own expense, at any time on the receipt of written notice from MTO, shall suspend operations, remove, alter, or relocate any or all of the Plant contemplated herein as may be required by MTO to facilitate any MTO construction project, reconstruction project, or maintenance project within the Highway which requires the construction of buried foundations, or any other works, at the same location as the buried Plant. MTO agrees that it shall act reasonably in the design and specification of any such construction or reconstruction project, and prior to requiring any such removal, alteration, or relocation of any portion of the Plant, MTO shall assess all reasonable design alternatives which do not necessitate any removal or relocation of the Plant.
- 4.2. Any written notice from MTO referred to in section 4.1 shall be by either registered mail or by facsimile and shall:
 - A. specify either the portion or the whole of the Plant to be dealt with; and,
 - B. specify a relocation and/or temporary diversion date of at least 60 calendar days after the date of the postmark, if by mail, or after the date of transmission, if by facsimile
- 4.3. On or following any respective relocation and/or temporary diversion date, the Municipality shall cause the area of the Highway, specified in the paragraph 4.1 notice, to be left in a neat and tidy condition.
- 4.4. On the relocation and/or temporary diversion date referred to in any paragraph 4.1 notice, the use by the Municipality of the portion of the Highway specified by that letter is hereby deemed to be ended.
- 4.5. Notwithstanding the other provisions of this Agreement, in the event of an emergency, as determined by MTO in its sole discretion, requiring MTO to act to repair or maintain the Highway in respect of matters of highway safety or highway traffic flow:
 - A. MTO may give the Municipality oral or written notice of such emergency. Upon such notice, MTO may temporarily suspend the rights of the Municipality under this Agreement; and

- B. MTO shall not be liable to the Municipality for any costs or damages incurred by the Municipality as a result of such temporary suspension.
- 4.6. Notwithstanding the other provisions of this Agreement, in the event of an emergency, as determined by the Municipality in its sole discretion, requiring the Municipality to act to repair or maintain the Plant:
- A. The Municipality shall give MTO oral and written notice of such emergency, and provide a written description of the nature and extent of the emergency repairs required and the potential impacts to highway traffic flow and/or the Highway;
 - B. All work shall be completed to the satisfaction of MTO, in accordance with the Occupational Health and Safety Act (of Ontario) and the Environmental Protection Act. All traffic control shall be in compliance with Ontario Traffic Manual, Book 7 (January 2014); and
 - C. MTO shall not be liable to the Municipality for any costs or damages incurred by the Municipality as a result of undertaking the required emergency repairs.
- 4.7. Nothing under paragraphs 4.1 to 4.5 shall be construed as lessening the obligation of the Municipality to MTO under the paragraph 9.1 indemnification.

5. Insurance

- 5.1. During any construction, maintenance or repair of the Plant, the Municipality or its contractor shall have in place a commercial general liability policy of insurance covering property damage, bodily injury and personal injury, including the following:
- have MTO, via an endorsement, as an additional insured in that policy;
 - not be subject to cancellation without reasonable notice to the MTO;
 - cover the period of time specified above;
 - be in the amount of at least Five Million (\$5,000,000.00) Dollars Canadian per occurrence; and
 - contain a cross liability clause endorsement.

6. Addresses

- 6.1. The address of the Municipality for the purposes of this Agreement, unless the Municipality otherwise advises in writing, is:
- The Applicant
The Corporation of the Town of Tecumseh
917 Lesperance Road
Tecumseh ON N8N 1W9
- Attention: Clerk copy to Director of Public Works
Tel. 519-735-2184
- 6.2. The address for MTO for the purposes of this Agreement, unless MTO otherwise advises in writing, is:
- Corridor Management
Ministry of Transportation
659 Exeter Road
London, ON
N6E 1L3
- Tel. (519)-873-4203
Fax: (519) 873-4228

7. **Warranty**

- 7.1. The Municipality warrants that it has taken all necessary steps, done all acts, passed all by-laws, and obtained all approvals required to give it the authority to enter into this Agreement.

8. **MTO Encroachment Permit**

- 8.1. Upon execution of this Agreement, MTO will issue to the Municipality a MTO encroachment permit under section 38(2)(a) of the PTHIA. The terms and conditions of this permit are contained in Schedule 'B' of this Agreement.
- 8.2. A copy of this Agreement, including Schedule "A" and Schedule "B", shall be attached to any future permit issued under PTHIA to the Municipality with respect to the Plant. Any such permit shall reference the same forming part of the terms and conditions of the permit.

9. **Indemnification**

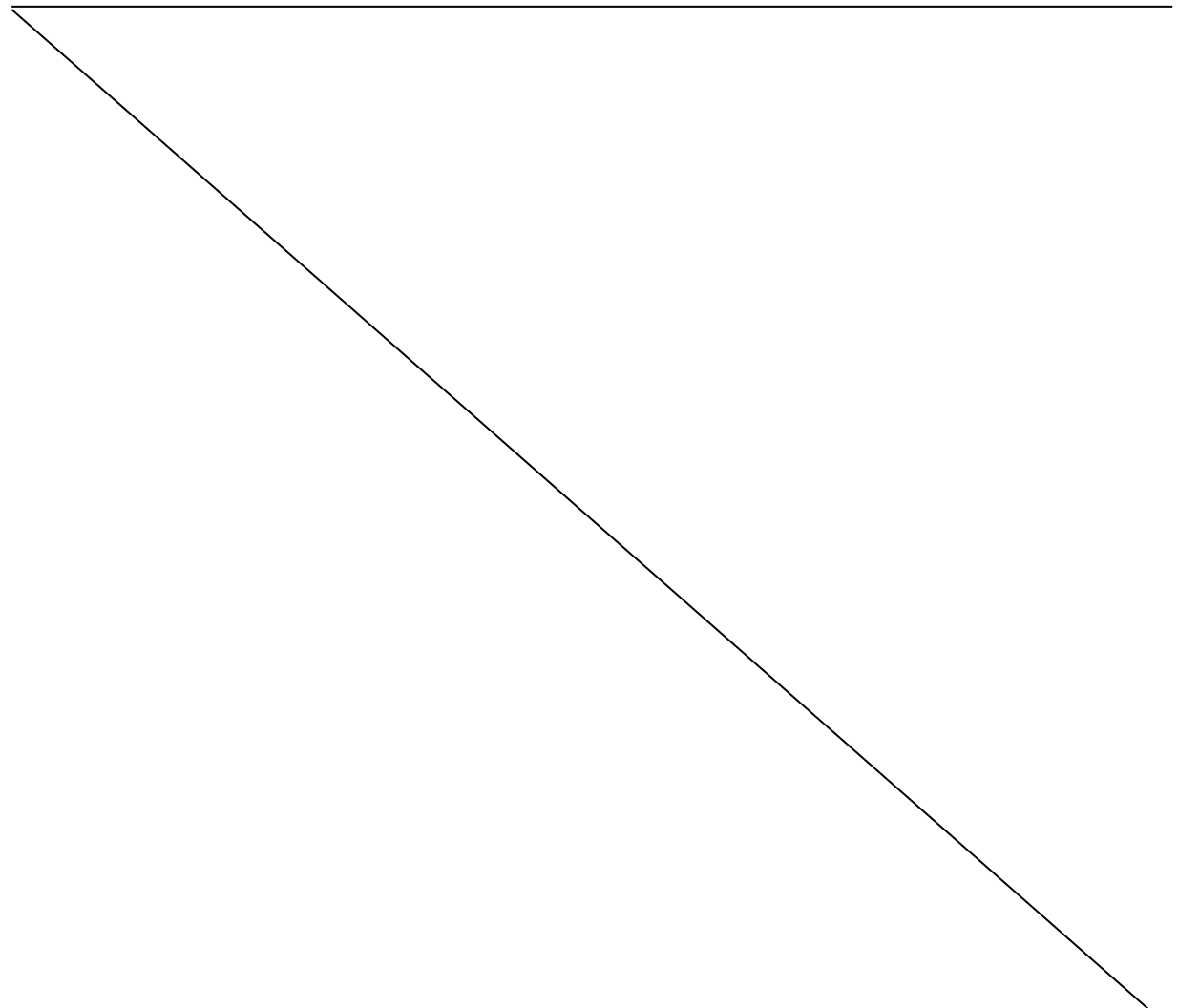
- 9.1. The Municipality shall save harmless and indemnify MTO from all claims, demands, damages, proceedings, obligations, costs inclusive of solicitor and client costs, interest, and all actions, that MTO may suffer or incur based upon or attributable to anything done or omitted to be done by the Municipality, in connection with this Agreement, save and except to the extent of any negligence of MTO.

10. **Compliance with Laws**

- 10.1. The Municipality shall comply with all applicable laws in the compliance with any provisions of this Agreement.

11. **Assignment**

- 11.1. This Agreement may not be assigned by the Municipality without the prior written consent of MTO.



12. **Binding Agreement**

12.1. This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors, and permitted assigns.

IN WITNESS OF ALL contained in this Agreement:

THE CORPORATION OF THE TOWN OF TECUMSEH

Position / Name Printed

Signature

Position / Name Printed

Signature

**HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF ONTARIO,
REPRESENTED BY THE MINISTER OF TRANSPORTATION FOR THE
PROVINCE OF ONTARIO**

Head, Corridor Management Section, West Region
For the Ministry of Transportation
For the Province of Ontario

Stantec Engineered Drawings - Project 165620142 Aug. 01, 2019 for Proposed Watermain Works.

[illegible]

Client/Project
TOWN OF TECUMSEH

**HIGHWAY NO. 3 / WALKER ROAD
WATERMAIN REPLACEMENT**
Town of Tecumseh, ON, Canada

Title _____
SITE PLAN, KEY PLAN, LEGEND,
NOTES AND INDEX TO DRAWINGS

Project No.	Scale
165620142	
Revision	Drawing No.

G-002



INDEX TO DRAWINGS

	CITY PLAN	STATE PLAN	LEGEND	NOTES AND INDEX TO DRAWINGS
G-001	COVER SHEET			
G-002	SITE PLAN			
C-001	RIGHT OF WAY	3 - STA. 0+000 TO STA. 0+150		
C-002	RIGHT OF WAY	3 - STA. 0+150 TO STA. 0+300		
C-003	RIGHT OF WAY	3 - STA. 0+300 TO STA. 0+450		
C-004	RIGHT OF WAY	3 - STA. 0+450 TO STA. 0+610		
C-005	RIGHT OF WAY	3 - STA. 0+610 TO STA. 0+770		
C-006	RIGHT OF WAY	3 - STA. 0+770 TO STA. 0+935		
C-007	WALKER ROAD	STA. 0+000 TO STA. 0+150		
C-008	WALKER ROAD	STA. 0+150 TO STA. 0+295		
C-009	WALKER ROAD	STA. 0+295 TO STA. 0+435		
C-010	WATERMAIN CROSSING PROFILES			
C-011	WATERMAIN CROSSING PROFILES			
C-012	TYPICAL WORK AREA LAYOUT			
C-501	STANDARD DETAILS			
C-502	STANDARD DETAILS			
C-503	STANDARD DETAILS			



SITE PLAN
SCALE = 1:5000

LEGEND

[illegible]

SCHEDULE "B"

Conditions for Encroachment Permits and Utility Installations On or Under a King 's Highway

THIS APPENDIX "A" FORMS PART OF THE CONDITIONS OF YOUR PERMIT. THESE ARE GENERAL CONDITIONS ONLY. PLEASE NOTE ANY SPECIFIC INSTRUCTIONS AND/OR CONDITIONS ON THE FRONT OF YOUR PERMIT.

1. The Applicant shall give the Carillion Canada Incorporated Construction and Operations Superintendent **Dennis Armstrong, Office: 519-351-3557 Toll: 1-888-850-6803**, five (5) working days notice **PRIOR** to commencing any work, and shall also inspect the site on completion with the Patrol Supervisor / Superintendent . If the Applicant is unable to contact the Patrol Supervisor / Superintendent, the District/Area office responsible for issuing the permit must be contacted five (5) working days **PRIOR** to commencing any work. Contact: **Wayne Gradwell Phone: (519) 352-2802 Cell: 519-358-3502.**
2. The applicant and their contractor(s) are responsible for all safety precautions and shall assume all liability for accidents. Two way traffic must be maintained with a minimum of disruption at all times unless arrangements have been approved by the ministry. Traffic safety measures must be taken in accordance with the **Ontario Traffic Manual, Book 7, January 2014.**
3. The Applicant shall also provide notice to the **Ministry of Transportation Traffic Operations Centre, Fax Number: (519) 873-4443 or by e-mail at WestRegion.TOC@Ontario.ca.** Notification must be received by 1600 hours on the day **PRIOR** to commencing any work.
4. **For MTO electrical locates please call 1-800-265-6072.**
5. No Material and Equipment shall be stored within 7.0m (23') of the travelled portion of any roadway.
6. No excavation is permitted within 3 m (10') of edge of pavement or back of curb. Excavations must be backfilled or fully enclosed/protected when unattended. All augured/directional bores shall have a one year performance warranty against heaving/settlements.
7. No excavating of the highway roadbed will be allowed for the purpose of recovering a boring device or underground piercing tool.
8. No torpedoes will be allowed for highway undercrossings.
9. Highway shoulders which are disturbed as a result of an installation will be restored by the Applicant with material as specified by the Ministry, at the applicant ' s expense, and to the satisfaction of the Ministry.
10. Pavement surfaces which become damaged as a result of an installation will be repaired by the Applicant as specified by the Ministry, at the applicant ' s expense, and to the satisfaction of the Ministry.
11. Affected areas to be restored to the original condition or better at no cost to the Ministry. All disturbed areas to be top-soiled, seeded or sodded as required. All disturbed ditches to be restored with at least four rows of sod placed in the bottom.
12. Any damage to trees, shrubs, ditches, grass areas shall be repaired or replaced by the Applicant, at the discretion of this Ministry. No trenching and/or plowing will be permitted within "Drip Line" of trees, without prior approval.
13. The Applicant is responsible for all damages to any existing utilities and/or encroachments during the installation. The Applicant is advised to contact the owner(s) of such, for location prior to commencing work.
14. The Applicant shall give the Ministry's district/Area Office written notice of completion of work, and of any changes made during construction. Any changes to the alignment of the installation beyond 0.5 m must have Ministry approval.
15. Work must be started within six (6) months of the date the permit is issued, or the permit becomes null and void.
16. This Permit may be temporarily revoked as result of the ministry wishing to carry out construction or other works in the area or for any other reasons, for any works carried out by the applicant under this permit.
17. The applicant must contact other agencies and municipalities (ie: conservation authorities, ministry of the environment, municipal drainage superintendent, etc.) as required, for their approvals.
18. All work performed within the right-of-way shall be done in accordance with the Occupational Health and Safety Act (of Ontario) and the Environmental Protection Act.
19. Hydro poles and anchors shall be located a minimum of 7.0 m (23') from the edge of the travelled portion of the lane closest to the plant.
20. The applicant shall co-ordinate the work with other Contractors within and/or adjacent to the project limits to ensure that they do not perform work in the same area at the same time. The applicant is responsible for notifying the issuer of this permit if they become aware of this situation.

NOTE: APPLICANT IS RESPONSIBLE FOR ENSURING THE CONTRACTOR IS MADE AWARE OF ALL CONDITIONS AND IS PROVIDED WITH A COPY OF THE PERMIT AND ALL CONDITIONS.



NOTIFICATION OF FIELD WORK OPERATIONS

Sent by and phone #		MTO Contact and phone #:		Sent Date:	
Contract #		24 Hr Contact and phone:		Highway #:	
Location From: (Km or Interchange or nearest Community)		Location To: (Km or Interchange or nearest Community)			
Ramp Closure (If applicable) Interchange # / Road Name					Times:
		<input type="checkbox"/> Eastbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
		<input type="checkbox"/> Westbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
		<input type="checkbox"/> Northbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
		<input type="checkbox"/> Southbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
Lane Closures (indicate date and hours)					
<input type="checkbox"/> Eastbound-		Left	Centre	Right	Shld. Only
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Westbound-		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Northbound-		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Southbound-		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work to be Performed:					
Equipment:					
General Information	yes	no	Comments / Extra Info:		
Weather permitting	<input type="checkbox"/>	<input type="checkbox"/>			
Reduced speed	<input type="checkbox"/>	<input type="checkbox"/>			
Advanced signing to be erected	<input type="checkbox"/>	<input type="checkbox"/>			
Mobile operation	<input type="checkbox"/>	<input type="checkbox"/>			
Flagging operation	<input type="checkbox"/>	<input type="checkbox"/>			
Signature:					
Please remember the information supplied is required for public and Emergency Services information via media advisories. Keep all details clear, concise and correct.					
E-Mail to WestRegion.TOC@ontario.ca or fax to West Region TOC (519)873-4443 or no later than 1600hrs the day before the closure is to occur. TOC phone number is 519-873-4223					

Revision # _____

Page



Stantec Consulting Ltd.
140 Ouellette Place, Suite 100
Windsor, Ontario N8X 1L9
Tel: (519) 966-2250
Fax: (519) 966-5523

February 11, 2020
File: 165620142

The Corporation of the Town of Tecumseh
917 Lesperance Rd
Windsor, ON
N8N 1W9

Attention: Mr. John Henderson, P.Eng.
Manager Engineering Services

Dear John,

Reference: Tender Report
Highway No. 3 and Walker Road Watermain Replacement

Tenders for the above referenced project were received at the Town of Tecumseh offices until 2:00 pm Thursday, January 30, 2020. The Town received a total of seven (7) tenders, which were opened publicly on that date at 2:05 p.m. The tender amounts (excluding HST) are shown below.

<u>CONTRACTOR</u>	<u>TENDER PRICE</u> <u>(Not Including HST)</u>
1. Shearock Construction Group Inc.	\$1,390,658.00
2. Sterling Ridge Infrastructure Inc.	\$1,487,363.00
3. D'Amore Construction (2000) Ltd.	\$1,579,250.00
4. Major Construction (2010) Ltd.	\$1,819,805.00
5. J & J Lepera Infrastructures Inc.	\$1,989,600.00
6. Coco Paving Inc.	\$2,138,420.00
7. Sherway Contracting (Windsor) Limited	\$2,828,325.00

One (1) addendum was issued during tendering. All seven tenderers acknowledged receipt of the addendum and included a copy in their respective tenders.



Reference: Tender Report
Highway No. 3 and Walker Road Watermain Replacement

The tenders were checked for inconsistencies, omissions, unbalanced pricing and other items that would raise concerns. Shearock Construction Group Inc.'s prices for Tender Items A1(a), A9, A14(a), A25, B3, B4, B5, B6, and B7 were significantly lower than the prices submitted by all other tenderers. None of these items is considered a major item in the project, and no detrimental effect to the Owner is expected as a result of this pricing; thus, no further action was taken. We also noted that J & J Lepera Infrastructures Inc.'s tender included a price of \$17,280.00 for Item A7(J), which is more than 16 times higher than the next highest price for this item. J & J Lepera is the fifth lowest bidder, so no further action was taken.

All seven tenderers completed Statements "A" through "D" as required.

The tenders were checked for mathematical errors. The following error was noted:

Major Construction (2010) Ltd. had a multiplication error in Tender Item A5(b). This error changed the "Amount" for that item from \$7,300.00 to \$3,650.00 but did not impact the total for Section A or the Tender Price. Major Construction (2010) Ltd. is the fourth lowest bidder, so no further action was taken.

A 10% bid bond was included with all tenders as required.

The engineer's Pre-Tender opinion of probable cost for this work was \$2,207,370.00 (excluding HST) which was based on historical prices for similar projects.

Shearock Construction Group Inc. was the low bidder for this project. Their \$1,390,658.00 tender price excludes HST and includes a cash allowance and contingency allowance totaling \$120,500.00. Shearock Construction Group Inc.'s bid is approximately 37 % lower than the engineer's opinion of probable cost, 7 % lower than the second lowest tender, and 12 % lower than the third lowest tender. Shearock Construction Group Inc.'s bid is also approximately 51 % lower than the highest tenderer. Since the Town was able to tender this project early in the season before other local projects were tendered, they likely received very competitive bids as a result. We also note that the larger-than-normal difference in tenderers' pricing is likely due to the different experience each of the tenderers has had with projects that involved working on MTO's property.

In our opinion, **Shearock Construction Group Inc.** has the resources and experience to successfully complete this project. We have worked with them and with most of their proposed subcontractors on other projects, and those projects were completed successfully. We were not familiar with the proposed boring and jacking subcontractor, Robinson Underground Contracting Inc. Therefore, we researched the company and contacted Shearock Construction Group Inc. to request further information and references. We then contacted B. M. Ross and Associates Limited, the consulting firm on one of the referenced projects, and we received positive feedback on the performance and experience of the proposed subcontractor.

We recommend that the project be awarded to Shearock Construction Group Inc. at the unit prices indicated in the tender.



February 11, 2020
Mr. John Henderson, P.Eng.
Manager Engineering Services
Page 3 of 3

**Reference: Tender Report
Highway No. 3 and Walker Road Watermain Replacement**

Please remember that, since most of the construction is planned to take place within Highway No. 3 corridor, we do not recommend that this project proceed to construction until MTO's permit has been received.

Feel free to call if you have any questions or require additional information.

Regards,

STANTEC CONSULTING LTD.

Mazen Jreda, P.Eng.
Project Manager
Phone: (519) 966-2250 Ext. 247
Fax: (519) 966-5523
Mazen.Jreda@stantec.com

c.



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Environmental Services

Date to Council: February 25, 2020

Report Number: PWES-2020-12

Subject: Annual Summary Report for the Year 2019
Town of Tecumseh (Water) Distribution System (260004969)

Recommendations

It is recommended:

That the Annual Summary Report for the Tecumseh (Water) Distribution System (260004969) for the Year 2019, as prepared in accordance with the *Safe Drinking Water Act*, O. Reg. 170/03, Schedule 22 Summary Report, **be adopted**;

And that the Annual Summary Report **be made available** for public viewing through the Town of Tecumseh website.

Background

The *Safe Water Drinking Act* (SDWA), O. Reg. 170/3, requires every municipality to complete an annual report on the water systems they operate. This report is to be adopted by the local Council and made available to the public.

Comments

The Water Services Division prepared the 2019 annual report for the Water Distribution System for the Town of Tecumseh (see attached).

The format in which the report is prepared and submitted is a requirement of the Ministry of Environment, Conservation and Parks (MECP). Four sections must be included within the report:

1. An overview of the required information in accordance with Schedule 22 of O.Reg. 170/03 under the SDWA.
2. A list of non-compliance issues.
3. Lead results – End of Period reports.
4. An assessment of the water distribution system's capability regarding flows per cubic meter, monthly flow averages and daily averages.

Upon Council's acceptance of Report No. PWES-2020-12, the Town is legislatively required to notify the public that the report is available for review.

Accordingly, Administration recommends Council adopt the Annual Summary Report for the Tecumseh (Water) Distribution System (260004969) for the Year 2019, and request the report be placed on the Town's website for public access.

Consultations

Ministry of Environment, Conservation and Parks

Financial Implications

There are no financial implications arising from this report.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input checked="" type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input checked="" type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☐

Website ☒

Social Media ☐

News Release ☐

Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Brad Dupuis, C. Tech.
Manager Water & Wastewater Services, O.R.O.

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	2019 Ministry of Environment, Conservation and Parks Annual Report
2	Annual Summary Report for the Tecumseh Distribution System (260004969) for the Year 2019
3	Lead Results – End of Period Reports
4	Daily and Monthly Average Water Flows



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	260004969
Drinking-Water System Name:	Town of Tecumseh Distribution System
Drinking-Water System Owner:	The Corporation of The Town of Tecumseh
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	01- January -2019 to 31- December – 2019

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [x] No []</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>Town of Tecumseh Municipal Office 917 Lesperance Road Tecumseh, Ontario N8N 1W9</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: 100px; margin: 5px auto;">N/A</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [X] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: 100px; margin: 5px auto;">2</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [x] No []</p>
---	---

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

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
Lakeshore Dist. System	260004982

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

Water Distribution System

The Town of Tecumseh, City of Windsor and the Windsor Utilities Commission (WUC) entered into a 50-year Service Agreement in November 2004. The Service Agreement was implemented on March 31, 2006 when four boundary metering chambers were installed and maintained by the Town of Tecumseh. Tecumseh's drinking water system also includes a water tower located on Tecumseh Road, with no re-chlorination stations within the distribution system

Prior to August 1, 2008, WUC provided water to 2,400 residents in the former Township of Sandwich South, south of Highway 401 ("South Water Area"). The Town installed eight additional boundary meter chambers and assumed the responsibility for the operations and maintenance of the water distribution system from WUC in this South Water Area effective August 1, 2008.

The Town of Tecumseh and the Town of Lakeshore entered into an agreement on May 13, 2003 whereby the Tecumseh distribution system supplies drinking water to the Lakeshore distribution system. This agreement expired on December 31, 2007 and is currently being renegotiated; the status quo is maintained until a new agreement is signed.

List all water treatment chemicals used over this reporting period

N/A

Were any significant expenses incurred to?

- ☐ Install required equipment
☒ Repair required equipment-
-Internal lining replacement of the elevated water tank- Public Works Report Number:
PWES-2019-25



- Upgrades to software and hardware components that make up the SCADA system
- [no] Replace required equipment

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

Sandblast and re-line the interior of the Town of Tecumseh's elevated water tank in the amount of \$456,256.00

SCADA system was installed in 2005 and needed to be updated on software and hardware components in the amount of \$120,435

Total cost of projects was \$576,691

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					

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 #)
Raw					
Treated					
Distribution	530	0 to 0	0 to 0	159	0 to 20

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 #)
Turbidity		
Chlorine	8760	Max 1.59 mg Min 0.28mg
Fluoride (If the DWS provides fluoridation)	N/A	

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

NOTE: Record the unit of measure if it is **not** milligrams per litre.



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

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
*Lead	June 26/19	<0.010	Mg/l	0
	Dec 18/18	<0.010	Mg/l	0
Mercury				
Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite				
Nitrate				

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

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 #)	Number of Exceedances
Distribution	8	0.00002 - 0.00038	0



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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metabolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	Every 3 months	9.425	µg/L	0
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				



Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM (NOTE: show latest annual average)	Every 3 months	16.65	µg/L	0
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				
Trifluralin				
Vinyl Chloride				

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			

ANNUAL SUMMARY REPORT

For the

TECUMSEH DISTRIBUTION SYSTEM

(260004969)

For the year

2019

Prepared for the Town of Tecumseh

By Brad Dupuis, C.Tech.
Manager Water & Wastewater Division O.R.O.

Table of Contents

Section 1: Overview	3
Section 2: Non-compliance Issues	4
Section 3: System Capability.....	4

Section 1: Overview

This report has been prepared and submitted in accordance with Schedule 22 of O. Reg. 170/03 under the *Safe Drinking Water Act*. Schedule 22 requires:

The owner of a drinking-water system shall ensure that, not later than March 31 of each year after 2003, a report is prepared in accordance with subsections (1) and (2) for the preceding calendar year and is given to the members of the municipal council.

Schedule 22 also states that:

- 1) The report must:
 - a) list the requirements of the *Act*, the regulations, the system's approval and any order that the system failed to meet at any time during the period covered by the report and specify the duration of the failure; and
 - b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.
- 2) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system. A summary of the quantities of the water supplied during the period covered by the report, including monthly flows.

In June 2003, the provincial *Safe Drinking Water Act* came into effect. The Drinking-Water Systems Regulation (O.Reg. 170/03) defines how various drinking-water systems are to be operated.

According to this Regulation, the Tecumseh Distribution System is classified as a Large Municipal Residential System (LMR).

Section 2: Non-Compliance Issues

1. During the year of 2019 there was 0 **reportable issue**.

Section 3: System Capability – 2019 Water Consumption

In accordance with the Agreement between the Town of Tecumseh and the City of Windsor for the provision of water services to the Town of Tecumseh, executed under By-Law No. 2004-71, the Maximum Daily Flow shall not exceed **87 Million Litres** (87 MLD) or 87,000 cubic meters.

The **Maximum Daily Flow** for 2019 was **17,052,000 Litres** (17,052 cubic meters) on August 14, 2019.

Monthly average and daily flows for 2019 are attached for reference.

A summary of the **monthly** total volume supplied by the City of Windsor to the Town of Tecumseh is provided below:

2019 Water Consumption	
Month	Total Volume (cubic meters)
January	233,917
February	219,640
March	235,728
April	245,235
May	284,868
June	290,701
July	396,281
August	447,735
September	374,469
October	300,586
November	235,055
December	219,198
Total	3,483,413



Ontario Ministry of the Environment

O.Reg. 170/03 Community Lead Testing – End of Period Report

(O.Reg. 170/03 under Schedule 15.1)

Instructions

Please complete this form and fax/email directly to:

Ministry of the Environment
Drinking Water Programs Branch

Fax: 416 212-0807

Email: leadsubmission.moe@ontario.ca

Use this form to submit a report to the ministry as required under Section 15.1-9 (6.1) under Schedule 15.1 of O.Reg. 170/03. If you require assistance in completing the form report, please call 1 866 793-2588 (toll free).

The most current version of this form report is posted on the Ministry of the Environment web site at www.ontario.ca/drinkingwater

Part A: Drinking Water System Information

1. Drinking Water System Name

Town of Tecumseh

2. Drinking Water System (DWS) Number (Ministry assigned 9 digit number starting with "2")

260004969

3. Drinking Water System Owner

Town of Tecumseh

4. Report Period (Year: yyyy)

a) ☐ Summer (June 15th to October 15th) b) ☒ Winter (December 15th to April 15th) c. Year: 2018

Part B: Report Submission Information

	Plumbing	Distribution
6. Number of individual samples		<u>4</u>
7. Number of sampling points (Locations)		<u>N/A</u>
8. Number of individual sample exceedances		<u>0</u>
9. Number of sampling points with an exceedance during the period		<u>N/A</u>
10. Percentage of sample points with an exceedance		<u>N/A</u>
11. Is the system required to have a Corrosion Control Plan prepared under Section 15.1-11 under Schedule 15.1 of O.Reg.170/03?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
12. Do the reduced sampling & frequency requirements of Section 15.1-5 under Schedule 15.1 of O.Reg.170/03 apply to the system?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
13. Do the plumbing sample exemptions of Section 15.1-5 (9) under Schedule 15 of O.Reg.170/03 apply to the system?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Part C: Form Submission Information

I declare that all the information provided on this form and any attachment(s) is true and correct to the best of my knowledge.

Prepared by (print name)

Denis Berthiaume

Signature

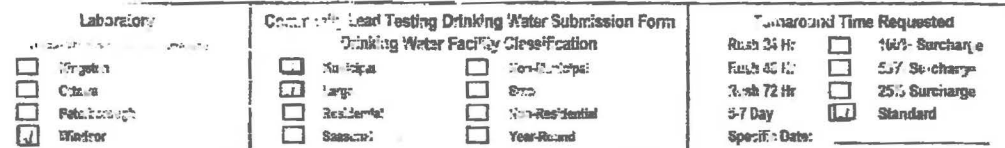
Date (yyyy/mm/dd)

2018/12/21

Telephone No. (including area code)

519 818-9611

Collection of information on this form is collected by the Drinking Water Management Division on behalf of the Ministry of the Environment in accordance with the *Safe Drinking Water Act, 2002* (SDWA) and its regulations. The collection, use and dissemination of this information are governed by the *Freedom of Information and Protection of Privacy Act* (FOIPPA). The information gathered herein will be used for the purpose of corrosion control, and may be used for secondary purposes including reporting, investigating and law enforcement under the SDWA and its regulations. Information contained on this form, including personal information, may be disclosed to other government agencies including municipalities, public health unit employees, the Ministry of Health and Long Term Care, the Ministry of Education and the Ministry of Community and Social Services pursuant to section 42 of FOIPPA for the consistent purpose of administering programs related to drinking water safety.

[illegible]

* Sample Matrix Legend: TW = Treated Water D3J = Distribution Water Tap = Tap Water GW = Raw Groundwater SW = Raw Surface Water GUDI = Groundwater under the influence of saltwater

Criteria Laboratory Locations / Shipping Address: see

Kingsdon Law - 245 Dalton Ave., Kingston, ON K7K 5Z1, Tel: (613) 544-2321 Fax: (613) 544-2377 Email: conrad.kingsdon@kingsdon.ca
Ottawa Law - 2378 Holly Lane, Ottawa, ON K1V 7P1, Tel: (613) 526-6123 Fax: (613) 523-1244 Email: ottawalaw@kingsdon.com
Trinborough Law - 4276-16 Charlotte St., Peterborough, ON N9A 2T8, Tel: (705) 744-1593 Fax: (705) 771-4514 Email: contact@trinboroughlaw.com
Windsor Law - 3221 Kearsarge Ave., Windsor, ON N8X 4G3, Tel: (519) 266-8541 Fax: (519) 266-8547 Email: contact@windsor.kingsdon.ca

CLT 1812/P1(00-6)

ColC DW Community Lead Testing, Apr. 2009, Revision No: 2

Yellow: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

C.O.C.: DW1812181100-W

REPORT No. B18-38424

Report To:

Town of Tecumseh
1189 LaCasse Blvd,
Tecumseh Ontario N8N 2C7 Canada
Attention: Denis Berthiaume

Caduceon Environmental Laboratories
3201 Marentette Ave. Unit #5
Windsor ON N8X 4G3
Tel: 519-966-9541
Fax: 519-966-9567

DATE RECEIVED: 18-Dec-18

JOB/PROJECT NO.: Town of Tecumseh

DATE REPORTED: 21-Dec-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 260004969

Parameter	Alkalinity(Ca CO3) to pH4.5	Lead			
Units	mg/L	mg/L			
R.L.	5	0.00002			
Reference Method	SM 2320B	EPA 200.8			
Date Analyzed/Site	19-Dec-18/O	20-Dec-18/O			
Client I.D.	Sample I.D.	Date Collected			
305 Burdick	B18-38424-1	18-Dec-18	92	0.00003	
226 Coronado	B18-38424-2	18-Dec-18	89	0.00015	
1728 Shawnee	B18-38424-3	18-Dec-18	84	0.00004	
South/East St Anne & Maisonneuve	B18-38424-4	18-Dec-18	89	0.00009	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston, W-Windsor, O-Ottawa, R-Richmond Hill, B-Barrie

Lorina Merko
Lab Supervisor

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Page 1 of 1.

EcoSense® pH10A Calibration Record

Date DD/MM/YYYY	Calibration	Operator	Comments
30/08/2017	3 POINT	TAS	- CALIBRATION , NEW PROBE INSTALLED.
28/09/2017	3 POINT	TAS	- ROUTINE CALIBRATION
29/09/2017	3 POINT	TAS	- ROUTINE CALIBRATION
02/10/2017	3 POINT	TAS	- ROUTINE CALIBRATION
04/10/2017		TAS	- BATTERIES REPLACED (35/1303)
06/10/2017	3 POINT	TAS	- ROUTINE CALIBRATION
12/10/2017	3 POINT	TAS	- ROUTINE CALIBRATION
19/12/2017	3 Point	OS	- Routine Calibration
06/03/2018	2 POINT	TAS	- ROUTINE CALIBRATION
21/03/2018	3 point	TAS	- ROUTINE CALIBRATION
25/06/2018	3 Point	OS	- Routine Calibration
10/09/2018	3 POINT	TAS	- ROUTINE CALIBRATION
01/10/2018	3 POINT	TAS	- ROUTINE CALIBRATION
03/12/2018	3 POINT	TAS	- ROUTINE CALIBRATION
05/12/2018	SET TIME	TAS	- SET TIME
18/12/2018	3 Po.int	OK	- ROUTINE CALIBRATION

[illegible]

[illegible]

PLEASE PRINT ALL INFORMATION

Document Verified by (Initials Only)	<i>NP</i>
---	-----------

Location	305 Burdick	Date	Dec 18, 2018
Operator (print)	Shawn Laporte, Mike Hardy		
Operator Signature	<i>SL</i>		

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input checked="" type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	
FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 6.92
<input checked="" type="checkbox"/> Other: Temperature 9.2 °C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	9:00 AM	
Time of First Sample Taken	9:18 AM	
Comments		

PLEASE PRINT ALL INFORMATION

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(Initials Only)

MP

Location	226 Coronado	Date	Dec 18, 2018
Operator (print)	Shawn Laporte, Mike Hardy		
Operator Signature	SL		

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input checked="" type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	
FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 7.01
<input checked="" type="checkbox"/> Other: Temperature 8.2°C	8.2°C

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	9:25 AM	
Time of First Sample Taken	9:44 AM	
Comments		

PLEASE PRINT ALL INFORMATION

Document Verified by
(Initials Only)

WD

Location	1728 Shawnee	Date	Dec 18, 2018
Operator (print)	Shawn Laporte, Mike Hardy		
Operator Signature	SL		

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input checked="" type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	
FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 6.85
<input checked="" type="checkbox"/> Other: Temperature 7.5°C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	10:00 AM	
Time of First Sample Taken	10:17 AM	
Comments		

PLEASE PRINT ALL INFORMATION

Document Verified by
(Initials Only)

ND

Location	S/E corner of St Anne & Maisonneuve	Date	Dec 18, 2018
Operator (print)	Shawn Laporte, Mike Hardy		
Operator Signature	SL		

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input checked="" type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	
FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 6.95
<input checked="" type="checkbox"/> Other: Temperature 9.4°C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	10:23 Am	
Time of First Sample Taken	10:40 Am	

Comments



Ontario

Ministry of
the Environment**O.Reg. 170/03 Community Lead Testing –
End of Period Report***(O. Reg. 170/03 under Schedule 15.1)***Instructions**

Please complete this form and fax/email directly to:

Ministry of the Environment
Drinking Water Programs Branch

Fax: 416 212-0807

Email: leadsubmission.moe@ontario.ca

Use this form to submit a report to the ministry as required under Section 15.1-9 (6.1) under Schedule 15.1 of O.Reg. 170/03. If you require assistance in completing the form report, please call 1 866 793-2588 (toll free).

The most current version of this form report is posted on the Ministry of the Environment web site at www.ontario.ca/drinkingwater**Part A: Drinking Water System Information**

1. Drinking Water System Name

Town of Tecumseh

2. Drinking Water System (DWS) Number (Ministry assigned 9 digits number starting with "2")

260004969

3. Drinking Water System Owner

Town of Tecumseh

4. Report Period (Year: yyyy)

a) ☒ Summer (June 15th to October 15th) b) ☐ Winter (December 15th to April 15th) c. Year: 2019**Part B: Report Submission Information**

	Plumbing	Distribution
5. Number of individual samples		4
6. Number of sampling points (Locations)		N/A
7. Number of individual sample exceedances		0
8. Number of sampling points with an exceedance during the period		N/A
9. Percentage of sample points with an exceedance		N/A
11. Is the system required to have a Corrosion Control Plan prepared under Section 15.1-11 under Schedule 15.1 of O.Reg.170/03?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
12. Do the reduced sampling & frequency requirements of Section 15.1-5 under Schedule 15.1 of O.Reg.170/03 apply to the system?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
13. Do the plumbing sample exemptions of Section 15.1-5 (9) under Schedule 15 of O.Reg.170/03 apply to the system?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Part C: Form Submission Information

I declare that all the information provided on this form and any attachment(s) is true and correct to the best of my knowledge.

Prepared by (print name)

Denis Berthiaume

Signature

Date (yyyy/mm/dd)

2019/07/11

Telephone No. (including area code)

519 818-9611

Collection of information on this form is collected by the Drinking Water Management Division on behalf of the Ministry of the Environment in accordance with the *Safe Drinking Water Act, 2002* (SDWA) and its regulations. The collection, use and dissemination of this information are governed by the *Freedom of Information and Protection of Privacy Act* (FOIPPA). The information gathered herein will be used for the purpose of corrosion control, and may be used for secondary purposes including reporting, investigating and law enforcement under the SDWA and its regulations. Information contained on this form, including personal information, may be disclosed to other government agencies including municipalities, public health unit employees, the Ministry of Health and Long Term Care, the Ministry of Education and the Ministry of Community and Social Services pursuant to section 42 of FOIPPA for the consistent purpose of administering programs related to drinking water safety.

Instructions for Completing this Form

In accordance with the Community Lead Testing regulatory requirements (ss. 15.1-9 (6.1) of O. Reg. 170/03), beginning with the sampling period starting December 15, 2009, the owner of a drinking water system and the operating authority for the system shall submit a report to the Director within 30 days after the end of the sampling period specifying the number of points sampled during the period, the number of samples taken and the number of points where a sample exceeded the prescribed standard for lead.

If you require assistance in completing the form, please call 1 866 793-2588 (toll free).
The most current version of this form is posted on the Ministry of the Environment web site at www.ontario.ca/drinkingwater

Part A: Drinking Water System Information

Box 2 - Drinking Water System (DWS) Number - Enter your Ministry assigned 9-digit number starting with "2". If you do not know your DWS #, contact the Drinking Water Programs Branch at 1 866 793-2588.

Box 4 - Report Period - The sampling period you are submitting this report for. Summer sampling period is from June 15th to October 15th. Winter sampling period is from December 15th to April 15th.

Box 5 - The sampling period year you are submitting this report for. Enter the year of the first month of the sampling period (summer: June; winter: December).

Part B: Report Submission Information

Box 6 - Total number of individual plumbing samples and individual distribution samples taken for the purpose of the Community Lead Testing requirements of Schedule 15.1, of O. Reg. 170/03.

Box 7 - Total number of plumbing sampling points locations (i.e. street address) where the sample was taken for the purpose of the Community Lead Testing requirements of Schedule 15.1 of O. Reg. 170/03.

Box 8 - Total number of individual plumbing samples and distribution samples testing results exceeding the prescribed standard taken for the purpose of the Community Lead Testing requirements of Schedule 15.1 of O. Reg. 170/03 during the period.

Box 9 - Total number of plumbing sampling points (locations e.g.: physical mailing or 911 address) with a testing result exceeding the prescribed standard taken for the purpose of the Community Lead Testing, Schedule 15.1 under O. Reg. 170/03 during the sampling period.


Box 10 - Calculated results from: $[\text{Box 8}] / [\text{Box 7}] * 100\%$

Box 11 - Check YES/NO if you are required to have a corrosion control plan. Please refer to Section 15.1-11 under Schedule 15.1 of O.Reg.170/03 for condition of requirement.

Box 12 - Check YES/NO if the system is eligible for reduced sampling frequency. Please refer to Section 15.1-5 under Schedule 15.1 of O.Reg.170/03 for criteria of eligibility.

Box 13 - Check YES/NO if the system is eligible for plumbing sample exemptions. Please refer to Section 15.1-5 (9) under Schedule 15.1 of O.Reg.170/03 for criteria of eligibility.

After completing the form, use the [Print Form] button on the form to print and save a hardcopy to keep for your records. System Owners are encouraged to use the [Submit by Email] button on the form for their submission.



CADUCEUS
ENVIRONMENTAL LABORATORIES
ANALYTICAL LABORATORIES
CARE COMMITMENT & QUALITY SERVICE

Laboratory
Please specify service to be performed by:
☐ Kingston
☐ Ottawa
☐ Peterborough
☒ Windsor

Community Lead Testing Drinking Water Submission Form
 Drinking Water Facility Classification
☒ Municipal
☐ Large
☐ Residential
☐ Seasonal
☐ Non-Residential
☐ Year-Round

Turnaround Time Requested
 Rush 24 Hr ☐
 Rush 48 Hr ☐
 Rush 72 Hr ☐
 5-7 Day ☒
 Standard ☐
 Specific Date:

Client: Town of Tecumseh
Contact: Duane Bartholme
Address: 1189 Lakeside Blvd.
 Tecumseh ON N8N 2C7
Waterworks No.: 280004869
Quota No.:
Project Name/No.: Town of Tecumseh
P.O. No.:
Waterworks Address: 1189 Lakeside Blvd.
 Tecumseh ON N8N 2C7
Waterworks No.: 280004869
Quota No.:
Project Name/No.: Town of Tecumseh
P.O. No.:

Sample ID	Location	Sample Date	Sample Time	Non Residential	Private Residential	Distribution Sample	Re-Sample	Left On	Removed	Lead	Alkalinity
197 Edgewater	Hydrant	26/06/19	8:37 AM								
857 William	Hydrant	26/06/19	9:31 AM								
228 St Marks	Hydrant	26/06/19	9:04 AM								
2080 St Anne	Hydrant	26/06/19	10:01 AM								

Sampled By (print): Mike
Submitted By (print): Mike
Signature:
Date (y-m-d): 19/06/26 **Time:** 10:25 AM
Sample Matrix Legend: TW = Treated Water DW = Distribution Water Tap = Tap Water GW = Raw Groundwater SW = Raw Surface Water GUDI = Groundwater under the influence of surface water

Reporting Options:
☐ Fax Results
☒ Email Results
☐ Hardcopy by Email
☐ Invoice by Mail

Kingston Lab - 285 Dalhousie Ave., Kingston, ON K7H 6E3, Tel: (613) 544-4471 Fax: (613) 544-4770 Email: contact@caduceuslab.com
 Ottawa Lab - 2318 Hwy 100, Ottawa, ON K1V 7P4, Tel: (613) 596-1233 Fax: (613) 596-1234 Email: contact@caduceuslab.com
 Peterborough Lab - 258-108 Charlotte St., Peterborough, ON K2L 2T8, Tel: (705) 746-1088 Fax: (705) 746-1089 Email: contact@caduceuslab.com
 Windsor Lab - 5211 MacArthur Ave., Windsor, ON N9L 6G3, Tel: (519) 266-4661 Fax: (519) 266-4667 Email: contact@caduceuslab.com

White: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

CLT

Conf: This Document is Confidential and Treated as such

C.O.C.: G1906261025-W

REPORT No. B19-18976

Report To:

Town of Tecumseh
 1189 LaCasse Blvd,
 Tecumseh Ontario N8N 2C7 Canada
Attention: Denis Berthiaume

Caduceon Environmental Laboratories
 3201 Marentette Ave. Unit #5
 Windsor ON N8X 4G3
 Tel: 519-966-9541
 Fax: 519-966-9567

DATE RECEIVED: 26-Jun-19

JOB/PROJECT NO.: Town of Tecumseh

DATE REPORTED: 10-Jul-19

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 260004969

Parameter	Lead	Alkalinity(Ca CO3) to pH4.5			
Units	mg/L	mg/L			
R.L.	0.00002	5			
Reference Method	EPA 200.8	SM 2320B			
Date Analyzed/Site	09-Jul-19/O	27-Jun-19/O			
Client I.D.	Sample I.D.	Date Collected			
197 Edgewater	B19-18976-1	26-Jun-19	0.00038	83	
857 William	B19-18976-2	26-Jun-19	0.00003	81	
228 St Marks	B19-18976-3	26-Jun-19	0.00005	82	
2060 St Anne	B19-18976-4	26-Jun-19	< 0.00002	107	



Lorina Merko
 Lab Supervisor

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

2 EcoSense[®] pH / ORP

2. EcoSense® pH 10A

[illegible]

[illegible]

WATER DIVISION
COMMUNITY LEAD TESTING DATA SHEET

PLEASE PRINT ALL INFORMATION

Document Verified by
(Initials Only)

JD

Location	197 Edgewater	Date	19/06/26 th LF 26/06/19
Operator (print)	Mike		
Operator Signature	<i>[Signature]</i>		

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input checked="" type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	

FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 7.10
<input checked="" type="checkbox"/> Other: TEMP 18.2°C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	8:22 AM	
Time of First Sample Taken	8:37 AM	

Comments

WATER DIVISION
COMMUNITY LEAD TESTING DATA SHEET

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(Initials Only)

[Handwritten initials]

Location	857 William	Date	26/06/19
Operator (print)	Mike		
Operator Signature	<i>[Handwritten signature]</i>		

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	


FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 7.07
<input checked="" type="checkbox"/> Other: TEMP 20.0 °C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	9:15 AM	
Time of First Sample Taken	9:31 AM	
Comments		

WATER DIVISION
COMMUNITY LEAD TESTING DATA SHEET

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(Initial Only)

Location	226 St Marks	Date	26/06/19
Operator (print)	mike		
Operator Signature			

SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input checked="" type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	

FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 7.11
<input checked="" type="checkbox"/> Other: Temp 18.6°C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	8:47 AM	
Time of First Sample Taken	9:07 AM	

Comments

WATER DIVISION
COMMUNITY LEAD TESTING DATA SHEET

PLEASE PRINT ALL INFORMATION

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(Initials Only)

ND

Location	2080 St Anne	Date	26/06/19
Operator (print)	Mike		
Operator Signature	<i>[Signature]</i>		

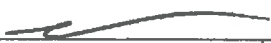
SAMPLE LOCATION	TYPE OF SAMPLE
<input type="checkbox"/> Kitchen	<input type="checkbox"/> Private Residential
<input type="checkbox"/> Bathroom	<input type="checkbox"/> Non-Residential
<input checked="" type="checkbox"/> Hydrant	<input type="checkbox"/> Distribution
<input type="checkbox"/> Sample Station	
<input type="checkbox"/> Flushing Station	
<input type="checkbox"/> Other:	

FILTER DEVICE	SAMPLE TAKEN
<input checked="" type="checkbox"/> No Filter Device	<input checked="" type="checkbox"/> Lead Sample #1
<input type="checkbox"/> Filter Device	<input type="checkbox"/> Lead Sample #2
<input type="checkbox"/> Bypass	<input checked="" type="checkbox"/> Alkalinity
<input type="checkbox"/> Filter Removed	<input checked="" type="checkbox"/> pH 7.04
<input checked="" type="checkbox"/> Other: Temp 21.0°C	

Distance from Private or Non-Residential	N/A	Meters
Location from Private or Non-Residential	N/A	
Flushing Start Time	9:45 AM	
Time of First Sample Taken	10:01 AM	
Comments		

PLEASE PRINT ALL INFORMATION

Document Verified by
(Initials Only)

Date Received:	Time Received:
June 26 2019	7:00 AM
Name of Customer:	
town of tecumseh	
Address/Location:	Telephone No.:
various location	
INSTRUCTIONS	
Lead testing	
WORK PERFORMED AND COMMENTS	
took Lead Alkalinity and Ph samples	
at 2060 st anne / 857 willow / 226 st marks	
197 Edgewater	
MATERIALS USED	
Operator Name (print): Mike	
Operator Signature: 	
Date Completed: June 26 2019	Time Completed: 11:00 AM

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201901.xls Date: 05/02/2020
Page: 1 of 1

Date: Jan-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	840.0	487.0	1737.0	3114.0	0.0	-56.0	16.0	322.0	422.0	752.0	-256.0	90.0	7468.0
2	746.0	434.0	1609.0	2917.0	0.0	-68.0	-2.0	334.0	463.0	863.0	51.0	89.0	7436.0
3	718.0	415.0	1583.0	2902.0	0.0	-106.0	-34.0	342.0	474.0	879.0	-25.0	87.0	7235.0
4	721.0	422.0	1589.0	2945.0	0.0	-108.0	-33.0	368.0	480.0	878.0	-139.0	86.0	7209.0
5	763.0	424.0	1709.0	3128.0	0.0	-78.0	-10.0	270.0	453.0	789.0	-209.0	85.0	7324.0
6	736.0	406.0	1703.0	3106.0	0.0	-83.0	-14.0	377.0	488.0	852.0	-241.0	86.0	7416.0
7	666.0	375.0	1523.0	2814.0	0.0	-117.0	-43.0	355.0	748.0	1503.0	933.0	113.0	8870.0
8	707.0	398.0	1534.0	2832.0	0.0	-129.0	-56.0	341.0	474.0	873.0	10.0	106.0	7090.0
9	711.0	404.0	1545.0	2866.0	0.0	-119.0	-45.0	329.0	484.0	883.0	-38.0	103.0	7123.0
10	712.0	406.0	1541.0	2852.0	0.0	-106.0	-39.0	336.0	470.0	868.0	-31.0	114.0	7123.0
11	717.0	403.0	1548.0	2877.0	0.0	-113.0	-43.0	352.0	473.0	863.0	-98.0	118.0	7097.0
12	772.0	423.0	1702.0	3097.0	0.0	-81.0	-10.0	362.0	457.0	798.0	-286.0	133.0	7367.0
13	746.0	415.0	1698.0	3112.0	0.0	n/a	-4.0	343.0	438.0	767.0	-320.0	103.0	7298.0
14	716.0	406.0	1557.0	2876.0	0.0	-47.0	-45.0	354.0	483.0	904.0	-20.0	91.0	7275.0
15	736.0	417.0	1549.0	2868.0	0.0	-131.0	-61.0	361.0	495.0	925.0	-31.0	101.0	7229.0
16	699.0	404.0	1561.0	2888.0	0.0	-115.0	-49.0	332.0	476.0	883.0	2.0	93.0	7174.0
17	703.0	407.0	1539.0	2864.0	0.0	-143.0	-75.0	360.0	486.0	904.0	-42.0	24.0	7027.0
18	689.0	395.0	1523.0	2857.0	0.0	-116.0	-50.0	327.0	449.0	852.0	18.0	38.0	6982.0
19	769.0	415.0	1706.0	3110.0	0.0	-86.0	-17.0	361.0	447.0	790.0	-283.0	18.0	7230.0
20	842.0	477.0	1784.0	3253.0	0.0	-91.0	-21.0	341.0	443.0	785.0	-273.0	12.0	7552.0
21	1054.0	626.0	1875.0	3394.0	0.0	-122.0	-58.0	352.0	497.0	936.0	26.0	36.0	8616.0
22	789.0	467.0	1628.0	3006.0	0.0	-119.0	-58.0	310.0	472.0	878.0	47.0	83.0	7503.0
23	743.0	432.0	1642.0	3009.0	0.0	-151.0	-82.0	376.0	521.0	917.0	-57.0	45.0	7395.0
24	755.0	441.0	1644.0	3024.0	0.0	-201.0	-132.0	402.0	534.0	983.0	-20.0	83.0	7513.0
25	740.0	425.0	1613.0	2964.0	0.0	-143.0	-74.0	319.0	463.0	907.0	158.0	95.0	7467.0
26	789.0	452.0	1774.0	3213.0	0.0	-95.0	-28.0	370.0	478.0	866.0	-169.0	298.0	7948.0
27	752.0	426.0	1729.0	3176.0	0.0	-103.0	-31.0	369.0	470.0	818.0	-305.0	446.0	7747.0
28	713.0	408.0	1563.0	2968.0	0.0	-140.0	-76.0	357.0	510.0	953.0	96.0	530.0	7882.0
29	742.0	421.0	1589.0	2958.0	0.0	-170.0	-95.0	384.0	545.0	1024.0	75.0	595.0	8068.0
30	760.0	436.0	1630.0	3093.0	0.0	-166.0	-90.0	433.0	615.0	1150.0	168.0	703.0	8732.0
31	721.0	441.0	1748.0	3291.0	0.0	-148.0	-73.0	407.0	594.0	1107.0	52.0	381.0	8521.0
Monthly Total	23,267.00	13,308.00	50,675.00	93,374.00	0.00	-3,451.00	-1,432.00	10,946.00	15,302.00	28,150.00	-1,207.00	4,985.00	233,917.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201902.xls Date: 05/02/2020
Page: 1 of 1

Date: Feb-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	805.0	472.0	1730.0	3316.0	0.0	-190.0	-127.0	414.0	561.0	1023.0	-69.0	264.0	8199.0
2	886.0	523.0	1966.0	3732.0	0.0	-97.0	-56.0	419.0	531.0	951.0	-246.0	359.0	8968.0
3	884.0	522.0	1966.0	3789.0	0.0	-140.0	-87.0	465.0	472.0	855.0	-291.0	858.0	9293.0
4	845.0	485.0	1716.0	3325.0	0.0	-157.0	-108.0	385.0	521.0	956.0	-30.0	805.0	8743.0
5	787.0	453.0	1655.0	3172.0	0.0	-122.0	-78.0	351.0	495.0	915.0	23.0	57.0	7708.0
6	796.0	460.0	1686.0	3235.0	0.0	-155.0	-110.0	409.0	540.0	972.0	-109.0	51.0	7775.0
7	784.0	448.0	1649.0	3171.0	0.0	-129.0	-85.0	357.0	503.0	928.0	24.0	61.0	7711.0
8	808.0	466.0	1670.0	3182.0	0.0	-136.0	-91.0	342.0	494.0	901.0	19.0	78.0	7733.0
9	862.0	486.0	1842.0	3478.0	0.0	-69.0	-43.0	367.0	463.0	806.0	-231.0	91.0	8052.0
10	831.0	466.0	1815.0	3422.0	0.0	-75.0	-29.0	352.0	458.0	797.0	-201.0	77.0	7913.0
11	751.0	428.0	1613.0	3096.0	0.0	-112.0	-71.0	335.0	482.0	893.0	21.0	61.0	7497.0
12	777.0	445.0	1650.0	3175.0	0.0	-96.0	-56.0	346.0	479.0	873.0	-7.0	49.0	7635.0
13	978.0	552.0	1790.0	3401.0	0.0	-95.0	-54.0	337.0	478.0	879.0	36.0	41.0	8343.0
14	809.0	470.0	1675.0	3235.0	0.0	-91.0	-47.0	311.0	454.0	855.0	161.0	40.0	7872.0
15	748.0	446.0	1644.0	3143.0	0.0	-84.0	-50.0	314.0	457.0	843.0	95.0	37.0	7593.0
16	801.0	457.0	1764.0	3330.0	0.0	-72.0	-36.0	338.0	443.0	783.0	-183.0	42.0	7667.0
17	761.0	432.0	1686.0	3211.0	0.0	-78.0	-38.0	352.0	451.0	765.0	-316.0	38.0	7264.0
18	763.0	431.0	1703.0	3240.0	0.0	-71.0	-35.0	337.0	465.0	812.0	-186.0	23.0	7482.0
19	761.0	448.0	1628.0	3142.0	0.0	-89.0	-46.0	351.0	495.0	919.0	115.0	25.0	7749.0
20	769.0	454.0	1634.0	3137.0	0.0	-103.0	-59.0	368.0	495.0	899.0	-61.0	23.0	7556.0
21	779.0	454.0	1672.0	3167.0	0.0	-85.0	-43.0	339.0	479.0	894.0	8.0	22.0	7686.0
22	761.0	445.0	1657.0	3174.0	0.0	-102.0	-65.0	379.0	502.0	905.0	-128.0	21.0	7549.0
23	791.0	455.0	1786.0	3340.0	0.0	-72.0	-33.0	370.0	467.0	810.0	-265.0	21.0	7670.0
24	786.0	448.0	1806.0	3357.0	0.0	-66.0	-27.0	361.0	463.0	804.0	-312.0	23.0	7643.0
25	746.0	432.0	1635.0	3120.0	0.0	-138.0	-93.0	359.0	509.0	918.0	-51.0	27.0	7464.0
26	790.0	455.0	1624.0	3127.0	0.0	-135.0	-89.0	352.0	501.0	904.0	-43.0	24.0	7510.0
27	746.0	431.0	1590.0	3083.0	0.0	-128.0	-85.0	330.0	499.0	923.0	125.0	23.0	7537.0
28	800.0	473.0	1656.0	3177.0	0.0	-105.0	-62.0	320.0	503.0	927.0	110.0	29.0	7828.0
29													
30													
31													
Monthly Total	22,405.00	12,937.00	47,908.00	91,477.00	0.00	-2,992.00	-1,803.00	10,060.00	13,660.00	24,710.00	-1,992.00	3,270.00	219,640.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201903.xls Date: 05/02/2020
Page: 1 of 1

Date: Mar-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	767.0	460.0	1635.0	3139.0	0.0	-97.0	-59.0	331.0	500.0	921.0	109.0	32.0	7738.0
2	792.0	460.0	1770.0	3362.0	0.0	-94.0	-58.0	368.0	472.0	800.0	-273.0	36.0	7635.0
3	786.0	455.0	1797.0	3366.0	0.0	-60.0	-19.0	308.0	430.0	742.0	-237.0	38.0	7606.0
4	734.0	427.0	1613.0	3112.0	0.0	-153.0	-108.0	382.0	543.0	991.0	89.0	46.0	7676.0
5	754.0	444.0	1646.0	3138.0	0.0	-110.0	-67.0	329.0	510.0	961.0	320.0	41.0	7966.0
6	765.0	444.0	1667.0	3176.0	0.0	-116.0	-60.0	337.0	508.0	932.0	148.0	45.0	7846.0
7	761.0	448.0	1656.0	3184.0	0.0	-110.0	-46.0	355.0	519.0	964.0	91.0	46.0	7868.0
8	755.0	443.0	1646.0	3163.0	0.0	-116.0	-46.0	340.0	497.0	915.0	82.0	42.0	7721.0
9	787.0	451.0	1803.0	3370.0	0.0	-46.0	23.0	353.0	475.0	857.0	-66.0	39.0	8046.0
10	712.0	416.0	1673.0	3113.0	0.0	-58.0	13.0	321.0	434.0	766.0	-180.0	36.0	7246.0
11	691.0	404.0	1582.0	3011.0	0.0	-117.0	-52.0	331.0	483.0	886.0	92.0	37.0	7348.0
12	710.0	414.0	1588.0	3002.0	0.0	-106.0	-39.0	327.0	483.0	898.0	182.0	34.0	7493.0
13	654.0	387.0	1562.0	2954.0	0.0	-89.0	-20.0	315.0	482.0	892.0	178.0	29.0	7344.0
14	653.0	387.0	1569.0	2963.0	0.0	-98.0	-25.0	305.0	467.0	845.0	105.0	26.0	7197.0
15	655.0	399.0	1571.0	2983.0	0.0	-109.0	-40.0	291.0	443.0	796.0	37.0	26.0	7052.0
16	743.0	426.0	1733.0	3230.0	0.0	-72.0	-1.0	316.0	440.0	769.0	-209.0	33.0	7408.0
17	757.0	430.0	1770.0	3290.0	0.0	-41.0	32.0	315.0	434.0	752.0	-221.0	37.0	7555.0
18	715.0	414.0	1617.0	3036.0	0.0	-79.0	-9.0	323.0	481.0	882.0	-45.0	29.0	7364.0
19	700.0	406.0	1608.0	3035.0	0.0	-90.0	-20.0	290.0	485.0	883.0	-14.0	33.0	7316.0
20	710.0	421.0	1615.0	3044.0	0.0	-93.0	-24.0	303.0	502.0	902.0	-14.0	36.0	7402.0
21	723.0	429.0	1613.0	3036.0	0.0	-97.0	-29.0	268.0	485.0	887.0	49.0	34.0	7398.0
22	722.0	418.0	1624.0	3074.0	0.0	-96.0	-23.0	300.0	474.0	861.0	0.0	69.0	7423.0
23	777.0	451.0	1792.0	3341.0	0.0	-45.0	-3.0	294.0	450.0	786.0	-221.0	74.0	7696.0
24	765.0	439.0	1780.0	3297.0	0.0	-47.0	-32.0	308.0	457.0	783.0	-305.0	82.0	7527.0
25	722.0	432.0	1644.0	3085.0	0.0	-86.0	-46.0	302.0	488.0	888.0	14.0	423.0	7866.0
26	716.0	429.0	1637.0	3086.0	0.0	-92.0	-28.0	303.0	491.0	912.0	106.0	334.0	7894.0
27	727.0	427.0	1626.0	3059.0	0.0	-95.0	-55.0	288.0	478.0	880.0	127.0	356.0	7818.0
28	711.0	422.0	1603.0	3029.0	0.0	-110.0	-100.0	325.0	515.0	940.0	65.0	504.0	7904.0
29	671.0	403.0	1564.0	2945.0	0.0	-85.0	-82.0	285.0	449.0	839.0	97.0	570.0	7656.0
30	710.0	418.0	1741.0	3232.0	0.0	-35.0	-25.0	335.0	438.0	762.0	-216.0	550.0	7910.0
31	682.0	401.0	1743.0	3224.0	0.0	-6.0	8.0	294.0	423.0	748.0	-195.0	487.0	7809.0
Monthly Total	22,527.00	13,205.00	51,488.00	97,079.00	0.00	-2,648.00	-1,040.00	9,842.00	14,736.00	26,640.00	-305.00	4,204.00	235,728.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201904.xls Date: 05/02/2020
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Date: Apr-19

