



Media Release: Friday, February 23, 2018 4:30 p.m.

## **Regional Municipality of Waterloo**

### **Planning and Works Committee**

#### **Agenda**

Tuesday, February 27, 2018

9:15 a.m. (Note Time Change)

Regional Council Chamber

150 Frederick Street, Kitchener, Ontario

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#### **1. Motion to go into Closed Session**

That a closed meeting of the Planning and Works Committee be held on Tuesday, February 27, 2018 at 9:00 a.m. in the Waterloo County Room in accordance with Section 239 of the “Municipal Act, 2001”, for the purposes of considering the following subject matter:

- a) receiving of advice subject to solicitor-client privilege related to an agreement

#### **2. Motion to Reconvene into Open Session**

#### **3. Declarations of Pecuniary Interest under the “Municipal Conflict Of Interest Act”**

#### **4. Delegations**

##### **4.1 [PDL-CPL-18-06](#), Community Energy Investment Strategy for Waterloo Region**

- i) Kate Daley, Plan Manager, Climate Action Waterloo Region

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#### **Recommendation:**

That the Regional Municipality of Waterloo:

Should you require an alternative format please contact the Regional Clerk at Tel.: 519-575-4400, TTY: 519-575-4605, or [regionalclerk@regionofwaterloo.ca](mailto:regionalclerk@regionofwaterloo.ca)

- a) Approve the Community Energy Investment Strategy for Waterloo Region as described in Attachment “A” to report PDL-CPL-18-06, dated February 27, 2018;
- b) Direct staff to continue to collaborate with area municipal and utility partners and report back by summer of 2018 with resource recommendations as required for implementation for Council consideration: and,
- c) Direct staff to submit the Community Energy Investment Strategy to the Ontario Ministry of Energy to fulfill the requirements of the Municipal Energy Program.

### Consent Agenda Items

Items on the Consent Agenda can be approved in one motion of Committee to save time. Prior to the motion being voted on, any member of Committee may request that one or more of the items be removed from the Consent Agenda and voted on separately.

## 5. Request to Remove Items from Consent Agenda

## 6. Motion to Approve Items or Receive for Information

### 6.1 [PDL-CPL-18-08](#), Development Application Activity Report for 2017

**Page 14**

#### **Recommendation:**

That the Region of Waterloo accepts PDL-CPL-18-08, Summary Report of Development Application Activity for January 1 to December 31, 2017.

### 6.2 [PDL-LEG-18-12](#), Surplus Declaration of Regional Lands; Part of Lot 7, Municipal Compiled Plan 1126, being Part 1 on Registered Plan 58R-19768, in the City of Cambridge, Regional Municipality of Waterloo, and Conveyance of Easement Interest in Favour of The City of Cambridge

**Page 26**

#### **Recommendation:**

That the Regional Municipality of Waterloo:

- a) Declare part of the lands described as Part of Lot 7, Municipal Compiled Plan 1126, being Part 1 on Registered Plan 58R-19768, in the City of Cambridge, Regional Municipality of Waterloo, part of PIN 03821-0132 (LT), as surplus to the needs of the Region, as detailed in Report No. PDL-LEG-18-12 dated February

27, 2018, pursuant to the Region's property disposition by-law and to the satisfaction of the Regional Solicitor; and

- b) Approve, enter into an Agreement for, and execute all documentation related to the conveyance of a permanent easement to The City of Cambridge for the sum of \$2.00, for the installation and maintenance of a sanitary sewer, on, over and under lands described as Part of Lot 7, Municipal Compiled Plan 1126, being Part 1 on Registered Plan 58R-19768, in the City of Cambridge, Regional Municipality of Waterloo, part of PIN 03821-0132 (LT) in the City of Cambridge as detailed in Report No. PDL-LEG-18-12 dated February 27, 2018 pursuant to the Region's property disposition by-law and the satisfaction of the Regional Solicitor. All registration fees and associated costs will be paid by The City of Cambridge.

|                               |
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| <b>Regular Agenda Resumes</b> |
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## **7. Reports – Planning, Development and Legislative Services**

- 7.1**     **PDL-CPL-18-05**, Proposed Methodology for Lands Needs Assessment for the Greater Golden Horseshoe

**Page 30**

**Recommendation:**

That the Regional Municipality of Waterloo forward Report PDL-CPL-18-05, dated February 27, 2018 to the Ministry of Municipal Affairs as its response to the Proposed Methodology for Lands Needs Assessment for the Greater Golden Horseshoe.

- 7.2**     **PDL-CPL-18-07**, Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring

**Page 39**

**Recommendation:** See pages 39-40

## **Reports – Transportation and Environmental Services**

### **Transit Services**

- 7.3**     **TES-TRS-18-06**, Community Transportation Grant Program Application

**Page 51**

**Recommendation:**

That the Regional Municipality of Waterloo proceed with introduction of transit services within North Dumfries, subject to approval of a five year Community Transportation grant from the Ministry of Transportation, as outlined in Report TES-TRS-18-06.

**Transportation**

- 7.4 **TES-TRP-18-02**, Moving Forward (Transportation Master Plan Update) Public Consultation Centre #3 – Information Package (For Information) (Staff Presentation)

**Page 57****Water Services**

- 7.5 **TES-WAS-18-04**, 2017 Annual Water Quality Report for the Region of Waterloo Rural and Integrated Water Systems (For Information)

**Page 91**

- 7.6 **TES-WAS-18-05**, Biosolids Master Plan - Notice of Completion (Staff Presentation)

**Page 96****Recommendation:**

That the Regional Municipality of Waterloo accept the “Region of Waterloo Biosolids Master Plan 2018” summarized in this Report TES-WAS-18-05 dated February 27, 2018.

And that the Region publish the Notice of Completion for the Master Plan Report for public review and comment for a 30-day period, in accordance with the Class Environmental Assessment process by the Municipal Engineers Association.

And that the Region incorporate the associated capital costs into the 2019 – 2028 and future wastewater capital programs and in the Regional Development Charge By-law update.

- 7.7 **TES-WAS-18-06**, NSERC Chair and Research Funding – University of Waterloo

**Page 133****Recommendation:**

That The Regional Municipality of Waterloo approve the following research grants with the University of Waterloo:

- a) provide funding of \$75,000 per year from 2018 to 2022 to support the 6th term of the Natural Sciences and Engineering Research Council Chair in Drinking Water Research at the University of Waterloo.
- b) provide funding of \$50,000 per year from 2018 to 2020 to support the continued research on the recovery of fish endpoints in the Grand River in response to wastewater treatment optimization process upgrades in the Department of Biology at the University of Waterloo.
- c) provide funding of \$100,000 per year from 2018 to 2022 to support the continued collaborative study Water and Wastewater treatment plant with

the Water Science, Technology and Policy group in the Department of Civil and Environmental Engineering at the University of Waterloo.

as outlined in Report TES-WAS-18-06 dated February 27, 2018.

### **Interdepartmental Reports**

- 7.8**    [TES-18-02/PDL-18-01](#), 2018 Planning and Works Project Team Membership  
**Page 138**

#### **Recommendation:**

That the Regional Municipality of Waterloo appoint Regional Councillors to the project and study teams as noted in Appendix A to Report TES-18-02/PDL-18-01, dated February 27, 2018;

And that the Regional Municipality of Waterloo forward the requests for area Councillor representatives on project and study teams to the Area Municipalities.

- 7.9**    [COR-FFM-18-02/TES-18-01](#), Municipal Asset Management Planning Regulation Update (For Information)  
**Page 151**

### **8. Information/Correspondence**

- 8.1**    [Council Enquiries and Requests for Information Tracking List](#)  
**Page 157**

### **9. Other Business**

### **10. Next Meeting – March 20, 2018**

### **11. Adjourn**



**Report:** PDL-CPL-18-06

## **Region of Waterloo**

### **Planning, Development and Legislative Services**

#### **Community Planning**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** D06-80

**Subject:** Community Energy Investment Strategy for Waterloo Region

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#### **Recommendation:**

That the Regional Municipality of Waterloo:

- a) Approve the Community Energy Investment Strategy for Waterloo Region as described in Attachment 'A' to report PDL-CPL-18-06, dated February 27, 2018;
- b) Direct staff to continue to collaborate with area municipal and utility partners and report back by summer of 2018 with resource recommendations as required for implementation for Council consideration; and,
- c) Direct staff to submit the Community Energy Investment Strategy to the Ontario Ministry of Energy to fulfill the requirements of the Municipal Energy Program.

#### **Summary:**

The Region of Waterloo, in collaboration with the three Cities and five local electric and natural gas utilities, has developed a Community Energy Investment Strategy, or CEIS. A draft CEIS was presented to the Region's Planning and Works Committee on November 14, 2017 as report PDL-CPL-17-34 in addition to area municipal Councils or advisory committees during November and December. Additional feedback on the draft CEIS was also sought from a wide variety of community stakeholders who have been engaged in the CEIS development process. The summary version of the CEIS is included as Attachment A for Council consideration. In addition, to the community and stakeholder consultation, the Region consulted with the Townships. Moving forward and at their request, the Townships will be provided with the opportunity to participate on the Governance Steering Committee and work

with the other partners toward the implementation of the CEIS.

The purpose of the CEIS is to improve and sustain Waterloo Region's economic competitiveness and quality of life through the coordination of targeted energy investments. The CEIS builds on energy management considerations within Provincial policy, energy infrastructure planning, the Region's Economic Development Strategy, and the Climate Action Waterloo Region initiative (CAWR) involving community greenhouse gas emission, or GHG, reduction targets. The CEIS focusses on attracting investment towards projects that will provide the most community benefits to Waterloo Region.

If approved, the CEIS will be submitted to the Ontario Ministry of Energy as the primary funder of this planning initiative. In addition, the CEIS Steering Committee would be transformed into a Governance Committee and required to report back in June 2018 regarding the administrative resources required for implementation for Council consideration as described in PDL-CPL-18-06.

## **Report:**

### **Background**

The Region of Waterloo, in collaboration with the three Cities and five local electric and natural gas utilities, has developed a Community Energy Investment CEIS, or CEIS. The collaboration has been facilitated by Regional staff and a steering committee made up of representatives from each organization as listed below:

- City of Cambridge;
- City of Kitchener;
- City of Waterloo;
- Region of Waterloo
- Energy+ serving Cambridge, North Dumfries Township and Brant County;
- Kitchener-Wilmot Hydro serving Kitchener and Wilmot Township;
- Waterloo North Hydro serving Waterloo and the Townships of Wellesley and Woolwich;
- Kitchener Utilities – serving natural gas needs in Kitchener; and,
- Union Gas - serving natural gas needs in the rest of Waterloo Region.

Development of the CEIS followed the Ontario Ministry of Energy Municipal Energy Plan (MEP) program. The Region was successful in securing a grant under this program which involved leveraging equal financial contributions from all nine partners. The CEIS development process followed the three stages required by the MEP including baseline data and forecasting analysis, stakeholder consultation, and plan development.

These stages were carried out starting in late 2015 through 2017. The main CEIS document provides an overview of the outcomes from each stage. The details of this work are contained in four supplementary documents:

1. Baseline Analysis and Business-as-usual Energy Forecast for Waterloo Region;
2. Community Stakeholder Perspectives on Energy;
3. Strategic Energy Opportunities; and,
4. Finance Mechanisms and Business Models that Support Community Energy.

A summary version of the CEIS is included as Attachment A.

### Feedback and Consultation

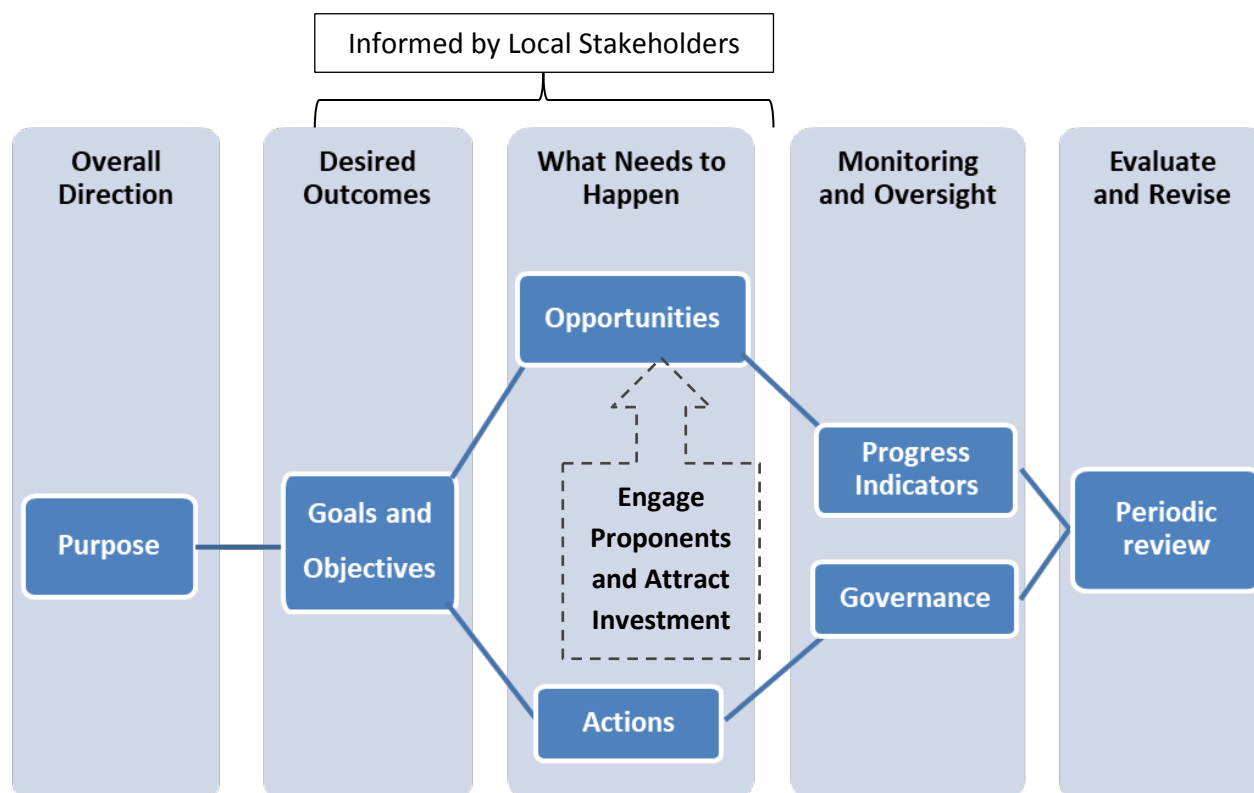
Substantial stakeholder engagement was conducted in Waterloo Region during 2016 and 2017 to identify local priorities. The stakeholder consultations revealed that lowering energy costs, using local energy resources, environmental responsibility and supporting our local economy are important for this community. Stakeholders input was reflected in the goals of the CEIS, and influenced the identification and evaluation of energy opportunities, as well as the actions that support their implementation.

On November 14, 2017, Staff presented the draft CEIS CEIS to the Region's Planning and Works Committee (report PDL-CPL-17-34). Presentations were also delivered to area municipal Councils or advisory committees during November and December. Following presentations to Township Councils, Township staff were further consulted regarding implementation considerations. Additional feedback on the draft CEIS was also sought from a wide variety of community stakeholders who have been engaged in the CEIS development process including the Waterloo Economic Development Corporation, the Waterloo Region Home Builders Association and Chamber of Commerce, Sustainable Waterloo Region, Reep Green Solutions, local energy cooperatives and the local post-secondary schools.

Feedback received during November and December 2017 has been incorporated in the final CEIS. Examples of revisions made to the draft CEIS include complementing the economic benefits of the CEIS by highlighting some of the social and environmental improvements that can be achieved. For example, actions were added to address community concerns regarding energy equity in terms of low income households accessing incentives and supporting energy efficient affordable housing which can lead to household cost savings and local emission reductions. In addition the Townships have agreed to participate on the Governance Steering Committee and participate in the implementation of the Recommended Actions within their ability moving forward.

### The CEIS

The following diagram, Figure 1, outlines the structure of the CEIS.



**Figure 1. Structure of the Community Energy Investment Strategy**

The purpose of the CEIS is to improve and sustain Waterloo Region's economic competitiveness and quality of life through the coordination of targeted energy investments.

A total of 22 energy opportunities or potential local projects were identified as ways to achieve the goals and objectives. Based on these opportunities, a series of 20 recommended actions were developed to facilitate and support implementation of the opportunities. The actions focus on cultivating a supportive environment that will attract proponents and investment to the types of opportunities or projects evaluated within the CEIS. The actions are divided among the four goals of the CEIS:

1. Significantly Improve the Energy Performance of Buildings;
2. Enhance Local Energy Generation and Security;
3. Transition to a Low Carbon Transportation Network; and,
4. Cultivate and Support an Innovative Environment for Energy Investments.

In order to advance the actions, collaboration between the local utilities, the Region and Area Municipalities is required.

Progress indicators have been included within the Strategy to help periodically review the impact of implementing the energy opportunities over time. This review process should be conducted every three to five years to inform any necessary changes to the CEIS as the community continues to develop and emerging technologies evolve.

The CEIS is focused on providing the supportive environment to attract investment to further improving our local energy system. It also aspires to keep more energy dollars circulating within the local economy while lowering harmful emissions.

### Implementation and Governance

The Strategy's Governance model addresses the roles and responsibilities of those involved in ensuring the CEIS meets its goals and objectives. Ensuring the right stakeholders are at the table working collaboratively to take advantage of local opportunities is critical to the CEIS's success.

Under the CEIS Governance model, the existing Steering Committee will be transitioned into a Governance Committee with oversight responsibility for advancing the recommended actions of the Strategy. The new committee should have senior staff appointments from the same collaborating organizations who developed the CEIS while also opening membership to representatives from the Townships at their discretion. The CEIS proposes that a Governance Committee have a mandate to fulfill the following responsibilities:

- Carry forward the recommended actions contained in this CEIS in ongoing work plans and budget at each respective partner organization and advance opportunities to embed energy planning into local decision-making;
- Provide oversight and strategic direction to a staff resource person who executes the day-to-day implementation of the CEIS' actions;
- Oversee the development of more specific action plans as needed to support implementation of the CEIS' objectives;
- Guide a review and update the CEIS as required based on progress indicator reports every three to five years; and,
- Advocate on behalf of the CEIS stakeholders for supportive policy and programming from municipal, provincial and federal levels of government.

The first order of business for the new governance committee will be to recommend the most appropriate means to establish a dedicated resource person to lead the administration and coordination of the CEIS Actions. Several options in this regard are outlined within the CEIS but need further scrutiny in advance of the 2019 budget process. This review process should also clarify how CEIS implementation will relate to existing collaborations such as the Climate Action Waterloo Region (CAWR) initiative involving Sustainable Waterloo Region and Reep Green Solutions as community partners. It is recommended that staff report back to Area Municipal Councils, Regional Council and utility Boards of Directors as required by June 2018 at the conclusion of this process. Once an approach to collaborative implementation is approved, the intent is to identify the cost of resource requirements during the next budget cycle.

## Relationship to Other Related Initiatives

The CEIS builds on four existing pillars:

- provincial policy and regulation;
- local economic development;
- energy infrastructure planning conducted by a provincial agency and local utilities; and,
- local GHG reduction targets.

The evolving regulatory landscape and policy context is increasingly requiring the integration of energy planning and management with land use planning, economic development and environmental protection objectives. Numerous acts, plans and policies at the provincial and local level are drawing these links which support the need for community energy planning within Waterloo Region.

The Economic Development Strategy for Waterloo Region also includes objectives related to ensuring sufficient infrastructure capacity to accommodate growth including power, the need to create a green, sustainable and efficient region that anticipates growth as well as the desire to support and stimulate new and existing high growth sectors, including green energy and cleantech.

Energy infrastructure planning for this region occurs every five years between the Independent Electricity System Operator (IESO) and local utilities. The IESO will be working with local utilities on its next iteration of their Integrated Regional Resource Plan for electricity planning in this region starting later in 2018. It is important that area municipalities and other local stakeholders are involved in this process to better reflect the needs expressed by the community.

The CAWR initiative includes a list of initiatives that broadly address the 94% of GHGs originating from local energy use. Sustainable Waterloo Region and Reep Green Solutions have been strong community partners in promoting and communicating the need for GHG reductions and engaged many other members of the community in the process. However, there has been difficulty in advancing many projects that can result in reducing local energy costs, consumption and emissions. Local energy planning efforts have been focused on identifying a strategic approach to attracting investment in the energy projects that would optimally meet community needs over the next two decades.

Implementing this CEIS will contribute to advancing energy master planning at a community scale and go beyond ensuring adequate centralized supply of energy resources. Having a CEIS to attract investment to further improving our local energy system over the next 25 years will also help support economic development and provide energy options and stability to help attract business. The CEIS complements the broader planning processes, policy context and aspires to keep more energy dollars circulating within the local economy while lowering harmful emissions.

### Next Steps

If approved, the CEIS will be submitted to the Ontario Ministry of Energy as the primary funder of this planning initiative. In order to meet grant funding obligations under Ontario's MEP program, the final CEIS must be submitted to the Province by the end of February 2018. The CEIS will be posted on the Region's website and will be made available in hard copy form in the Regional Councillors library as well as distributed to stakeholders who were involved in the development of the Strategy.

### Corporate Strategic Plan

This report addresses Strategic Objective 3.3 Enhance efforts to improve air quality and specifically Action, 3.3.3 Collaborate with stakeholders to develop a Community Energy Investment CEIS.

### Financial Implications

The 2015 Community Planning Ten Year Capital Forecast was increased by \$180,000 for the Community Energy Investment CEIS (project 22037), funded by the Regional Municipality of Waterloo 2015 operating budget (5.6%; \$10,000), the Province (50.0%; \$90,000), and three cities and five local utility companies (44.4%; \$10,000 each). The Region is administering all financial aspects for the development of the CEIS. Project expenditures are expected to total \$183,000, with additional funding of \$3,000 from the University of Waterloo. To date, \$183,000 has been spent or committed with no additional expenses anticipated.

Implementation of specific opportunities identified within the CEIS that would directly involve the Region will be subject to the normal budget and project approval process. Subject to the approval of the report recommendations, staff will report back with an assessment of the resources needed to support implementation in collaboration with the project partners.

### Other Department Consultations/Concurrence

Staff at the local electrical and gas utilities as well as the Area Municipalities, including the Township CAO's, were consulted in the preparation of this report. Recently, Cambridge, Kitchener and Waterloo City Councils approved the CEIS. Development of the CEIS also involved significant stakeholder consultations within the community during 2016 and 2017.