Day of the Month	MCT01 <i>m3</i>	MCT02 <i>m3</i>	MCT03 <i>m3</i>	MCT04 <i>m3</i>	MCT05 <i>m3</i>	MCT06 <i>m3</i>	MCT07 <i>m3</i>	MCT08 <i>m3</i>	MCT09 <i>m3</i>	MCT10 <i>m3</i>	MCT11 <i>m3</i>	MCT12 <i>m3</i>	System Total <i>m3</i>
1	671.0	399.0	1599.0	3007.0	0.0	-91.0	-81.0	373.0	512.0	935.0	-57.0	490.0	7757.0
2	645.0	394.0	1617.0	3029.0	0.0	-69.0	-58.0	358.0	497.0	905.0	5.0	545.0	7868.0
3	593.0	383.0	1640.0	3037.0	0.0	-33.0	-26.0	316.0	481.0	895.0	122.0	428.0	7836.0
4	626.0	398.0	1661.0	3080.0	0.0	-56.0	-46.0	370.0	522.0	942.0	-52.0	472.0	7917.0
5	618.0	396.0	1648.0	3071.0	0.0	-27.0	-21.0	336.0	483.0	882.0	17.0	508.0	7911.0
6	712.0	439.0	1845.0	3416.0	0.0	-31.0	-28.0	389.0	497.0	850.0	-310.0	550.0	8329.0
7	672.0	419.0	1849.0	3390.0	0.0	-15.0	-2.0	334.0	454.0	786.0	-266.0	608.0	8229.0
8	658.0	430.0	1713.0	3171.0	0.0	-38.0	-28.0	321.0	504.0	941.0	90.0	643.0	8405.0
9	690.0	440.0	1715.0	3195.0	0.0	-54.0	-21.0	360.0	509.0	939.0	112.0	643.0	8528.0
10	691.0	463.0	1781.0	3247.0	0.0	-44.0	4.0	343.0	493.0	919.0	30.0	662.0	8589.0
11	747.0	479.0	1716.0	3149.0	0.0	-57.0	-5.0	322.0	458.0	846.0	-15.0	584.0	8224.0
12	726.0	472.0	1689.0	3136.0	0.0	-39.0	5.0	292.0	445.0	828.0	22.0	581.0	8157.0
13	822.0	525.0	1904.0	3485.0	0.0	-39.0	-5.0	348.0	453.0	788.0	-283.0	605.0	8603.0
14	783.0	495.0	1862.0	3390.0	0.0	-31.0	-15.0	317.0	412.0	717.0	-322.0	581.0	8189.0
15	784.0	505.0	1750.0	3237.0	0.0	-58.0	-54.0	303.0	464.0	874.0	59.0	577.0	8441.0
16	783.0	494.0	1735.0	3207.0	0.0	-87.0	-80.0	338.0	474.0	870.0	-54.0	624.0	8304.0
17	788.0	494.0	1722.0	3198.0	0.0	-78.0	-76.0	320.0	478.0	883.0	-10.0	574.0	8293.0
18	713.0	451.0	1628.0	3084.0	0.0	-71.0	-67.0	295.0	446.0	820.0	-5.0	479.0	7773.0
19	694.0	424.0	1743.0	3248.0	0.0	-31.0	-23.0	325.0	437.0	735.0	-358.0	511.0	7705.0
20	679.0	414.0	1703.0	3179.0	0.0	-18.0	-18.0	290.0	394.0	684.0	-280.0	317.0	7344.0
21	756.0	454.0	1776.0	3336.0	0.0	-27.0	-20.0	319.0	428.0	725.0	-393.0	259.0	7613.0
22	742.0	455.0	1744.0	3292.0	0.0	-40.0	-30.0	319.0	473.0	861.0	-30.0	279.0	8065.0
23	798.0	488.0	1711.0	3218.0	0.0	-81.0	-72.0	332.0	483.0	879.0	-2.0	356.0	8110.0
24	889.0	539.0	1781.0	3324.0	0.0	-53.0	-47.0	300.0	461.0	874.0	134.0	411.0	8613.0
25	902.0	548.0	1758.0	3309.0	0.0	-101.0	-95.0	355.0	497.0	926.0	17.0	427.0	8543.0
26	834.0	508.0	1703.0	3189.0	0.0	-89.0	-94.0	299.0	428.0	810.0	43.0	560.0	8191.0
27	882.0	519.0	1875.0	3466.0	0.0	-28.0	-20.0	318.0	412.0	728.0	-233.0	584.0	8503.0
28	871.0	518.0	1859.0	3459.0	0.0	-37.0	-29.0	309.0	418.0	720.0	-331.0	621.0	8378.0
29	854.0	502.0	1709.0	3215.0	0.0	-87.0	-80.0	309.0	451.0	844.0	65.0	579.0	8361.0
30	839.0	498.0	1704.0	3220.0	0.0	-100.0	-92.0	315.0	461.0	868.0	124.0	619.0	8456.0
31													
Monthly Total	22,462.00	13,943.00	52,140.00	96,984.00	0.00	-1,610.00	-1,224.00	9,825.00	13,925.00	25,274.00	-2,161.00	15,677.00	245,235.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201905.xls Date: 05/02/2020
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Date: May-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	861.0	526.0	1797.0	3361.0	0.0	-77.0	-71.0	307.0	454.0	843.0	57.0	581.0	8639.0
2	841.0	510.0	1726.0	3239.0	0.0	-95.0	-88.0	305.0	444.0	830.0	46.0	484.0	8242.0
3	812.0	510.0	1726.0	3236.0	0.0	-68.0	-61.0	270.0	417.0	793.0	78.0	584.0	8297.0
4	885.0	536.0	1886.0	3515.0	0.0	-28.0	-20.0	309.0	421.0	741.0	-287.0	503.0	8461.0
5	946.0	569.0	1981.0	3697.0	0.0	-21.0	-14.0	347.0	439.0	758.0	-383.0	482.0	8801.0
6	904.0	562.0	1838.0	3413.0	0.0	-83.0	-75.0	341.0	485.0	909.0	24.0	313.0	8631.0
7	839.0	531.0	1760.0	3230.0	0.0	-61.0	-55.0	309.0	489.0	789.0	141.0	364.0	8336.0
8	892.0	554.0	1800.0	3341.0	0.0	-98.0	-94.0	374.0	561.0	969.0	168.0	266.0	8733.0
9	905.0	550.0	1799.0	3327.0	0.0	-80.0	-66.0	351.0	559.0	961.0	322.0	220.0	8848.0
10	911.0	559.0	1815.0	3361.0	0.0	-79.0	-72.0	367.0	553.0	957.0	232.0	78.0	8682.0
11	1139.0	681.0	2089.0	3766.0	0.0	-6.0	-2.0	350.0	496.0	848.0	33.0	138.0	9532.0
12	1049.0	641.0	1974.0	3607.0	0.0	-51.0	-40.0	381.0	501.0	837.0	-161.0	125.0	8863.0
13	995.0	606.0	1864.0	3429.0	0.0	-67.0	-63.0	347.0	545.0	968.0	277.0	111.0	9012.0
14	1052.0	623.0	1930.0	3568.0	0.0	-71.0	-62.0	361.0	574.0	1000.0	211.0	232.0	9418.0
15	1293.0	676.0	1694.0	3126.0	0.0	62.0	77.0	361.0	594.0	1036.0	262.0	144.0	9325.0
16	1404.0	774.0	1910.0	3468.0	0.0	32.0	66.0	332.0	555.0	982.0	340.0	197.0	10060.0
17	1258.0	718.0	1868.0	3459.0	0.0	32.0	44.0	396.0	573.0	992.0	94.0	227.0	9661.0
18	1386.0	767.0	1999.0	3598.0	0.0	94.0	98.0	313.0	494.0	842.0	46.0	162.0	9799.0
19	1266.0	702.0	1890.0	3421.0	0.0	48.0	54.0	378.0	525.0	865.0	-157.0	158.0	9150.0
20	1099.0	597.0	1738.0	3182.0	0.0	62.0	72.0	337.0	496.0	832.0	-44.0	161.0	8532.0
21	1194.0	597.0	2005.0	3695.0	0.0	-48.0	-55.0	379.0	559.0	959.0	209.0	110.0	9604.0
22	1133.0	683.0	2016.0	3677.0	0.0	-51.0	-61.0	339.0	553.0	956.0	297.0	109.0	9651.0
23	1058.0	636.0	2004.0	3781.0	0.0	-74.0	-69.0	344.0	575.0	984.0	279.0	22.0	9540.0
24	1122.0	676.0	2060.0	3859.0	0.0	-65.0	-60.0	385.0	572.0	967.0	210.0	38.0	9764.0
25	1251.0	739.0	2363.0	4375.0	0.0	2.0	-10.0	394.0	577.0	957.0	-91.0	28.0	10585.0
26	1394.0	824.0	2433.0	4412.0	0.0	1.0	3.0	373.0	525.0	876.0	-220.0	14.0	10635.0
27	1042.0	601.0	2047.0	3797.0	0.0	-20.0	-31.0	313.0	563.0	968.0	245.0	16.0	9541.0
28	997.0	599.0	1965.0	3672.0	0.0	-87.0	-82.0	326.0	559.0	942.0	213.0	37.0	9141.0
29	968.0	571.0	1867.0	3624.0	0.0	-163.0	-154.0	479.0	635.0	1060.0	-106.0	26.0	8807.0
30	937.0	562.0	1843.0	3745.0	0.0	-88.0	-83.0	436.0	632.0	1066.0	20.0	27.0	9097.0
31	973.0	595.0	1968.0	3945.0	0.0	-24.0	-18.0	366.0	560.0	959.0	137.0	20.0	9481.0
Monthly Total	32,806.00	19,275.00	59,655.00	110,926.00	0.00	-1,172.00	-992.00	10,970.00	16,485.00	28,446.00	2,492.00	5,977.00	284,868.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201906.xls Date: 05/02/2020
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Date: Jun-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1041.0	611.0	2072.0	4030.0	0.0	-14.0	0.0	398.0	539.0	903.0	-150.0	32.0	9462.0
2	1009.0	591.0	2110.0	4065.0	0.0	-4.0	17.0	388.0	519.0	871.0	-174.0	108.0	9500.0
3	1043.0	624.0	2017.0	3889.0	0.0	-64.0	-58.0	401.0	576.0	1016.0	59.0	35.0	9538.0
4	1166.0	705.0	2145.0	4071.0	0.0	-62.0	-66.0	374.0	527.0	940.0	25.0	27.0	9852.0
5	1068.0	642.0	1974.0	3803.0	0.0	-115.0	-101.0	354.0	516.0	905.0	-2.0	39.0	9083.0
6	994.0	595.0	1888.0	3714.0	0.0	-141.0	-133.0	300.0	470.0	864.0	166.0	43.0	8760.0
7	1076.0	642.0	2072.0	4046.0	0.0	-61.0	-46.0	302.0	511.0	934.0	255.0	71.0	9802.0
8	1214.0	699.0	2303.0	4405.0	0.0	-49.0	-38.0	402.0	542.0	936.0	-286.0	25.0	10153.0
9	989.0	581.0	2093.0	4017.0	0.0	-14.0	0.0	394.0	509.0	886.0	-417.0	39.0	9077.0
10	965.0	587.0	1884.0	3693.0	0.0	-93.0	-92.0	388.0	545.0	972.0	-139.0	33.0	8743.0
11	1073.0	654.0	2059.0	3972.0	0.0	-69.0	-62.0	378.0	544.0	959.0	25.0	42.0	9575.0
12	1197.0	727.0	2186.0	4286.0	0.0	-61.0	-55.0	408.0	601.0	1050.0	-38.0	42.0	10343.0
13	1054.0	638.0	1956.0	3977.0	0.0	-28.0	-15.0	357.0	442.0	808.0	106.0	35.0	9330.0
14	943.0	572.0	1872.0	3465.0	0.0	-101.0	-115.0	376.0	516.0	908.0	-17.0	40.0	8459.0
15	975.0	576.0	1920.0	3556.0	0.0	-112.0	-117.0	382.0	492.0	838.0	-358.0	39.0	8191.0
16	766.0	453.0	1759.0	3245.0	0.0	-65.0	-48.0	350.0	443.0	761.0	-329.0	30.0	7365.0
17	872.0	513.0	1793.0	3429.0	0.0	-58.0	-43.0	333.0	517.0	935.0	105.0	23.0	8419.0
18	957.0	577.0	1902.0	3621.0	0.0	-86.0	-66.0	395.0	562.0	995.0	31.0	13.0	8901.0
19	966.0	586.0	1932.0	3598.0	0.0	-59.0	-45.0	386.0	592.0	1058.0	121.0	23.0	9158.0
20	901.0	555.0	1777.0	3269.0	0.0	-123.0	-117.0	384.0	547.0	984.0	-111.0	22.0	8088.0
21	913.0	560.0	1857.0	3472.0	0.0	-118.0	-102.0	397.0	544.0	973.0	-33.0	37.0	8500.0
22	1024.0	597.0	2123.0	3886.0	0.0	-49.0	-55.0	399.0	535.0	918.0	-309.0	49.0	9118.0
23	1078.0	635.0	2187.0	4044.0	0.0	-75.0	-77.0	434.0	595.0	992.0	-457.0	61.0	9417.0
24	1067.0	643.0	1980.0	3723.0	0.0	-40.0	-45.0	373.0	583.0	1030.0	-56.0	39.0	9297.0
25	1290.0	779.0	2392.0	4494.0	0.0	-119.0	115.0	430.0	630.0	1102.0	-86.0	39.0	11066.0
26	1491.0	925.0	2645.0	4810.0	0.0	-48.0	-76.0	433.0	668.0	1181.0	5.0	85.0	12119.0
27	1702.0	1034.0	2836.0	5087.0	0.0	-45.0	-60.0	463.0	698.0	1233.0	-145.0	103.0	12906.0
28	1604.0	980.0	2702.0	4904.0	0.0	-188.0	-194.0	572.0	772.0	1346.0	-362.0	107.0	12243.0
29	1618.0	963.0	2752.0	4994.0	0.0	-109.0	-91.0	530.0	723.0	1229.0	-642.0	121.0	12088.0
30	1640.0	968.0	2802.0	5082.0	0.0	-103.0	-101.0	531.0	696.0	1142.0	-625.0	116.0	12148.0
31													
Monthly Total	33,696.00	20,212.00	63,990.00	120,647.00	0.00	-2,273.00	-1,886.00	12,012.00	16,954.00	29,669.00	-3,838.00	1,518.00	290,701.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201907.xls Date: 05/02/2020
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Date: Jul-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1828.0	1028.0	3116.0	5579.0	0.0	-57.0	-82.0	568.0	751.0	1221.0	-643.0	77.0	13386.0
2	1641.0	981.0	2756.0	4939.0	0.0	-202.0	-194.0	608.0	853.0	1351.0	-336.0	54.0	12451.0
3	1437.0	868.0	2472.0	4431.0	0.0	-189.0	-186.0	520.0	788.0	1396.0	-55.0	67.0	11549.0
4	1545.0	942.0	2627.0	4771.0	0.0	-228.0	-227.0	587.0	801.0	1385.0	-349.0	41.0	11895.0
5	1727.0	1046.0	2880.0	5449.0	0.0	-88.0	-81.0	558.0	778.0	1356.0	-364.0	43.0	13304.0
6	1130.0	690.0	2214.0	4047.0	0.0	-162.0	-150.0	467.0	629.0	1079.0	-487.0	51.0	9508.0
7	1263.0	688.0	2036.0	3746.0	0.0	-25.0	-11.0	431.0	598.0	1006.0	-365.0	228.0	9595.0
8	1453.0	844.0	2561.0	4590.0	0.0	-148.0	-140.0	545.0	778.0	1329.0	-219.0	322.0	11915.0
9	1511.0	888.0	2653.0	4852.0	0.0	-258.0	-252.0	414.0	906.0	1532.0	-121.0	359.0	12484.0
10	1504.0	893.0	2712.0	4754.0	0.0	-392.0	-376.0	264.0	994.0	1664.0	-100.0	485.0	12402.0
11	1773.0	1062.0	2974.0	5378.0	0.0	-356.0	-348.0	158.0	940.0	1593.0	-59.0	761.0	13876.0
12	1801.0	1033.0	3044.0	5631.0	0.0	-401.0	-392.0	239.0	936.0	1595.0	-305.0	839.0	14020.0
13	1921.0	1113.0	3302.0	6010.0	0.0	-354.0	-335.0	218.0	991.0	1632.0	-627.0	861.0	14732.0
14	2024.0	1171.0	3468.0	6434.0	0.0	-324.0	-298.0	178.0	979.0	1598.0	-739.0	785.0	15276.0
15	1981.0	1144.0	3275.0	5957.0	0.0	-420.0	-407.0	276.0	1074.0	1824.0	-460.0	579.0	14823.0
16	1318.0	806.0	2318.0	3619.0	0.0	-340.0	-333.0	217.0	830.0	1425.0	-234.0	740.0	10366.0
17	1230.0	767.0	2358.0	3375.0	0.0	-338.0	-336.0	211.0	822.0	1422.0	-228.0	843.0	10126.0
18	1427.0	879.0	2541.0	4774.0	0.0	-366.0	-361.0	231.0	881.0	1502.0	-350.0	1191.0	12349.0
19	1440.0	897.0	2599.0	4882.0	0.0	-353.0	-345.0	227.0	880.0	1467.0	-272.0	1209.0	12631.0
20	1683.0	998.0	2937.0	5429.0	0.0	-267.0	-257.0	93.0	807.0	1328.0	-164.0	1186.0	13773.0
21	1508.0	865.0	2662.0	4960.0	0.0	-320.0	-302.0	217.0	800.0	1309.0	-403.0	1132.0	12428.0
22	1531.0	918.0	2629.0	4852.0	0.0	-302.0	-301.0	185.0	826.0	1436.0	17.0	1094.0	12885.0
23	1629.0	996.0	2715.0	4973.0	0.0	-322.0	-328.0	207.0	916.0	1580.0	238.0	998.0	13602.0
24	1411.0	853.0	2518.0	4686.0	0.0	-371.0	-360.0	262.0	941.0	1603.0	-13.0	1017.0	12547.0
25	1523.0	885.0	2686.0	5019.0	0.0	-358.0	-352.0	266.0	950.0	1594.0	2.0	1100.0	13315.0
26	1691.0	957.0	2973.0	4727.0	0.0	-357.0	-337.0	241.0	976.0	1618.0	-200.0	1109.0	13398.0
27	1946.0	1127.0	3266.0	6036.0	0.0	-363.0	-333.0	232.0	937.0	1515.0	-648.0	1120.0	14835.0
28	1641.0	957.0	2921.0	5390.0	0.0	-340.0	-320.0	161.0	826.0	1309.0	-324.0	1081.0	13302.0
29	1549.0	894.0	2707.0	5056.0	0.0	-384.0	-371.0	223.0	925.0	1596.0	178.0	1200.0	13573.0
30	1394.0	842.0	2618.0	4824.0	0.0	-340.0	-332.0	211.0	881.0	1522.0	176.0	1048.0	12844.0
31	1481.0	889.0	2777.0	5213.0	0.0	-382.0	-385.0	272.0	922.0	1539.0	-351.0	1116.0	13091.0
Monthly Total	48,941.00	28,921.00	85,315.00	154,383.00	0.00	-9,107.00	-8,832.00	9,487.00	26,916.00	45,326.00	-7,805.00	22,736.00	396,281.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
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Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1693.0	996.0	3023.0	5642.0	0.0	-350.0	-346.0	207.0	959.0	1584.0	-241.0	1269.0	14436.0
2	2014.0	1167.0	3404.0	6318.0	0.0	-358.0	-350.0	202.0	1006.0	1665.0	-199.0	1237.0	16106.0
3	2033.0	1187.0	3469.0	6449.0	0.0	-331.0	-332.0	175.0	946.0	1499.0	-567.0	1224.0	15752.0
4	1798.0	1026.0	3076.0	5759.0	0.0	-328.0	-324.0	133.0	838.0	1348.0	-470.0	1017.0	13873.0
5	1880.0	1071.0	3049.0	5707.0	0.0	-269.0	-257.0	58.0	796.0	1252.0	-144.0	1261.0	14404.0
6	1530.0	906.0	2625.0	4904.0	0.0	-322.0	-328.0	158.0	846.0	1406.0	287.0	1319.0	13331.0
7	1553.0	923.0	2693.0	4992.0	0.0	-278.0	-278.0	122.0	798.0	1358.0	190.0	1212.0	13285.0
8	1749.0	1007.0	2898.0	5438.0	0.0	-296.0	-298.0	96.0	881.0	1463.0	316.0	1332.0	14586.0
9	1841.0	1040.0	3127.0	5926.0	0.0	-268.0	-258.0	77.0	895.0	1507.0	137.0	1333.0	15357.0
10	1814.0	1023.0	3173.0	6028.0	0.0	-276.0	-277.0	155.0	883.0	1399.0	-372.0	1270.0	14820.0
11	1686.0	920.0	3091.0	5896.0	0.0	-356.0	-344.0	185.0	929.0	1498.0	-494.0	1270.0	14281.0
12	1610.0	901.0	2798.0	5307.0	0.0	-371.0	-371.0	158.0	887.0	1506.0	228.0	1329.0	13982.0
13	1862.0	1080.0	3137.0	5859.0	0.0	-291.0	-281.0	43.0	897.0	1480.0	267.0	1444.0	15497.0
14	2174.0	1295.0	3490.0	6469.0	0.0	-328.0	-330.0	105.0	1000.0	1649.0	26.0	1502.0	17052.0
15	2225.0	1298.0	3401.0	6252.0	0.0	-370.0	-352.0	189.0	940.0	1567.0	-77.0	1416.0	16489.0
16	2068.0	1176.0	3410.0	6316.0	0.0	-307.0	-292.0	94.0	917.0	1571.0	3.0	1394.0	16350.0
17	1950.0	1111.0	3333.0	6089.0	0.0	-258.0	-247.0	74.0	806.0	1326.0	-205.0	1401.0	15380.0
18	1939.0	1122.0	3262.0	5963.0	0.0	-252.0	-233.0	22.0	762.0	1257.0	-59.0	1397.0	15180.0
19	1181.0	698.0	2283.0	4314.0	0.0	-327.0	-321.0	156.0	747.0	1337.0	186.0	1460.0	11714.0
20	1488.0	905.0	2671.0	4855.0	0.0	-289.0	-288.0	140.0	756.0	1321.0	193.0	1452.0	13204.0
21	1673.0	1033.0	2715.0	4888.0	0.0	-333.0	-328.0	173.0	791.0	1355.0	149.0	1460.0	13576.0
22	1599.0	954.0	2607.0	4774.0	0.0	-328.0	-321.0	164.0	750.0	1286.0	72.0	1455.0	13012.0
23	1740.0	1021.0	2835.0	5185.0	0.0	-327.0	-312.0	184.0	813.0	1419.0	-49.0	1445.0	13954.0
24	1777.0	1044.0	2967.0	5459.0	0.0	-292.0	-276.0	135.0	787.0	1306.0	-181.0	1465.0	14191.0
25	1834.0	1043.0	3060.0	5566.0	0.0	-256.0	-247.0	83.0	750.0	1247.0	-277.0	1464.0	14267.0
26	1632.0	945.0	2717.0	4951.0	0.0	-304.0	-309.0	155.0	783.0	1336.0	104.0	1481.0	13491.0
27	1388.0	825.0	2371.0	4305.0	0.0	-286.0	-281.0	151.0	727.0	1257.0	269.0	1521.0	12247.0
28	1723.0	1050.0	2735.0	4903.0	0.0	-280.0	-275.0	146.0	774.0	1323.0	209.0	1556.0	13864.0
29	1879.0	1084.0	2915.0	5201.0	0.0	-278.0	-269.0	127.0	760.0	1291.0	213.0	1556.0	14479.0
30	2007.0	1183.0	3138.0	5650.0	0.0	-327.0	-306.0	136.0	842.0	1430.0	-73.0	1488.0	15168.0
31	1898.0	1105.0	3078.0	5533.0	0.0	-288.0	-266.0	102.0	767.0	1289.0	-279.0	1468.0	14407.0
Monthly Total	55,238.00	32,139.00	92,551.00	170,898.00	0.00	-9,524.00	-9,297.00	4,105.00	26,033.00	43,532.00	-838.00	42,898.00	447,735.00

Monthly Report Meter Chamber Flow Totals (NET)

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Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1667.0	956.0	2740.0	4870.0	0.0	-265.0	-248.0	79.0	656.0	1097.0	-167.0	1535.0	12920.0
2	1851.0	1101.0	3042.0	5395.0	0.0	-216.0	-207.0	27.0	709.0	1174.0	-185.0	1466.0	14157.0
3	1727.0	1039.0	2726.0	4785.0	0.0	-230.0	-224.0	46.0	665.0	1166.0	195.0	1528.0	13423.0
4	1742.0	1079.0	2750.0	4804.0	0.0	-250.0	-244.0	112.0	667.0	1168.0	27.0	1478.0	13333.0
5	1802.0	1071.0	2814.0	4926.0	0.0	-230.0	-221.0	82.0	657.0	1133.0	63.0	1525.0	13622.0
6	1689.0	1001.0	2711.0	4827.0	0.0	-269.0	-262.0	127.0	685.0	1186.0	-106.0	1515.0	13104.0
7	1738.0	1032.0	2899.0	5159.0	0.0	-181.0	-174.0	33.0	664.0	1119.0	-222.0	1530.0	13597.0
8	1808.0	1053.0	2996.0	5306.0	0.0	-217.0	-205.0	73.0	666.0	1097.0	-395.0	1589.0	13771.0
9	1736.0	1005.0	2790.0	4983.0	0.0	-292.0	-285.0	128.0	701.0	1232.0	-211.0	1630.0	13417.0
10	1799.0	1081.0	2857.0	5071.0	0.0	-256.0	-243.0	56.0	709.0	1246.0	19.0	1590.0	13929.0
11	1808.0	1117.0	2811.0	4985.0	0.0	-316.0	-307.0	137.0	696.0	1251.0	-153.0	1636.0	13665.0
12	1562.0	980.0	2571.0	4520.0	0.0	-246.0	-249.0	-5.0	537.0	1052.0	1.0	1584.0	12307.0
13	1630.0	998.0	2588.0	4536.0	0.0	-230.0	-231.0	42.0	590.0	1002.0	23.0	1697.0	12645.0
14	1629.0	1006.0	2679.0	4667.0	0.0	-202.0	-200.0	10.0	565.0	929.0	-173.0	1678.0	12588.0
15	1591.0	924.0	2668.0	4612.0	0.0	-181.0	-169.0	-16.0	536.0	881.0	-234.0	1721.0	12333.0
16	1574.0	940.0	2559.0	4485.0	0.0	-257.0	-248.0	75.0	612.0	1050.0	9.0	1718.0	12517.0
17	1651.0	1000.0	2635.0	4589.0	0.0	-233.0	-222.0	18.0	606.0	1029.0	85.0	1745.0	12903.0
18	1693.0	1046.0	2690.0	4700.0	0.0	-244.0	-240.0	34.0	640.0	1096.0	37.0	711.0	12163.0
19	1748.0	1041.0	2736.0	4772.0	0.0	-252.0	-245.0	81.0	642.0	1103.0	37.0	n/a	11663.0
20	1759.0	1046.0	2814.0	4904.0	0.0	-218.0	-211.0	-1.0	618.0	1033.0	39.0	n/a	11783.0
21	1826.0	1083.0	2927.0	5100.0	0.0	-211.0	-205.0	14.0	605.0	977.0	-234.0	n/a	11882.0
22	1776.0	1041.0	2909.0	5057.0	0.0	-178.0	-170.0	-25.0	586.0	941.0	-250.0	n/a	11687.0
23	1758.0	1057.0	2770.0	4840.0	0.0	-250.0	-239.0	14.0	641.0	1089.0	17.0	n/a	11697.0
24	1873.0	1153.0	2886.0	5048.0	0.0	-225.0	-206.0	46.0	626.0	1056.0	-20.0	n/a	12237.0
25	1933.0	1204.0	2931.0	5118.0	0.0	-257.0	-246.0	73.0	665.0	1161.0	-77.0	n/a	12505.0
26	1941.0	1161.0	2920.0	5104.0	0.0	-268.0	-255.0	108.0	659.0	1121.0	-242.0	n/a	12249.0
27	1719.0	1031.0	2711.0	4740.0	0.0	-244.0	-225.0	80.0	607.0	1027.0	-118.0	n/a	11328.0
28	1663.0	1024.0	2651.0	4568.0	0.0	-182.0	-170.0	-20.0	494.0	814.0	-201.0	n/a	10641.0
29	1462.0	888.0	2473.0	4296.0	0.0	-185.0	-172.0	16.0	505.0	812.0	-305.0	n/a	9790.0
30	1601.0	992.0	2533.0	4409.0	0.0	-208.0	-202.0	25.0	562.0	956.0	-55.0	n/a	10613.0
31													
Monthly Total	51,756.00	31,150.00	82,787.00	145,176.00	0.00	-6,993.00	-6,725.00	1,469.00	18,771.00	31,998.00	-2,796.00	27,876.00	374,469.00

Monthly Report Meter Chamber Flow Totals (NET)

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Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1729.0	1062.0	2658.0	4584.0	0.0	-215.0	-203.0	-1.0	561.0	960.0	73.0	n/a	11208.0
2	1648.0	1024.0	2541.0	4365.0	0.0	-211.0	-202.0	27.0	559.0	943.0	-47.0	n/a	10647.0
3	1634.0	1025.0	2541.0	4333.0	0.0	-175.0	-170.0	-10.0	515.0	889.0	-15.0	n/a	10567.0
4	1559.0	971.0	2462.0	4297.0	0.0	-220.0	-212.0	79.0	545.0	924.0	-79.0	n/a	10326.0
5	1588.0	967.0	2590.0	4469.0	0.0	-156.0	-151.0	-36.0	492.0	827.0	-225.0	n/a	10365.0
6	1568.0	965.0	2584.0	4496.0	0.0	-180.0	-169.0	-22.0	507.0	840.0	-312.0	n/a	10277.0
7	1539.0	929.0	2479.0	4320.0	0.0	-220.0	-215.0	45.0	560.0	965.0	19.0	n/a	10421.0
8	1666.0	1024.0	2573.0	4460.0	0.0	-203.0	-168.0	-12.0	531.0	910.0	68.0	n/a	10849.0
9	1633.0	1012.0	2552.0	4412.0	0.0	-223.0	-179.0	n/a	563.0	959.0	55.0	n/a	10784.0
10	1675.0	1034.0	2573.0	4461.0	0.0	-222.0	-183.0	n/a	569.0	971.0	41.0	n/a	10919.0
11	1806.0	1125.0	2758.0	5268.0	0.0	-11.0	27.0	n/a	566.0	960.0	198.0	n/a	12697.0
12	1841.0	1119.0	2780.0	4776.0	0.0	-137.0	-99.0	n/a	503.0	805.0	-254.0	n/a	11334.0
13	1449.0	885.0	2405.0	4216.0	0.0	-152.0	-112.0	n/a	479.0	770.0	-276.0	n/a	9664.0
14	1580.0	966.0	2558.0	4484.0	0.0	-154.0	-112.0	n/a	528.0	857.0	-364.0	n/a	10343.0
15	1536.0	952.0	2390.0	4200.0	0.0	-186.0	-143.0	n/a	542.0	907.0	-15.0	n/a	10183.0
16	1509.0	932.0	2373.0	4132.0	0.0	-171.0	-130.0	n/a	509.0	862.0	132.0	n/a	10148.0
17	1628.0	1004.0	2467.0	4302.0	0.0	-176.0	-141.0	n/a	523.0	878.0	58.0	n/a	10543.0
18	1486.0	917.0	2352.0	4170.0	0.0	-181.0	-139.0	n/a	447.0	801.0	250.0	n/a	10103.0
19	1441.0	878.0	2424.0	4274.0	0.0	-172.0	-134.0	n/a	516.0	840.0	-278.0	n/a	9789.0
20	1403.0	855.0	2395.0	4208.0	0.0	-153.0	-105.0	n/a	498.0	813.0	-205.0	n/a	9709.0
21	1291.0	788.0	2135.0	3829.0	0.0	-239.0	-198.0	n/a	519.0	871.0	-7.0	n/a	8989.0
22	1026.0	626.0	1888.0	3427.0	0.0	-194.0	-156.0	n/a	474.0	800.0	52.0	n/a	7943.0
23	1130.0	676.0	1965.0	3570.0	0.0	-232.0	-188.0	n/a	523.0	875.0	-21.0	n/a	8298.0
24	1093.0	665.0	1962.0	3554.0	0.0	-197.0	-151.0	n/a	473.0	811.0	49.0	n/a	8259.0
25	1199.0	737.0	2062.0	3696.0	0.0	-203.0	-162.0	n/a	483.0	796.0	-119.0	n/a	8489.0
26	1054.0	639.0	2036.0	3697.0	0.0	-171.0	-141.0	n/a	457.0	725.0	-355.0	n/a	7941.0
27	1058.0	644.0	2031.0	3693.0	0.0	-182.0	-144.0	n/a	465.0	734.0	-410.0	n/a	7889.0
28	1074.0	658.0	1941.0	3570.0	0.0	-270.0	-232.0	n/a	431.0	726.0	66.0	n/a	7964.0
29	1068.0	658.0	1922.0	3473.0	0.0	-190.0	-153.0	n/a	469.0	774.0	-57.0	n/a	7964.0
30	1133.0	699.0	1991.0	3576.0	0.0	-220.0	-182.0	n/a	514.0	843.0	-193.0	n/a	8161.0
31	1057.0	648.0	1893.0	3416.0	0.0	-177.0	-143.0	-2.0	459.0	763.0	-101.0	n/a	7813.0
Monthly Total	44,101.00	27,084.00	72,281.00	127,728.00	0.00	-5,793.00	-4,790.00	68.00	15,780.00	26,399.00	-2,272.00	n/a	300,586.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
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Date: Nov-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1001.0	618.0	1865.0	3411.0	0.0	-209.0	-177.0	47.0	482.0	781.0	-167.0	n/a	7652.0
2	1065.0	648.0	2027.0	3667.0	0.0	-180.0	-139.0	39.0	474.0	727.0	-393.0	n/a	7935.0
3	1071.0	653.0	2084.0	3752.0	0.0	-186.0	-138.0	26.0	486.0	734.0	-457.0	n/a	8025.0
4	1005.0	628.0	1903.0	3445.0	0.0	-176.0	-138.0	26.0	496.0	818.0	-70.0	n/a	7937.0
5	1015.0	635.0	1917.0	3423.0	0.0	-165.0	-127.0	4.0	480.0	813.0	33.0	n/a	8028.0
6	990.0	615.0	1884.0	3407.0	0.0	-165.0	-126.0	6.0	445.0	751.0	13.0	n/a	7820.0
7	950.0	591.0	1839.0	3325.0	0.0	-185.0	-145.0	45.0	466.0	777.0	-90.0	n/a	7573.0
8	982.0	605.0	1877.0	3410.0	0.0	-196.0	-158.0	84.0	466.0	760.0	-152.0	n/a	7678.0
9	1017.0	614.0	2022.0	3634.0	0.0	-159.0	-119.0	32.0	459.0	721.0	-283.0	n/a	7938.0
10	964.0	594.0	2001.0	3600.0	0.0	-142.0	-98.0	-3.0	436.0	687.0	-347.0	n/a	7692.0
11	978.0	599.0	1874.0	3365.0	0.0	-193.0	-154.0	69.0	485.0	785.0	-192.0	n/a	7616.0
12	931.0	586.0	1874.0	3283.0	0.0	-170.0	-121.0	70.0	463.0	771.0	-41.0	n/a	7646.0
13	985.0	599.0	1843.0	3343.0	0.0	-222.0	-186.0	100.0	475.0	789.0	-168.0	n/a	7558.0
14	1006.0	617.0	1881.0	3455.0	0.0	-245.0	-183.0	97.0	481.0	796.0	-213.0	n/a	7692.0
15	1080.0	659.0	1939.0	3533.0	0.0	-187.0	-145.0	38.0	435.0	722.0	-99.0	n/a	7975.0
16	1036.0	630.0	2011.0	3643.0	0.0	-191.0	-153.0	55.0	445.0	689.0	-392.0	n/a	7773.0
17	1043.0	623.0	2029.0	3683.0	0.0	-175.0	-130.0	38.0	426.0	656.0	-332.0	n/a	7861.0
18	1088.0	659.0	1957.0	3571.0	0.0	-224.0	-179.0	67.0	339.0	629.0	227.0	n/a	8134.0
19	1023.0	618.0	1883.0	3464.0	0.0	-240.0	-203.0	124.0	276.0	539.0	288.0	n/a	7772.0
20	1025.0	625.0	1910.0	3458.0	0.0	-219.0	-184.0	74.0	288.0	567.0	396.0	n/a	7940.0
21	1020.0	612.0	1854.0	3380.0	0.0	-207.0	-176.0	73.0	349.0	626.0	199.0	n/a	7730.0
22	1001.0	610.0	1869.0	3392.0	0.0	-191.0	-150.0	53.0	424.0	695.0	-1.0	n/a	7702.0
23	995.0	601.0	2004.0	3586.0	0.0	-149.0	-111.0	-1.0	404.0	627.0	-275.0	n/a	7681.0
24	1064.0	636.0	2080.0	3715.0	0.0	-153.0	-112.0	12.0	424.0	639.0	-378.0	n/a	7927.0
25	1009.0	613.0	1895.0	3476.0	0.0	-176.0	-149.0	18.0	438.0	715.0	-17.0	n/a	7822.0
26	1092.0	656.0	1945.0	3546.0	0.0	-188.0	-155.0	-19.0	445.0	729.0	6.0	n/a	8057.0
27	986.0	609.0	1925.0	3503.0	0.0	-193.0	-160.0	23.0	438.0	713.0	-28.0	n/a	7816.0
28	1011.0	615.0	1950.0	3537.0	0.0	-167.0	-133.0	21.0	440.0	736.0	21.0	n/a	8031.0
29	1037.0	637.0	1913.0	3508.0	0.0	-198.0	-158.0	91.0	450.0	765.0	-48.0	n/a	7997.0
30	1106.0	666.0	2063.0	3713.0	0.0	-138.0	-99.0	22.0	417.0	643.0	-346.0	n/a	8047.0
31													
Monthly Total	30,576.00	18,671.00	58,118.00	105,228.00	0.00	-5,589.00	-4,406.00	1,331.00	13,032.00	21,400.00	-3,306.00	0.00	235,055.00

Monthly Report Meter Chamber Flow Totals (NET)

Town of Tecumseh Water System
Report Name: 201912.xls Date: 01/02/2020
Page: 1 of 1

Date: Dec-19

Day of the Month	MCT01 m3	MCT02 m3	MCT03 m3	MCT04 m3	MCT05 m3	MCT06 m3	MCT07 m3	MCT08 m3	MCT09 m3	MCT10 m3	MCT11 m3	MCT12 m3	System Total m3
1	1102.0	665.0	2100.0	3786.0	0.0	-148.0	-113.0	7.0	417.0	621.0	-454.0	n/a	7983.0
2	1072.0	658.0	1953.0	3537.0	0.0	-176.0	-133.0	15.0	441.0	727.0	-6.0	n/a	8088.0
3	1041.0	642.0	1910.0	3463.0	0.0	-174.0	-137.0	24.0	435.0	718.0	-21.0	n/a	7901.0
4	1035.0	631.0	1912.0	3496.0	0.0	-204.0	-168.0	72.0	502.0	798.0	-156.0	n/a	7918.0
5	1006.0	623.0	1914.0	3460.0	0.0	-180.0	-139.0	68.0	442.0	719.0	-6.0	n/a	7907.0
6	1013.0	636.0	1918.0	3438.0	0.0	-174.0	-138.0	58.0	441.0	716.0	-68.0	n/a	7840.0
7	1056.0	643.0	2043.0	3669.0	0.0	-153.0	-118.0	19.0	439.0	662.0	-318.0	n/a	7942.0
8	1040.0	631.0	2034.0	3633.0	0.0	-139.0	-100.0	-10.0	393.0	594.0	-349.0	n/a	7727.0
9	982.0	608.0	1880.0	3372.0	0.0	-159.0	-120.0	46.0	437.0	722.0	-48.0	n/a	7720.0
10	993.0	619.0	1894.0	3403.0	0.0	-190.0	-152.0	72.0	452.0	738.0	-110.0	n/a	7719.0
11	1051.0	657.0	1970.0	3523.0	0.0	-200.0	-160.0	67.0	461.0	753.0	-73.0	n/a	8049.0
12	1028.0	658.0	1964.0	3519.0	0.0	-165.0	-130.0	10.0	415.0	694.0	3.0	n/a	7996.0
13	1009.0	635.0	1900.0	3448.0	0.0	-215.0	-176.0	95.0	461.0	765.0	-56.0	n/a	7866.0
14	1104.0	681.0	2118.0	3764.0	0.0	-155.0	-120.0	18.0	443.0	694.0	-211.0	n/a	8336.0
15	1160.0	711.0	2181.0	3863.0	0.0	-162.0	-118.0	38.0	445.0	662.0	-393.0	n/a	8387.0
16	1175.0	717.0	2039.0	3583.0	0.0	-110.0	-83.0	122.0	380.0	635.0	-32.0	n/a	8426.0
17	n/a												
18	723.0	450.0	1423.0	2526.0	0.0	-33.0	-20.0	121.0	286.0	482.0	-30.0	n/a	5928.0
19	870.0	541.0	1778.0	3229.0	0.0	-119.0	-94.0	217.0	382.0	638.0	-132.0	n/a	7310.0
20	741.0	459.0	1665.0	3056.0	0.0	-102.0	-81.0	183.0	360.0	611.0	-56.0	n/a	6836.0
21	783.0	477.0	1811.0	3331.0	0.0	-85.0	-66.0	247.0	375.0	572.0	-421.0	n/a	7024.0
22	738.0	449.0	1764.0	3253.0	0.0	-80.0	-58.0	236.0	362.0	552.0	-448.0	n/a	6768.0
23	767.0	467.0	1720.0	3171.0	0.0	-94.0	-65.0	217.0	378.0	586.0	-305.0	n/a	6842.0
24	779.0	460.0	1771.0	3274.0	0.0	-90.0	-66.0	251.0	386.0	552.0	-503.0	n/a	6814.0
25	721.0	416.0	1636.0	3030.0	0.0	-74.0	-48.0	259.0	390.0	562.0	-582.0	n/a	6310.0
26	701.0	411.0	1617.0	2997.0	0.0	-50.0	-24.0	172.0	322.0	482.0	-416.0	n/a	6212.0
27	682.0	422.0	1640.0	3045.0	0.0	-45.0	-18.0	191.0	355.0	539.0	-329.0	n/a	6482.0
28	664.0	412.0	1710.0	3127.0	0.0	-41.0	-20.0	208.0	350.0	514.0	-462.0	n/a	6462.0
29	618.0	380.0	1644.0	2977.0	0.0	-73.0	-40.0	207.0	339.0	482.0	-489.0	n/a	6045.0
30	614.0	387.0	1598.0	2900.0	0.0	-66.0	-39.0	186.0	351.0	554.0	-291.0	n/a	6194.0
31	619.0	375.0	1603.0	2919.0	0.0	-57.0	-30.0	194.0	348.0	537.0	-342.0	n/a	6166.0
Monthly Total	26,887.00	16,521.00	55,110.00	99,792.00	0.00	-3,713.00	-2,774.00	3,610.00	11,988.00	18,881.00	-7,104.00	0.00	219,198.00



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Environmental Services

Date to Council: February 25, 2020

Report Number: PWES-2020-13

Subject: Tecumseh (Water) Distribution System
Ministry of the Environment, Conservation and Parks
2019 Inspection Report

Recommendations

It is recommended:

That the Ministry of the Environment, Conservation and Parks inspection report for the Tecumseh (Water) Distribution System, dated January 16, 2020, **be received**.

Background

The Ministry of the Environment, Conservation and Parks (MECP) has a rigorous and comprehensive inspection program for Municipal Residential Drinking Water Systems (MRDWS). Its objective is to determine the compliance of MRDWS with requirements under the *Safe Drinking Water Act, 2002*, associated regulations and MECP Certificates of Approval. Owners of MRDWS are responsible to ensure their drinking water systems comply with all applicable legal requirements.

The MECP carried out a one-day inspection of the Tecumseh (Windsor WTP) Distribution System on January 16, 2020. This announced focused inspection covers the period from March 1, 2019 to December 31, 2019. The previous inspection occurred on February 28, 2019. The inspector reviewed the Town's records and procedures to ensure the Town met MECP legislative requirements.

Comments

Inspection Procedure

The purpose of the MECP inspection is to confirm compliance with MECP legislation and authorizing documents such as Orders and Certificates of Approval, as well as to evaluate conformance with Ministry drinking water related policies and guidelines.

The MECP inspector reviewed the Town's records and documented findings of its inspections for the following:

- 1) Distribution System
- 2) Operational Manuals
- 3) Logbooks
- 4) Contingency/Emergency Planning
- 5) Security
- 6) Consumer Relations
- 7) Certification and Training
- 8) Water Quality Monitoring
- 9) Water Quality Assessment
- 10) Report and Corrective Action

In addition, the inspector reviewed Water Services standard operating procedures and conducted interviews with Water staff. Based on the results of both the reviews and interviews, the MECP inspector prepared his final inspection report that was received by the Town on January 30, 2020.

Results of Inspection Report

The Town's water distribution system did not have any non-compliance issues with regulatory requirements.

The Inspection Summary Rating Record (IRR), included in the appendix of the inspection report, provides the MECP, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

The Town's inspection risk rating is 0.00% and the final inspection rating is 100.00%. Those ratings represent the best possible rating achievable.

Water Services staff are to be commended for their outstanding achievements.

Administration recommends that Council receive the Ministry of the Environment, Conservation and Parks inspection report for the Tecumseh (Water) Distribution System dated January 16, 2020.

Consultations

Ministry of the Environment, Conservation and Parks

Financial Implications

There are no financial implications arising from this report.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input checked="" type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☐

Website ☒ Social Media ☐ News Release ☐ Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Brad Dupuis, C. Tech.
Manager Water & Wastewater Services, O.R.O.

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

**Attachment
Number**

**Attachment
Name**

1

Ministry of the Environment, Conservation and Parks Tecumseh
Distribution System Inspection Report, dated January 16, 2020

Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de la
Protection de la nature et des Parks

Southwestern Region

Direction régionale du Sud-Ouest

620 – 4510 Rhodes Drive
Windsor ON N8W 5K5

Tel.: 519 948-1464

Fax.: 519 948-2396

TTY: 416 456-1234

620 – 4510, chemin Rhodes
Windsor ON N8W 5K5

Tél. : 519 948-1464

Télé. : 519 948-2396

ATS : 416 456-1234

File# SI-ES-TE-540

January 30, 2020

Town of Tecumseh
917 Lesperance Road
Tecumseh, ON
N8N 1W9

Attention: Margaret Misk-Evans, CAO
mevans@tecumseh.ca

Dear Ms. Misk-Evans;

Re: Tecumseh Water Distribution System
Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the Tecumseh Distribution System (DWS#260004969). There was no physical inspection conducted at your drinking water system this year, however, the inspection was conducted remotely as part of the ministry's new "Remote Inspection Pilot" project. During this year's inspection, a telephone interview/questionnaire was conducted on January 16, 2020.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in "*Taking Care of Your Drinking Water: A guide for members of municipal council*" found on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating

Record (IRR), included as Appendix B of the inspection report, provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at (519) 490-0761.

Likewise, if you have any questions or concerns regarding this report, please call me at (226) 280-1556.

Yours truly,



Neil Gilbert, P.Eng.
Provincial Officer – Water Inspector
Southwestern Region
Ministry of the Environment, Conservation and Parks
Sarnia District – Windsor Area Office

Encl.

cc: Dr. Wajid Ahmed, Acting Medical Officer of Health, Windsor-Essex County HU, wahmed@wechu.org
Theresa Marentette, CEO and Chief Nursing Officer, Windsor-Essex County HU, tmarentette@wechu.org
Phil Wong, Manager, Environmental Health, Windsor-Essex County HU, pwong@wechu.org
Victoria Peczulis, Manager, Environmental Health, Windsor-Essex County HU, vpeczulis@wechu.org
Phil Bartnik, Director of Public Works & Env. Services, Town of Tecumseh, pbartnik@tecumseh.ca
Brad Dupuis, Water & Wastewater Manager, Town of Tecumseh, bdupuis@tecumseh.ca
Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, marc.bechard@ontario.ca



Ministry of the Environment, Conservation and Parks

TECUMSEH DISTRIBUTION SYSTEM
Inspection Report

Site Number:	260004969
Inspection Number:	1-L5FD0
Date of Inspection:	Jan 16, 2020
Inspected By:	Neil Gilbert

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Water Quality Assessment	7
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Non-Compliance with Regulatory Requirements and Actions Required	8
Summary of Recommendations and Best Practice Issues	9
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Appendix A: Stakeholder Appendix

Appendix B: Inspection Rating Record

OWNER INFORMATION:

Company Name:	TECUMSEH, THE CORPORATION OF THE TOWN OF		
Street Number:	917	Unit Identifier:	
Street Name:	LESPERANCE Rd		
City:	TECUMSEH		
Province:	ON	Postal Code:	N8N 1W9

CONTACT INFORMATION

Type:	Main Contact	Name:	Brad Dupuis
Phone:	(519) 735-2184 x145	Fax:	(519) 735-1895
Email:	bdupuis@tecumseh.ca		
Title:	Water & Wastewater Manager		

INSPECTION DETAILS:

Site Name:	TECUMSEH DISTRIBUTION SYSTEM
Site Address:	TECUMSEH
County/District:	TECUMSEH
MECP District/Area Office:	Windsor Area Office
Health Unit:	WINDSOR-ESSEX COUNTY HEALTH UNIT
Conservation Authority:	Essex Region Conservation Authority
MNR Office:	Chatham Regional Office
Category:	Large Municipal Residential
Site Number:	260004969
Inspection Type:	Special Announced
Inspection Number:	1-L5FD0
Date of Inspection:	Jan 16, 2020
Date of Previous Inspection:	Feb 28, 2019

COMPONENTS DESCRIPTION

Site (Name): Distribution System

Type: **Sub Type:**

Comments:

The Tecumseh Distribution System is a standalone distribution system which supplies water to the area of the Town of Tecumseh in two discrete service zones. The zone north of Highway 401 is bounded by the Tecumseh municipal boundaries, south to Baseline Road. The zone south of Highway 401 is bounded by the Tecumseh municipal boundaries generally south of Essex County Road 46. Source water is from the City of Windsor water supply via the Windsor municipal distribution system. One currently unused connection from Windsor is through a short section of transmission main within the Lasalle municipal distribution system. The City of Windsor water supply draws its source water from the Detroit River in the vicinity of Belle Isle. According to the drinking water system profile, a population of approximately 24,000 residents is served by the Tecumseh Distribution System. It therefore falls into the "large municipal residential" category under O. Regulation 170/03.

Water mains take treated water from the City of Windsor to the service area through 10 of 12 currently used boundary metered connections points with Tecumseh. The water tower in the Town of Tecumseh maintains distribution system

pressure and is controlled by the Town. The water tower is monitored by the Windsor Utilities Commission (WUC) and the Town through SCADA. Secondary disinfection is provided by the A.H. Weeks water treatment plant in Windsor.

The Tecumseh Distribution System 2018 annual report, prepared by the Town of Tecumseh, states that:

- Town of Tecumseh, City of Windsor and Windsor Utilities Commission (WUC) entered into a 50-year service agreement in November 2004 (By-law 2004-71). The service agreement was implemented on March 31, 2006.
- Prior to August 1, 2008, WUC provided water to 2400 residents in the former Township of Sandwich South, south of Highway 401 ("South Water Area"). The Town of Tecumseh assumed the responsibility for the operations and maintenance of the water distribution system from WUC in this South Water Area effective August 1, 2008.

INSPECTION SUMMARY:

Introduction

- The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period.

This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

This report is based on an inspection of a "stand alone connected distribution system". This type of system receives treated water from a separately owned "donor" system. This report contains the elements required to assess key compliance and conformance issues associated with a "receiver" system. This report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

This report is based on a "focused" inspection of the system and was conducted remotely. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O. Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

The Tecumseh Distribution System (DWS#260004969) is owned by the Corporation of the Town of Tecumseh. It is a standalone distribution system that receives treated surface water from the City of Windsor water supply via the Windsor municipal distribution system. The City of Windsor water supply draws its source water from the Detroit River in the vicinity of Belle Isle.

According to Tecumseh's drinking water system profile, a population of approximately 24,000 residents is served by the Tecumseh Distribution System. It therefore falls into the "large municipal residential" category under O. Reg. 170/03.

The water tower in the Town of Tecumseh maintains distribution system pressure and secondary disinfection is provided by the A.H. Weeks water treatment plant in Windsor.

This inspection was conducted remotely and the inspection review period was March 1, 2019 to December 31, 2019.

Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**

Schedule A of the Drinking Water Works Permit (#040-201, Issue Number 4 dated May 24, 2019) contains the following physical components:

- 4,540m³ water tower fed from the distribution system, and
- watermains within the Town of Tecumseh Distribution System.

- **The owner/operating authority was in compliance with the requirement to prepare Form 1 documents as**

Treatment Processes

required by their Drinking Water Works Permit during the inspection period.

During the inspection review period, "Form 1 - Record of Watermains Authorized as a Future Alteration" form was prepared for the following:

1) 300mm diameter watermain at North Talbot Road and County Road 11 (dated September 17, 2019).

- **The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.**

During the inspection review period, "Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System" forms was prepared for the following project:

1) 150mm watermain lowered on South Talbot Road during two bridge replacements (dated April 4, 2019).

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

Treatment Process Monitoring

- **The secondary disinfectant residual was measured as required for the distribution system.**

As per O.Reg. 170/03 s 7-2 (3), the owner/operating authority of a system that provides secondary disinfection shall ensure that at least seven distribution samples are taken each week and are tested immediately for, (a) free chlorine residual, if the system provides chlorination and does not provide chloramination; or (b) combined chlorine residual, if the system provides chloramination. The following rules apply to the distribution samples referred above unless at least one sample is taken on each day of the week: At least four of the samples must be taken on one day of the week, at least 48 hours after the last sample was taken in the previous week. Then, at least three of the samples must be taken on a second day of the week, at least 48 hours after the last sample was taken on the first day of the sampling week. When more than one sample is taken on the same day of the week then each sample must be taken from a different location.

During the inspection review period (March 1, 2019 to December 31, 2019) at least seven distribution samples were collected each week using the 4/3 rule and tested for free chlorine residuals.

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**
- **The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

Condition 16.2 under Schedule B of Tecumseh's Drinking Water Licence (#040-101, Issue #4 dated May 24, 2019) notes that the operations and maintenance manuals shall include (at a minimum) the following:

16.2.1 The requirements of this licence and associated procedures;

16.2.2 The requirements of the drinking water works permit for the drinking water system;

16.2.3 A description of the processes used to achieve secondary disinfection within the drinking water system;

16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

16.2.5 Procedures for the operation and maintenance of monitoring equipment;

16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;

16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint.

A review of Tecumseh's operating manual and standard operating procedures suggests that these conditions

Operations Manuals

appear to be satisfied. All secondary disinfection is provided by the City of Windsor's A.H. Weeks Water Treatment Plant and Tecumseh does not maintain or operate a re-chlorination system.

Logbooks

- Logbooks were properly maintained and contained the required information.
- Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.

Security

- The owner had provided security measures to protect components of the drinking water system.

Certification and Training

- The overall responsible operator had been designated for each subsystem.
- Operators-in-charge had been designated for all subsystems which comprised the drinking water system.
- All operators possessed the required certification.

Water Quality Monitoring

- All microbiological water quality monitoring requirements for distribution samples were being met.

As per O.Reg. 170/03 s10-2, the owner/operating authority for the system shall ensure that if a system serves 100,000 people or less, at least eight distribution samples, plus one additional sample for every 1,000 people served, are taken every month, with at least one sample being taken each week. Each of the distribution samples collected must be tested for E. coli and total coliforms and at least 25 percent of these samples must be tested for general bacteria population expressed as colony counts on a heterotrophic plate count (HPC). During the inspection review period (March 1, 2019 to December 31, 2019) all microbiological water monitoring requirements for distribution water samples were performed.

- All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.

As per O.Reg. 170/03 s13-6.1, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the distribution system that is likely to have an elevated potential for the formation of haloacetic acids (HAAs), and have the sample tested for HAAs.

On January 1, 2020, the O.Reg. 169/03 standard for HAA (80ug/L) came into effect and is expressed as a RAA, where RAA is defined as "the running annual average of quarterly results" for HAA for a drinking water system. During the inspection review period (March 1, 2019 to December 31, 2019), these HAA quarterly samples were collected on April 8, 2019 (HAA result=5.5ug/L), July 8, 2019 (HAA result=7.6ug/L) and October 7, 2019 (HAA result=19.3ug/L).

The RAA (running annual average of quarterly results) of the HAA samples collected during the inspection review period plus the first quarter of 2019 (HAA result was 5.3ug/L) is 9.4ug/L which would be below the new Ontario Drinking Water Quality Standard (ODWQS) of 80 ug/L (expressed as a running annual average of quarterly results).

Water Quality Monitoring

- **All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.**

As per O.Reg. 170/03 s13-6, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the distribution system that is likely to have an elevated potential for the formation of trihalomethanes (THMs), and have the sample tested for THMs.

During the inspection review period (March 1, 2019 to December 31, 2019), these THM quarterly samples were collected on April 8, 2019 (at 4 locations with a THM average =11.8ug/L), July 8, 2019 (at 3 locations with a THM average=19.7ug/L) and October 7, 2019 (at 3 locations with a THM average=40.7ug/L).

The RAA (running annual average of quarterly results) of the THM samples collected during the inspection review period plus the first quarter of 2019 (THM average result was 20.2ug/L) is 23.1ug/L which is below the Ontario Drinking Water Quality Standard (ODWQS) of 100 ug/L for THM's (expressed as a running annual average of quarterly results).

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**

Water Quality Assessment

- **Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O.Reg. 169/03).**

Reporting & Corrective Actions

- **All changes to the system registration information were provided within ten (10) days of the change.**

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By:

Neil Gilbert

Signature: (Provincial Officer)



Reviewed & Approved By:

Marc Bechard

Signature: (Supervisor)

Review & Approval Date:

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

Stakeholder Appendix

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau potable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web

Inspection Rating Record

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2019-2020)

DWS Name: TECUMSEH DISTRIBUTION SYSTEM
DWS Number: 260004969
DWS Owner: Tecumseh, The Corporation Of The Town Of
Municipal Location: Tecumseh

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Adhoc
Inspection Date: January 16, 2020
Ministry Office: Windsor Area Office

Maximum Question Rating: 193

Inspection Module	Non-Compliance Rating
Treatment Processes	0 / 43
Operations Manuals	0 / 28
Logbooks	0 / 18
Certification and Training	0 / 28
Water Quality Monitoring	0 / 51
Reporting & Corrective Actions	0 / 4
Treatment Process Monitoring	0 / 21
TOTAL	0 / 193

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2019-2020)

DWS Name: TECUMSEH DISTRIBUTION SYSTEM
DWS Number: 260004969
DWS Owner: Tecumseh, The Corporation Of The Town Of
Municipal Location: Tecumseh

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Adhoc

Inspection Date: January 16, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 193

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Environmental Services

Date to Council: February 25, 2020

Report Number: PWES-2020-14

Subject: Drinking Water Quality Management System
Operational Plan Version 10

Recommendations

It is recommended:

That the Drinking Water Quality Management System Operational Plan Version 10 be endorsed and committed to.

Background

Following the results of the Walkerton Inquiry in 2002, a key recommendation by Justice O'Connor was for municipalities across Ontario to develop and implement a Drinking Water Quality Management System (DWQMS). The Owners and Operating Authority are required to document a quality management system in an Operational Plan for the drinking water system they operate.

The Town's Water Services Division is legislatively required to annually review and update its Drinking Water Quality Management System Operational Plan. The (updated) Operational Plan must include a written endorsement of its contents by Senior Management and the Owner (Council).

Comments

Council and Senior Management's endorsement and commitment to the Town's DWQMS is a crucial element of the Operational Plan. Council and Senior Management shall provide evidence of their commitment to an effective quality management system by:

- Ensuring that a Quality Management System is in place that meets the requirements of the standard as mandated through the Safe Drinking Water Act, 2002 (SDWA).
- Ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements.
- Communicating the Quality Management System according to the procedure for communications.
- Determining, obtaining or providing the resources needed to maintain and continually improve the Quality Management System.

Version 10 of the Operational Plan was submitted to the DWQMS Committee and approved, and is appended to this report as Attachment No. 1. The revisions to the document include, but are not limited to, the following:

- The link to the Quality Management System Policy on the website.
- The various commitments the Owner and Senior Management endorse with respect to the Town's Quality Management System.
- Staff turnover.

The above-noted changes were incorporated into Version 10 of the Operational Plan due to:

- Legislative and regulatory changes;
- Management Review Committee recommendations (refer to Attachment No. 2); and
- The Town's administrative and/or policy changes.

Updates to the Operational Plan are necessary for continuous improvement of the Town's Quality Management System.

Consultations

Ministry of the Environment, Conservation and Parks

Financial Implications

There are no financial implications arising from this report.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input checked="" type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☐

Website ☒ Social Media ☐ News Release ☐ Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Brad Dupuis, C. Tech.
Manager Water & Wastewater Services, O.R.O.

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	Drinking Water Quality Management System Operational Plan Version 10
2	Management Review Committee Meeting Minutes, February 11, 2020

The Corporation of the Town of Tecumseh Public Works & Environmental Services

Quality Management Systems

A QMS is a system to:

- establish policy and objectives and achieve those objectives, and
- direct and control an organization with regard to quality.

Quality management for Ontario's municipal drinking water systems will occur through the development and implementation of a QMS for each system based upon the DWQMS.



Drinking Water Quality Management System Water Services Operational Plan

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1. Quality Management System

This Operational Plan documents the Drinking Water Quality Management System for The Corporation of Town of Tecumseh Water Distribution System. The Corporation of the Town of Tecumseh Water Distribution System is owned and operated by The Corporation of the Town of Tecumseh. The Drinking Water Quality Management System (DWQMS) for The Corporation of the Town of Tecumseh covers the transmission and distribution of potable drinking water to consumers within the Town of Tecumseh.

Under the terms and conditions of the 2004 Water Agreement executed among the Windsor Utilities Commission (WUC), City of Windsor and The Corporation of the Town of Tecumseh, the Tecumseh water distribution system (formerly north and south Tecumseh water distribution systems) is currently supplied by the Windsor Water System.

Treated potable drinking water is purchased from the Windsor Utilities Treatment Plant, which is owned by the Windsor Utilities Commission (WUC) and is a separately held entity managed by ENWIN Utilities, which operates and manages the production and distribution of potable water.

The potable water enters The Corporation of the Town of Tecumseh Water Distribution System through 12 locations bordering the City of Windsor, Town of LaSalle and the Town of Tecumseh. Each location is metered and monitored using a Supervisory Control and Data Acquisition system (SCADA). Storage for equalization and peak hour flow of water for Tecumseh is the responsibility of the Windsor Utilities Commission (WUC).

The Corporation of the Town of Tecumseh, in turn, supplies potable drinking water to the Town of Lakeshore at 4 locations all bordering Manning Road: Scott Side Rd; County Rd. 42; Little Baseline; and Amy Croft.

The Corporation of the Town of Lakeshore owns and operates the production and distribution facilities of potable water within their boundary. The Corporation of the Town of Lakeshore is a fully owned local government and is represented by elected officials of the Town of Lakeshore.

The Corporation of the Town of Tecumseh is connected with the Town of LaSalle at one location bordering Howard Avenue. The Corporation of the Town of LaSalle owns and operates the distribution facilities of potable water within their boundary. Town of LaSalle's treated potable drinking water is purchased from the Windsor Utilities Treatment Plant, which is owned by the Windsor Utilities Commission (WUC) and is a separately held entity managed by ENWIN Utilities, which operates and manages the production and distribution of potable water. The Corporation of the Town of LaSalle is a fully owned local government and is represented by elected officials of the Town of LaSalle.

Additional details about the Town of Tecumseh Water Distribution System is included in section 6.

2. Quality Management System Policy

The Corporation of the Town of Tecumseh is committed to supplying a safe, consistent, drinking water supply while maintaining strict adherence to all applicable legislative and regulatory requirements. The Corporation of the Town of Tecumseh will strive to achieve these goals through the implementation of a management system and staff competency to our consumers.

The municipal owners, management and the employees of The Corporation of the Town of Tecumseh who are directly involved in the supply of drinking water, share in the responsibilities of implementing, maintaining, and contributing to the continual improvement of the Drinking Water Quality Management System (DWQMS).

The Quality Management System Policy is available on the Town's website at <https://www.tecumseh.ca/en/living-here/water-quality.aspx>.

3. Commitments and Endorsement

This Operational Plan has been reviewed and approved by The Corporation of the Town of Tecumseh. The purpose of this document is for the planning, operation, and maintenance of The Corporation of the Town of Tecumseh Water Distribution System.

This document will be reviewed and approved by:

- **Municipal Owner/Operating Authority** – Mayor and Council
- **Top Management**- Chief Administrative Officer, Director of Public Works and Environmental Services and the Manager, Water & Wastewater ORO (*Overall Responsible Operator*)

Top Management and Owner endorsement includes the following commitments:

- a) ensuring that a Quality Management System is in place that meets the requirements of the Drinking Water Quality Management Standard,
- b) ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements,
- c) communicating the Quality Management System according to the procedure for communications, and
- d) determining, obtaining or providing the resources needed to maintain and continually improve the Quality Management System.

The DWQMS Representative will keep the DWQMS document up-to-date and promote continual improvement. All recommended changes are to be approved by Municipal Owner/Operating Authority resolution. (***See Appendix 1- Commitments and Endorsement***)

4. Drinking Water Quality Management System (DWQMS) Representative

The Corporation of the Town of Tecumseh has designated a DWQMS Representative and an alternate DWQMS Representative:

DWQMS Representative:

Name: Shawn LaPorte

Position: DWQMS Representative / Water Operator

Alternate DWQMS Representative:

Name: Brad Dupuis

Position: Manager, Water & Wastewater O.R.O.

The DWQMS Representative is responsible for the following:

- Ensures that processes and procedures needed for the DWQMS are established and maintained,
- Reports to Top Management on the performance of the DWQMS and any need for improvement, as needed, or during the Management Review meetings,
- Ensures that current versions of documents required by the QMS are being used at all times, and reviews DWQMS documentation and record control,
- With members of top management, ensures that personnel are aware of all applicable legislative and regulatory requirements that pertain to their duties for the operation of the drinking water system, and
- Promotes awareness of the DWQMS throughout the Water Services division and The Corporation of the Town of Tecumseh.

5. Document and Records Control

This procedure is applicable to the following DWQMS documents:

- Operational Plan and associated procedures
- DWQMS Forms
- Equipment Manuals
- As Built Drawings
- Applicable drinking water regulations (e.g. O. Reg. 170/03 and O. Reg. 128/04)

Creating New or Updating Existing Documents

The need for document changes or for new documents may be identified through audits, Management Reviews, DWQMS Committee or staff. The DWQMS Representative will delegate the task of creating the new documents to be approved (if necessary) by the Manager, Water and Wastewater, Top Management and/or Municipal Owner/Operating Authority if necessary.

Any employee of the Water Services division may request a change to an existing DWQMS document. The request must be made in writing, dated and submitted to the DWQMS Representative.

The request must include the following information:

- Reason for the new or changed document (one of the following needs to apply):
 - Is it required by the DWQMS?
 - Will it enhance process control?
 - Can it reduce risk?
 - Will it support regulatory requirements?
 - Will it improve operational efficiency?
- A proposed document change or new document content when applicable to the Water Services division or the Operational Plan.

Proposed Document Change or New Document Content

The requester shall develop the new/changed document and submit it to the DWQMS Representative for review.

The DWQMS Committee shall review the document, make any changes as required, and approve changes if applicable.

Approving Documents

- DWQMS-related documents may be approved by Municipal Owner; Operating Authority's Top Management: CAO, Director of Public Works & Environmental Services, Manager of Water & Wastewater / ORO; or the DWQMS Representative.
- DWQMS documentation shall be stored at the Water Services division office or electronically on The Corporation of the Town of Tecumseh network servers.
- Water Services staff has read-only access to the electronic version of the documentation. The Manager, Water & Wastewater/ORO, DWQMS Representative and Clerical Staff have access rights to manage and/or edit the electronic version of DWQMS-related documents
- The DWQMS Representative is responsible to ensure that new or changed documents are communicated and /or distributed to the appropriate staff members
- Documents shall be collected, archived, stored, and disposed as per legislation under the *Safe Drinking Water Act 2002* and The Corporation of the Town of Tecumseh municipal by-law.

Reviewing Documents

The Operational Plan and procedures shall be reviewed by the DWQMS Committee for applicability and relevance.

Document Availability

- The current copy of the Operational Plan, procedures and associated documents are retained electronically on The Corporation of the Town of Tecumseh network servers and at the Water Services division office.
- Original sets of equipment manuals / specifications and drinking water regulations are kept at the Water Services division office.
- Copies of As-Builts are stored at the Water Services division office and electronically on The Corporation of the Town of Tecumseh network servers.

DWQMS Records Control

This procedure is applicable to all records that demonstrate conformance to the DWQMS and compliance to legislative requirements:

DWQMS records include (and not limited to) Council Resolutions (for Operational Plan endorsement); risk assessment outcomes, training information, evidence of communications, procurement-related (e.g. specifications for essential supplies and services), evidence of infrastructure reviews, evidence of equipment maintenance and calibration, emergency preparedness-related, results of internal and external audits, and management review meetings.

Compliance records demonstrate compliance with legislative requirements and include (and not limited to) the records required by the Safe Drinking Water Act and related regulations (e.g. O. Reg. 170/03, O. Reg. 128/04, O. Reg. 169/03, etc.), the Municipal Drinking Water Licence (and its parts, including: Drinking Water Works Permit, approved Financial Plan, Accreditation) and all related records (e.g. annual reports, Operator certification, sampling and testing, forms documenting changes to the distribution system, etc.).

Records are stored in such a manner as to prevent their deterioration. All records are filed and/or archived (as per retention table) at the Water Services division office and The Corporation of the Town of Tecumseh network servers.

Records Management

Records are stored and protected to ensure that they are kept legible, readily identifiable, and are retrievable when they are required by personnel of the Town of Tecumseh Drinking Water System.

Paper records are maintained on-site in file folders, filing cabinets, binders, or by other means deemed acceptable by individual responsible for the records. Electronic records are stored on the organization's network, and within the Town of Tecumseh's Management System Software. Regularly scheduled back-ups help protect electronic information from damage or loss.

All employees have access to the files appropriate to their roles and responsibilities. The Management System Software is also used to facilitate access to and retrieval of the required information.

Minimum record retention periods are determined according to appropriate legislative and regulatory requirements. Retention periods for records not governed by standards or legislation are established through the by-laws of the Town of Tecumseh. Records specific to the Town of Tecumseh Water Distribution System have been documented on a Record Retention Table. The records will be disposed of by either recycling, shredding, or in the case of electronic documentation archival and deletion.

6. Drinking Water System

System Overview

Section 1 of this Operational Plan provides a general overview of the Town of Tecumseh's Water Distribution System and its connections to other area municipalities' water systems with different Owners and Operating Authorities. ***(See Appendix 2- The overall service area is identified on Map 1)***

The Town is responsible for its own distribution system within the boundaries of Tecumseh and is responsible for any new storage works that may be required to supply its fire flow of water. The Town of Tecumseh also has a 4,546m³ water tower, located in the North end of Tecumseh. This water tower is monitored by Windsor Utilities Commission (WUC) and the Town of Tecumseh through SCADA (Supervisory Control and Data Acquisition system).

The north Tecumseh water service area (north of Highway 401) includes the urban settlement areas of Tecumseh, St. Clair Beach and Tecumseh Hamlet, and rural areas north of Highway 401; and is supplied from the Windsor Water System through metering facilities at the Town boundary on Dillon Drive, McNorton Street, Tecumseh Road, County Road 22, County Road 42, Baseline Road and, in the future, on Intersection Road.

The south Tecumseh water service area (south of Highway 401) includes urban settlement areas of Oldcastle Hamlet, and Maidstone Hamlet, and rural areas south of Highway 401; and is supplied from the Windsor Water System through existing supply connections at the Town boundary on, and at the Town boundary in Oldcastle Hamlet on the 8th Concession Road, County Road 46, Walker Road, North Talbot Road and Howard Avenue.

Service Areas and Water Distribution System Components:

North Tecumseh Water Service Area

The distribution system in the north Tecumseh water service area is operated by The Corporation of the Town of Tecumseh and consisting of watermains ranging in size from 100 mm (4") to 600 mm (24") in diameter. ***(See Appendix 2- The north service area boundary is identified on Map 2)***

The feeder mains on Dillon Drive, McNorton Street and Tecumseh Road extend from the Town boundary through the center of Tecumseh (Planning Area) to the elevated water tank on Tecumseh Road, and are

interconnected through a new 300 mm feedermain on Lesperance Road and the existing 400 mm trunk watermain on Lacasse Boulevard. The 600 mm diameter feedermain on County Road 22 extends from the Town boundary to Manning Road (County Road 19) and is connected to the 400 mm diameter feedermain on Tecumseh Road. The 600 mm diameter feedermain on County Road 42 extends from the Town Boundary to Lesperance Road and is connected to the 300 mm diameter distribution mains on St. Alphonse Avenue and on Lesperance Road.

South Tecumseh Water Service Area

The distribution system in the south Tecumseh water service area is operated by The Corporation of the Town of Tecumseh consisting of watermains ranging in size from 100 mm (4") to 600 mm (24") in diameter. ***(See Appendix 2 -The south service area boundary is identified on Map 3).***

The feedermain on 8th Concession Road and County Road 46 supply the north east end of Oldcastle Hamlet. The 300 mm diameter feedermain on Walker Road and North Talbot Street connect to the 300 mm diameter trunk watermain on Talbot Road (Highway 3) which supplies Oldcastle Hamlet, the rural areas south of Highway 401, and Maidstone Hamlet.

Consolidated Water Distribution System

The existing water distribution system will be operated as a single distribution system with connections through the Windsor Supply System. In the future, the Town intends to extend trunk watermains from County Road 42 to connect to the south service area to improve system performance. A copy of the approved Water and Wastewater Master Plan can be viewed at the Water Services division office. ***(See Appendix 2 – Table 1 Watermain Material Type and Length in Tecumseh Water Distribution System)***

Procedures in place to maintain disinfectant residuals within the distribution system:

Tecumseh Water Distribution System staff sample and monitor disinfectant residuals on a regular basis through regulatory sampling programs and during response activities related to consumer water quality calls.

Staff also carry-out work to improve disinfectant residuals within the distribution system through:

- regular maintenance programs (e.g. flushing);
- the practice of cycling water in the water tower (reducing water age);
- optimizing distribution system flows (e.g. close-looping and eliminating system dead ends); and
- by responding in a timely manner to watermain breaks (and carrying out proper disinfection in accordance with the province's Watermain Disinfection Procedure).

7. Risk Assessment

Risk Assessment Team

The Risk Assessment Team shall be no less than a three-member forum and will be made up of the Manager, Water & Wastewater/ORO in conjunction with the Lead Water Operator and one other Water Operator.

The Risk Assessment Team shall meet once a calendar year to review the validity of the assumptions and the currency of the information used in the risk assessment. A comprehensive risk assessment will be redone every thirty-six months unless changing conditions indicate that it should be done more frequently. In each of the risk assessment update activities, the risk assessment outcomes are presented to Top Management at Management Review for their official review and approval.

The Risk Assessment Team considers the Ministry's "Potential Hazardous Events for Municipal Drinking Water Systems" (dated February 2017) in the risk assessment process and is to identify and assess:

- Potential hazardous events and associated hazards as listed in the Ministry's document, and any additional potential hazardous events,
- The risks with the occurrence of potential hazardous events which could affect the water system,
- The ranking of hazardous events according to the associated risk,
- The control measures to address the potential hazards and hazardous events,
- The Critical Control Points and their respective Critical Control Limits,
- The associated procedures and/or processes to monitor Critical Control Limits,
- The procedures to respond to deviations from the Critical Control Limits,
- The procedures for reporting and recording deviations from the Critical Control Limits, and
- Consideration of the reliability and redundancy of equipment.

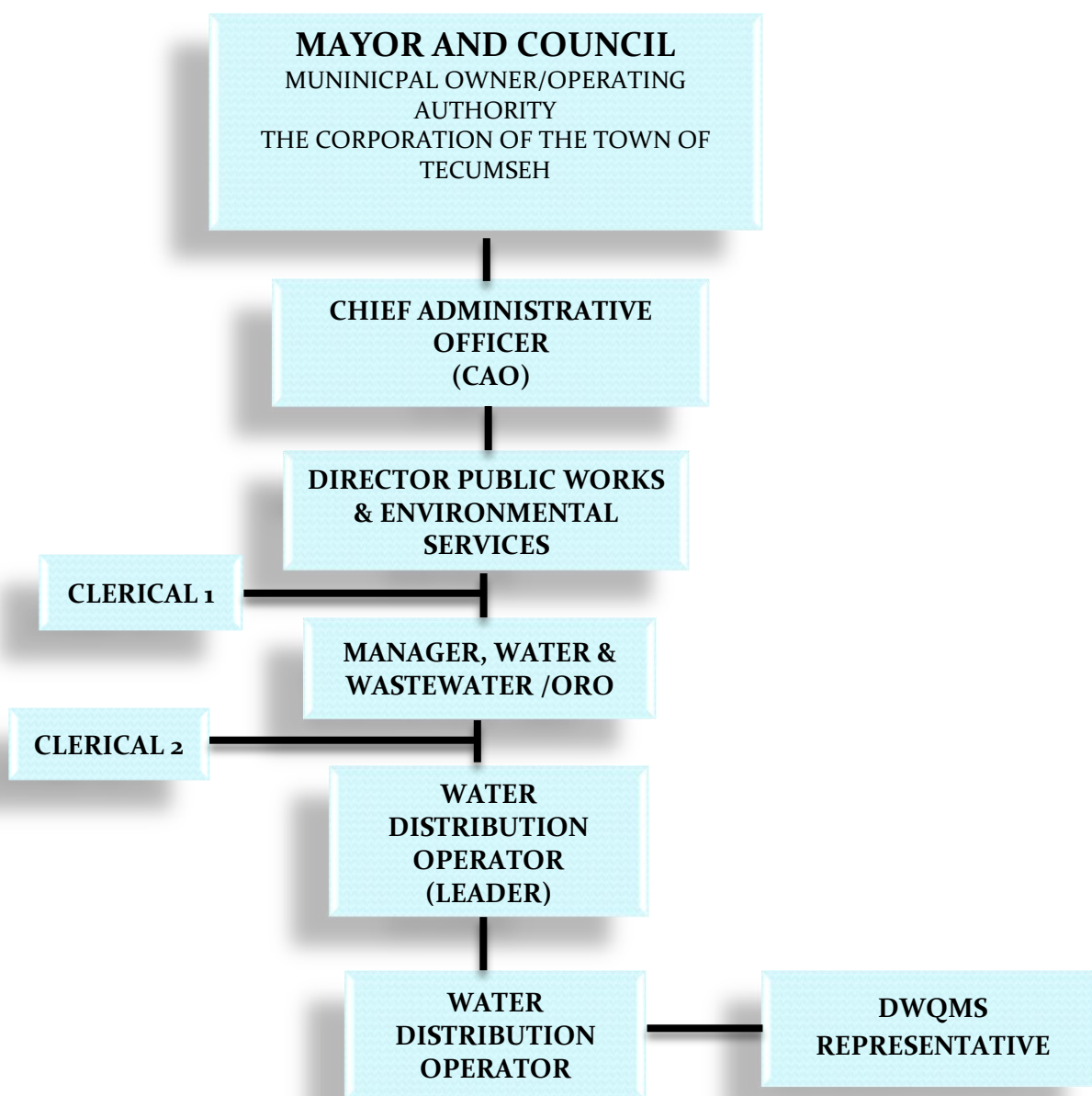
8. Risk Assessment Outcomes

The risk assessment will be facilitated by developing and completing Risk Assessment Tables. As the Risk Assessment Team conducts this assessment, it will document the results of each step of the risk assessment procedure. The risk assessment process is an ongoing activity.

The DWQMS Representative shall ensure that relevant information is circulated to all members of the Risk Assessment Team; and update the outcomes of each risk assessment activity (whether it is for the calendar year or thirty-six-month update).

- **(See Appendix 3 – Risk Assessment)**
- **(See Appendix 4 - Risk Assessment Outcomes)**

9. Organizational Structure, Roles, Responsibilities and Authorities



The Corporation of the Town of Tecumseh

Water Division - Organizational Chart

Operational Roles, Responsibilities and Authorities:

Municipal Owner/Operating Authority (Mayor and Council)

Responsibilities

In addition to ensuring the provision of safe and reliable municipal water supply to the serviced areas of The Corporation of the Town of Tecumseh Council is also responsible for:

- Complete legal oversight of The Corporation of The Town of Tecumseh Water Distribution System and the DWQMS,
- Ultimate responsibility for the provision of safe potable drinking water under the *Safe Drinking Water Act 2002*,
- Ensures compliance with applicable legislation and regulations,
- Participating in Council meetings and Council committee meetings and meetings of other bodies to which they are appointed by the Council,
- Obtaining and giving due consideration to information about the operation or administration of the municipality from the Chief Administrative Officer, (CAO) and from other appropriate Town staff,
- Evaluating the policies and programs of the municipality such as bylaw enforcement, taxation, property permits and inspections, planning, public works (roads, water, and sewer), parks and recreation, fire services, police services, and
- Endorsing the DWQMS and providing a representative to participate on the DWQMS Management Review Committee.

Authorities

On behalf of the electorate of The Corporation of the Town of Tecumseh, and in accordance with the Municipal Act, Council is authorized to:

- Implement Drinking water system and DWQMS improvements or changes,
- Authorize resources to improve or change the drinking water system and DWQMS,
- Approve and review policies for the management and operation of Town assets,
- Review, revise, and approve proposed and existing bylaws, expenditures, user fees, taxation rates,
- Hire, evaluate, discipline, or terminate Town Management Staff and contracted service providers, and
- Provide financial, administrative authority related to the distribution of safe drinking water.

Top Management

Top Management is comprised of the following: Chief Administrative Officer; Director, Public Works & Environmental Services; and Manager, Water & Wastewater/Overall Responsible Operator (ORO).

Chief Administrative Officer (CAO)

Responsibilities

As the senior Town staff person reporting to Council, the Chief Administrative Officer (CAO) responsibilities include:

- Oversight of the operation and management of all Town departments,
- Ensuring that the policies and direction from Council are effectively communicated to senior department managers,
- Ensuring that policies and direction from Council is carried out by the appropriate Town departments,
- Direct supervision of senior department directors and managers, and
- Endorsing the ongoing development of the DWQMS and participating on the DWQMS Management Review Committee.

Authorities

Authorities of the Chief Administrative Officer (CAO) include:

- Communicate information from senior managers directly to Council,
- Request expenditure approval from Council and implement approved expenditures,
- To convey and mandate council policy and direction to the department senior managers,
- To hire, evaluate, discipline, or terminate utility management staff, and
- Staffing (within the guidelines of The Corporation of the Town of Tecumseh and any collective agreements).

Director, Public Works & Environmental Services

Responsibilities

Reporting to the Chief Administrative Officer (CAO), the responsibilities of the Director of Environmental Services and Public Works responsibilities include:

- Ensuring the safe, reliable, and compliant management and operation of all of the Towns physical infrastructure as well as Water Distribution System,
- Direct supervision of Environmental Services and Public Works department supervisors and administrative staff,
- Coordinating budget preparation,
- Preparation and presentation of Environmental Services Department Reports to Council,
- Administration of the Collective Bargaining Agreement for department personnel,
- Ensuring adequate and competent staffing,
- Ensuring appropriate staff training,
- Investigating and responding to public complaints and inquiries, and
- Participate and represent the Municipal Owner/Operating Authority (Mayor and Council) on the DWQMS Committee and Management Review Committee.

Authorities

The Director of Environmental Services and Public Works is authorized to:

- Evaluate and prioritize long-term department needs,
- Prepare, review, and approve design specifications,
- Select contractors, and equipment,
- Develop and implement departmental administrative and technical policy,
- Recruit, hire, evaluate, discipline, or terminate Environmental Services Department staff in accordance with Town policies,
- Within the scope of the Environmental Services Department and Public Works, communicate directly with regulatory agencies and the public on behalf of the Town Municipal Owner/Operating Authority,
- When necessary, will appoint a temporary Overall Responsible Operator (ORO) position, in absence of the designated ORO.

Manager, Water & Wastewater/Overall Responsible Operator (ORO)

Responsibilities

Reporting to the Director of Environmental Services and Public Works, the responsibilities include:

- Ensuring the efficient, safe and compliant operation of the Towns Water Distribution System,
- Providing supervision, technical direction and training to water distribution staff,
- Maintaining provincial operator certification,
- Assisting the Director of Environmental Services and Public Works with the water distribution budget preparation and long-term planning,
- Communicating with regulatory authorities to ensure compliance with applicable legislation,
- Preparing and presenting Municipal distribution information to Council, Town staff, managers and the public, and
- Serving as an alternate DWQMS Representative and participating on the DWQMS Committee and Management Review Committee.

Authorities

The Manager Water & Wastewater /ORO, Water System is authorized to:

- Act and is the Overall Responsible Operator (ORO) and therefore must be available to be contacted 24/7. The ORO will make arrangements with the Director of Environmental Services for a designated ORO in the event he/she is not available and cannot be contacted,
- Develop, approve and implement operations, maintenance and safety policies and procedures related to water distribution,
- Supervise and inspect the work of contractors,
- Evaluate and prioritize the long-term rehabilitation and upgrade to the Town's infrastructure(s),
- Participate in hiring, evaluation and discipline of unionized and non-unionized staff in accordance with Town Policies,
- Communicate with Regulatory Agencies,
- Order/purchase necessary supplies and services, and
- Apply various Town By-laws.

DWQMS Representative

Responsibilities

Reporting to the Town Municipal Owner/Operating Authority and Top Management, the responsibilities include:

- Promotes awareness of the DWQMS,
- Reports DWQMS results to staff,
- Ensures DWQMS documentation is prepared and maintained, as needed,
- Provides all staff with technical and administrative consultation related to DWQMS document preparation and implementation, as needed,
- Reviews and may approve DWQMS documentation,
- Implements and oversees document control procedure,
- Coordinates internal auditing acts as the external audit liaison,
- Communicates DWQMS information to staff and facilitates training when needed,
- May report DWQMS results to Municipal Owner/Operating Authority and Top Management, and any needs for improvement, and
- Assist Municipal Owner/Operating Authority and Top Management, that personnel who directly impact drinking water for The Corporation of the Town of Tecumseh are aware of all applicable legislative and regulatory requirements that pertain to their duties if reference to the DWQMS.

Authorities

The DWQMS Representative is authorized to:

- The overall managing role, responsible for overseeing the development and implementation of the DWQMS.

Designated DWQMS Representative Alternate

- Performs all roles of Designated DWQMS Representative.

Water Distribution Certified Operator (Leader)

Responsibilities

Reporting to the Water & Wastewater/Overall Responsible Operator (ORO), the responsibilities include:

- Oversees day-to-day activities relating to maintenance of the water distribution system,
- Communicates and liaises with the Manager, Water & Wastewater, Water Operators and Clerical Staff,
- Works with the Manager, Water & Wastewater in completing the Water Operators' performance assessments,
- Assists with developing procedures and processes for assuring water quality, and
- Has input into the development of procedures and processes for assuring water quality.

Authorities

The Water Distribution Certified Operator (Leader) is authorized to:

- Directs Operators in day-to-day operations of water distribution system,
- Orders day-to-day supplies as needed,
- Respond to public complaints as relayed from Manager, Water & Wastewater, Clerical Staff and/or after-hours answering service.

Water Distribution Certified Operator

Responsibilities

Reporting to the Water & Wastewater/Overall Responsible Operator (ORO) and the Water Distribution Certified Operator (Leader), the responsibilities include:

- Performs weekly testing of drinking water,
- Performs regular maintenance of the water distribution system,
- Reports any incidents of non-compliance, and
- Responds to repairs.

Authorities

The Water Distribution Certified Operator is authorized to:

- Monitors process and equipment of day-to-day operations of the water distribution system,
- Respond to public complaints as relayed from Manager, Water & Wastewater, Clerical Staff, Water Operator Leader and/or after-hours answering service.

Clerical Staff

Responsibilities

Reporting to the Director of Environmental Services and Public Works Water & Wastewater/Overall Responsible Operator (ORO), the responsibilities include:

- Communicates/liaises with the following: Director, Public Works & Environmental Services; Manager, Water & Wastewater; Water Operator (Leader); and Water Operators,
- Responds to and documents public complaints. Example- drinking water quality complaints, broken watermain, hydrant hit by car etc.,
- Inputs lab results,
- Prepares reports as required by regulations and circulates to management,
- Assists with DWQMS documentation and record control, and
- Assists with communication during emergency situations.

Authorities

The Clerical Staff is authorized to:

- Updates and implements document changes as directed by applicable administration identified in the Water Services division Organizational Chart.

10. Competencies

The Ministry of the Environment, Conservation and Parks classified The Corporation of the Town of Tecumseh a “*Water Distribution Subsystem Class II*”. The following identifies the competencies required of staff whose performance may have a direct impact on drinking water quality.

Municipal Owners / Operating Authorities

Municipal Owners/Operating Authorities who have complete legal oversight of The Corporation of The Town of Tecumseh Water Distribution System and the DWQMS are briefed on operating conditions and are provided updates by senior management to ensure that personnel are aware of the relevance of their duties and how they affect safe drinking water, and shall maintain records of these activities. They may also attend relevant drinking water training courses, conferences, and seminars to assist in their overall knowledge pertaining to regulatory and legislative requirements.

Director of Public Works & Environmental Services

The Director shall possess advanced theoretical and working knowledge of administrative skills expected of a senior level manager. In addition, the Director shall possess an intermediate theoretical and working knowledge of the *Safe Drinking Water Act* and applicable regulations and legislations, and The

Corporation of the Town of Tecumseh drinking water distribution system. When necessary, will appoint a temporary Over All Responsible Operator (ORO) position, in absence of the designated ORO

Manager, Water & Wastewater and Overall Responsible Operator (ORO)

Shall possess advanced theoretical and working knowledge of administrative skills. The Manager, Water and Wastewater and ORO shall also possess advanced theoretical and working knowledge of the *Safe Drinking Water Act* and applicable regulations and legislation. The Manager, Water and Wastewater and ORO should also have a good working knowledge of The Corporation of the Town of Tecumseh drinking water distribution system and its components. Is the Overall Responsible Operator (ORO) and therefore must be available to be contacted 24/7. The ORO will make arrangements with the Director of Environmental Services for a designated ORO in the event he/she is not available and cannot be contacted.

New Operators (OIT's)

Must complete the OIT Water Distribution Prep Course and OIT exam as per Ministry of the Environment, Conservation and Parks (MECP) O.Reg.128/04 requirements.

Class I Water Distribution Operators

The operator must successfully complete the Class I Water Distribution Exam to become a Class I Water Distribution Operator as per MECP O.Reg.128/04 requirements.

Class II Water Distribution Operators

Class I level, the operator can advance to a Class II Water Distribution operator by successfully completing the Class II Water Distribution Exam as per MECP O.Reg.128/04 requirements.

Class III Water Distribution Operators

Class II level, the operator can advance to a Class III Water Distribution operator by successfully completing the Class III Water Distribution Exam as per MECP O.Reg.128/04 requirements.

Water Operator Competencies

- Water Operators Shall possess an OIT or Class 1 Operating Certificate as per Ontario Regulation 128/04 requirements
- The ORO shall have a minimum Class II Water Distribution Certificate as per Ontario Regulation 128/04 requirements

Water Operator Skills and Knowledge

- The Water Operator performs a variety of skilled and semi-skilled tasks including: operates equipment used in the construction, repair and maintenance of the water distribution system and various public buildings and facilities; utilizes private contractors as authorized; oversees the contractors' work; and performs other related duties as required.
- The Water Operator will work with Town's Water Operators, other Town employees and / or contractors and provide direction to contractors as needed.

- The Water Operator will work with minimum supervision and shall comply with all safety rules and regulations and will work unsupervised if required.

Methods to Develop, Assess and Maintain Competencies

The following methods develop, assess and maintain the required competencies for personnel performing duties directly affecting drinking water quality:

Identify Training Requirements

The Manager, Water & Wastewater and Water Operators must meet the training requirements as per Ministry of the Environment, Conservation and Parks (MECP) O.Reg.128/04 requirements.

The required competencies include, but are not limited to the following:

- Class 1 Water Distribution Operator Certificate
- Understanding the Quality Management System
- Familiarity with the Town's water distribution system
- Knowledge of regulations and identifying, reporting and responding to adverse drinking water conditions as required by regulations.

Assess Competencies

The Corporation of the Town of Tecumseh may administer certain tests, conduct interviews, verify references and/or request specific documentation as part of the hiring process in order to verify skills, experience and knowledge.

In order to meet the ongoing changes to technology, software, the requirements of O. Reg. 128/04 and the Water Services division processes, Water Operators shall receive training as required by O. Reg. 128/04, at a minimum. The training may be provided on or off site by qualified employees or contracted subject matter experts. Training effectiveness is evaluated when appropriate through testing, or a demonstration of knowledge gained.

Training records are maintained by the Manager, Water & Wastewater, stored in document control software and filed in hard copy in the Water Services division office as proof that the required training has been successfully completed. The Manager, Water & Wastewater is responsible for ensuring that all identified training is completed.

Maintain Competencies

The Manager, Water & Wastewater will ensure that the Standard Operating Procedures and Quality Management System are reviewed every calendar year. These duties are included in the Annual Schedule of Duties maintained and tracked by the ORO. Furthermore, the Water Operators will meet or exceed the training hours required by Ministry of the Environment, Conservation and Parks O.Reg.128/04 to maintain Water Distribution Water Distribution Operator Certificates. Training hours and courses completed by

the Water Distribution Operators are logged and tracked by the Manager, Water & Wastewater and are documented in document control software.

11. Personnel Coverage

Water Services division is staffed as per the Collective Agreement between the Corporation of the Town of Tecumseh and the Outside Bargaining workers represented by CUPE Local 702.1. The Manager, Water & Wastewater is the designated ORO. After hours calls are managed by the Water Operator (Leader) using an emergency call-out service with the staff seniority list for overtime as set out by the Collective Agreement.

Regular Hours Coverage

- All work orders are generated through the Water Services division office during regular working hours
- Created work orders will have date and time of the call, location of the problem, details of the problem, name and contact information of person initiating service call.
- Work orders are distributed through the Manager, Water & Wastewater/ORO and the Water Operator (Leader)

After Hours Coverage

- The Water Operator (Leader) receives a call from the answering service, assesses information and provides direction
- If the Lead Water Operator cannot be contacted, the call will bump to the next Water Operator according to seniority
- When necessary, staff is called in to do repairs, and or deal with public complaints
- All reports and forms are authorized by the Manager, Water & Wastewater/ORO
- Reports, forms and or work orders, will have date and time of the call, location of the problem, details of the problem, name and contact information of person initiating service call.
- If required, sub-contractors are approved by the Manager, Water & Wastewater/ORO and are used in digression of the Water Operator

Pandemic, Strikes and/or Lockouts

- The provisions for personnel coverage during situations where staff may not be available to work include the following:

Pandemic

- Should a pandemic occur the Town will request from surrounding municipalities with qualified licensed operators as well as private contractors for assistance.

- If needed the Town will also contact the Ministry of the Environment, Conservation and Parks to request advice or assistance should an emergency of this nature arise.

Strikes and/or Lockouts

- The Manager, Water & Wastewater is designated as the Overall Responsible Operator (ORO) for the distribution system and has the appropriate Water Distribution Operators License. In the event of a union strike and/or lockout, the ORO is qualified to maintain the water distribution system.
- In the event the ORO is not available or if additional staff is required to maintain the distribution system, Town will request from surrounding municipalities with qualified licensed operators as well as private contractors for assistance.
- If needed the Town will also contact the Ministry of the Environment, Conservation and Parks to request advice or assistance should an emergency of this nature arise.

12. Communications

The DWQMS Representative shall ensure the Municipal Owner/Operating Authority and Top Management is provided with a current copy of the Operational Plan. The DWQMS Representative shall keep the Municipal Owner/Operating Authority and Top Management informed of any changes to the DWQMS as a result of Management Review and other DWQMS issues when necessary.

A current version of the Operational Plan is available to staff at the Water Services division office. A hard copy DWQMS Operational Plan will be kept at the Water Services division office and an electronic copy can be obtained using the document control software. Personnel will be informed of DWQMS changes or updates through regular staff meetings with the DWQMS Representative or the Manager, Water & Wastewater.

Any suggested revisions or recommendations to the DWQMS Operational Plan submitted by staff will be documented and provided to the DWQMS Representative.

The DWQMS Committee will meet to review and update the Operational Plan and review any staff recommendations.

Town of Tecumseh Water Services will utilize a web-based survey/questionnaire to allow the public and essential suppliers to have input and communication with all levels of the town's Water Services and Management. The Manager, Water and Wastewater/ORO will collect and analyze all data communicated to the town. The Manager, Water and Wastewater/ORO will then make changes if necessary/ or may make recommendations to the Municipal Owners/ Operating Authority any changes or improvements identified

Essential suppliers and service providers receive relevant DWQMS information regarding product or service requirements from the purchaser in the form of quality / quantity specifications and timeframes, as required by regulations, the Municipal Drinking Water Licence and Drinking Water Works Permit.

Notification is provided to The Corporation of the Town of Tecumseh suppliers and service providers that a copy of the current Water Distribution System Standards and Material Specifications is available on the Town's website or in hardcopy from the Water Services division.

The DWQMS Policy is available to the consumers of The Corporation of the Town of Tecumseh water distribution system at the Water Services Division office, Town Hall and can be viewed on the Town's website <https://www.tecumseh.ca/en/living-here/water-quality.aspx>.

13. Essential Supplies and Services

Where applicable, supplies must meet AWWA and NSF/ANSI standards. Supplies are verified against the order requisition when received. *(See Appendix 5 - Essential Supplies and Service List)*

14. Review and Provision of Infrastructure

Infrastructure for The Corporation of the Town of Tecumseh consists of a water distribution system, water tower and monitoring equipment at the boundary meters. The Corporation of the Town of Tecumseh has in place a Water & Wastewater Master Plan, which has been accepted and adopted by the Municipal Owners/Operating Authority.

Rehabilitation and renewal of the water distribution system is performed on a needs schedule in association with the Water & Wastewater Master Plan. Capital and operational money is allocated each calendar year for improvements to the system.

The Director, Public Works & Environmental Services, under the advisement of the Manager, Water & Wastewater and Manager, Engineering Services, will identify areas needed for rehabilitation and renewal in accordance with risk assessment.

A report detailing the maintenance programs, any requirements for infrastructure, rehabilitation and renewal is prepared annually by the Director, Public Works & Environmental Services and Director, Financial Services/Treasurer. The capital requirements are then submitted to Top Management and Municipal Owner/Operating Authority for budgetary approval.

15. Infrastructure Maintenance, Rehabilitation and Renewal

The Manager, Water and Wastewater will annually review the planned and unplanned maintenance reports and programs. A summary will be prepared and communicated to the Director, Public Works & Environmental Services under advisement of the Manager, Engineering Services and will identify areas that may need rehabilitation and renewal planning. ***See Appendix 6: ("Public Works & Environmental Services Capital Works Plan")***

Planned Maintenance

All planned maintenance is scheduled and communicated to staff by the Manager, Water & Wastewater. All records are retained at the Water Services division office.

- Annual valve exercising programs
- Annual flushing programs
- Annual hydrant inspection, maintenance and painting

Planned maintenance is scheduled on an electronic spreadsheet stored on the central office computer server. Server files are backed up daily. The long-term forecast of major infrastructure maintenance, rehabilitation and renewal activities is kept current by reviewing planned rehabilitation and renewal programs on an annual basis as capital works are planned for each calendar year by the Manager, Water & Wastewater with the following: Director, Public Works & Environmental Services; Director, Financial Services/Treasurer; Manager, Engineering Services; and Manager, Roads & Fleet.

Scheduled tasks are typically defined by manufacturer's literature when available and revised as needed according to operator experience/observations. Planned maintenance tasks are communicated to the person responsible by issuance of work orders from the Manager, Water & Wastewater ORO or the Water Operator (Leader). Completed work orders are reviewed and signed by the Manager, Water & Wastewater ORO or DWQMS Representative.

If feasible, rehabilitation or replacement of water distribution piping is coordinated with the Town's scheduled wastewater and road resurfacing projects.

Unplanned Maintenance

Unplanned maintenance is conducted as required. All unplanned maintenance activities are authorized by the Manager, Water & Wastewater.

- Service leaks
- Meter repairs
- Emergency hydrant repairs
- Water quality complaints
- General customers inquiries

16. Sampling, Testing and Monitoring

Sampling, testing and monitoring of the treated water produced at the Windsor Utilities Commission (WUC) Water Treatment Plant is conducted by Windsor Utilities Commission Water Operators as required by Ontario Regulation 170/03.

A competent certified Water Operator for the Town performs all in house sampling. Results are recorded on a weekly log sheet and monitored by Water Operators. Detailed procedures for all tests performed on-site are provided in Standard Operating Procedures (SOP's).

The operators ensure that the water supplied to The Corporation of the Town of Tecumseh Water Distribution System meets the *Safe Drinking Water Act, 2002*. Sampling and testing for The Corporation of the Town of Tecumseh Water Distribution System is limited to the distribution system only as required by Ontario Regulation 170/03.

The results at all boundary meters and the water tower are displayed and recorded on the SCADA system and monitored by the Manager, Water & Wastewater and Water Operators.

Free chlorine will be done in-house. All other regulatory testing is contracted out and performed by an accredited lab chosen by The Corporation of the Town of Tecumseh. Records and logs are kept at the Water Services division office.

Sampling and monitoring Standard Operating Procedures (SOP) are established for operating the water distribution system. Provisions have been made when sampling and monitoring under abnormal circumstances.

Adverse Water Quality Sample

- If the accredited laboratory discovers adverse water quality in a sample, they are obligated to notify Water Services division within 24 hours. All adverse water results prescribed by Schedule 16 of O.Reg.170/03 must be immediately reported by Water Services division to the Medical Officer of Health, Spill Action Centre and the Ministry of the Environment, Conservation and Parks.
- During adverse water quality incidents, maps and drawings are provided to the local health authority whereby direction is given to the Town as to the locations of sampling and monitoring upstream and downstream of the location from which the adverse sample was found.

Power/Communication Loss

- Water Services staff is alerted via telephone in the event of a power/communication loss that affects the SCADA system (refer to Element 11 for call-out procedure during working hours and after working hours)
- The SCADA system is programmed to continue calling the emergency contact list until the alarm is acknowledged

Inclement Weather

- Additional staff and/or equipment will be provided for as needed

17. Measurement and Recording Equipment Calibration and Maintenance

The portable chlorine analyzers and flow meters are calibrated by contractors according to the manufacturers' specifications or as mandated by legislation. All calibrations are recorded and filed at the Water Services division office.

Contractors used for performing calibrations are identified in the "Essential Supplies and Services List".
(See appendix 5 - Essential Supplies and Services List)

18. Emergency Management

The Corporation of the Town of Tecumseh's Water Operators have emergency training and are aware of the location of written procedures to deal with emergencies in the water distribution system. Specific instructions for responding to emergencies, including emergency situations that have the potential to result in acute drinking water health risks, are included in hardcopy in the Water Services division office and electronically in the document control software. Once a year, a training exercise will be conducted to test selected emergency procedures. If present methods should change, or if new employees are brought into the system, semi-annual training will occur on dealing with emergencies. Senior employees or direct supervisors would provide this training. All training is documented and placed in employee training files.

Water Operators are on twenty-four hour call to ensure that a qualified staff member will attend and assess any water emergency.

Emergencies

- Adverse Water Quality
- Water distribution cannot supply fire protection or safe drinking water
- Situations in the water distribution system that has the potential to result in acute drinking water health risks

In the event of an identified emergency the Manager, Water & Wastewater shall be contacted immediately. The Manager, Water & Wastewater is designated to be responsible for overall management, decision-making, and communications at the entail level of emergency.

In the event the Manager, Water & Wastewater ORO is unavailable, the Director of Public Works and Environmental Services shall be contacted and will appoint a temporary ORO.

The Manager, Water & Wastewater will then report all incidents and corrective actions to the Director, Public Works and Environmental Services or designate.

The Director, Public Works and Environmental Services, in collaboration with the Manager, Water & Wastewater, will advise the Municipal Owners/Operating Authorities of the system.

The Mayor and CAO of The Corporation of the Town of Tecumseh shall only be notified in the event that water cannot be supplied to the Town in sufficient amounts for fire protection, or that water quality poses an acute health risk to customers and a boil water advisory or drinking water advisory must be issued.

The Water Services Emergency Response Plan is an emergency plan consisting of a set of guidelines assembled to assist water staff in emergency response procedures and is intended to facilitate a systematic and coordinated response to a variety of water emergencies or major incidents. The Water Services Emergency Response Plan has been formulated to assign emergency response roles and responsibilities, and to guide immediate and long-term response to incidents adversely affecting the water operations.

In the event of a problem occurring greater than a water emergency the Corporation of the Town of Tecumseh Emergency Response Plan will be implemented. A hardcopy is stored in the Water Services division office and electronically in the document control software.

An extensive emergency contact list is provided within the Water Services Emergency Response Plan. There is a procedure in place to review and update the Water Services Emergency Response Plan on an annual basis.

19. Internal Audits

Internal audits will be performed in entirety at least once every calendar year as legislated, to ensure the DWQMS conforms to the requirements of the DWQMS Operational Plan. These requirements include ensuring that the DWQMS has been effectively implemented and properly maintained.

The Corporation of the Town of Tecumseh will conduct internal audits by trained auditors internally or by a contracted trained auditor chosen by The Corporation of the Town of Tecumseh.

Internal Audits Conducted by Town of Tecumseh Auditors

- The assignment of auditor's and schedules will be the responsibility of the DWQMS Representative
- Internal audits will be conducted by a person who has successfully completed a recognized Internal Auditor workshop
- Internal audits will be scheduled based on the availability and schedules of the participants.
- DWQMS will be audited as per the legislative requirements
- The auditor shall review all related DWQMS documentation
- The auditor shall observe activities, review records, review previous internal and external audit results, and interview personnel as necessary to ensure that the status of the audited Elements of the DWQMS has been effectively covered
- The auditor shall submit completed reports to the DWQMS Representative and the Manager, Water & Wastewater
- The report shall include any corrective actions requests required to address discrepancies
- Responses to corrective action request shall be designated to the responsible individual by the DWQMS Management Review Committee

20. Management Review

Management Review (Also referred to as the DWQMS Committee) ensures and evaluates the continuing suitability, adequacy and effectiveness of the DWQMS. This process reviews the effectiveness of the DWQMS by the Management Review Committee

Review Participants

Management Reviews shall be conducted during a meeting of the Management Review Committee that is comprised of the following:

- Chief Administrative Officer (CAO)
- The Director of Public Works & Environmental Services
- The Manager, Water and Wastewater /ORO
- The meeting is chaired by DWQMS Representative

The DWQMS Rep will communicate the meeting minutes to all management Review Committee members.

Review Frequency

Management Reviews shall be conducted after the internal audit has been completed and submitted to the DWQMS Representative by the Internal Auditor. The Management Review shall be conducted at least once a calendar year unless additional meetings are required as per the DWQMS Committee.

Review Input

The DWQMS Representative and/or Manager, Water & Wastewater shall provide information and data concerning the following categories for the review if requested:

- Incidents of regulatory non-compliance
- Incidents of adverse drinking water tests
- Deviations from Critical Control Point limits and response actions
- The effectiveness of the risk assessment process
- Results of internal and 3rd party audits
- Results of relevant emergency response testing
- Operational performance and water quality trends
- Follow-up on action items from previous Management Reviews
- Status of management action items (if any) identified between reviews
- Changes in resource requirements, infrastructure, process, personnel, the DWQMS or regulations that could affect the DWQMS
- Consumer feedback
- The resources needed to maintain the DWQMS
- The results of the infrastructure review
- Operational Plan, content, updates and staff suggestions

Review Process

The Management Review Committee shall review and discuss all information presented.

The Committee shall make recommendations and initiate an action plan, including the person(s) responsible for delivering the action items and the proposed timelines, to improve the content and implementation of the Operational Plan and related procedures, and to ensure the provision of adequate resources.

The DWQMS Representative shall be responsible for communication and implementation of the Management Review findings.

21. *Continual Improvement*

The Corporation of the Town of Tecumseh strives to continually improve the effectiveness of its DWQMS. Issues of non-compliance, non-conformance and opportunities for improvement are presented through:

- The review of best management practices (BMP's) at least once every 36 (including the review of MECP's BMP document, when published) will underdo the same schedule as the comprehensive risk assessment;
- MECP compliance inspections;
- Adverse water quality incidents;
- External DWQMS accreditation audits;
- Internal DWQMS audits;
- Management reviews;
- Staff suggestions;
- Customer calls; and
- Other means (e.g. near-misses, other utilities' experiences, etc.)

Using the Request for New or changed DWQMS Document form included in Appendix 7, the DWQMS Representative tracks and measures continual improvement.

Corrective actions are taken to address issues (e.g. non-conformities, non-compliances and other drinking water system failures) where:

- Causes of the issues are investigated;
- Actions taken to correct the issues are documented;
- Actions are taken to prevent the issues from re-occurring;
- Reviews of actions taken to correct / prevent the issues are carried out to verify they are implemented and effective in correcting / preventing the re-occurrence of the issue.

Preventive actions may also be taken to eliminate potential issues – and these are documented and reviewed to ensure they are implemented an effective in preventing the potential issue from occurring.

Appendices

Appendix 1 - Commitment and Endorsement

The endorsement of the Water Services Operational Plan by Municipal Owner/Operating Authority (The Corporation of the Town of Tecumseh, Municipal Council) report, submitted by Manager, Water & Wastewater /ORO will be added to this Appendix 1 when formerly approved.



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council
From: Phil Bartnik, Director Public Works & Environmental Services
Date to Council: February 25, 2020
Report Number: PWES-2020-14
Subject: Drinking Water Quality Management System
Operational Plan Version 10

Recommendations

It is recommended:

That the Drinking Water Quality Management System Operational Plan Version 10 be endorsed and committed to.

Background

Following the results of the Walkerton Inquiry in 2002, a key recommendation by Justice O'Connor was for municipalities across Ontario to develop and implement a Drinking Water Quality Management System (DWQMS). The Owners and Operating Authority are required to document a quality management system in an Operational Plan for the drinking water system they operate.

The Town's Water Services Division is legislatively required to annually review and update its Drinking Water Quality Management System Operational Plan. The [updated] Operational Plan must include a written endorsement of its contents by Top Management and the Owner [Council].

Comments

Council and Top Management's endorsement and commitment to the Town's DWQMS is a crucial element of the Operational Plan. Council and Top Management shall provide evidence of their commitment to an effective quality management system by:

Council Report/Master (Rev 2019-09-27)

- Ensuring that a Quality Management System is in place that meets the requirements of the standard as mandated through the Safe Drinking Water Act, 2002 (SDWA).
- Ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements.
- Communicating the Quality Management System according to the procedure for communications.
- Determining, obtaining or providing the resources needed to maintain and continually improve the Quality Management System.

Version 10 of the Operational Plan was submitted to the DWQMS Committee and approved. Version 10 of the Operational Plan is appended to this report as Attachment No. 1. The document changes include but are not limited to the following:

- The link to the Quality Management System Policy on the website.
- The various commitments the Owner and Top Management endorse with respect to the Town's Quality Management System.
- Staff turnover

The above-noted changes were incorporated into Version 10 of the Operational Plan due to:

- Legislative and regulatory changes;
- Management Review Committee recommendations (refer to Attachment No. 2);
- The Town's administrative and/or policy changes.

Updates to the Operational Plan are necessary to continually improve the Town's Quality Management System.

Consultations

Ministry of the Environment, Conservation and Parks

Financial Implications

There are no financial implications arising from this report.

Report No: PWES-2020-14
Drinking Water Quality Management System
Operational Plan Version 10

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Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input checked="" type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☐

Website ☒ Social Media ☐ News Release ☐ Local Newspaper ☐

Report No: PWES-2020-14
Drinking Water Quality Management System
Operational Plan Version 10

Page 4 of 4

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Brad Dupuis, C. Tech.
Manager Water & Wastewater Services, O.R.O.

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Margaret Misk-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	Drinking Water Quality Management System Operational Plan Version 10
2	Management Review Committee Meeting Minutes, February 11, 2020

Appendix 2 – Drinking Water System

Table 1:

Watermain Material Type and Length in Tecumseh Water Distribution System

Watermain Material, Size & Length in Meters	
<i>Cast Iron Watermain – 19,573 Meters</i>	
<ul style="list-style-type: none"> • 100mm Pipe = 151 Meters • 150mm Pipe = 18,429 Meters • 200mm Pipe = 106 Meters 	<ul style="list-style-type: none"> • 250mm Pipe = 519 Meters • 400mm Pipe = 368 Meters
<i>Concrete Watermain - 2,524.00 Meters</i>	
<ul style="list-style-type: none"> • 250mm Pipe = 2.0 Meters • 400mm Pipe = 2522 Meters 	
<i>Ductile Iron Watermain - 26,681.00 Meters</i>	
<ul style="list-style-type: none"> • 150mm Pipe = 9,275 Meters • 200mm Pipe = 12,021 Meters • 250mm Pipe = 1160 Meters 	<ul style="list-style-type: none"> • 300mm Pipe = 1661 Meters • 400mm Pipe = 2,064 Meters • 600mm Pipe = 497 Meters
<i>Polyvinyl Chloride (PVC) Watermain -173,592 Meters</i>	
<ul style="list-style-type: none"> • 50mm Pipe = 300 Meters • 100mm Pipe = 1,674 Meters • 150mm Pipe = 59,818 Meters • 200mm Pipe = 65,994 Meters 	<ul style="list-style-type: none"> • 250mm Pipe = 15,277 Meters • 300mm Pipe = 18,275 Meters • 400mm Pipe = 8,524 Meters • 600mm Pipe = 3,733 Meters
<i>Polyethylene Watermain - 250.00 Meters</i>	
<ul style="list-style-type: none"> • 50mm Pipe = 8 Meters • 150mm Pipe = 242 Meters 	
Total Length of Watermain - 222,620 Meters	

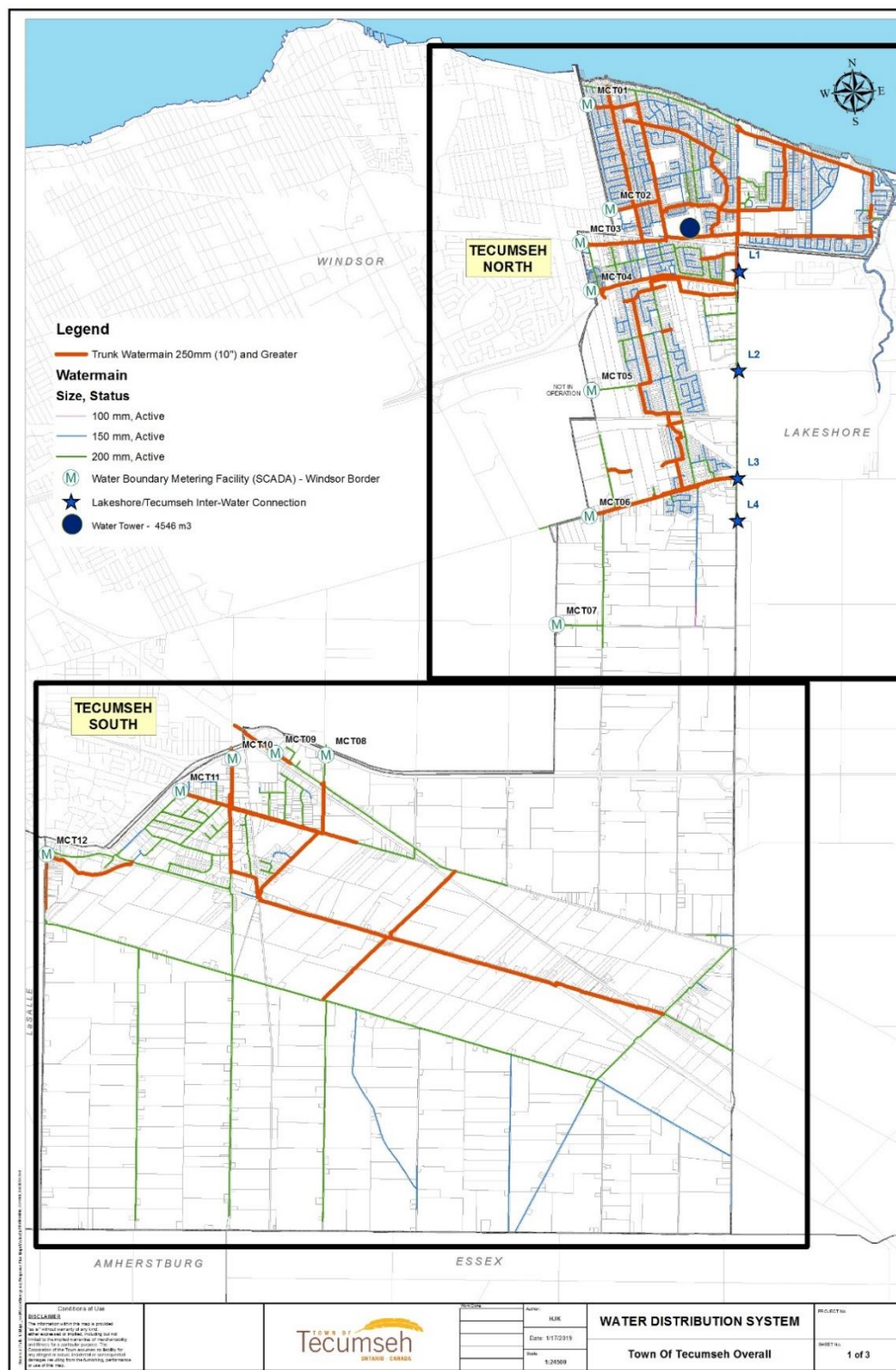
The north distribution system is currently supplied from the Windsor Water System through the following metering connection:

- 400 mm diameter feedermain on Dillon Drive
- 300 mm diameter feedermain on McNorton Street
- 400 mm diameter feedermain on Tecumseh Road
- 600 mm diameter feedermain on County Road 22
- 600 mm diameter feedermain on County Road 42
- (future) 600 mm diameter feedermain on Intersection Road

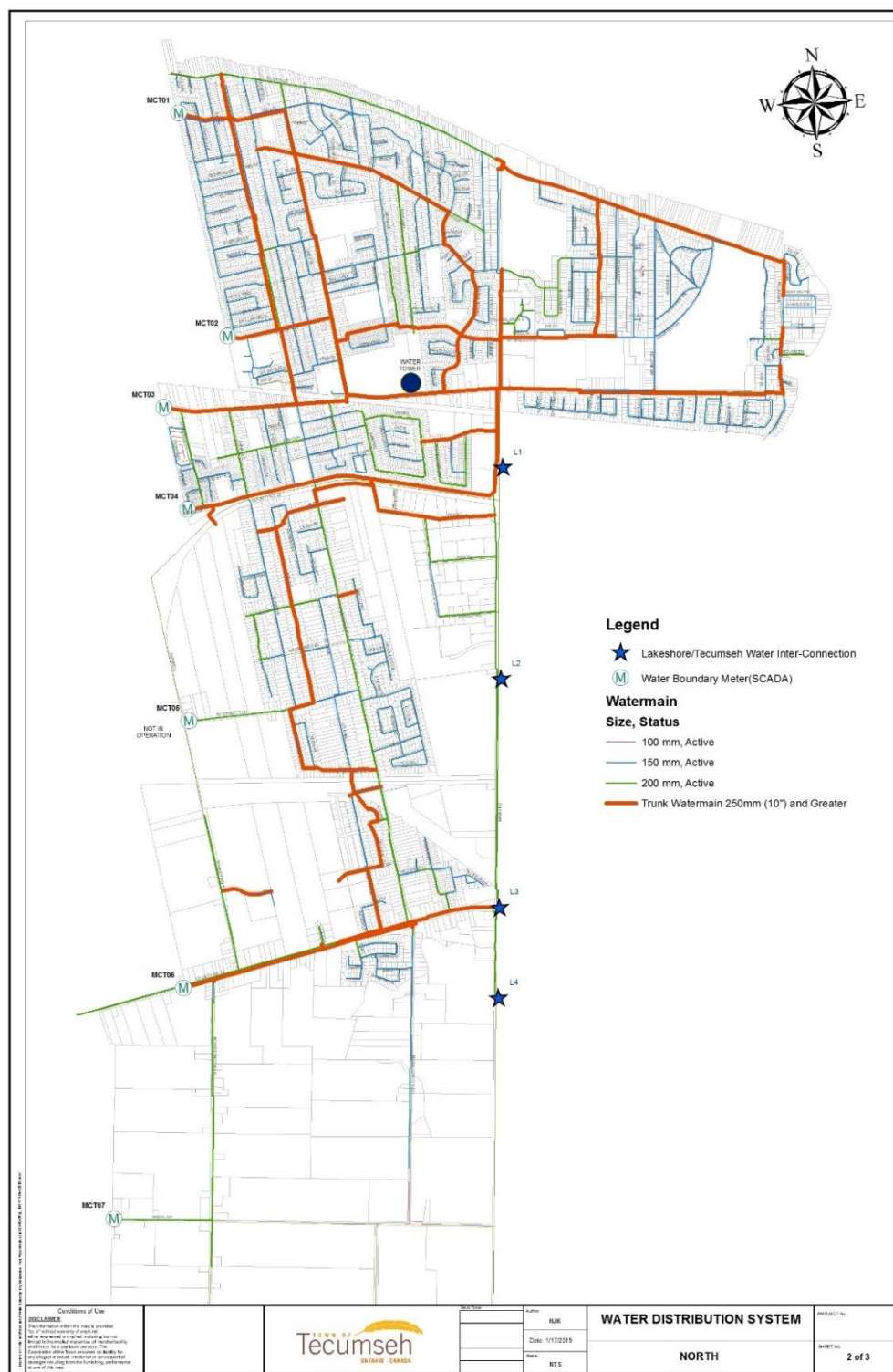
The south distribution system is currently supplied from the Windsor Water System through the following connections:

- 200 mm diameter feedermain on Baseline Road
- 200 mm diameter feedermain on 8th Concession Road
- 600 mm diameter feedermain on County Road 46
- 300 mm diameter feedermain on Walker Road
- 300 mm diameter feedermain on North Talbot Road
- 200 mm diameter feedermain on Talbot Road

Map 1: Town of Tecumseh Water Distribution System – Overall Service Area



Map 2: Town of Tecumseh Water Distribution System – North Service Area





Appendix 3 – Risk Assessment (Comprehensive Risk Assessment done January 24, 2019)

Completing the Hazard Analysis and Critical Control Point Worksheet Procedure:

The Risk Assessment Team is to complete the tasks outlined in section 7 Risk Assessment and section 8 Risk Assessment Outcomes (included as part of this Operational Plan) along with the instructions included as part of Appendix 3 – Risk Assessment (this section) and Appendix 4 – Risk Assessment Outcomes.

The Hazard Analysis & Critical Control Point (CCP) Worksheets included in Appendix 4 are reviewed and used to record the results of the risk assessment.

- A. **Getting Started:** Follow the flow and process of receiving and delivering of clean drinking water to the consumer.
- B. **Activity or Process Step:** This column refers to specific areas within a particular process step (pumps, tower, distribution system, etc.)
- C. **Description of Hazard:** This column refers to an incident or situation that can lead to the presence of a hazard. Hazards and Hazardous events can result from natural or technological causes, or from human activities. At a minimum, the Ministry's "Potential Hazardous Events for Municipal Drinking Water Systems" (dated February 2017) is considered as part of this assessment. Any additional potential hazardous events and associated hazards also need to be included.
- D. **Potential Result of Hazard:** This column refers to the source of danger or a property that may cause drinking water to be unsafe for human consumption. *Biological, Chemical, Physical and Radiological*. A description of each hazard is outline in (Table 1)
- E. **Comments:** This column refers to any additional information that will help in the description of the hazard or identification.
- F. **Available Monitoring & Control Measures:** This column refers to any monitoring and control measures in place or need to be identified as a need to be put in place. Control measures must be addressed for all potential hazards and hazardous events, regardless of whether they are CCP's or not. This may include monitoring, preventive measures, regular inspection, back-up equipment, written standard operating procedures etc.
- G. **Emergency Procedures or Contingency Plan:** This column identifies any emergency procedure or contingency plan in place to deal with the hazards identified

- H. **Likelihood, Consequence, Detectability and Total:** These columns refer to the ranking criteria identified in (Tables 2, 3, 4, 5.)
- I. **Critical Control Point (CCP):** Identifies if the total value of the columns, and determines if the value are above or below the set threshold.
- J. **Control Procedure:** This column is where you apply some sort of control, to prevent or eliminate a drinking water health hazard or to reduce the health hazard to an acceptable level
- Hazards identified as CCP's or Recommended Minimum CCP's require control measures, which are documented in procedures or work instructions.

Control Measures include:

- Work Instructions
- Monitoring, reporting and recording requirements
- Support information
- Response for a deviation from critical control point
- Recovery procedures if necessary
- Equipment reliability and redundancies

Determining the Level of Risk for each Hazard

- A. Using the Ranking criteria set out at the bottom of each work sheet estimate the level of risk for each hazard
- B. Using the criteria set out at the bottom of the work sheet assign a value to each ***Likelihood, Consequence and Detectability***
- C. Once the value for each is assigned, add the three values together ***A+B+C=Total***
- D. The ***Total*** will be ranked as per the criteria in the "***Total Analysis***" table found at the bottom of the work sheet
- E. If the Total is in the High or Very High range as a hazard, it will require either a Critical Control Point procedure, or a response procedure.

Table 1- Hazards

Biological Hazards	Biological pathogens are usually considered the most significant drinking water health risk because the effects are acute; Waterborne biological hazards include bacterial, viral and parasitic organisms. These organisms are commonly associated with faecal wastes from humans and other animals, and some can occur naturally in the environment.
Chemical Hazards	Chemical hazards in drinking water may come from a source or occur in the treatment and distribution system. They include but are not limited to: toxic spills, naturally occurring minerals, heavy metals, dissolved gases (e.g. radon), pesticides, fertilizers, endocrine disruptors, personal care products and pharmaceutical residuals, cyanotoxins, flocculants, coagulants, lubricants, copper, iron, zinc, and lead from pipes and fittings.
Physical Hazards	Sediments are the most common physical hazard associated with drinking water and are of concern as they may carry with them microbiological hazards and interfere with disinfection system efficiency. Other physical hazards include biofilms, pipe materials etc.
Radiological Hazards	Radiological hazards may arise from man-made or natural sources, with naturally occurring chemicals (uranium, radon, etc.) most frequently found in groundwater.