### Attachments

Attachment A - Distributed separately: Community Energy Investment Strategy for Waterloo Region – Summary Version

**Prepared By: David Roewade**, Sustainability Specialist

**Approved By: Rod Regier**, Commissioner, Planning Development and Legislative Services

**Attachment A**

Distributed separately

**Community Energy Investment Strategy for Waterloo****Region Summary Version**



**Report:** PDL-CPL-18-08

## **Region of Waterloo**

### **Planning, Development and Legislative Services**

#### **Community Planning**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** D18-01

**Subject:** Development Application Activity Report for 2017

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#### **Recommendation:**

That the Region of Waterloo accepts PDL-CPL-18-08, Summary Report of Development Application Activity for January 1 to December 31, 2017.

#### **Summary:**

Nil.

#### **Report:**

In accordance with the Regional By-law 17-035, as amended, the Director of Community Planning has:

- Approved six Official Plan Amendments;
- Accepted 12 plans of subdivision applications and 8 plans of condominium applications (including City of Kitchener applications);
- Draft approved 25 plans of condominium and 3 plans of subdivision (including City of Kitchener draft approvals); and,
- Released for registration 30 draft plans of condominium and 10 draft plans of subdivision (including City of Kitchener registrations).

Attached as Appendix 'A' is the detailed table of approved official plan amendments, pending plans of subdivision and plans of condominium accepted in 2017, plans of subdivision and plans of condominium that were draft approved in 2017 and plans of subdivision and plans of condominium that were registered, or portions thereof, in 2017.

**Area Municipal Consultation/Coordination**

These planning approvals and releases, including consultations with Area Municipalities, have been completed in accordance with the Planning Act. All approvals included in this report were supported by the Area Municipal Councils and/or staff.

**Corporate Strategic Plan:**

This report reflects actions taken by the Director of Community Planning in accordance with the Delegation By-law adopted by Council. Strategic objective: Improve environmental sustainability and livability in intensifying urban and rural settlement areas.

**Financial Implications:**

Nil.

**Other Department Consultations/Concurrence:**

Nil.

**Prepared By:** Brenna MacKinnon, Manager, Greenfield Planning

**Approved By:** Rod Regier, Commissioner, Planning, Development and Legislative Services

## Appendix 'A'

**Official Plan Amendments**

| OPA No. | Municipality | Approval Date | Adopted Date | Applicant/Owner          | Address                                  | Description                                                                                                                                                                                                                             |
|---------|--------------|---------------|--------------|--------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Kitchener    | 11-Jul-17     | 26-Jun-17    | Bloomingdale Mews Ltd.   | 593 Strasburg Road                       | to add site specific policies to allow for additional building height and increased floor space ratios. The applicant is proposing to add a second 9-storey (89 unit) apartment building on the property and structured parking garage. |
| 21      | Cambridge    | 31-Mar-17     | 24-Jan-17    | JENC Investments Inc.    | 408 Guelph Avenue                        | to permit the density on the lands to be increased from 40 units/hectare to 67 units/hectare to facilitate the development of a 24 unit stacked townhouse development.                                                                  |
| 19      | Cambridge    | 13-Jul-17     | 22-Jun-17    | Summerco Properties Inc. | 65 St. Andrews Street                    | to add Business and Professional Office as a permitted use in the Low/Medium Density Residential designation on the lands.                                                                                                              |
| 15      | Waterloo     | 06-Feb-17     | 06-Feb-17    | City of Waterloo         | Conservation Drive/<br>Beaver Creek Road | to apply a Specific Provision Area to the Beaver Creek Meadows District Plan area to confirm an overall planned density of 58 residents and jobs per hectare into the City of Waterloo's Official Plan.                                 |
| 16      | Cambridge    | 27-Oct-17     | 19-Sep-17    | City of Cambridge        | City Wide                                | housekeeping amendment to provide greater clarification to some of the policies in the City of Cambridge Official Plan and to recognize Planning Act revisions                                                                          |

| OPA No. | Municipality | Approval Date | Adopted Date | Applicant/Owner       | Address        | Description                                                                                                                                                        |
|---------|--------------|---------------|--------------|-----------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |              |               |              |                       |                | relating to parkland dedication and secondary units.                                                                                                               |
| 9       | Wellesley    | 23-May-17     | 28-Mar-17    | Township of Wellesley | Lobsinger Line | to expand the boundary of the Crosshill Rural Settlement Area by 2.7 hectares and to designate the lands comprising this expansion as "Dry Industrial/Commercial." |

### Pending Plans of Condominium

| File No.    | Municipality | Address                          | Applicant/Owner                         | Description                                                                                                                                                                                                                                        |
|-------------|--------------|----------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 30CDM-17407 | Waterloo     | 79-91 and 101-113 Westmount Road | 2260700 Ontario Inc./ George Georgiades | To convert 32 apartment dwellings rental stock to condominium ownership.                                                                                                                                                                           |
| 30CDM-17404 | Waterloo     | 49 Columbia Street West          | Maison Canada Ltd.                      | To convert an existing 4-storey apartment building containing 18 residential units and 18 parking units from rental to condominium ownership.                                                                                                      |
| 30CDM-17405 | Waterloo     | 124 to 130 Columbia Street West  | Columbia Village Inc.                   | A mixed-use development in conjunction with the lands at 365 Albert Street (30CDM-17406). The proposed plan will create 382 residential units, 18 commercial units, 186 parking units and 4 laundry units.                                         |
| 30CDM-17406 | Waterloo     | 365 Albert Street                | 365 Albert Inc.                         | A mixed-use development in conjunction with the lands at 124-130 Columbia Street West (30CDM-17405). The proposed plan will create 223 residential units, 9 commercial units, 79 parking units, 4 laundry room units and one geothermal room unit. |
| 30CDM-17408 | Waterloo     | 110 University Avenue West       | Vranes Rental Ltd.                      | To convert 36 apartment dwellings from rental to condominium ownership.                                                                                                                                                                            |

| File No.    | Municipality | Address                         | Applicant/Owner                | Description                                                                                   |
|-------------|--------------|---------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------|
| 30CDM-17412 | Waterloo     | 250 Albert Street               | IN8 (Sage 8) Developments Inc. | A mixed-use development with residential units and one unit of ground floor commercial space  |
| 30CDM-17411 | Waterloo     | 308 Lester Street               | IN8 (Sage 9) Developments Inc. | A mixed use building with 161 residential units and commercial space in 6 ground floor units. |
| 30CDM-17107 | Cambridge    | Blocks 84, 85 & 88 Linden Drive | Brookpoint Estates Inc.        | Common element condominium consisting of a private road and visitor parking spaces            |

### Pending Plans of Subdivision

| File No.  | Municipality   | Address                                | Applicant/Owner            | Description                                                                    |
|-----------|----------------|----------------------------------------|----------------------------|--------------------------------------------------------------------------------|
| 30T-17101 | Cambridge      | 0 & 112 Pinebush Road                  | Branthaven Pinebush Inc.   | 558 residential units, open space areas and 2 new local streets (under appeal) |
| 30T-17501 | Wellesley      | 2245 Gerber Road                       | Blaze Properties           | 16 semi-detached dwelling units and one single detached unit                   |
| 30T-17301 | North Dumfries | 266 & 280 Northumberland Street        | Susan MacDonald            | 17 single detached units                                                       |
| 30T-17401 | Waterloo       | Conservation Drive & Beaver Creek Road | MHBC Planning              | 553-770 residential units                                                      |
| 30T-17102 | Cambridge      | 600 Myers Road                         | Will-O Homes               | 12 semi-detached units and 9 townhouse units.                                  |
| 30T-17701 | Woolwich       | 1143 Listowel Road                     | Birdland Developments Ltd. | 444-513 residential units                                                      |

| File No.    | Municipality | Address                                | Applicant/Owner                       | Description                                                  |
|-------------|--------------|----------------------------------------|---------------------------------------|--------------------------------------------------------------|
| 30T-17403   | Waterloo     | Conservation Drive                     | Activa Holdings Inc.                  | 182-279 residential units                                    |
| 30T-17502   | Wellesley    | 53 Ferris Drive                        | IBI Group                             | 32 single detached residential units                         |
| 30T-17103   | Cambridge    | 636, 646, & 656 Myers Road             | Cachet Developments (Myers Road) Inc. | 29 single detached residential units                         |
| 30T-17402   | Waterloo     | 675 Conservation Drive                 | MHBC Planning                         | 7-11 residential units                                       |
| 30CDM-17410 | Waterloo     | 675 Conservation Drive                 | MHBC Planning                         | Vacant land plan of condominium of 24 single detached units. |
| 30CDM-17409 | Waterloo     | Conservation Drive & Beaver Creek Road | MHBC Planning                         | Vacant land plan of condominium of 54 single detached units. |

### Draft Approved Plan of Condominiums

| File No.    | Date of Draft Approval | Municipality | Address                   | Applicant/Owner      | Description                                                              |
|-------------|------------------------|--------------|---------------------------|----------------------|--------------------------------------------------------------------------|
| 30CDM-02401 | 25-Jul-17              | Waterloo     | 237 Auburn Drive          | Auburn Green Ltd.    | To permit the development of 63 apartment units                          |
| 30CDM-16205 | 15-Jun-17              | Kitchener    | 659 Stirling Avenue South | 2326199 Ontario Ltd. | To permit the development of 30 apartment units and one commercial unit. |
| 30CDM-12405 | 25-Jul-17              | Waterloo     | 239 Auburn Drive          | Auburn Terraces Ltd. | to permit the development of 127 apartment units                         |
| 30CDM-15409 | 25-Oct-17              | Waterloo     | 228 Albert Street         | GSP Group            | To permit 104 apartment units, 1 commercial/office unit.                 |

February 27, 2018

Report: PDL-CPL-18-08

| File No.    | Date of Draft Approval | Municipality | Address                                                 | Applicant/ Owner                 | Description                                                        |
|-------------|------------------------|--------------|---------------------------------------------------------|----------------------------------|--------------------------------------------------------------------|
| 30CDM-16408 | 27-Sep-17              | Waterloo     | 158 & 160 King St. N., 8 & 10 Noecker St., 11 James St. | GSP Group                        | To permit the development of 169 apartment units.                  |
| 30CDM-16412 | 10-Apr-17              | Waterloo     | 288, 290, 294 Albert Street and 287, 289 Hemlock Street | IBI Group                        | To permit development of 33 townhouse units and 4 commercial units |
| 30CDM-16410 | 18-Oct-17              | Waterloo     | 275 Larch Street                                        | MHBC Planning                    | To permit the development of 330 apartment units.                  |
| 30CDM-16103 | 09-Feb-17              | Cambridge    | 625 Black Bridge Road                                   | MHBC Planning                    | To permit development of 34 townhouse units                        |
| 30CDM-16414 | 05-Apr-17              | Waterloo     | 321 Spruce Street                                       | IBI Group                        | Permit development of 68 apartment units.                          |
| 30CDM-17402 | 04-Dec-17              | Waterloo     | 254 Phillip Street                                      | GSP Group                        | To permit 119 apartment units.                                     |
| 30CDM-17104 | 31-May-17              | Cambridge    | 350 Dundas St                                           | GSP Group                        | To permit 53 townhouse units                                       |
| 30CDM-17205 | 24-May-17              | Kitchener    | 122 Courtland Ave East                                  | Everbright Holdings Company Inc. | To permit 14 apartment units                                       |
| 30CDM-17204 | 09-Nov-17              | Kitchener    | 900 Orr Court                                           | Mattamy (Kitchener) Limited      | To permit a common element condominium with a private road         |
| 30CDM-17203 | 24-May-17              | Kitchener    | 220 Apple Hill Crescent                                 | Tru-Villa Inc.                   | To permit 176 stacked townhouse units                              |
| 30CDM-16411 | 12-Apr-17              | Waterloo     | 336 & 338 Albert Street; 297 & 299 Hemlock Street       | IBI Group                        | To permit 43 townhouse units and 3 commercial units                |
| 30CDM-17208 | 26-Jun-17              | Kitchener    | 231 & 275 Max Becker Drive                              | Williamsburg Homes Inc.          | 12 apartment units within 2 buildings (6 units each)               |

| File No.    | Date of Draft Approval | Municipality | Address                              | Applicant/ Owner                | Description                                                                                                                                  |
|-------------|------------------------|--------------|--------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 30CDM-17209 | 12-Jul-17              | Kitchener    | 361 and 371 Lancaster Street West    | MHBC Planning                   | 28 stacked townhouse units                                                                                                                   |
| 30CDM-16204 | 31-May-17              | Kitchener    | 690 King Street West                 | 690 King Street Corporation     | 138 apartment units                                                                                                                          |
| 30CDM-17206 | 25-Jul-17              | Kitchener    | 1402, 1424 & 1430 Highland Road West | Labreche Patterson & Associates | three multiple unit dwellings containing 108 stacked townhouse units                                                                         |
| 30CDM-17210 | 31-Aug-17              | Kitchener    | 395 Westwood Drive                   | White Birch Lands Ltd.          | 95 townhouse units                                                                                                                           |
| 30CDM-17211 | 07-Dec-17              | Kitchener    | 15 Prince Albert Boulevard           | 1841362 Ontario Inc.            | 114 apartment units                                                                                                                          |
| 30CDM-16201 | 27-Nov-17              | Kitchener    | 155 St. Leger Street                 | 1841632 Ontario Inc.            | 77 apartment units                                                                                                                           |
| 30CDM-17403 | 07-Sep-17              | Waterloo     | 350 Lester Street                    | Labreche Patterson & Associates | conversion of a 32 unit apartment building to condominium ownership.                                                                         |
| 30CDM-17207 | 27-Jun-17              | Kitchener    | 145 South Creek Drive                | Activa Holdings Inc.            | 42 townhouse units                                                                                                                           |
| 30CDM-17106 | 23-Nov-17              | Cambridge    | 420 and 470 Linden Drive             | MHBC Planning                   | To permit a common element condominium consisting of private road, visitor parking spaces, lands associated with the noise wall/berm barrier |

**Draft Approved Plans of Subdivision**

| File No.  | Date of Draft Approval | Municipality | Address                | Applicant/Owner                 | Description                                                                                                             |
|-----------|------------------------|--------------|------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 30T-15201 | 11-Jul-17              | Kitchener    | 710 Huron Road         | MHBC Planning                   | To permit the development of 38 single detached units, 6 townhouse units and 98 multi-residential units.                |
| 30T-16102 | 29-Nov-17              | Cambridge    | 80 and 85 Munch Avenue | Labreche Patterson & Associates | Permit development of 84 townhouse units on north parcel and 85 townhouse units on south parcel                         |
| 30T-17201 | 22-Dec-17              | Kitchener    | 731 Huron Rd           | GSP Group                       | the development of 18 street-fronting townhouses and a medium density residential block (124 units) totalling 142 units |

**Registered Plans of Condominium**

| Registered Plan No. | File No.    | Date Registered | Municipality | Address                       | Applicant/Owner      | Description   |
|---------------------|-------------|-----------------|--------------|-------------------------------|----------------------|---------------|
| WCP-636             | 30CDM-16105 | 19-Sep-17       | Cambridge    | 350 Fisher Mills Road         | 1909318 Ontario Inc. | 40 townhouses |
| WCP-638             | 30CDM-17104 | 23-Oct-17       | Cambridge    | 350 Dundas Street South       | GSP Group            | 53 townhouses |
| WCP-635             | 30CDM-16103 | 19-Sep-17       | Cambridge    | 625 Black Bridge Road         | MHBC Planning        | 34 townhouses |
| WCP-622, Phase 2    | 30CDM-15211 | 29-Mar-17       | Kitchener    | 1989-2009 Ottawa Street South | Deerfield Homes Inc. | 32 townhouses |
| WCP-595,            | 30CDM-      | 30-Mar-17       | Kitchener    | 70 Willowrun                  | 2280644 Ontario Inc. | 14 apartments |

| Registered Plan No. | File No.    | Date Registered | Municipality   | Address                               | Applicant/Owner                 | Description                |
|---------------------|-------------|-----------------|----------------|---------------------------------------|---------------------------------|----------------------------|
| Phase 5             | 15201       |                 |                | Drive/1100-1118 Fairway               |                                 |                            |
| WCP-553, Phase 6    | 30CDM-12204 | 27-Mar-17       | Kitchener      | Isaiah Drive/Eliza Avenue/Nyles Drive | Deerfield Homes Ltd.            | 14 townhouses              |
| WCP-599, Phase 5    | 30CDM-14205 | 11-Apr-17       | Kitchener      | 388 Old Huron Road                    | MHBC Planning                   | 16 townhouses              |
| WCP-633             | 30CDM-15204 | 03-Aug-17       | Kitchener      | 1 Adam Street (Block 3)               | Losani Homes                    | Common element condominium |
| WCP-632             | 30CDM-17201 | 03-Aug-17       | Kitchener      | 75 Kehl Street                        | 2488615 Ontario Inc.            | 20 townhouse units         |
| WCP-631             | 30CDM-17202 | 10-Jul-17       | Kitchener      | 42 West Acres Crescent                | Huron Creek Developments        | 27 townhouse units         |
| WCP-634             | 30CDM-17203 | 31-Aug-17       | Kitchener      | 220 Apple Hill Crescent               | Truvilla Inc.                   | 176 townhouse units        |
| WCP-640             | 30CDM-17209 | 29-Nov-17       | Kitchener      | 361 and 371 Lancaster Street West     | MHBC Planning                   | 16 townhouse units         |
| WCP-639             | 30CDM-17206 | 27-Oct-17       | Kitchener      | 1430 Highland Road West               | Labreche Patterson & Associates | 36 apartment units         |
| WCP-553, Phase 7    | 30CDM-12204 | 02-Oct-17       | Kitchener      | Isaiah Dr./Eliza Ave./Nyles Dr.       | GSP                             | 79 townhouse units         |
| WCP-566, Phase 13   | 30CDM-13204 | 12-May-17       | Kitchener      | 1650-1720 Fischer Hallman Road        | MHBC Planning                   | 16 townhouse units         |
| WCP-606             | 30CDM-14301 | 05-Feb-16       | North Dumfries | 1126 Swan Street                      | Gautam Growth Properties Inc.   | 19 townhouse units         |
| WCP-629, Phase 3    | 30CDM-17301 | 27-Dec-17       | North Dumfries | 50 Bute Street                        | GSP Group                       | 10 townhouse units         |
| WCP-629, Phase 2    | 30CDM-17301 | 17-Oct-17       | North Dumfries | 50 Bute Street                        | GSP Group                       | 10 townhouse units         |

February 27, 2018

Report: PDL-CPL-18-08

| Registered Plan No. | File No.    | Date Registered | Municipality   | Address               | Applicant/Owner                   | Description              |
|---------------------|-------------|-----------------|----------------|-----------------------|-----------------------------------|--------------------------|
| WCP-629             | 30CDM-17301 | 26-May-17       | North Dumfries | 50 Bute Street        | GSP Group                         | 13 townhouse units       |
| WCP-625             | 30CDM-15407 | 01-Feb-17       | Waterloo       | 253 Albert St         | IN8 (Ivy Towns) Developments Inc. | 68 apartment units       |
| WCP-626             | 30CDM-16404 | 16-Mar-17       | Waterloo       | 280 Lester St         | IN8 (Sage V) Developments Inc     | 167 apartment units      |
| WCP-627             | 30CDM-16409 | 18-Apr-17       | Waterloo       | 300-330 Phillip St    | 2371632 Ontario Inc               | 624 apartment units      |
| WCP-630             | 30CDM-14401 | 23-Jun-17       | Waterloo       | 261 Lester Street     | Spring Village Inc.               | 19 apartment units       |
| WCP-617, Phase 2    | 30CDM-16401 | 11-May-17       | Waterloo       | 243 Grey Silo Road    | Activa Holdings Inc.              | 22 townhouse units       |
| WCP-617, Phase 3    | 30CDM-16401 | 07-Nov-17       | Waterloo       | 243 Grey Silo Road    | Activa Holdings Inc.              | 18 townhouse units       |
| WCP-641             | 30CDM-14402 | 19-Dec-17       | Waterloo       | 251-253 Lester Street | GSP Group                         | 52 apartment units       |
| WCP-635, Phase 2    | 30CDM-16103 | 05-Dec-17       | Waterloo       | 625 Black Bridge Road | MHBC                              | 12 townhouse units       |
| WCP-642             | 30CDM-17401 | 29-Dec-17       | Waterloo       | 253 Albert Street     | Labreche Patterson & Associates   | 139 apartment units      |
| WCP-628             | 30CDM-15603 | 17-May-17       | Wilmot         | 362 Fairview Street   | GSP Group                         | 14 townhouse units       |
| WCP-637, Phase 9    | 30CDM-01601 | 16-Oct-17       | Wilmot         | Haysville Road        | Stonecroft Corporation            | 39 single detached units |

**Registered Plans of Subdivision**

| Registered Plan No. | File No.  | Date Registered | Address                           | Municipality | Applicant/Owner             | Description                                                                  |
|---------------------|-----------|-----------------|-----------------------------------|--------------|-----------------------------|------------------------------------------------------------------------------|
| 58M-603             | 30T-13102 | 20-Jun-17       | Salisbury Avenue and Freure Drive | Cam          | Grand Ridge Estates Ltd.    | 78 single detached units                                                     |
| 58M-604             | 30T-12103 | 01-Dec-17       | 1134 Hunt Club Road               | Cam          | GSP Group                   | 185 single detached units, 77 multiple residential units                     |
| 58M-598             | 30T-11205 | 06-Feb-17       | 250 Woolwich Street               | Kit          | Joseph Sestan               | 10 single detached units                                                     |
| 58M-605             | 30T-10202 | 18-Dec-17       | Old Zeller Drive                  | Kit          | IBI Group                   | 118 single detached units                                                    |
| 58M-606             | 30T-07204 | 19-Dec-17       | New Dundee Road and Dodge Drive   | Kit          | GSP Group                   | 104 single detached units, 49 townhouse units, 34 multiple residential units |
| 58M-602             | 30T-97024 | 10-May-17       | Wilmot Line                       | Wat          | Polocorp Inc / Vista Hills  | 68 Single detached units                                                     |
| 58M-600             | 30T-05403 | 10-May-17       | 340 Wilmot Line                   | Wat          | Clair Creek Meadows         | 142 single detached units                                                    |
| 58M-600A            | 30T-05402 | 10-May-17       | 250 Wilmot Line                   | Wat          | Greyerbiehl                 | 5 single detached units                                                      |
| 58M-601             | 30T-97024 | 10-May-17       | Wilmot Line                       | Wat          | Activa Holdings/Vista Hills | 117 Single detached units, 28 townhouse units                                |
| 58M-599             | 30T-13702 | 22-Feb-17       | 31 Homestead Drive                | Woo          | Sunset Hills Estates Corp.  | 38 Single detached units                                                     |



**Report:** PDL-LEG-18-12

## **Region of Waterloo**

### **Planning Development and Legislative Services**

### **Legal Services**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** L07-90

**Subject:** **Surplus Declaration of Regional Lands; Part of Lot 7, Municipal Compiled Plan 1126, being Part 1 on Registered Plan 58R-19768, in the City of Cambridge, Regional Municipality of Waterloo, and Conveyance of Easement Interest in Favour of The City of Cambridge.**

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#### **Recommendation:**

That the Regional Municipality of Waterloo:

- a) Declare part of the lands described as Part of Lot 7, Municipal Compiled Plan 1126, being Part 1 on Registered Plan 58R-19768, in the City of Cambridge, Regional Municipality of Waterloo, part of PIN 03821-0132 (LT), as surplus to the needs of the Region, as detailed in Report No. PDL-LEG-18-12 dated February 27, 2018, pursuant to the Region's property disposition by-law and to the satisfaction of the Regional Solicitor; and
- b) Approve, enter into an Agreement for, and execute all documentation related to the conveyance of a permanent easement to The City of Cambridge for the sum of \$2.00, for the installation and maintenance of a sanitary sewer, on, over and under lands described as Part of Lot 7, Municipal Compiled Plan 1126, being Part 1 on Registered Plan 58R-19768, in the City of Cambridge, Regional Municipality of Waterloo, part of PIN 03821-0132 (LT) in the City of Cambridge as detailed in Report No. PDL-LEG-18-12 dated February 27, 2018 pursuant to the Region's property disposition by-law and the satisfaction of the Regional Solicitor. All registration fees and associated costs will be paid by The City of Cambridge.