Table 2 – Likelihood

Description	Likelihood of Hazardous Event Occurring	Rating
Rare	May occur in exceptional circumstances, and has not occurred in past.	1
Unlikely	Could occur at some time, historically has occurred less than once every five or 10 years.	2
Possible	Has occurred or may occur once or more per year.	3
Likely	Has occurred or may occur on a monthly to quarterly basis.	4
Very Likely	One or more occurrences on a monthly or more frequent basis.	5

Table 3- Consequence

Description	Consequence of Hazardous Event Occurring	Rating
Insignificant	Insignificant impact, little public exposure, little or no health risk.	1
Minor	Limited public exposure, minor health risk.	2
Moderate	Minor public exposure, health impact on small part of the population.	3
Major	Large part of population at risk.	4
Catastrophic	Major impact for large part of the population, complete failure of systems.	5

Table 4 – Detectability

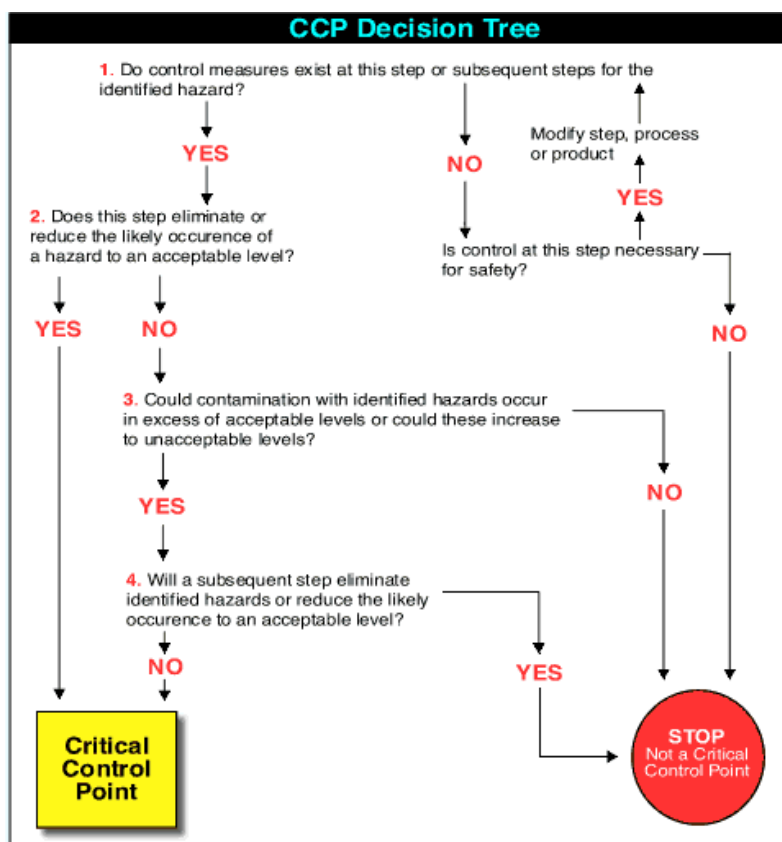
Description	Detectability of Hazardous Event	Rating
Very Detectable	Easy to detect, on-line monitoring through SCADA.	1
Moderately Detectable	Moderately detectable, alarm present but not in SCADA, may require operator to walk by and notice alarm; problem is indicated promptly by in-house lab test results.	2
Normally Detectable	Normally detectable, visually detectable on rounds or through regular maintenance.	3
Unlikely Detectable	Unlikely detectable, visually detectable but not inspected on a regular basis; not normally detected before problem becomes evident; lab tests are not done on a regular basis (e.g. quarterly).	4
Undetectable	Cannot be detected.	5

Table 5- Risk Analysis (Total)

Likelihood + Consequence+ Detectability	(Total) Risk Category
3 to 5	Low
6 to 7	Moderate
8 to 11	High
12 to 15	Very High

Appendix 4 –Risk Assessment Outcomes

Once the values for likelihood, consequence, and detectability are assessed, the determination of whether an identified risk is also a critical control point (CCP) is made using the following decision tree:



The control points generally meet the characteristics of an ideal critical control point as they typically are:

- Able to prevent, eliminate or reduce hazards,
- Monitored, preferably in real time,
- Able to have determined control limits, and,
- Essential to ensure the safety of the drinking water

These control points also provide important barriers in the multiple barrier process to ensure that pathogens that could be present in the water are effectively inactivated and/or removed, and that secondary disinfection is maintained in the distribution system.

CCP's often have corresponding Critical Control Limits, which are identified in the table included below:

Critical Control Point (CCP)	Hazard Description	Critical Control Limit (CCL)	Monitoring Process and/or Procedures	Response Procedures
<p>Secondary Disinfection</p> <p><i>To ensure the maintenance of a disinfectant residual throughout the distribution system.</i></p>	<p>Deterioration of Chlorine Residual</p> <ul style="list-style-type: none"> Reduced water flows based on demand, pipe size, etc. Occurrence of dead ends and Metered Areas Increased water temperature (temporary mains) Reaction with organic matter in watermains Water age in the distribution system Water age in storage facilities 	<p><u>Free Chlorine</u></p> <p>Target Residual in the Distribution System:</p> <ul style="list-style-type: none"> >0.20 mg/L (operational minimum) <p>Reportable under the SDWA:</p> <ul style="list-style-type: none"> 0.05 mg/L <p><u>Turbidity</u></p> <ul style="list-style-type: none"> <5 ntu in the distribution system <p><u>Customer Complaints</u></p> <ul style="list-style-type: none"> Re: water quality characteristics (taste, odour, colour, other) 	<ul style="list-style-type: none"> Certified and competent operators Sampling, testing and monitoring of control limits, as applicable Watermain flushing programs Installation of blow-offs in dead ends Regular samples taken and analyzed for chlorine residual 	<p>Emergency Response procedures:</p> <ul style="list-style-type: none"> 2.1 Boil Water Advisory; 2.2 Adverse Laboratory Water Quality Results; 2.3 Loss of Primary Disinfectant (Chlorine); 2.14 Water Shortage; 2.16 Establishing Potable Water Filling Stations Response to customer calls Service Request tracking and monitoring Repair and system rehabilitation Use of appropriately certified and competent

Critical Control Point (CCP)	Hazard Description	Critical Control Limit (CCL)	Monitoring Process and/or Procedures	Response Procedures
				contractors and suppliers
Backflow Prevention <i>To prevent cross-contamination that can result from the flowing back of or reversal of the normal direction of flow of water.</i>	System contamination from negative or reduced pressure <ul style="list-style-type: none"> Lack of backflow prevention device Main breaks or blow-outs Large services Temporary connections Firefighting drawdown Depressurization from residential usage Pipe failure (deterioration) 	<u>System pressure</u> Alarm setpoint ranges for pressure: <ul style="list-style-type: none"> 210 to 900 kPa <u>Consumer complaints</u> <ul style="list-style-type: none"> Related to system pressure or water characteristics (taste, odour, colour, other). 	<ul style="list-style-type: none"> Backflow Prevention program Where possible, implementation of backflow prevention devices and small mains Proactive Watermain replacement program Pressure monitoring through pressure 	Emergency Response procedures: <ul style="list-style-type: none"> 2.2 Adverse Laboratory Water Quality Results; 2.4 Contamination of Water Transmission System 2.14 Water Shortage 2.16 Establishing Potable Water Filling Stations Response to customer calls Service Request tracking and monitoring Water Services Emergency Plan procedures

Critical Control Point (CCP)	Hazard Description	Critical Control Limit (CCL)	Monitoring Process and/or Procedures	Response Procedures
Contamination within Distribution System	Contamination of treated water through watermain breaks, new watermain commissioning or other means.	<u>Drinking Water Quality Standards (O. Reg. 169/03)</u> <ul style="list-style-type: none"> Water that meets ODWQS 	<ul style="list-style-type: none"> Certified and competent operators Regulatory sampling, monitoring and test programs. 	<p>Emergency Response procedures:</p> <ul style="list-style-type: none"> 2.1 Boil Water Advisory (if bacteriological) 2.2 Adverse Laboratory Water Quality Results; 2.4 Contamination of Water Transmission System 2.11 Watermain Break 2.14 Water Shortage 2.16 Establishing Potable Water Filling Stations

Critical Control Point (CCP)	Hazard Description	Critical Control Limit (CCL)	Monitoring Process and/or Procedures	Response Procedures
				<ul style="list-style-type: none"> • Contact MOH, MECP & SAC • Communicate water advisory issued by MOH • Follow corrective actions required by O.Reg. 170/03.

Risk Assessment - Hazard Analysis & Critical Control Points

Work Sheet No. & Description

<u>Work Sheet No. 1: Contamination of Source Water</u>	53
<u>Work Sheet No. 2: Vandalism/Tampering of Water Tower/Storage</u>	54
<u>Work Sheet No. 3: Biofilm and Sediment Build-up in Water Tower/Storage</u>	55
<u>Work Sheet No. 4: Terrorism</u>	56
<u>Work Sheet No. 5: Spills from Freight Trains on Railway Tracks</u>	57
<u>Work Sheet No. 6: Power Failure (Affecting Control Systems)</u>	58
<u>Work Sheet No. 7: Loss of Communication/Control</u>	59
<u>Work Sheet No. 8: Watermain Breaks within the Distribution System</u>	60
<u>Work Sheet No. 9: Loss of Chlorine Residual (Secondary Disinfection)</u>	61
<u>Work Sheet No. 10: Commissioning New Watermains Causing Contamination</u>	62
<u>Work Sheet No. 11: Loss of Pressure Resulting from a Watermain Break</u>	63
<u>Work Sheet No. 12: Bacteriological Test Failure</u>	64
<u>Work Sheet No. 13: Failure of Backflow Prevention Device</u>	65
<u>Work Sheet No. 14: Adverse Drinking Water Lead Results</u>	66
<u>Work Sheet No. 15: Extreme Cold/Heat/Long-term Impacts of Climate Change</u>	67
<u>Work Sheet No. 16: Loss of Pressure Resulting from Major Fire</u>	68
<u>Work Sheet No. 17: Loss of System Pressure</u>	69
<u>Work Sheet No. 18: Staff Shortage</u>	70

Definitions of the abbreviations found in the Hazard Analysis & Critical Control Point Work Sheet:

- **SOP**- Standard Operating Procedures
- **CCP** – Critical Control Point
- **MECP**- Ministry of Environment, Conservation and Parks
- **MOH**- Medical Officer of Health
- **SAC**- Spills Action Centre (*a division of MECP Emergency Management*)
- **WUCTP**- Windsor Utilities Commission Water Treatment Plant
- **Cl₂**– Chlorine
- **SCADA**- Supervisory Control and Data Acquisition

Hazard Analysis & Critical Control Points

Work Sheet No. 1: Contamination of Source Water

Activity or Process Step: <ul style="list-style-type: none"> Source Water (Windsor Utilities Commission) 			
Description of Hazard: <ul style="list-style-type: none"> Contamination of Source Water (water supply shortfall) 			
Potential Results of Hazard: <ul style="list-style-type: none"> Physical Biological Chemical 			
Comments: <ul style="list-style-type: none"> No Control 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Weekly sampling throughout distribution system as per mandatory under O.Reg.170/03 On-line monitoring at (WUCTP) 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Follow SOP <i>Bad Sample or Adverse Water Quality</i> Contacting MECP, MOH & SAC Communication with the (WUCTP) Conducting all sampling and testing as necessary or directed at points in the distribution system under the direction of the MOH 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	4
		Detectability	2
		<i>(High Risk Threshold = 8)</i>	<i>Total = 7 (CCP = No)</i>
Control Procedure <ul style="list-style-type: none"> There is no control for source water spills. However, there are ongoing sampling and monitoring programs; along with contingency plans, as noted above. Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory ✓ 2.4 Contamination of Water Transmission System; ✓ 2.14 Water Shortage; ✓ 2.16 Establishing Potable Water Filling Stations ✓ 2.20 Pandemic 			

Work Sheet No. 2: Vandalism/Tampering of Water Tower/Storage

Activity or Process Step: <ul style="list-style-type: none"> Water Tower/ Storage 												
Description of Hazard: <ul style="list-style-type: none"> Vandalism/ Tampering 												
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Chemical Damage to equipment 												
Comments: <ul style="list-style-type: none"> None 												
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Security fence locked and gated Alarm system with SCADA Security Cameras 												
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> SCADA Alarm Procedures SOP Contact Emergency Services, MOH, MECP & SAC Communicate drinking water advisory issued by MOH Sample water quality and take tower offline until two consecutive sample are negative within 48hrs Conduct sampling microbiological & Cl₂ residual Contact WUCTP about closure of water valve for tower 												
Risk Analysis Ranking												
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11= HIGH 12 to 15 = VERY HIGH	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #b0c4de;">RISK ANALYSIS</th> <th style="background-color: #b0c4de;">RANKING</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Likelihood</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">Consequence</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Detectability</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">(High Risk Threshold = 8)</td> <td style="text-align: center;">Total= 6 (CCP = No)</td> </tr> </tbody> </table>	RISK ANALYSIS	RANKING	Likelihood	1	Consequence	4	Detectability	1	(High Risk Threshold = 8)	Total= 6 (CCP = No)
RISK ANALYSIS	RANKING											
Likelihood	1											
Consequence	4											
Detectability	1											
(High Risk Threshold = 8)	Total= 6 (CCP = No)											
Control Procedure <ul style="list-style-type: none"> There are redundant security measures, including: secure fencing, intrusion alarms, SCADA monitoring related to Cl₂ residual, and other measures as noted above. Also, contingency plans exist, as noted above. Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory ✓ 2.4 Contamination of Water Transmission System ✓ 2.5 Emergency Evacuation; ✓ 2.6 Illegal Entry / Vandalism; ✓ 2.9 Bomb Threat at any Water Facility; ✓ 2.14 Water Shortage; ✓ 2.16 Establishing Potable Water Filling Stations ✓ 2.20 Pandemic 												

Work Sheet No. 3: Biofilm and Sediment Build-up in Water Tower/Storage

Activity or Process Step: <ul style="list-style-type: none"> Water Tower/ Storage 																						
Description of Hazard: <ul style="list-style-type: none"> Biofilm and sediment buildup 																						
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Contamination 																						
Comments: <ul style="list-style-type: none"> None 																						
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Inspection of tower 5 years as prescribed AWWA standards or per legislation Monitoring water levels Sampling testing of chlorine residuals weekly 																						
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Cleaning tower using a qualified contractor 																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Risk Analysis Ranking</th> <th style="text-align: center;">RISK ANALYSIS</th> <th style="text-align: center;">RANKING</th> </tr> <tr> <td style="width: 30%; vertical-align: top;"> [A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total </td> <td style="width: 30%; vertical-align: top;"> 3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH </td> <td style="text-align: center;">Likelihood</td> <td style="text-align: center;">1</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Consequence</td> <td style="text-align: center;">3</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Detectability</td> <td style="text-align: center;">3</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">(High Risk Threshold = 8)</td> <td style="text-align: center;">Total= 7 (CCP = No)</td> </tr> </table>			Risk Analysis Ranking		RISK ANALYSIS	RANKING	[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1			Consequence	3			Detectability	3			(High Risk Threshold = 8)	Total= 7 (CCP = No)
Risk Analysis Ranking		RISK ANALYSIS	RANKING																			
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1																			
		Consequence	3																			
		Detectability	3																			
		(High Risk Threshold = 8)	Total= 7 (CCP = No)																			
Control Procedure <ul style="list-style-type: none"> There is an assessment of tower reliability: 5-year inspection program; and tower cleaning in response to issues once every 5 years. Ongoing sampling and monitoring programs as noted above. 																						

Work Sheet No. 4: Terrorism

Activity or Process Step: <ul style="list-style-type: none"> Water Tower/ Storage 												
Description of Hazard: <ul style="list-style-type: none"> Terrorism 												
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Chemical Damage to equipment 												
Comments: <ul style="list-style-type: none"> None 												
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Security fence locked and gated Alarm system with SCADA Security Cameras 												
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Contact Emergency Services, MOH, MECP & SAC Communicate drinking water advisory issued by MOH Sample water quality and take tower offline until two consecutive sample are negative within 48hrs) Conduct sampling microbiological & Cl₂ residual Contact WUCTP about closure of water valve for tower 												
Risk Analysis Ranking												
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RISK ANALYSIS	RANKING											
Likelihood	1											
Consequence	5											
Detectability	1											
(High Risk Threshold = 8)	Total= 7 (CCP = No)											
Control Procedure <ul style="list-style-type: none"> There are redundant security measures, including: secure fencing, intrusion alarms, SCADA monitoring related to Cl₂ residual, and other measures as noted above. Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.5 Emergency Evacuation; ✓ 2.6 Illegal Entry / Vandalism; ✓ 2.9 Bomb Threat at any Water Facility; ✓ 2.14 Water Shortage; ✓ 2.16 Establishing Potable Water Filling Stations ✓ 2.20 Pandemic 												

Work Sheet No. 5: Spills from Freight Trains on Railway Tracks

Activity or Process Step: <ul style="list-style-type: none"> Water Tower/ Storage 			
Description of Hazard: <ul style="list-style-type: none"> Spills from CN freight trains on VIA tracks. 			
Potential Results of Hazard: <ul style="list-style-type: none"> Physical Chemical <ul style="list-style-type: none"> Biological Contamination 			
Comments: <ul style="list-style-type: none"> No Control 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Alarm system with SCADA On-line monitoring at (WUCTP) Security Cameras Passenger & Freight trains limited to max speed of 50mph zone 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Contact Emergency Services, MOH, MECP & SAC Communicate drinking water advisory issued by MOH Sample water quality and take tower offline until two consecutive sample are negative within 48hrs Conduct sampling microbiological & Cl₂ residual Contact WUCTP about closer of water tower 			
Risk Analysis Ranking		RISK ANALYSIS	RANKING
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	3
		Detectability	1
		(High Risk Threshold = 8)	Total= 5 (CCP = No)
Control Procedure <ul style="list-style-type: none"> There is no control for spills from freight trains. However, there are ongoing monitoring programs and contingencies, as noted above. Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory; ✓ 2.4 Contamination of Water Transmission System; ✓ 2.5 Emergency Evacuation; ✓ 2.8 Loss of Access to Facilities; ✓ 2.12 On-Site Injury ✓ 2.14 Water Shortage ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 6: Power Failure (Affecting Control Systems)

Activity or Process Step: <ul style="list-style-type: none"> Control Systems 												
Description of Hazard: <ul style="list-style-type: none"> Power failure (power loss in general and also from extreme weather conditions (tornadoes / ice storms)) 												
Potential Results of Hazard: <ul style="list-style-type: none"> Loss of SCADA network 												
Comments: <ul style="list-style-type: none"> None 												
Available Monitoring & Control Measures: <ul style="list-style-type: none"> UPS battery backup at monitoring stations UPS battery backup on server System alarmed Backup generator for server – natural gas generator, tested at least once per month Regular daily scheduled working days SCADA system checks 												
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Data is backed up daily onto main server 												
Risk Analysis Ranking												
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="background-color: #e6f2ff;">RISK ANALYSIS</th> <th style="background-color: #e6f2ff;">RANKING</th> </tr> <tr> <td style="text-align: center;">Likelihood</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">Consequence</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: center;">Detectability</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;"><i>(High Risk Threshold = 8)</i></td> <td style="text-align: center;">Total= 4 (CCP = No)</td> </tr> </table>	RISK ANALYSIS	RANKING	Likelihood	1	Consequence	2	Detectability	1	<i>(High Risk Threshold = 8)</i>	Total= 4 (CCP = No)
RISK ANALYSIS	RANKING											
Likelihood	1											
Consequence	2											
Detectability	1											
<i>(High Risk Threshold = 8)</i>	Total= 4 (CCP = No)											
Control Procedure <ul style="list-style-type: none"> Controls, reliability and redundancy measures exist as described above. Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.7 Interruption of SCADA Components; ✓ 2.15 Failure of Control Systems; ✓ 2.18 Equipment Failure; 												

Work Sheet No. 7: Loss of Communication/Control

Activity or Process Step: <ul style="list-style-type: none"> Control of System 			
Description of Hazard: <ul style="list-style-type: none"> Loss of Communications/Control (loss in general and also from extreme weather conditions (tornadoes / ice storm)) 			
Potential Results of Hazard: <ul style="list-style-type: none"> Failure of business telephone lines Failure of local telephone provider's circuit connections, radio signals, and Ethernet connections Failure of cellular telephones 			
Comments: <ul style="list-style-type: none"> Refer to the Failure of Control Systems section of The Corporation of the Town of Tecumseh Water Services Emergency Response Plan 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> The response procedure for long-term failure of control systems and communication networks is detailed in the Failure of Control Systems section of The Corporation of the Town of Tecumseh Water Services Emergency Response Plan 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Follow the response procedure for long-term failure of control systems and communication networks in The Corporation of the Town of Tecumseh Water Services Emergency Response Plan 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	5
		Detectability	1
		<i>(High Risk Threshold = 8)</i>	<i>Total= 7 (CCP = No)</i>
Control Procedure <ul style="list-style-type: none"> There are redundant communications systems in place for SCADA controls: fiber optic is main supply with cellular back-up. Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.7 Interruption of SCADA Components; ✓ 2.15 Failure of Control Systems; ✓ 2.18 Equipment Failure; 			

Work Sheet No. 8: Watermain Breaks within the Distribution System

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Watermain breaks within the distribution system 			
Potential Results of Hazard: <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <ul style="list-style-type: none"> Physical Biological Chemical <ul style="list-style-type: none"> Quantity Quality </div>			
Comments: <ul style="list-style-type: none"> No elevated distribution system; Tecumseh tower and continuously pumping from WUCTP needed 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Customer complaints; low pressure or visual inspection General inspection of distribution system Controlling valves, looping and replacing watermain SCADA alarm system 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Customer complaints; low pressure or visual inspection General inspection of distribution system Controlling valves, looping and replacing watermain 			
Risk Analysis Ranking		RISK ANALYSIS	RANKING
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	4
		Consequence	2
		Detectability	3
		<i>(High Risk Threshold = 8)</i>	Total= 9 (CCP = No)
Control Procedure <ul style="list-style-type: none"> System reliability evaluations are regularly carried out as noted above. There is a need for response procedures because the Risk Analysis Ranking value is greater than the high-risk threshold. Follow SOP <i>Watermain Repair Category 1-2</i> Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory; ✓ 2.3 Loss of Primary Disinfection; ✓ 2.4 Contamination of Water Transmission System; ✓ 2.11 Watermain Break ✓ 2.13 Street Flooding Due to Watermain Break ✓ 2.17 Damage to Main Supply Transmission Line 			

Work Sheet No. 9: Loss of Chlorine Residual (Secondary Disinfection)

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Loss of chlorine residual (secondary disinfection) 			
Potential Results of Hazard: <ul style="list-style-type: none"> Biological 			
Comments: <ul style="list-style-type: none"> Legislated under O.Reg. 170/03 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Weekly monitoring chlorine residuals throughout the distribution system 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Flush affected area to increase Cl₂ residual Follow corrective actions required by O.Reg. 170/03. Resample and follow corrective action as per SOP 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 <i>[A] + [B] + [C] = Total</i>	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	2
		Consequence	3
		Detectability	3
		<i>(High Risk Threshold = 8)</i>	Total= 8 (CCP = Yes)
Control Procedure <ul style="list-style-type: none"> There is a need for control procedures because the Risk Analysis Ranking value is greater than the High-Risk Threshold, and through the CCP Decision Tree, maintenance of chlorine residual / secondary disinfection is determined to be a critical control point. Requirements for corrective action under O.Reg.170/03 Follow SOP for <i>Low Chlorine Result Procedure</i> Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory; ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.3 Loss of Primary Disinfectant (Chlorine); ✓ 2.14 Water Shortage; ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 10: Commissioning New Watermains Causing Contamination

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Commissioning new watermains causing contamination 			
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Chemical 			
Comments: <ul style="list-style-type: none"> None 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Follow SOP's as per <i>Commissioning New Watermain</i> Check Cl₂ residuals Take microbiological testing 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Follow corrective action as per O.Reg.170/03 If necessary, communicate issuance of boil water after consultation with MOH 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	3
		Detectability	1
		<i>(High Risk Threshold = 8)</i>	Total= 5 (CCP = Yes)
Control Procedure <ul style="list-style-type: none"> While the high-risk threshold was not reached for this hazardous event, "Commissioning New Watermains causing contamination" is determined a critical control point (following the CCP Decision Tree) because it can directly introduce contamination to the distribution system and can be controlled with proper disinfection. Follow control procedures as noted above. Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory (if bacteriological) ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.4 Contamination of Water Transmission System ✓ 2.11 Watermain Break ✓ 2.14 Water Shortage ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 11: Loss of Pressure Resulting from a Watermain Break

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Loss of pressure due to watermain break 			
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Chemical <ul style="list-style-type: none"> Physical Low pressure back-siphoning 			
Comments: <ul style="list-style-type: none"> None 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Consumer complaints Pressure gauges on boundary meters and tower monitored and alarmed by SCADA Backflow prevention by-law and program 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Check pressures in affected area. If necessary, discuss with MOH and MECP/SAC If necessary, issue water advisory in consultation with MOH as per SOP Restore pressure and chlorine residuals and conduct testing and sampling in effected area Notify (WUCTP) of low-pressure alarms 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	2
		Consequence	4
		Detectability	1
		<i>(High Risk Threshold = 8)</i>	<i>Total= 7 (CCP = Yes)</i>
Control Procedure <ul style="list-style-type: none"> System reliability / redundancy measures are in place, as noted in monitoring and control measures above. While the high-risk threshold was not reached for this hazardous event, backflow prevention is considered CCP's (following CCP Decision Tree) – as contaminants can be directly introduced to distribution system and with pressure and backflow prevention program monitoring and response, could be prevented. Follow SOP <i>Watermain Repair Category 2</i> Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.4 Contamination of Water Transmission System ✓ 2.14 Water Shortage ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 12: Bacteriological Test Failure

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Bacteriological test failure 			
Potential Results of Hazard: <ul style="list-style-type: none"> Biological 			
Comments: <ul style="list-style-type: none"> Legislated under O.Reg. 170/03 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Weekly monitoring: bacteriological testing throughout the distribution system 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Contact MOH, MECP & SAC Communicate water advisory issued by MOH Sample water quality and take tower offline until two consecutive sample are negative within 48hrs Flush affected area to increase Cl₂ residual Follow corrective actions required by O.Reg. 170/03. Follow SOP <i>Bad Sample or Adverse Water Quality</i> 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	3
		Consequence	3
		Detectability	2
		<i>(High Risk Threshold = 8)</i>	<i>Total= 8 (CCP = Yes)</i>
Control Procedure <ul style="list-style-type: none"> There is a need for control procedures because the Risk Analysis Ranking value is greater than the high-risk threshold and is determined a CCP (through CCP Decision Tree) because contamination is direct to distribution system and response and contingency actions can be taken to address the issue. Requirements for corrective action under O.Reg.170/03 Emergency Response Procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory; ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.3 Loss of Primary Disinfection (Chlorine) ✓ 2.14 Water Shortage; ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 13: Failure of Backflow Prevention Device

Activity or Process Step: <ul style="list-style-type: none"> Distribution 																		
Description of Hazard: <ul style="list-style-type: none"> Failure of Backflow Prevention Device 																		
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Chemical 																		
Comments: <ul style="list-style-type: none"> Backflow preventers on all connections of concern 																		
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Visual on- site inspection Backflow prevention by-law and program 																		
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> If backflow is suspected, report to MOH and MECF, SAC Isolate area. Flush the system and sample as needed. Re-pressurize system 																		
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Risk Analysis Ranking		RISK ANALYSIS	RANKING															
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1															
		Consequence	4															
		Detectability	4															
		(High Risk Threshold = 8)																
		Total= 9 (CCP = Yes)																
Control Procedure Backflow prevention is considered a CCP (following CCP Decision Tree) – as contaminants can be directly introduced to distribution system and with pressure and backflow prevention program monitoring and response, could be prevented. <ul style="list-style-type: none"> Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory (if bacteriological contamination); ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.4 Contamination of Water Transmission System ✓ 2.14 Water Shortage ✓ 2.15 Failure of Control Systems ✓ 2.16 Establishing Potable Water Filling Stations ✓ 2.18 Equipment Failure 																		

Work Sheet No. 14: Adverse Drinking Water Lead Results

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Adverse drinking water lead results 			
Potential Results of Hazard: <ul style="list-style-type: none"> Biological Chemical Positive lead sample from testing 			
Comments: <ul style="list-style-type: none"> Will follow legislations and Regulations as mandated by the MECP 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Follow SOP <i>Community Lead Testing Program</i> 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> O.Reg. 170/03 mandating every water system in Ontario to test for lead in the drinking water 			
Risk Analysis Ranking		RISK ANALYSIS	RANKING
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	2
		Detectability	2
		<i>(High Risk Threshold = 8)</i>	Total= 5 (CCP = No)
Control Procedure <ul style="list-style-type: none"> There is no need for control procedures because the Risk Analysis Ranking value is less than the high-risk threshold. Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.2 Adverse Laboratory Water Quality Results 			

Work Sheet No. 15: Extreme Cold/Heat/Long-term Impacts of Climate Change

Activity or Process Step: <ul style="list-style-type: none"> Distribution 																						
Description of Hazard: <ul style="list-style-type: none"> Extreme cold / heat / long-term impacts of climate change (including frozen pipes, potential for wildfires) 																						
Potential Results of Hazard: <ul style="list-style-type: none"> Maintain fire protection No access to water from the distribution system if pipes are frozen Maintain reliable and safe drinking water to customers 																						
Comments: <ul style="list-style-type: none"> None 																						
Available Monitoring & Control Measures: <ul style="list-style-type: none"> SCADA (re: major fire); freezing conditions (re: alarms for water tower boundary meters) 																						
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Emergency Response Plan 																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left; padding: 5px;">Risk Analysis Ranking</th> <th style="text-align: center; padding: 5px;">RISK ANALYSIS</th> <th style="text-align: center; padding: 5px;">RANKING</th> </tr> <tr> <td style="width: 30%; padding: 5px; vertical-align: top;"> [A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total </td> <td style="width: 30%; padding: 5px; vertical-align: top;"> 3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH </td> <td style="width: 20%; padding: 5px; text-align: center;">Likelihood</td> <td style="width: 20%; padding: 5px; text-align: center;">1</td> </tr> <tr> <td colspan="2" style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">Consequence</td> <td style="padding: 5px; text-align: center;">1</td> </tr> <tr> <td colspan="2" style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">Detectability</td> <td style="padding: 5px; text-align: center;">1</td> </tr> <tr> <td colspan="2" style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">(High Risk Threshold = 8)</td> <td style="padding: 5px; text-align: center;">Total= 3 (CCP = No)</td> </tr> </table>			Risk Analysis Ranking		RISK ANALYSIS	RANKING	[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1			Consequence	1			Detectability	1			(High Risk Threshold = 8)	Total= 3 (CCP = No)
Risk Analysis Ranking		RISK ANALYSIS	RANKING																			
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1																			
		Consequence	1																			
		Detectability	1																			
		(High Risk Threshold = 8)	Total= 3 (CCP = No)																			
Control Procedure <ul style="list-style-type: none"> There is no need for control procedures because the Risk Analysis Ranking value is less than the high-risk threshold. Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.14 Water Shortage ✓ 2.16 Establishing Potable Water Filling Stations ✓ 2.19 Serve Storm (tornado, Wind, Hurricane, Winter Storm etc) 																						

Work Sheet No. 16: Loss of Pressure Resulting from Major Fire

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Loss of pressure due to major fire 			
Potential Results of Hazard: <ul style="list-style-type: none"> Physical Chemical <ul style="list-style-type: none"> Low pressure back-siphoning Biological 			
Comments: <ul style="list-style-type: none"> None 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Notification from the fire department Consumer complaints Pressure gauges on boundary meters and tower monitored and alarmed by SCADA Backflow prevention 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Check pressures in effected area. If necessary, discuss with MOH and MECP/SAC If necessary, issue water advisory with consultation of MOH as per SOP <i>Bad Sample or Adverse Water Quality</i> Restore pressure and chlorine residuals and conduct testing and sampling in effected area Notify (WUCTP) of low-pressure alarms 			
Risk Analysis Ranking		<i>RISK ANALYSIS</i>	<i>RANKING</i>
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	3
		Detectability	1
		<i>(High Risk Threshold = 8)</i>	Total= 5 (CCP = Yes)
Control Procedure Backflow prevention is considered a CCP (following CCP Decision Tree) – as contaminants can be directly introduced to distribution system and with pressure and backflow prevention program monitoring and response, could be prevented.			
<ul style="list-style-type: none"> Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory (if bacteriological contamination); ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.4 Contamination of Water Transmission System ✓ 2.10 Major Fire at any Facility ✓ 2.14 Water Shortage ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 17: Loss of System Pressure

Activity or Process Step: <ul style="list-style-type: none"> Distribution 			
Description of Hazard: <ul style="list-style-type: none"> Loss of system pressure 			
Potential Results of Hazard: <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <ul style="list-style-type: none"> Physical Chemical <ul style="list-style-type: none"> Low pressure back-siphoning Biological </div>			
Comments: <ul style="list-style-type: none"> None 			
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Consumer complaints Pressure gauges on boundary meters and tower monitored and alarmed by SCADA Backflow prevention 			
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Check pressures in effected area If necessary discuss with MOH and MECP/SAC If necessary, issue water advisory with consultation of MOH as per SOP <i>Bad Sample or Adverse Water Quality</i> Restore pressure and chlorine residuals and conduct testing and sampling in effected area Notify (WUCTP) of low pressure alarms 			
Risk Analysis Ranking		RISK ANALYSIS	RANKING
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11 = HIGH 12 to 15 = VERY HIGH	Likelihood	1
		Consequence	3
		Detectability	1
		<i>(High Risk Threshold = 8)</i>	Total= 5 (CCP = Yes)
Control Procedure Backflow prevention is considered a CCP (following CCP Decision Tree) – as contaminants can be directly introduced to distribution system and with pressure and backflow prevention program monitoring and response, could be prevented.			
<ul style="list-style-type: none"> Emergency Response procedures: <ul style="list-style-type: none"> ✓ 2.1 Boil Water Advisory (if bacteriological contamination); ✓ 2.2 Adverse Laboratory Water Quality Results; ✓ 2.4 Contamination of Water Transmission System ✓ 2.14 Water Shortage ✓ 2.16 Establishing Potable Water Filling Stations 			

Work Sheet No. 18: Staff Shortage

Activity or Process Step: <ul style="list-style-type: none"> Distribution 																	
Description of Hazard: <ul style="list-style-type: none"> Staff shortage (due to lottery, retirements, Illness /Pandemic, Strike/Lock-out) 																	
Potential Results of Hazard: <ul style="list-style-type: none"> Physical Chemical Biological 																	
Comments: <ul style="list-style-type: none"> No Control 																	
Available Monitoring & Control Measures: <ul style="list-style-type: none"> Collective Agreements for both outside and inside workers Attendance/medical records MOH health advisory's Town's Wellness Committee 																	
Emergency Procedure or Contingency Plan: <ul style="list-style-type: none"> Having the proper amount of Water Operators The ORO has a Class III Water Distribution Operators License The ORO has the required competencies to maintain the water distribution system. Town of Tecumseh Water Services Emergency Response Plan Will contract outside license water operators to assist the ORO if necessary 																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Risk Analysis Ranking</th> <th style="text-align: center;">RISK ANALYSIS</th> <th style="text-align: center;">RANKING</th> </tr> </thead> <tbody> <tr> <td rowspan="4" style="width: 30%; vertical-align: top;"> [A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total </td> <td rowspan="4" style="width: 20%; vertical-align: top;"> 3 to 5 = LOW 6 to 7 = MODERATE 8 to 11= HIGH 12 to 15 = VERY HIGH </td> <td style="text-align: center;">Likelihood</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="text-align: center;">Consequence</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">Detectability</td> <td style="text-align: center;">1</td> </tr> <tr> <td colspan="2" style="text-align: center;"> (High Risk Threshold = 8) </td> <td style="text-align: center;"> Total= 6 (CCP = No) </td> </tr> </tbody> </table>			Risk Analysis Ranking		RISK ANALYSIS	RANKING	[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11= HIGH 12 to 15 = VERY HIGH	Likelihood	1	Consequence	4	Detectability	1	(High Risk Threshold = 8)		Total= 6 (CCP = No)
Risk Analysis Ranking		RISK ANALYSIS	RANKING														
[A] LIKELIHOOD 1 to 5 [B] CONSEQUENCE 1 to 5 [C] DETECTABILITY 1 to 5 [A] + [B] + [C] = Total	3 to 5 = LOW 6 to 7 = MODERATE 8 to 11= HIGH 12 to 15 = VERY HIGH	Likelihood	1														
		Consequence	4														
		Detectability	1														
		(High Risk Threshold = 8)		Total= 6 (CCP = No)													
Control Procedure <ul style="list-style-type: none"> Adequate staffing levels assured through personnel coverage, competency requirements achieved, and other monitoring, control and contingency measures identified above. 																	

Appendix 5 – Essential Supplies and Services

A list of supplies and services has been developed and is provided below. The list includes suppliers / service providers for each essential supply and service. A secondary source is also listed for each supply and service to ensure supplies and services are available as needed. This list is reviewed by the Manager, Water and Wastewater to ensure that it is current and up-to-date.

All supplies and services shall meet AWWA and NSF/ANSI standards; these purchases must be in accordance with the Town of Tecumseh By-Law 2017-63, a by-law to govern procurement and procedures.

Essential Supplies and Service List		
Product/Service	Primary Source	Secondary Source
Treated Drinking Water Supply	Windsor Utilities Commission P.O. Box 1625, Station A 4545 Rhodes Drive Windsor, ON N8W 5T1 Tel: 519-251-7300 Fax: 519-255-7423 www.enwin.com	Refer to the Water Services Emergency Response Plan Section 2, Sub-Section 2.16 “Establishing Potable Water Filling Stations”
Accredited Laboratory Services	Caduceon Environmental Laboratories 3201 Marentette Ave. Windsor, ON N8X 4G3 Tel: 519-966-9541 Fax: 519-966-9567 contactwindsor@caduceonlabs.com	SGS Environmental Services 657 Consortium Crt. London, ON N6E 2S8 Tel: 519-672-4500 Fax: 519-672-0361 emily.crowey@sgs.com
Instrumentation Calibration	SCG Flowmetrix 2088 Jetstream Rd London, ON N5V 3P6 Tel: 519-870-3569 Fax: 519-268-3459 service@flowmetrix.ca	ACI Instrumentation Limited 14 Gormley Industrial Ave, Unit 5 Gormley, ON L0H 1G0 Tel: 905-888-0063 Fax: 905-888-6381 bhadresa@aciltd.ca
Meter Supply & Service	Evans Utility and Municipal Products Supply Limited 338 Neptune Crescent London, ON N6M 1A1 Tel: 519-453-6515 Fax: 519-453-7756 www.evansupply.com	Emco Waterworks 5255 County Rd 42 Windsor, ON N8N 2M1 Tel: 519-944-3626 Fax: 519-948-4210 www.emcoltd.com

Essential Supplies and Service List		
Product/Service	Primary Source	Secondary Source
AMR/ERT Supply & Service	Emco Waterworks 5255 County Rd 42 Windsor, ON N8N 2M1 Tel: 519-944-3626 Fax: 519-948-4210 www.emcoltd.com	Itron Headquarters 2111 N Molter Rd Liberty Lake, WA 99019 Tech Support 1-877-487-6602 Chris.Jay@wolseleyinc.ca
Health & Safety Supplies	Great Lakes Safety Supply 3303 Walker Rd. Windsor, ON N8W 3R9 Tel: 519-972-6605 Fax: 519-972-6620 sales@glspi.com	HD Supply 3350 North Talbot Rd. Tecumseh, ON Tel: 519-737-7023 Fax: 519-737-9157 Meredith.stpierre@hdsupply.com
SCADA & Instrumentation	Summa Engineering Limited 3230 American Drive Mississauga, ON L4V 1B3 Tel: 905-678-3388 Fax: 905-678-0444 www.summaeng.com	Onyx Engineering Ltd. 2960 Jefferson Blvd. Windsor, ON N8T 3J2 Tel: 519-948-4324 sales@onyxengineering.com
Construction Contracting Services	Coco Paving Inc. 6725 South Service Road East Windsor, ON N8N 2M1 Tel: 519-948-7133 Fax: 519-948-7469 www.cocogroup.com	Amico Contracting and Engineering 2199 Blackacre Drive Oldcastle, ON N0R 1L0 Tel: 519-737-1577 Fax: 519-737-1929 sdraper@triamico.com
Distribution Parts	Emco Waterworks 5255 County Rd 42 Windsor, ON N8N 2M1 Tel: 519-944-3626 Fax: 519-948-4210 www.emcoltd.com	Underground Specialties Wolseley 5340 Walker Road Oldcastle, ON N0R 1L0 Tel: 519-737-1263 Fax: 519-737-1712 bob.bezaire@wolseleyinc.ca

Essential Supplies and Service List		
Product/Service	Primary Source	Secondary Source
Disinfectant (Sodium Hypochlorite)	Emco Waterworks 5255 County Rd 42 Windsor, ON N8N 2M1 Tel: 519-944-3626 Fax: 519-948-4210 www.emcoltd.com	Underground Specialties Wolseley 5340 Walker Road Oldcastle, ON N0R 1L0 Tel: 519737-1263 Fax: 519-737-1712 bob.bezaire@wolseleyinc.ca
Water Testing Supplies	SCG Flowmetrix 2088 Jetstream Rd London, ON N5V 3P6 Tel: 519-870-3569 Fax: 519-268-3459 service@flowmetrix.ca	Hach Canada 3020 Gore Rd London, ON N5V 4T7 Tel: 800-665-7635 Fax: 866-259-0984 www.ca.hach.com
Locators	Ontario One Call 104 Cooper Dr., Suite 1 Guelph, ON N1C 1C3 Tel: 800-400-2255 solutions@accu-link.ca	G-Tel Engineering 1150 Frances Street London, ON N5W 5N5 Tel: 866-692-0208 Fax: 866-692-0809 bgowan@gtel.ca
Communications Supplies	Information Services Corporation of the Town of Tecumseh 917 Lesperance Road Tecumseh, ON N8N 1W9 Tel: 519-735-2184 sfuerth@tecumseh.ca	Kelcom 363 Eugenie St. E. Windsor, ON N8X 2Y2 Tel: 519-250-5070 www.kelcom.com
Computer Systems Supplies	Information Services Corporation of the Town of Tecumseh 917 Lesperance Road Tecumseh, ON N8N 1W9 Tel: 519-735-2184 sfuerth@tecumseh.ca	Summa Engineering Limited 3230 American Drive Mississauga, ON L4V 1B3 Tel: 905-678-3388 Fax: 905-678-0444 www.summaeng.com ONYX Engineering 2960 Jefferson Blvd. Windsor, ON N8T 3J2 Tel: 519-948-4324 Ext 210 Fax: 519-948-4840

Essential Supplies and Service List		
Product/Service	Primary Source	Secondary Source
Answering Service	Environmental Services Corporation of the Town of Tecumseh 917 Lesperance Road Tecumseh, ON N8N 1W9 Tel: 519-735-2184	After hour call Kelcom answering service Tel: 519-971-2866

Appendix 6- Public Works & Environmental Services Capital Works Plan:



The Corporation of the Town of Tecumseh

Public Works & Environmental Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Environmental Services

Date to Council: December 10, 2020

Report Number: PWES-2019-49

Subject: 2020-2024 Public Works & Environmental Services Five Year Capital Works Plan

Recommendations

It is recommended:

That the following Public Works and Environmental Services Projects for the 2020 year, and the Capital Project List 2020-2024, **be approved:**

	Previously Approved	Requested for 2020	Future Costs	Total Costs
Sidewalk Projects				
1. Sidewalk Repair Program - Various Locations	\$ -	\$ 69,000	\$ -	\$ 69,000
Sub-Total	\$ -	\$ 69,000	\$ -	\$ 69,000
Grants:	\$ -	\$ -	\$ -	\$ -
Recoveries:	\$ -	\$ -	\$ -	\$ -
Sidewalk Lifecycle Reserve:	\$ -	\$ 69,000	\$ -	\$ 69,000
New Infrastructure				
1. Riverside Drive Trail	\$ 850,000	\$ -	\$ -	\$ 850,000
2. CR42: CR19 to CR43 (Sidewalks and Bike Lanes)	\$ -	\$ 90,000	\$ 618,500	\$ 708,500
Sub-Total:	\$ 850,000	\$ 90,000	\$ 618,500	\$ 1,558,500
Grants:	\$ -	\$ -	\$ -	\$ -
Recoveries:	\$ -	\$ -	\$ -	\$ -
Infrastructure Reserve:	\$ 850,000	\$ 90,000	\$ 618,500	\$ 1,558,500

Council Report-Master (Rev 2020-09-27)

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Report No: PWES-2020-49

2020-2024 Public Works & Environmental Services Five Year Capital Works Plan

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	Previously Approved	Requested for 2020	Future Costs	Total Costs
Road Projects				
1. Road Paving - Tar & Chip	\$ -	\$ 100,000	\$ -	\$ 100,000
2. Road Paving - Asphaltting	\$ -	\$ 1,100,000	\$ -	\$ 1,100,000
3. Road Paving - Crack Sealing	\$ -	\$ 100,000	\$ -	\$ 100,000
4. CR42/43 Const. including 12th&Banwell Watermains	\$ -	\$ 22,450	\$ 20,450	\$ 42,900
5. Tecumseh Hamlet SPA EA FSR	\$ -	\$ 30,250	\$ 61,250	\$ 91,500
6. Tecumseh Sigange Project	\$ -	\$ 16,000	\$ -	\$ 16,000
7. Lesperance/VIA Rail Improvements	\$ -	\$ 155,000	\$ 1,129,000	\$ 1,284,000
8. Tecumseh Road CIP - Streetscape Plan & Final Design	\$ 1,422,640	\$ -	\$ 27,908,927	\$ 29,331,567
9. Manning Road/ETLD Drain Relocation - Phase 2	\$ 50,000	\$ 4,500	\$ 691,400	\$ 745,900
10. Manning Road Reconstruction - Phase 3	\$ 180,000	\$ 45,500	\$ 6,239,200	\$ 6,464,700
11. Sylvestre Drive Sanitary Sewer Extension	\$ 94,000	\$ -	\$ 983,400	\$ 1,077,400
12. Scully & St. Mark's Storm PS/Riverside Drive	\$ 43,600	\$ -	\$ 1,454,400	\$ 1,498,000
13. Cty Rd 46/Webster/Laval Sanitary Sewer Extension	\$ 120,750	\$ -	\$ 1,410,350	\$ 1,531,100
14. Del Duca Drive Sanitary Sewer	\$ 92,450	\$ -	\$ 1,018,450	\$ 1,110,900
15. Lanoue Street Improvements	\$ -	\$ 363,300	\$ 1,300,700	\$ 1,664,000
16. Tecumseh Road Sanitary Sewer	\$ -	\$ 672,600	\$ -	\$ 672,600
17. Tecumseh Road Path - Arlington to DM Eagle	\$ -	\$ 100,000	\$ -	\$ 100,000
18. Traffic Signal Controller Update	\$ 150,000	\$ -	\$ -	\$ 150,000
19. Expansion/Improvements PW Yard (North)	\$ 30,000	\$ -	\$ -	\$ 30,000
Sub-Total	\$ 2,183,440	\$ 2,709,600	\$ 42,217,527	\$ 47,110,567
Grants:	\$ -	\$ -	\$ 525,000	\$ 525,000
Recoveries:	\$ -	\$ -	\$ 2,180,000	\$ 2,180,000
Road Lifecycle Reserve:	\$ 2,183,440	\$ 2,709,600	\$ 39,512,527	\$ 44,405,567
Bridge Projects				
1. Bridge & Culvert Needs Study (>3m Span)	\$ -	\$ 39,000	\$ -	\$ 39,000
2. Bridge #1013 - Merrick Creek at 8th Concession	\$ 250,300	\$ -	\$ -	\$ 250,300
Sub-Total:	\$ 250,300	\$ 39,000	\$ -	\$ 289,300
Grants:	\$ -	\$ -	\$ -	\$ -
Recoveries:	\$ -	\$ -	\$ -	\$ -
Bridges Lifecycle Reserve:	\$ 250,300	\$ 39,000	\$ -	\$ 289,300
Water Projects				
1. Tecumseh Road CIP - Streetscape Plan & Final Design	\$ 50,250	\$ -	\$ 1,292,686	\$ 1,342,936
2. Manning Road/ETLD Drain Relocation - Phase 2	\$ 25,000	\$ 6,000	\$ 914,700	\$ 945,700
3. Hwy#3/County Road 11 Watermain Replacement	\$ 134,600	\$ 2,182,100	\$ -	\$ 2,316,700
4. Tecumseh Hamlet SPA EA FSR	\$ -	\$ 30,250	\$ 61,250	\$ 91,500
5. Cty Rd 46/Webster Laval Sanitary Sewer Exten.	\$ 80,400	\$ -	\$ 1,417,200	\$ 1,497,600
6. Del Duca Drive Sanitary Sewer	\$ 5,550	\$ -	\$ 25,750	\$ 31,300
7. CR42/43 Const. including 12th&Banwell Watermains	\$ -	\$ 758,600	\$ 811,400	\$ 1,570,000
8. 2020 Water and Wastewater Rates Study	\$ -	\$ 10,000	\$ -	\$ 10,000
Sub-Total:	\$ 295,800	\$ 2,986,950	\$ 4,522,986	\$ 7,805,736
Grants:	\$ -	\$ -	\$ -	\$ -
Recoveries:	\$ -	\$ -	\$ -	\$ -
Watermain Reserve Fund:	\$ 295,800	\$ 2,986,950	\$ 4,522,986	\$ 7,805,736

Services (PWES) Capital Works Plan is to maintain a consistently high level of service and strive to improve the Town's infrastructure components through these improvements.

The Town adopted an Asset Management Plan in December 2013, updated in May 2018, which serves as a guide as to what, and when, capital projects should be undertaken. The attached PWES Capital Project List 2020 – 2024 summarizes PWES projects proposed to be undertaken over the 2020 – 2024 period. Recommendations will be made requesting Council approve specific projects which begin in 2020 while adopting the five-year capital plan; this gives authorization to proceed with the 2020 projects while 2021 to 2024 projects will come back to Council in subsequent years for approval to proceed.

Comments

This section provides detailed information for all 2020 projects i.e. both those previously approved and those newly proposed for 2020. Comments are provided by **road, sidewalks and pathways, bridge, water, wastewater, storm sewer and municipal drain** categories. Generally, projects will contain expenditures related to all categories; for expediency purposes we have included project discussion on the main driver requiring the project be undertaken.

We have also included a section entitled **2021 to 2024 projects** that provides a higher level discussion on projects being proposed for future years. Some of the future projects are initiatives led by the County of Essex that will require further discussion regarding cost-sharing agreements with the Town. In addition, there are some potential new developments in the Town that, depending on the actual development proposals, may drive the need for improvements to existing Town infrastructure. At this time, it is premature to estimate Town costs related to these potential future projects.

The attached PWES Capital Project List 2020 – 2024 **has been prepared assuming adequate funding is available in all lifecycle categories**. Discussion on those categories that are deficient can be found in the Financial Implications Section.

Certain projects have been proposed to be phased in over a two-year period. Generally, this occurs because either the project scope is too large or costly to be completed in one construction season or would be too disruptive over too large of an area and too long a period of time to the adjacent properties. Projects being phased would be tendered as two separate tender calls.

In addition, all new projects, and infrastructure replacement projects, will be designed to be compliant with the current requirements of the *Accessibility for Ontarians with Disabilities Act* (AODA).

Road Projects

Public Works staff review roads for inclusion in the annual paving program. The Town's Road Needs Study has been used for reference in conjunction with Public Works input and suggestions from Council and residents to form the basis for the recommended annual paving projects. Public Works & Environmental Services investigates and categorizes the needs based on the condition of the roads in comparison with other roads of similar traffic volumes.

Report No: PWES-2020-49

2020-2024 Public Works & Environmental Services Five Year Capital Works Plan

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The list of roads proposed for tar and chip are based on Public Works staff review of observed conditions of the roads and maintenance needs in conjunction with Pavement Condition Index (PCI) ratings from the Road Needs Study. Based on this information, Administration recommends the installation of new tar and chip surfaces on the 9th Concession Road (CR8 to South Talbot Road) and the 10th Concession Road (CR8 to South Talbot Road). Public Works also suggest earmarking an amount for remedial tar and chip repairs on roads other than those planned for. Every spring Public Works finds areas that require some repair from winter plowing activities, and this would be used to address those concerns.

Administration recommends that as part of the annual paving program, an amount be set aside for crack sealing of Town roads to extend the lifespan of the pavement before more substantial repairs or replacement are required. It is recommended that \$100,000 be set aside for crack sealing.

RD 1. Tar & Chip, Asphaltting, and Crack Sealing

Work	Budget Allocation	Location of Work	Extent
Tar & Chip	\$100,000	9 th Concession Rd. 10 th Concession Rd.	CR8 to South Talbot Road CR8 to South Talbot Road
Asphaltting	\$1,100,000	Beachgrove Rd. Pentilly Rd. St. Thomas St. Papineau Crt. Shields St. Odessa Dr. Odessa Dr. Shawnee Rd. Wellwood Crt. Thalthorpe Pl.	Full Extent Beachgrove to Cul de Sac Centennial Dr. to Amberly Cres. Full Extent Lesperance to St. Alphonse Full Extent Cul-de-sac Gouin St. to County Rd. 22 Full Extent Full Extent
Crack Sealing	\$100,000	Various locations	To be determined

Administration recommends that the above noted road improvements be completed in 2020. Inspection and project administration will be carried out by Public Works & Environmental Services staff upon award of the Contract by Council. Quality control of the materials will be carried out by a Consulting Geotechnical Engineer.

Funding to be provided from Road Lifecycle Reserve in the amount of \$1,300,000.

RD 2. Tecumseh Signage Project

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$16,000	\$0	\$16,000

In response to various Councilor inquiries regarding Town of Tecumseh existing and new signage, Administration completed an inventory of existing signage within the Town. As a result of this inventory, it was confirmed that the existing signage varies greatly in design, branding, size, road classification, location and age. Based on these findings, Administration recommends that a study be undertaken to develop criteria for signage to create consistency in design, branding and location selection. It is further recommended that Generator Design of Canada Inc. be retained to undertake this study based on their previous development of the 2014 Town of Tecumseh Branding Standards.

Funding for this project is to be provided from the Road Lifecycle Reserve in the amount of \$16,000.

RD 3. Lesperance/VIA Rail Improvements

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$186,000	\$1,348,700	\$1,534,700

On November 28, 2014, Transport Canada established new regulations for on grade crossings that stated a railway company must assure the conformity of grade crossings within seven years of the new regulations coming into force. VIA inspected all grade crossings over its entire network and identified two rail crossings in the Town of Tecumseh – Lesperance Road north of Tecumseh Road (Mile: 99.31) and Tecumseh Road just west of Lacasse Blvd (Mile: 99.13).

Article 12 of the new regulation stipulated that the road authority must provide the railway company, in writing, certain information regarding each grade crossing under its authority within two years (by 2016). Based on their involvement with the Tecumseh Road Community Improvement Plan (CIP)/Streetscape project, Dillon Consulting Ltd. (Dillon) was retained by the Town to assist with providing the required documentation and design parameters as outlined in VIA's initial letter.

Subsequent to the Town's submission, VIA provided the results of their crossing inspections in a letter dated June 27, 2017. In this correspondence, VIA identified that minor improvements were required, such as faded road paint and consideration for additional safety features, as well as one major item at the crossing at Mile 99.31. VIA determined that the gradient for the road approach at Mile 99.31 exceeds the maximum gradient of 2% within 8 m of the nearest rail and 5% for 10 m beyond. The Town, as the local road authority, is therefore required to regrade the approach by late 2021. Failure to do so may lead Transport Canada to impose measures to address the required improvements.

The project cost of \$1,534,700 includes \$250,700 for storm sewers and \$1,284,000 for road reconstruction.

In order to meet Transport Canada's required improvement timelines, Administration recommends that the detailed design for the required improvements to the Lesperance/VIA Rail crossing be completed in 2020 with construction following in 2021. Administration further recommends that Dillon Consulting Ltd. be retained to complete the design based on their initial work related to the inspection of this crossing and their current involvement in the Tecumseh CIP/Streetscape project.

Funding for this project is to be provided from the following:

- Road Lifecycle Reserve in the amount of \$155,000
- Storm Sewer Lifecycle Reserve in the amount of \$31,000

RD 4. Lanoue Street Improvements

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$363,300	\$1,300,700	\$1,664,000

The Town of Lakeshore is planning to move forward with the design and construction of Lanoue Street and Commercial Drive to provide a second connection from Manning Road to Amy Croft Drive. These works will include improvements to the Manning Road and Lanoue Street intersection. It is our understanding that the Town of Lakeshore tentatively plans to design and construct this project in late 2019/2020.

The Town of Tecumseh anticipates that Lanoue Street, from Manning Road to approximately 200 metres west of Manning Road, will require improvements when the vacant property at the southwest corner of the Manning Road and Lanoue Street intersection is developed. To accommodate the added traffic from this future development to Lanoue Street, it is anticipated that Lanoue Street will need to be widened to a three-lane cross-section to allow for a center left turning lane. It is also anticipated that the Lanoue Street improvements may require improvements to the Tecumseh side of the Manning Road and Lanoue Street intersection.

As noted above, improvements to Lanoue Street in both Tecumseh and Lakeshore will require improvements to the Manning Road and Lanoue Street intersection. Accordingly, a cost sharing agreement will be required between both municipalities and the County of Essex for the intersection improvements. At this time, it is expected that these intersection improvements will be part of Lakeshore's 2020 design and construction project to which Tecumseh would be a contributing partner in accordance with a cost sharing agreement.

Administration recommends that the design for the Lanoue Street improvements be completed in 2020 with construction tentatively planned for 2021. To achieve potential economies of scale from the Lakeshore project, Administration recommends that the same consultant be used on the Tecumseh project. It is therefore recommended that Stantec Consulting Ltd. be retained to complete the design for the Lanoue Street improvements in 2020. It is further recommended that an allowance of \$200,000 be included in the 2020 Capital Works Plan for costs associated with the Town's portion of the Manning Road and Lanoue Street intersection improvements.

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The project cost estimate is \$1,664,000, all of which is attributable to road improvements.

Funding for this project is to be provided from the Road Lifecycle Reserve in the amount of \$363,300.

RD 5. Tecumseh Road Community Improvement Plan (CIP) – Streetscape Plan & Design

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$1,604,700	\$0	\$31,149,740	\$32,754,440

At the May 10, 2016 Special Meeting of Council, Council approved the recommendations (Motion SCM-01/16) of Planning & Building Services Report No.10/16 titled "Tecumseh Road Main Street CIP, Streetscape Plan and Detail Design and Utility Lines" that selected the preferred streetscape design that called for the removal of above-ground hydro poles, hydro wires and utility wires placing them underground.

At the July 12, 2016 Regular Meeting of Council, Council approved the recommendations (Motion RCM-257/16) of PWES Report No. 35/16 titled "Streetscape Plan and Design, Revised Scope & Budget Update, July 2016" that included a revised scope for 30% Schematic Design for the full project limits, 100% Tender Drawings and Specifications for Phase 1 and 90% Design Drawings and Specifications for Phase 2.

The tentative phasing and associated project costs are broken up into the five following phases:

- Phase 1: \$14,611,300 - Tecumseh Road (St. Anne to VIA) & Lesperance (St. Denis to Arbour)
- Phase 2: \$7,716,180 - Tecumseh Road (St. Anne to Shawnee)
- Phase 3: \$4,053,262 - Tecumseh Road (Shawnee to Southfield)
- Phase 4: \$4,187,530 - Tecumseh/Southfield intersection
- Phase 5: \$2,186,168 - Lesperance (McNorton to St. Denis)

Expected recoveries from the County of Essex are anticipated to be \$885,000 for a portion of the Tecumseh Road reconstruction (under the Connecting Link Agreement). Administration is still exploring recovery opportunities with some of the Utility companies.

At the April 23, 2019 Public Meeting of Council, Council received (Motion PCM-25/19) PWES Report No. 2019-28 titled "Tecumseh Road Main Street CIP – Streetscape Plan and Design Project Update – April 2019" which provided a project update. General items discussed during the meeting included concerns related to potential traffic impacts, the need for additional public consultation and potential cost savings if existing above ground hydro/utilities are maintained in the Streetscape improvements beyond Phases I and II. Accordingly, additional traffic analyses has been initiated and another Public Information Center is being planned for early 2020 to obtain additional feedback from the public.

A future report will be brought forward to Council with recommendations regarding a path forward for this project.

RD 6. Manning Road Improvement Project, Phase 3

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$180,000	\$48,000	\$6,554,800	\$6,782,800

The Town completed a Class Environmental Assessment (EA) in April 2010 for improvements to the East Townline Drain (Manning Road) Storm Pump Station. The proposed upgrades to the pump station and drain enclosure along Manning Road provided an opportunity to improve this portion of Manning Road by constructing an urban cross-section that accommodates pedestrians, cyclists and urban design features to create an aesthetically pleasing gateway into Lakewood Park. The limits of the Class EA included Manning Road from Riverside Drive to St. Gregory's Road.

Construction of Phase 1 was completed in 2014 which included the construction of the storm pump station and associated facilities, and the reconstruction of a section of Riverside Drive (Manning Road to Christy Lane), including the roundabout at the Manning Road/Riverside Drive intersection.

At the December 13, 2016 Regular Meeting of Council, Council approved the recommendation (Motion RCM-442/16) of PWES Report No. 54/16 titled "2017-2021 Public Works & Environmental Services Capital Works Plan" that authorized Administration to retain Dillon Consulting Ltd. to proceed with the engineering design for Phase 3 of this project. Phase 3 generally relates to the road re-construction component of the project from Riverside Drive to St. Gregory's Road including improvements to an urban cross-section that accommodates pedestrians, cyclists and urban design features to create an aesthetically pleasing gateway into Lakewood Park.

In the last two years, the Town has sought funding for this project under the following government funding programs:

- Disaster Mitigation and Adaptation Fund – 1st Intake
- Investing in Canada Infrastructure Program: Rural and Northern Communities Funding Stream – 2019 Intake

Unfortunately, this project was not selected for funding under either funding program.

The design for this project has proceeded through 2017, 2018 and, most recently, updates related to pedestrian crosswalks at the proposed roundabouts commenced in 2019. The original scope of the project has been expanded to include a new parking lot at Lakewood Park, flood control berming in Lakewood Park, road improvements on Little River Boulevard and the development of existing tree protection mitigation measures. In addition, significant effort has been expended on grant funding applications.

The Phase 3 project cost of \$6,782,800 includes \$6,464,700 for road works and \$318,100 for storm sewers.

Expected recoveries from the County of Essex are anticipated to be \$525,000 for a portion of the Bike Lanes (under the CWATS program), and \$1,295,000 for a portion of the Manning

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Road reconstruction (under the Connecting Link Agreement). The estimated recoveries will be refined once the actual tender costs are known.

Administration recommends updating/finalizing the design drawings/tender documents and obtaining all required approvals in 2020 with construction anticipated to proceed in 2022.

Funding for this project is to be provided from the following:

- Road Lifecycle Reserve in the amount of \$45,500
- Storm Sewer Lifecycle Reserve in the amount of \$2,500

RD 7. Traffic Signal Controller Upgrade

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$150,000	\$0	\$0	\$150,000

As part of the approved 2019-2023 Public Works & Environmental Services Five Year Capital Works Plan, Administration recommended that a yearly program be created to replace traffic signal controller equipment currently in use at the Town's signalized intersections. The Town utilizes electronic equipment that is compatible with the County of Essex highways infrastructure due to the many intersections on shared roads. The equipment currently in use is dated and replacement parts are no longer available. Both the Town and County road departments are transitioning towards the next generation of traffic controller equipment. This program will take multiple years to complete and coordination between both road departments will ensure seamless operation and the potential for integration in the future between the two systems. This project will continue in 2020.

Funding for this project was previously approved from the Road Lifecycle Reserve in the amount of \$150,000.