**Summary:** Nil.

**Report:**

The lands identified in the recommendation are municipally identified as abutting the property at 235 Samuelson Street on the South side of Samuelson Street, in the City of Cambridge. The City of Cambridge requests that the Region grant them a permanent easement at a cost of \$2.00 plus associated costs (such as registration costs and expenses for publication of notice), for the underground placement and maintenance of a sanitary sewer pipe. The lands were registered to the Region of Waterloo in 1974 and provide a potential maintenance access to the Samuelson Street – Clyde Road bridge and an adjacent storm water outfall. The proposed easement does not interfere with such use.

The Region's property disposition by-law required advertising of the proposed conveyance of an interest in Regional land in a local newspaper. Per the Region's Property Disposition Procedure By-law 95-034, an appraisal of the easement interest to be transferred will not be required as the contemplated sale is to another municipality. It is noted that given the property's size, shape, lack of street frontage and location on the embankment of Mill Creek, it would have negligible, or no market value. The requirements of the Region's property disposition by-law have now been met, and the Region of Waterloo will proceed to convey the easement interest to the City of Cambridge, upon receipt of Regional Council approval. The subject lands are shown attached as Appendix "A".

The subject permanent easement is approximately 41 square metres in area and is to be situated wholly within the bank of Mill Creek.

The subject permanent easement interest is not required for any Regional purpose

**Corporate Strategic Plan:**

Objective 3.2 of the Corporate Strategic Plan regarding Environment and Sustainable Growth, "protect the quality and quantity of our water resources".

**Financial Implications:**

Registration costs and expenses for publication to be paid by the City of Cambridge. The easement interest will be transferred for nominal consideration as the transaction is inter-municipal and the lands have negligible to no market value.

**Other Department Consultations/Concurrence:**

Transportation and Engineering Services, Corporate Services, Planning Development and Legislative Services, and Community Services staff were consulted via internal circulation memorandum.

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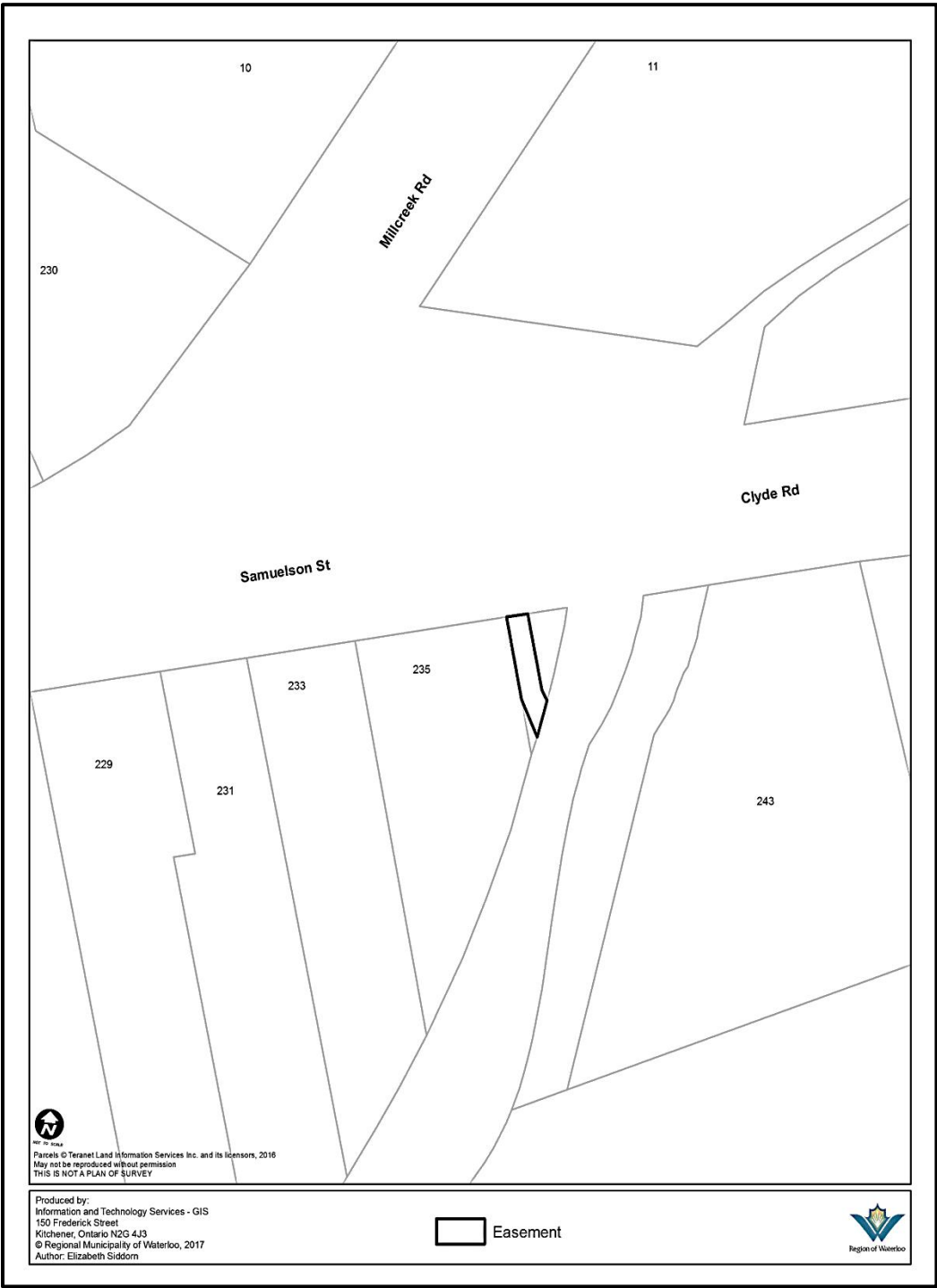
**Attachments**

Appendix "A" – Location Map of Lands

**Prepared By:** Fiona McCrea, Solicitor,

**Approved By:** Debra Arnold, Regional Solicitor

Appendix "A"





**Report:** PDL-CPL-18-05

## **Region of Waterloo**

### **Planning, Development and Legislative Services**

#### **Community Planning**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** D01-01(A)

**Subject:** **Proposed Methodology for Lands Needs Assessment for the Greater Golden Horseshoe**

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#### **Recommendation:**

That the Regional Municipality of Waterloo forward Report PDL-CPL-18-05, dated February 27, 2018 to the Ministry of Municipal Affairs as its response to the Proposed Methodology for Lands Needs Assessment for the Greater Golden Horseshoe.

#### **Summary:**

On December 21, 2017, the “Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe” (LNAM) was released for review and comment. The intent of the methodology is to provide a standardized approach to assessing lands needs across municipalities in the Greater Golden Horseshoe (GGH). This methodology must be used by municipalities subject to the Growth Plan to assess land needs to 2041. The LNAM will:

- calculate the amount of land required to accommodate forecasted population and employment growth.
- be premised upon the intensification target for the delineated built-up area and the density target for the designated greenfield area.
- compare the supply of designated land to land need/demand to determine the amount of additional or surplus land needed to support the forecasts.
- be implemented through the next municipal comprehensive review of the Regional Official Plan.

The LNAM requires municipalities plan to accommodate forecasted population growth

differently than in the past. On the ground, the proposed methodology will result in increasing proportions of people living in denser housing forms (i.e. townhouses, row houses, apartments). This shift is necessary to achieve several of the key policy objectives of the new Growth Plan.

Overall, the Region is supportive of the direction of the proposed LNAM. The methodology philosophically aligns with the Region's approach to assessing land needs utilized in the 2009 Region of Waterloo Land Budget completed as part of the implementation of the 2006 Growth Plan. This approach was based on achievement of the density and intensification targets rather than a market based assumption approach used by other municipalities in the GGH. The LNAM strikes an appropriate balance between prescriptiveness and flexibility allowing municipalities in the GGH to assess land needs in a consistent manner while providing flexibility to reflect local context and data sources which may differ across municipalities. However, the Province should ensure that the flexibility provided by the LNAM does not detract from the paramountcy of the intensification and density targets in completing an assessment for land needs and does not introduce opportunities to insert a market based assumption approach to assessing land needs resulting in outcomes contrary to achieving the clear and intended goals of the new Growth Plan.

Regional staff has consulted with each of the Area Municipalities and the Homebuilders Liaison Committee in the preparation of this report.

## **Report:**

### **Background**

On May 18, 2017 the Province released the new Growth Plan for the Greater Golden Horseshoe, 2017 (Growth Plan). The new Growth Plan came into effect on July 1, 2017. Upper- and single-tier municipalities, including the Region of Waterloo, are required to bring their Official Plans into conformity with the new Growth Plan by 2022.

Fundamental to bringing an Official Plan into conformity with the new Growth Plan is an assessment of the land required to accommodate projected population growth to 2041. Previously, various methodologies were used by GGH municipalities to assess of land needs for the purposes of implementing the 2006 Growth Plan. For example, while the Region of Waterloo utilized a target driven approach to assessing land needs, many other municipalities utilized a market based assumption approach. In many GGH municipalities, the method for assessing land needs and the results of these assessments were subject to lengthy, contested hearings at the Ontario Municipal Board. As a result, through the policies of the new Growth Plan, the Province committed to establishing a standard methodology for reviewing land needs in the Greater Golden Horseshoe. On December 21, 2017, the "Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe" (LNAM) was released for

review and comment. The intent of the LNAM is to provide a standardized, consistent approach to assessing land needs across municipalities in the GGH. The LNAM must be used by municipalities subject to the Growth Plan to assess land needs.

The LNAM requires municipalities to plan to accommodate forecasted population growth differently than in the past. On the ground, the proposed methodology will result in increasing proportions of people living in denser housing forms (i.e. townhouses, row houses, apartments). This shift is necessary to achieve several of the key policy objectives of the new Growth Plan, including the protection of agricultural land and natural heritage features and the creation of complete and transit-supportive communities.

### General Comments

Overall, the Region is supportive of the direction of the proposed LNAM. The methodology philosophically aligns with the Region's approach to assessing land needs utilized in the 2009 Region of Waterloo Land Budget completed as part of the implementation of the 2006 Growth Plan. This approach was based on achievement of the density and intensification targets rather than a market based assumption approach used by other municipalities in the GGH. The Province should be commended for the leadership it continues to provide in the field of growth management in the GGH.

The LNAM strikes an appropriate balance between prescriptiveness and flexibility allowing municipalities in the GGH to assess land needs in a consistent manner while providing flexibility to reflect local context and data sources which may differ across municipalities. However, the Province should ensure that the flexibility provided by the LNAM does not detract from the paramountcy of the intensification and designated greenfield area (DGA) density targets in completing an assessment for land needs and does not introduce opportunities to insert a market based assumption approach to assessing land needs resulting in outcomes that are contrary to achieving the clear and intended goals of the new Growth Plan.

It is understood that additional guidance documents related to the implementation of the Growth Plan, 2017 are forthcoming. The review of the LNAM and the comments in this report are based upon a review of the LNAM guideline recognizing that additional guidance from the Province may provide more clarity on certain subject matters.

### Proposed Land Needs Assessment Methodology

The LNAM is based upon an intensification-first approach to determining how much land is required to accommodate forecasted population and employment growth. The primary objectives are to demonstrate how key Growth Plan policy requirements have been met and to optimize the use of the existing land supply in order to avoid the over designation of land for development. Accordingly, the key determinants of land needs in

the LNAM are the intensification target for the delineated built-up area and the DGA density target. The LNAM specifies that targets are to be achieved within the 2041 planning horizon of the Growth Plan.

The LNAM calculates land separately for Community Areas (areas which accommodate primarily residential growth and some population related employment) and Employment Areas. Figure 1 illustrates the required steps to assess land needs for both Community Areas and Employment Areas.

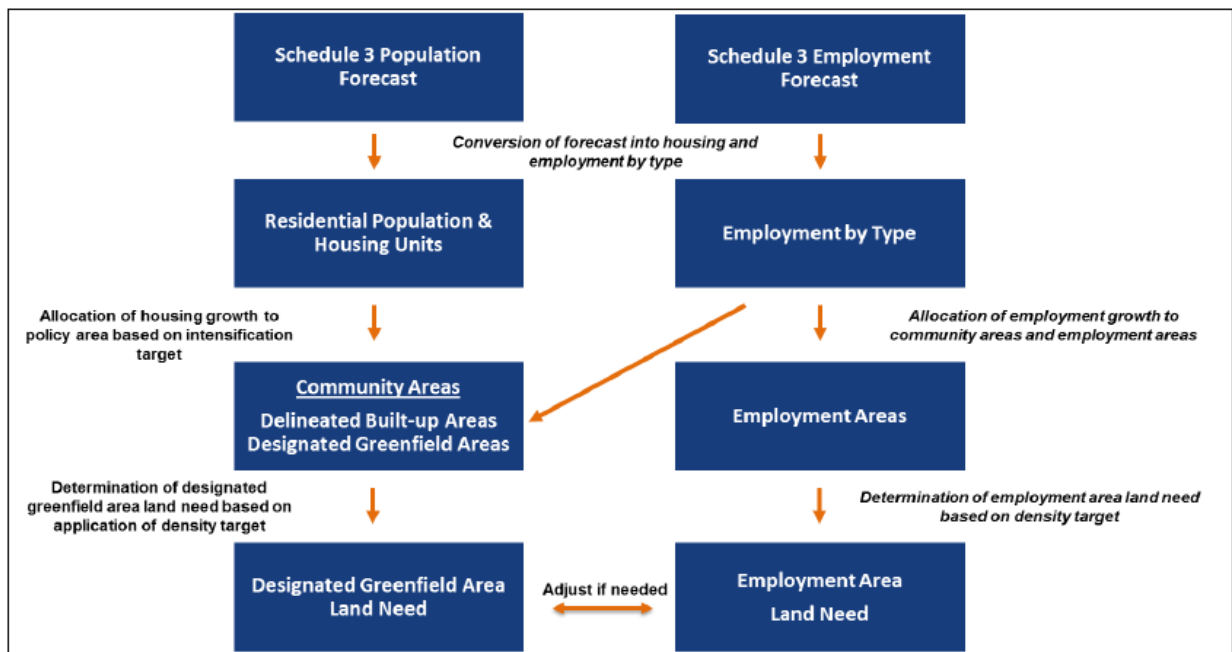
Generally, the steps to calculate land needs for housing in community areas are:

- Determine the number of additional people that will need housing to the year 2041.
- Determine the number of new housing units required to accommodate these additional people.
- Allocate housing units to meet Growth Plan requirements for the delineated built-up area, DGA, and, rural area.
- Determine the forecasted population of each area above during specific time periods to the year 2041.
- Determine the quantity of land needed to accommodate housing in the community areas of the DGA or the amount of excess land.

Generally, the steps to calculate land needs for jobs in community areas and employment areas are:

- Determine the number of additional jobs to be accommodated to the year 2041.
- Determine the distribution of the additional jobs by job type and by location in community areas versus employment areas.
- Allocate community area jobs to the delineated built-up area and to the DGA, applying Growth Plan requirements, and determine the quantity of land needed to accommodate jobs in the community areas of designated DGA.
- Determine the amount of employment area land needed, or the amount of excess land.

Figure 1 – Proposed Methodology General Approach



Source: Proposed Methodology for Lands Needs Assessment for the Greater Golden Horseshoe.

There are four key pieces of information resulting from the LNAM to be implemented through the MCR:

- Total amount of land needed to the Growth Plan 2041 horizon year.
- Whether an expansion to the settlement area boundaries is required or whether an outer ring municipality has excess lands.
- Whether any additional employment lands are required for employment purposes within the Growth Plan 2041 horizon year.
- Whether any lands within employment areas may be converted to non-employment uses.

The proposed LNAM is different from some of the approaches used in the past throughout the GGH to assess land needs. Several of these approaches were based upon historic market demand for specific type of housing and did not effectively implement the policies of the Growth Plan. The LNAM focuses on the total quantity of housing required to accommodate the forecasted population and is not based upon land needs for housing based on plans to achieve a particular mix of housing.

While Regional staff is supportive of the overall approach utilized by the LNAM, there are several areas where Regional staff recommend revision and/or clarification

including, the treatment of the undelineated built-up area, forecasts, alternative targets, Provincial staff review, and data and guideline considerations.

### Undelineated Built-Up Areas

The LNAM describes the DGA as:

“...all lands within settlement areas, but outside of delineated built-up areas. This includes all lands within undelineated built-up areas, although the policies require that growth is to be limited in these settlement areas.”

In the context of the Region of Waterloo, there are several rural settlement areas that would meet the definition of “undelineated built-up areas” in accordance with the new Growth Plan. Together, these rural settlement areas would comprise a relatively significant land area.

Policy 2.2.7.3 of the Growth Plan requires that the minimum density target be measured over the entirety of the DGA. Including the undelineated built-up area as part of the DGA combined with this policy requirement has implications for the form of development and the ultimate density on the balance of the DGA. This will result in the the undeveloped portions of the DGA being required to accommodate higher densities in order to compensate for low densities that have occurred historically in undelineated built-up areas.

This approach is not reasonable. Most of the settlements areas that would be considered as undelineated built-up areas were developed historically and at low densities due to the privately-serviced nature of these settlement areas. Furthermore, most of these areas were developed prior to the Growth Plan, 2006 and were not subject to any Provincial density requirements.

Regional staff recommends that the methodology treat undelineated built-up areas in a similar manner to Rural Areas. This approach would allow the limited opportunities for development that do exist to be accounted for, but would not count this development towards the achievement of the intensification target or the DGA density target.

### Forecasts

The population and employment forecasts contained in Schedule 3 to the Growth Plan are the starting point for assessing land needs. These forecasts were last revised in 2013 through Amendment No. 2. Policy 5.2.4.7 of the Growth Plan states that these forecasts will be reviewed at least every five years in consultation with municipalities. In correspondence dated January 22, 2018, Provincial staff indicated that this review will be undertaken commencing in 2018 but that the revised forecasts will not be used until post 2022.

Regional staff has concerns with the timing of the review of the Schedule 3 forecasts.  
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Few details related to the transition of any revisions to the Schedule 3 have been provided other than the revised forecasts will not be by used until post 2022. Based on the timing, the Region of Waterloo (and other GGH municipalities) could be required to commence an official plan review program or initiate a new MCR shortly after completing a MCR to conform to the Growth Plan, 2017. This cycle of Provincial Plan review and implementation requires municipalities to continually be in a state of updating or reviewing official plan policies rather than focusing on the realization of these policies.

There is also concern with the review of Schedule 3 being based upon 2016 census data. The timing of this review and the use of the 2016 census will result in population and employment forecasts based on the 2016 census being utilized by municipalities in 2022, at the same time as the release of 2021 census data. Accordingly, Regional staff recommends that the Province consider whether the release of the 2021 census data would be a more appropriate interval at which to review the forecasts.

#### Alternative Targets

The new Growth Plan provides outer ring municipalities, including the Region of Waterloo, the ability to request alternative intensification and DGA density targets. The LNAM formalizes this process and clarifies that a formal request for an alternative target(s) is required at the outset of the LNA. The formal request must receive Council endorsement and the Province will issue written permission regarding the use of an alternative target(s). Regional staff recommends that additional guidance on the process for determining, requesting and resolving disputes related to an alternative target be provided either through the LNAM or another Provincial guidance document.

#### Provincial Staff Review

The LNAM prescribes the manner in which municipalities are to consult with Provincial staff throughout the preparation of the LNAM. The completion of the LNAM forms the fundamental background to the balance of the MCR process. The LNAM prescribes that a municipality may proceed to finalize the LNAM for use as part of the next step of the MCR process once it has received “supportive feedback” from the Province. No definition of “supportive feedback” is provided and the process related to “supportive feedback” is unclear. Regional staff recommends that a formalized approval or endorsement process of the results of the LNAM be considered due to the importance of the LNAM as a background document to the MCR. It is important to note that the LNAM does not provide details on the process should “supportive feedback” not be received from the Province through the regular LNAM review process. Due to the changes proposed through Bill 139 (Ontario Municipal Board reform) the Region will not have the ability to appeal a Provincial decision of a MCR. Endorsement of the assumptions and the results of the LNAM by Provincial staff prior to the implementation of these results through the MCR is critical.