RD 8. Expansion/Improvements to the Public Works Yard (North)

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$30,000	\$0	\$0	\$30,000

Additional storage area is required for Public Works equipment and materials. As part of the approved 2019-2023 Public Works & Environmental Services Five Year Capital Works Plan, Administration recommended that the Lacasse Public Works yard be expanded westerly in 2019 to include a portion of the previous Town dog park which was closed approximately 8 years ago. It was recommended that the area be stripped of topsoil and that a treed earth berm be constructed around the perimeter of the site. Site modifications were to include construction of a gravel surface suitable for vehicle traffic and the construction of storage bins with concrete blocks.

Due to Public Works staff demands related to the Town's flood preparedness work, this project was delayed and will be undertaken in 2020.

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Funding for this project was previously approved from the Road Lifecycle Reserve in the amount of \$30,000.

Sidewalks and Pathway Projects

SW 1. 2020 Sidewalk Repair Projects

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$69,000	\$0	\$69,000

The 2020 sidewalk program will be based on sidewalk conditions determined through the comprehensive sidewalk inspection conducted annually. Currently this inspection is completed by Public Works staff and, along with input from Council and residents, this information is used to develop the annual program for recommended sidewalk repair and replacements. Should this inspection generate large amounts of sidewalk replacement, a Request for Quotation (RFQ) will be issued.

Trip hazards identified throughout the Town will be addressed to keep the Town in compliance with minimum maintenance standards. Currently, a detailed list of sidewalks to be repaired/replaced has not been generated. The funding requested is for an upset limit to carry out the work. A detailed list of recommended sidewalk replacements will be circulated to Council for their information prior to issuing the RFQ. Inspection and project administration will be carried out by PWES Staff upon award of the Contract.

Funding for this project is to be provided from the Sidewalk Lifecycle Reserve in the amount of \$69,000.

SW 2. County Road 42 Sidewalks and Bike Lanes (2020 - CR19/CR42 Roundabout)

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$90,000	\$618,500	\$708,500

As part of the County of Essex 25-year capacity program, County Road 42 and County Road 43 road improvements were identified and the County of Essex engaged Dillon Consulting Ltd. to undertake the detailed design for the following:

- Widening of County Road 42 from the City of Windsor border with the Town of Tecumseh to the Pike Creek located in the Town of Lakeshore.
- Diversion of County Road 43 from Shields Avenue to approximately 250 metres south of County Road 42.

The County of Essex is proposing to complete the County Road 42 improvements in a number of phases. The County's current schedule includes the construction of the County Road 19/42 roundabout and related municipal services in 2020. The County has not finalized the scope of the phases, however, it is anticipated that the remaining watermain and sanitary works may proceed in 2021 with the County Road 42/43 roundabout proceeding in 2022 and the

remaining roadwork proceeding in 2023. Sidewalk and bike lane construction will be included in related phases of this project. These future works are subject to change based on the County's ultimate phasing plan.

Administration recommends that the sidewalks and bike lanes be included in the County of Essex contract drawings and specifications for the County's County Road 42 improvements project and that an allowance for the Town's portion of the sidewalks and bike lanes related to the County Road 19/42 roundabout be included in the Town's 2020 Capital Works Plan. It is anticipated that the ultimate cost to the Town will be based on a future cost sharing agreement. It is further anticipated that a future report will be brought forward to Council regarding cost sharing.

Administration also recommends that Dillon Consulting Ltd. be retained to undertake contract administration and construction inspection for the Town's infrastructure that is to be installed as part of the County project due to their previous involvement with this project and to obtain efficiencies by using the same consultant as the County.

The project cost of \$708,500 includes \$439,000 for sidewalks and \$269,500 for bike lanes.

Funding for this project is to be provided from the Infrastructure Reserve in the amount of \$90,000.

SW 3. Tecumseh Road Multi-Use Pathway Re-construction (Arlington to DM Eagle Public School)

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$100,000	\$0	\$100,000

Public Works staff have reviewed the condition of the existing asphalt path located on the north side of Tecumseh Road between Arlington Boulevard and D.M. Eagle Public School. The existing path is approximately 600 metres long and 2.4 metres wide. Based on the path inspection, it has been determined that the existing condition of the path warrants full re-construction.

Administration recommends the full re-construction of this path in 2020. The works will include complete removal of the existing asphalt path/granular base and the construction of a new gravel base, 2.4 metre wide asphalt path and related restoration. Administration will proceed through a tender process to obtain prices to complete the work with a future report being brought forward to Council for tender award.

Funding for this project is to be provided from the Road Lifecycle Reserve in the amount of \$100,000.

SW 4. Riverside Drive Trail

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$850,000	\$0	\$0	\$850,000

At the October 25, 2016 Regular Meeting of Council, Council approved the recommendations (Motion RCM-372/16) of Planning & Building Services Report No. 32/16 titled "County Wide Active Transportation Study Plan, Town of Tecumseh 2017 Project, Trail on Riverside Drive from Tecumseh/Windsor Municipal Boundary to Manning Road" that endorsed in principle the construction of a 2.4m wide trail having a length of approximately 2.4km as a 2017 CWATS Project, subject to the resolution of a suitable design and determination to which side of the road the trail should be located.

At the December 13, 2016 Regular Meeting of Council, Council approved the recommendations (Motion RCM-442/16) of PWES Report No. 54/16 titled "2017-2021 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with the 2017 capital works projects including the design of the Riverside Drive Trail.

On Wednesday, September 13, 2017, a Public Information Centre was held to share details and gather public input on the Town's above noted initiative to construct a multi-use recreational trail along Riverside Drive. Options under consideration included constructing the trail in the public right-of-way on the south side of the road or on the north side of the road. Comments received were reviewed by Administration and the Consulting Team. Following consideration of the comments, it was recommended that the preferred location for the trail was within the public right-of-way on the south side of the road.

On Wednesday, June 6, 2018, a second Public Information Centre was held to discuss the detailed analysis that had been completed since the first Public Information Centre and to convey the resulting best design solution for the new multi-use trail. Concept plans showing the multi-use trail on the south side of the road were presented for discussion and to gather public input.

It is currently anticipated that the pathway design and utility relocations will be completed in 2020 upon a final determination of the preferred location of the trail by Council, with construction to follow in 2021. A report will be brought forward to Council in early 2020 with recommendations regarding the path forward for this project.

Funding for this project was previously approved from the Infrastructure Reserve in the amount of \$850,000.

Bridge Projects

BR 1. Bridge and Culvert Needs Study (with Spans > 3.0m)

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$39,000	\$0	\$39,000

There are a total of eighteen (18) existing bridges and culverts with a span greater than 3.0 metres that were inspected as part of the Bridge and Culvert Needs Study in 2018. Inspections of the eighteen structures within the Town were completed in accordance with the latest version of the Ontario Structure Inspection Manual (OSIM) published by the Ministry of Transportation of Ontario (MTO).

Inspections of the bridges and culverts are to take place every two years as legislated by Section 2(3) of The Public Transportation and Highway Act: "The structural integrity, safety and condition of every bridge shall be determined through the performance of at least one inspection in every second calendar year under the direction of a professional engineer and in accordance with the Ontario Structure Inspection Manual". It is now necessary to carry out a new Bridge and Culvert Needs Study in 2020 to comply with the legislation.

Administration recommends retaining Dillon Consulting Ltd. to provide engineering services on this project based on their past completion of the 2003, 2008, 2014, 2016 and 2018 Bridge and Culvert Needs Studies.

Funding for this project is to be provided from the Bridge Lifecycle Reserve in the amount of \$39,000.

BR 2. Bridges (with Spans > 3.0m) – Bridges No. 1004, 1013 & 1014

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$760,900	\$0	\$0	\$760,900

At the November 8, 2016 Regular Meeting of Council, Council approved the recommendations (Motion RCM-386/16) of PWES Report No. 48/16 titled "2016 Bridge and Culvert Needs Study (Structures with Spans > 3.0m)" that authorized Administration to use the recommendations contained within the report to form the basis of the annual PWES Capital Works Plan. The 2016 Bridge and Culvert Needs Study (Structures with Spans > 3.0m) identified the following Bridges for rehabilitation within a 1-5 year time frame.

- Bridge No.1004 (Pike Creek at 12th Concession Road)
- Bridge No.1013 (Merrick Creek at 8th Concession Road)
- Bridge No.1014 (Colchester Townline Drain at 6th Concession Road)

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that authorized Administration to proceed with the 2019 capital works projects which included the rehabilitation of Bridges No. 1004, 1013 & 1014 in 2019 and continuing with Dillon Consulting Ltd. for contract administration and inspection during construction.

All three bridges were combined into a single tender package and five (5) tenders were received by the Town Purchasing Officer on February 7, 2019.

At the February 26, 2019 Regular Meeting of Council, Council approved the recommendations (Motion RCM-53/19) of PWES Report No. 2019-16 titled "Rehabilitation of Bridges No. 1004, 1013 and 1014 – Tender Award" which authorized the award of the contract to South Shore Contracting of Essex County Inc. and that the previously approved project budget be increased from \$750,900 to \$760,900.

The rehabilitation of Bridges No. 1004 and 1014 are on schedule to be completed in 2019. The rehabilitation of Bridge No. 1013 will commence in spring 2020.

Funding for this project was previously provided from the Bridges Lifecycle Reserve in the amount of \$760,900.

Water & Wastewater Projects

Water and wastewater projects are intended to upgrade existing infrastructure while also providing for future development.

The methodology used to provide Council with recommendations for yearly capital projects are:

- a review of the Town of Tecumseh Water & Wastewater Master Plan.
- a review of lifecycle dollars available and possible government funding.
- a review of the Ministry of Environment regulations/guidelines.
- a review of other planned capital projects.
- a review of private land development opportunities.
- a review of possible opportunities to improve/upgrade the existing infrastructure.

Water Projects

WA 1. Highway No.3 / County Road 11 Watermain Replacement

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$134,600	\$2,182,100	\$0	\$2,316,700

The Water Division had previously recommended replacement of the existing 200mm diameter ductile iron watermain at the Highway No.3 / County Road 11 intersection. In recent years, the 200mm diameter ductile iron watermain has been failing due to the age and material of the pipe.

The recommended works consist of the following:

- Replacement of approximately 410m of 200mm ductile iron watermain on Highway No.3 from County Road 11 westerly with a new 300mm diameter PVC;
- Replacement of approximately 345m of 200mm ductile iron watermain on County Road 11 from McCord Lane to just south of Highway No.3 with a new 300mm diameter PVC;
- The installation of approximately 430m of 300mm diameter PVC watermain on Highway No.3 from County Road 11 to Oldcastle Road.

At the December 12, 2017 Regular Meeting of Council, Council approved the recommendations (Motion RCM-441/17) of PWES Report No. 57/17 titled "2018-2022 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with the 2018 capital works projects which included retaining Stantec Consulting Ltd. to complete the engineering design for the Highway No.3 / County Road 11 Watermain Replacement project in 2018.

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At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that included an update to this project. Due to on-going discussions with the Ontario Ministry of Transportation (MTO), the project schedule was revised to allow sufficient time to complete the engineering design and obtain approvals in 2019 followed with construction in 2020.

Administration recommends that the Highway No.3 / County Road 11 Watermain Replacement project be constructed in 2020. As Stantec Consulting Ltd. is nearing completion of the engineering design, Administration also recommends continuing with Stantec Consulting Ltd. to undertake tendering, contract administration and construction inspection in 2020.

Funding for this project is to be provided from the Watermain Reserve Fund in the amount of \$2,182,100.

WA 2. County Road 42 and County Road 43 Improvements

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$825,950	\$1,083,750	\$1,909,700

As part of the County of Essex 25-year capacity program, County Road 42 and County Road 43 road improvements were identified and the County of Essex engaged Dillon Consulting Ltd. to undertake the detailed design for the following:

- Widening of County Road 42 from the City of Windsor border with the Town of Tecumseh to the Pike Creek located in the Town of Lakeshore.
- Diversion of County Road 43 from Shields Avenue to approximately 250 metres south of County Road 42.

Based on these proposed road improvements, Administration identified municipal services within the project limits that need to be designed and incorporated into the County's overall project. These municipal services included watermain, sanitary sewers and overland storm water flow routing from existing development located on the north side of County Road 42 to the Pike Creek located to the south of County Road 42.

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that included retaining Dillon Consulting Ltd. to complete advanced engineering design for the above noted municipal services to allow this work to be incorporated into the County of Essex contract drawings and specifications for their County Road 42 improvements project.

Based on the advanced engineering completed in 2019, it is recommended that the following Town municipal services be included in the County of Essex County Road 42 improvements project:

- Construction of a new 400 mm diameter trunk watermain on County Road 19 in the vicinity of the proposed County Road 19/42 roundabout.

- Construction of a new 400 mm diameter trunk watermain from the proposed County Road 19/42 roundabout to the 12th Concession Road.
- Replacement of a section of existing 150 mm diameter watermain on the 12th Concession Road with new 150 mm diameter PVC watermain.
- Replacement of a section of the existing 200 mm diameter watermain on County Road 43 with new 200 mm diameter PVC watermain.
- Replacement of existing sanitary connections on County Road 42 with new PVC service connections.
- Installation of landscaping within the proposed roundabouts at County Road 19/42 and County Road 42/43 to enhance the aesthetic nature of the entry points into the Town of Tecumseh.

(Note: The above noted 400 mm diameter trunk watermain is in accordance with the 2018 Water and Wastewater Master Plan Update and are components of project W-5A (Trunk watermain on Manning Road–CP Railway to CR42) and project W-5B (Trunk watermain on CR42–11th Concession Road to Manning Road).)

The County of Essex is proposing to complete the County Road 42 improvements in a number of phases. The County's current schedule includes the construction of the County Road 19/42 roundabout in 2020. This will include the 400 mm diameter trunk watermain on County Road 19, a portion of the 400 mm diameter trunk watermain on County Road 42, sanitary service connection improvements on a portion of County Road 42 and landscaping within the County Road 19/42 roundabout. The County has not finalized the scope of the phases, however, it is anticipated that the remaining watermain and sanitary works may proceed in 2021 with the County Road 42/43 roundabout proceeding in 2022 and the remaining roadwork proceeding in 2023. These future works are subject to change based on the County's ultimate phasing plan.

Administration recommends that the above noted municipal service improvements be included in the County of Essex contract drawings and specifications for the County's County Road 42 improvements project and that the Town's servicing costs associated with the construction of the County Road 19/42 roundabout be included in the Town's 2020 Capital Works Plan. Once the County's ultimate phasing plan is determined, Administration will confirm the applicable costs for municipal infrastructure in future capital works plans.

Administration also recommends that Dillon Consulting Ltd. be retained to undertake contract administration and construction inspection for the Town's infrastructure that is to be installed as part of the County project due to their previous involvement with advance engineering for this project and to obtain efficiencies by using the same consultant as the County.

The project cost of \$1,909,700 includes \$42,900 for road works, \$1,570,000 for watermain and \$296,800 for sanitary sewers.

Funding for this project is to be provided from the following:

- Road Lifecycle Reserve in the amount of \$22,450
- Watermain Reserve Fund in the amount of \$758,600
- Wastewater Sewers Reserve Fund in the amount of \$44,900

WA 3. 2020 Water and Wastewater Rates Study

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$20,000	\$0	\$20,000

The last update to the Town's water and wastewater rates was completed in 2015. It is important to update these rates to ensure full cost recovery for the water and wastewater services provided by the Town. Full cost recovery is the generation of sufficient revenues to cover the cost of providing water and wastewater services which includes operations, capital works and the appropriate reserve contributions necessary for asset lifecycle replacement and growth.

Administration recommends that a study be undertaken in 2020 to update the Town's water and wastewater rates. The results of this study will be used as a guide to set the water and wastewater rates for budget years 2021 to 2025. Administration plans to complete the majority of this study in-house, however, it is recommended that an allowance of \$20,000 be included in the 2020 Capital Works budget for potential external consulting assistance and peer review.

Funding for this project is to be provided from the following:

- Watermain Reserve Fund in the amount of \$10,000
- Wastewater Sewers Reserve Fund in the amount of \$10,000

Wastewater Projects

WW 1. Tecumseh Road Sanitary Sewer – Lesperance to Southfield

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$150,000	\$2,917,700	\$0	\$3,067,700

The Tecumseh Road Sanitary Sewer – Lesperance Road and Southfield Drive is located within the Tecumseh Road Community Improvement Plan (CIP) area. The Tecumseh Road CIP area is currently serviced by a sanitary sewer collection system that includes a sub-trunk sewer on Tecumseh Road, which directs sewage flows to the Lesperance Road trunk sewer and ultimately to the Gauthier (Cedarwood) Pump Station. Over time, the Town has implemented several strategies to address sanitary servicing requirements within the Tecumseh Road CIP area as development has progressed.

Part of the original 2013 Tecumseh Road CIP area draft functional servicing investigations included a review of the existing Tecumseh Road sanitary sewer under both existing development conditions and the future full build-out scenario based on future population and building density estimates. Based on these investigations, it was determined that the existing Tecumseh Road sanitary sewer did not have sufficient capacity to accommodate the flows resulting from the full build-out of the Tecumseh Road CIP area based on the conceptual development plan. It was further determined that, when improvements are warranted, the most appropriate solution would be to increase the diameter of the existing sanitary trunk sewer on

Tecumseh Road, from east of Southfield Drive to Lesperance Road. Accordingly, Administration has been monitoring development within this area to determine when upgrades to the existing sanitary sewer system should be initiated.

In 2018, four potential development proposals within the Tecumseh CIP area west of St. Anne Street were presented to the Town which included approximately 216 apartment/condo units and 2,635 m² of commercial space. An assessment of the existing sanitary sewer, with the addition of these four potential development proposals, was completed and available capacity was confirmed for same. With these four developments, however, the capacity of the existing sewer is maximized and any further new development will require sewer improvements. More recently in 2019, another property owner near Southfield Drive approached Administration with a conceptual development proposal that included approximately 160 apartment units. This property is also serviced by the existing Tecumseh Road sanitary sewer. If the other four developments proceed, the Tecumseh Road sanitary sewer will need to be upgraded in order for this development to move forward. Based on discussions with this landowner, it is Administration's understanding that, if this development proceeds, sanitary servicing will be required by 2021.

In order to ensure that development opportunities are not adversely impacted by insufficient sanitary sewer capacity, the Tecumseh Road Sanitary Sewer – Lesperance Road and Southfield Drive will need to be upgraded in 2020.

At the June 25, 2019 Regular Meeting of Council, Council approved the recommendations (Motion RCM-187/19) of PWES Report No. 2019-39 titled "Amendment to 2019-2023 PWES Five Year Capital Works Plan - Tecumseh Road Sanitary Sewer - Lesperance Road to Southfield Drive" that authorized the addition of the Tecumseh Road Sanitary Sewer - Lesperance Road and Southfield Drive to the 2019-2023 PWES Five Year Capital Works Plan. This Motion further authorized Administration to retain Dillon Consulting Ltd. to complete the detailed design, plans, specifications and tender documents and to assist with obtaining all required approvals for this project in 2019 with construction anticipated to proceed in 2020.

The project cost of \$3,067,700 includes \$672,600 for road works and \$2,395,100 for sanitary sewers.

Administration recommends that the Tecumseh Road Sanitary Sewer - Lesperance Road to Southfield Drive be constructed in 2020. As Dillon Consulting Ltd. is nearing completion of the engineering design, Administration further recommends continuing with Dillon Consulting Ltd. to assist with tendering and to complete the contract administration and inspection for the construction of the Tecumseh Road Sanitary Sewer - Lesperance Road to Southfield Drive in 2020.

Funding for this project is to be provided from the following:

- Road Lifecycle Reserve in the amount of \$672,600
- Wastewater Sewers Reserve Fund in the amount of \$2,245,100

WW 2. Sylvestre Drive Sanitary Sewer Extension

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$285,000	\$0	\$1,574,900	\$1,859,900

This project consists of the extension of a sanitary sewer on Sylvestre Drive from Sylvestre Drive to County Road 19 (approximately 410-metres), as well as adjacent to the County Road 19 right-of-way through a future easement (approximately 215-metres). It is also proposed to rehabilitate Sylvestre Drive from Jamsyl Drive to County Road 19 (approximately 760-metres). The installation of the sanitary sewers to service the properties identified within the study area is in keeping with Town's Water & Wastewater Master Plan, the Provincial Policy Statement, the County of Essex's Official Plan, and the Town's Official Plan to provide full municipal services to those properties within designated Settlement Areas.

As part of this project, a Schedule B Class Environmental Assessment was required to be undertaken due to the extension of a sanitary sewer through a future easement.

At the December 12, 2017 Regular Meeting of Council, Council approved the recommendations (Motion RCM-441/17) of PWES Report No. 57/17 titled "2018-2022 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with the 2018 capital works projects which included retaining Dillon Consulting Ltd. to complete the engineering design work and the Class Environmental Assessment for the Sylvestre Drive Sanitary Sewer Extension project.

At the July 23, 2019 Regular Meeting of Council, Council approved the recommendations (Motion RCM-232/19) of PWES Report No. 2019-31 titled "Sylvestre Drive Sanitary Sewer Extension Municipal Class Environmental Assessment, Schedule B Filing the Notice of Study Completion" that authorized administration to file the Notice of Study Completion and initiate the mandatory 30-day public and agency review period. Accordingly, the Notice of Study Completion was issued and the 30-day public and agency review period occurred from August 2, 2019 to September 1, 2019. All comments received were satisfactorily addressed and on October 9, 2019 Dillon Consulting Ltd. issued correspondence advising that the Sylvestre Drive Sanitary Sewer Extension Class Environmental Assessment is considered approved under the Municipal Class EA process and may proceed to detailed design and implementation.

Dillon Consulting Ltd. has completed the Class Environmental Assessment and preliminary functional design for this project and will be continuing with the detailed design, obtaining required approvals, tender document preparation, assisting with easement acquisition and utility relocations in 2020. Construction is tentatively planned to proceed in 2021. A future report will be brought forward to Council with recommendations related to easement acquisition.

Estimated recoveries from landowners for the sanitary sewers would be approximately \$729,300. Assessments to be calculated by Administration and invoiced back to the landowners by means of a Part XII by-law (*Municipal Act*, s.391). The project cost of \$1,859,900 includes \$1,077,400 for road works, \$729,300 for sanitary sewers and \$53,200 for storm sewers.

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Funding for this project was previously provided from the following:

- Road Lifecycle Reserve in the amount of \$94,000
- Wastewater Sewers Reserve Fund in the amount of \$186,800
- Storm Sewer Lifecycle Reserves in the amount of \$4,200

WW 3. County Road 46, Webster and Laval Sanitary Sewer Extension

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$370,250	\$75,000	\$4,715,550	\$5,160,800

The County Road 46, Webster and Laval Sanitary Sewer Extension is a continuation of the sanitary sewer servicing within the 8th Concession Road sanitary service area. The project includes the extension of a sanitary sewer along County Road 46 from the 8th Concession Road to Webster Drive, as well as on Webster Drive (entire length), and the extension of a sanitary sewer through an easement just south of Highway 401. This project will be coordinated with the County's planned road rehabilitation for County Road 46.

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that authorized Administration to retain Dillon Consulting Ltd. to complete the engineering design for the County Road 46, Webster and Laval Sanitary Sewer Extension in 2019 with construction tentatively planned for 2020.

Through detailed design it has been determined that additional storm sewer improvements are required on Webster Drive, that the existing local watermain on County Road 46 requires replacement and that certain utilities need to be relocated to facilitate this project. Based on this information, it is now proposed that the project design, advanced utility relocations, easement acquisition and obtaining all required approvals will continue in 2020 with construction anticipated to proceed in 2021. A future report will be brought forward to Council with recommendations related to easement acquisition.

Estimated recoveries from landowners for the sanitary sewers would be approximately \$1,767,000 and will be refined once the By-Law for the 8th Concession Road sanitary service area is completed. The project cost of \$5,160,800 includes \$1,531,100 for road reconstruction, \$646,200 for storm sewers, \$1,485,900 sanitary sewers and \$1,497,600 for watermain.

Funding for this project is to be provided from the Storm Sewer Lifecycle Reserve in the amount of \$75,000.

WW 4. Del Duca Drive Sanitary Sewer Extension

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$297,350	\$75,000	\$2,735,650	\$3,108,000

The Del Duca Drive Sanitary Sewer Extension is a continuation of the sanitary sewer servicing within the 8th Concession Road sanitary service area. The project includes the extension of a sanitary sewer along Del Duca Drive.

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that authorized Administration to retain Stantec Consulting Ltd. to complete the engineering design for the Del Duca Drive Sanitary Sewer Extension in 2019. At that time, it was anticipated that utility relocations and easement acquisition would occur in 2020 with construction proceeding in 2021.

Preliminary design drawings have been prepared and Stantec Consulting Ltd. is currently investigating the condition of the existing storm sewer outlet and existing utility conflicts. It is proposed that the completion of the project design, advanced utility relocations, easement acquisition and obtaining all required approvals will occur in 2020. Based on competing priorities, it is now anticipated that construction may proceed in 2022. A future report will be brought forward to Council with recommendations related to easement acquisition.

Estimated recoveries from landowners for the sanitary sewers would be approximately \$1,050,000 and will be refined once the By-Law for the 8th Concession Road sanitary service area is completed. The project cost of \$3,108,000 includes \$1,110,900 for road reconstruction, \$891,200 for storm sewers, \$1,074,600 for sanitary sewers and \$31,300 for watermain.

Funding for this project is to be provided from the Storm Sewer Lifecycle Reserve in the amount of \$75,000.

WW 5. Sanitary Sewer Model Update and Flow Monitoring

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$250,000	\$45,000	\$0	\$295,000

In 2011 Council received the report (Motion RCM-227/11) titled "Town of Tecumseh, Sanitary Sewer Assessment Report, dated May 2011". The report included a recommendation that the Town update their existing sanitary sewer model every three to four years, as well as carryout a flow monitoring program.

In 2011, Dillon Consulting Ltd. was retained to update the sanitary sewer model for the sanitary sewer infrastructure located north of County Road 22 in order to assess the impacts of a proposed development. The findings of the model update and related assessment led to the preparation of the "Sanitary Sewerage Collection System Improvements Class Environmental Assessment – April 2013 (Dillon) to address the recommended improvements. Following completion of the EA, Dillon Consulting Ltd. was retained to update the sanitary sewer model for the sanitary infrastructure located south of County Road 22 which was completed in late 2013. Both models were then integrated into one model.

At the June 26, 2018 Regular Meeting of Council, Council approved the recommendation (Motion RCM-194/18) of PWES Report No. 2018-17 "Flood Mitigation Strategy" that the report

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be received. Continued flow monitoring and sanitary sewer modeling were recommended flood mitigation strategies in the report. The report further identified that updating the sanitary sewer model would be incorporated within the 5-year PWES Capital Works Plan.

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that authorized Administration to retain Dillon Consulting Ltd. to complete the Sanitary Sewer Model Update and Flow Monitoring project.

Following commencement of the study, the original project scope was expanded to determine if the impacts of the Town's Inflow and Infiltration Removal project could be quantified based on the 2019 flow monitoring program to assist with sewer capacity assessments for new development proposals. In addition, to obtain design efficiencies and improve available information to assist with development inquiries, Administration recommends expanding the scope of work in 2020 to include modelling assessments related to the Tecumseh CIP area and the reconfiguration of the future sanitary trunk servicing within the Tecumseh Hamlet area (including integration of the Tecumseh Hamlet and Manning Road Secondary Planning areas and refinements to the existing County Road 42 service area for both dry and wet weather flow conditions).

Funding for this project is to be provided from the Wastewater Sewers Reserve Fund in the amount of \$45,000.

WW 6. Manhole Restoration Program

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$100,000	\$50,000	\$0	\$150,000

Administration recommends a program whereby manholes that have been constructed in the travelled lanes of Town roadways will be reviewed and manholes that are found to have a significant difference in elevation between the rim and the surrounding roadway will be repaired. The method of repair is a technique that has been used by PWES for the last few years. It involves a machine to core drill around the manhole lid and the manhole is rebuilt and levelled to the surrounding pavement elevation. This method results in significantly less cracking of existing roadway pavement due to the circular excavation. It also allows the area around the manhole to be compacted prior to reinstatement of any pavement. PWES has experienced good success with this restoration method and it has been used by other municipalities to reconstruct manholes in travelled lanes.

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that authorized Administration to proceed with a manhole restorations plan in 2019. Based on the success of this program, Administration recommends that the program be continued in 2020.

Funding for this project is to be provided from the following:

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- Wastewater Sewers Reserve Fund in the amount of \$25,000
- Storm Sewer Lifecycle Reserve in the amount of \$25,000

Storm Sewer Projects

ST 1. Shoreline Management Plan

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$350,000	\$0	\$350,000

At the June 26, 2018 Regular Meeting of Council, Council approved the recommendation (Motion RCM-194/18) of PWES Report No. 2018-17 "Flood Mitigation Strategy" that the report be received. Completion of a Shoreline Management Plan was one of the recommended flood mitigation strategies in the report. The report further identified that completion of a Shoreline Management Plan would be incorporated within the 5-year PWES Capital Works Plan.

In 1973 the City of Windsor and surrounding areas (including Tecumseh and St. Clair Beach) experienced widespread flooding from Lake St. Clair and the Detroit River due to a combination of record high lake levels and strong on-shore winds. The properties along the shoreline as well as inland (lower lying) properties sustained significant flood damage during that event.

The water levels in Lake St Clair reached new record highs in 1986 (from the previous record set in 1973) which prompted the Essex Region Conservation Authority (ERCA) in coordination with many local municipalities to undertake Shoreline Management Plans, including:

- The City of Windsor, 1986
- Town of LaSalle (Township of Sandwich West), 1988
- Town of Amherstburg (Township of Malden), 1989
- Town of Kingsville (Township of Gosfield South), 1990

In 2019 water levels in Lake St. Clair exceeded the previous record high water levels set in 1986. In response to the high lake level, ERCA attended the May 14, 2019 Regular Meeting of Council and gave a presentation on the Great Lakes Water Levels Current Conditions and Outlook. Following the ERCA presentation, Council approved Motion RCM-124/19 which included the following:

- Authorized the creation of a new Sandbag Program to make sand and sandbags available at no cost to residents living adjacent to Lake St. Clair and Pike Creek;
- Authorized the purchase of new equipment and materials to assist in filling sandbags;
- Authorized the installation of protective measures on the Town's critical infrastructure, being the storm and sanitary pump stations.

In 2019, Administration also used LiDAR (light detection and ranging) topographical information to determine low-lying areas along the shorelines of Lake St. Clair and Pike Creek that are potentially vulnerable to lake flooding. Property owners at these locations were contacted and offered filled sandbags. It was hoped that strategically placed mitigation

measures may reduce the potential for inland flooding and adverse impacts to private properties. It should be noted, however, that sandbags are considered a temporary measure to reduce the potential for lake flooding and that no work will completely remove the potential for flooding. In addition, high lake water levels combined with significant on-shore wind events exacerbate the potential for lake flooding within the Town of Tecumseh. Current lake water level forecasts from the Department of Fisheries and Oceans Canada show the potential for Lake St. Clair water levels to again exceed the historic 1986 high water levels in 2020. Should these high water level predictions materialize, the Town will remain in a heightened state of flood susceptibility in 2020 and potentially beyond.

In order to understand the Town's vulnerability to lake flooding and to develop appropriate mitigation strategies, a Shoreline Management Plan is required. The required Shoreline Management Plan should generally include the following components:

- Re-assessment of the 1:100-year Lake St. Clair flood elevations.
- A detailed shoreline property inventory including topographic information for each shoreline property within the Town of Tecumseh.
- Determination of vulnerable flood locations along the shoreline.
- Determination of extent of inland flooding based on lake water conveyance through vulnerable areas.
- Assessment of potential impacts of climate change.
- Assessment of lake flooding plus rain generated runoff (Integration with Dillon 2D Storm Drainage Master Plan model).
- Damage value estimates for public and private properties.
- High level conceptual mitigation measures that could be considered in the next phases of the study.

Similar Shoreline Management Plans are being developed for other municipalities along Lake St. Clair and Lake Erie. Currently, Zuzek Inc. is undertaking shoreline assessments for the Town of Lakeshore, the Municipality of Leamington and the Municipality of Chatham-Kent. Zuzek Inc. has a long history of project experience in the County of Essex dating back to 1998 as well as other locations within the Great Lakes. Zuzek Inc. is also currently leading a comprehensive investigation into the impacts of climate change on coastal storms for Lake Erie and Lake Ontario with funding support from Natural Resources Canada's (NRCan) Adaptation Platform.

Based on the above, Administration recommends that a Shoreline Management Plan be undertaken for the Town of Tecumseh in 2020. It is further recommended that Zuzek Inc. be retained to complete the Shoreline Management Plan based on their related experience and the anticipated benefits of using the same consultant that is currently completing a Shoreline Management Plan for the Town of Lakeshore.

Funding for this project is to be provided from the Storm Sewer Lifecycle Reserve in the amount of \$350,000.

ST 2. Stormwater Rate Study

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$45,000	\$0	\$45,000

At the December 13, 2016 Regular Council Meeting, Council approved the recommendations (Motion RCM-442/16) of PWES Report No. 54/16 titled "2017-2021 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with the Storm Drainage Master Plan.

At the June 25, 2019 Special Meeting of Council, Council approved the recommendations (Motion SCM-17/19) of PWES Report No. 2019-35 titled "Storm Drainage Master Plan – Filing the Notice of Study Completion" that authorized Administration to advertised the Notice of Study Completion to initiate the mandatory 30-day public and agency review period. Accordingly, a Notice of Study Completion was issued and the 30-day public and agency review period ended on August 19, 2019. All comments received were satisfactorily addressed and on October 24, 2019 Dillon Consulting Ltd. issued correspondence advising that the Town of Tecumseh Storm Drainage Master Plan, including the specified Schedule B projects that form part of the preferred solutions, is considered approved under the Municipal Class EA process and may proceed to detailed design and implementation.

The purpose of the Storm Drainage Master Plan was to address the impacts of surface flooding on the mainly urbanized residential areas of the Town located along the northern and eastern limits of the municipality. This included assessments of storm pump stations, gravity outfalls and the respective service areas minor (sewer) and major (roadway) systems discharging to Lake St. Clair and Pike Creek.

Based on the findings of the Storm Water Master Plan, significant improvements are recommended to existing Town storm infrastructure to reduce surface flooding concerns resulting in 'level of service improvements'. The recommended solutions to improve the level of service for the storm infrastructure within the study area are estimated to cost \$106.59M. In addition to the Storm Drainage Master Plan, the Town is also in the process of completing the Oldcastle Stormwater Master Plan. This study will also provide recommendations for stormwater infrastructure 'level of service improvements' as well as the related costs for same. As identified within the Town's 2018 Asset Management Plan (v2.0), these type of recommended improvements are to be incorporated into the annual Public Works & Environmental Services Capital Works Plan moving forward.

The current allocation to the Storm Sewer Reserves (\$902,700) is intended for the replacement of the existing assets and is not meant for 'level of service improvements'. There was no significant increase in the Storm Sewer Reserves within the 2019 budget, however it was intended that the 'level of service improvements' may be funded from the New Infrastructure Reserve in the interim. This approach may find storm infrastructure projects competing for funding with other Council initiatives such as the Multi-Use Sportsplex and the Main Street CIP Streetscape project.

To address these challenges, the Town needs to have a long-term plan that defines, prioritizes and appropriately funds the storm system needs, while recognizing many competing interests.

Similar to water and wastewater rates, many municipalities are considering the implementation of a user fee system for stormwater services.

Based on the significant funding requirements needed to implement the Town's recommended stormwater infrastructure improvements, it is recommended that the Town undertake a Stormwater Rate Study to assess the feasibility of implementing a user fee system. The objective of the Stormwater Rate Study would be to provide for the long-term protection and enhancement of the Town's stormwater infrastructure through effective and efficient stormwater management infrastructure capital construction, operations and maintenance. In assessing the potential of a user fee system as a primary revenue stream for stormwater services, the evaluation of existing data and the selection of a preferred rate methodology are critical steps in choosing an equitable way to distribute stormwater fees across a community. The identified rate structure must ensure funding is sufficient to meet revenue requirements and is consistent with all relevant legislation, regulations, policies, by-laws, etc. Items to be considered include the following:

- Ability to impose stormwater fees under current provincial and federal legislation;
- Applicability to capital vs. operating costs;
- Applicability for recovery of total program costs vs. a subcomponent of the service;
- Ability for use on a Town-wide vs. area-specific basis;
- Variability and sustainability of the rates for cost recovery;
- Ease of calculating the rates and administration;
- Ease of understanding by the public and general acceptance of the approach.

In addition, an implementation plan strategy to support the rate structure will need to be developed and evaluated.

Administration recommends that Watson & Associates Economists Ltd. (Watson) be retained to undertake a Stormwater Rate Study in 2020. Watson has previously completed studies for the Town of Tecumseh and is familiar with the Town's assets. Most recently, Watson completed the Town's 2019 Development Charges Study. In addition, Watson is one of Canada's leading economic consulting firms and they have completed stormwater rate studies for other municipalities.

Funding for this project is to be provided from the Storm Sewer Lifecycle Reserve in the amount of \$45,000.

ST 3. Manning Road Secondary Plan Area – Stormwater Facility

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$40,000	\$2,740,000	\$9,955,000	\$12,735,000

The Town of Tecumseh completed the Manning Road Secondary Plan Area, Stormwater Management Class Environmental Assessment (EA) Environmental Study Report (ESR) in April 2010. The preferred stormwater management solution resulting from this EA included a single regional stormwater management facility at the southerly limits of the Study Area with a stormwater pump station that would discharge the runoff volume collected in this facility to the

East Townline Drain at a controlled rate. In addition, the Baillargeon Drain would continue to discharge separately and directly to the East Townline Drain.

Between 2010-2013, the Town initiated the functional design of site servicing for the Manning Road Secondary Plan Area (MRSPA) during which time alternative servicing options for the MRSPA were investigated to assess potential cost saving opportunities. Based on these investigations, the Town of Tecumseh completed the Manning Road Secondary Plan Area, Stormwater Management Class Environmental Assessment (EA) Addendum in December 2014 (Updated March 2015). The Addendum incorporated the Baillargeon Drain as part of the MRSPA storm sewer system and stormwater management facility to better utilize the capacity of the existing and proposed storm drainage infrastructure in the area.

Following the completion of the EA Addendum, the original 2013 Functional Servicing Report (FSR) was updated to address the recommendations included in the Addendum and a revised FSR was issued in 2015.

At the November 12, 2019 Regular Meeting of Council, Council approved the recommendations (Motion RCM-369/19) of PWES Report No. 2019-55 titled "Amendment to 2019-2023 PWES Five Year Capital Works Plan Manning Road Secondary Plan Area, Stormwater Management Facility" which included the following:

- Adding the MRSPA Stormwater Management Facility to the 2019-2023 PWES Five Year Capital Works Plan
- Authorization of an initial \$40,000 expenditure in 2019 to be funded out of the Storm Sewer Lifecycle Reserve for costs associated with the acquisition of lands related to legal, surveyors and land appraisals
- Recommendation that additional funding be referred to budget deliberations in the 2020-2024 PWES Five Year Capital Works Plan specific to detailed design, property acquisition and construction costs

Administration recommends that Dillon Consulting Ltd. be retained to complete the detailed design for the MRSPA stormwater facility in 2020 based on their previous work on the 2010 MRSPA EA, 2015 MRSPA EA Addendum and 2015 MRSPA FSR. Administration further recommends that the Town acquires the required property for the MRSPA stormwater management pond in 2020 with construction anticipated to proceed in 2021.

Estimated recoveries from landowners for the design and construction of the MRSPA stormwater facility would be approximately \$10,156,000. Assessments to be calculated by Administration and invoiced back to the landowners by means of a Part XII by-law (*Municipal Act*, s.391). Administration will bring forward a future report to Council regarding cost recovery recommendations for this project.

Funding for this project is to be provided from the Storm Sewer Lifecycle Reserve in the amount of \$2,740,000.

ST 4. Tecumseh Hamlet EA and Functional Servicing Study

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$0	\$310,000	\$445,000	\$755,000

In 2011, Council approved Administration to engage the services of DIALOG, an Urban Design Consultant, to assist in the development of the Tecumseh Hamlet Secondary Plan (THSP). DIALOG was to assist Administration with stakeholder engagement and capacity building, organizing and facilitating design charrettes and developing concept plans, policies and urban design guidelines to ensure orderly development of lands within the planning area.

In 2012, it was identified that a range of servicing issues needed to be addressed in the THSP area and that these servicing issues needed to be address concurrently with the land use planning issues. Accordingly, it was determined that a Functional Servicing Report (FSR) was required to address storm drainage, sanitary collection, water distribution infrastructure and road layout for the planned development of this area.

At that time, Dillon Consulting Ltd. (Dillon) was engaged to complete an FSR (water, wastewater, stormwater) to supplement the planning work. It was intended that the FSR would take into account the trunk infrastructure proposed by the Town's Water and Wastewater Master Plan and would provide more details as to how the lands would be serviced.

In conjunction with the FSR, it was also identified that a Municipal Class Environmental Assessment (Class EA) would be required to the fulfil infrastructure Class EA requirements for water distribution, wastewater, stormwater and transportation within the Hamlet area.

At the same time as the above, the Upper Little River Watershed Master Drainage and Stormwater Management Municipal Class EA Study (ULR) was being undertaken jointly by the City of Windsor and the Town of Tecumseh, with project management being delivered by the Essex Region Conservation Authority. It was originally intended that the general location and size of the required Hamlet stormwater facilities would be determined through the recommendations of the ULR study. Due to numerous justifiable issues, the ULR study was delayed which ultimately resulted in the THSP and FSR/EA being delayed since the ULR stormwater requirements are needed to finalize the servicing requirements for the Hamlet area.

It is now anticipated that the final report for the ULR study will be available in early 2020. Upon completion of the ULR study, a Notice of Completion will be issued and the project will enter the 30-day public and agency review period. Completion of the ULR study will provide the necessary information to move forward with the Hamlet stormwater management design, to finalize the road network, to prepare the FSR and to undertake the above noted Class EA for the Hamlet infrastructure. Based on the design and planning work completed to date, it is anticipated that the new development within the Tecumseh Hamlet area will include four (4) regional stormwater management facilities and approximately 155 hectares of residential development, 12 hectares of commercial development and 1 hectare of institutional development. The 12 hectare Tecumseh Vista Academy site is also included in the Tecumseh Hamlet area.

The total cost for Hamlet FSR/Class EA is \$755,000 which includes design components of \$91,500 for roads, \$91,500 for water distribution, \$91,500 for sanitary sewers and \$480,500 for stormwater infrastructure.

It is recommended that Dillon Consulting Ltd. continue as the engineering consultant based on their past work on this project. It is recommended that the stormwater management analysis, finalization of the road network and commencement of the Class EA be undertaken in 2020 in conjunction with the related planning processes for the THSP. It is further recommended that the FSR and the finalization of the Class EA be completed in 2021.

Funding for this project is to be provided from the following:

- Road Lifecycle Reserve in the amount of \$30,250
- Watermain Reserve Fund in the amount of \$30,250
- Wastewater Sewers Reserve Fund in the amount of \$30,250
- Storm Sewer Lifecycle Reserve in the amount of \$219,250

ST 5. Oldcastle Storm Drainage Master Plan

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$450,000	\$0	\$0	\$450,000

At the December 12, 2017 Regular Meeting of Council, Council approved the recommendations (Motion RCM-441/17) of PWES Report No. 57/17 titled "2018-2022 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with the 2018 capital works projects which included retaining Stantec Consulting Ltd. to complete the Oldcastle Storm Drainage Master Plan.

The stormwater infrastructure network located within the Oldcastle Hamlet area is comprised of a combination of roadside ditches, Municipal Drains, storm sewers, swales/sub-drains, as well as County and Provincial storm infrastructure. There are three (3) distinct watershed areas within the Oldcastle Hamlet which include Little River (8 outlets), Turkey Creek (1 outlet), and River Canard (3 outlets).

The Oldcastle Storm Drainage Master Plan will focus on an analysis of the storm infrastructure within these watersheds and will set the framework for how stormwater is addressed for new and re-developments. This analysis will review how the storm infrastructure functions during minor rainfall events (what can be contained within the ditches, drains and sewers), and major rainfall events (which would follow overland flood routes). The Master Plan will follow the Municipal Class Environmental Assessment (EA) process and is equivalent to the same steps that a Schedule 'B' EA would follow.

At the September 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-272/18) of PWES Report No. 2018-21 titled "National Disaster Mitigation Program-Intake 5" that authorized Administration to submit an application to the federal government for funding under the National Disaster Mitigation Program (NDMP) for the Oldcastle Storm Drainage Master Plan. Subsequent to the September 11, 2018 Regular Meeting of Council, Administration submitted a funding application for this project to the

NDMP. On March 28, 2019, Administration received confirmation that our funding application in the amount of \$180,000 was approved. As per the funding agreement, all works for this project must be completed by March 31, 2020.

In the Spring of 2019, the project manager for the Oldcastle Stormwater Master Plan left Stantec Consulting Ltd. to seek employment opportunities at another local engineering firm. Through discussions with Stantec Consulting Ltd., it was mutually agreed that the best path forward for this study was for the original project manager to complete the project. Accordingly, Landmark Engineers Inc. was retained to complete the study in accordance with the original project schedule and approved budget.

On October 17, 2019, a Public Information Center was held at the Ciociaro Club. Plans showing the existing drainage conditions within the Oldcastle area were available for review and discussion.

Landmark Engineers Inc. is continuing with the Master Plan and is in the process of developing/evaluating drainage improvement alternatives for the study area. This study will continue through 2019 with a final report anticipated by the end of March 2020.

Funding for this project was previously provided from the Storm Sewer Lifecycle Reserve in the amount of \$450,000.

ST 6. Manning Road Improvement Project, Phase 2

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$260,000	\$43,000	\$6,499,500	\$6,802,500

The Town completed a Class Environmental Assessment (EA) in April 2010 for improvements to the East Townline Drain (Manning Road) Storm Pump Station. The proposed upgrades to the pump station and drain enclosure along Manning Road provided an opportunity to improve this portion of Manning Road by constructing an urban cross-section that accommodates pedestrians, cyclists and urban design features to create an aesthetically pleasing gateway into Lakewood Park. The limits of the Class EA included Manning Road from Riverside Drive to St. Gregory's Road.

Construction of Phase 1 was completed in 2014 which included the construction of the storm pump station and associated facilities, and the reconstruction of a section of Riverside Drive (Manning Road to Christy Lane), including the roundabout at the Manning Road/Riverside Drive intersection.

At the December 13, 2016 Regular Meeting of Council, Council approved the recommendation (Motion RCM-442/16) of PWES Report No. 54/16 titled "2017-2021 Public Works & Environmental Services Capital Works Plan" that authorized Administration to retain Dillon Consulting Ltd. to proceed with the engineering design for Phase 2 of this project. Phase 2 generally relates to underground servicing including the enclosure and redirection of the East Townline Drain into the recently constructed Lakewood Park channel, filling in the existing open drain on the west side of Manning Road, watermain replacement, construction of a new local storm sewer on the west side of Manning Road and the construction of an overflow storm

sewer on St. Thomas Street. Both the enclosure/redirection of the East Townline Drain into the Lakewood Park channel and the construction of an overflow storm sewer on St. Thomas Street are recommended works from the Tecumseh Storm Drainage Master Plan (Projects ETL-3 and ESL-1) which was recently approved under the Municipal Class EA process.

In the last two years, the Town has sought funding for this project under the following government funding programs:

- Disaster Mitigation and Adaptation Fund – 1st Intake
- Investing in Canada Infrastructure Program: Rural and Northern Communities Funding Stream – 2019 Intake

Unfortunately, this project was not selected for funding under either funding program.

The design for this project has proceeded through 2017, 2018 and, most recently with the approval of the Tecumseh Storm Drainage Master Plan under the Municipal Class EA process, the project scope was expanded to include the St. Thomas Street overflow storm sewer. The previously completed hydrologic and hydraulic modelling was also recently updated to satisfy the requirements of the Windsor/Essex Region Stormwater Management Standards Manual that was adopted by Council at the June 25, 2019 Regular Meeting of Council (Motion RCM-186/19). In addition, significant effort has been expended for funding applications and for the submission of approval applications which are currently under review by the Essex Region Conservation Authority and the Ontario Ministry of Environment, Conservation and Parks.

The Phase 2 project cost of \$6,802,500 includes \$745,900 for road works, \$945,700 for watermains, \$11,500 for sanitary sewers, \$1,722,900 for storm sewers and \$3,376,500 for municipal drains.

Administration recommends completing the St. Thomas Street overflow storm sewer design, updating/finalizing the design drawings/tender documents and obtaining all required approvals in 2020 with construction anticipated to proceed in 2021.

Funding for this project is to be provided from the following:

- Road Lifecycle Reserve in the amount of \$4,500
- Watermain Reserve Fund in the amount of \$6,000
- Storm Sewer Lifecycle Reserve in the amount of \$11,000
- Drains Lifecycle Reserve in the amount of \$21,500

ST 7. Scully & St. Mark's Storm Pump Station & Riverside Drive Storm Sewers

Previously Approved	Requested for 2020	Future Costs	Total Project Costs
\$797,250	\$0	\$15,756,050	\$16,553,300

In 2016 a review of the St. Mark's Storm Pump Station, the Scully (Edgewater) Storm Pump Station and the existing storm sewer infrastructure within the contributing drainage area was conducted. The results indicated that the storm pump stations would be unable to accommodate additional flows from local streets that were slated to be reconstructed with

storm sewers having a 1:5-year level of service. These results were discussed and included in PWES Report No. 52/16 titled "Arlington Boulevard Improvements – Project Update, December 2016", which was brought to Council at the December 13, 2016 Regular Meeting of Council. In addition, the detailed analysis of the stormwater infrastructure that was conducted as part of the Storm Drainage Master Plan confirmed that improvements are required to the existing Scully & St. Mark's pump stations.

The proposed project consists of decommissioning the St. Mark's storm pump station and redirecting those flows into an upgraded and expanded Scully storm pump station to provide a greater level of service. The Scully pump station upgrade is to increase pump capacity to accommodate the additional flows from the current St. Mark's service area, as well as other adjacent areas where interconnections and overland flows have been identified as part of the Town's Storm Drainage Master Plan. This project also includes trunk storm sewer improvements along Riverside Drive to add resiliency to the system and improve the level of service to address area-wide issues of surface flooding.

The project cost of \$16,553,300 includes \$14,680,600 for storm sewers and pumping stations, \$374,700 for sanitary sewers and \$1,498,000 for road reconstruction.

At the July 24, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-232/18) of PWES Report No. 2018-19 titled "Disaster Mitigation and Adaptation Fund Expression of Interest" that authorized Administration to submit the required documentation to the federal government for funding under the Disaster Mitigation and Adaptation Fund (DMAF). Accordingly, an application was submitted, however, on Friday May 31, 2019, the Town was made aware that our application for funding was not approved.

At the December 11, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-361/18) of PWES Report No. 2018-08 titled "2019-2023 Public Works & Environmental Services 5 Year Capital Works Plan" that authorized Administration to proceed with the 2019 capital works projects which included continuing with Dillon Consulting Ltd. to complete the engineering design for the Scully & St. Mark's Storm Pump Station & Riverside Drive Storm Sewers project in 2019 following completion of the Storm Drainage Master Plan and subject to the results of the Town's DMAF application. It was also noted that the future timing for construction would be contingent on the availability of funding and Council approval.

At the July 23, 2019 Regular Meeting of Council, Council approved the recommendations (Motion RCM-229/19) of PWES Report No. 2019-02 titled "Disaster Mitigation and Adaptation Fund Special Spring 2019 Flooding Intake Expression of Interest and Full Application" that authorized Administration to submit an Expression of Interest and Full Application to the federal government for funding under the 2nd intake of the Disaster Mitigation and Adaptation Fund (DMAF). Accordingly, an Expression of Interest and Full Application were submitted by August 1, 2019 for the following projects:

- Scully & St. Mark's Storm Pump Station & Riverside Drive Trunk Storm Sewers project.
- P.J. Cecile Storm Pump Station Improvements project.

Administration is currently waiting to receive the results of the DMAF application.

As noted above, commencement of the previously approved design work for the Scully & St. Mark's Storm Pump Station & Riverside Drive Trunk Storm Sewers project was to be deferred until completion of the Tecumseh Storm Drainage Master Plan. The Master Plan is now complete, however, the design work has not yet commenced since engineering design costs are eligible for funding under the DMAF program. Upon receipt of the results of our current DMAF application, Administration will move forward with the design for the Scully & St. Mark's Storm Pump Station & Riverside Drive Trunk Storm Sewers project in 2020/2021.

Funding for this project was previously approved from the following:

- Storm Sewer Lifecycle Reserve in the amount of \$733,100
- Wastewater Sewers Reserve Fund in the amount of \$20,550
- Road Lifecycle Reserve in the amount of \$43,600

Municipal Drain Projects

Town of Tecumseh is obligated to manage, repair, maintain and improve the Town's 120 Municipal Drains (totaling 221km) in accordance with the Drainage Act, including assessing costs to the benefitting upstream landowners according to the most current by-law. Municipal Drains are not municipal infrastructure and only the actual Town assessments are funded from the general tax rate.

There are currently over 150 active drainage projects that the Town is undertaking. These works include new municipal drains (1), maintenance of existing drains (89), drain improvements requiring an engineer's report (44) and apportionment agreements (16) all of which are at various stages of completion. The Drainage Superintendent receives requests for maintenance or repair and improvements for Municipal Drains, and determines which section of the Drainage Act is most suitable to proceed with the request. These drainage requests, and subsequent works, are addressed as they occur and brought before Council for their approval on a project by project basis.

Funding for the Town's assessment for Municipal Drains will generally come from the Drains Lifecycle Reserve.

2021 to 2024 Projects

This section provides a higher level discussion on projects being proposed for 2021 to 2024.

➤ 2021: Traffic Signal Reconstruction (Lesperance/McNorton) (Cost of \$165,000)

A condition assessment was conducted for all traffic signal infrastructure owned and maintained by the Town, including 11 intersections and one mid-block cross walk. Traffic signal infrastructure includes poles, luminaires, mast arms, traffic signal heads, pedestrian signal heads, pedestrian push buttons, hand holes, loop detectors, cabinets, controllers, wiring and conduit.

The traffic signal condition assessment has been used as the basis for identifying the recommended priority, scope and cost for traffic signal infrastructure improvements,

which could be utilized by the Town to develop a long-term, comprehensive maintenance and capital replacement strategy.

At the September 22, 2015 Regular Meeting of Council, Council approved the recommendations (Motion RCM-319/15) of PWES Report 51/15 titled "Traffic Signal Infrastructure Assessment (2015)" where the report was adopted and Administration was authorized to use the recommendations contained within the report to form the basis of the annual PWES Capital Works Plan.

Based on the Traffic Signal Infrastructure Assessment (2015), it is recommended that the Lesperance/McNorton intersection traffic signals be reconstructed in 2021.

In addition to this project, it is recommended that the Traffic Signal Infrastructure Reconstruction program should include the following projects subject to the timing of the Tecumseh Road CIP project:

- Lesperance Road/Tecumseh Road East
- Lesperance Road/Arbour Street
- Tecumseh Road East/Shawnee Road

➤ **2021+: Culvert Works (Structures with Spans < 3.0m)**

The 2016 Culvert Needs Study (Structures with Spans < 3.0m) had identified two (2) structures to be replaced immediately; 10 structures to be rehabilitated or replaced within a 1-5 year timeframe; and three (3) structures to be rehabilitated or replaced within a 6-10 year timeframe. The recommended culvert works are as follows:

- 2021 – Culvert No.45, South Talbot Road (cost of \$326,000)
- 2021/2022 – Culvert No.54, Snake Lane Road (cost of \$660,700)
- 2021/2022 – Culvert No.53, Snake Lane Road (cost of \$660,700)
- 2021/2022 – Culvert No.42, Snake Lane Road (cost of \$554,500)
- 2022/2023 – Culvert No.51, 8th Concession Road (cost of \$150,000)
- 2022/2023 – Culvert No.70, 12th Concession Road (cost of \$160,000)
- 2024/2025 – Culvert No.48, Holden Road (cost of \$550,000)

➤ **2021+: Town Multi-Use Trails and Bike Lanes**

As part of the Tecumseh Transportation Master Plan (TMP), a network of key Active Transportation facilities was developed to ensure connectivity in the larger network. This network has been coordinated with plans and recommendations from the County Wide Active Transportation Study (CWATS) and the City of Windsor Bicycle Use Master Plan (BUMP). The expansion of the Active Transportation Network is a municipal focus for several reasons, including: it promotes Environmental Sustainability, it promotes personal Health, and it promotes Equity in transportation service. The following Active Transportation Facilities are proposed:

- McNorton Bike Lanes (2021, cost of \$10,000)
- Lesperance Road Multi-Use Trail – County Road 22 to County Road 42 (2021-2022, cost of \$1,071,000)

- Riverside Drive Multi-Use Trail – Arlington to Kensington (2022-2023, cost of \$156,000)
- County Road 34 Multi-Use Trail – Malden to County Road 19 (2023-2024, cost of \$455,000)
- Lesperance Road Multi-Use Trail – Riverside to McNorton (2024-2025, cost of \$455,000)

➤ **2021 – 2022: Traffic Signal Upgrades/Maintenance** (Cost of \$92,500)

A condition assessment was conducted for all traffic signal infrastructure owned and maintained by the Town, including 11 intersections and one mid-block cross walk. Traffic signal infrastructure includes poles, luminaires, mast arms, traffic signal heads, pedestrian signal heads, pedestrian push buttons, hand holes, loop detectors, cabinets, controllers, wiring and conduit.

The traffic signal condition assessment has been used as the basis for identifying the recommended priority, scope and cost for traffic signal infrastructure improvements, which could be utilized by the Town to develop a long-term, comprehensive maintenance and capital replacement strategy.

At the September 22, 2015 Regular Meeting of Council, Council approved the recommendations (Motion RCM-319/15) of PWES Report 51/15 titled "Traffic Signal Infrastructure Assessment (2015) where the report was adopted, and authorized Administration to use the recommendations contained within the report to form the basis of the annual PWES Capital Works Plan.

Based on the Traffic Signal Infrastructure Assessment (2015), it is recommended that traffic signal upgrades/maintenance will be required at the following intersections.

- 2021 - Manning Road at Green Valley Plaza Intersection (\$20,625)
- 2021 - Tecumseh Road East and Manning Road Intersection (\$20,625)
- 2021 - Tecumseh Road East and Southfield Drive Intersection (\$21,250)
- 2022 - Manning Road and St. Gregory's Road Intersection (\$16,500)
- 2022 - Tecumseh Road East and Green Valley Plaza Intersection (\$13,500)

➤ **2021+: County of Essex (Initiated) Projects**

The County of Essex has a number of planned projects in the upcoming years, where the Town is obligated to meet financial contributions through cost sharing arrangements. The Town is also planning on a number of infrastructure improvements as part of these projects. As the projects are more clearly defined in the years to come, Administration will continue to communicate and negotiate with the County as to the Town's exact contribution. These projects consist of the following:

- **County Road 11/South Talbot Road (2020+,Town's cost share to be negotiated)**
The County is currently completing the design of a roundabout at the County Road 11/South Talbot Road intersection. Town's cost share to be negotiated.

- **Westlake Drive Extension** (2021, cost of \$438,500)
The extension of Westlake Drive is a component of the County's planned advance construction works at the County Road 22/Lesperance Road intersection, the design details which continue to be the subject of discussion with the County. The Town has provided the County of Essex with a traffic study prepared by Dillon Consulting Ltd. which details the anticipated urban-cross section required for this road extension. The Town will be seeking to install full municipal services (storm, sanitary, watermain), for which those costs will be full recovery from the adjacent development lands.
- **County Road 19** (2021+, Town cost of \$214,500)
The County is proposing advance construction works at the intersections of County Road 19/County Road 46 intersection and the County Road 19/Coush Road 34 intersection. The Town's costs are attributed to the replacement of the existing watermain.

➤ **2022 & 2024: Bridge and Culvert Needs Study (Structures with Spans > 3.0m)** (Cost of \$39,000 each occurrence)

There are a total of eighteen (18) existing bridges and culverts with a span greater than 3.0 metres that were inspected as part of the Bridge and Culvert Needs Study in 2018. Inspections of the eighteen structures within the Town were completed in accordance with the latest version of the Ontario Structure Inspection Manual (OSIM) published by the Ministry of Transportation of Ontario (MTO).

Inspections of the bridges and culverts are to take place every two years as legislated by Section 2(3) of The Public Transportation and Highway Act: "The structural integrity, safety and condition of every bridge shall be determined through the performance of at least one inspection in every second calendar year under the direction of a professional engineer and in accordance with the Ontario Structure Inspection Manual". It is currently recommended that a new Bridge and Culvert Needs Study be completed in 2020 and it will be necessary to carry out the next Bridge and Culvert Needs Study in 2022 and again in 2024 to comply with the legislation.

➤ **2022 - 2023: Riverside Drive In-line Storage Trunk Sanitary** (Cost of \$2,804,750)

The Town completed a Municipal Class Environmental Assessment (Class EA) in April 2013 for improvements to the Town's sanitary collection system. As part of the 2013 Class EA, various alternative solutions were identified and evaluated to address the problem of basement flooding and the lack of capacity in the sewage system to accommodate future growth. An expansion and upgrading of the existing sanitary sewage collection system was identified as the preferred solution.

The functional design for the preferred solution identified a reduction in the risk of basement flooding and would also accommodate new development. These improvements included:

- Stage 1 (completed in 2014)
 - Decommissioning of the existing Hayes Sanitary Pump Station

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- Construction of the new Lakewood Sanitary Pump Station
- Increased on-line peak flow storage capacity – Lakewood Park Trunk Sewer
- Stage 2 (currently scheduled for 2022/2023)
 - Increased on-line peak flow storage capacity – Riverside Drive Trunk Sewer
- Stage 3 (presently being reviewed as part of the 2019 Sanitary Sewer Model Update)
 - Additional investigation and sanitary sewer modeling required on Dillon Drive and Green Valley Drive

Stage 2, the Riverside Drive Trunk Sewer project, consists of replacing the existing sanitary sewer along Riverside Drive between Kensington Boulevard and Pentilly Road with an on-line peak flow storage facility. Approximately 395 meters of the existing 400 mm diameter sanitary sewer will be replaced with 1500 mm diameter sanitary sewer to provide remedial flooding measures to reduce sanitary sewer surcharging and reduce the risk of basement flooding within its service area due to extraneous flows entering the sanitary system through inflow and infiltration. An approximate population of 1,400 people representing 400 properties would see a direct benefit from the project.

The project cost of \$2,804,750 includes \$2,056,000 for sanitary sewers and \$748,750 for road reconstruction.

At the July 24, 2018 Regular Meeting of Council, Council approved the recommendations (Motion RCM-232/18) of PWES Report No. 2018-19 titled “Disaster Mitigation and Adaptation Fund Expression of Interest” that authorized Administration to submit the required documentation to the federal government for funding under the Disaster Mitigation and Adaptation Fund (DMAF). Accordingly, an application was submitted, however, on Friday May 31, 2019, the Town was made aware that our application for funding was not approved.

Engineering design for this project is proposed to be completed in 2022 with construction anticipated to proceed in 2023. Additional funding opportunities will continue to be sought for this project which could modify the project schedule.

At the December 10, 2019 Regular Meeting of Council, Administration will bring forward PWES Report No. 2019-52 requesting authorization to submit an application to the federal government for funding under the Investing in Canada Infrastructure Program (ICIP): Green Stream – 2019 Intake for a future commitment to the Riverside Drive Trunk Sanitary Sewer to be completed in 2022-2023.

➤ **2022+: Zone 2 Booster Station (W-9) and Water Storage Facility (W-10) (Cost of \$9,775,000)**

At the December 8, 2015 Regular Council Meeting, Council approved the recommendations (Motion RCM-419/15) of PWES Report No. 63/15 titled “2016-2020 Public Works & Environmental Services Capital Works Plan” that authorized Administration to proceed with a Water and Wastewater Master Plan Update. The purpose of the Master Plan Update was to re-examine water and wastewater

infrastructure timing and costing requirements for the existing settlement areas in the Town of Tecumseh to ensure that the most cost effective infrastructure servicing strategies required to support new growth and maintain a high level of service into the future is implemented.

Through the Master Plan Update it is recommended that a second pressure zone is required for the South Service Area. Creation of a second pressure zone requires construction of the following facilities:

- W-9 - A new booster pumping station will permit the Town to operate the water system in the southeast area of Tecumseh at a higher pressure zone in order to provide adequate pressures throughout the full range of demand scenarios for existing and new growth in the south service area. Also included are pressure reducing valves and/or check valves at all boundary connection points with the City of Windsor water system and zone isolation valves between the two Tecumseh pressure zones.
- W-10 - A new water storage facility will supplement the existing fire storage already provided within the Tecumseh Elevated Tank, will provide Tecumseh with minimum fire storage required for an integrated Tecumseh system, and will provide storage for pump control for the booster pumping station.

Total project cost estimate is \$9,775,000 with \$3,325,000 for W-9 and \$6,450,000 for W-10. It is proposed to complete the engineering in 2022 with construction of W-9 and W-10 to follow in subsequent years as funding becomes available.

➤ **2022+: West Tecumseh Trunk Sewer & Watermain from County Road 22 to CP Railway (WW-1 & W-1) & Diversion Sewer South of CP Railway (WW-2) (Cost of \$10,922,00)**

At the December 8, 2015 Regular Council Meeting, Council approved the recommendations (Motion RCM-419/15) of PWES Report No. 63/15 titled "2016-2020 Public Works & Environmental Services Capital Works Plan" that authorized Administration to proceed with a Water and Wastewater Master Plan Update. The purpose of the Master Plan Update was to re-examine water and wastewater infrastructure timing and costing requirements for the existing settlement areas in the Town of Tecumseh to ensure that the most cost effective infrastructure servicing strategies required to support new growth and maintain a high level of service into the future is implemented.

The West Tecumseh Trunk Watermain (W-1) will provide direct servicing for new development lands within the Tecumseh Hamlet West Planning Area and will improve fire flows in existing developments south of CR 22. Based on a Preliminary Design, a 400 mm trunk watermain from CR 22 to Intersection Road and 600 mm trunk watermain from Intersection Road to CP Railway are required within the Tecumseh Hamlet West Planning Area. Also included is a 300 mm connection to the trunk watermain on Shawnee Road.

The West Tecumseh Trunk Sewer (WW-1) is proposed to provide direct servicing for new development lands within the Tecumseh Hamlet West Planning Area (north of the CP Railway), and will provide an outlet for existing and new growth south of CP Railway. Based on preliminary design, a 1200mm diameter sewer is required. In order to comply with the Wastewater Agreement between the City of Windsor and the Town of Tecumseh, a flow measurement facility will be required on this trunk sewer prior to discharging to the outlet sewer on County Road 22.

In order to alleviate system surcharges in the Lesperance Road trunk sewer between CP Railway and County Road 22, a new diversion sewer (WW-2) will be constructed along Intersection Road from the West Tecumseh Trunk Sewer to the trunk sewer on St. Anne Street.

Total project cost estimate is \$10,922,000 with \$7,034,000 for WW-1, \$2,754,000 for W-1 and \$1,134,000 for WW-2. It is proposed to complete the engineering in 2022, construction of WW-1, W-1 and WW-2 to follow in subsequent years as funding becomes available.

➤ **2022: Bridge and Culvert Conditions Assessment (Structures with Spans < 3.0m)**
(Cost of \$75,000)

At the November 8, 2016 Regular Meeting of Council, Council approved the recommendations (Motion RCM-384/16) of PWES Report No. 39/16 titled "2016 Culvert Needs Study (Structures with Spans < 3.0m)" that authorized Administration to use the recommendations contained within the report to form the basis of the annual PWES Capital Works Plan.

The "2016 Culvert Needs Study (Structures with Spans < 3.0m)" is being used by Administration to prioritize culvert works. It is recommended that a Bridge and Culvert Conditions Assessment be completed approximately every 5 to 6 years for structures with Spans < 3.0m. The recommended 2022 update will include the following:

- Condition assessment of the existing culvert;
- Signage and roadside safety review;
- Review site conditions and possible extensions of the culverts for roadside safety;
- Coordination with the Town's Drainage Superintendent as to active drainage reports;
- Recommend a schedule for repairs and replacements;
- Prepare detailed costs estimates for the recommended works

➤ **2022: Roadside Safety Improvements – Bridge #1010** (Cost of \$70,000)

A 2015 Roadside Safety Review documented existing roadside safety hazards and provided recommendations for 16 bridge and culvert structures in the Town of Tecumseh (Town). A 2016 Culvert Needs Study documented, in part, existing roadside safety hazards and provided recommendations for 71 culvert structures having spans equal to or less than 3.0 metres in the Town. These reviews were based on the 1993 Ministry of Transportation, Ontario (MTO) Roadside Safety Manual. In December of 2017, MTO

released the 2017 MTO Roadside Design Manual to replace the 1993 MTO Roadside Safety Manual.

As part of the 2018 Bridge and Culvert Needs Study-Structures with Spans Greater than 3.0 m project, Dillon Consulting Ltd. provided a standalone Memo on Roadside Safety Improvements based on the 2017 MTO Roadside Design Manual. Based on this information, improvement to a guide rail is recommended at Bridge #1010.

➤ **2022: Town Property Shoreline Protection Condition Assessment** (Cost of \$50,000)

High lake levels and related wave action during wind events can cause significant adverse impacts to existing shore protection structures. The Town of Tecumseh owns a number of shoreline properties with shore protection structures of varying age, type and condition. In order to maintain this infrastructure and provide for necessary improvements in future PWES Capital Works Plans, it is recommended that a condition assessment be undertaken for all shoreline protection infrastructure owned by the Town. The condition assessment should generally include the following:

- Inventory of existing shore protection
- Existing condition assessment
- Estimate of remaining design life
- Concepts for potential improvements as determine based on the existing condition assessment
- High level cost estimate for the preparation of detailed designs and construction of suggested improvements
- Priority ranking based on the existing condition assessment

➤ **2022: Sanitary Pump Station Improvements** (Cost of \$30,000)

The Town owns and operates four (4) sanitary pump stations. The 2016 Pump & Metering Station Condition Assessment had identified 'Immediate Repairs' and '10 Year Repairs' for the sanitary pump stations. The proposed 2022 works consist of improvements at the Sylvestre Sanitary Pump Station, where the pump and structural supports will be replaced.

➤ **2022 – 2023: Ure Street Sanitary Sewer Extension** (Cost of \$1,587,000, landowner recoveries approximately \$905,500)

The Ure Street Sanitary Sewer Extension is a continuation of the sanitary sewer servicing within the 8th Concession Road sanitary service area. This project includes the extension of a sanitary sewer along Ure Street from Del Duca Drive to North Talbot Road. It is proposed to carry out the engineering in 2022 and to proceed with construction in 2023.

Estimated recoveries from landowners for the sanitary sewers would be approximately \$905,500 and will be refined once the By-Law for the 8th Concession Road sanitary service area is completed. The project cost of \$1,587,000 includes \$509,000 for sanitary sewers, \$667,000 for road reconstruction and \$411,000 for storm sewers.

➤ **2023+: P.J. Cecile (Kensington) Storm Pump Station** (Cost of \$9,940,000)

In 2016 a review of the P.J. Cecile (Kensington) Storm Pump Station and existing storm sewer infrastructure within the contributing drainage area was conducted. The results indicated that the pump station cannot accommodate the future projected flows from the drainage area once some of the existing streets are reconstructed to an urban (or semi-urban) cross section.

The recently completed Storm Drainage Master Plan confirmed the need for improvements at this pump station.

The project cost of \$9,940,000 includes \$9,660,000 for storm sewers and pump stations and \$280,000 for road reconstruction.

At the July 23, 2019 Regular Meeting of Council, Council approved the recommendations (Motion RCM-229/19) of PWES Report No. 2019-02 titled "Disaster Mitigation and Adaptation Fund Special Spring 2019 Flooding Intake Expression of Interest and Full Application" that authorized Administration to submit an Expression of Interest and Full Application to the federal government for funding under the 2nd intake of the Disaster Mitigation and Adaptation Fund (DMAF). Accordingly, an Expression of Interest and Full Application were submitted by August 1, 2019 for the following projects:

- Scully & St. Mark's Storm Pump Station & Riverside Drive Trunk Storm Sewers project.
- P.J. Cecile Storm Pump Station Improvements project.

Administration is currently waiting to receive the results of the DMAF application.

Administration believes it is important to identify this project within the 5-year capital works plan as it will have an effect on the annual allocation to the storm sewer reserve fund. There is also benefit in having projects in a 'shovel ready' state in the event grant funding becomes available from upper levels of government. The timing of design and construction is contingent on the availability of funding, and Council approval.

➤ **2023 – 2024: O'Neil Street Sanitary Sewer Extension** (Cost of \$1,794,000, landowner recoveries \$740,000)

The O'Neil Street Sanitary Sewer Extension is a continuation of the sanitary sewer servicing within the 8th Concession Road sanitary service area. This project includes the extension of a sanitary sewer along O'Neil Street from Del Duca Drive to North Talbot Road. It is proposed to carry out the engineering in 2023 and to proceed with construction in 2024.

Estimated recoveries from landowners for the sanitary sewers would be approximately \$740,000, and will be refined once the By-Law for the 8th Concession Road sanitary service area is completed. The project cost of \$1,794,000 includes \$566,000 for sanitary sewers, \$772,000 for road reconstruction and \$456,000 for storm sewers.

➤ **2024+: Moynahan Street, Henin Drive and Regal Drive Sanitary Sewer Extension**
(Cost of \$2,194,000, landowner recoveries \$990,000)

The Moynahan Street, Henin Drive and Regal Drive Sanitary Sewer Extensions are a continuation of the sanitary sewer servicing within the 8th Concession Road sanitary service area. It is proposed to carry out the engineering in 2024 and to proceed with construction in 2025.

Estimated recoveries from landowners for the sanitary sewers would be approximately \$990,000 and will be refined once the By-Law for the 8th Concession Road sanitary service area is completed. The project cost of \$2,194,000 includes \$692,000 for sanitary sewers, \$944,000 for road reconstruction and \$558,000 for storm sewers.

➤ **2024: Road Needs Study** (Cost of \$70,000)

The Town of Tecumseh maintains an extensive network of urban, semi-urban and rural roads of all classes, with the exception of Class 1 roads such as County Road 22. The roads network is approximately 180 centerline-kilometers of roadway (varying from two to four lanes), consisting of varying materials such as asphalt, concrete and tar and chip.

The key to managing the Town of Tecumseh roads is to apply the correct rehabilitation strategy at the correct time. This includes applying preventative maintenance strategies to roads in the early stages of deterioration (e.g. crack sealing), then applying rehabilitation strategies at later dates and ultimately reconstructing the road when the useful life has expired.

Road reconstruction is closely coordinated with other infrastructure replacements such as sewer and water in order to achieve a level of cost saving. Initiatives such as these help to increase the customers level of service as well as reduce the frequency of large scale construction activities. This is a key factor to achieving improvements while achieving overall benefits to the customer through the use of sound planning.

The Town undertakes Road Needs Studies on a five year basis to help prioritize road projects and gauge the Town effectiveness in the replacement/rehabilitation strategies to date. The Town is currently undertaking the 2019 Roads Needs Study and the next study is proposed to be completed in 2024.

➤ **2024: Tecumseh Storm Drainage Master Plan Update (Cost of \$150,000)**

At the June 25, 2019 Special Meeting of Council, Council approved the recommendations (Motion SCM-17/19) of PWES Report No. 2019-35 titled "Storm Drainage Master Plan – Filing the Notice of Study Completion" that authorized Administration to advertised the Notice of Study Completion to initiate the mandatory 30-day public and agency review period. Accordingly, a Notice of Study Completion was issued and the 30-day public and agency review period ended on August 19, 2019. All comments received were satisfactorily addressed and on October 24, 2019 Dillon Consulting Ltd. issued correspondence advising that the Town of Tecumseh Storm Drainage Master Plan, including the specified Schedule B projects that form part of the preferred solutions, is

considered approved under the Municipal Class EA process and may proceed to detailed design and implementation.

In order to keep this information current, it is recommended that the report and related modeling be updated every five years. The recommended 2024 update should generally include the following:

- Review of developments and related stormwater controls that have been built since completion of the study.
- Model update to include developments and related stormwater controls that have been built since completion of the study.
- Model update based on 2024 Regional Stormwater Guidelines.
- Integration of works completed in the Manning Road Secondary Planning Area and expansion of the study area to incorporate the Tecumseh Hamlet Area.
- Integration of findings of the Town Shoreline Management Plan.
- EA/Master Plan report update.

Consultations

Financial Services
Planning & Building Services

Financial Implications

The capital expenditures proposed for 2020 total just over \$13.4M with an additional \$82.6M projected over the remaining four years of the five-year capital works plan. Details of expenditures by project and year are included in the tables.

Generally speaking, funding for most projects is covered through lifecycle, grants and rates however the following categories are projected to be in deficit positions:

Bridges Lifecycle Reserve

In 2022 three (3) culverts are planned to be replaced at a cost of \$1,691,600 which will push this reserve into a deficit position of \$1,412,000. The annual Lifecycle allocation was increased from \$390,000 to \$410,000 for 2020 as a step towards addressing the funding deficit identified in the Town's 2018 Asset Management Plan (AMP).

The Town's AMP will be updated for July 2021 at which time Administration will consider options to offset the deficit including reallocating funds from the Road LC, borrowing, grants, increasing the annual allocation and stretching out the works over a longer period.

Storm Sewer Lifecycle Reserve

The reserve is expected to be in a \$2,614,000 deficit position by the end of 2020 largely as a result of the \$2,740,000 required for the MRSPA pond design and construction.

A major contributor to the deficit is that the Town has significantly enhanced storm infrastructure with funding coming from Storm Sewer LC whereas a portion of the funds should come from new infrastructure funds. Examples include Brighton and Manning Roads pump stations being enhanced, over what was previously in place, along with certain road projects in the St. Clair Beach and Oldcastle areas where the storm system is being enhanced. Deficits have been manageable to date using grants and additional funding provided by the Roads LC.

The (Tecumseh) Storm Drainage Master Plan was completed during 2019 and recommended capital projects of \$107 million. The Scully & St. Mark's Storm Pump Station has been identified as one of the recommended projects and is included in the five-year capital works plan at an estimated project cost in excess of \$15,000,000 of which \$733,100 has been allocated in 2020/2021 for engineering to have the project in a "shovel ready" state in the event grants become available. The timing of design and construction is contingent on the availability of funding, and Council approval.

The (Oldcastle Hamlet) Storm Drainage Master Plan should be completed in 2020 and will recommend capital projects of its own.

Discussions are on-going with regard to functional servicing for various developments that are being considered within the Town that may require advancement of Capital infrastructure. As proposals are brought forward, Administration will report back to Council with project details and potential financial implications.

Based on the current annual allocation of just over \$1 million, implementation of the Master Plan projects will require significant funding enhancements. Administration continues to look at a range of funding sources including debt, grants, increased lifecycle allocations, consideration of stormwater rates, etc. In the near term OCIF grant allocations have been preliminarily earmarked for storm sewer purposes and will be banked until an implementation plan is developed coming out of the master planning process.

Wastewater Sewers Reserve Fund

This reserve fund continues to be in a deficit position with projected 2020 year-end estimated to be \$5,158,000. Lack of sustained growth has meant the Town has had to fund infrastructure for longer than originally anticipated. In addition, the Town expended \$11.9 million in funding between 2011 and 2017 for trunk sanitary sewer construction for the 8th Concession Road sanitary service area. Local sewers are scheduled to be constructed over the next several years, which should result in significant recoveries to help reduce the deficit.

Administration is investigating debt funding and other options in order to address the cash flow issues facing the wastewater infrastructure system.

For purposes of putting together this PWES Capital Plan, Administration has assumed that new sidewalk and CWATS projects would be funded by the Infrastructure Reserve. Neither the Sidewalk LC nor the Trail LC annual allocations of \$74,000 and \$50,000 respectively allow for any significant new infrastructure. Administration continues to work at refining estimates for

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2020-2024 Public Works & Environmental Services Five Year Capital Works Plan

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new infrastructure requirements to be funded from the Infrastructure Reserve as well as other methods of financing. Additional analysis will be brought before Council as these works continue.

Projected Lifecycle Reserve and Reserve Fund balances are provided in attached schedules.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input checked="" type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐ Social Media ☐ News Release ☐ Local Newspaper ☐

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2020-2024 Public Works & Environmental Services Five Year Capital Works Plan

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This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

John Henderson, P.Eng.
Manager Engineering Services

Reviewed by:

Tom Kitsos, CPA, CMA, BComm
Director Financial Services & Chief Financial Officer

Reviewed by:

Brian Hillman, MA, MCIP, RPP
Director Planning & Building Services

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Recommended by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services &
Acting Chief Administrative Officer

**Attachment
Number**

**Attachment
Name**

1

PWES 2020-2024 Capital Works Plan-Project Cost Estimates

2

PWES 2020-2024 Capital Works Plan-LCRoads2020 CC2 1500

210

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2020-2024 Public Works & Environmental Services Five Year Capital Works Plan

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Attachment Number	Attachment Name
3	PWES 2020-2024 Capital Works Plan-LCBridges2020 CC2 1660
4	PWES 2020-2024 Capital Works Plan-LCSidewalks2020 CC2 1550
5	PWES 2020- 2024 Capital Works Plan-LCStorm2020 CC2 1650
6	PWES 2020-2024 Capital Works Plan-RFWastewater2020 CC2 2550
7	PWES 2020-2024 Capital Works Plan-RFWastewaterFacilities2020 CC2 2560
8	PWES 2020-2024 Capital Works Plan-RFWatermains2020 CC2 2520
9	PWES 2020-2024 Capital Works Plan-RFWaterFacilities2020 CC2 2530
10	2020-2024 Infrastructure Five Year Projections-RInfrastructure2020 CC2 1085

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan											
Roads	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Paving	\$ 7,775,000	\$ -	\$ -	\$ 7,775,000	\$ 1,300,000	\$ 1,300,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Traffic Signal Controller Upgrade (w/ County) CFWD	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
PW Yard (North) Expansion/Improvements CFWD	\$ 30,000	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -
Road Line Painter	\$ 30,000	\$ -	\$ -	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Traffic Calming Guideline Study	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Traffic Signal Upgrades/Maintenance	\$ 83,000	\$ 12,450	\$ 8,300	\$ 103,750	\$ -	\$ -	\$ 62,500	\$ 30,000	\$ -	\$ -	\$ -
Traffic Signal Reconstruction (Lesperance/McNorton)	\$ 140,250	\$ 24,750	\$ -	\$ 165,000	\$ -	\$ -	\$ 165,000	\$ -	\$ -	\$ -	\$ -
CR42/43 Const. including 12th&Banwell Watermains	\$ 35,100	\$ 6,000	\$ 1,800	\$ 42,900	\$ -	\$ 22,450	\$ -	\$ 20,450	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ -	\$ 91,500	\$ -	\$ 91,500	\$ -	\$ 30,250	\$ 61,250	\$ -	\$ -	\$ -	\$ -
Tecumseh Sigance Project	\$ -	\$ 16,000	\$ -	\$ 16,000	\$ -	\$ 16,000	\$ -	\$ -	\$ -	\$ -	\$ -
Lesperance/VIA Rail Improvements	\$ 991,800	\$ 242,600	\$ 49,600	\$ 1,284,000	\$ -	\$ 155,000	\$ 1,129,000	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 1 CFWD	\$ 10,131,900	\$ 1,695,360	\$ 946,000	\$ 12,773,260	\$ 100,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 2 CFWD	\$ 5,579,960	\$ 846,540	\$ 538,020	\$ 6,964,540	\$ 28,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 3	\$ 2,930,130	\$ 445,078	\$ 282,870	\$ 3,658,078	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 4	\$ 3,027,950	\$ 459,522	\$ 292,050	\$ 3,779,522	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 5	\$ 1,742,250	\$ 271,418	\$ 172,500	\$ 2,186,168	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manning Road/ETLD Drain Relocation - Phase 2	\$ 609,400	\$ 106,000	\$ 30,500	\$ 745,900	\$ -	\$ 4,500	\$ 691,400	\$ -	\$ -	\$ -	\$ -
Manning Road Reconstruction - Phase 3	\$ 5,415,900	\$ 778,000	\$ 270,800	\$ 6,464,700	\$ -	\$ 45,500	\$ -	\$ 6,239,200	\$ -	\$ -	\$ -
South Talbot Road Reconstruction	\$ 2,039,500	\$ 189,000	\$ 102,000	\$ 2,330,500	\$ 2,240,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sylvestre Drive Sanitary Sewer Extension	\$ 881,700	\$ 151,600	\$ 44,100	\$ 1,077,400	\$ 20,000	\$ -	\$ 983,400	\$ -	\$ -	\$ -	\$ -
Lesperance Road Bike Lanes	\$ 100,000	\$ 10,000	\$ -	\$ 110,000	\$ 110,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh/Lacasse Intersection Improvements	\$ 365,000	\$ 77,000	\$ 36,500	\$ 479,000	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Brighton Road Traffic Circle Review	\$ -	\$ 32,000	\$ -	\$ 32,000	\$ 32,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Roads Needs Study	\$ -	\$ 133,000	\$ -	\$ 133,000	\$ 63,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000	\$ -
Scully & St Mark's Storm PS/Riverside Drive CFWD	\$ 1,177,300	\$ 203,000	\$ 117,700	\$ 1,498,000	\$ -	\$ 26,100	\$ 17,500	\$ -	\$ 1,454,400	\$ -	\$ -
CR46/Webster/Laval Sanitary Sewer Exten. (LRPCP)	\$ 1,284,900	\$ 182,000	\$ 64,200	\$ 1,531,100	\$ 120,750	\$ -	\$ 1,410,350	\$ -	\$ -	\$ -	\$ -
Delduca Drive Sanitary Sewer (LRPCP)	\$ 902,400	\$ 163,400	\$ 45,100	\$ 1,110,900	\$ 92,450	\$ -	\$ -	\$ 1,018,450	\$ -	\$ -	\$ -
Lanoue Street Improvements	\$ 1,322,900	\$ 275,000	\$ 66,100	\$ 1,664,000	\$ -	\$ 363,300	\$ 1,300,700	\$ -	\$ -	\$ -	\$ -
Tecumseh Road Sanitary Sewer	\$ 533,600	\$ 85,600	\$ 53,400	\$ 672,600	\$ -	\$ 672,600	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside Drive In-line Storage Trunk Sanitary	\$ 575,000	\$ 116,250	\$ 57,500	\$ 748,750	\$ -	\$ -	\$ -	\$ 58,125	\$ 690,625	\$ -	\$ -
Ure Street Sanitary Sewer (LRPCP)	\$ 533,900	\$ 80,100	\$ 53,400	\$ 667,000	\$ -	\$ -	\$ -	\$ 40,000	\$ 627,000	\$ -	\$ -
PJ Cecile Storm PS *	\$ 200,000	\$ 60,000	\$ 20,000	\$ 280,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 250,000
O'Neil Street Sanitary Sewer (LRPCP)	\$ 617,500	\$ 92,600	\$ 61,800	\$ 772,000	\$ -	\$ -	\$ -	\$ -	\$ 46,300	\$ 725,700	\$ -
Moynahan-Henin-Regal Sanitary Sewer (LRPCP)	\$ 755,300	\$ 113,300	\$ 75,500	\$ 944,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,650	\$ 887,350
Total	\$ 49,961,660	\$ 6,949,068	\$ 3,389,740	\$ 60,300,568	\$ 4,166,700	\$ 3,215,700	\$ 6,821,100	\$ 8,406,225	\$ 3,849,325	\$ 1,852,350	\$ 2,137,350

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan											
Sidewalks/Pathways	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Sidewalk Repair Program	\$ 483,000	\$ -	\$ -	\$ 483,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000
Riverside Drive Trail (Lesperance to Manning) CFWD	\$ 680,000	\$ 102,000	\$ 68,000	\$ 850,000	\$ -	\$ 150,000	\$ 632,000	\$ -	\$ -	\$ -	\$ -
McNorton Bike Lanes	\$ 10,000	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -
Lesperance Road Trail (CR22 to CR42)	\$ 885,000	\$ 142,000	\$ 44,000	\$ 1,071,000	\$ -	\$ -	\$ 71,000	\$ 1,000,000	\$ -	\$ -	\$ -
Tecumseh Road Path (Arlington to DM Eagle)	\$ 92,500	\$ 5,000	\$ 2,500	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside Drive Pathway (Arlington to Kensington)	\$ 120,000	\$ 18,000	\$ 18,000	\$ 156,000	\$ -	\$ -	\$ -	\$ 9,000	\$ 147,000	\$ -	\$ -
CR34: Malden to CR19 (Multi-Use Trail)	\$ 350,000	\$ 52,500	\$ 52,500	\$ 455,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 380,000	\$ -
Lesperance Road Trail (Riverside to McNorton)	\$ 350,000	\$ 52,500	\$ 52,500	\$ 455,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,250	\$ 428,750
CR42 / CR19 Roundabout (Sidewalks)	\$ 16,500	\$ -	\$ 2,500	\$ 19,000	\$ -	\$ 19,000	\$ -	\$ -	\$ -	\$ -	\$ -
CR42: CR43 to Lesperance (Sidewalks)	\$ 352,000	\$ -	\$ 10,000	\$ 362,000	\$ -	\$ -	\$ -	\$ -	\$ 362,000	\$ -	\$ -
CR42: Lesperance to CR19 (Sidewalks)	\$ 50,000	\$ -	\$ 8,000	\$ 58,000	\$ -	\$ 29,000	\$ -	\$ -	\$ 29,000	\$ -	\$ -
Total	\$ 3,389,000	\$ 372,000	\$ 258,000	\$ 4,019,000	\$ 69,000	\$ 367,000	\$ 782,000	\$ 1,078,000	\$ 682,000	\$ 475,250	\$ 497,750

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh
Public Works and Environmental Services
2020 - 2024 Public Works and Environmental Services Capital Works Plan

CWATS Projects	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
CR11: Hwy 401 to NTR (Multi-Use Trail)	\$ 348,000	\$ 52,000	\$ 34,600	\$ 434,600	\$ 292,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CR42/ CR19 Roundabout (Bike Lanes)	\$ 11,000	\$ -	\$ -	\$ 11,000	\$ -	\$ 11,000	\$ -	\$ -	\$ -	\$ -	\$ -
CR42: CR43 to Lesperance (Bike Lanes)	\$ 196,500	\$ -	\$ -	\$ 196,500	\$ -	\$ -	\$ -	\$ -	\$ 196,500	\$ -	\$ -
CR42: Lesperance to CR19 (Bike Lanes)	\$ 62,000	\$ -	\$ -	\$ 62,000	\$ -	\$ 31,000	\$ -	\$ -	\$ 31,000	\$ -	\$ -
Total	\$ 617,500	\$ 52,000	\$ 34,600	\$ 704,100	\$ 292,950	\$ 42,000	\$ -	\$ -	\$ 227,500	\$ -	\$ -

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh
Public Works and Environmental Services
2020 - 2024 Public Works and Environmental Services Capital Works Plan

Bridges	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Bridge & Culvert Condition Assessment (<3m Span)	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 75,000	\$ -	\$ -	\$ -
Bridge & Culvert Needs Study (>3m Span)	\$ -	\$ 117,000	\$ -	\$ 117,000	\$ -	\$ 39,000	\$ -	\$ 39,000	\$ -	\$ 39,000	\$ -
Culvert #46: South Talbot Road	\$ 290,500	\$ 90,000	\$ 30,000	\$ 410,500	\$ 370,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Culvert #47: South Talbot Road	\$ 131,500	\$ 50,000	\$ 14,000	\$ 195,500	\$ 175,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Culvert #35: Rossi Drive	\$ 10,000	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sullivan Creek at 12th Concession (1004)	\$ 155,000	\$ 87,500	\$ 7,800	\$ 250,300	\$ 207,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Townline Road Drain at 6th Concession Road (1014)	\$ 155,000	\$ 87,500	\$ 7,800	\$ 250,300	\$ 207,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Merrick Creek at 8th Concession Road (1013) CFWD	\$ 155,000	\$ 87,500	\$ 7,800	\$ 250,300	\$ 207,300	\$ 310,000	\$ -	\$ -	\$ -	\$ -	\$ -
Culvert #45: South Talbot Road (CR11/STR Works)	\$ 250,000	\$ 38,000	\$ 38,000	\$ 326,000	\$ -	\$ -	\$ 326,000	\$ -	\$ -	\$ -	\$ -
Culvert #42: Snake Lane Road	\$ 470,000	\$ 61,000	\$ 23,500	\$ 554,500	\$ -	\$ -	\$ 54,500	\$ 500,000	\$ -	\$ -	\$ -
Culvert #53: Snake Lane Road	\$ 560,000	\$ 72,700	\$ 28,000	\$ 660,700	\$ -	\$ -	\$ 64,900	\$ 595,800	\$ -	\$ -	\$ -
Culvert #54: Snake Lane Road	\$ 560,000	\$ 72,700	\$ 28,000	\$ 660,700	\$ -	\$ -	\$ 64,900	\$ 595,800	\$ -	\$ -	\$ -
Culvert #51: 8th Concession Road	\$ 80,000	\$ 60,000	\$ 10,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 30,000	\$ 120,000	\$ -	\$ -
Culvert #70: 12th Concession Road	\$ 85,000	\$ 60,000	\$ 15,000	\$ 160,000	\$ -	\$ -	\$ -	\$ 30,000	\$ 130,000	\$ -	\$ -
Roadside Safety Improvements - Bridge #1010	\$ 50,000	\$ 10,000	\$ 10,000	\$ 70,000	\$ -	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ -
Culvert #48: Holden Road	\$ 422,000	\$ 64,000	\$ 64,000	\$ 550,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,000	\$ 518,000
Colins Drain at Outer Drive (1016)	\$ 300,000	\$ 45,000	\$ 45,000	\$ 390,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,500
Total	\$ 3,674,000	\$ 1,077,900	\$ 328,900	\$ 5,080,800	\$ 1,167,900	\$ 349,000	\$ 510,300	\$ 1,935,600	\$ 250,000	\$ 71,000	\$ 540,500

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan											
Watermains	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Water & Wastewater Master Plan Update (2016)	\$ -	\$ 57,500	\$ -	\$ 57,500	\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 1	\$ 430,000	\$ 92,520	\$ 43,000	\$ 565,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 2	\$ 298,900	\$ 47,030	\$ 29,890	\$ 375,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 3	\$ 157,150	\$ 24,727	\$ 15,715	\$ 197,592	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 4	\$ 162,250	\$ 25,529	\$ 16,225	\$ 204,004	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manning Road/ETLD Drain Relocation - Phase 2	\$ 773,000	\$ 134,000	\$ 38,700	\$ 945,700	\$ -	\$ 6,000	\$ 914,700	\$ -	\$ -	\$ -	\$ -
Hwy#3/Walker Rd Watermain Replacement	\$ 1,920,700	\$ 300,000	\$ 96,000	\$ 2,316,700	\$ 74,600	\$ 2,182,100	\$ -	\$ -	\$ -	\$ -	\$ -
Westlake Drive - San, Stm, Water	\$ 85,000	\$ 12,750	\$ 12,750	\$ 110,500	\$ -	\$ -	\$ 110,500	\$ -	\$ -	\$ -	\$ -
Water Tower Internal Lining Replacement	\$ 470,000	\$ -	\$ -	\$ 470,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Loss Audit	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ -	\$ 91,500	\$ -	\$ 91,500	\$ -	\$ 30,250	\$ 61,250	\$ -	\$ -	\$ -	\$ -
CR46/Webster/Laval Sanitary Sewer Exten. (LRPCP)	\$ 1,256,800	\$ 178,000	\$ 62,800	\$ 1,497,600	\$ 80,400	\$ -	\$ 1,417,200	\$ -	\$ -	\$ -	\$ -
Delduca Drive Sanitary Sewer (LRPCP)	\$ 25,400	\$ 4,600	\$ 1,300	\$ 31,300	\$ 5,550	\$ -	\$ -	\$ 25,750	\$ -	\$ -	\$ -
CR42/43 Const. including 12th&Barwell Watermains	\$ 1,294,300	\$ 211,000	\$ 64,700	\$ 1,570,000	\$ -	\$ 758,600	\$ 811,400	\$ -	\$ -	\$ -	\$ -
2020 Water and Wastewater Rates Study	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -
CR42 & CR43 Advanced Engineering	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Zone 2 Booster Station (W-9)	\$ 2,660,000	\$ 399,000	\$ 266,000	\$ 3,325,000	\$ -	\$ -	\$ -	\$ 399,500	\$ -	\$ -	\$ 2,925,500
Zone 2 Water Storage Facility (W-10)	\$ 5,160,000	\$ 774,000	\$ 516,000	\$ 6,450,000	\$ -	\$ -	\$ -	\$ 687,000	\$ -	\$ -	\$ 5,763,000
CR19 @ CR46 Advanced Construction	\$ 125,000	\$ 18,750	\$ 18,750	\$ 162,500	\$ -	\$ -	\$ 162,500	\$ -	\$ -	\$ -	\$ -
West Tecumseh Trunk Watermain (W-1)	\$ 2,040,000	\$ 408,000	\$ 306,000	\$ 2,754,000	\$ -	\$ -	\$ -	\$ 204,000	\$ -	\$ 2,550,000	\$ -
CR19 @ CR34 Advanced Construction	\$ 40,000	\$ 6,000	\$ 6,000	\$ 52,000	\$ -	\$ -	\$ -	\$ 52,000	\$ -	\$ -	\$ -
Total	\$ 16,898,500	\$ 2,834,906	\$ 1,493,830	\$ 21,227,236	\$ 678,050	\$ 2,986,950	\$ 3,477,550	\$ 1,368,250	\$ -	\$ 2,550,000	\$ 8,688,500

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan											
Wastewater Projects	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Water & Wastewater Master Plan Update (2016)	\$ -	\$ 57,500	\$ -	\$ 57,500	\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 1	\$ 400,000	\$ 92,520	\$ 40,000	\$ 532,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 2	\$ 298,900	\$ 47,030	\$ 29,890	\$ 375,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 3	\$ 157,150	\$ 24,727	\$ 15,715	\$ 197,592	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 4	\$ 162,250	\$ 25,529	\$ 16,225	\$ 204,004	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manning Road/ETLD Drain Relocation - Phase 2	\$ 9,000	\$ 2,000	\$ 500	\$ 11,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
County Road 11 (North) Sanitary Sewer	\$ 875,000	\$ 172,000	\$ 105,000	\$ 1,152,000	\$ 952,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sylvestre Drive Sanitary Sewer Extension	\$ 518,000	\$ 185,400	\$ 25,900	\$ 729,300	\$ 77,600	\$ -	\$ 542,500	\$ -	\$ -	\$ -	\$ -
Pump Station Emergency Response Plan	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA Software/Servers/Nodes Update	\$ 26,250	\$ -	\$ -	\$ 26,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manhole Restoration Program	\$ 75,000	\$ -	\$ -	\$ 75,000	\$ 50,000	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -
Sylvestre Drive Sanitary PS Improvements	\$ 45,000	\$ -	\$ -	\$ 45,000	\$ 15,000	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ -
Lakewood Sanitary PS Improvements	\$ 7,500	\$ -	\$ -	\$ 7,500	\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sanitary Metering Station Repairs	\$ 10,000	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Westlake Drive - San, Stm, Water	\$ 132,000	\$ 20,000	\$ 20,000	\$ 172,000	\$ -	\$ -	\$ 172,000	\$ -	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EAFSR	\$ -	\$ 91,500	\$ -	\$ 91,500	\$ -	\$ 30,250	\$ 61,250	\$ -	\$ -	\$ -	\$ -
CR46/Webster/Laval Sanitary Sewer Exten. (LRPCP)	\$ 1,246,600	\$ 177,000	\$ 62,300	\$ 1,485,900	\$ 166,700	\$ -	\$ 1,319,200	\$ -	\$ -	\$ -	\$ -
Scully & St Mark's Storm PS/Riverside Drive CFWD	\$ 294,300	\$ 51,000	\$ 29,400	\$ 374,700	\$ -	\$ 12,350	\$ 8,200	\$ -	\$ 354,150	\$ -	\$ -
Delduca Drive Sanitary Sewer (LRPCP)	\$ 872,900	\$ 158,100	\$ 43,600	\$ 1,074,600	\$ 148,500	\$ -	\$ -	\$ 926,100	\$ -	\$ -	\$ -
Sanitary Sewer Model Update	\$ -	\$ 295,000	\$ -	\$ 295,000	\$ 250,000	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside Drive In-line Storage Trunk Sanitary	\$ 1,645,000	\$ 246,750	\$ 164,500	\$ 2,056,000	\$ -	\$ -	\$ -	\$ 123,375	\$ 1,932,625	\$ -	\$ -
CR42/43 Const. including 12th&Banwell Watermains	\$ 244,600	\$ 40,000	\$ 12,200	\$ 296,800	\$ -	\$ 44,900	\$ 251,900	\$ -	\$ -	\$ -	\$ -
CR42 & CR43 Advanced Engineering	\$ -	\$ 16,000	\$ -	\$ 16,000	\$ 16,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road Sanitary Sewer	\$ 1,900,100	\$ 305,000	\$ 190,000	\$ 2,395,100	\$ 150,000	\$ 2,245,100	\$ -	\$ -	\$ -	\$ -	\$ -
Ure Street Sanitary Sewer (LRPCP)	\$ 407,500	\$ 61,100	\$ 40,800	\$ 509,000	\$ -	\$ -	\$ -	\$ 31,000	\$ 478,000	\$ -	\$ -
West Tecumseh Trunk Sanitary (WW-1)	\$ 5,210,000	\$ 1,042,000	\$ 781,500	\$ 7,034,000	\$ -	\$ -	\$ -	\$ 521,000	\$ -	\$ 6,513,000	\$ -
Diversion San Sewers (Intersection Rd) (WW-2)	\$ 840,000	\$ 168,000	\$ 126,000	\$ 1,134,000	\$ -	\$ -	\$ -	\$ 84,000	\$ -	\$ 1,050,000	\$ -
O'Neil Street Sanitary Sewer (LRPCP)	\$ 471,300	\$ 70,700	\$ 23,600	\$ 565,000	\$ -	\$ -	\$ -	\$ -	\$ 35,350	\$ 530,650	\$ -
Moynahan-Herlin-Regal Sanitary Sewer (LRPCP)	\$ 576,400	\$ 86,500	\$ 28,800	\$ 692,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,250	\$ 648,750
2020 Water and Wastewater Rates Study	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 16,424,750	\$ 3,480,356	\$ 1,755,930	\$ 21,661,586	\$ 1,885,800	\$ 2,412,600	\$ 2,355,050	\$ 1,715,475	\$ 2,800,125	\$ 8,136,900	\$ 648,750

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan											
Storm Sewers	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Tecumseh Road CIP - Phase 1	\$ 700,000	\$ -	\$ 70,000	\$ 770,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manning Road/ETLD Drain Relocation - Phase 2	\$ 1,408,500	\$ 244,000	\$ 70,400	\$ 1,722,900	\$ -	\$ 11,000	\$ 1,651,900	\$ -	\$ -	\$ -	\$ -
Manning Road Reconstruction - Phase 3	\$ 266,800	\$ 38,000	\$ 13,300	\$ 318,100	\$ -	\$ 2,500	\$ -	\$ 315,600	\$ -	\$ -	\$ -
Lesperance/VIA Rail Improvements	\$ 193,600	\$ 47,400	\$ 9,700	\$ 250,700	\$ -	\$ 31,000	\$ 219,700	\$ -	\$ -	\$ -	\$ -
Sylvestre Drive Sanitary Sewer Extension	\$ 43,500	\$ 7,500	\$ 2,200	\$ 53,200	\$ -	\$ -	\$ 49,000	\$ -	\$ -	\$ -	\$ -
Pump Station Emergency Response Plan	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ 35,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
West St. Louis Storm PS - Repairs	\$ 51,000	\$ 7,650	\$ 7,650	\$ 66,300	\$ 66,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lesperance Road Storm PS - Repairs	\$ 181,000	\$ 18,100	\$ 18,100	\$ 217,200	\$ 117,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(East) St. Louis Storm PS - Repairs	\$ 65,000	\$ 9,750	\$ 9,750	\$ 84,500	\$ 84,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manhole Restoration Program	\$ 75,000	\$ -	\$ -	\$ 75,000	\$ 50,000	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -
Westlake Drive - San, Stm, Water	\$ 120,000	\$ 18,000	\$ 18,000	\$ 156,000	\$ -	\$ -	\$ 156,000	\$ -	\$ -	\$ -	\$ -
Oldcastle Storm Drainage Master Plan	\$ -	\$ 450,000	\$ -	\$ 450,000	\$ 330,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EAFSR	\$ -	\$ 480,500	\$ -	\$ 480,500	\$ -	\$ 219,250	\$ 261,250	\$ -	\$ -	\$ -	\$ -
CR46/Webster/Laval Sanitary Sewer Extension	\$ 542,100	\$ 77,000	\$ 27,100	\$ 646,200	\$ 2,400	\$ 75,000	\$ 568,800	\$ -	\$ -	\$ -	\$ -
Scully & St Mark's Storm PS/Riverside Drive CFWD	\$ 11,533,300	\$ 1,964,000	\$ 1,153,300	\$ 14,650,600	\$ -	\$ 440,000	\$ 293,100	\$ -	\$ 13,947,500	\$ -	\$ -
MRSPA Pond Design and Construction	\$ 9,775,000	\$ 1,660,000	\$ 1,300,000	\$ 12,735,000	\$ 40,000	\$ 2,740,000	\$ 9,955,000	\$ -	\$ -	\$ -	\$ -
Delduca Drive Sanitary Sewer (LRPCP)	\$ 723,900	\$ 131,100	\$ 36,200	\$ 891,200	\$ 50,850	\$ 75,000	\$ -	\$ 765,350	\$ -	\$ -	\$ -
Shoreline Management Plan	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
Stormwater Rate Study	\$ -	\$ 45,000	\$ -	\$ 45,000	\$ -	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
P.J. Cecile Storm PS *	\$ 6,900,000	\$ 1,380,000	\$ 1,380,000	\$ 9,660,000	\$ -	\$ -	\$ -	\$ -	\$ 345,000	\$ 345,000	\$ 8,970,000
Ure Street Sanitary Sewer (LRPCP)	\$ 328,800	\$ 49,300	\$ 32,900	\$ 411,000	\$ -	\$ -	\$ -	\$ 25,000	\$ 386,000	\$ -	\$ -
O'Neil Street Sanitary Sewer (LRPCP)	\$ 380,300	\$ 57,000	\$ 19,000	\$ 456,000	\$ -	\$ -	\$ -	\$ -	\$ 28,500	\$ 427,500	\$ -
CR42 & CR43 Advanced Engineering	\$ -	\$ 9,000	\$ -	\$ 9,000	\$ 9,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Breakwall Condition Assessment	\$ -	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -
Moynahan-Henin-Regal Sanitary Sewer (LRPCP)	\$ 465,100	\$ 69,800	\$ 23,300	\$ 558,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,900	\$ 523,100
Tecumseh Storm Drainage Master Plan Update	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ -
Total	\$ 33,752,900	\$ 7,378,100	\$ 4,190,900	\$ 45,321,400	\$ 785,250	\$ 4,013,750	\$ 13,154,750	\$ 1,155,950	\$ 14,707,000	\$ 957,400	\$ 9,493,100

Town of Tecumseh
Public Works and Environmental Services
2020 - 2024 Public Works and Environmental Services Capital Works Plan

Municipal Drains	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Manning Road/ETLD Drain Relocation - Phase 2	\$ 2,759,500	\$ 479,000	\$ 138,000	\$ 3,376,500	\$ -	\$ 21,500	\$ 3,250,000	\$ -	\$ -	\$ -	\$ -
Total	\$ 2,759,500	\$ 479,000	\$ 138,000	\$ 3,376,500	\$ -	\$ 21,500	\$ 3,250,000	\$ -	\$ -	\$ -	\$ -

Drinking Water Quality Management System
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Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan Major Projects Summary												
Oldcastle - North Talbot - Sanitary Area	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025	
Rossi Drive Sanitary Sewer	\$ 1,831,500	\$ 335,000	\$ 89,300	\$ 2,255,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
County Road 11 (North) Sanitary Sewer	\$ 1,223,000	\$ 224,000	\$ 139,600	\$ 1,586,600	\$ 1,244,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Olympia-Astor-Solar Sanitary Sewer	\$ 649,500	\$ 97,400	\$ 65,000	\$ 812,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
County Road 11 (South) Sanitary Sewer	\$ 300,000	\$ 45,000	\$ 30,000	\$ 375,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh
Public Works and Environmental Services
2020 - 2024 Public Works and Environmental Services Capital Works Plan
Major Projects Summary

Oldcastle - 8th Concession - Sanitary Area	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
CR46/Webster/Laval Sanitary Sewer Extension	\$ 4,330,400	\$ 614,000	\$ 216,400	\$ 5,160,800	\$ 370,250	\$ 75,000	\$ 4,715,550	\$ -	\$ -	\$ -	\$ -
Delduca Drive Sanitary Sewer (LRPCP)	\$ 2,524,600	\$ 457,200	\$ 126,200	\$ 3,108,000	\$ 297,350	\$ 75,000	\$ -	\$ 2,735,650	\$ -	\$ -	\$ -
Ure Street Sanitary Sewer (LRPCP)	\$ 1,270,200	\$ 190,500	\$ 127,100	\$ 1,587,000	\$ -	\$ -	\$ -	\$ 96,000	\$ 1,491,000	\$ -	\$ -
O'Neil Street Sanitary Sewer (LRPCP)	\$ 1,469,100	\$ 220,300	\$ 104,400	\$ 1,794,000	\$ -	\$ -	\$ -	\$ -	\$ 110,150	\$ 1,683,850	\$ -
Moynahan-Henin-Regal Sanitary Sewer (LRPCP)	\$ 1,796,800	\$ 269,600	\$ 127,600	\$ 2,194,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 134,800	\$ 2,059,200

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh
Public Works and Environmental Services
2020 - 2024 Public Works and Environmental Services Capital Works Plan

County of Essex (Initiated) Projects	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
CR11: Hwy401 to NTR (Multi-Use Trail)	\$ 348,000	\$ 52,000	\$ 34,600	\$ 434,600	\$ 292,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Culvert #45: South Talbot Road (CR11/STR Works)	\$ 250,000	\$ 38,000	\$ 38,000	\$ 326,000	\$ -	\$ -	\$ 326,000	\$ -	\$ -	\$ -	\$ -
Westlake Drive - San, Storm, Water	\$ 337,000	\$ 50,750	\$ 50,750	\$ 438,500	\$ -	\$ -	\$ 438,500	\$ -	\$ -	\$ -	\$ -
CR42/43 Const. including 12th&Banwell Watermains	\$ 1,574,000	\$ 257,000	\$ 78,700	\$ 1,909,700	\$ -	\$ 825,950	\$ 1,063,300	\$ 20,450	\$ -	\$ -	\$ -
CR19 @ CR46 Advanced Construction	\$ 125,000	\$ 18,750	\$ 18,750	\$ 162,500	\$ -	\$ -	\$ 162,500	\$ -	\$ -	\$ -	\$ -
CR42: CR19 to CR43 (Sidewalks and Bike Lanes)	\$ 888,000	\$ -	\$ 20,500	\$ 908,500	\$ -	\$ 80,000	\$ -	\$ -	\$ 618,500	\$ -	\$ -
CR19 @ CR34 Advanced Construction	\$ 40,000	\$ 6,000	\$ 6,000	\$ 52,000	\$ -	\$ -	\$ -	\$ 52,000	\$ -	\$ -	\$ -

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Town of Tecumseh Public Works and Environmental Services 2020 - 2024 Public Works and Environmental Services Capital Works Plan											
Other	Construction	Engineering	Contingency	Total	2019	2020	2021	2022	2023	2024	2025
Water & Wastewater Master Plan Update (2016)	\$ -	\$ 115,000	\$ -	\$ 115,000	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Manning Road/ETLD Drain Relocation - Phase 2	\$ 5,559,400	\$ 965,000	\$ 278,100	\$ 6,802,500	\$ -	\$ 43,000	\$ 6,508,000	\$ -	\$ -	\$ -	\$ -
Manning Road - Road Reconstruction - Phase 3	\$ 5,682,700	\$ 816,000	\$ 284,100	\$ 6,782,800	\$ -	\$ 48,000	\$ -	\$ 6,554,800	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 1 CFWD	\$ 11,661,900	\$ 1,850,400	\$ 1,099,000	\$ 14,611,300	\$ 100,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 2 CFWD	\$ 6,177,780	\$ 940,600	\$ 597,800	\$ 7,716,180	\$ 28,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 3	\$ 3,244,430	\$ 494,532	\$ 314,300	\$ 4,053,262	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 4	\$ 3,352,450	\$ 510,580	\$ 324,500	\$ 4,187,530	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP - Phase 5	\$ 1,742,250	\$ 271,418	\$ 172,500	\$ 2,186,168	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside Drive Trail CFWD	\$ 680,000	\$ 102,000	\$ 68,000	\$ 850,000	\$ -	\$ 150,000	\$ 632,000	\$ -	\$ -	\$ -	\$ -
Lesperance Road Trail (CR22 to CR42)	\$ 885,000	\$ 142,000	\$ 44,000	\$ 1,071,000	\$ -	\$ -	\$ 71,000	\$ 1,000,000	\$ -	\$ -	\$ -
Riverside Drive Pathway (Arlington to Kensington)	\$ 120,000	\$ 18,000	\$ 18,000	\$ 156,000	\$ -	\$ -	\$ -	\$ 9,000	\$ 147,000	\$ -	\$ -
Lesperance Road Trail (Riverside to McNorton)	\$ 350,000	\$ 52,500	\$ 52,500	\$ 455,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,250	\$ -
South Talbot Road Reconstruction & Culverts	\$ 2,461,500	\$ 329,000	\$ 146,000	\$ 2,936,500	\$ 2,786,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ -	\$ 755,000	\$ -	\$ 755,000	\$ -	\$ 310,000	\$ 445,000	\$ -	\$ -	\$ -	\$ -
Lesperance/VIA Rail Improvements	\$ 1,185,400	\$ 290,000	\$ 59,300	\$ 1,534,700	\$ -	\$ 186,000	\$ 1,348,700	\$ -	\$ -	\$ -	\$ -
Manhole Restoration Program	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ 100,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh/Lacasse Intersection Improvements	\$ 365,000	\$ 77,000	\$ 36,500	\$ 479,000	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hwy#3/Walker Rd Watermain Replacement	\$ 1,920,700	\$ 300,000	\$ 96,000	\$ 2,316,700	\$ 74,600	\$ 2,182,100	\$ -	\$ -	\$ -	\$ -	\$ -
Water Tower Internal Lining Replacement	\$ 470,000	\$ -	\$ -	\$ 470,000	\$ 470,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Loss Audit	\$ -	\$ 15,000	\$ -	\$ 15,000	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Zone 2 Booster Station (W-9)	\$ 2,660,000	\$ 399,000	\$ 266,000	\$ 3,325,000	\$ -	\$ -	\$ -	\$ 399,500	\$ -	\$ -	\$ 2,925,500
Zone 2 Water Storage Facility (W-10)	\$ 5,160,000	\$ 774,000	\$ 516,000	\$ 6,450,000	\$ -	\$ -	\$ -	\$ 687,000	\$ -	\$ -	\$ 5,763,000
Sylvestre Drive Sanitary Sewer Extension	\$ 1,443,200	\$ 344,500	\$ 72,200	\$ 1,859,900	\$ 97,600	\$ -	\$ 1,574,900	\$ -	\$ -	\$ -	\$ -
Sanitary Sewer Model Update	\$ -	\$ 295,000	\$ -	\$ 295,000	\$ 250,000	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
Lanoue Street Improvements	\$ 1,322,900	\$ 275,000	\$ 66,100	\$ 1,664,000	\$ -	\$ 363,300	\$ 1,300,700	\$ -	\$ -	\$ -	\$ -
Tecumseh Road Sanitary Sewer	\$ 2,433,700	\$ 390,600	\$ 243,400	\$ 3,067,700	\$ 150,000	\$ 2,917,700	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside Drive In-line Storage Trunk Sanitary	\$ 2,220,000	\$ 363,000	\$ 222,000	\$ 2,804,750	\$ -	\$ -	\$ -	\$ 181,500	\$ 2,623,250	\$ -	\$ -
MRSPA Pond Design and Construction	\$ 9,775,000	\$ 1,660,000	\$ 1,300,000	\$ 12,735,000	\$ 40,000	\$ 2,740,000	\$ 9,955,000	\$ -	\$ -	\$ -	\$ -
West St. Louis Storm PS - Repairs	\$ 51,000	\$ 7,650	\$ 7,650	\$ 66,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lesperance Road Storm PS - Repairs	\$ 181,000	\$ 18,100	\$ 18,100	\$ 217,200	\$ 117,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(East) St. Louis Storm PS - Repairs	\$ 65,000	\$ 9,750	\$ 9,750	\$ 84,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Oldcastle Storm Drainage Master Plan	\$ -	\$ 450,000	\$ -	\$ 450,000	\$ 330,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tecumseh Storm Drainage Master Plan Update	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ -
Shoreline Management Plan	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -
Breakwal Conditions Assessment	\$ -	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -
Scully & St Mark's Storm PS/Riverside Drive CFWD	\$ 13,004,900	\$ 2,248,000	\$ 1,300,400	\$ 16,553,300	\$ -	\$ 478,450	\$ 318,800	\$ -	\$ 15,756,050	\$ -	\$ -
West Tecumseh Trunk Watermain (W-1)	\$ 2,040,000	\$ 408,000	\$ 306,000	\$ 2,754,000	\$ -	\$ -	\$ -	\$ 204,000	\$ -	\$ 2,550,000	\$ -
West Tecumseh Trunk Sanitary (WW-1)	\$ 5,210,000	\$ 1,042,000	\$ 781,500	\$ 7,034,000	\$ -	\$ -	\$ -	\$ 521,000	\$ -	\$ 6,513,000	\$ -
Diversion San Sewers (Intersection Rd) (WW-2)	\$ 840,000	\$ 168,000	\$ 126,000	\$ 1,134,000	\$ -	\$ -	\$ -	\$ 84,000	\$ -	\$ 1,050,000	\$ -
P. J. Cecile Storm PS *	\$ 7,100,000	\$ 1,440,000	\$ 1,400,000	\$ 9,940,000	\$ -	\$ -	\$ -	\$ -	\$ 375,000	\$ 345,000	\$ 9,220,000
2020 Water and Wastewater Rates Study	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Attachment 2 - 2020 -2024 PWES Five (5) Year Capital Works Plan

LC Road (1500)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 8,922,592	\$ 9,735,242	\$ 3,795,442	\$ 1,349,917	\$ 1,641,692
Budget Allocation	\$ 4,160,000	\$ 4,160,000	\$ 4,160,000	\$ 4,160,000	\$ 4,160,000
Sale of Electricity to Grid	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
CWATS	\$ 8,000	\$ -	\$ 525,000	\$ -	\$ -
County Connecting Link Agreement	\$ -	\$ -	\$ 1,295,000	\$ -	\$ -
Funds Available	\$ 13,100,592	\$ 13,905,242	\$ 9,785,442	\$ 5,519,917	\$ 5,811,692
Committed					
IT GIS Tech % share	\$ 28,150	\$ 28,700	\$ 29,300	\$ 29,900	\$ 30,500
Traffic Signal Controller Upgrade (with County)	\$ 150,000	\$ -	\$ -	\$ -	\$ -
PW Yard (North) Expansion/Improvements	\$ 30,000	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP Phase 1	\$ 350,000	\$ -	\$ -	\$ -	\$ -
Tecumseh Road CIP Phase 2	\$ 50,000	\$ -	\$ -	\$ -	\$ -
Scully & St. Mark's Storm PS/Riverside Drive	\$ 26,100	\$ 17,500	\$ -	\$ -	\$ -
Balance Committed	\$ 634,250	\$ 46,200	\$ 29,300	\$ 29,900	\$ 30,500
Balance Uncommitted	\$ 12,466,342	\$ 13,859,042	\$ 9,756,142	\$ 5,490,017	\$ 5,781,192
Proposed					
Road Paving - Asphaltting (Note 1)	\$ 1,300,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Traffic Signal Upgrades/Maintenance	\$ -	\$ 62,500	\$ 30,000	\$ -	\$ -
Traffic Signal Reconstruct (Lesperance/McNorton)	\$ -	\$ 165,000	\$ -	\$ -	\$ -
Tecumseh Road Path (Arlington to DM Eagle)	\$ 100,000	\$ -	\$ -	\$ -	\$ -
McNorton Bike Lanes	\$ -	\$ 10,000	\$ -	\$ -	\$ -
CR42/43 Const. including 12th&Banwell Watermains	\$ 22,450	\$ -	\$ 20,450	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ 30,250	\$ 61,250	\$ -	\$ -	\$ -
Tecumseh Sigange Project	\$ 16,000	\$ -	\$ -	\$ -	\$ -
Lesperance/VIA Rail Improvements	\$ 155,000	\$ 1,129,000	\$ -	\$ -	\$ -
Manning Road - Phase 2 - Road Work	\$ 4,500	\$ 691,400	\$ -	\$ -	\$ -
Manning Road - Phase 2 - Drain Relocation	\$ 21,500	\$ 3,250,000	\$ -	\$ -	\$ -
Manning Road Reconstruction - Phase 3	\$ 45,500	\$ -	\$ 6,239,200	\$ -	\$ -
Sylvestre Drive Sanitary Sewer Extension	\$ -	\$ 983,400	\$ -	\$ -	\$ -
Roads Needs Study	\$ -	\$ -	\$ -	\$ -	\$ 70,000
Scully & St. Mark's Storm PS/Riverside Drive	\$ -	\$ -	\$ -	\$ 1,454,400	\$ -
CR#46/Webster/Laval Sanitary Ext. (LRPCP)	\$ -	\$ 1,410,350	\$ -	\$ -	\$ -
Delduca Drive (Sanitary Sewer LRPCP)	\$ -	\$ -	\$ 1,018,450	\$ -	\$ -
Lanoue Street Improvements	\$ 363,300	\$ 1,300,700	\$ -	\$ -	\$ -
Tecumseh Road Sanitary Sewer	\$ 672,600	\$ -	\$ -	\$ -	\$ -
Riverside Drive In-Line Storage Trunk Sanitary	\$ -	\$ -	\$ 58,125	\$ 690,625	\$ -
Ure Street (Sanitary Sewer LRPCP)	\$ -	\$ -	\$ 40,000	\$ 627,000	\$ -
PJ Cecile Storm PS	\$ -	\$ -	\$ -	\$ 30,000	\$ -
O'Neil Street Sanitary Sewer (LRPCP)	\$ -	\$ -	\$ -	\$ 46,300	\$ 725,700
Moynahan-Henin-Regal Sanitary Sewer (LRPCP)	\$ -	\$ -	\$ -	\$ -	\$ 56,650
Balance Proposed	\$ 2,731,100	\$ 10,063,600	\$ 8,406,225	\$ 3,848,325	\$ 1,852,350
Balance Available	\$ 9,735,242	\$ 3,795,442	\$ 1,349,917	\$ 1,641,692	\$ 3,928,842

Notes:

1) General allowance for asphaltting

Attachment 3 - 2020 - 2024 PWES Five (5) Year Capital Works Plan

LC Bridges (1660)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 152,486	\$ 213,486	\$ 113,186	\$ (1,412,414)	\$ (1,252,414)
Budget Allocation	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000	\$ 410,000
Funds Available	\$ 562,486	\$ 623,486	\$ 523,186	\$ (1,002,414)	\$ (842,414)
Committed					
Merrick Creek at 8th Concession (1013)	\$ 310,000	\$ -	\$ -	\$ -	\$ -
Balance Committed	\$ 310,000	\$ -	\$ -	\$ -	\$ -
Balance Uncommitted	\$ 252,486	\$ 623,486	\$ 523,186	\$ (1,002,414)	\$ (842,414)
Proposed					
Culvert Condition Assessment (<3m Span)	\$ -	\$ -	\$ 75,000	\$ -	\$ -
Bridge/Culvert Needs Study (>3m)	\$ 39,000	\$ -	\$ 39,000	\$ -	\$ 39,000
Culvert #45: S.Talbot Road (CR11/STR Works)	\$ -	\$ 326,000	\$ -	\$ -	\$ -
Culvert #42: Snake Lane Road	\$ -	\$ 54,500	\$ 500,000	\$ -	\$ -
Culvert #53: Snake Lane Road	\$ -	\$ 64,900	\$ 595,800	\$ -	\$ -
Culvert #54: Snake Lane Road	\$ -	\$ 64,900	\$ 595,800	\$ -	\$ -
Culvert #51: 8th Concession	\$ -	\$ -	\$ 30,000	\$ 120,000	\$ -
Culvert #70: 12th Concession	\$ -	\$ -	\$ 30,000	\$ 130,000	\$ -
Roadside Safety Improvements - Bridge #1010	\$ -	\$ -	\$ 70,000	\$ -	\$ -
Culvert #48: Holden Road	\$ -	\$ -	\$ -	\$ -	\$ 32,000
Balance Proposed	\$ 39,000	\$ 510,300	\$ 1,935,600	\$ 250,000	\$ 71,000
Balance Available	\$ 213,486	\$ 113,186	\$ (1,412,414)	\$ (1,252,414)	\$ (913,414)

Attachment 4 - 2020 - 2024 PWES Five (5) Year Capital Works Plan

LC Sidewalk (1550)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 323,947	\$ 328,947	\$ 333,947	\$ 338,947	\$ 343,947
Budget Allocation	\$ 74,000	\$ 74,000	\$ 74,000	\$ 74,000	\$ 74,000
Funds Available	\$ 397,947	\$ 402,947	\$ 407,947	\$ 412,947	\$ 417,947
Committed	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Committed	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Uncommitted	\$ 397,947	\$ 402,947	\$ 407,947	\$ 412,947	\$ 417,947
Proposed					
Sidewalk repair program (Note 1)	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000
Balance Proposed	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000
Balance Available	\$ 328,947	\$ 333,947	\$ 338,947	\$ 343,947	\$ 348,947

Notes:

1) General allowance

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Attachment 5 - 2020 - 2024 PWES Five (5) Year Capital Works Plan