### Specific Considerations

The Region is supportive of the Province's proposed LNAM, although recommends specific considerations regarding the following to ensure consistent and effective implementation of the LNAM across the GGH:

- The LNAM requires custom Census data that must be acquired by special order from Statistics Canada. Regional staff recommends that the Province facilitate a consortium to purchase all the necessary data to ensure consistency in the obtainment of data across the GGH.
- The LNAM references the use of employment survey data (where available). To improve consistency across the GGH as well as to provide a better-quality results Regional staff recommends a GGH-wide employment survey funded and coordinated by the Province.
- Regional staff will be required to measure and monitor the results of the MCR including the achievement of the intensification and density targets. Similarly, the data used to complete the land needs assessment will be continuously required to monitor the results of the land needs assessment in achieving Growth Plan policies. Regional staff recommends that the method to monitor the plan and the data required to do so be considered in conjunction with the LNAM.
- Regional staff recommend emphasising that the intent of the LNAM is to enforce the requirement of municipalities to meet or exceed density targets established in the 2017 Growth Plan. To ensure that the results of these assumptions are consistent with the intent of the LNAM and achieve the goals as set out by the Growth Plan, 2017, this phrasing should be added to sections where municipal staff or consultants need to make assumptions.
- Throughout the LNAM, certain calculations reference the utilization of a development charge background study method. Regional staff recommends that those references be removed as the approach of the LNAM should not be based on any alternate forecasting approach which is not based on an intensification first, target-driven method.

In addition, Regional staff recommends the following to improve the readability of the LNAM document:

- A Glossary should be added to the document to provide definitions of terminology used within the LNAM to facilitate consistent interpretation.
- The LNAM should contain separate documentation of required steps for the outer ring municipalities independent of documentation of inner ring method.

### Proposed Next Steps

If approved by Regional Council, this report would be forwarded to the Ministry of Municipal Affairs and Housing as part of the public consultation on the Proposed

Methodology for Lands Needs Assessment for the Greater Golden Horseshoe. Moving forward, this methodology must be used by municipalities in the GGH to assess land needs. It is anticipated that this work would be completed as part of the next municipal comprehensive review of the ROP scheduled to take place in 2019.

### **Area Municipal Consultation/Coordination**

Regional staff has consulted with each of the Area Municipalities and the Homebuilders Liaison Committee in the preparation of this report. Regional staff notes their appreciation to the Area Municipalities for the on-going provision of data to support the LNAM.

### **Corporate Strategic Plan:**

The Proposed Proposed Methodology for Lands Needs Assessment for the Greater Golden Horseshoe support the Region's priorities with respect to Focus Area 2 (Growth Management and Prosperity) of the Corporate Strategic Plan.

### **Financial Implications:**

Implementation of the Land Needs Assessment will require the Region to undertake a Municipal Comprehensive Review and update the ROP accordingly. The Region's amended 2018-2027 Community Planning Capital Program includes a budget of \$1,151,600 in 2018 and 2019 for Municipal Comprehensive Review (project 22007) to be funded from the RDC Reserve Fund (90%; \$1,036,400) and from the Community Planning Capital Reserve (10%; \$115,200). To date, \$63,500 has been committed or spent, leaving a balance of \$1,088,100. Regional staff will report back to Council on the work plan and the financial implications of this process at a later date.

### **Other Department Consultations/Concurrence:**

Nil.

**Prepared By:** Ryan Pogrzeba, Planning Information Specialist

**Alyssa Bridge**, Principal Planner

**Approved By:** Rod Regier, Commissioner, Planning, Development and Legislative Services



**Report:** PDL-CPL-18-07

## **Region of Waterloo**

### **Planning, Development and Legislative Services**

#### **Community Planning**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** D01-01(A)

**Subject:** **Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring**

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#### **Recommendation:**

That the Regional Municipality of Waterloo take the following actions regarding the Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring Consultation Document:

- a) Forward Report PDL-CPL-18-07/TES-WAS-18-07, dated February 27, 2018 to the Ministry of Municipal Affairs as its response to document.
- b) Advise the Province that the Region opposes any extension of the Greenbelt Legislation in Waterloo Region unless it provides for the following:
  - i) Add policy language that encourages municipalities to go beyond the minimum standard set by the Greenbelt Plan;
  - ii) Include policies that provide for the highest level of protection to prevail;
  - iii) Include a policy framework that provides for the protection ground water resources that supply municipal drinking water;
  - iv) Revise the policies to permit municipalities to be stronger than the Greenbelt Plan with respect to aggregate resources and specifically permit municipalities to regulate the depth of extraction as it relates to the protection of municipal drinking water supplies; and
- c) Requests the Province commit to enhanced municipal consultation beyond the minimum standard, and the use of best available technical information and municipal land use planning information as well as allowing for either current and/or ongoing municipal planning initiatives to be completed and respected prior to establishment of final mapping associated with the proposed Greenbelt

expansion.

**Summary:**

On December 7, 2017 the Ministry of Municipal Affairs released “Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring Public Consultation Document”. The purpose of the consultation document is to seek feedback from stakeholders on a study area (Attachment ‘A’) for potential Greenbelt expansion in the outer ring of the Greater Golden Horseshoe (GGH). The study area includes large portions of the Region of Waterloo.

**Predominance of Strongest Planning Controls**

There is a long tradition of agricultural, natural heritage and ground water resources protection in the Region of Waterloo. The Region is unique in Canada in that it is the largest urban municipality to rely almost exclusively on groundwater supplies for its drinking-water. Strong local protections for these features should not be weakened as a result of Greenbelt expansion. Prior to considering expanding the Greenbelt, the Province should revise the Greenbelt Plan to definitively provide for and encourage stronger municipal official plan policies and to ensure that those policies can remain in place during any Greenbelt Plan conformity exercise.

**Ground Water**

The ground water resource policies of the Greenbelt Plan do not provide specific policy direction related to the protection of water resources that supply municipal drinking water wells. While ground water resources are important component of the natural heritage system, in the context of the Region of Waterloo, these resources are critical from a public health and safety perspective particularly as it related to municipal drinking water. This perspective is not reflected in the Greenbelt Plan and prior to considering expanding the Greenbelt, the Plan should be further amended to provide policy direction of the protection of municipal drinking water supplies.

**Aggregate Resources**

With respect to aggregate resources, municipalities cannot be more restrictive than the Greenbelt Plan. The Regional Official Plan (ROP) currently contains policies that are more restrictive. In addition, some policies regarding aggregates in the ROP have been deferred. The restrictions in the Greenbelt Plan prevent the Region from moving forward with the resolution of these deferrals in a manner which would reflect the unique context of the Region of Waterloo with respect to protecting ground water resources. The Greenbelt Plan restrictions related to mineral aggregate resources should be removed prior to considering any Greenbelt expansion to the Region of Waterloo. In addition, provisions to allow for municipalities to regulate the depth of mineral aggregate extraction should be added to the plan.

## Mapping

Greenbelt mapping is of critical importance and should reflect the best available information. In the Region of Waterloo context, the Regional Official Plan (ROP) mapping is based on the best available technical information including recent subwatershed studies. This information contributed to the development of the ROP's Countryside Line which is a hard stop for future growth. The tier 3 vulnerability area source water protection mapping is now available and the Cedar Creek Subwatershed study is underway. The intent is to utilize this information to inform future amendments to the ROP and to assist in the resolution of the Southwest Kitchener Policy Area in the southwest area of the Region. In addition, the Townships are undertaking work to rationalize and set the boundaries around the Township Urban Areas and refine Countryside line relative to their urban areas. The information used to develop the ROP mapping and the outcomes of ongoing work need to be considered and respected.

If approved by Regional Council, this report would be forwarded to the Ministry of Municipal Affairs and Housing as part of the public consultation on Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring Consultation Document. The study area contained in the consultation document is not a proposed Greenbelt boundary. In keeping with the requirements of the Greenbelt Act, 2005, the Province has committed to consulting with the public, municipalities, conservation authorities, stakeholders and Indigenous communities and organizations on any proposed amendments to the Greenbelt Plan and/or boundary prior to any changes being made. Ultimately, any expansions of the Greenbelt to Waterloo Region would need to be reflected in the Regional Official Plan and each of the seven Area Municipal Official Plans.

## Report:

### Background

On December 7, 2017 the Ministry of Municipal Affairs released "Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring Public Consultation Document". The purpose of the consultation document is to seek feedback from stakeholders on a study area (Attachment 'A') for potential Greenbelt expansion in the outer ring of the Greater Golden Horseshoe (GGH). The study area includes a large portion of the Region of Waterloo. In addition to illustrating the proposed study area, the consultation document:

- a) Describes the Province's approach to identifying moraines, coldwater streams and wetlands as key building blocks for protecting water in the outer ring;
- b) Outlines the processes followed for mapping the study area based on the locations of these features; and
- c) Describes and seeks input on other factors to be considered when mapping a

proposed Greenbelt boundary, such as accommodating forecasted population and employment growth, and other provincial interests including agriculture, natural heritage, aggregates and infrastructure and any other local considerations.

The release of this document follows the release of the revised Greenbelt Plan in spring 2017. The revised Greenbelt Plan contains new policy (5.6.1.1) to support a provincially led process for Growing the Greenbelt to provide additional protection to sensitive areas from development pressures. The particular focus of Greenbelt expansion at this time is to protect important water features from urban development pressures in the outer ring of the GGH.

The study area released for consultation is not a proposed Greenbelt boundary. In keeping with the requirements of the Greenbelt Act, 2005, the Province has committed to consulting with the public, municipalities, conservation authorities, stakeholders and Indigenous communities and organizations on any proposed amendments to the Greenbelt Plan and/or boundary prior to any changes being made. However, based on a revision to the Greenbelt Plan, 2017, municipal support is no longer required to add lands into the Greenbelt.

The Greenbelt Plan provides for a broad band of permanently protected land in an effort to reduce the fragmentation and loss of agricultural land and protect significant natural heritage and water resource systems. The Greenbelt Plan applies to a broad band of nearly two million acres (810,000 hectares) of protected land surrounding the GGH. Currently, only a small portion of the Greenbelt Plan extends into the Region of Waterloo near the Beverly area of the Township of North Dumfries.

### **Recognizing Strong Regional Official Plan Policies**

The Region of Waterloo has a long tradition of protecting natural heritage features, ground water resources and prime agricultural areas in an innovative manner. This tradition has resulted in a well-preserved agricultural area that provides stability for continued agricultural investment, the protection of natural heritage features such as Environmentally Sensitive Policy Areas in a manner that has provided the foundation for natural heritage system planning and the pioneering of policies to protect municipal drinking water supplies. Over time the Region has worked diligently to increase the level of protection for these features. These efforts are entrenched in policies to protect municipal drinking water sources and regional recharge areas in the Region's Water Resources Protection Strategy, as well as the Regional Recharge Area, Environmentally Sensitive Landscape, Countryside Line and Protected Countryside designations and related policies in the Regional Official Plan (ROP).

The ROP also provides strong direction regarding the location of future urban growth and while ensuring the protection of the agricultural area, ground water resources and natural heritage features and systems relative to that growth. Direction for the location

of future growth is provided through the Countryside Line designation such that future urban boundary expansions can only occur on lands located between the current urban area boundaries and the Countryside Line.

Furthermore, the ROP restricts future urban boundary expansions into areas designated Protected Countryside, Environmentally Sensitive Landscape and/or Regional Recharge Area. This policy framework ensures that future growth can continue to be accommodated in Waterloo Region while continuing to protect prime agricultural areas, groundwater resources and significant natural heritage systems.

The policies and mapping of the ROP strike an appropriate balance between accommodating future urban growth and protecting water resources and in many ways, this policy direction aligns with the Greenbelt Plan. However, there are several instances where the policies of the ROP provide a stronger or higher level of protection, including restrictions on surplus farm house severances, rural residential severances, mineral aggregate extraction in certain natural heritage features and policies related to the protection of ground water resources.

Generally, the Greenbelt Plan does not limit the ability of municipalities to adopt policies that are more stringent than the requirements of the Plan unless doing so would conflict with any of the policies or objectives of the Plan; however, with respect to policies concerning agricultural uses and mineral aggregate resources, the Greenbelt Plan provides specific direction that municipalities cannot be more restrictive. Therefore, should the Greenbelt be expanded to Waterloo Region, the policies of the ROP related to aggregate resources and agricultural uses could not be more restrictive than the Greenbelt Plan. This matter is of great concern to the Region particularly with respect to aggregate resources. In addition, by virtue of the establishment of a Provincial standard, municipalities are put on the defensive to justify the need to have policies stronger than that of the standard established in a provincial plan. This is of particular concern when the latitude afforded to municipalities in the policies of the Greenbelt Plan to be more restrictive is not definitive.

Prior to the consideration of any Greenbelt expansion to the Region of Waterloo, Regional staff strongly recommends that the language in the Greenbelt Plan be strengthened with respect to going beyond the minimum standards set out by the Greenbelt Plan. For example, the Greenbelt Plan could more closely reflect the language of the Growth Plan where "...the policies of this plan represent minimum standards. Within the framework of the provincial policy-led planning system, decision-makers are encouraged to go beyond these minimum standards to address matters of importance, unless doing so would conflict with any policy of this Plan." Alternatively, the policies could reflect the language associated with the relationship to other Provincial Plans, Legislation and Regulation in that "where the plans, regulations, or standards are more restrictive than this [Greenbelt] Plan, the more restrictive provision

shall prevail.”

There is also a need for the Province to consider whether the restriction on stronger municipal official plan policies with respect to agricultural uses and mineral aggregate resources is appropriate where Greenbelt expansion and any subsequent municipal official plan conformity exercise would “lower the bar” with respect to the protection of certain features. Strong, local protections should not be weakened as a result of inclusion in the Greenbelt. Accordingly, prior to any consideration of expanding the Greenbelt to the outer ring of the GGH, Regional staff also recommends that the Greenbelt Plan be amended such that stronger policies (including policies regarding mineral aggregate resource extraction) in municipal official plans prevail during any exercise to conform to the policies of the Greenbelt Plan.

### **Ground Water Resources that Supply Municipal Drinking Water Wells**

Waterloo Region is unique in Canada in that it is the largest urban municipality to rely almost exclusively on groundwater supplies for its drinking-water. Approximately three quarters of the Region's drinking-water comes from over one hundred municipal wells, many of which are located in urban areas and tap into highly productive aquifers of the Waterloo Moraine and bedrock aquifers in the Cambridge area. The remaining quarter of the region's drinking-water is drawn from the Grand River.

As a result, the Region recognizes the importance of protecting the recharge areas of the Waterloo Moraine and the Escarpment Area Moraines which supply recharge to the bedrock aquifers of Guelph and Cambridge and has incorporated protections for the Waterloo Moraine into the ROP. Additionally, Regional staff recognizes the need to protect areas that supply local recharge to urban wells. Protecting these areas from continued urban growth that adds more impervious surfaces and roads that could hinder local recharge and contribute contamination, particularly road salt, is essential to maintaining human health, economic prosperity and a high quality of life in the Region of Waterloo.

In May 2009, the Land and Water Policy Branch of the Ministry of the Environment released a report on the Review of the State of Knowledge for the Waterloo and Paris/Galt Moraines (Blackport et al, February 2009) which was commissioned in response to a request on the Environmental Bill of Rights. The review concluded that, unlike the Oak Ridges Moraine which crosses multiple jurisdictions and benefits from provincial policy or legislation to protect it, the Waterloo Moraine is located almost entirely within the borders of the Region of Waterloo, and through the policies in the Region's Water Resources Protection Master Plan the level of protection is equivalent (or better) to the level provided in the Oak Ridges Moraine Conservation Act.

The water resources policies of the Greenbelt Plan do not provide specific policy direction related to the protection of water resources as municipal drinking water. While

water resources are important component of the natural heritage system, in the Region of Waterloo context, these resources are more critical from a public health and safety perspective. This should be reflected in the policies of the Greenbelt Plan.

### **Study Area Methodology**

At a high level, Regional staff understands the concept of the building block approach used by the Province, however, the criteria for determining the study area for potential Greenbelt expansion are unclear. While the three provincial building block data sets (moraines, coldwater streams, wetlands) were layered together to determine the study area, the Province should address the following to improve the clarity of this approach:

- Are all three building blocks required within a given area in order to qualify for inclusion in the study area boundary? It is not clear how the layers have been applied and why some areas have been included and why other areas have not been included.
- The consultation document makes reference to “high densities of cold water streams and wetlands” and identifies areas “where features are concentrated in the outer ring”. It is unclear as to how the building block criteria have been applied with respect to concentrations of wetlands and coldwater streams and further clarification on this aspect of the methodology is required. What are the threshold levels for these densities and concentration levels and how were they determined?
- How did the Province determine “the importance of connections between features and their associated hydrologic function”?
- Moraine Area Exclusions: It is unclear to Regional staff why certain areas of the Waterloo Moraine that are not distinctly separate from other parts of the moraine have been excluded from the study area.
- Were other water based features considered and then excluded from the development of the study area? If so, why were they excluded?

The Province should also clarify why the following information has not been used the delineation of the study area:

- Municipal Wells and Source Water Protection Areas: Given that Waterloo Region is the largest urban municipality to rely almost exclusively on groundwater supplies for its drinking water, in 1993, the Region was one of the first communities to implement a Water Resources Protection Strategy and to delineate Wellhead Protection Sensitivity Areas (WPSAs) around its municipal drinking water supply wells to protect the quantity and quality of drinking water sources, including policies to protect regional recharge areas. An updated Water

Resources Protection Master Plan was implemented in 2008 and included policies to protect a Regional Recharge Area on the Waterloo Moraine. These Source Water Protection policies were brought together and incorporated in the ROP.

The Region has further delineated groundwater and surface water vulnerability areas in the Assessment Report for the Grand River Source Protection Area under the Clean Water Act, 2006 and developed policies in the Region's local Source Protection Plan to mitigate drinking water threats which are unique to the Region and compliment the Source Water Protection policies in ROP.

- The Agricultural and Natural Heritage System: One of the key goals of the Greenbelt Plan is to protect agricultural viability and prevent loss of the agricultural land base. In addition, the Greenbelt Plan also seeks to protect, maintain and enhance natural heritage features and functions. It is not clear whether the Province used the agricultural and natural heritage systems to inform the study area.

## Mapping and Data Considerations

### Data Sources

In 2016, staff from the Region of Waterloo, at the request of the Ministry of Municipal Affairs, attended an introductory meeting on the Growing the Greenbelt initiative organized by that Ministry. The purpose of this meeting, which was also attended by staff from the Grand River Conservation Authority (GRCA) and other neighbouring municipalities, was to discuss potential sources of data relating to hydrology, land use planning, and growth pressures. It was the understanding of Regional staff that this information would assist the Province in identifying potential areas of ecological and hydrological significance that could potentially be added to the Greenbelt.

Following this meeting, and at the request of the Ministry, Regional staff provided the Ministry a series of technical reports, hydrological data, various GIS layers from the ROP as part of the Ontario Geospatial Data Exchange, as well as the Tier 2 Water Quantity Stress Assessment and Tier 3 Local Area Risk Assessment reports and mapping. It does not appear that this data was used to inform the delineation of the study area.

Ensuring that mapping associated with any Greenbelt expansion is accurate is of critical importance. While it is understood that the Province may want to use common criteria and common data across the entire study area, best available information should be used even when that information is not available across the entire study area. For example, water resources, particularly recharge and moraine areas are challenging to

define and the Province should utilize the municipal and conservation authority information to ensure the correct delineation of these areas.

It is unclear in the consultation document whether or not the Province intends to apply the mapping for the agricultural and natural heritage systems that has been developed under the Growth Plan into the Greenbelt Plan. Consistency in mapping between the Greenbelt Plan and the Growth Plan is important to ensure clarity and avoid confusion, provided the mapping does not trump the availability of high quality technical mapping.

In addition to Provincial information and data, the Province should consider more detailed local information, knowledge and expertise, including verifying data in the field, throughout the study process in order to produce more accurate and defensible outcomes. In the Region of Waterloo there are two subwatershed studies (Breslau and Randall Drains and Cedar Creek) currently underway. These studies will collect valuable local information related to water resources and natural heritage features that would certainly further the Province's understanding of the study area.

#### Countryside Line

The ROP includes a "made in Waterloo" designation called the Countryside line. The delineation of the Countryside Line has taken into account the appropriate locations for future urban boundary expansions and has been done so with the intent of protecting sensitive areas including the moraines, wellhead protection areas, prime agricultural areas and the natural heritage system. The Countryside Line establishes a hard line between the area where urban growth may occur and the areas that will be protected from future development. Future urban boundary expansions will only be considered on land between current Urban Areas/Township Urban Areas and the Countryside Line. It is the intent of the Countryside Line designation to focus future growth and urban boundary expansions in order to make efficient infrastructure investments as well as to direct growth away from sensitive ground water resources, natural heritage features and prime agricultural lands. This delineation also informs other processes related to future urban growth, including prioritizing the undertaking of Subwatershed studies.

With the approval of the ROP in 2015, a policy framework was established to allow the Region's four townships a one time opportunity to further review and refine the boundaries of their respective settlement areas and the Countryside Line. This review, referred to as a "rationalization exercise", was intended to give the townships an opportunity to review and, if necessary rationalize these boundaries to make better use of municipal services and promote more efficient development patterns. The exercise also allows for the townships to refine the direction of future urban growth through adjustments to the Countryside Line. No increase to lands designated for development or lands within the Countryside Line is permitted through this exercise. The Townships of Wellesley, Wilmot, North Dumfries and Woolwich are currently in various stages of this rationalization exercise and Regional staff recommends outcome of the

rationalizations exercises specifically relating to the ultimate location of the Township Urban Area boundaries and the Countryside Line be respected. Mapping of both the Countryside Line and the rationalization work to date is available.

The ROP as approved by the Ontario Municipal Board in 2015 includes the Southwest Kitchener Policy Area. The intent of the Southwest Kitchener Policy Area was to allow additional technical assessment to be completed (including the Cedar Creek Subwatershed Study) prior a determination of the applicability of the Regional Recharge Area designation to these lands and the ultimate delineation of Countryside Line in this location. The outcome of the Cedar Creek Subwatershed study and resolution of the appropriate ROP designations for these lands should be respected.

Accordingly, the Countryside Line, the rationalization exercises and the resolution of the Southwest Kitchener Policy Area should be respected in any future Greenbelt expansion work completed by the Province.

### **Mineral Aggregate Resources**

With respect to aggregate resources, municipalities cannot be more restrictive than the Greenbelt Plan. Regional staff recognizes the importance of mineral aggregates and the need to balance mineral aggregate extraction with the protection of ground water resources, natural heritage features and prime agricultural lands. Aggregate extraction is of particular concern within Waterloo Region given our reliance on groundwater as our source for drinking water. The Region currently has policies that are more restrictive. In addition, some policies regarding aggregates in the ROP were deferred as part of the approval of the ROP in 2015. The intent is to bring these matters forward through the Region's next Municipal Comprehensive Review. The restrictions related to mineral aggregate resources in the Greenbelt Plan prevent the Region from moving forward with the resolution of these deferrals in a manner which would reflect the unique context of the Region of Waterloo with respect to protecting ground water resources.

The Greenbelt Plan restriction on stronger municipal official plan policies related to mineral aggregate resources should be removed prior to considering any Greenbelt expansion to the Region of Waterloo. In addition, provisions to allow for municipalities reliant on ground water for municipal drinking water supplies to regulate the depth of mineral aggregate extraction should be added to the Plan.

### **Proposed Next Steps**

If approved by Regional Council, this report would be forwarded to the Ministry of Municipal Affairs and Housing as part of the public consultation on Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring Consultation Document. The study area contained in the consultation document is not a proposed Greenbelt boundary. Based on information from the Province, it is understood that the Province

intends to review the submissions on the study area and develop a proposed Greenbelt Boundary. To date, the Province has indicated that there will be an opportunity to comment on the proposed Greenbelt Boundary. The timing of the overall process is not clear.

Corporate Strategic Plan:

The Protecting Water for Future Generations Growing the Greenbelt in the Outer Ring Public Consultation Document supports the Region's priorities with respect to Focus Area – Environment and Sustainable Growth of the Corporate Strategic Plan.

**Financial Implications:**

Nil.

**Area Municipal Consultation/Coordination**

Regional staff has consulted with all of the Area Municipalities and the Grand River Conservation Authority and in the preparation of this report and a draft copy of the report was provided for comment.

**Other Department Consultations/Concurrence:**

Staff from Transportation and Environment Services (Hydrogeology and Source Water) were consulted in the preparation of this report.

**Attachments**

Attachment 'A' – Study Area for Potential Greenbelt Expansion

**Prepared By:** Michelle Sergi, Director, Community Planning

**Approved By:** Rod Regier, Commissioner, Planning, Development and Legislative Services





**Report:** TES-TRS-18-06

## **Region of Waterloo**

### **Transportation and Environmental Services**

#### **Transit Services**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** D28-50

**Subject:** Community Transportation Grant Program Application

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#### **Recommendation:**

That the Regional Municipality of Waterloo proceed with introduction of transit services within North Dumfries, subject to approval of a five year Community Transportation grant from the Ministry of Transportation, as outlined in Report TES-TRS-18-06

#### **Summary:**

The Ministry of Transportation (MTO) has announced a new round of funding for community transportation initiatives to address local transportation needs, building upon the previous Community Transportation Pilot Grant Program funding. The new program continues to focus on developing and improving services to communities in Ontario that are not served or are underserved by public transportation. The funding will continue to emphasize improved mobility options for those who experience transportation barriers, including seniors, people with disabilities, youth, and persons living on low income.

The Community Transportation Grant Program – Municipal Stream has two levels of funding:

- Maximum individual grant of \$500,000 for a five year period for local community transportation service
- Maximum individual grant of \$1.5 million for a five year period for intercommunity scheduled bus routes

Based on the funds available from the MTO, and the initial analysis of potential ridership

demand, staff recommend that the Region submit an application for both the local and intercommunity streams of funding. It is proposed that, pending the approval of the Community Transportation Pilot Grant, funding be used to provide new intercommunity transit service in North Dumfries connecting to Cambridge (Ainslie Terminal) and/or Kitchener (Sportsworld Terminal or an ION station). In addition, it is proposed that mid-day service be provided using a flex route approach, providing service connections to local commerce and services.

The Township of North Dumfries' Committee of the Whole have adopted a resolution to work in partnership with Grand River Transit on the development and implementation of a community engagement strategy. Input from public consultation and other stakeholder groups will be used to revise the proposed options and to ensure the service best reflects the needs of the community.

## **Report:**

### **Background**

The Ministry of Transportation (MTO) has announced a new round of funding for community transportation initiatives to address local transportation needs, building upon the previous Community Transportation Pilot Grant Program funding. The new program continues to focus on developing and improving services to communities in Ontario that are not served or are underserved by public transportation. The funding will continue to emphasize improved mobility options for those who experience transportation barriers, including seniors, people with disabilities, youth, and persons living on low income.

The Community Transportation Grant Program – Municipal Stream has two levels of funding:

- Maximum individual grant of \$500,000 for a five year period for local community transportation service
- Maximum individual grant of \$1.5 million for a five year period for intercommunity scheduled bus routes

As with the previous pilot grant program, collaboration with partners is an important aspect of the project, in particular for the local community transportation funding stream. This can include local service support agencies, local municipalities and transportation operators.

In 2016, the Route 77 Wilmot was launched under the MTO's Community Transportation Pilot Grant Program. As noted by the MTO, the Pilot Program was able to demonstrate the effectiveness of coordinating local services and maximizing the use of existing transportation resources in meeting the mobility needs of small and rural municipalities.

## Proposal

In the GRT 2017-2021 Business Plan, expansion of service to the Townships was identified as one of the objectives. Currently service is provided to Woolwich (Elmira/St. Jacobs via Route 21) and Wilmot (New Hamburg/Baden via Route 77). Settlement areas of some ridership potential have been identified in North Dumfries (Ayr and the Highway 401 / 97 Business Park) and in Woolwich (Breslau). Both of those areas have potential to support some limited fixed schedule service. The Township of Wellesley, with a lower, more dispersed population is considered to have more potential for an on-demand approach to service. Based on the funds available from the MTO, and the initial analysis of potential ridership demand, it is proposed that the Region submit a grant application that provides new intercommunity transit service in North Dumfries, including connections to the Community of Ayr and the Highway 401 / 97 Business Park. This would connect to Cambridge (Ainslie Terminal) and/or Kitchener (Sportsworld Terminal or an ION station).

This service would operate during the morning and afternoon peak time periods from Monday to Friday. The service would use the smaller 19-seat vehicles from the BusPLUS contracted service as this would more closely match the vehicle size with the anticipated demand. These vehicles are fully accessible low floor vehicles and are also equipped with bike racks to provide additional mobility options.

In addition, it is proposed that mid-day service be provided using a flex route approach, providing service connections to local commerce / retail centres, social service providers and the North Dumfries Community Centre (where various community support programs take place).

The proposed routing options are shown in Appendix A. During the mid-day period, some trips would circulate only within Ayr to provide flex routes to key destinations. These would include day programs for seniors, a community health centre and other social agencies.

## Potential Collaboration and Public Consultation

Regional staff from GRT have met with the North Dumfries Chief Administrative Officer to discuss the proposal and to identify ways to best support it. The North Dumfries Council passed a resolution in support of the grant application (Appendix B).

In addition to the Township, other potential partners would be involved as, similarly to the initial pilot, one of the mandates of the provincial program is to encourage the coordination, sharing, and leveraging of resources.

While the proposed route for the service would generally follow what is in the proposal to the province, part of the process would include a public consultation process whereby the options would be reviewed and modified to ensure the service best reflects the needs of the community.

### Timing

The grant application must be filed with the Ministry by February 28<sup>th</sup>, 2018. It is anticipated that selection of successful grant awards will occur by April/May 2018. The execution of an agreement with the province will follow this. Implementation of service must occur within one year of execution of the agreement.

### Corporate Strategic Plan:

Focus Area 3: Sustainable Transportation: Develop greater, more sustainable and safe transportation choices. The pilot will contribute to Strategic Objective 3.1.3. Develop and implement programs to improve access to and awareness of public transit.

### Financial Implications:

The estimated annual cost to operate the service is \$323,400, which is net of anticipated ridership revenue from the route. The provincial grant will have a maximum value of \$1,500,000 over five years for the long distance scheduled bus service and \$500,000 over five years for the local community transportation. The operating costs, and thus the extent of the service, would utilize the grant funds from the province and will be contingent on the amount of funding awarded. The grant process does anticipate funding from other sources as part of the scoring of the proposals. As such, the Region would use existing budgets to conduct public consultation, to install any bus stop infrastructure (in the short term, this would consist mostly of stop markers) and add any Regional equipment to the BusPLUS vehicles such as bike racks, automatic vehicle location equipment and portable fare system units. Other funding options will also be explored, such as service agencies purchasing fares for their clients.

At the conclusion of the five year grant period, the service would be evaluated for effectiveness. If it was determined that the service should continue a budget issue paper it would be brought forward to identify the costs and funding sources available at that time.

### Other Department Consultations/Concurrence:

Budget and funding for this has been reviewed with the Finance Division.

### Attachments

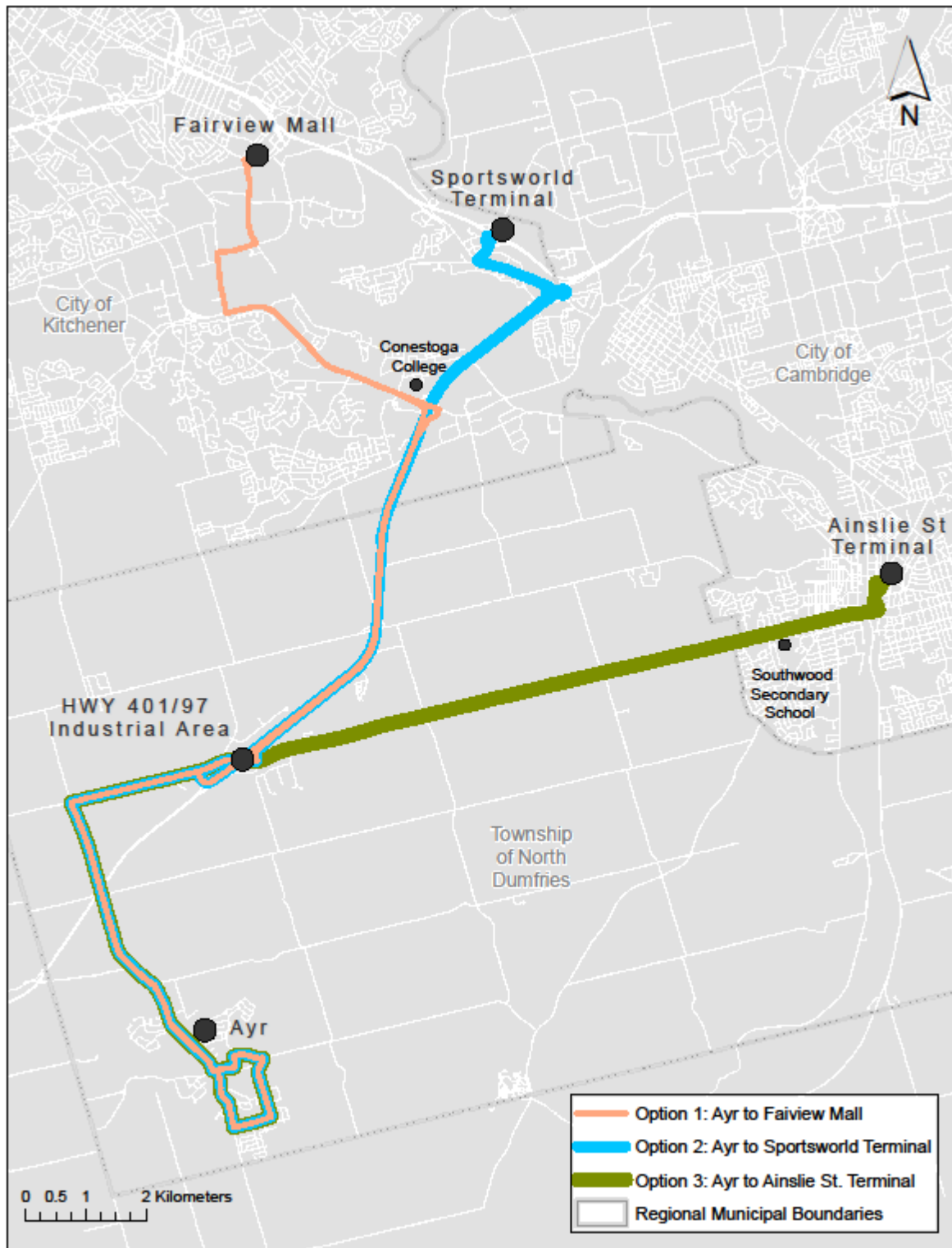
Appendix A: Proposed scheduled bus route options

Appendix B: Resolution of support from North Dumfries Township

**Prepared By:** Blair Allen, Supervisor Transit Development

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services

## Appendix A: Proposed scheduled bus route options



Appendix B: Resolution of support from North Dumfries Township

At the Township of North Dumfries Committee of the Whole Meeting on Monday, February 12, 2018, the following resolution was passed:

**THAT** Report No. CAO 5-2018 be received;

**AND THAT** Council advise the Region of Waterloo that the Township is supportive of the submission of a Grant Application to the Province of Ontario under the Community Transportation Grant Program – Municipal Stream for the Intercommunity Bus Project;

**AND THAT** the Township work in partnership with the Region through Grand River Transit on the development and implementation of a Community Engagement Strategy; the design of transit routes; establishing a level of service; and, the establishment of metrics to measure the success of the implementation of transit services;

**AND THAT** if the Region is successful in securing the Grant, that a Transit Steering Committee be established to assist in the development, implementation and evaluation/monitoring of transit services within the Township.



**Report:** TES-TRP-18-02

## **Region of Waterloo**

### **Transportation and Environmental Services Department**

#### **Transportation Division**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** D09-90/2016 TMP

**Subject: Moving Forward (Transportation Master Plan Update) Public  
Consultation Centre #3 – Information Package**

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**Recommendation:** For information.

**Summary:** Nil.

#### **Report:**

##### **1. Background**

A Transportation Master Plan (TMP) defines how the Region's transportation system will grow and change in the coming decades. The TMP provides the justification for the Ten Year Transportation Capital Program, updates to the Regional Development Charges By-Law, and many other strategic plans. Preparing a TMP provides an opportunity to:

- Review the current state and long-term vision for transportation;
- Analyze the overall transportation system in a strategic manner;
- Integrate transportation planning with other strategic plans; and
- Consult with a broad range of stakeholders.

Moving Forward 2031, the current TMP, was approved by Council in 2010 in response to several new provincial and local policy initiatives that have a significant influence on the future direction of transportation in Waterloo Region. These include the Growth Plan for the Greater Golden Horseshoe, the Regional Growth Management Strategy, the Regional Official Plan and the Rapid Transit Project. Changes to provincial and local policy initiatives (i.e. new growth forecasts in the Provincial growth plan and approval of the Regional Official Plan) mean it is now time to update the TMP. The name "Moving Forward" has been chosen for the new TMP.

## 2. Public Consultation

Public consultation is a critical component of Moving Forward. There are three rounds of Public Consultation Centres (PCCs) for this project, and this final round of PCCs will be hosted at three locations in March:

- **March 6, 2018:** Knox Church, 50 Erb Street West, City of Waterloo
- **March 7, 2018:** Cambridge City Hall, 50 Dickson Street, City of Cambridge
- **March 8, 2018:** Region of Waterloo Administrative Headquarters, 150 Frederick Street East, City of Kitchener

The information package for PCC #3 is shown in Attachment A.

In addition to the PCCs, the Region has been conducting public opinion surveys, online consultation through the Engage Region of Waterloo platform, and through a panel of the general public and a panel of community/public sector stakeholders. These alternative forms of public consultation enable different members of the public, who may find it difficult to participate in conventional consultation centres, to provide input. The panels have also enabled sustained and detailed engagement on a variety of subjects.

## 3. What is regional transportation like today?

After reviewing past and current transportation data, certain trends stand out:

- Internal travel within Waterloo Region is typical of most smaller urban areas
- Commuters are still highly auto-dependent
- Transit ridership growth has been strong and correlated with investment in service
- Residents continue to drive even for short trips less than two kilometres
- Inter-regional travel is growing rapidly

## 4. How might we get around in the future?

Huge changes have been experienced in the transportation field recently, and these changes seem likely to continue. The following general factors are having a big influence:

- Demographic changes (e.g. the population is getting older)
- Energy (e.g. electric vehicles, etc.)
- New technologies (e.g. automated vehicles, etc.)
- Social change (e.g. sharing economy, online purchasing, etc.)
- Mobility pricing (e.g. whether toll roads become more acceptable, etc.)

## 5. What is important to residents of Waterloo Region?

Through the public consultation on what is important to Waterloo Region residents, some common themes have stood out:

- **The importance of healthy choices:** Residents were strongly in favour of a

transportation system that enabled healthy choices about how to get around.

- **Interest in sustainable transportation choices:** The public has a great deal of interest in choices such as public transit, cycling and walking. However, many people felt these were not practical choices for their own lives. This suggests that residents are experiencing “barriers”, such as a lack of time, travel distance, etc.
- **Importance of transportation to the economy:** Transportation plays a critical role both for how people get to work and shopping, and for how the goods that support our economy are moved from place to place.
- **The need for better network integration:** This includes how different ways of getting around interact at transition points: for example, how easy it is to walk, bike or drive to public transit. Additionally, there are gaps in the networks, such as bike lanes that end at intersections, delays at trail crossings of Regional roads, or areas that cannot be accessed by public transit.

To meet the needs of those themes, a vision for transportation was developed by the Project Steering Committee:

**“Waterloo Region will be a prosperous, sustainable and healthy community, with viable transportation choices for people of all ages and abilities, and for the goods supporting our economy.”**

To achieve the vision, the following goals for Waterloo Region’s transportation system were continued from the 2010 Regional Transportation Master Plan (RTMP).

- **Optimize the Transportation System:** Make the most of what exists. Maximize the use of existing transportation services and facilities.
- **Promote Transportation Choice:** Offer competitive choices to move people and goods in an integrated, seamless transportation system.
- **Foster a Strong Economy:** Provide a transportation system that supports the retention of existing businesses and attracts sustainable economic activity.
- **Support Sustainable Development:** Provide and maintain a transportation system that supports sustainable growth in both urban and rural areas and reduces transportation contributions to climate change.

## 6. What possible scenarios have we developed and studied?

To structure the study, three possible scenarios for future transportation were developed and evaluated:

### Scenario 1: Continue with the 2010 Regional Transportation Master Plan

The Region’s 2010 RTMP includes significant investment in public transit service,

improvements in cycling and walking facilities, and in Regional road expansions. Scenario 1 establishes a baseline for testing the two other scenarios, and includes projects such as the River Road extension in south Kitchener, the Active Transportation Master Plan, and ION Stage 2 to Cambridge.

### **Scenario 2: More Investment in Transit and Active Transportation**

This scenario examines adding extensive new transit, walking and cycling investments over and above Scenario 1 to provide residents with more alternative forms of transportation and reduce their dependency on the automobile. It includes projects such as additional rapid transit, all-day high-frequency transit, better transit access to low-density areas, and more separated bike lanes.

### **Scenario 3: New Mobility**

This scenario would further reduce the emphasis on “conventional” transportation (i.e. roads, transit and active transportation) and emphasize new mobility options achieved through technological and social change. For example, this scenario includes car sharing, high occupancy vehicles, on-demand public transit, and automated vehicles. It tests a “what if” plan and identifies risks and opportunities, such as an increase or decrease in vehicle use.

## **7. What do we recommend?**

The 2010 RTMP (Scenario 1) recommended that the Region adopt a “Transit-oriented plan with strategic road improvements”, and the Project Steering Committee is recommending that this plan continue, subject to some refinements in the following areas:

- **Public Transit:** The Region’s experience has been that investment in service generally leads to increased ridership, and this should continue. Other recommendations:
  - Implement ION Stage 2 extension to Cambridge
  - Develop a comprehensive 10-minute frequent transit network by 2041
  - Explore and identify additional future rapid transit corridors
- **Active Transportation:** Consistent with Scenario 1, the Project Steering Committee recommends fully funding and completing the 2014 Active Transportation Master Plan, including all recommended infill facilities. The enhanced investment in active transportation explored through Scenario 2 suggests enhancing cycling facilities to improve separation from traffic, and consideration of lane-reduction projects to implement separated cycling facilities, such as:
  - Erb Street East and Bridgeport Road East (Highway 85–Caroline Street)
  - Frederick Street/Benton Street (Lancaster Street–Courtland Avenue)

- Victoria Street (Park Street–the Grand River)
- **Regional Roads:** All Scenario 1 road expansion projects, and some new projects, were evaluated based on their ability to meet the four goals. The Project Steering Committee identified a number of projects that could potentially be deferred. The list of road projects is provided in Attachment A.
- **Supporting Strategies:** Related to the above recommendations, the Project Steering Committee developed a list of supporting strategies, organized into five themes:
  - Build a Transportation Network that Supports All Modes of Travel
  - Promote a Healthy Community
  - Develop a Frequent Transit Network
  - Enhance Inter-regional Connections
  - Position the Region for New Mobility (e.g. consider pilot projects of automated vehicles near public transit stations)
- **Addressing Barriers:** The strong interest in public transit, cycling and walking, but general belief that they are not practical, suggested that “barriers” are hindering more widespread adoption. A survey of the public suggests there is considerable potential in encouraging the “Interested but Concerned” group, who might consider changing behaviour if their barriers are addressed. The recommendations noted above address the following most significant barriers:
  - It would take too long to get between destinations (public transit, cycling and walking)
  - Safety concerns (cycling)
  - Does not meet my schedule needs (public transit)
  - Requires too many connections to get to my destination (public transit)

## 8. How much will the recommended scenario cost?

Preliminary estimates of the capital and operating costs for roads, public transit, and active transportation facilities indicate that the above recommendations will cost about the same as the recommendations from the 2010 RTMP. More details are provided in Attachment A.

## Next Steps

After reviewing and incorporating the comments received from the public at this final round of Public Consultation Centres, the Project Steering Committee intends to have additional meetings with the General Public and Stakeholder Panels to receive further input. The Project Steering Committee then intends to bring a recommendation before Regional Council in May.

**Corporate Strategic Plan:**

The Transportation Master Plan is directly related to the Sustainable Transportation Focus Area and all four Strategic Objectives:

- Create a public transportation network that is integrated, accessible, affordable and sustainable;
- Improve inter-city rail transportation services to and from Waterloo Region;
- Build infrastructure for, and increase participation in, active forms of transportation (cycling and walking); and
- Optimize road capacity to safely manage traffic and congestion.

It also influences all other Focus Areas, namely:

- Thriving Economy;
- Environment and Sustainable Growth;
- Healthy, Safe and Inclusive Communities; and
- Responsive and Engaging Government Services.

**Financial Implications:**

Nil.

**Other Department Consultations/Concurrence:**

Nil.

**Attachments**

A. Moving Forward Public Consultation Centre #3 Information Package

**Prepared By: Geoffrey Keyworth**, Acting Manager, Transportation Planning

**Approved By: Thomas Schmidt**, Commissioner, Transportation and Environmental Services



## Public Consultation Centre #3



## Transportation Master Plan Update Information Package

| Date                           | Place                                                                              | Time                                        |
|--------------------------------|------------------------------------------------------------------------------------|---------------------------------------------|
| Tuesday,<br>March 6,<br>2018   | Knox Church<br>50 Erb Street West, Waterloo                                        | 5–8 pm<br>Presentations at 5:30 and 7:00 pm |
| Wednesday,<br>March 7,<br>2018 | Cambridge City Hall<br>50 Dickson Street, Cambridge                                | 5–8 pm<br>Presentations at 5:30 and 7:00 pm |
| Thursday,<br>March 8,<br>2018  | Region of Waterloo Administrative<br>HQ<br>150 Frederick Street East,<br>Kitchener | 5–8 pm<br>Presentations at 5:30 and 7:00 pm |

Welcome.