LC Storm Sewer (1650)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 397,453	\$ (2,613,597)	\$ (2,746,755)	\$ (2,900,005)	\$ (16,604,305)
Budget Allocation	\$ 1,002,700	\$ 1,002,700	\$ 1,002,700	\$ 1,002,700	\$ 1,002,700
OCIF Grant	\$ -	\$ 1,862,892	\$ -	\$ -	\$ -
Recoveries	\$ -	\$ 10,156,000	\$ -	\$ -	\$ -
Funds Available	\$ 1,400,153	\$ 10,407,995	\$ (1,744,055)	\$ (1,897,305)	\$ (15,601,605)
Committed					
Scully & St. Mark's Storm PS/Riverside Drive	\$ 440,000	\$ 293,100	\$ -	\$ -	\$ -
Balance Committed	\$ 440,000	\$ 293,100	\$ -	\$ -	\$ -
Balance Uncommitted	\$ 960,153	\$ 10,114,895	\$ (1,744,055)	\$ (1,897,305)	\$ (15,601,605)
Proposed					
Manning Road/ETLD Drain Relocation - Phase 2	\$ 11,000	\$ 1,651,900	\$ -	\$ -	\$ -
Manning Road Reconstruction - Phase 3	\$ 2,500	\$ -	\$ 315,600	\$ -	\$ -
Lesperance/VIA Rail Improvements	\$ 31,000	\$ 219,700	\$ -	\$ -	\$ -
Sylvestre Drive Sanitary Sewer Extension	\$ -	\$ 49,000	\$ -	\$ -	\$ -
Manhole Restoration Program	\$ 25,000	\$ -	\$ -	\$ -	\$ -
Westlake Drive - Sanitary/Storm/Water	\$ -	\$ 156,000	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ 219,250	\$ 261,250	\$ -	\$ -	\$ -
CR#46/Webster/Laval Sanitary Ext. (LRPCP)	\$ 75,000	\$ 568,800	\$ -	\$ -	\$ -
Scully & St. Mark's Storm PS/Riverside Drive	\$ -	\$ -	\$ -	\$ 13,947,500	\$ -
MRSPA Pond Design and Construction	\$ 2,740,000	\$ 9,955,000	\$ -	\$ -	\$ -
Delduca Drive (LRPCP)	\$ 75,000	\$ -	\$ 765,350	\$ -	\$ -
Shoreline Management Plan	\$ 350,000	\$ -	\$ -	\$ -	\$ -
Stormwater Rate Study	\$ 45,000	\$ -	\$ -	\$ -	\$ -
P.J. Cecile Storm PS	\$ -	\$ -	\$ -	\$ 345,000	\$ 345,000
Ure Street (Sanitary LRPCP)	\$ -	\$ -	\$ 25,000	\$ 386,000	\$ -
O'Neil Street Sanitary Sewer (LRPCP)	\$ -	\$ -	\$ -	\$ 28,500	\$ 427,500
Breakwall Condition Assessment	\$ -	\$ -	\$ 50,000	\$ -	\$ -
Moynahan-Henin-Regal Sanitary Sewer (LRPCP)	\$ -	\$ -	\$ -	\$ -	\$ 34,900
Tecumseh Storm Drainage Master Plan Update	\$ -	\$ -	\$ -	\$ -	\$ 150,000
Balance Proposed	\$ 3,573,750	\$ 12,861,650	\$ 1,155,950	\$ 14,707,000	\$ 957,400
Balance Available	\$ (2,613,597)	\$ (2,746,755)	\$ (2,900,005)	\$ (16,604,305)	\$ (16,559,005)

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Attachment 6 - 2020 - 2024 PWES Five (5) Year Capital Works Plan

RF Wastewater Sewers (2550)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ (4,305,250)	\$ (5,158,177)	\$ (3,052,016)	\$ (1,515,969)	\$ (1,228,822)
Estimated Allocation	\$ 1,969,672	\$ 2,056,011	\$ 2,199,622	\$ 2,106,072	\$ 2,308,067
Estimated Interest	\$ (129,200)	\$ (155,000)	\$ (92,000)	\$ (45,000)	\$ (37,000)
Development Charges	\$ 163,300	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Capital Sewer Charges	\$ -	\$ 2,496,300	\$ 1,050,000	\$ 905,500	\$ 740,000
Funds Available	\$ (2,301,478)	\$ (610,866)	\$ 255,606	\$ 1,600,603	\$ 1,932,245
Committed					
Debt payments - Lakewood Pump Station	\$ 100,000	\$ -	\$ -	\$ -	\$ -
Debt payments - 2012 Non-DC debt	\$ 57,400	\$ 57,400	\$ 57,400	\$ -	\$ -
Debt payments - DC Debt	\$ 258,554	\$ -	\$ -	\$ -	\$ -
IT GIS Tech % share	\$ 28,145	\$ 28,700	\$ 28,700	\$ 29,300	\$ 29,300
Scully & St. Mark's Storm PS/Riverside Drive	\$ 12,350	\$ 8,200	\$ -	\$ -	\$ -
Balance Committed	\$ 456,449	\$ 94,300	\$ 86,100	\$ 29,300	\$ 29,300
Balance Uncommitted	\$ (2,757,927)	\$ (705,166)	\$ 169,506	\$ 1,571,303	\$ 1,902,945
Proposed					
Sylvestre Drive Sanitary Extension	\$ -	\$ 542,500	\$ -	\$ -	\$ -
Manhole Restoration Program	\$ 25,000	\$ -	\$ -	\$ -	\$ -
Westlake Drive - Sanitary, Storm, Water	\$ -	\$ 172,000	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ 30,250	\$ 61,250	\$ -	\$ -	\$ -
County Road #46/Webster/Laval Sanitary Extension (LRPCP)	\$ -	\$ 1,319,200	\$ -	\$ -	\$ -
Scully & St. Mark's Storm PS/Riverside Drive	\$ -	\$ -	\$ -	\$ 354,150	\$ -
Delduca Drive (Sanitary Sewer LRPCP)	\$ -	\$ -	\$ 926,100	\$ -	\$ -
Sanitary Sewer Model Update	\$ 45,000	\$ -	\$ -	\$ -	\$ -
Sanitary Sewer Rehabilitation (I&I Removal - Phase 3)	\$ -	\$ -	\$ -	\$ -	\$ -
Riverside Drive In-Line Storage Trunk Sanitary	\$ -	\$ -	\$ 123,375	\$ 1,932,625	\$ -
CR42/43 Const. including 12th&Banwell Watermains	\$ 44,900	\$ 251,900	\$ -	\$ -	\$ -
Tecumseh Road Sanitary Sewer	\$ 2,245,100	\$ -	\$ -	\$ -	\$ -
Ure Street (LRPCP)	\$ -	\$ -	\$ 31,000	\$ 478,000	\$ -
West Tecumseh Trunk Sanitary (WW-1)	\$ -	\$ -	\$ 521,000	\$ -	\$ 6,513,000
Diversion San Sewers (Intersection Rd) (WW-2)	\$ -	\$ -	\$ 84,000	\$ -	\$ 1,050,000
O'Neil Street Sanitary Sewer (LRPCP)	\$ -	\$ -	\$ -	\$ 35,350	\$ 530,650
Moynahan-Henin-Regal Sanitary Sewer (LRPCP)	\$ -	\$ -	\$ -	\$ -	\$ 43,250
2020 Water and Wastewater Rates Study	\$ 10,000	\$ -	\$ -	\$ -	\$ -
Total Proposed	\$ 2,400,250	\$ 2,346,850	\$ 1,685,475	\$ 2,800,125	\$ 8,136,900
Balance Available	\$ (5,158,177)	\$ (3,052,016)	\$ (1,515,969)	\$ (1,228,822)	\$ (6,233,955)

Attachment 7 - 2020 - 2024 PWES Five (5) Year Capital Works Plan

RF Wastewater Facilities (2560)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 1,799,462	\$ 2,253,462	\$ 2,721,062	\$ 3,222,662	\$ 3,769,362
Estimated Allocation	\$ 400,000	\$ 400,000	\$ 450,000	\$ 450,000	\$ 450,000
Estimated Interest	\$ 54,000	\$ 67,600	\$ 81,600	\$ 96,700	\$ 113,100
Funds Available	\$ 2,253,462	\$ 2,721,062	\$ 3,252,662	\$ 3,769,362	\$ 4,332,462
Committed	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Committed	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Uncommitted	\$ 2,253,462	\$ 2,721,062	\$ 3,252,662	\$ 3,769,362	\$ 4,332,462
Proposed					
Sylvestre Drive Sanitary PS Improvements	\$ -	\$ -	\$ 30,000	\$ -	\$ -
Total Proposed	\$ -	\$ -	\$ 30,000	\$ -	\$ -
Balance Available	\$ 2,253,462	\$ 2,721,062	\$ 3,222,662	\$ 3,769,362	\$ 4,332,462

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Attachment 8 - 2020 -2024 PWES Five (5) Year Capital Works Plan

RF Watermain (2520)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 3,734,865	\$ 2,557,203	\$ 1,179,926	\$ 3,072,913	\$ 5,429,378
Estimated Allocation	\$ 1,706,133	\$ 2,041,773	\$ 2,158,237	\$ 2,284,565	\$ 2,421,469
Estimated Interest	\$ 112,000	\$ 76,700	\$ 35,400	\$ 92,200	\$ 162,900
Development Charges	\$ 57,900	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Funds Available	\$ 5,610,898	\$ 4,725,676	\$ 3,423,563	\$ 5,499,678	\$ 8,063,747
Committed					
Tools	\$ 27,600	\$ 28,200	\$ 28,700	\$ 29,300	\$ 29,900
Meters	\$ 11,000	\$ 11,300	\$ 11,500	\$ 11,700	\$ 12,000
IT GIS Tech % share	\$ 28,145	\$ 28,700	\$ 28,700	\$ 29,300	\$ 29,300
Balance Committed	\$ 66,745	\$ 68,200	\$ 68,900	\$ 70,300	\$ 71,200
Balance Uncommitted	\$ 5,544,153	\$ 4,657,476	\$ 3,354,663	\$ 5,429,378	\$ 7,992,547
Rossi Drive	\$ -	\$ -	\$ -	\$ -	\$ -
Water & Wastewater Master Plan Update (2016)	\$ -	\$ -	\$ -	\$ -	\$ -
Manning Road/ETLD Drain Relocation - 2	\$ 6,000	\$ 914,700	\$ -	\$ -	\$ -
Hwy # 3 Watermain Replacement	\$ 2,182,100	\$ -	\$ -	\$ -	\$ -
Westlake Drive - San, Storm, Water	\$ -	\$ 110,500	\$ -	\$ -	\$ -
Tecumseh Hamlet SPA EA FSR	\$ 30,250	\$ 61,250	\$ -	\$ -	\$ -
CR46/Webster/Laval Sanitary Sewer Ext	\$ -	\$ 1,417,200	\$ -	\$ -	\$ -
Delduca Drive (Sanitary Sewer LRCP)	\$ -	\$ -	\$ 25,750	\$ -	\$ -
CR42/43 Const. incl. 12th & Banwell Watermains	\$ 758,600	\$ 811,400	\$ -	\$ -	\$ -
2020 Water and Wastewater Rates Study	\$ 10,000	\$ -	\$ -	\$ -	\$ -
CR19@CR46 Advanced Construction	\$ -	\$ 162,500	\$ -	\$ -	\$ -
West Tecumseh Trunk Watermain (W-1A)	\$ -	\$ -	\$ 204,000	\$ -	\$ 2,550,000
CR19@CR34 Advanced Construction	\$ -	\$ -	\$ 52,000	\$ -	\$ -
Total Proposed	\$ 2,986,950	\$ 3,477,550	\$ 281,750	\$ -	\$ 2,550,000
Balance Available	\$ 2,557,203	\$ 1,179,926	\$ 3,072,913	\$ 5,429,378	\$ 5,442,547

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Attachment 9 - 2020 -2024 PWES Five (5) Year Capital Works Plan


RF Water Facilities (2530)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 7,630,950	\$ 7,988,850	\$ 8,432,250	\$ 7,826,450	\$ 8,313,550
Estimated Allocation	\$ 129,000	\$ 175,000	\$ 199,000	\$ 223,000	\$ 247,000
Estimated Interest	\$ 228,900	\$ 268,400	\$ 281,700	\$ 264,100	\$ 278,700
Funds Available	\$ 7,988,850	\$ 8,432,250	\$ 8,912,950	\$ 8,313,550	\$ 8,839,250
Committed	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Committed	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Uncommitted	\$ 7,988,850	\$ 8,432,250	\$ 8,912,950	\$ 8,313,550	\$ 8,839,250
Proposed					
Water Tower Internal Lining	\$ -	\$ -	\$ -	\$ -	\$ -
Zone 2 Booster Station (W-9)	\$ -	\$ -	\$ 399,500	\$ -	\$ -
Zone 2 Water Storage Facility (W-10)	\$ -	\$ -	\$ 687,000	\$ -	\$ -
Total Proposed	\$ -	\$ -	\$ 1,086,500	\$ -	\$ -
Balance Available	\$ 7,988,850	\$ 8,432,250	\$ 7,826,450	\$ 8,313,550	\$ 8,839,250

Drinking Water Quality Management System
Water Services Operational Plan Version 10 (Endorsed February 25, 2020)

Attachment 10 - 2020 - 2024 Infrastructure Five (5) Year Projections

R Infrastructure (1085)	2020	2021	2022	2023	2024
Reserve Balance Start of Year	\$ 7,143,424	\$ 5,656,926	\$ 6,447,924	\$ 7,409,424	\$ 8,830,424
Budget Allocation - New Infrastructure Levy	\$ 1,300,000	\$ 1,300,000	\$ 1,400,000	\$ 1,600,000	\$ 1,800,000
Budget Allocation - NIL Sportsplex	\$ 250,000	\$ 450,000	\$ 550,000	\$ 550,000	\$ 550,000
DC - repayments	\$ 91,100	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Investment income above base budget	\$ 457,000	\$ 457,000	\$ 457,000	\$ 457,000	\$ 457,000
Tecumseh Baseball re scoreboard	\$ 8,500	\$ 8,500	\$ 8,500	\$ 8,500	\$ 8,500
GenSet Revenues	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
CWATS	\$ 20,204	\$ -	\$ -	\$ 91,000	
Funds Available	\$ 9,285,228	\$ 7,977,426	\$ 8,968,424	\$ 10,220,924	\$ 11,750,924
Committed					
Official Plan	\$ 22,500	\$ -	\$ -	\$ -	\$ -
Development Charge Study	\$ 1,000	\$ -	\$ -	\$ -	\$ -
Community Benefit Charge Study	\$ 1,000	\$ -	\$ -	\$ -	\$ -
Tecumseh Hamlet Secondary Plan	\$ 37,000	\$ -	\$ -	\$ -	\$ -
Upper Little River SWM - Class EA	\$ 1,000	\$ -	\$ -	\$ -	\$ -
Sportsplex - Construction	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -
Sportsplex - Debt Servicing	\$ -	\$ 550,000	\$ 550,000	\$ 550,000	\$ 550,000
Riverside Dr. Trail	\$ 150,000	\$ 632,000	\$ -	\$ -	\$ -
Town Hall Expansion	\$ 2,070,000	\$ -	\$ -	\$ -	\$ -
Arena Fundraising Coordinator	\$ 76,502	\$ 76,502	\$ -	\$ -	\$ -
Balance Committed	\$ 3,359,002	\$ 1,258,502	\$ 550,000	\$ 550,000	\$ 550,000
Balance Uncommitted	\$ 5,926,226	\$ 6,718,924	\$ 8,418,424	\$ 9,670,924	\$ 11,200,924
Proposed					
Lesperance Road Trail (CR22 to CR42)	\$ -	\$ 71,000	\$ 1,000,000	\$ -	\$ -
Riverside Dr Pathway (Arlington to Kensington)	\$ -	\$ -	\$ 9,000	\$ 147,000	\$ -
CR34: Malden to CR19 (Multi-Use Trail)	\$ -	\$ -	\$ -	\$ 75,000	\$ 380,000
Lesperance Road Trail (Riverside to McNorton)	\$ -	\$ -	\$ -	\$ -	\$ 26,250
CR42/CR19 Roundabout (Sidewalks)	\$ 19,000	\$ -	\$ -	\$ -	\$ -
CR42: CR43 to Lesperance (Sidewalks)	\$ -	\$ -	\$ -	\$ 362,000	\$ -
CR42: Lesperance to CR19 (Sidewalks)	\$ 29,000	\$ -	\$ -	\$ 29,000	\$ -
CWATS: CR42/CR19 Roundabout (Bike Lanes)	\$ 11,000	\$ -	\$ -	\$ -	\$ -
CWATS: CR42: CR43 to Lesperance (Bike Lanes)	\$ -	\$ -	\$ -	\$ 196,500	\$ -
CWATS: CR42: Lesperance to CR19 (Bike Lanes)	\$ 31,000	\$ -	\$ -	\$ 31,000	\$ -
CWATS: Bike repair stations (Town Hall & Optimist)	\$ 6,800	\$ -	\$ -	\$ -	\$ -
Lakewood Park - Pier Boardwalk Repairs	\$ 110,000	\$ -	\$ -	\$ -	\$ -
McAuliffe Park - Splash Pad	\$ 62,500	\$ -	\$ -	\$ -	\$ -
Pickleball Complex Lacasse Park	\$ -	\$ 200,000	\$ -	\$ -	\$ -
Balance Proposed	\$ 269,300	\$ 271,000	\$ 1,009,000	\$ 840,500	\$ 406,250
Balance Available	\$ 5,656,926	\$ 6,447,924	\$ 7,409,424	\$ 8,830,424	\$ 10,794,674

Appendix 8 – Schedule C – Director's Directions for Operational Plans

Ontario 

Ministry of the Environment
and Climate Change

**Schedule C – Director's Directions for
Operational Plans (Subject System
Description Form)**
Municipal Residential Drinking Water System

Fields marked with an asterisk (*) are mandatory.

Owner of Municipal Residential Drinking Water System *

The Corporation of the Town of Tecumseh

Name of Municipal Residential Drinking Water System *

Tecumseh Distribution System

Subject Systems

☐ Check here if the Municipal Residential Drinking Water System is operated by one operating authority. Enter the name of the operating authority in the below table.

	Name of Operational Subsystems (if Applicable)	Name of Operating Authority *	DWS Number(s) *
1		The Corporation of the Town of Tecumseh	260004969

Provide the information outlined in the 'Contact Information' section for each Operational Subsystem.

Contact Information

Last Name *	First Name *	Middle Initial
Dupuis	Brad	
Title *	Phone Number *	
Manager, Water & Wastewater	519 791-6509	
Email Address *		
bdupuis@tecumseh.ca		

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Page 1 of 1

Meeting Minutes / Report

(Attachment 4)

Last Revised: 2020-02-11
Prepared By: Brad Dupuis

Meeting Minutes

Meeting Type: Management Review Meeting – DWQMS

Date: February 11, 2020

Called by: Town of Tecumseh

Attendees:
Margaret Misek-Evans - Chief Administration Officer (CAO)
Phil Bartnik - Director, Public Works & Environmental Services
Brad Dupuis - Manager, Water & Wastewater O.R.O.
Shawn LaPorte - DWQMS Representative/Water Operator

Location: Lacasse Board Room – 1189 Lacasse Blvd.

Agenda/Minutes:

Item Code: AI=Action Item, DM=Decision Made, IS=Information Sharing, MRC=Management Review Committee

Item	Item Description	Notes	Who Responsible / Code	Timing / Status
A	Meeting Agenda			
	Attendance	The sign-in sheet is appended to these minutes as Attachment No. 1.	IS	No Action Required
1	Previous Management Review Meeting Action Items	In the previous Management Review Meeting there were 04 Action Items (AI-04).	IS	No Action Required
		AI-01 As for the 2019 verification desktop audit, Brad and Denis attempted contact with Elizabeth Haney from NSF to set a date. Multiple emails and voicemails have been left with no response. Brad was to reach out to his peers and committees for further contacts with NSF Brad contacted Elizabeth Haney from NSF and completed the verification Inspection on October 25, 2019. Results have been completed and discussed in further detail in item 4 of this report.	IS	No Action Required

Meeting Minutes / Report

(Attachment 4)

Last Revised: 2020-02-11
Prepared By: Brad Dupuis

		<p>AI-02</p> <p>Brad and Denis to email version 15 to suppliers once completed.</p> <p>Town of Tecumseh water standards Version 15 is in the final stages.</p> <p>Discussed in further detail in item 9 of this report.</p>	IS	No Action Required
		<p>AI-03</p> <p>Denis Berthiaume, Manager of Water & Wasterwater O.R.O, is set to retire December 31, 2019. The job is currently posted and closes September 27, 2019.</p> <p>Brad is to contact the MECP (Ministry of Environment, Conservation and Parks Ontario) and fill out the revised <i>Drinking Water System Profile Information</i> form when action takes place.</p> <p>Brad contacted the MECP and updated the <i>Drinking Water System Profile Information</i> for the Town of Tecumseh</p>		

Meeting Minutes / Report

(Attachment 4)

Last Revised: 2020-02-11
Prepared By: Brad Dupuis

		AI-04 Denis and Shaun Fuerth (IT Department) to complete SCADA system upgrades. IT department partnered with the water & wastewater division will continue to work with ONYX Engineering to complete SCADA system upgrades. Discussed in further detail in item 12 of this report.	IS	No Action Required
		The Management Review Commitment (MCR) and Endorsement Statement is appended to the meeting minutes for September 09, 2019 as Attachment No. 2.		
2	Incidents of Adverse Drinking Water Tests	There have been (0) Adverse Drinking Water Results since the last managers meeting (September 09, 2019).	IS	No Action Required
3	Results of Internal Audits	The previous (2019) internal audit was reviewed and dispensed in the previous <i>managers review meeting- DWQMS</i> The upcoming Internal Audit shall be completed in the calendar year of 2020	AI	Brad and Shawn to complete the internal audit towards the end of the summer / early fall

Meeting Minutes / Report

(Attachment 4)

Last Revised: 2020-02-11

Prepared By: Brad Dupuis

4	Results of External Audits	<p>The results of the NSF Audit (October 25, 2019) were (0) Non-Conformances (NC) and (1) Opportunities for Improvements</p> <p>(OFI-1) A formal process to review Best Practices could prove Beneficial</p> <p>The MECP has yet to posts water distribution Best Practices therefore continuing to attend conferences, training sessions, committee meetings allowing us to network with peers is all considered best practice.</p> <p>NSF Audit was reviewed by all operators, attendance records available</p> <p>NSF Report is appended to these minutes as Attachment No. 3.</p>	IS	No Action Required
		<p>Every three years, an <i>On-Site</i> DWQMS Verification Audit must be completed by an accredited third party. Verification Inspection was completed November 21, 2018 by NSF. The results were discussed in the previous managers meeting (Feb 19, 2019).</p> <p>Annually a desktop DWQMS Verification Audit is to be completed by an accredited third party.</p> <p>The upcoming External Audit shall be completed in the calendar year of 2020</p>	AI	Brad and Shawn to contact accredited third party to complete the external audit mid-fall

Meeting Minutes / Report

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Prepared By: Brad Dupuis

5	Results of MECP Inspection	<p>MECP Inspection Report was completed January 16, 2020 and received a Final Inspection Rating of 100%.</p> <p>MECP Inspection Report is appended to these minutes as Attachment No. 4.</p> <p>Report Number PWES-2020-13 to be presented to council February 25, 2020.</p>	AI	Brad to present MECP Inspection results to council Feb 25, 2020
6	Incidents of Non-Compliance with Applicable Regulations	There are currently no Non-Compliance issues	IS	No Action Required
7	Consumer Feedback	<p>(10) Consumer complaints regarding water quality were made to the Town of Tecumseh since the last Manager's Review Meeting (2019-10-09).</p> <p>(1) Sep 20, 2019 (610 Michael)-</p> <ul style="list-style-type: none"> Particles on dishes – consumer stated particles sticking to dishes. Operator responded to the consumer complaint regarding the particles. Operator found particles were soap residue from dish washer. Operator took a chlorine residual of 1.08ppm. (Acceptable MECP range 0.05-4.0ppm) <p>(2) Oct 29, 2019 (1016 William)-</p> <ul style="list-style-type: none"> Low Pressure – consumer stated they had low pressure. Operator found normal operating pressure of 60 psi at laundry tub. Low pressure found at kitchen tap only. Advised consumer to clean screen on faucet. Obtained a chlorine residual of 0.56ppm. (Acceptable MECP range 0.05-4.0ppm) 	IS	No Action Required

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		<p>(3) Oct 31, 2019 (163 Manning)-</p> <ul style="list-style-type: none"> • Colour – consumer stated discolored water coming from kitchen taps. Operator was completing the valve turning program on Manning at time of call. Operator attended consumers' residence and flushed hydrant in front of 163 Manning until visually clear. Obtained a chlorine residual of 0.76ppm from hydrant. Obtained a chlorine residual of 0.48ppm in residence house. (Acceptable MECP range 0.05-4.0ppm) <p>(4) Nov 01, 2019 (12336 Candlewood)-</p> <ul style="list-style-type: none"> • Odor smell – customer stated water had strong smell of chlorine. Operator took a chlorine residual of 1.28ppm. (Acceptable MECP range 0.05-4.0ppm) <p>(5) Nov 02, 2019 (13554 Riverside Dr.)-</p> <ul style="list-style-type: none"> • Colour- Customer stated discoloured water coming from taps. Operator found cloudy water when first dispensed into clear glass and then clearing overtime. Common occurrence in temperature change. Operator took a chlorine residual of 1.28ppm. (Acceptable MECP range 0.05-4.0ppm) <p>(6) Nov 05, 2019 (402 Amberlly)-</p> <ul style="list-style-type: none"> • Odor smell – customer stated odor and putty type taste along with low pressure. Operator did not find an odor nor putty type taste to consumers' water. Operator found normal pressure at laundry tub. Operator took a chlorine residual of 1.06ppm. (Acceptable MECP range 0.05-4.0ppm) 		
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		<p>(7) Nov 05, 2019 (401 Amberlly)-</p> <ul style="list-style-type: none"> • Odor smell – customer stated odor and putty type taste. Operator did not find an odor nor putty type taste to consumers' water. Operator took a chlorine residual of 1.16ppm. (Acceptable MECP range 0.05-4.0ppm) <p>(8) Nov 06, 2019 (1900 Candlewood.)-</p> <ul style="list-style-type: none"> • Colour- Customer stated his pool filter was stained pink due to the municipal water supply. Pool water is not potable water therefor operator took a glass sample at kitchen tap finding no discoloration or odor as described. Operator took a chlorine residual of 1.20ppm. (Acceptable MECP range 0.05-4.0ppm) <p>(9) Nov 16, 2019 (12922 Lemire)-</p> <ul style="list-style-type: none"> • Taste- Customer stated strong chlorine taste in water. Operator took a chlorine residual of 0.92ppm. (Acceptable MECP range 0.05-4.0ppm) <p>(10) Dec 20, 2019 (12540 Clarice)-</p> <ul style="list-style-type: none"> • Low Pressure- Customer stated they had low pressure. Operator found water softener to be the cause. Operator was able to complete a visual inspection from hose bib, ensuring strong pressure. Operator took a chlorine residual of 1.32ppm. (Acceptable MECP range 0.05-4.0ppm) 		
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Prepared By: Brad Dupuis

		<p>DWQMS Rep. has reviewed the Survey Monkey results from past managers meeting (September 25, 2019) to today (February 11, 2020).</p> <p>Survey Monkey Data to be reviewed twice per year to ensure that possible issues are not missed when reported.</p> <p>(0) Questionnaires were completed for <i>Water Services Customer Survey</i> stating any issue or concern.</p> <p>Results are shown below for <i>Water Services Customer Survey</i>.</p>	IS	No Action Required
		1) Billing Concern- 0 Individuals	IS	No Action Required
		2) Request for Locate- 0 Individuals	IS	No Action Required
		3) Water Leak- 0 Individuals	IS	No Action Required
		4) Water Quality- 0 Individuals	IS	No Action Required
		5) Water Meter Issue- 0 Individuals	IS	No Action Required
		6) Connection / Disconnection of Water Service- 0 Individuals	IS	No Action Required
		7) Other (Please specify)- 0 Individuals	IS	No Action Required
8	Operational Performance	<p>Shawn LaPorte is now the current DWQMS Rep. Brad Dupuis is the alternate.</p> <p>Changes to the Operational Plan Version 10 have been updated to reflect such change</p>	IS	No Action Required

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		<p>The <i>hydrant flushing program</i> is scheduled to begin early spring 2020. Every hydrant in Tecumseh will be inspected and operated</p> <p>Documentation stored in shared hard drives.</p>	AI	Complete Annual hydrant flushing program in the Spring
		<p>The <i>hydrant winterizing program</i> was completed December 09, 2019</p> <p>Three different checks were completed</p> <p>Documentation stored in shared hard drives.</p>	IS	No Action Required
		<p>The <i>valve turning program</i> is underway. Program beginning in the north end of town, working west to east.</p> <p>There are 2524 valves in the system.</p> <p>105 valves were exercised in 2019 using the new valve turning unit.</p>	IS	No Action Required
		<p>The <i>meter change program</i> has been complete. All water meters are now read by the Itron drive-by system</p>	IS	No Action Required
		<p>Current FC300 Itron reading system is being replaced by MC3Lite. Brad has been working with IT department, Wolseley, Itron and Essex Power for the implementation and training of new software.</p> <p>It is in final stages of completion</p>	IS	No Action Required

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		<p>We have a total of 33 sample stations.</p> <p>2019- (10) Stainless Steel sample station units have been replaced as per life cycle</p> <p>2020- Another (10) units have been ordered</p>	IS	No Action Required
		<p>Due to life cycle, service truck W6- 11 is scheduled to be replaced.</p> <p>Report number PWES-2019-07 (2019 supply of various vehicles) was approved by council March 26, 2019.</p> <p>Cavalcade Ford from Bracebridge Ontario was the awarder tender. Along with GWA for the service body.</p> <p>GWA is currently outfitting the vehicle. Approximation for delivery in March.</p>	IS	No Action Required
		<p>Due to life cycle, service truck W4- 12 is scheduled to be replaced.</p> <p>A report will be brought to council by the Manager of Roads & Fleet for the 2020 supply of various vehicles.</p>	IS	No Action Required
		<p><i>Winter Lead Testing</i> was completed January 23, 2020.</p> <p>All (4) samples taken in the distribution system found to be well below the threshold.</p>	IS	No Action Required

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Last Revised: 2020-02-11

Prepared By: Brad Dupuis

9	Changes to Services, Activities, Regulations, etc. that could affect DWQMS	There have been changes in the services and/or activities performed by the Town of Tecumseh since the last management review meeting.	IS	No Action Required
		The Ontario Drinking Water Standard for Haloacetic Acids (HAAs) came into effect January 1, 2020 The standard will be 0.08 mg/L (80 µg/L) and is expressed as a running annual average (RAA).	IS	No Action Required
		Town's Current Schedule to Water Rates By-Law No.2019-81 has changed, whereas base charges increase by \$0.90 per month. Water rates increased by \$0.03 per cubic meter. Report Number PWES-2019-53 <i>Water and Wastewater Rates</i> was brought to council December 10, 2019. Report Number FS-2019-14 reflects Administration Fees and Charges.	IS	No Action Required
		Town of Tecumseh water standards Version 15 is in the final stages. The IT department is working on diagrams to reference within the document. Once completed, Version 15 will be put on the website, and emailed to all suppliers.	AI	Brad and Shawn will email version 15 to suppliers once completed
		A capital works plan is created each year and is submitted to council for approval. Report Number PWES-2019-49 <i>Public Works & Environmental Services Five Year Capital Works Plan</i> was endorsed by council (December 10, 2019).	IS	No Action Required

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		<p>Denis Berthiaume, Manager of Water & Wasterwater O.R.O, retired December 31, 2019. Brad Dupuis is his replacement</p> <p>Brad contacted the MECP (Ministry of Environment, Conservation and Parks Ontario) and fill out the revised <i>Drinking Water System Profile Information</i></p>	IS	No Action Required
		<p>Asset Management Plan 2.0 has been created for all linear assets. As a result of that review, a schedule for the replacement of water mains have been created and contained within that document.</p>	IS	No Action Required
		<p>CIMA+ presented the updated version to the Water & Wastewater Master Plan December 10, 2019.</p> <p>Report Number PWES-2019-54 was endorsed by council December 10, 2019</p>	IS	No Action Required
		<p>All reports mentioned above are available on the shared drive for the Town of Tecumseh.</p> <p>30 Day review period ended February 8, 2020.</p> <p>No Part II orders issued.</p>	IS	No Action Required

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10	Infrastructure Review Results	Currently (2) major infrastructure jobs are underway.	IS	No Action Required
		<p>(1) Contractor, Shea Rock, is low tender and scheduled to be awarded Highway No.3 / Walker Road watermain replacement February 25, 2020 at council.</p> <p>Project consists of replacing the existing 200mm Ductile watermain with a 300mm PVC.</p> <p>As well as increasing water quality by removal of existing dead-end watermain found on the N/E corner.</p> <p>Operators completed locates for entire project and ensured operation for all valves in scope of project.</p>	IS	No Action Required
		<p>(2) County of Essex is installing a roundabout at the intersection of Walker Rd and South Talbot Rd.</p> <p>Watermain needs to be lowered in two locations to ensure proper cover for the relocation of box culverts.</p> <p>Current valve placement will align in the centre of new constructed roadway creating dangerous conditions for operators to maintain and operate.</p> <p>Water Division staff will relocate valves protecting the towns assets, allowing contractor to complete project without disruption to consumers as well as keeping costs to a minimal.</p>	IS	No Action Required

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		<p>Note:</p> <p><i>Landmark Structures</i> completed the cleaning and inspection report for water tower June 05, 2018.</p> <p>It was found that within the next 2-4 years the interior lining of the tank should be removed via abrasive blast cleaning, then re-lined with an AWWA D102 ICS-3 or ICS-4 system.</p> <p>April 23, 2019 Report Number PWES-2019-25 (Internal Lining replacement of the Town of Tecumseh elevated water tank) was accepted.</p> <p><i>Landmark Structures</i> began October 14, 2019 and completed January 10, 2020.</p> <p>Bonduelle and Windsor treatment plants have been contacted, informing them of such activities.</p>	IS	No Action Required
		<p>There have been a total of 20 broken watermain repairs in 2019</p> <p>(9) in former Tecumseh Hamlet area (5) in former St. Clair Beach area (6) in former Sandwich South area</p>	IS	No Action Required

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11	Currency of Operational Plan	<p>The necessary changes to address the Non-conformances identified in the NSF Audit as well as the Internal Audit were reviewed during the meeting.</p> <p>Additional changes made to the operational plan to address changes to business processes were also reviewed.</p> <p>The results of risk assessment have been added to the operational plan (version 10).</p> <p>Version 10 of the Operational Plan will be brought to council February 25, 2020 for endorsement</p>	AI	<p>Brad present Version 10 to council for endorsement Feb 25, 2020</p> <p>Brad and Shawn to review operational plan and risk assessment with operators once endorsed.</p>
12	Deviations from CCP Limits	<p>The SCADA system has been configured to have a low alarm and a high alarm. The low alarm is considered an initial warning while the high alarm is considered to be the Critical Control Point (CCP).</p> <p>Documentation of these alarms can be found on the Town's SCADA system.</p> <p>RFQ (request for quote) has been completed for SCADA system upgrades.</p> <p>ONYX Engineering was the awarded contractor and is currently working with IT and the Water & Wastewater division to implement the upgrades.</p>	AI	<p>Brad and Shaun Fuerth (IT department) working together towards completion</p>

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Prepared By: Brad Dupuis

13	Effectiveness of Risk Assessment Process	<p>Every three years a full comprehensive review shall be completed.</p> <p>A full comprehensive review of the risk assessments were completed on January 24, 2019 by Denis, Brad and senior operators.</p> <p>Risk Assessment shall be completed with all operators during the review for the Operational Plan Version 10</p>	IS	Brad and Shawn to complete risk assessment review with operators during the review of the Operational Plan Version 10
14	Emergency Preparedness	<p>Emergency Response Plan Version 12 to be created and scheduled for review with operators along with 2 mock exercises prior to coming spring.</p> <p>Attendance records shall be available once completed.</p>	AI	Brad and Shawn to complete and review Emergency Response Plan Version 12 with operators along with two mock exercises
		<p>The Town of Tecumseh has been responding to higher water levels in the Great Lakes system since earlier this year.</p> <p>Projects completed to date include: providing free sandbags and sand to residents along the shorelines of Lake St. Clair and Pike Creek; conducting topographical surveys of the shoreline to determine critical areas for protection; shoring up pump stations and clearing drainage channels; and, developing a Flood Emergency Response Plan through the Fire Department.</p> <p>The Fire Department submitted the Flood Emergency Response Plan to Council which was approved on July 9, 2019. (Report Number FIRE-2019-05).</p>	IS	No Action Required

Meeting Minutes / Report

(Attachment 4)

Last Revised: 2020-02-11
Prepared By: Brad Dupuis

		Phil, Brad, Shawn and Margaret are part of the Tecumseh Flood Working Group.		
15	Trends in Quality of Raw Water & Drinking-Water Supply	<p>The Town of Tecumseh receives an annual report from the Windsor Utilities Commission in regard to the water that is supplied to the town.</p> <p>The Town of Tecumseh receives an annual report from the Town of Lakeshore in regard to the water that is supplied to the town.</p> <p>The Town of Tecumseh is connected to the Town of LaSalle through Meter Chamber 12 (MC-12). The valve remains off until an agreement has been made between Windsor and LaSalle. As part of the construction of the Herb Gray Parkway, the supply watermain to the Howard Avenue metering facility (MCT-12) was re-routed through the Town of LaSalle. Subsequent to the re-routing of the supply watermain, the connection has been closed and the supply of potable water to the Town of Tecumseh through MCT-12 is currently not utilized.</p> <p>Every annual report is kept on the town's shared drive.</p> <p>The Town of Tecumseh Annual Summary Report (PWES-2020-12) has been completed and will be presented to council February 25, 2020.</p>	AI	Brad to present annual summary report to council February 25, 2020
16	Resources needs for DWQMS Maintenance	Nothing is needed at this time.	IS	No Action Required
17	Town of Tecumseh website	Brad reviewed the town website, insuring the water information is current.	IS	No Action Required
18	Retention Table	Brad Dupuis and Shawn LaPorte have reviewed the retention table along with the documents pertaining to it.	IS	No Action Required

Meeting Minutes / Report

(Attachment 4)

Last Revised: 2020-02-11
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19	Comments / Suggestions made by Personnel	No suggestions or feedback was given.	IS	No Action Required
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SIGN-IN SHEET

PURPOSE: TOWN OF TECUMSEH DWQMS MANAGEMENT REVIEW MEETING

DATE: February 11, 2020

NAME (PRINT)	POSITION	SIGNATURE
MARGARET MISEK-EVANS	CHIEF ADMINISTRATIVE OFFICER	<i>Marg Misek-Evans</i>
PHIL BARTNIK	DIRECTOR, PUBLIC WORKS & ENVIRONMENTAL SERVICES	<i>Phil Bartnik</i>
BRAD DUPUIS	MANAGER, WATER & WASTEWATER	<i>Brad Dupuis</i>
SHAWN LAPORTE	DWQMS REPRESENTATIVE / WATER OPERATOR	<i>Shawn Laporte</i>



Management Review Commitment and Endorsement Statement

This statement is intended to capture the commitment and endorsement of top management through the management review committee. Below are the definitions of commitment and endorsement represented within the context of the management review minutes referenced within this statement.

Commitment

- 1) To represent that the committee has been given access to participated and/or reviewed the inputs covered within the minutes
- 2) That the content of the minutes meet the input requirements of the Town of Tecumseh DWQMS management review program.
- 3) That the committee is aware of the actions assigned to appropriate resources as a result of the management review meeting.
- 4) To provide objective evidence of top management's participation and commitment to the management review program.

Endorsement

- 1) That the management review committee endorses the commitments made within the associated management review minutes including:
 - a. Resources allocated to action items
 - b. Within the timelines committed to in the meeting
- 2) Approval to empower the DWQMS representative to ensure that commitments are followed through with the authority of the management review committee.
- 3) Where timelines cannot be met or where previous actions have not been verified by the management review committee as complete, a corrective action will be required.

Commitment and Endorsement Record

Minutes Referenced: September 9th 2019

Name/ Delegate Name	Title	Signature	Date
Margaret Misek-Evans	Chief Administrative Officer (CAO)	Marg Misek-Evans	Feb 11/20
Phil Bartnik	Director of Public Works & Environmental Services	Phil Bartnik	Feb 11/20
Brad Dupuis	Manager, Water and Wastewater	Brad Dupuis	Feb 11/20
Shawn Laporte	DWQMS Representative	Shawn Laporte	Feb 11/20



NSF International Strategic Registrations Audit Report

The Corporation Of The Town Of Tecumseh

917 Lesperance Rd.

Tecumseh, Ontario N8N 1W9 CAN

C0122080

Audit Type

DWQMS System Audit

Auditor

Robert Howarth

Standard

Ontario's Drinking Water Quality Management Standard Version 2

Audit Date(s):

10/25/2019 - 10/25/2019

Recommendation

Ontario's Drinking Water Quality Management Standard Version 2 : DWQMS System Audit
Complete No Change to Certificate



Executive Summary

Ontario's Drinking Water Quality Management Standard Version 2

This Organization has effectively implemented a very detailed and thorough DWQMS. The effectiveness is evidenced through no incidents of reporting issues required throughout the testing process, no incidents of regulatory non-compliance, no incidents of adverse drinking-water tests and no deviations from critical control point limits combined with the continued investment in infrastructure and personnel.

Opportunities

Ontario's Drinking Water Quality Management Standard Version 2

A formal process to review Best Practices could prove Beneficial.

Corrective Action Requests

There is NO Corrective Action Request in this audit.

Site Information

The audit was based on a sampling of the company's management system.

Industry Codes

NACE:E 41

Scope of Registration

Ontario's Drinking Water Quality Management Standard Version 2 : Tecumseh Distribution System, 040-OA1, Entire Full Scope Accreditation



Opportunities for Improvements

Processes	
Ontario's Drinking Water Quality Management Standard Version 2	
Process Name	Observations / Auditor Notes
7: DWQMS Element 21 Continual Improvement	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element- 21 Version 9 ; No Corrective Actions identified in past 12months No incidents of regulatory noncompliance, No incidents of adverse drinking-water tests, No deviations from critical control point limits and response actions No significant customer complaints Procedure updated to include the consideration of Best Practices.</p>
DWQMS Element 10 – Competencies	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-10; Version 9 ; Operational Plan defines Title/Function and Required Competencies and Desired Competencies for Municipal Ownwes/Operating Authorities Director of Public Works & Environmental Services Manager of Water and Wastewater Services/ORO Water/Wastewater Supervisor New Operators (OIT) Operator-3 Operator-2 Operator-1</p> <p>Additionally defines Methods to assess. develop and maintain competencies</p>
DWQMS Element 11 – Personnel Coverage	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>his process is effectively controlled Operational Plan - Element-11; Version 9; Procedure adequately defines the necessary personnel requirements to ensure the operation of the Distribution System.</p> <p>This is supported by a Distribution Operator on call at all times outside of regular business hours</p> <p>List of available Operators available and posted Contacted through Answering Service Available 24 Hours a day - 7 Days a week Also includes coverage for Pandemic, strikes or lockouts.</p>
DWQMS Element 12 - Communications	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element -12; Version 9; Process defines Communication requirements including Communication with: Owner: Annual Report forwarded to the Mayor and Council defining the suitability and effectiveness of the DWQMS and as defined in Section 11(1) of Ont Reg. 170/03</p> <p>Personnel Through Town Network Drive and daily Tailgate meetings.</p>



Process Name	Observations / Auditor Notes
	<p>Minutes not retained.</p> <p>Suppliers Purchase Orders</p> <p>Consumers/Public Through Operations Centre.</p>
DWQMS Element 13 – Essential Supplies and Services	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-13 Version 9 Operational Plan - Appendix 5 Version 9 ; All supplies and services shall must meet AWWA and NSF/ANSI standards List of Primary and secondary suppliers broken down into Treated Drinking Water Supplies Laboratories Instrumentation Calibration/Maintenance Contractors and 10 Other</p> <p>All purchases must be in accordance with the Town of Tecumseh By-Law 2017-63, a bylaw to govern procurement and procedures.</p>
DWQMS Element 14 – Review and Provision of Infrastructure	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-14; Version 9 Operational Plan - Appendix 6 Version 9 ; A report detailing the maintenance programs, any requirements for infrastructure, rehabilitation and renewal is prepared annually by the Director, Public Works & Environmental Services and Director, Financial Services/Treasurer.</p> <p>Includes requirement to consider Risk Assessment Outcomes.</p> <p>The capital requirements are then submitted to Top Management and Municipal Owner/Operating Authority for budgetary approval.</p> <p>Appendix 6 - 2019-2023 Public Works and Environmental Services Capital Works Plan dated December 11. 2018</p>
DWQMS Element 15 – Infrastructure, Maintenance, Rehabilitation and Renewal	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element -15; Version 9.0; Process broken down into 2 Subsections Planned Maintenance - Controlled through Daily Work Orders Work Orders retained electronically in Database sorted by Date and Address</p> <p>Unplanned Maintenance- resulting from emergency repairs or breakdown Watermain Break Report Infrastructure Rehabilitation - Monitored for effectiveness Infrastructure Renewal - Monitored for effectiveness Capital Upgrades - Planned and Approved by Owner</p>
DWQMS Element 16 – Sampling, Testing and Monitoring	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-16; Version 8 SOP-1 Water Sampling for Chlorine, BacT and HPC SOP-5 Community Lead Testing Program; All sampling and testing is defined in Sampling, Testing & Monitoring procedure SOP-1 and meets all requirements as defined by the</p>



Process Name	Observations / Auditor Notes
	<p>Ministry of Environment.</p> <p>Chlorine Testings: 22 Samples per week based on rotating basis from 54 sites. Cycle repeated every four weeks with identified areas done every week Chlorine Testing done by technician on site - Limits defined No Results outside defined limits</p> <p>Microbiological Testing - (Total Coliform, E.coli and HPD) 10 Samples per week based on rotating basis done by Caduceon Environmental Laboratory - Accredited</p> <p>Lead Sampling: Frequency as defined by Regulatory Requirement Currently only 4 Distribution samples twice per year. Testing done by Caduceon Environmental Laboratory.</p> <p>Results of sampling, testing, and monitoring activities are documented in a Summary Report and included in the Ontario Regulation 170/03 Drinking Water Systems Annual Report. The Summary Report is submitted to Council.</p> <p>If sampling, testing, and monitoring activities indicate that results exceed acceptable limits, Town of Tecumseh will follow established reactive plans to address the situation as defined in Emergency Response Plan.</p> <p>The Town of Tecumseh will ensure that its actions comply with requirements and guidelines put forth by the Ministry of the Environment (MOE).</p>
DWQMS Element 17 – Measurement and Recording Equipment Calibration and Maintenance	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-17; Version 9 Pocket ; Colorimeter utilized and calibrated 6 in Use (One in each Truck) Calibrated November 1/18 - Requirement Annual Calibration Report submitted by Flowmetrics. Report dated Nov 13, 2018 Includes Laboratory Accreditation,</p>
DWQMS Element 18 - Emergency Management	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-18 Version 9 ; Emergency Response Plan Dated February 2019, Version 11 Very detailed plan covering 20 different emergency situations and guidelines for response. Evidence of training on Version 11 - Sign off by Operators</p> <p>Annual Training exercise. Adverse Drinking Water Conditions - February 26, 2019 Severe Storm Creating Water Shortage - February 26, 2019 Signed off by all employees and all employees evaluated for performance after training.</p>
DWQMS Element 19 - Internal Audits	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-19 Version 9 ; Third Party Internal Audit undertaken September 19, 2018 by Ontario Clean Water Agency Very thorough Audit Checklist utilized</p> <p>Audit Report - Dated September 18, 2019 No Minor nonconformances identified 1 Opportunities for improvement identified.</p>



Process Name	Observations / Auditor Notes
DWQMS Element 20 - Management Review	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element- 20 Version 9 ; Management Review held September 25, 2019 Minutes available Senior Management involved Chief Administrative Office Director of Public Works and Environmental Services Manager Water and Wastewater DWQMS Representative</p> <p>Topics addressed</p> <ul style="list-style-type: none"> a) incidents of regulatory non-compliance, b) incidents of adverse drinking-water tests, c) deviations from critical control point limits and response actions, d) the efficacy of the risk assessment process, e) internal and third-party audit results, f) results of emergency response testing, g) operational performance, h) raw water supply and drinking water quality trends, i) follow-up on action items from previous management reviews, j) the status of management action items identified between reviews, k) changes that could affect the Quality Management System, l) consumer feedback, m) the resources needed to maintain the Quality Management System, n) the results of the infrastructure review, o) Operational Plan currency, content and updates, and p) staff suggestions.
DWQMS Element 3 - Commitment and Endorsement Statement	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-3; Version 9 ; Commitment and Endorsement Statement available</p> <p>Approved by CAO and Director of Public Works & Environmental Service dated February 27, 2018(Top Management)</p> <p>Council Identified as Owners</p> <p>Sent to council and approved February 26 ,2019 The Drinking Water Quality Management System Operational Plan Version 9 be endorsed and committed to. All required approves at meeting</p>
DWQMS Element 5 - Document and Records Control	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-5; Version 9; Procedures adequately defined controls required for control of Documents and Records No uncontrolled documents evidenced during Audit Records suitably provided to complete the Audit.</p>
DWQMS Element 6 – Drinking-Water System	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-6; Version 9 and Appendix 2; The Drinking Water System Descriptions as listed above adequately and effectively address the requirements as defined in the DWQMS Standard including description, Ownership, Flow Charts Maps, and Specific Descriptions.</p> <p>Note: The City of Windsor has the responsibility for treating the water and providing safe</p>



Process Name	Observations / Auditor Notes
	drinking water to the town. The Town of Tecumseh only distributes the water.
DWQMS Element 7 Risk Assessment and DWQMS Element 8 Risk Assessment Outcomes	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-7; Version 9 Operational Plan - Element-8; Version 9 Operational Plan - Appendix 3; Version 9 - Defines criteria and methodology for ascertaining risk. Appendix 4 - Risk Assessment Outcomes.; The Information in the Risk Assessment is reviewed Annually for validity and currency</p> <p>Last comprehensive review January 20, 2019 by 4 Operators, DWQMS Representative and Manager Water. Operational Plan states The entire Risk Assessment process will be conducted at least once every three years to ensure that the information used remains current and the assumptions remain valid.</p> <p>Operational Plan states the Risk Assessment Team shall meet once a calendar year to review the validity of the assumptions and the currency of the information used in the risk assessment. - January 20, 2019</p> <p>Appendix 3 identifies the criteria for assessing Risk broken into Likelihood, Severity and Detectability with ranks of 1-5 Risk assessment is based on adding the scores for Likelihood, Severity and Detectability to determine a Critical Control Point According to Procedure Appendix 3 a Ranking of greater than 8 is considered critical.</p> <p>6 Hazards identified Risk Assessment and Critical Control Point work Sheets available and up to date for all identified risks Where CCP of greater than 8 identified Emergency Response Plan procedures</p> <p>Very detailed and thorough All items as identified in SWQMS Standard Version 2 included,</p>
DWQMS Element 9 – Organizational Roles, Responsibilities & Authorities	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>This process is effectively controlled Operational Plan - Element-9; Version 9; Responsibilities and Authorities defined for System Owner Top Management Chief Administrative Officer Director of Public Works and Environmental Services Manager of Water/Wastewater DWQMS Management Representative Certified Water Operators (Leaders) Certified Water Operators Clerical Staff</p>
DWQMS-1 Quality Management System, DWQMS-2 Quality Management System Policy & DWQMS-4 QMS Representative	<p>Describe whether the process is effective or not (effectiveness should be supported with specific data/records/results). Include strengths & weaknesses of process:</p> <p>These processes are effectively controlled Operational Plan - Element-1; Version 9 Operational Plan - Element-2; Version 9 Operational Plan - Element-4; Version 9; Operational Plan available covering all elements as defined in Standard</p> <p>Policy meets all defined requirements</p> <p>Quality Management System Representative - The QMS Representative, currently the DWQMS Representative (Brad Dupuis) and has been appointed as the QMS Representative for The Town of Tecumseh by Top</p>



Process Name	Observations / Auditor Notes
	<p>Management.</p> <p>The Representative is authorized and responsible for administering all processes associated with the operation and performance of the QMS.;</p>

Audit Summary Matrix



Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de la
Protection de la nature et des Parcs

Southwestern Region

Direction régionale du Sud-Ouest

620 – 4510 Rhodes Drive
Windsor ON N8W 5K5
Tel.: 519 948-1464
Fax.: 519 948-2396
TTY: 416 456-1234

620 – 4510, chemin Rhodes
Windsor ON N8W 5K5
Tél. : 519 948-1464
Télééc. : 519 948-2396
ATS : 416 456-1234

File# SI-ES-TE-540

January 30, 2020

Town of Tecumseh
917 Lesperance Road
Tecumseh, ON
N8N 1W9

Attention: Margaret Misek-Evans, CAO
mevans@tecumseh.ca

Dear Ms. Misek-Evans;

Re: Tecumseh Water Distribution System
Inspection Report

Please find enclosed the Drinking Water System Inspection Report for the Tecumseh Distribution System (DWS#260004969). There was no physical inspection conducted at your drinking water system this year, however, the inspection was conducted remotely as part of the ministry's new "Remote Inspection Pilot" project. During this year's inspection, a telephone interview/questionnaire was conducted on January 16, 2020.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in *"Taking Care of Your Drinking Water: A guide for members of municipal council"* found on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating

Record (IRR), included as Appendix B of the inspection report, provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at (519) 490-0761.

Likewise, if you have any questions or concerns regarding this report, please call me at (226) 280-1556.

Yours truly,



Neil Gilbert, P.Eng.
Provincial Officer – Water Inspector
Southwestern Region
Ministry of the Environment, Conservation and Parks
Sarnia District – Windsor Area Office

Encl.

cc: Dr. Wajid Ahmed, Acting Medical Officer of Health, Windsor-Essex County HU, wahmed@wechu.org
Theresa Marentette, CEO and Chief Nursing Officer, Windsor-Essex County HU, tmarentette@wechu.org
Phil Wong, Manager, Environmental Health, Windsor-Essex County HU, pwong@wechu.org
Victoria Peczulis, Manager, Environmental Health, Windsor-Essex County HU, vpeczulis@wechu.org
Phil Bartnik, Director of Public Works & Env. Services, Town of Tecumseh, pbartnik@tecumseh.ca
Brad Dupuis, Water & Wastewater Manager, Town of Tecumseh, bdupuis@tecumseh.ca
Marc Bechard, Water Compliance Supervisor, MECP Sarnia District, marc.bechard@ontario.ca



Ministry of the Environment, Conservation and Parks

TECUMSEH DISTRIBUTION SYSTEM
Inspection Report

Site Number:	260004969
Inspection Number:	1-L5FD0
Date of Inspection:	Jan 16, 2020
Inspected By:	Neil Gilbert

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Appendix A: Stakeholder Appendix

Appendix B: Inspection Rating Record

OWNER INFORMATION:

Company Name:	TECUMSEH, THE CORPORATION OF THE TOWN OF		
Street Number:	917	Unit Identifier:	
Street Name:	LESPERANCE Rd		
City:	TECUMSEH		
Province:	ON	Postal Code:	N8N 1W9

CONTACT INFORMATION

Type:	Main Contact	Name:	Brad Dupuis
Phone:	(519) 735-2184 x145	Fax:	(519) 735-1895
Email:	bdupuis@tecumseh.ca		
Title:	Water & Wastewater Manager		

INSPECTION DETAILS:

Site Name:	TECUMSEH DISTRIBUTION SYSTEM
Site Address:	TECUMSEH
County/District:	TECUMSEH
MECP District/Area Office:	Windsor Area Office
Health Unit:	WINDSOR-ESSEX COUNTY HEALTH UNIT
Conservation Authority:	Essex Region Conservation Authority
MNR Office:	Chatham Regional Office
Category:	Large Municipal Residential
Site Number:	260004969
Inspection Type:	Special Announced
Inspection Number:	1-L5FD0
Date of Inspection:	Jan 16, 2020
Date of Previous Inspection:	Feb 28, 2019

COMPONENTS DESCRIPTION

Site (Name): Distribution System

Type:

Sub Type:

Comments:

The Tecumseh Distribution System is a standalone distribution system which supplies water to the area of the Town of Tecumseh in two discrete service zones. The zone north of Highway 401 is bounded by the Tecumseh municipal boundaries, south to Baseline Road. The zone south of Highway 401 is bounded by the Tecumseh municipal boundaries generally south of Essex County Road 46. Source water is from the City of Windsor water supply via the Windsor municipal distribution system. One currently unused connection from Windsor is through a short section of transmission main within the Lasalle municipal distribution system. The City of Windsor water supply draws its source water from the Detroit River in the vicinity of Belle Isle. According to the drinking water system profile, a population of approximately 24,000 residents is served by the Tecumseh Distribution System. It therefore falls into the "large municipal residential" category under O. Regulation 170/03.

Water mains take treated water from the City of Windsor to the service area through 10 of 12 currently used boundary metered connections points with Tecumseh. The water tower in the Town of Tecumseh maintains distribution system

pressure and is controlled by the Town. The water tower is monitored by the Windsor Utilities Commission (WUC) and the Town through SCADA. Secondary disinfection is provided by the A.H. Weeks water treatment plant in Windsor.

The Tecumseh Distribution System 2018 annual report, prepared by the Town of Tecumseh, states that:

- Town of Tecumseh, City of Windsor and Windsor Utilities Commission (WUC) entered into a 50-year service agreement in November 2004 (By-law 2004-71). The service agreement was implemented on March 31, 2006.
- Prior to August 1, 2008, WUC provided water to 2400 residents in the former Township of Sandwich South, south of Highway 401 ("South Water Area"). The Town of Tecumseh assumed the responsibility for the operations and maintenance of the water distribution system from WUC in this South Water Area effective August 1, 2008.

INSPECTION SUMMARY:

Introduction

- The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period.

This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg.170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

This report is based on an inspection of a "stand alone connected distribution system". This type of system receives treated water from a separately owned "donor" system. This report contains the elements required to assess key compliance and conformance issues associated with a "receiver" system. This report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

This report is based on a "focused" inspection of the system and was conducted remotely. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O. Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

The Tecumseh Distribution System (DWS#260004969) is owned by the Corporation of the Town of Tecumseh. It is a standalone distribution system that receives treated surface water from the City of Windsor water supply via the Windsor municipal distribution system. The City of Windsor water supply draws its source water from the Detroit River in the vicinity of Belle Isle.

According to Tecumseh's drinking water system profile, a population of approximately 24,000 residents is served by the Tecumseh Distribution System. It therefore falls into the "large municipal residential" category under O.Reg. 170/03.

The water tower in the Town of Tecumseh maintains distribution system pressure and secondary disinfection is provided by the A.H. Weeks water treatment plant in Windsor.

This inspection was conducted remotely and the inspection review period was March 1, 2019 to December 31, 2019.

Treatment Processes

- The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.
Schedule A of the Drinking Water Works Permit (#040-201, Issue Number 4 dated May 24, 2019) contains the following physical components:
- 4,540m³ water tower fed from the distribution system, and
- watermains within the Town of Tecumseh Distribution System.
- The owner/operating authority was in compliance with the requirement to prepare Form 1 documents as

Treatment Processes

required by their Drinking Water Works Permit during the inspection period.

During the inspection review period, "Form 1 - Record of Watermains Authorized as a Future Alteration" form was prepared for the following:

1) 300mm diameter watermain at North Talbot Road and County Road 11 (dated September 17, 2019).

- **The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.**

During the inspection review period, "Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System" forms was prepared for the following project:

1) 150mm watermain lowered on South Talbot Road during two bridge replacements (dated April 4, 2019).

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

Treatment Process Monitoring

- **The secondary disinfectant residual was measured as required for the distribution system.**

As per O.Reg. 170/03 s 7-2 (3), the owner/operating authority of a system that provides secondary disinfection shall ensure that at least seven distribution samples are taken each week and are tested immediately for, (a) free chlorine residual, if the system provides chlorination and does not provide chloramination; or (b) combined chlorine residual, if the system provides chloramination. The following rules apply to the distribution samples referred above unless at least one sample is taken on each day of the week: At least four of the samples must be taken on one day of the week, at least 48 hours after the last sample was taken in the previous week. Then, at least three of the samples must be taken on a second day of the week, at least 48 hours after the last sample was taken on the first day of the sampling week. When more than one sample is taken on the same day of the week then each sample must be taken from a different location.

During the inspection review period (March 1, 2019 to December 31, 2019) at least seven distribution samples were collected each week using the 4/3 rule and tested for free chlorine residuals.

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**
- **The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

Condition 16.2 under Schedule B of Tecumseh's Drinking Water Licence (#040-101, Issue #4 dated May 24, 2019) notes that the operations and maintenance manuals shall include (at a minimum) the following:

16.2.1 The requirements of this licence and associated procedures;

16.2.2 The requirements of the drinking water works permit for the drinking water system;

16.2.3 A description of the processes used to achieve secondary disinfection within the drinking water system;

16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

16.2.5 Procedures for the operation and maintenance of monitoring equipment;

16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;

16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint.

A review of Tecumseh's operating manual and standard operating procedures suggests that these conditions

Operations Manuals

appear to be satisfied. All secondary disinfection is provided by the City of Windsor's A.H. Weeks Water Treatment Plant and Tecumseh does not maintain or operate a re-chlorination system.

Logbooks

- Logbooks were properly maintained and contained the required information.
- Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.

Security

- The owner had provided security measures to protect components of the drinking water system.

Certification and Training

- The overall responsible operator had been designated for each subsystem.
- Operators-in-charge had been designated for all subsystems which comprised the drinking water system.
- All operators possessed the required certification.

Water Quality Monitoring

- All microbiological water quality monitoring requirements for distribution samples were being met.

As per O.Reg. 170/03 s10-2, the owner/operating authority for the system shall ensure that if a system serves 100,000 people or less, at least eight distribution samples, plus one additional sample for every 1,000 people served, are taken every month, with at least one sample being taken each week. Each of the distribution samples collected must be tested for E. coli and total coliforms and at least 25 percent of these samples must be tested for general bacteria population expressed as colony counts on a heterotrophic plate count (HPC).

During the inspection review period (March 1, 2019 to December 31, 2019) all microbiological water monitoring requirements for distribution water samples were performed.

- All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.

As per O.Reg. 170/03 s13-6.1, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the distribution system that is likely to have an elevated potential for the formation of haloacetic acids (HAAs), and have the sample tested for HAAs.

On January 1, 2020, the O.Reg. 169/03 standard for HAA (80ug/L) came into effect and is expressed as a RAA, where RAA is defined as "the running annual average of quarterly results" for HAA for a drinking water system. During the inspection review period (March 1, 2019 to December 31, 2019), these HAA quarterly samples were collected on April 8, 2019 (HAA result=5.5ug/L), July 8, 2019 (HAA result=7.6ug/L) and October 7, 2019 (HAA result=19.3ug/L).

The RAA (running annual average of quarterly results) of the HAA samples collected during the inspection review period plus the first quarter of 2019 (HAA result was 5.3ug/L) is 9.4ug/L which would be below the new Ontario Drinking Water Quality Standard (ODWQS) of 80 ug/L (expressed as a running annual average of quarterly results).

Water Quality Monitoring

- All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.

As per O.Reg. 170/03 s13-6, the owner/operating authority of a system that provides chlorination or chloramination shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the distribution system that is likely to have an elevated potential for the formation of trihalomethanes (THMs), and have the sample tested for THMs.

During the inspection review period (March 1, 2019 to December 31, 2019), these THM quarterly samples were collected on April 8, 2019 (at 4 locations with a THM average =11.8ug/L), July 8, 2019 (at 3 locations with a THM average=19.7ug/L) and October 7, 2019 (at 3 locations with a THM average=40.7ug/L).

The RAA (running annual average of quarterly results) of the THM samples collected during the inspection review period plus the first quarter of 2019 (THM average result was 20.2ug/L) is 23.1ug/L which is below the Ontario Drinking Water Quality Standard (ODWQS) of 100 ug/L for THM's (expressed as a running annual average of quarterly results).

- Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

Water Quality Assessment

- Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O.Reg. 169/03).