Please sign in and fill out the comment sheet at the end of this information package..



## 1. What is Moving Forward?

Moving Forward is the Region of Waterloo's transportation master plan. This project is an update to our current Regional Transportation Master Plan (RTMP) that was approved in 2010. The plan identifies policies and projects to meet the Region's transportation needs over the next 25 years. These include where and how to invest in Regional road improvements, traffic controls, public transit service, cycling and walking facilities, and managing travel demand. Moving Forward also considers other related transportation needs related to Provincial highways within Waterloo Region, travel to and from Waterloo Region (by automobile, bus, passenger rail and air service), and emerging transportation trends.

## 2. What do we need from you today?

This public consultation centre provides an overall background on the entire project, what we have heard during our previous consultation, summarizes our findings, and explains our recommendations for transportation for the next 25 years. We want your comments about whether the overall plan, and specific aspects of it, will achieve our vision for transportation.

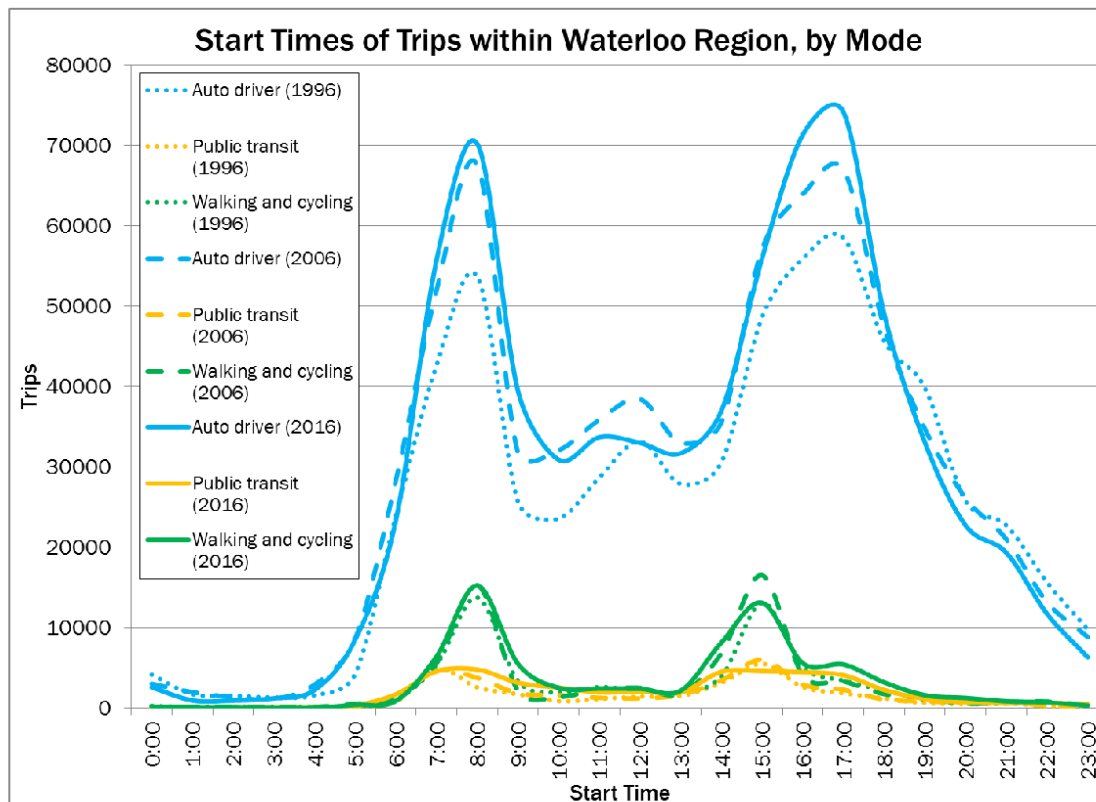
## 3. Why is Moving Forward important to you?

Moving Forward affects everyone. It deals with the movement of people and goods in and around Waterloo Region. The need for mobility affects every resident, business and visitor in Waterloo Region. Mobility must be safe, convenient and affordable for all, while serving our travel needs and managing impacts on our neighbourhoods and natural areas. It must provide for the types of travel choices expected by residents of Waterloo Region, be it walking, cycling, public transit or driving.

## 4. What is regional transportation like today?

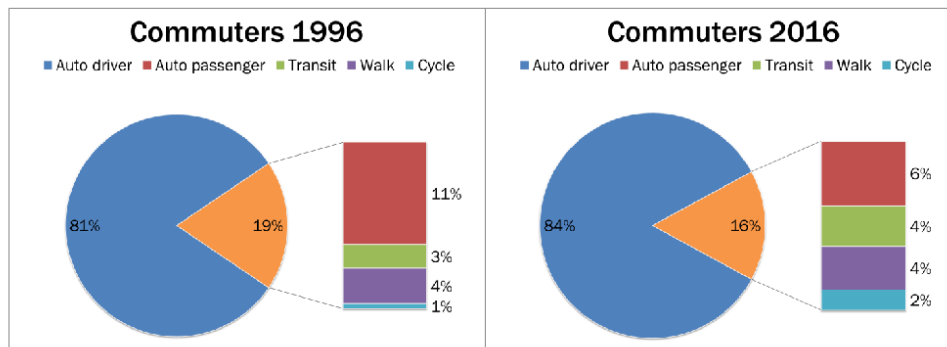
### Internal travel within Waterloo Region is typical of smaller urban areas

Travel in Waterloo Region is currently typical of smaller urban areas, with regular peaks in the morning and afternoon. Shifting travel times to avoid congestion during the peaks has not become a major factor in Waterloo Region over the past 20 years as in larger cities such as in the Greater Toronto Area. This means Waterloo Region generally has adequate road capacity to support existing travel patterns, and car users have little need to shift to other travel modes or times.



#### Commuters are still highly auto-dependent

Driving a car remains by far the dominant mode for commuting to work, representing 84 percent of work trips. About 6 percent of work trips are made by passengers in private cars, with public transit at 4 percent, and active travel (cycling and walking) at 6 percent. Growth in the number of commuters by public transit and cycling has outpaced growth in the number by private car, but this growth appears to have largely displaced the number of commuters as car passengers. High car reliance is likely a result of the dispersed employment centres across Waterloo Region and to Guelph and the Greater Toronto Area, historic land use patterns and the Region as a whole being generally more spread out than larger cities like Toronto.

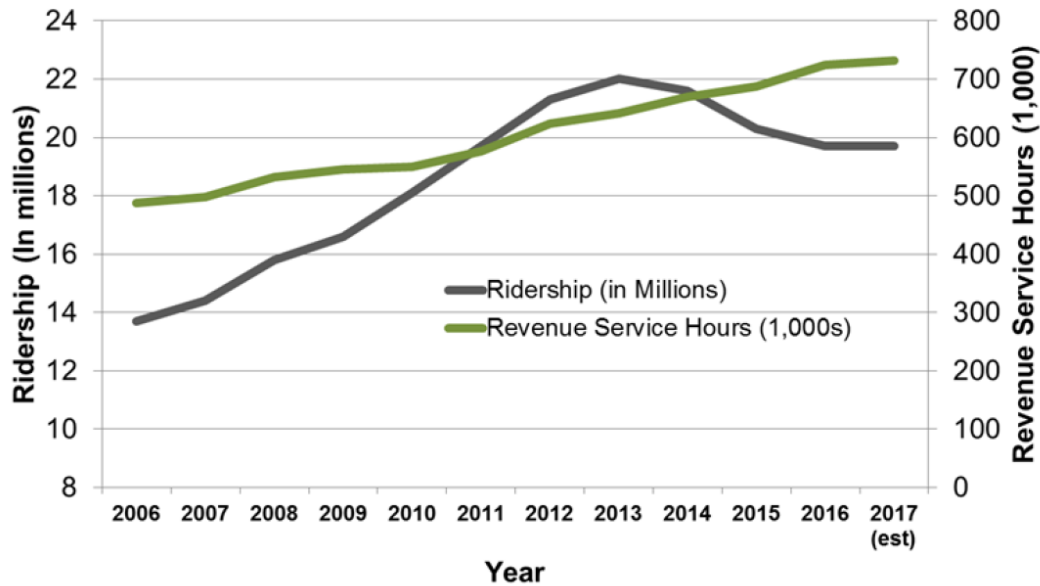


### Transit ridership growth was strong, but peaked in 2013

As shown on the following chart, transit ridership grew significantly in Waterloo Region from 2006 to 2013, reflecting the Region's strong investment in transit service hours since establishing Grand River Transit (GRT) and taking over municipal transit services in 2000. The subsequent decline in transit ridership is being seen across North America, and is the result of several non-local factors such as comparatively low fossil fuel prices, the emergence of new private transportation services (e.g. Uber, etc.), an increase in active transportation, and changes in teleworking-from-home habits. In Waterloo Region, other factors contributing to the transit ridership decline include transit detours due to construction and local school boards shifting many high school trips to school buses.



### Grand River Transit Ridership & Service Hours

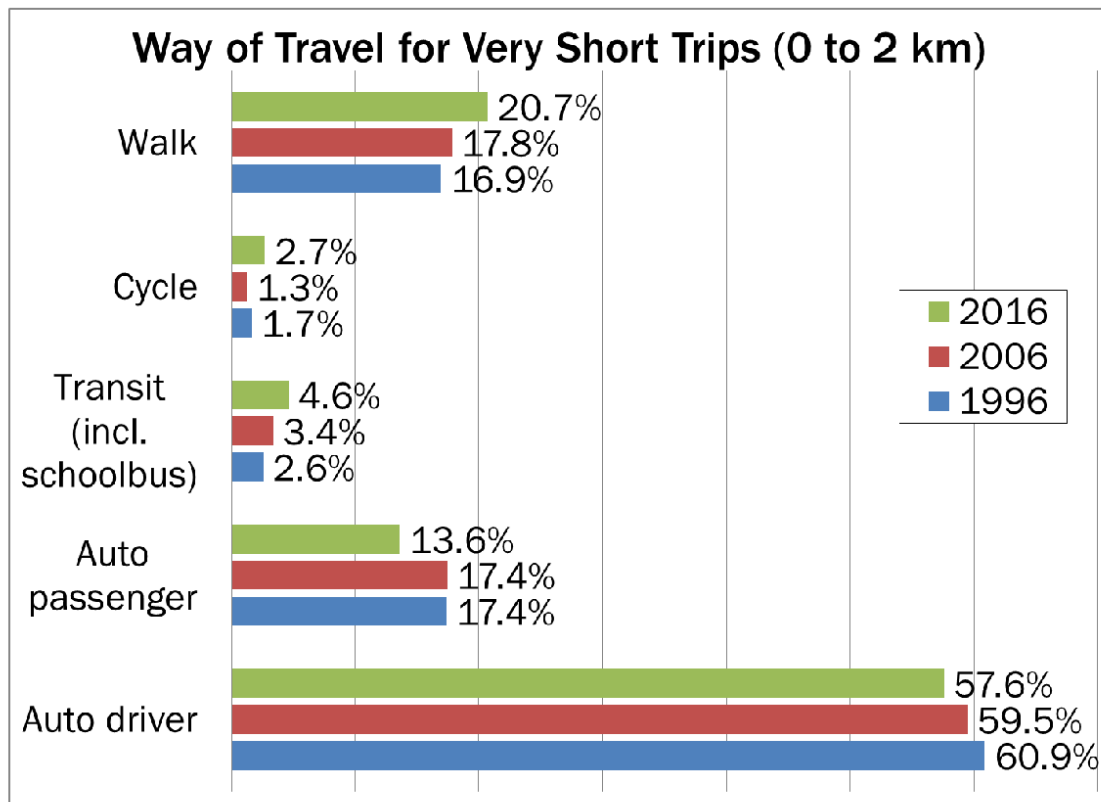


\*2017 data was estimated

#### Residents continue to drive, even for short trips less than two kilometres

For trips under two kilometers in Waterloo Region, 71 percent are made by car and 21 percent by walking. This can be attributed in small part to public perceptions about walking in Waterloo Region, but other factors such as the distance between destinations, availability and cost of parking, and a lack of variety of nearby destinations likely play a larger role in the use of cars for short trips that are generally walkable for most people.

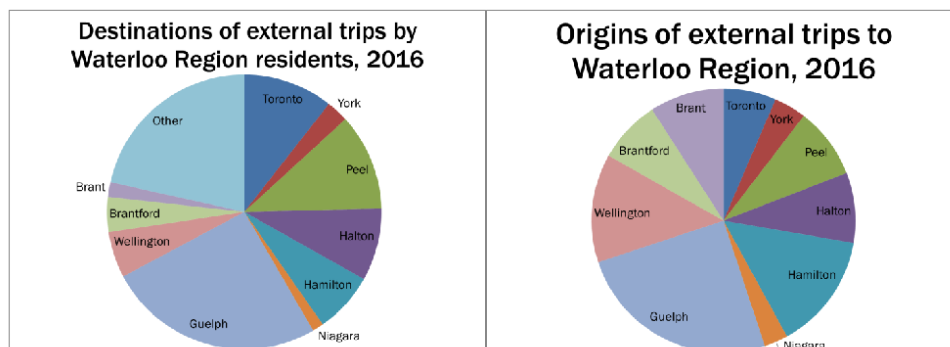
Walking, cycling and public transit use for these short trips has generally been increasing slowly over the past 20 years. To continue these trends, continuous effort is needed to support transportation choices. This means reducing the distances between destinations to make cycling and walking more practical, and ensuring that they are integrated with the transit system to allow for seamless multi-model travel.



#### Inter-regional travel is growing rapidly

Waterloo Region residents make approximately 1.1 million trips per day, of which 95 percent remain within Waterloo Region and 5 percent (about 60,000 trips) are made to destinations outside of Waterloo Region.

The City of Guelph accounts for about one-quarter of all inter-regional travel, and this may grow with completion of the new Highway 7 now under construction. Also, trips to Toronto are fewer than trips to Peel Region or Guelph. The implications for Moving Forward may be the need to support different forms of inter-regional transit than are currently offered.



### New private transportation services have emerged

Different ways of getting around have entered the Regional market that did not exist at the time of the last master plan. For example, Uber is providing trips in private cars similar to taxi service, while Community Access Bikeshare has started operating a system of shared bicycles. Both of these kinds of services have become significant providers of transportation in other municipalities, and they may become more significant here.

## 5. How might we get around in the future?

The transportation field has recently experienced dramatic changes, and there is every sign that this change will likely continue. There is still considerable uncertainty in how these changes will “play out”, but the following general factors are having a big influence.

- **Demographic changes:** The overall population is getting older and the needs for mobility are changing. As the ability to drive deteriorates with age, society needs to ensure that people who get around primarily by car today are not isolated as they age. Additionally, the current generation of young people entering the workforce appear to have a greater acceptance of walking, cycling and public transit, and are delaying getting driver's licenses or purchasing cars.
- **Energy:** The predominance of car use has been enabled by fossil fuels being widely available. The continued availability of fossil fuels at affordable prices, and the deployment of new vehicle technologies such as electric cars, will have a significant effect on whether private vehicular transportation continues to be prevalent.
- **New technologies:** The development of new technologies, such as automated vehicles, will play a big role in determining how motorized trips are made in the future. Alternatively, progress in other areas may affect the need for trips to be made at all. For example, teleworking may reduce the need to travel to centralized offices, while automated manufacturing may displace large numbers of factory jobs.



- **Social change:** The rise of the sharing economy, facilitated through information technology, has created new ways of offering and delivering services. For example, Community CarShare provides an alternative way for local residents to reserve a car over the Internet for trips, without needing to own one themselves. Other examples include flexible work times, or mixed-use developments that combine living, working and recreation in one place, reducing the need to travel.
- **Mobility pricing:** Jurisdictions around the world have implemented a variety of methods to more directly price mobility, such as toll highways, charges to enter downtown areas, and distance-based pricing of private vehicle insurance. Mobility pricing could significantly reduce traffic congestion and generate revenues, but may also affect equity and therefore would need to be carefully considered.

Combinations of these factors hold the potential to radically change how people and goods get around. For example, Connected-Automated-Shared-Electric (CASE) vehicles would combine many of the above factors to create a “robo-taxi” that could provide the flexibility of a car, mitigate the environmental impacts of fossil fuels, and reduce or eliminate the need to own one. However, such a vehicle could be highly disruptive to established transportation businesses, such as conventional taxis or couriers.

## 6. What is important to residents of Waterloo Region?

It is important that residents of Waterloo Region help to guide how these large-scale changes play out. Throughout this project, the Region has consulted with the general public and stakeholders in a variety of ways, including:

- A Region-wide survey of public opinions about transportation
- A Region-wide survey of behaviours, barriers and attitudes
- Various online surveys
- Panels of the public and stakeholders for detailed discussions and project guidance
- Public consultation centres

While individual opinions are unique and variable, some common themes have stood out:

### The importance of healthy choices

Residents were strongly in favour of a transportation system that offered choices about how to get around and enabled a healthy lifestyle. This included a strong desire for young people, including children, to be able to safely travel to school and other activities by themselves. Walking, cycling and public transit would also help to mitigate the contributions of the transportation sector to greenhouse gas emissions, which were estimated to be 49% of total emissions in 2015.



### Strong interest in choices other than cars

Initial surveys indicated that the public has a great deal of interest in public transit, cycling and walking. However, there was widespread belief that while these alternatives had great potential for others, many individuals felt that these were not realistic choices for their own lives. This suggests that residents are experiencing “barriers”, such as a lack of time, travel distance, etc.

### Importance of transportation to the economy

It was clearly expressed that transportation plays a critical role in a sustainable economy. This includes both how people get to work and shopping, and also how the goods that support our economy are moved from place to place.

### The need for better network integration

Residents have pointed out the need for better integration across the transportation network. This includes how different ways of getting around interact at transition points: for example, how easy it is to walk, bike or drive to public transit. Additionally, there are gaps in the networks, such as bike lanes that end at intersections, delays at trail crossings of Regional roads, or areas that cannot be accessed by public transit.

## 7. What is our vision for transportation?

“Waterloo Region will be a prosperous, sustainable and healthy community, with viable transportation choices for people of all ages and abilities, and for the goods supporting our economy.”

The above vision statement for Waterloo Region’s transportation system over the next 25 years has been endorsed by the Project Steering Committee made up of Regional Council, staff and key agency representatives. Input to the vision was also provided by the study’s General Public Panel, which is a cross-section of Waterloo Region residents, and the Stakeholder Panel of agency representatives and community groups. It also aligns with other strategic planning visions developed by the Region.

To achieve the vision, the following goals for Waterloo Region’s transportation system are being continued from the 2010 Regional Transportation Master Plan (RTMP).

### Optimize the Transportation System

Make the most of what exists. Maximize the use of existing transportation services and facilities.



### Promote Transportation Choice

Offer competitive choices to move people and goods in an integrated, seamless transportation system.

### Foster a Strong Economy

Provide a transportation system that supports the retention of existing businesses and attracts sustainable economic activity.

### Support Sustainable Development

Provide and maintain a transportation system that supports sustainable growth in both urban and rural areas and reduces transportation contributions to climate change and air pollution.

## 8. What possible scenarios have we developed and studied?

The Moving Forward project developed a list of Waterloo Region transportation infrastructure and policy needs to 2041. This work is based on meeting future needs within the framework of the Region's Moving Forward Vision and Goals. The following describes the three possible future transportation scenarios that are being studied:

### Scenario 1: Continue with the 2010 Regional Transportation Master Plan

#### Description

The Region's 2010 Regional Transportation Master Plan includes a plan of improvement priorities to 2031, including significant investment in public transit service, improvements to cycling and walking, and Regional road expansions. Scenario 1 extends that plan to the new 2041 horizon, and establishes a baseline for testing the two other alternatives. It includes projects with approved funding in the Region's 10-year Transportation Capital Program and projects with a high likelihood of being funded or implemented by 2031.

#### Potential Projects

Examples of planned projects include:

- The River Road extension in south Kitchener
- The Active Transportation Master Plan
- ION Stage 2 to Cambridge

### Scenario 2: More Investment in Transit and Active Transportation

#### Description

This scenario examines adding extensive new transit, walking and cycling investments over and above Scenario 1 to provide residents with more competitive alternative forms of transportation to reduce their dependency on the automobile. This scenario identifies projects that would provide significant benefit beyond those from Scenario 1.



### Potential Projects

Examples of projects under this scenario may include:

- Additional rapid transit over and above Scenario 1
- All-day high-frequency transit network and more frequent off-peak transit service
- Better transit access to low-density areas
- More separated bike lanes

### Scenario 3: New Mobility

Scenario 3 would further reduce the emphasis on “conventional” transportation (i.e. roads, transit and active transportation) and emphasize new mobility options achieved through technological and social change. For example, this scenario includes car sharing, high occupancy vehicles, on-demand public transit and automated vehicles. It tests a “what if” plan and identifies corresponding risks and opportunities such as an increase or decrease in vehicle use. Scenario 3 attempts to determine how new mobility trends such as driverless cars, alternative fuels, protected automated vehicle or shuttle corridors, increased road capacity using intelligent infrastructure, and lower car ownership, can help meet the Region’s goals.

## 9. What have we heard about these scenarios?

At the last public consultation centre and in discussion with the General Public Panel and Stakeholder Panel, the Project Steering Committee has heard certain themes expressed about the different scenarios.

- **Need for new roads:** In Cambridge and the Townships, residents were interested in new roads and improvements to existing roads. These included interest in bypasses of Cambridge and Elmira, better access to Highway 401, and addressing traffic flow along rural roads.
- **Fill the gaps:** Residents of Kitchener and Waterloo have a strong desire to close gaps in the walking and cycling network, and improve support for public transit. This was particularly important in the context of Scenario 2, as more investment in public transit and active transportation will not achieve its full potential unless it is better integrated.
- **Risks of new mobility:** The General Public Panel has expressed concerns that the New Mobility scenario may enable more driving, which could lead to real risks for active transportation and public transit. In addition, it was felt that transportation needs to contribute to a “sense of community”, but that these new technologies may



instead increase feelings of isolation, if residents can spend even more time in their vehicles.