Reporting & Corrective Actions

- All changes to the system registration information were provided within ten (10) days of the change.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By:

Neil Gilbert

Signature: (Provincial Officer)



Reviewed & Approved By:

Marc Bechard

Signature: (Supervisor)

Review & Approval Date:



2020.01.30 11:23:34 -05'00'

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

Stakeholder Appendix

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau potable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web



Inspection Rating Record

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2019-2020)

DWS Name: TECUMSEH DISTRIBUTION SYSTEM
DWS Number: 260004969
DWS Owner: Tecumseh, The Corporation Of The Town Of
Municipal Location: Tecumseh

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Adhoc
Inspection Date: January 16, 2020
Ministry Office: Windsor Area Office

Maximum Question Rating: 193

Inspection Module	Non-Compliance Rating
Treatment Processes	0 / 43
Operations Manuals	0 / 28
Logbooks	0 / 18
Certification and Training	0 / 28
Water Quality Monitoring	0 / 51
Reporting & Corrective Actions	0 / 4
Treatment Process Monitoring	0 / 21
TOTAL	0 / 193

Inspection Risk Rating 0.00%

FINAL INSPECTION RATING: 100.00%

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2019-2020)

DWS Name: TECUMSEH DISTRIBUTION SYSTEM
DWS Number: 260004969
DWS Owner: Tecumseh, The Corporation Of The Town Of
Municipal Location: Tecumseh

Regulation: O.REG 170/03

Category: Large Municipal Residential System

Type Of Inspection: Adhoc

Inspection Date: January 16, 2020

Ministry Office: Windsor Area Office

Maximum Question Rating: 193

Inspection Risk Rating 0.00%

FINAL INSPECTION RATING: 100.00%

The Corporation of the Town of Tecumseh

By-Law Number 2020 - XX

Being a by-law to authorize the execution of an Agreement between The Corporation of the Town of Tecumseh and Her Majesty the Queen in Right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario

Whereas Her Majesty the Queen in Right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario (hereafter “MTO”) is the owner of the lands described as the MTO Right of Way;

And Whereas The Corporation of the Town of Tecumseh (hereafter “Municipality”), has proposed to construct a new watermain crossing the Highway by jack and bore;

And Whereas It is deemed expedient to enter into this Agreement to give effect to the Municipality proposal of constructing the Plant within the Highway at the Location defined in the Agreement;

And Whereas under Section 5 of *the Municipal Act* 2001, S.O. 2001 c.25, the powers of a municipality shall be exercised by its Council by by-law;

Now Therefore the Council of The Corporation of The Town of Tecumseh enacts as follows:

1. **That** the Mayor and the Clerk are hereby authorized and empowered to execute the Agreement dated the 11th day of February, 2020 between Her Majesty the Queen in Right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario, a copy of which Agreement is attached hereto and forms part of this by-law, and to do such further and other acts which may be necessary to implement the said Agreement.
2. **That** this by-law shall come into force and take effect upon on the date of the third and final reading thereof.

Read a first, second, third time and finally passed this 11th day of February, 2020.

Gary McNamara, Mayor

Laura Moy, Clerk

BETWEEN: THE CORPORATION OF THE TOWN OF TECUMSEH
(“The Municipality”)
and
HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF
ONTARIO, REPRESENTED BY THE MINISTER OF
TRANSPORTATION FOR THE PROVINCE OF ONTARIO
(“MTO”)

- A. MTO represents that it is the owner of the lands described as the Highway which is defined in paragraph 1.2;
- B. The Municipality has proposed to construct a watermain, defined in paragraph 1.4 as the Plant, crossing the Highway by jack and bore; and,
- C. It is deemed expedient to enter into this Agreement to give effect to the Municipality proposal of constructing the Plant within the Highway at the Location defined in paragraph 1.3.

- 1.1. “As-constructed Drawings” shall mean the drawings signed and sealed by a licenced Professional Engineer that reflect all elements of the completed works. The drawings shall depict coordinates and elevations at 30m intervals and at all test pit locations along the completed installation based on a geodetic datum and a typical detail cross-section where the watermain is being installed at a consistent depth. Any watermain highway crossing, elevations shall be obtained from the bore pits at either end of the crossing. The highway paved road surface and granular shoulders shall be excluded and not disturbed in any way from obtaining these elevations;
- 1.2. “Highway” shall mean Highway 3 under the jurisdiction and control of MTO in Essex County, designated as Controlled Access Highway;
- 1.3. “Location” shall mean the area of Highway 3 chainage as per Stantec Engineered Drawings C-101 to C-106, Project 165620142 Aug. 01, 2019 from starting chainage 0+000 to 0+935.
- 1.4. “Plant” shall mean the installation of a 200mm and 300mm new watermain within MTO’s ROW as per Stantec Engineered Drawings C-101 to C-106, Project 165620142 Aug. 01, 2019 as illustrated in Schedule “A”.
- 1.5. “PTHIA” shall mean the Public Transportation and Highway Improvement Act, R.S.O. 1990, c. P.50 and any amendments thereto from time to time.

- 2.1. The Plant shall conform to the drawing contained in Schedule “A” and be installed as per the agreed upon specifications. minimum of 1.5m below the bottom of existing Highway ditch.
- 2.2. The Municipality, following the execution of this Agreement, may construct, at no cost to MTO, the Plant within the Highway in accordance with this Agreement, including Schedule “A” and Schedule “B” as applicable.

- 2.3. Construction of the Plant shall be in accordance with the geotechnical investigation report prepared by Wood Environmental & Infrastructure Solutions (a Division of Wood Canada Limited) dated May 30, 2019.
- 2.4. Within three (3) months of the completion of construction of the Plant, the Municipality will provide As-constructed Drawings to MTO.

3. **Maintenance and Repair**

- 3.1 The Municipality, under the terms of this Agreement, is hereby deemed to be under an obligation to effect, and shall effect at no cost to MTO, all required maintenance and repair to the Plant according to the standards of the Municipality, any other agencies as required for their approvals, and to the satisfaction of MTO. The Municipality, at no cost to MTO, shall keep the area of the Highway occupied by the Plant in a neat and tidy condition according to the standards of the Municipality, any other agencies as required, and to the satisfaction of MTO. The Municipality shall also obtain the necessary approvals/permits from MTO for all required maintenance and repair to the Plant.
- 3.2 In the case of maintenance and repair (emergency or otherwise), all costs associated with the repair of MTO infrastructure as a result of this activity shall be borne by the Municipality. Further, MTO will coordinate and implement the required traffic management and infrastructure repair in accordance with MTO standards in consultation with the Municipality, at the cost of the Municipality.

4. **Relocation and/or Temporary Diversion in whole or in part within the Highway**

- 4.1. The Municipality, at its own expense, at any time on the receipt of written notice from MTO, shall suspend operations, remove, alter, or relocate any or all of the Plant contemplated herein as may be required by MTO to facilitate any MTO construction project, reconstruction project, or maintenance project within the Highway which requires the construction of buried foundations, or any other works, at the same location as the buried Plant. MTO agrees that it shall act reasonably in the design and specification of any such construction or reconstruction project, and prior to requiring any such removal, alteration, or relocation of any portion of the Plant, MTO shall assess all reasonable design alternatives which do not necessitate any removal or relocation of the Plant.
- 4.2. Any written notice from MTO referred to in section 4.1 shall be by either registered mail or by facsimile and shall:
 - A. specify either the portion or the whole of the Plant to be dealt with; and,
 - B. specify a relocation and/or temporary diversion date of at least 60 calendar days after the date of the postmark, if by mail, or after the date of transmission, if by facsimile
- 4.3. On or following any respective relocation and/or temporary diversion date, the Municipality shall cause the area of the Highway, specified in the paragraph 4.1 notice, to be left in a neat and tidy condition.
- 4.4. On the relocation and/or temporary diversion date referred to in any paragraph 4.1 notice, the use by the Municipality of the portion of the Highway specified by that letter is hereby deemed to be ended.
- 4.5. Notwithstanding the other provisions of this Agreement, in the event of an emergency, as determined by MTO in its sole discretion, requiring MTO to act to repair or maintain the Highway in respect of matters of highway safety or highway traffic flow:
 - A. MTO may give the Municipality oral or written notice of such emergency. Upon such notice, MTO may temporarily suspend the rights of the Municipality under this Agreement; and

- B. MTO shall not be liable to the Municipality for any costs or damages incurred by the Municipality as a result of such temporary suspension.
- 4.6. Notwithstanding the other provisions of this Agreement, in the event of an emergency, as determined by the Municipality in its sole discretion, requiring the Municipality to act to repair or maintain the Plant:
- A. The Municipality shall give MTO oral and written notice of such emergency, and provide a written description of the nature and extent of the emergency repairs required and the potential impacts to highway traffic flow and/or the Highway;
 - B. All work shall be completed to the satisfaction of MTO, in accordance with the Occupational Health and Safety Act (of Ontario) and the Environmental Protection Act. All traffic control shall be in compliance with Ontario Traffic Manual, Book 7 (January 2014); and
 - C. MTO shall not be liable to the Municipality for any costs or damages incurred by the Municipality as a result of undertaking the required emergency repairs.
- 4.7. Nothing under paragraphs 4.1 to 4.5 shall be construed as lessening the obligation of the Municipality to MTO under the paragraph 9.1 indemnification.

5. Insurance

- 5.1. During any construction, maintenance or repair of the Plant, the Municipality or its contractor shall have in place a commercial general liability policy of insurance covering property damage, bodily injury and personal injury, including the following:
- have MTO, via an endorsement, as an additional insured in that policy;
 - not be subject to cancellation without reasonable notice to the MTO;
 - cover the period of time specified above;
 - be in the amount of at least Five Million (\$5,000,000.00) Dollars Canadian per occurrence; and
 - contain a cross liability clause endorsement.

6. Addresses

- 6.1. The address of the Municipality for the purposes of this Agreement, unless the Municipality otherwise advises in writing, is:
- The Applicant
The Corporation of the Town of Tecumseh
917 Lesperance Road
Tecumseh ON N8N 1W9
- Attention: Clerk copy to Director of Public Works
Tel. 519-735-2184
- 6.2. The address for MTO for the purposes of this Agreement, unless MTO otherwise advises in writing, is:
- Corridor Management
Ministry of Transportation
659 Exeter Road
London, ON
N6E 1L3
- Tel. (519)-873-4203
Fax: (519) 873-4228

7. **Warranty**

- 7.1. The Municipality warrants that it has taken all necessary steps, done all acts, passed all by-laws, and obtained all approvals required to give it the authority to enter into this Agreement.

8. **MTO Encroachment Permit**

- 8.1. Upon execution of this Agreement, MTO will issue to the Municipality a MTO encroachment permit under section 38(2)(a) of the PTHIA. The terms and conditions of this permit are contained in Schedule 'B' of this Agreement.
- 8.2. A copy of this Agreement, including Schedule "A" and Schedule "B", shall be attached to any future permit issued under PTHIA to the Municipality with respect to the Plant. Any such permit shall reference the same forming part of the terms and conditions of the permit.

9. **Indemnification**

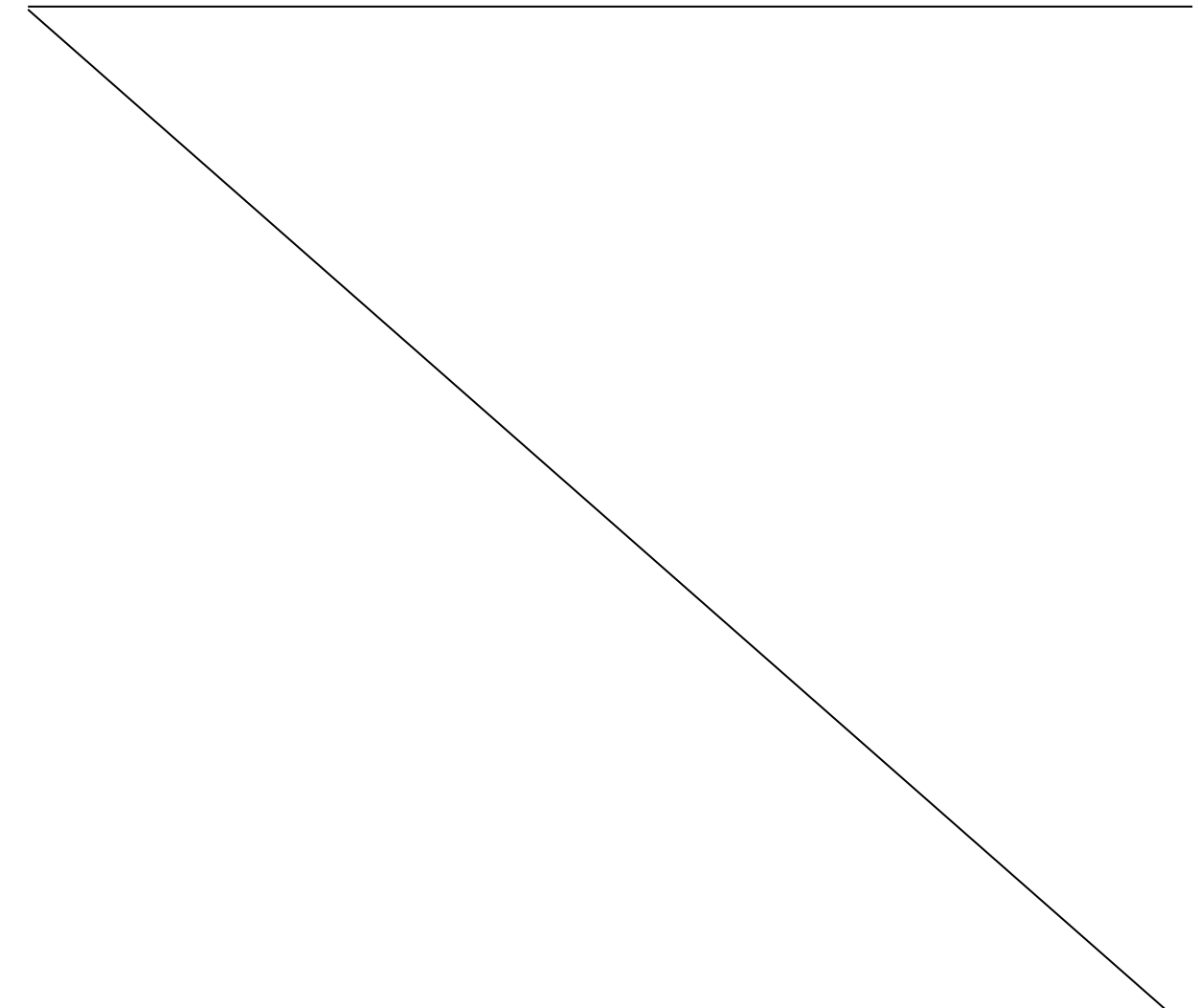
- 9.1. The Municipality shall save harmless and indemnify MTO from all claims, demands, damages, proceedings, obligations, costs inclusive of solicitor and client costs, interest, and all actions, that MTO may suffer or incur based upon or attributable to anything done or omitted to be done by the Municipality, in connection with this Agreement, save and except to the extent of any negligence of MTO.

10. **Compliance with Laws**

- 10.1. The Municipality shall comply with all applicable laws in the compliance with any provisions of this Agreement.

11. **Assignment**

- 11.1. This Agreement may not be assigned by the Municipality without the prior written consent of MTO.



12. **Binding Agreement**

12.1. This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors, and permitted assigns.

IN WITNESS OF ALL contained in this Agreement:

THE CORPORATION OF THE TOWN OF TECUMSEH

Position / Name Printed

Signature

Position / Name Printed

Signature

**HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF ONTARIO,
REPRESENTED BY THE MINISTER OF TRANSPORTATION FOR THE
PROVINCE OF ONTARIO**

Head, Corridor Management Section, West Region
For the Ministry of Transportation
For the Province of Ontario

Stantec Engineered Drawings - Project 165620142 Aug. 01, 2019 for Proposed Watermain Works.

[illegible]

Client/Project
TOWN OF TECUMSEH

**HIGHWAY NO. 3 / WALKER ROAD
WATERMAIN REPLACEMENT**
Town of Tecumseh, ON, Canada

Title
SITE PLAN, KEY PLAN, LEGEND, NOTES AND INDEX TO DRAWINGS

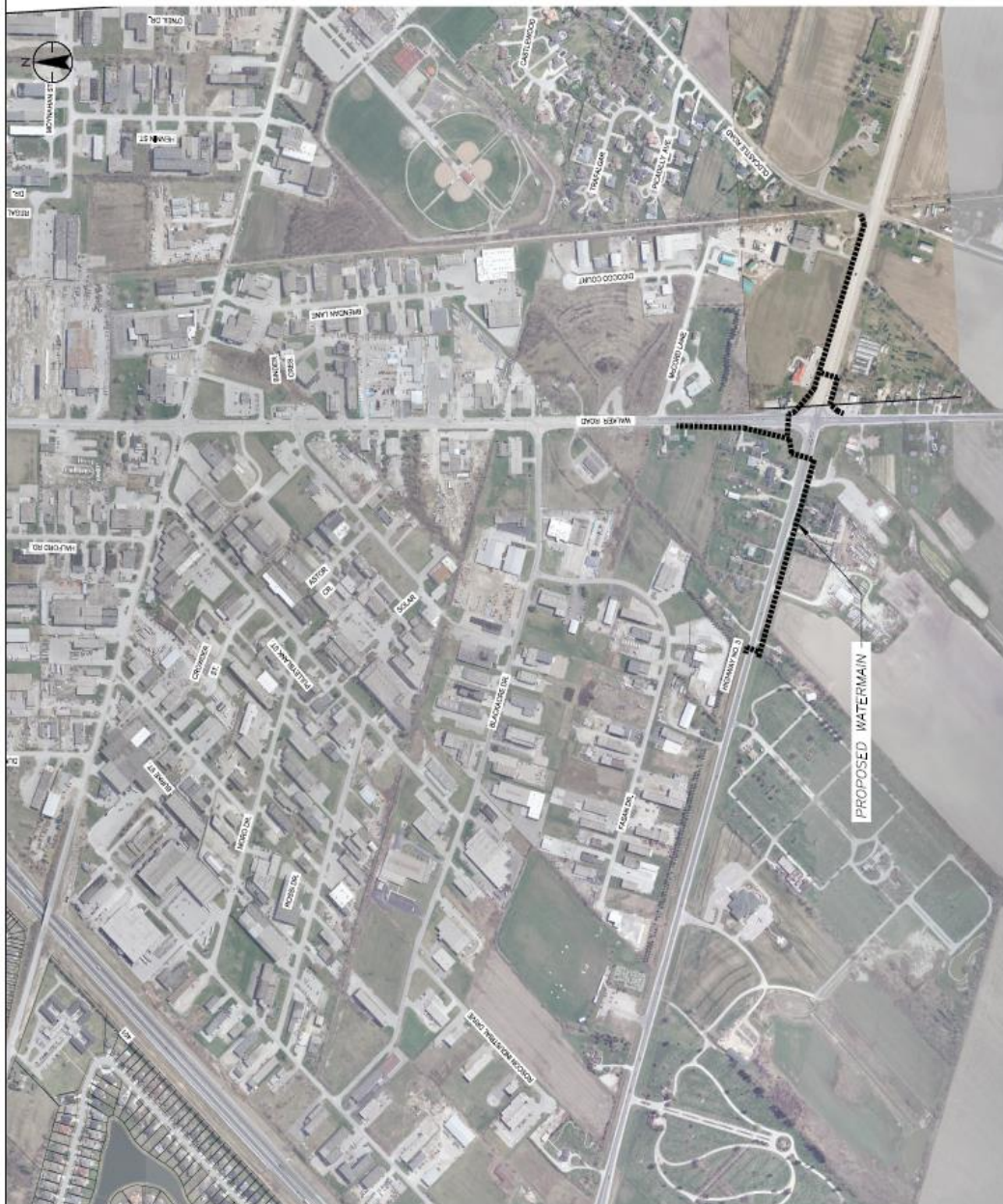
Project No. 165620142	Scale
Revision	Drawing No.

G-002



INDEX TO DRAWINGS

G-001	CUTTER SHEET
G-002	SITE PLAN KEY PLAN LEGEND,
G-003	NOTES AND INDEX TO DRAWINGS
C-001	HIGHWAY NO. 3 - STA. 0+000 TO STA. 0+150
C-002	HIGHWAY NO. 3 - STA. 0+150 TO STA. 0+300
C-003	HIGHWAY NO. 3 - STA. 0+300 TO STA. 0+450
C-004	HIGHWAY NO. 3 - STA. 0+450 TO STA. 0+610
C-005	HIGHWAY NO. 3 - STA. 0+610 TO STA. 0+770
C-006	HIGHWAY NO. 3 - STA. 0+770 TO STA. 0+935
C-007	WALKER ROAD - STA. 0+000 TO STA. 0+150
C-008	WALKER ROAD - STA. 0+150 TO STA. 0+295
C-009	WALKER ROAD - STA. 0+295 TO STA. 0+435
C-010	WATERMAIN CROSSING PROFILES
C-011	WATERMAIN CROSSING PROFILES
C-012	TYPICAL WORK AREA LAYOUT
C-501	STANDARD DETAILS
C-502	STANDARD DETAILS
C-503	STANDARD DETAILS



SITE PLAN
SCALE = 1:5000

LEGEND

[illegible]

SCHEDULE "B"

Conditions for Encroachment Permits and Utility Installations On or Under a King 's Highway

THIS APPENDIX "A" FORMS PART OF THE CONDITIONS OF YOUR PERMIT. THESE ARE GENERAL CONDITIONS ONLY. PLEASE NOTE ANY SPECIFIC INSTRUCTIONS AND/OR CONDITIONS ON THE FRONT OF YOUR PERMIT.

1. The Applicant shall give the Carillion Canada Incorporated Construction and Operations Superintendent **Dennis Armstrong, Office: 519-351-3557 Toll: 1-888-850-6803**, five (5) working days notice **PRIOR** to commencing any work, and shall also inspect the site on completion with the Patrol Supervisor / Superintendent . If the Applicant is unable to contact the Patrol Supervisor / Superintendent, the District/Area office responsible for issuing the permit must be contacted five (5) working days **PRIOR** to commencing any work. Contact: **Wayne Gradwell Phone: (519) 352-2802 Cell: 519-358-3502.**
2. The applicant and their contractor(s) are responsible for all safety precautions and shall assume all liability for accidents. Two way traffic must be maintained with a minimum of disruption at all times unless arrangements have been approved by the ministry. Traffic safety measures must be taken in accordance with the **Ontario Traffic Manual, Book 7, January 2014.**
3. The Applicant shall also provide notice to the **Ministry of Transportation Traffic Operations Centre, Fax Number: (519) 873-4443 or by e-mail at WestRegion.TOC@Ontario.ca.** Notification must be received by 1600 hours on the day **PRIOR** to commencing any work.
4. **For MTO electrical locates please call 1-800-265-6072.**
5. No Material and Equipment shall be stored within 7.0m (23') of the travelled portion of any roadway.
6. No excavation is permitted within 3 m (10') of edge of pavement or back of curb. Excavations must be backfilled or fully enclosed/protected when unattended. All augured/directional bores shall have a one year performance warranty against heaving/settlements.
7. No excavating of the highway roadbed will be allowed for the purpose of recovering a boring device or underground piercing tool.
8. No torpedoes will be allowed for highway undercrossings.
9. Highway shoulders which are disturbed as a result of an installation will be restored by the Applicant with material as specified by the Ministry, at the applicant ' s expense, and to the satisfaction of the Ministry.
10. Pavement surfaces which become damaged as a result of an installation will be repaired by the Applicant as specified by the Ministry, at the applicant ' s expense, and to the satisfaction of the Ministry.
11. Affected areas to be restored to the original condition or better at no cost to the Ministry. All disturbed areas to be top-soiled, seeded or sodded as required. All disturbed ditches to be restored with at least four rows of sod placed in the bottom.
12. Any damage to trees, shrubs, ditches, grass areas shall be repaired or replaced by the Applicant, at the discretion of this Ministry. No trenching and/or plowing will be permitted within "Drip Line" of trees, without prior approval.
13. The Applicant is responsible for all damages to any existing utilities and/or encroachments during the installation. The Applicant is advised to contact the owner(s) of such, for location prior to commencing work.
14. The Applicant shall give the Ministry's district/Area Office written notice of completion of work, and of any changes made during construction. Any changes to the alignment of the installation beyond 0.5 m must have Ministry approval.
15. Work must be started within six (6) months of the date the permit is issued, or the permit becomes null and void.
16. This Permit may be temporarily revoked as result of the ministry wishing to carry out construction or other works in the area or for any other reasons, for any works carried out by the applicant under this permit.
17. The applicant must contact other agencies and municipalities (ie: conservation authorities, ministry of the environment, municipal drainage superintendent, etc.) as required, for their approvals.
18. All work performed within the right-of-way shall be done in accordance with the Occupational Health and Safety Act (of Ontario) and the Environmental Protection Act.
19. Hydro poles and anchors shall be located a minimum of 7.0 m (23') from the edge of the travelled portion of the lane closest to the plant.
20. The applicant shall co-ordinate the work with other Contractors within and/or adjacent to the project limits to ensure that they do not perform work in the same area at the same time. The applicant is responsible for notifying the issuer of this permit if they become aware of this situation.

NOTE: APPLICANT IS RESPONSIBLE FOR ENSURING THE CONTRACTOR IS MADE AWARE OF ALL CONDITIONS AND IS PROVIDED WITH A COPY OF THE PERMIT AND ALL CONDITIONS.



NOTIFICATION OF FIELD WORK OPERATIONS

Sent by and phone #		MTO Contact and phone #:		Sent Date:	
Contract #		24 Hr Contact and phone:		Highway #:	
Location From: (Km or Interchange or nearest Community)		Location To: (Km or Interchange or nearest Community)			
Ramp Closure (If applicable) Interchange # / Road Name					Times:
		<input type="checkbox"/> Eastbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
		<input type="checkbox"/> Westbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
		<input type="checkbox"/> Northbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
		<input type="checkbox"/> Southbound <input type="checkbox"/> Off Ramp <input type="checkbox"/> On Ramp			
Lane Closures (indicate date and hours)					
<input type="checkbox"/> Eastbound-		Left	Centre	Right	Shld. Only
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Westbound-		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Northbound-		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Southbound-		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work to be Performed:					
Equipment:					
General Information	yes	no	Comments / Extra Info:		
Weather permitting	<input type="checkbox"/>	<input type="checkbox"/>			
Reduced speed	<input type="checkbox"/>	<input type="checkbox"/>			
Advanced signing to be erected	<input type="checkbox"/>	<input type="checkbox"/>			
Mobile operation	<input type="checkbox"/>	<input type="checkbox"/>			
Flagging operation	<input type="checkbox"/>	<input type="checkbox"/>			
Signature:					
Please remember the information supplied is required for public and Emergency Services information via media advisories. Keep all details clear, concise and correct.					
E-Mail to WestRegion.TOC@ontario.ca or fax to West Region TOC (519)873-4443 or no later than 1600hrs the day before the closure is to occur. TOC phone number is 519-873-4223					

Revision # _____

Page

The Corporation of the Town of Tecumseh

By-Law Number 2020 - 17

Being a bylaw to adopt Minimum Maintenance Standards for Municipal Highways

Whereas the Municipal Act, 2001 S.O. 2001 c. 25 Section 130 provides that a municipality may regulate matters not specifically provided for by this Act or any other Act for purposes related to the health, safety and well-being of the inhabitants of the municipality;

And Whereas the Municipal Act, 2001 S.O. 2001 c. 25 Section 44 states the municipality that has jurisdiction over a highway, or bridge, shall keep it in a state of repair that is reasonable in the circumstances, including the character and location of the highway or bridge;

And Whereas the Municipal Act, 2001. S.O. 2001 c. 25 O. Reg. 239/02 establishes minimum maintenance standards for highways;

And Whereas the Council of The Corporation of the Town of Tecumseh is desirous of adopting the minimum maintenance standards as set out in O. Reg. 239/02 for maintenance of the highways under the jurisdiction of The Corporation of the Town of Tecumseh;

Now Therefore the Council of The Corporation of The Town of Tecumseh enacts as follows:

1. **That** the minimum maintenance standards for highways set out in the Municipal Act, 2001. S.O. 2001 c. 25 O. Reg. 239/02, as amended, be adopted by The Corporation of the Town of Tecumseh (Town) for highways under the jurisdiction of the Town, a copy of which is attached hereto as Schedule A and forms part of this by-law;
2. **And that** to the extent the Province of Ontario lawfully enacts mandatory minimum standards of repair for highways under municipal jurisdiction other than those currently provided in O. Reg. 239/02, as amended, they shall be deemed to be incorporated into this By-law;
3. **And that** By-law No. 2003-65 be repealed;
4. **And that** this by-law shall come into force and take effect upon third and final reading.

Read a first, second, third time and finally passed this Choose an item. day of Choose an item., 2020.

Gary McNamara, Mayor

Laura Moy, Clerk

Schedule A to By-law No. 2020-17

Municipal Act, 2001 Loi de 2001 sur les municipalités

ONTARIO REGULATION 239/02 MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS

Consolidation Period: From May 3, 2018 to the December 10, 2019

Last amendment: 366/18.

Legislative History: 288/03, 613/06, 23/10, 47/13, 366/18.

This Regulation is made in English only.

Definitions

1. (1) In this Regulation,

“bicycle facility” means the on-road and in-boulevard cycling facilities listed in Book 18 of the Ontario Traffic Manual;

“bicycle lane” means,

- (a) a portion of a roadway that has been designated by pavement markings or signage for the preferential or exclusive use of cyclists, or
- (b) a portion of a roadway that has been designated for the exclusive use of cyclists by signage and a physical or marked buffer;

“cm” means centimetres;

“day” means a 24-hour period;

“encroachment” means anything that is placed, installed, constructed or planted within the highway that was not placed, installed, constructed or planted by the municipality;

“ice” means all kinds of ice, however formed;

“motor vehicle” has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*, except that it does not include a motor assisted bicycle;

“non-paved surface” means a surface that is not a paved surface;

“Ontario Traffic Manual” means the Ontario Traffic Manual published by the Ministry of Transportation, as amended from time to time;

“paved surface” means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion;

“pothole” means a hole in the surface of a roadway caused by any means, including wear or subsidence of the road surface or subsurface;

“roadway” has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*;

“shoulder” means the portion of a highway that provides lateral support to the roadway and that may accommodate stopped motor vehicles and emergency use;

“sidewalk” means the part of the highway specifically set aside or commonly understood to be for pedestrian use, typically consisting of a paved surface but does not include crosswalks, medians, boulevards, shoulders or any part of the sidewalk where cleared snow has been deposited;

“significant weather event” means an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality;

“snow accumulation” means the natural accumulation of any of the following that, alone or together, covers more than half a lane width of a roadway:

1. Newly-fallen snow.
2. Wind-blown snow.
3. Slush;

“substantial probability” means a significant likelihood considerably in excess of 51 per cent;

“surface” means the top of a sidewalk, roadway or shoulder;

“utility” includes any air, gas, water, electricity, cable, fiber-optic, telecommunication or traffic control system or subsystem, fire hydrants, sanitary sewers, storm sewers, property bars and survey monuments;

“utility appurtenance” includes maintenance holes and hole covers, water shut-off covers and boxes, valves, fittings, vaults, braces, pipes, pedestals, and any other structures or items that form part of or are an accessory part of any utility;

“weather” means air temperature, wind and precipitation.

“weather hazard” means the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program. O. Reg. 239/02, s. 1 (1); O. Reg. 23/10, s. 1 (1); O. Reg. 47/13, s. 1; O. Reg. 366/18, s. 1 (1, 2).

(2) For the purposes of this Regulation, every highway or part of a highway under the jurisdiction of a municipality in Ontario is classified in the Table to this section as a Class 1, Class 2, Class 3, Class 4, Class 5 or Class 6 highway, based on the speed limit applicable to it and the average daily traffic on it. O. Reg. 239/02, s. 1 (2); O. Reg. 366/18, s. 1 (3).

(3) For the purposes of subsection (2) and the Table to this section, the average daily traffic on a highway or part of a highway under municipal jurisdiction shall be determined,

- (a) by counting and averaging the daily two-way traffic on the highway or part of the highway; or
- (b) by estimating the average daily two-way traffic on the highway or part of the highway. O. Reg. 239/02, s. 1 (3); O. Reg. 23/10, s. 1 (2); O. Reg. 366/18, s. 1 (3).

(4) For the purposes of this Regulation, unless otherwise indicated in a provision of this Regulation, a municipality is deemed to be aware of a fact if, in the absence of actual knowledge of the fact, circumstances are such that the municipality ought reasonably to be aware of the fact. O. Reg. 366/18, s. 1 (4).

TABLE
CLASSIFICATION OF HIGHWAYS

Column 1 Average Daily Traffic (number of motor vehicles)	Column 2 91 - 100 km/h speed limit	Column 3 81 - 90 km/h speed limit	Column 4 71 - 80 km/h speed limit	Column 5 61 - 70 km/h speed limit	Column 6 51 - 60 km/h speed limit	Column 7 41 - 50 km/h speed limit	Column 8 1 - 40 km/h speed limit
53,000 or more	1	1	1	1	1	1	1
23,000 - 52,999	1	1	1	2	2	2	2
15,000 - 22,999	1	1	2	2	2	3	3
12,000 - 14,999	1	1	2	2	2	3	3
10,000 - 11,999	1	1	2	2	3	3	3
8,000 - 9,999	1	1	2	3	3	3	3
6,000 - 7,999	1	2	2	3	3	4	4
5,000 - 5,999	1	2	2	3	3	4	4
4,000 - 4,999	1	2	3	3	3	4	4
3,000 - 3,999	1	2	3	3	3	4	4
2,000 - 2,999	1	2	3	3	4	5	5
1,000 - 1,999	1	3	3	3	4	5	5
500 - 999	1	3	4	4	4	5	5
200 - 499	1	3	4	4	5	5	6
50 - 199	1	3	4	5	5	6	6
0 - 49	1	3	6	6	6	6	6

O. Reg. 366/18, s. 1 (5).

Application

2. (1) This Regulation sets out the minimum standards of repair for highways under municipal jurisdiction for the purpose of clause 44 (3) (c) of the Act. O. Reg. 288/03, s. 1.

(2) REVOKED: O. Reg. 23/10, s. 2.

(3) This Regulation does not apply to Class 6 highways. O. Reg. 239/02, s. 2 (3).

Purpose

2.1 The purpose of this Regulation is to clarify the scope of the statutory defence available to a municipality under clause 44 (3) (c) of the Act by establishing maintenance standards which are non-prescriptive as to the methods or materials to be used in complying with the standards but instead describe a desired outcome. O. Reg. 366/18, s. 2.

MAINTENANCE STANDARDS

Patrolling

3. (1) The standard for the frequency of patrolling of highways to check for conditions described in this Regulation is set out in the Table to this section. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (2).

(2) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the standard for patrolling highways is, in addition to that set out in subsection (1), to patrol highways that the municipality selects as representative of its highways, at intervals deemed necessary by the municipality, to check for such conditions. O. Reg. 47/13, s. 2; O. Reg. 366/18, s. 3 (2).

(3) Patrolling a highway consists of observing the highway, either by driving on or by electronically monitoring the highway, and may be performed by persons responsible for patrolling highways or by persons responsible for or performing highway maintenance activities. O. Reg. 23/10, s. 3 (1).

(4) This section does not apply in respect of the conditions described in section 10, subsections 11 (0.1) and 12 (1) and section 16.1, 16.2, 16.3 or 16.4. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (3).

TABLE
PATROLLING FREQUENCY

Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	once every 7 days
4	once every 14 days
5	once every 30 days

O. Reg. 239/02, s. 3, Table; O. Reg. 23/10, s. 3 (2).

Weather monitoring

3.1 (1) From October 1 to April 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality. O. Reg. 47/13, s. 3; O. Reg. 366/18, s. 4.

(2) From May 1 to September 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 47/13, s. 3; O. Reg. 366/18, s. 4.

Snow accumulation, roadways

4. (1) Subject to section 4.1, the standard for addressing snow accumulation on roadways is,

- (a) after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and
- (b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,
 - (i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or
 - (ii) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five metres. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (1).

(2) If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the Table to this section, the roadway is deemed to be in a state of repair with respect to snow accumulation. O. Reg. 47/13, s. 4.

(3) For the purposes of this section, the depth of snow accumulation on a roadway and, if applicable, lane width under clause (1) (b), may be determined in accordance with subsection (4) by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

1. Patrolling highways.
2. Performing highway maintenance activities.
3. Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (2).

- (4) The depth of snow accumulation on a roadway and lane width may be determined by,
- (a) performing an actual measurement;
 - (b) monitoring the weather; or
 - (c) performing a visual estimate. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (3).
- (5) For the purposes of this section, addressing snow accumulation on a roadway includes,
- (a) plowing the roadway;
 - (b) salting the roadway;
 - (c) applying abrasive materials to the roadway;
 - (d) applying other chemical or organic agents to the roadway;
 - (e) any combination of the methods described in clauses (a) to (d). O. Reg. 366/18, s. 5 (4).
- (6) This section does not apply to that portion of the roadway,
- (a) designated for parking;
 - (b) consisting of a bicycle lane or other bicycle facility; or
 - (d) used by a municipality for snow storage. O. Reg. 366/18, s. 5 (4).

TABLE
SNOW ACCUMULATION - ROADWAYS

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (5).

Snow accumulation on roadways, significant weather event

4.1 (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on roadways until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on roadways, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 7.

(2) If the municipality complies with subsection (1), all roadways within the municipality are deemed to be in a state of repair with respect to snow accumulation until the applicable time in the Table to section 4 expires following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 7.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address snow accumulation on roadways in accordance with section 4. O. Reg. 366/18, s. 7.

Snow accumulation, bicycle lanes

4.2 (1) Subject to section 4.3, the standard for addressing snow accumulation on bicycle lanes is,

- (a) after becoming aware of the fact that the snow accumulation on a bicycle lane is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and
- (b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table to this section to provide a minimum bicycle lane width of the lesser of 1 metre or the actual bicycle lane width. O. Reg. 366/18, s. 7.

(2) If the depth of snow accumulation on a bicycle lane is less than or equal to the depth set out in the Table to this section, the bicycle lane is deemed to be in a state of repair in respect of snow accumulation. O. Reg. 366/18, s. 7.

(3) For the purposes of this section, the depth of snow accumulation on a bicycle lane and, if applicable, lane width under clause (1) (b), may be determined in the same manner as set out in subsection 4 (4) and by the persons mentioned in subsection 4 (3), with necessary modifications. O. Reg. 366/18, s. 7.

(4) For the purposes of this section, addressing snow accumulation on a bicycle lane includes,

- (a) plowing the bicycle lane;
- (b) salting the bicycle lane;
- (c) applying abrasive materials to the bicycle lane;
- (d) applying other chemical or organic agents to the bicycle lane;
- (e) sweeping the bicycle lane; or
- (f) any combination of the methods described in clauses (a) to (e). O. Reg. 366/18, s. 7.

TABLE
SNOW ACCUMULATION – BICYCLE LANES

Column 1 Class of Highway or Adjacent Highway	Column 2 Depth	Column 3 Time
1	2.5 cm	8 hours
2	5 cm	12 hours
3	8 cm	24 hours
4	8 cm	24 hours
5	10 cm	24 hours

O. Reg. 366/18, s. 7.

Snow accumulation on bicycle lanes, significant weather event

4.3 (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on bicycle lanes until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on bicycle lanes, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 7.

(2) If the municipality complies with subsection (1), all bicycle lanes within the municipality are deemed to be in a state of repair with respect to snow accumulation until the applicable time in the Table to section 4.2 expires following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 7.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address snow accumulation on bicycle lanes in accordance with section 4.2. O. Reg. 366/18, s. 7.

Ice formation on roadways and icy roadways

5. (1) The standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

- 1. Monitor the weather in accordance with section 3.1.
- 2. Patrol in accordance with section 3.
- 3. If the municipality determines, as a result of its activities under paragraph 1 or 2, that there is a substantial probability of ice forming on a roadway, treat the roadway, if practicable, to prevent ice formation within the time set out in Table 1 to this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 366/18, s. 8.

(2) If the municipality meets the standard set out in subsection (1) and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the applicable time set out in Table 2 to this section expires after the municipality becomes aware of the fact that the roadway is icy. O. Reg. 366/18, s. 8.

(3) Subject to section 5.1, the standard for treating icy roadways is to treat the icy roadway within the time set out in Table 2 to this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in Table 2 to this section expires after the municipality becomes aware of the fact that a roadway is icy. O. Reg. 366/18, s. 8.

(4) For the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand. O. Reg. 366/18, s. 8.

(5) For greater certainty, this section applies in respect of ice formation on bicycle lanes on a roadway, but does not apply to other types of bicycle facilities. O. Reg. 366/18, s. 8.

TABLE 1
ICE FORMATION PREVENTION

Class of Highway	Time
1	6 hours
2	8 hours
3	16 hours
4	24 hours
5	24 hours

O. Reg. 366/18, s. 8.

TABLE 2
TREATMENT OF ICY ROADWAYS

Class of Highway	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours

O. Reg. 366/18, s. 8.

Icy roadways, significant weather event

5.1 (1) If a municipality declares a significant weather event relating to ice, the standard for treating icy roadways until the declaration of the end of the significant weather event is,

- to monitor the weather in accordance with section 3.1; and
- if deemed practicable by the municipality, to deploy resources to treat icy roadways, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 8.

(2) If the municipality complies with subsection (1), all roadways within the municipality are deemed to be in a state of repair with respect to any ice which forms or may be present until the applicable time in Table 2 to section 5 expires after the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 8.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- treat icy roadways in accordance with section 5. O. Reg. 366/18, s. 8.

Potholes

6. (1) If a pothole exceeds both the surface area and depth set out in Table 1, 2 or 3 to this section, as the case may be, the standard is to repair the pothole within the time set out in Table 1, 2 or 3, as appropriate, after becoming aware of the fact. O. Reg. 239/02, s. 6 (1); O. Reg. 366/18, s. 8 (1).

(1.1) For the purposes of this section, the surface area and depth of a pothole may be determined in accordance with subsections (1.2) and (1.3), as applicable, by a municipal employee, agent or contractor whose duties or responsibilities include one or more of the following:

- Patrolling highways.
- Performing highway maintenance activities.
- Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 366/18, s. 8 (2).

(1.2) The depth and surface area of a pothole may be determined by,

- performing an actual measurement; or
- performing a visual estimate. O. Reg. 366/18, s. 8 (2).

(1.3) For the purposes of this section, the surface area of a pothole does not include any area that is merely depressed and not yet broken fully through the surface of the roadway. O. Reg. 366/18, s. 8 (2).

(2) A pothole is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in Table 1, 2 or 3, as appropriate. O. Reg. 239/02, s. 6 (2); O. Reg. 47/13, s. 6.

TABLE 1
POTHOLES ON PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
1	600 cm ²	8 cm	4 days
2	800 cm ²	8 cm	4 days
3	1000 cm ²	8 cm	7 days
4	1000 cm ²	8 cm	14 days
5	1000 cm ²	8 cm	30 days

O. Reg. 239/02, s. 6, Table 1.

TABLE 2
POTHOLES ON NON-PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
3	1500 cm ²	8 cm	7 days
4	1500 cm ²	10 cm	14 days
5	1500 cm ²	12 cm	30 days

O. Reg. 239/02, s. 6, Table 2.

TABLE 3
POTHOLES ON PAVED OR NON-PAVED SURFACE OF SHOULDER

Class of Highway	Surface Area	Depth	Time
1	1500 cm ²	8 cm	7 days
2	1500 cm ²	8 cm	7 days
3	1500 cm ²	8 cm	14 days
4	1500 cm ²	10 cm	30 days
5	1500 cm ²	12 cm	60 days

O. Reg. 239/02, s. 6, Table 3.

Shoulder drop-offs

7. (1) If a shoulder drop-off is deeper than 8 cm, for a continuous distance of 20 metres or more, the standard is to repair the shoulder drop-off within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 9 (1).

(2) A shoulder drop-off is deemed to be in a state of repair if its depth is less than 8 cm. O. Reg. 366/18, s. 9 (1).

(3) In this section,

“shoulder drop-off” means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder. O. Reg. 239/02, s. 7 (3).

TABLE
SHOULDER DROP-OFFS

Class of Highway	Time
1	4 days
2	4 days
3	7 days
4	14 days
5	30 days

Cracks

8. (1) If a crack on the paved surface of a roadway is greater than 5 cm wide and 5 cm deep for a continuous distance of three metres or more, the standard is to repair the crack within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 10 (1).

(2) A crack is deemed to be in a state of repair if its width or depth is less than or equal to 5 cm. O. Reg. 366/18, s. 10 (1).

TABLE
CRACKS

Column 1 Class of Highway	Column 2 Time
1	30 days
2	30 days
3	60 days
4	180 days
5	180 days

O. Reg. 366/18, s. 10 (2).

Debris

9. (1) If there is debris on a roadway, the standard is to deploy resources, as soon as practicable after becoming aware of the fact, to remove the debris. O. Reg. 239/02, s. 9 (1); O. Reg. 366/18, s. 11.

(2) In this section,

“debris” means any material (except snow, slush or ice) or object on a roadway,

- (a) that is not an integral part of the roadway or has not been intentionally placed on the roadway by a municipality, and
- (b) that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle. O. Reg. 239/02, s. 9 (2); O. Reg. 47/13, s. 9.

Luminaires

10. (0.1) REVOKED: O. Reg. 366/18, s. 12.

(1) The standard for the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 366/18, s. 12.

(2) For conventional illumination, if three or more consecutive luminaires on the same side of a highway are not functioning, the standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 12.

(3) For conventional illumination and high mast illumination, if 30 per cent or more of the luminaires on any kilometre of highway are not functioning, the standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 12.

(4) Despite subsection (2), for high mast illumination, if all of the luminaires on consecutive poles on the same side of a highway are not functioning, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 366/18, s. 12.

(5) Despite subsections (1), (2) and (3), for conventional illumination and high mast illumination, if more than 50 per cent of the luminaires on any kilometre of a Class 1 highway with a speed limit of 90 kilometres per hour or more are not functioning, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 366/18, s. 12.

(6) Luminaires are deemed to be in a state of repair,

- (a) for the purpose of subsection (2), if the number of non-functioning consecutive luminaires on the same side of a highway does not exceed two;
- (b) for the purpose of subsection (3), if more than 70 per cent of luminaires on any kilometre of highway are functioning;
- (c) for the purpose of subsection (4), if one or more of the luminaires on consecutive poles on the same side of a highway are functioning;

(d) for the purpose of subsection (5), if more than 50 per cent of luminaires on any kilometre of highway are functioning.
O. Reg. 366/18, s. 12.

(7) In this section,

“conventional illumination” means lighting, other than high mast illumination, where there are one or more luminaires per pole;

“high mast illumination” means lighting where there are three or more luminaires per pole and the height of the pole exceeds 20 metres;

“luminaire” means a complete lighting unit consisting of,

(a) a lamp, and

(b) parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply.
O. Reg. 239/02, s. 10 (7).

TABLE
LUMINAIRES

Class of Highway	Time
1	7 days
2	7 days
3	14 days
4	14 days
5	14 days

O. Reg. 239/02, s. 10, Table.

Signs

11. (0.1) The standard for the frequency of inspecting signs of a type listed in subsection (2) to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 7 (1); O. Reg. 47/13, s. 11 (1); O. Reg. 366/18, s. 13.

(0.2) A sign that has been inspected in accordance with subsection (0.1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 11 (2).

(1) If any sign of a type listed in subsection (2) is illegible, improperly oriented, obscured or missing, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair or replace the sign. O. Reg. 239/02, s. 11 (1); O. Reg. 23/10, s. 7 (2); O. Reg. 366/18, s. 13.

(2) This section applies to the following types of signs:

1. Checkerboard.
2. Curve sign with advisory speed tab.
3. Do not enter.
- 3.1 Load Restricted Bridge.
- 3.2 Low Bridge.
- 3.3 Low Bridge Ahead.
4. One Way.
5. School Zone Speed Limit.
6. Stop.
7. Stop Ahead.
8. Stop Ahead, New.
9. Traffic Signal Ahead, New.
10. Two-Way Traffic Ahead.
11. Wrong Way.
12. Yield.

13. Yield Ahead.

14. Yield Ahead, New. O. Reg. 239/02, s. 11 (2); O. Reg. 23/10, s. 7 (3).

Regulatory or warning signs

12. (1) The standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 8; O. Reg. 47/13, s. 12 (1); O. Reg. 366/18, s. 13.

(1.1) A regulatory sign or warning sign that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 12 (2).

(2) If a regulatory sign or warning sign is illegible, improperly oriented, obscured or missing, the standard is to repair or replace the sign within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 23/10, s. 8; O. Reg. 366/18, s. 13.

(3) In this section,

“regulatory sign” and “warning sign” have the same meanings as in the Ontario Traffic Manual, except that they do not include a sign listed in subsection 11 (2) of this Regulation. O. Reg. 23/10, s. 8.

TABLE
REGULATORY AND WARNING SIGNS

Class of Highway	Time
1	7 days
2	14 days
3	21 days
4	30 days
5	30 days

O. Reg. 239/02, s. 12, Table.

Traffic control signal systems

13. (1) If a traffic control signal system is defective in any way described in subsection (2), the standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system. O. Reg. 239/02, s. 13 (1); O. Reg. 366/18, s. 13.

(2) This section applies if a traffic control signal system is defective in any of the following ways:

1. One or more displays show conflicting signal indications.
2. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
3. A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
4. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
5. There is a power failure in the traffic control signal system.
6. The traffic control signal system cabinet has been displaced from its proper position.
7. There is a failure of any of the traffic control signal support structures.
8. A signal lamp or a pedestrian control indication is not functioning.
9. Signals are flashing when flashing mode is not a part of the normal signal operation. O. Reg. 239/02, s. 13 (2).

(3) Despite subsection (1) and paragraph 8 of subsection (2), if the posted speed of all approaches to the intersection or location of the non-functioning signal lamp or pedestrian control indication is less than 80 kilometres per hour and the signal that is not functioning is a green or a pedestrian “walk” signal, the standard is to repair or replace the defective component by the end of the next business day. O. Reg. 239/02, s. 13 (3); O. Reg. 366/18, s. 13.

(4) In this section and section 14,

“cycle” means a complete sequence of traffic control indications at a location;

“display” means the illuminated and non-illuminated signals facing the traffic;

“indication” has the same meaning as in the *Highway Traffic Act*;

“phase” means a part of a cycle from the time where one or more traffic directions receive a green indication to the time where one or more different traffic directions receive a green indication;

“power failure” means a reduction in power or a loss in power preventing the traffic control signal system from operating as intended;

“traffic control signal” has the same meaning as in the *Highway Traffic Act*;

“traffic control signal system” has the same meaning as in the *Highway Traffic Act*. O. Reg. 239/02, s. 13 (4).

Traffic control signal system sub-systems

14. (1) The standard is to inspect, test and maintain the following traffic control signal system sub-systems once per calendar year, with each inspection taking place not more than 16 months from the previous inspection:

1. The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures and support cables.
2. The traffic control sub-system, including the traffic control signal cabinet and internal devices such as timer, detection devices and associated hardware, but excluding conflict monitors.
3. The external detection sub-system, consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian push- buttons. O. Reg. 239/02, s. 14 (1); O. Reg. 47/13, s. 13 (1); O. Reg. 366/18, s. 13.

(1.1) A traffic control signal system sub-system that has been inspected, tested and maintained in accordance with subsection (1) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the traffic control signal system sub-system has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (2).

(2) The standard is to inspect, test and maintain conflict monitors every five to seven months and at least twice per calendar year. O. Reg. 239/02, s. 14 (2); O. Reg. 47/13, s. 13 (3); O. Reg. 366/18, s. 13.

(2.1) A conflict monitor that has been inspected, tested and maintained in accordance with subsection (2) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the conflict monitor has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (4).

(3) In this section,

“conflict monitor” means a device that continually checks for conflicting signal indications and responds to a conflict by emitting a signal. O. Reg. 239/02, s. 14 (3).

Bridge deck spalls

15. (1) If a bridge deck spall exceeds both the surface area and depth set out in the Table to this section, the standard is to repair the bridge deck spall within the time set out in the Table after becoming aware of the fact. O. Reg. 239/02, s. 15 (1); O. Reg. 366/18, s. 13.

(2) A bridge deck spall is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in the Table. O. Reg. 239/02, s. 15 (2); O. Reg. 47/13, s. 14.

(3) In this section,

“bridge deck spall” means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge. O. Reg. 239/02, s. 15 (3).

TABLE
BRIDGE DECK SPALLS

Class of Highway	Surface Area	Depth	Time
1	600 cm ²	8 cm	4 days
2	800 cm ²	8 cm	4 days
3	1,000 cm ²	8 cm	7 days
4	1,000 cm ²	8 cm	7 days
5	1,000 cm ²	8 cm	7 days

O. Reg. 239/02, s. 15, Table.

Roadway surface discontinuities

16. (1) If a surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, exceeds the height set out in the Table to this section, the standard is to repair the surface discontinuity within the time set out in the Table after becoming aware of the fact. O. Reg. 23/10, s. 9; O. Reg. 366/18, s. 13.

(1.1) A surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, is deemed to be in a state of repair if its height is less than or equal to the height set out in the Table to this section. O. Reg. 47/13, s. 15.

(2) If a surface discontinuity on a bridge deck exceeds five centimetres, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the surface discontinuity on the bridge deck. O. Reg. 23/10, s. 9; O. Reg. 366/18, s. 13.

(2.1) A surface discontinuity on a bridge deck is deemed to be in a state of repair if its height is less than or equal to five centimetres. O. Reg. 47/13, s. 15.

(3) In this section,

“surface discontinuity” means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge. O. Reg. 23/10, s. 9.

TABLE
SURFACE DISCONTINUITIES

Class of Highway	Height	Time
1	5 cm	2 days
2	5 cm	2 days
3	5 cm	7 days
4	5 cm	21 days
5	5 cm	21 days

O. Reg. 239/02, s. 16, Table.

Sidewalk surface discontinuities

16.1 (1) The standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (1); O. Reg. 366/18, s. 13.

(1.1) A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge of the presence of a surface discontinuity in excess of two centimetres. O. Reg. 47/13, s. 16 (2).

(2) If a surface discontinuity on or within a sidewalk exceeds two centimetres, the standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 366/18, s. 14.

(2.1) REVOKED: O. Reg. 366/18, s. 14.

(3) A surface discontinuity on or within a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimetres. O. Reg. 366/18, s. 14.

(4) For the purpose of subsection (2), treating a surface discontinuity on or within a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users’ attention to the discontinuity or preventing access to the area of discontinuity. O. Reg. 366/18, s. 14.

(5) In this section,

“surface discontinuity” means a vertical discontinuity creating a step formation at any joint or crack in the surface of the sidewalk or any vertical height difference between a utility appurtenance found on or within the sidewalk and the surface of the sidewalk. O. Reg. 366/18, s. 14.

Encroachments, area adjacent to sidewalk

16.2 (1) The standard for the frequency of inspecting an area adjacent to a sidewalk to check for encroachments is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 366/18, s. 15.

(2) The area adjacent to a sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair in respect of any encroachment present. O. Reg. 366/18, s. 15.

(3) For greater certainty, the area adjacent to a sidewalk begins at the outer edges of a sidewalk and ends at the lesser of the limit of the highway, the back edge of a curb if there is a curb and a maximum of 45 cm. O. Reg. 366/18, s. 15.

(4) The area adjacent to a sidewalk is deemed to be in a state of repair in respect of any encroachment present unless the encroachment is determined by a municipality to be highly unusual given its character and location or to constitute a significant hazard to pedestrians. O. Reg. 366/18, s. 15.

(5) If a municipality determines that an encroachment is highly unusual given its character and location or constitutes a significant hazard to pedestrians, the standard is to treat the encroachment within 28 days after making such a determination, and the encroachment is deemed in a state of repair for 28 days from the time of the determination by the municipality. O. Reg. 366/18, s. 15.

(6) For the purpose of subsection (4), treating an encroachment means taking reasonable measures to protect users, including making permanent or temporary repairs, alerting users' attention to the encroachment or preventing access to the area of the encroachment. O. Reg. 366/18, s. 15.

Snow accumulation on sidewalks

16.3 (1) Subject to section 16.4, the standard for addressing snow accumulation on a sidewalk after the snow accumulation has ended is,

- a) to reduce the snow to a depth less than or equal to 8 centimetres within 48 hours; and
- b) to provide a minimum sidewalk width of 1 metre. O. Reg. 366/18, s. 15.

(2) If the depth of snow accumulation on a sidewalk is less than or equal to 8 centimetres, the sidewalk is deemed to be in a state of repair in respect of snow accumulation. O. Reg. 366/18, s. 15.

(3) If the depth of snow accumulation on a sidewalk exceeds 8 centimetres while the snow continues to accumulate, the sidewalk is deemed to be in a state of repair with respect to snow accumulation, until 48 hours after the snow accumulation ends. O. Reg. 366/18, s. 15.

(4) For the purposes of this section, the depth of snow accumulation on a sidewalk may be determined in the same manner as set out in subsection 4 (4) and by the persons mentioned in subsection 4 (3) with necessary modifications. O. Reg. 366/18, s. 15.

(5) For the purposes of this section, addressing snow accumulation on a sidewalk includes,

- (a) plowing the sidewalk;
- (b) salting the sidewalk;
- (c) applying abrasive materials to the sidewalk;
- (d) applying other chemical or organic agents to the sidewalk; or
- (e) any combination of the methods described in clauses (a) to (d). O. Reg. 366/18, s. 15.

Snow accumulation on sidewalks, significant weather event

16.4 (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on sidewalks until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on sidewalks starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 15.

(2) If the municipality complies with subsection (1), all sidewalks within the municipality are deemed to be in a state of repair with respect to any snow present until 48 hours following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 15.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address snow accumulation on sidewalks in accordance with section 16.3. O. Reg. 366/18, s. 15.

Ice formation on sidewalks and icy sidewalks

16.5 (1) Subject to section 16.6, the standard for the prevention of ice formation on sidewalks is to,

- (a) monitor the weather in accordance with section 3.1 in the 24-hour period preceding an alleged formation of ice on a sidewalk; and
- (b) treat the sidewalk if practicable to prevent ice formation or improve traction within 48 hours if the municipality determines that there is a substantial probability of ice forming on a sidewalk, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 366/18, s. 15.

(2) If ice forms on a sidewalk even though the municipality meets the standard set out in subsection (1), the sidewalk is deemed to be in a state of repair in respect of ice until 48 hours after the municipality first becomes aware of the fact that the sidewalk is icy. O. Reg. 366/18, s. 15.

(3) The standard for treating icy sidewalks after the municipality becomes aware of the fact that a sidewalk is icy is to treat the icy sidewalk within 48 hours, and an icy sidewalk is deemed to be in a state of repair for 48 hours after it has been treated. O. Reg. 366/18, s. 15.

(4) For the purposes of this section, treating a sidewalk means applying materials including salt, sand or any combination of salt and sand to the sidewalk. O. Reg. 366/18, s. 15.

Icy sidewalks, significant weather event

16.6 (1) If a municipality declares a significant weather event relating to ice, the standard for addressing ice formation or ice on sidewalks until the declaration of the end of the significant weather event is,

- (a) to monitor the weather in accordance with section 3.1; and
- (b) if deemed practicable by the municipality, to deploy resources to treat the sidewalks to prevent ice formation or improve traction, or treat the icy sidewalks, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 15.

(2) If the municipality complies with subsection (1), all sidewalks within the municipality are deemed to be in a state of repair with respect to any ice which forms or is present until 48 hours after the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 15.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

- (a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and
- (b) address the prevention of ice formation on sidewalks or treat icy sidewalks in accordance with section 16.5. O. Reg. 366/18, s. 15.

Winter sidewalk patrol

16.7 (1) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on sidewalks in excess of 8 cm, ice formation on sidewalks or icy sidewalks, the standard for patrolling sidewalks is to patrol sidewalks that the municipality selects as representative of its sidewalks at intervals deemed necessary by the municipality. O. Reg. 366/18, s. 15.

(2) Patrolling a sidewalk consists of visually observing the sidewalk, either by driving by the sidewalk on the adjacent roadway or by driving or walking on the sidewalk or by electronically monitoring the sidewalk, and may be performed by persons responsible for patrolling roadways or sidewalks or by persons responsible for or performing roadway or sidewalk maintenance activities. O. Reg. 366/18, s. 15.

Closure of a highway

16.8 (1) When a municipality closes a highway or part of a highway pursuant to its powers under the Act, the highway is deemed to be in a state of repair in respect of all conditions described in this Regulation from the time of the closure until the highway is re-opened by the municipality. O. Reg. 366/18, s. 15.

(2) For the purposes of subsection (1), a highway or part of a highway is closed on the earlier of,

- (a) when a municipality passes a by-law to close the highway or part of the highway; and
- (b) when a municipality has taken such steps as it determines necessary to temporarily close the highway or part of a highway. O. Reg. 366/18, s. 15.

Declaration of significant weather event

16.9. A municipality declaring the beginning of a significant weather event or declaring the end of a significant weather event under this Regulation shall do so in one or more of the following ways:

1. By posting a notice on the municipality's website.
2. By making an announcement on a social media platform, such as Facebook or Twitter.
3. By sending a press release or similar communication to internet, newspaper, radio or television media.
4. By notification through the municipality's police service.
5. By any other notification method required in a by-law of the municipality. O. Reg. 366/18, s. 15.

REVIEW OF REGULATION

Review

17. (1) The Minister of Transportation shall conduct a review of this Regulation and Ontario Regulation 612/06 (Minimum Maintenance Standards for Highways in the City of Toronto) made under the *City of Toronto Act, 2006* every five years. O. Reg. 613/06, s. 2.

(2) Despite subsection (1), the first review after the completion of the review started before the end of 2007 shall be started five years after the day Ontario Regulation 23/10 is filed. O. Reg. 23/10, s. 11.

18. OMITTED (PROVIDES FOR COMING INTO FORCE OF PROVISIONS OF THIS REGULATION). O. Reg. 239/02, s. 18.

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UNFINISHED REGULAR COUNCIL BUSINESS

	Meeting Date	Resolution	Subject	Action/Direction	Depart.	Status/Action Taken
18/18	April 24, 2018		Cada Library Renovations	It is directed that Administration provide a report on the Cada Library to include consultations with TAAC, SAC, YAC, CAC, and other stakeholders on the current options proposed to refresh or renovate the current library building.	PRS/CAO	Funding was approved in the 2020-2024 Buildings 5-year Capital Works Plan (RCM-397/19) to contract the services of an architect to work with the Town's and Essex County Library's administrations to hold public input sessions and complete concept designs to modernize the facility for Town and County Councils approvals.
19/18	May 22, 2018		Property Standards By-law (Zoning)	It is directed that Administration harmonize the by-law regarding disconnected tractor-trailers on residential properties to be consistent within the Town.	PBS	In progress
28/18	September 25, 2018		Municipal Tree Cutting	Administration is asked to look into a tree cutting and trimming policy for municipal trees that includes provisions for residents who wish to cost share in tree maintenance.	PWES/CS/PRS	Report to be provided in Q1 of 2020

The Corporation of the Town of Tecumseh

By-Law Number 2020 - 18

Being a by-law to confirm the proceedings of the February 25, 2020 regular meeting of the Council of The Corporation of the Town of Tecumseh.

Whereas pursuant to Section 5(1) of the Municipal Act, 2001, S.O. 2001, c.25 as amended, the powers of a municipality shall be exercised by its Council; and

Whereas pursuant to Section 5(3) of the *Municipal Act, 2001*, S.O. 2001, c.25 as amended, a municipal power, including a municipality's capacity, rights, powers and privileges under Section 8 of the *Municipal Act, 2001*, S.O. 2001, c.25 as amended, shall be exercised by by-law unless the municipality is specifically authorized to do otherwise; and

Whereas it is deemed expedient that the proceedings of the Council of The Corporation of the Town of Tecumseh at this Session be confirmed and adopted by by-law.

Now Therefore the Council of The Corporation of The Town of Tecumseh Enacts as follows:

1. **That** the actions of the Council of The Corporation of the Town of Tecumseh in respect of all recommendations in reports and minutes of committees, all motions and resolutions and all other action passed and taken by the Council of The Corporation of the Town of Tecumseh, documents and transactions entered into during the February 25, 2020, meeting of Council, are hereby adopted and confirmed, as if the same were expressly embodied in this By-law.
2. **That** the Mayor and proper officials of The Corporation of the Town of Tecumseh are hereby authorized and directed to do all the things necessary to give effect to the action of the Council of The Corporation of the Town of Tecumseh during the said February 25, 2020, meeting referred to in paragraph 1 of this By-law.
3. **That** the Mayor and the Clerk are hereby authorized and directed to execute all documents necessary to the action taken by this Council as described in Section 1 of this By-law and to affix the Corporate Seal of The Corporation of the Town of Tecumseh to all documents referred to in said paragraph 1.

Read a first, second, third time and finally passed this 25th day of February, 2020.

Gary McNamara, Mayor

Laura Moy, Clerk