## 10. What have we found?

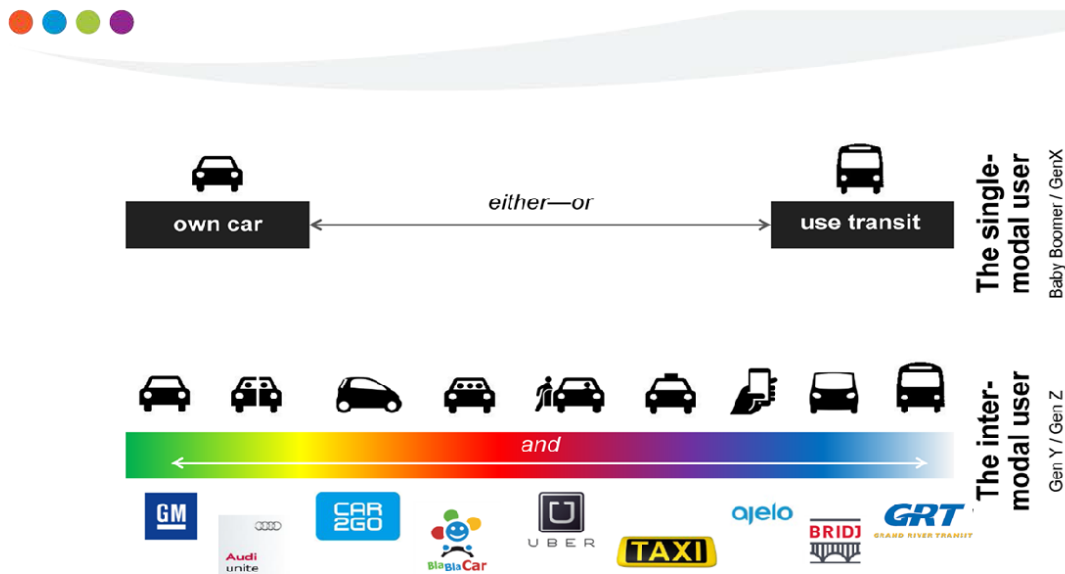
Through the evaluation of the different scenarios, the Project Steering Committee has noted findings in a variety of areas, divided as follows:

- Public transit
- Goods movement
- Roads
- Active transportation
- Transportation demand management
- New mobility
- Behaviours, attitudes and barriers

### Public transit

The Region has invested in public transit, and ridership growth has generally kept pace with the targets that were established in the 2010 Transportation Master Plan. Growth in ridership should continue in areas supportive of transit. An all-day frequent transit network can help build ridership by focusing on areas that would benefit the most from more frequent transit or longer service hours. There are also certain Regional roads where traffic congestion has been increasing, which public transit could bypass through priority treatments such as transit signal priority and queue-jump lanes.

Transportation technologies are changing, and the paradigm of either owning a private car or using public transit is starting to shift as new providers, such as Uber and Community CarShare, have become more prevalent. Public transit needs to consider this shift and integrate its operations.



### Goods movement

While goods movement by rail and air are important contributors to the Regional economy, most goods are moved by truck, including almost all goods moved from their initial point of origin and/or to their final destination. Data from the Ministry of Transportation for Ontario on truck trips suggests that the Regional road network is a critical distributor of goods, carrying about \$1.2 billion of goods per week to, from or within Waterloo Region.

The broad range of goods that are moved suggests a resilient industrial base. Connections to/from the highway network are important, and the Region needs to ensure that goods movement works safely and efficiently with other users of Regional roads.

### Roads

The Region has acted on the recommendations of the 2010 Transportation Master Plan and, in partnership with the area municipalities and the Ministry of Transportation, has constructed a significant number of road widenings or new roads. While there are congestion "hotspots", they tend to be localized in nature, and some of them will be relieved by current Provincial or Regional road expansions. Given available capacity, there appears to be opportunities to defer some previously recommended road expansions.

### Active transportation

The Region adopted the Active Transportation Master Plan in 2014 but did not fund implementation for all aspects of the plan. Consequently, while active transportation facilities have been constructed as part of Regional road projects, other elements of the plan have not been implemented. This includes a standalone budget for infill projects, better winter maintenance, signage and wayfinding and performance monitoring.



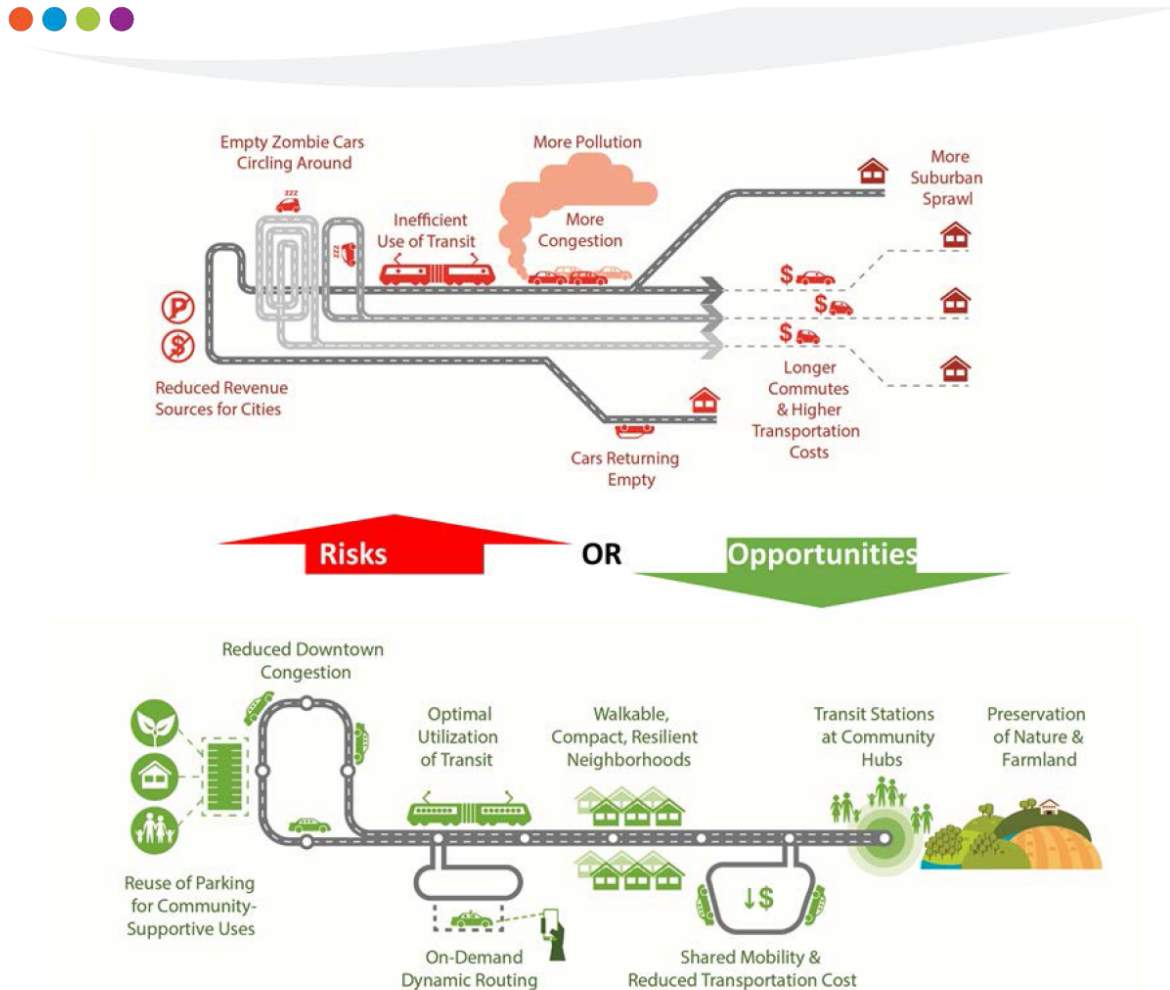
### Transportation demand management

Transportation demand management (TDM) aims to reduce the need for trips, or change the route, mode or time of travel. For example, teleworking would remove the need to travel to the office for work, while flexible start times would help to avoid travel during rush hour or facilitate shifting from car to public transit. The Region has made fair progress implementing the TDM recommendations of the 2010 Transportation Master Plan, with 11 of 16 strategies either completed or in progress. These initiatives generally show very good cost-effectiveness relative to other strategies.

### New mobility

There are major uncertainties with respect to what technologies end up being adopted, the impacts of those technologies, and the timeframes over which these technologies will evolve. Technologies such as automated vehicles carry significant risks, such as increased traffic and energy use moving empty vehicles, reduced revenues for cities, and inefficient use of public transit. On the other hand, there are also significant opportunities that could be realized, in the form of more efficient use of land, safer roads and enhanced mobility.

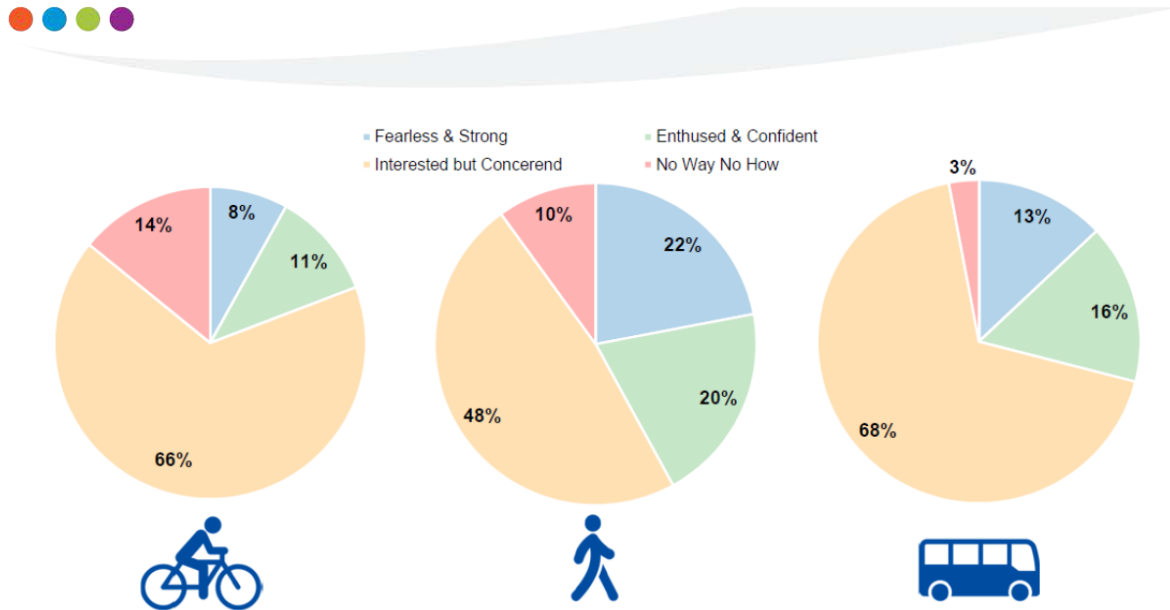
Without proactive planning, the risks identified above are more likely to occur: traffic increases as unlicensed users switch to automated vehicles, and it becomes more difficult for public transit to compete with the door-to-door service offered by these vehicles.



### Behaviours, attitudes and barriers

The strong interest in public transit, walking and cycling, but general belief they would not be practical, suggests that “barriers” are hindering more widespread adoption. A Region-wide survey asked about behaviour and barriers for public transit, cycling and walking, and respondents were classified into four broad groups:

- **Fearless and Strong:** Already consider travelling by public transit, cycling and walking.
- **Enthusied and Confident:** Would probably consider it.
- **Interested but Concerned:** Might consider it if barriers to adoption were addressed.
- **No Way No How:** Would not consider even if their barriers to adoption were addressed.



The results suggest there is considerable opportunity for improvement, if barriers can be mitigated. For the Interested but Concerned group for each of the above, the top three barriers were:

#### Cycling

1. It would take too long to get between destinations
2. Safety concerns
3. I have items that will not fit on a bicycle

#### Walking

1. It would take too long to get between destinations
2. I have items that are too heavy
3. Physically exhausting

#### Public Transit

1. It would take too long to get between destinations
2. Does not meet my schedule needs
3. Requires too many connections to get to my destination

## 11. What do we recommend?

The 2010 Transportation Master Plan recommended that the Region adopt a "Transit oriented plan with strategic road improvements", and based on the above findings, the Project Steering Committee is recommending that this general direction be continued, subject to some refinements in the following areas:



- **Addressing barriers:** Moving Forward needs to explicitly address the barriers identified by the public in their adoption of public transit, cycling and walking.
- **Public transit:** The Region should continue its focus on service expansions, addition of express service, and planning for rapid transit.
- **Active transportation:** The 2014 Active Transportation Master Plan needs to be fully implemented, and facilities that provide more separation should be considered.
- **Roads:** Most road expansion projects from the 2010 Transportation Master Plan should continue as planned, but a number could potentially be deferred.
- **Supporting strategies:** These strategies will enhance delivery of the overall plan.

### Addressing barriers

The significant potential of the Interested but Concerned group to adopt public transit, cycling or walking means that the identified barriers require serious attention. These barriers can be mitigated, as follows:

#### It would take too long to get between destinations:

This barrier was cited for all three of walking, cycling and public transit, and generally relates to the following factors:

- **Distance between destinations:** Particularly relevant for walking, this can be addressed in the long term by more compact land use that offers a greater variety of interesting destinations close to where people live and work.
- **Directness of the route:** Related to, but distinct from, distance between destinations is the directness of the route. The Region and the area municipalities can reduce the effective distance between destinations by making walking, cycling and public transit routes more direct.
- **The speed of that mode:** Measures such as transit priority can reduce delays for transit vehicles, making them more competitive with cars.

#### Safety concerns

This barrier was cited primarily for cycling, and safety concerns are consistently observed in other Canadian cities with respect to cycling. This can be mitigated through improved designs, including bike lanes and multi-use trails that are physically separated from traffic to enhance user comfort. Better driver and cyclist education may be another way to improve this concern.



#### Does not meet my schedule needs

This barrier was cited for public transit, and reflects trips that need to be made outside of the operating hours of public transit. Investment in an all-day frequent transit network can help to address this barrier by expanding the hours of service.

#### Requires too many connections to get to my destination

This barrier was also cited for public transit, and is related to the issue about taking too long to get between destinations. Addressing the directness of transit routes, or exploring “first/last mile” connections from transit stops, can help to address this barrier by reducing the number of connections.

#### Public Transit Recommendations

The recently approved GRT Business Plan builds on the 2010 Transportation Master Plan and recommends enhancing the transit network by expanding the hours of transit service and adding more express routes over the next seven years. The Region has also been examining the ION Stage 2 extension to Cambridge. The Project Steering Committee recommends that this work continue.

Through the analysis of the enhanced investment in public transit explored through Scenario 2, the Project Steering Committee notes that increased frequency will lead to more ridership. Therefore, future business plans should consider the development of a comprehensive transit network with 10-minute frequencies by 2041.

Consistent with achieving more compact land use, the Region should also explore and identify additional future rapid transit corridors. A number of corridors were evaluated, and based on projected future ridership the two most promising routes were:

- Highland Road—Charles Street—Victoria Street
- Erb Street—University Avenue

#### Active Transportation Recommendations

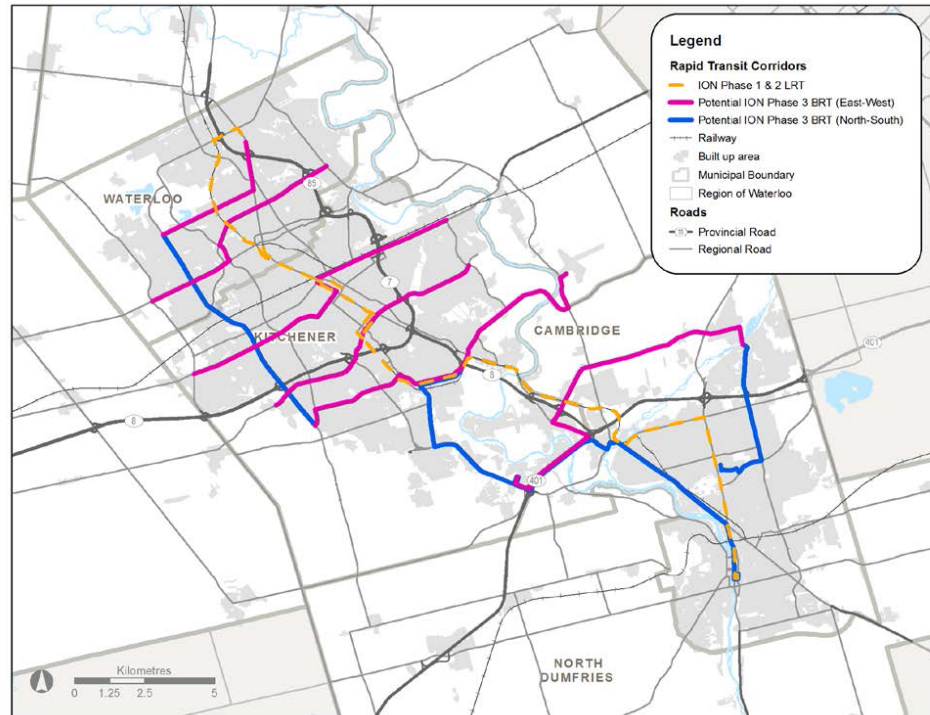
Consistent with Scenario 1, the Project Steering Committee recommends fully funding and completing the 2014 Active Transportation Master Plan, including all recommended infill facilities. Through the analysis of enhanced investment in active transportation explored through Scenario 2, the following lane reduction projects to implement separated cycling facilities are being recommended for consideration:

- Erb Street East and Bridgeport Road East, from Highway 85 to Caroline Street
- Frederick Street/Benton Street, from Lancaster Street to Courtland Avenue
- Victoria Street, from Park Street to the Grand River

It is also recommended to examine recommendations from the 2014 Active Transportation Master Plan and enhance the facility type to improve separation, where possible.



### Potential Rapid Transit Corridors



### Roads Recommendations

The Project Steering Committee examined all road expansion projects recommended in the 2010 Transportation Master Plan. Some new projects were also added based on new information or to meet local needs. The evaluation focused on each project's ability to meet the four goals (Optimize the Transportation System, Promote Transportation Choice, Foster a Strong Economy, Support Sustainable Development), and evaluated need and timing of projects. Based on the evaluation, the Project Steering Committee identified a number of road expansion projects from the 2010 Transportation Master Plan (i.e. Scenario 1) that could potentially be deferred because they would not be needed as early as previously expected.

The list of road expansion projects for the 2018–2031, 2031–2041, and beyond 2041 periods, is provided in Appendix 1. The list includes the locations and estimated cost of these projects.



Example of a Separated Bike Lane



#### Supporting Strategies Recommendations

Related to the above recommendations, the Project Steering Committee developed a list of supporting strategies. These strategies and their descriptions are provided in Appendix 2.

## 12. How much will the recommended scenario cost?

Preliminary estimates of capital and operating costs for roads, transit, and active transportation facilities indicate that the recommendations for Moving Forward will cost about the same as the recommendations from the 2010 Regional Transportation Master Plan. These costs are provided on the display boards and are expressed in 2018 dollars.

#### Roads Expansion Capital Cost

These costs are typically covered by Regional development charges, meaning they do not directly affect the property tax levy. These estimates include a variety of construction-related expenses and allowances for property acquisition. Roads expansion projects in the “beyond 2041” timeframe are outside the scope of Moving Forward and are included here for information only.



### Roads Operating Cost

Roads operating costs include snow clearance, routine maintenance of the road surface, and other activities. These costs are typically covered by the property tax levy.

### Transit Capital Costs

Transit capital costs include fleet expansion (i.e. new buses), current and new fleet replacement, and garage expansion. The current construction of the transit garage on Northfield Drive is not included in these costs, as it is serving current needs. Capital costs for ION are reported separately to Regional Council and have not been included in the financial analysis for Moving Forward.

### Transit Operating Costs

The costs to operate public transit are calculated net of fare revenue, but do not include other non-fare revenues, such as advertising. The net transit operating costs shown here are typically covered by a combination of grants from senior levels of government (Provincial, etc.) and the property tax levy.

### Active Transportation Facilities

Recent changes to Provincial legislation have enabled municipalities to fund active transportation facilities through development charges. The costs shown here would go towards completion of the Active Transportation Master Plan.

## 13. Where do we go from here?

The comments received from members of the public in this final Public Consultation Centre will be incorporated into the final Moving Forward Transportation Master Plan. The Project Team aims to bring this plan to Regional Council for approval by Spring 2018.



# Appendix 1

## Regional Road Expansion Program

Road Expansions 2018–2031

Previously Planned

| Road                                    | Section                                        | Municipality           | Cost (\$000s) | Defer? |
|-----------------------------------------|------------------------------------------------|------------------------|---------------|--------|
| Arthur Street South                     | Highway 85 to Sawmill Road                     | Woolwich               | 9,200         | No     |
| Northfield Drive                        | Davenport Road to University Avenue            | Waterloo               | 8,480         | No     |
| Fountain Street (extension)             | Victoria Street to New Highway 7               | Woolwich               | 3,700         | No     |
| Fischer-Hallman Road/<br>Bearing Road   | Columbia Street to Westmount Road              | Waterloo               | 9,305         | No     |
| Erbville Road                           | Erb Street to Columbia Street                  | Waterloo               | 6,340         | Yes    |
| Erb Street                              | Gateview Drive/ Beechwood Drive to Wilmot Line | Waterloo               | 9,020         | No     |
| University Avenue                       | Keats Way to Erb Street                        | Waterloo               | 2,850         | No     |
| University Avenue                       | Ira Needles Boulevard to Fischer-Hallman Road  | Waterloo               | 6,300         | No     |
| Fischer-Hallman Road (transit priority) | Highway 7/8 to Columbia Street                 | Kitchener/<br>Waterloo | 16,170        | No     |
| Highland Road                           | Highland Hills Mall to Ira Needles Boulevard   | Kitchener              | 6,525         | No     |
| Trussler Road                           | Bleams Road to Highway 7/8                     | Kitchener              | 5,835         | No     |
| Bleams Road                             | Strasburg Road to Fischer-Hallman Road         | Kitchener              | 9,575         | No     |
| Fairway Road                            | Briar Meadow Drive to Pebblecreek Drive        | Kitchener              | 6,210         | No     |
| Fischer-Hallman Road                    | Bleams Road to Plains Road                     | Kitchener              | 18,930        | No     |
| River Road (extension)                  | King Street to Bleams Road (at Manitou)        | Kitchener              | 67,500        | No     |
| Fountain Street                         | Kossuth Road to Maple Grove Road               | Cambridge              | 12,660        | No     |
| Maple Grove Road                        | Fountain Street to Hespeler Road               | Cambridge              | 23,925        | No     |

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| Road                                                  | Section                                              | Municipality              | Cost (\$000s) | Defer? |
|-------------------------------------------------------|------------------------------------------------------|---------------------------|---------------|--------|
| <b>Speedsville Road</b>                               | Maple Grove Road to Eagle Street                     | Cambridge                 | 11,700        | No     |
| <b>Fischer-Hallman Road (extension)</b>               | New Dundee Road to Cedar Creek Road (at Highway 401) | North Dumfries            | 13,100        | Yes    |
| <b>New Dundee Road (extension across Highway 401)</b> | New Dundee Road to Dickie Settlement Road            | North Dumfries            | 15,300        | Yes    |
| <b>Fountain Street</b>                                | Blair Road to Dickie Settlement Road                 | Cambridge                 | 2,700         | No     |
| <b>Can-Amara Parkway</b>                              | Conestoga Boulevard to Franklin Boulevard            | Cambridge                 | 3,465         | No     |
| <b>Townline Road</b>                                  | Saginaw Parkway to Avenue Road                       | Cambridge                 | 4,500         | No     |
| <b>Franklin Boulevard (extension)</b>                 | Myers Road to South Boundary Road                    | Cambridge                 | 3,380         | No     |
| <b>South Boundary Road</b>                            | Water Street to Dundas Street                        | Cambridge/ North Dumfries | 31,090        | No     |

#### New Projects

| Road                                                                               | Section                               | Municipality              | Cost (\$000s) | Defer? |
|------------------------------------------------------------------------------------|---------------------------------------|---------------------------|---------------|--------|
| <b>Victoria Street</b>                                                             | Park Street to Lawrence Avenue        | Kitchener                 | 5,200         |        |
| <b>Ottawa Street</b>                                                               | West of Charles Street to Mill Street | Kitchener                 | 4,100         |        |
| <b>Arthur Street</b>                                                               | Sawmill Road to Listowel Road         | Woolwich                  | 11,500        |        |
| <b>Elmira bypass</b>                                                               | Listowel Road to Arthur Street        | Woolwich                  | 16,900        |        |
| <b>Blair Road</b>                                                                  | George Street to Fountain Street      | Cambridge/ North Dumfries | 12,200        |        |
| <b>Maple Grove Road (realignment to Hespeler Road and new partial interchange)</b> | Old Maple Grove Road to Hespeler Road | Cambridge                 | 13,600        |        |

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### Road Expansions Previously Planned Beyond 2031

| Road                                                | Section                                       | Municipality              | Cost (\$'000s) | Defer? |
|-----------------------------------------------------|-----------------------------------------------|---------------------------|----------------|--------|
| <b>Victoria Street</b>                              | Ira Needles Boulevard to Fischer-Hallman Road | Kitchener                 | 9,000          | Yes    |
| <b>Ottawa Street (extension across Grand River)</b> | Old Chicopee Drive to Fountain Street         | Kitchener/ Woolwich       | 59,100         | Yes    |
| <b>Fountain Street</b>                              | Kossuth Road to Victoria Street               | Woolwich                  | 24,500         | No     |
| <b>Shantz Station Road</b>                          | New Highway 7 to Kossuth Road                 | Woolwich                  | 24,000         | No     |
| <b>Fairway Road</b>                                 | King Street to Wilson Avenue                  | Kitchener                 | 3,900          | No     |
| <b>Kossuth Road</b>                                 | Fountain Street to Hespeler Road              | Woolwich                  | 31,600         | No     |
| <b>Hespeler Road</b>                                | Maple Grove Road to Kossuth Road              | Cambridge                 | 19,300         | No     |
| <b>Townline Road</b>                                | Jamieson Parkway to Blackbridge Road          | Cambridge                 | 13,000         | No     |
| <b>Trussler Road</b>                                | Bleams Road to Highway 401                    | Kitchener/ North Dumfries | 49,400         | Yes    |
| <b>Hespeler Road</b>                                | Old Hespeler Road to Queen Street             | Cambridge                 | 3,300          | No     |
| <b>East Boundary Road</b>                           | Dundas Street to Townline Road                | Cambridge                 | 74,000         | No     |
| <b>Cambridge South Link</b>                         | Water Street to Spragues Road                 | Cambridge                 | 60,300         | Yes    |

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## Appendix 2

### Supporting Strategies

#### Strategy 1: Build a Transportation Network that Supports all Modes of Travel

1. Complete projects in progress (ION, Active Transportation Master Plan) to provide a foundation for growth in public transit, cycling and walking trips.
2. Slow pace of some road widening. Projects should continue to be driven by development and congestion.
3. Review Regional Corridor Design Guidelines to support urban intensification, enhance safety, encourage reduced traffic speeds, and accommodate all modes.
4. Support reduced or eliminated parking rate minimums in area municipal zoning bylaws.
5. Undertake a goods movement strategy.
6. Proactively manage transportation demand by funding transportation demand management through capital projects and development charges, to facilitate reducing the need for travel or the shifting of trips to different times, routes or modes.

#### Strategy 2: Promote a Healthy Community

1. Establish a dedicated budget to fill gaps in the active transportation network.
2. Update the Active Transportation Master Plan and identify opportunities to upgrade facilities (separated bike lanes or multi-use trails), cross major barriers such as highways and rivers, and enhance network connections.
3. Enhance walk and bike access to transit, and integrate active transportation with city facilities and destinations.
4. Through the TDM plan, emphasize safe, active travel for children and youth travelling to and from school and other locations.
5. Define and measure the health benefits for people travelling in and around Waterloo Region.
6. Continue to engage with other sectors to emphasize safety in design and monitoring, such as working with police to determine opportunities/needs for enforcement including automated speed enforcement (ASE) in school zones.

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### Strategy 3: Develop a Frequent Transit Network

1. Extend ION to Cambridge (ION Stage 2).
2. Implement a frequent transit network that provides high quality 10-minute or better service all day by 2041.
3. Identify additional corridors for future rapid transit.
4. Continue to encourage land use intensification along the ION line.
5. Include transit priority measures in capital budgets to maintain or improve time-competitiveness with cars.
6. Investigate smaller scale, more flexible transit to provide service to underserved areas.

### Strategy 4: Enhance Inter-regional Connections

1. Support and promote GO Rail and GO Bus improvements to enhance connections with the GTHA and other destinations (Guelph, London, Brantford).
2. Work with the Ministry of Transportation and support managed lanes on Provincial highways, such as dedicated high-occupancy vehicle lanes, high-occupancy toll lanes, or truck lanes.
3. Support goods movement with a balanced plan that maintains service levels and accessibility while maximizing safety and accommodating all modes in Regional corridors.

### Strategy 5: Position the Region for New Mobility

1. Integrate mobility services with public transit, such as a through a shared payment platform that would enable users to buy mobility on a variety of different modes.
2. In areas of the Region with limited or no public transit, consider subsidized ride-hailing through transportation network companies such as Uber, Lyft, or conventional taxis.
3. Regulate the supply of ride-hailing providers, such as through a registration program.
4. Examine on-demand and dynamically routed public transit service that would enable transit services to modify their routes based on demand.
5. Investigate road user charging and other policies, such as parking cost, to help manage demand, reduce traffic congestion and provide an additional source of revenue.
6. Plan for a driverless ride-hailing pilot program.

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## Comment Sheet

### Public Consultation Centre – March 2018



Please complete and hand in this sheet so that your views can be considered for this project. If you cannot complete your comments today, please visit [engageregionofwaterloo.ca](http://engageregionofwaterloo.ca), or take this sheet home and mail, fax or e-mail your comments by March 23, 2018 to:

**Geoffrey Keyworth**

Project Manager, Region of Waterloo  
150 Frederick Street, 7<sup>th</sup> Floor, Kitchener, Ontario N2G 4J3  
Tel: 519-575-4089 Fax: 519-575-4453  
E-mail: [gkeyworth@regionofwaterloo.ca](mailto:gkeyworth@regionofwaterloo.ca)

All comments and information received from individuals, stakeholder groups and agencies regarding this project are being collected to assist the Region of Waterloo in making a decision. Under the Municipal Freedom of Information and Protection of Privacy Act, personal information such as name, address, telephone number, and property location included in a submission becomes part of the public record. Questions regarding the collection of this information should be referred to Geoffrey Keyworth at [gkeyworth@regionofwaterloo.ca](mailto:gkeyworth@regionofwaterloo.ca).

**The Overall Plan**

Do you think the overall plan will help to achieve the vision for transportation and its goals?

**Public Transit**

Do you have any comments about how the plan addresses public transit?

**Active Transportation**

Do you have any comments about how the plan addresses active transportation?

**Roads**

Do you have any comments about how the plan addresses Regional roads?

**New Mobility**

Will the proposed strategies position the Region to realize the opportunities and minimize the risks of upcoming technological and social changes in transportation?

**What should Regional Council consider about Moving Forward?**

Name:

Street Address:

City:

Postal Code:

E-mail:

Thank you for your time and input into Moving Forward.



**Report:** TES-WAS-18-04

## **Region of Waterloo**

### **Transportation and Environmental Services**

#### **Water Services**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018 **File Code:** E04-80

**Subject:** **2017 Annual Water Quality Report for the Region of Waterloo Rural and Integrated Water Systems**

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#### **Recommendation:**

For information only

#### **Summary:**

Nil

#### **Report:**

##### **Safe Drinking Water Act**

To meet the reporting requirements under Drinking Water Systems Ontario Regulation 170/03, The Region of Waterloo issues an Annual Water Quality Report by February 28, and an Annual Summary Report by March 31, of each year.

#### **Background**

A total of 46 Water Quality Reports were issued for the period January 1, to December 31, 2017 to summarize water quality for each water supply system in the Region and each distribution system operated by the Region in the Townships of Wellesley and

North Dumfries. These individual water quality reports are presented in the Region's 2017 Annual Water Quality Report.

The key finding of this report is that municipal drinking water delivered by the Region during 2017 met the necessary requirements under the Safe Drinking Water Act.

### **Annual Water Quality Report**

The Water Quality Report includes:

1. A brief description of the drinking water systems including a list of water treatment chemicals used;
2. A summary of any reports made to the Ministry of Environment and Climate Change (MOECC) under the Safe Drinking Water Act (SDWA) (18(1)) Duty to report adverse test results or the O. Reg. 170/03 Section 16 (16-4) Duty to report other observations;
3. A summary of the test results required under O. Reg. 170/03 or The Municipal Drinking Water Licence (MDWL) or a MOECC Order; or the most recent results taken;
4. A description of any corrective action under the O. Reg. 170/03 Schedule 16 Reporting adverse test results and other problems, Schedule 17 Corrective Action (Large Municipal Residential) and Schedule 18 Corrective Action (Small Municipal Residential);
5. A description of any significant expenses incurred to install, repair or replace required equipment;
6. A statement on where the Annual Summary Report can be viewed (required by March 31).

A copy of the 2017 Annual Water Quality Report is provided to the owners of the receiving water systems, is available free of charge from Water Services, and is posted on the Region's website (by February 28). A copy of this report will be placed in the Councillors' Library by February 28, 2018 and a notice of this report advertised in the local papers the week of February 19<sup>th</sup>.

### **Ontario Drinking Water Quality Standards**

The MOECC established the water quality sampling and analytical requirements through the Safe Drinking Water Act (SDWA), O. Reg. 170/03, and O. Reg. 169/03, various regulation amendments, municipal drinking water licenses and MOECC orders. There are three types of drinking water quality standards, objectives and guidelines:

1. health-related standards, to protect public health;
2. aesthetic objectives, and
3. operational guidelines to ensure efficient treatment and distribution of the water.

### **Water Quality Monitoring Programs**

The quality of the water is continuously monitored throughout the Region. Water samples are collected from all Regional water sources, using the sampling protocols established by the MOECC. Most of these samples are analyzed at the Regional Laboratory. The bacteriological quality of each water source is tested once a week. Testing for chemical and physical analyses are done in accordance with the Regulation, Acts, Municipal Drinking Water Licenses (MDWL) and MOECC orders. The MOECC checks the quality of the Region's water every year during their annual inspections program.

The reports for the Wellesley and North Dumfries Water Distribution Systems are included in the water quality reports from their respective supply sources. The Local Municipalities will be issuing separate Annual Water Quality Reports for Water Quality Monitoring on their distribution system.

In 2017 the MOECC updated Regulation 170/03 of the SDWA to add the requirement of quarterly sampling for Haloacetic Acids in the distribution system. Monitoring will take place and on January 1, 2020 this parameter will be added to Schedule 2 of the Ontario Drinking Water Quality Standards. This Disinfection By-Product will have a Maximum Acceptable Concentration of 80 ug/L based on a running annual average of quarterly results calculated for each calendar quarter. The 2017 updates to Regulation 170/03 of the SDWA also included reductions in the standards for carbon tetrachloride, benzene and vinyl chloride and add a new standard for 2-methyl-4-chlorophen oxyacetic acid (MCPA) effective January 1, 2017. All results were below the Ontario Drinking Water Standard.

Improvements in analytical methods allow chemicals in drinking water samples to be detected in lower amounts. For the chemicals with improved methods, there is no apparent change in water quality, only a change of analytical method. All results remain below the Ontario Drinking Water Standard maximum acceptable concentrations.

### **Community Lead Testing Program**

Prior to the mid-1950s, the service pipe delivering water from the distribution system to each home and business was commonly made of material that may have contained lead. Lead was also used to solder pipes together and could be found in some plumbing

fixtures (lead brass). If these items corrode or break down, they can cause lead concentration in drinking water to increase.

Several factors as to why lead is not a major concern in the Region include: the water quality is not corrosive, the water has a neutral pH, there is adequate alkalinity to buffer pH and stabilize the water, and water hardness is high resulting in mineral deposition which forms a protective scale and may inhibit the leaching of metals such as lead. In 2008, the Ministry of Environment and Climate Change introduced regulations for sampling and testing for lead in drinking water distribution and plumbing. For each individual distribution system, sampling was required of residential, non-residential and distribution sites, with the number of samples based on population. The regulation allows for a reduction in the number of samples required and the frequency of sampling based on consecutive rounds of results being below the maximum acceptable concentration for lead (O. Reg. 169/03 – Lead standard is 10 ppb).

In 2011, and according to O. Reg. 170/03, all Region-owned distribution systems in the Townships of North Dumfries and Wellesley qualified for plumbing exempt status. This exemption confirms that sampling the internal plumbing of people's homes and businesses is no longer required. The Region is required to test the distribution system hydrants and sample points for pH and alkalinity twice per year and lead every third year (2017) in all 8 of our distribution systems: Wellesley, St. Clements, Linwood, Heidelberg (Wellesley side), Roseville, Branchton Meadows, Lloyd Brown, and Ayr. Currently, the plumbing exempt status remains for the North Dumfries and Wellesley distribution systems.

Local municipal distribution systems, under the regulation for lead monitoring, are required to prepare a corrosion control plan or to apply for relief from a corrosion control plan when greater than 10 per cent of the samples exceed the maximum acceptable concentration (MAC) for lead in at least two sampling rounds out of the last three. As a two-tier municipality, the Region is required to provide a letter of support to the local municipalities if this type of exceedance occurs. The local municipal water supply systems in the Region have all qualified for reduced sampling.

#### **Corporate Strategic Plan:**

The Annual Water Quality Report Supports Focus Area 3.2: Protect the quality and quantity of our water resources.

#### **Financial Implications:**

Nil

**Other Department Consultations/Concurrence:**

Region of Waterloo Public Health & Emergency Services, Health Protection & Investigation has reviewed this report.

**Attachments:**

Nil

**Prepared by:** Olga Vrentzos, Manager, Operations and Maintenance, Water Services

**Approved by:** Thomas Schmidt, Commissioner, Transportation and Environmental Services



**Report:** TES-WAS-18-05

## **Region of Waterloo**

### **Transportation and Environmental Services**

#### **Water Services**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018

**File Code:** E13-20-8270

**Subject:** Biosolids Master Plan – Notice of Completion

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#### **Recommendation:**

That the Regional Municipality of Waterloo accept the “Region of Waterloo Biosolids Master Plan 2018” summarized in this Report TES-WAS-18-05 dated February 27, 2018.

And that the Region publish the Notice of Completion for the Master Plan Report for public review and comment for a 30-day period, in accordance with the Class Environmental Assessment process by the Municipal Engineers Association.

And that the Region incorporate the associated capital costs into the 2019 – 2028 and future wastewater capital programs and in the Regional Development Charge By-law update.

#### **Summary:**

The Region’s Biosolids Master Plan was updated to assess the impact of growth, environmental constraints, innovation opportunities, security (operational flexibility), regulatory changes and cost to create a biosolids management strategy.

Early in the project, a Project Charter was developed to guide the overall study process. The Charter also included principles of engagement and emphasized community input.

The project was divided in six stages consisting of study launch, establishing issues that matter, formulating a long list of alternatives, a short listing of the alternatives, evaluating the short list, and recommending a preferred strategy.

Through the process outlined in the Project Charter, the recommendations from the Biosolids Strategy are grouped into two phases.

Phase 1: In the immediate term, the current strategy of using the Region's biosolids for land application, soil amendment and landfill as a back up will be continued. To allow for operational flexibility, on-site storage will be constructed at the Region's three largest wastewater treatment facilities.

Phase 2: In the mid to long term, the alternative entitled "produce dried low volume fertilizer" was selected as it aligned well with the issues that matter most to stakeholders and technical experts. Over the next decade, technology and energy management programs will be monitored, along with an update to the Biosolids Strategy prior to implementation of the preferred alternative in the late 2020's.

The Region updates its master plans every five to ten years therefore the Biosolids strategy will be updated prior to any implementation. The next update should focus on any advancement in technologies, updated regulations and possible new synergies with other Regional green initiatives.

## **Report:**

### **Introduction**

The Region is responsible for wastewater treatment and biosolids management to protect public health and the environment.

The Region's current approach to biosolids management consists of agricultural land application, soil amendment, and when either is not available, landfill as a back up.

In 2015, the Region began an update to its Biosolids Master Plan (hereafter referred to as the Biosolids Strategy), which followed the latest version of the Municipal Engineers Association's Municipal Class Environmental Assessment process.

The purpose of the Biosolids Strategy was to assess the following for the current and future management of biosolids:

- Impact of growth
- Environmental constraints
- Innovation opportunities
- Security (operational flexibility)
- Regulatory changes
- Cost

The guiding principles adopted to carry out the Biosolids Strategy were:

- provide more information to the public,
- provide opportunities for public engagement and input,
- present technical material in a format that is easily understood.

### **Process to Create the Biosolids Strategy**

The process to create the Biosolids Strategy consisted of six stages.

Stage 1 was the study launch, describing the process to be followed and providing information on what biosolids are.

Stage 2 was the identification of issues that matter most to the public. Public input was crucial at this stage to ensure issues and concerns would be reflected as part of subsequent evaluations.

Stage 3 was the development of a long list of biosolids management alternatives.

Stage 4 was the creation of a short list of biosolids management alternatives. The short list was created by using the issues that mattered most (Stage 2) to screen those alternatives (Stage 3) that would be most appropriate for the Region.

Stage 5 was an evaluation of the alternatives short listed in Stage 4.

Stage 6 is the recommendation of the preferred strategy that will make up the Region's Biosolids Master Plan.

These stages are further explained in Attachment A - Region of Waterloo 2018 Biosolids Strategy at a Glance.

### **Launch of the Biosolids Strategy**

The Region had decided to step back from the direction outlined in the 2011 Biosolids Master Plan and associated Class Environmental assessment, looking at a location of a biosolids heat drying facility. The opportunity for any federal funding through a P3 project was also withdrawn.

The Region heard from the community and recognized a need to provide more information about biosolids, allow for many opportunities for input, and provide information in an easy to understand manner.

Adopting this feedback, the Region took steps beyond the Class EA requirements to inform the public of the Biosolids Strategy launch and encourage them to participate.

A Project Charter was developed and posted on the Region's website. The Project Charter contained the study's purpose, governance, structure, process and timeline.

Stage 1 was highlighted by Bob McDonald who spoke to a full theatre at the Waterloo Region Museum and helped to officially launch the Biosolids Strategy. He spoke about the importance of water, wastewater and biosolids management in our community, and to encourage the public to get involved.

### **Using Issues that Mattered Most to Develop Evaluation Criteria**

Once the Biosolids Strategy was underway, stakeholder concerns and public input was sought to develop the evaluation criteria. The input received resulted in the development of the issues that mattered most:

1. Work collaboratively with community to find solutions
2. Align with existing biosolids infrastructure and management
3. Protect the natural environment
4. Protect health and safety
5. Minimize and manage operational risk
6. Protect quality of life
7. Be cost effective and provide value

They were presented at public consultation centers and other stakeholder meetings, receiving general agreement from those who attended. In addition, greater than 80% of the respondents through the Region's Engage Waterloo Region portal agreed with these seven issues.

These issues were translated into the evaluation criteria to help review the identified alternatives in Stage 3. One exception with respect to the issue 'Work collaboratively with community to find solutions' which was an overall principle that applied throughout the entire Biosolids Strategy undertaking. This approach ensures any comments raised by the public in later stages could be traced back to one of these seven issues that matter.

### **Developing the Alternatives for the Biosolids Strategy**

Stage 3 focused on developing technical alternatives for managing biosolids.

Through the Region's Procurement Division in the Finance Department, a formal process was used to receive technical input from companies that supply biosolids management technology.

Twenty vendors responded with their technical information. The information from the vendors was grouped into type of process resulting in eight different management approaches forming the long list of alternatives.

The long list included: the current approach, current approach with solids preparation

before digestion, produce fertilizer, produce compost, produce dried low volume fertilizer, thermal reduction, thermal reduction with energy recovery and landfilling.

### **Short List of the Alternatives**

The long list of alternatives reflects the standard technologies for biosolids processing. However, given the size of the Region and its current biosolids management, an initial evaluation was necessary to identify those alternatives that would align with the Region.

Pass-fail criteria based on the issues that mattered most in Stage 2 were applied to the long listed alternatives to arrive with the following short list of alternatives for the Region in Stage 4:

Alternative 1: Produce Fertilizer – A certified fertilizer product under the Fertilizers Act is created that could be used for agricultural purposes. Technologies under this alternative tend to have about the same or increased end product volume.

Alternative 2: Produce Compost – A compost product conforming to compost quality standards is created that could be used for agricultural purposes. To obtain a Category A compost, wood chips or other organic yard waste, would need to be imported resulting in increased end product volume.

Alternative 3: Produce Dried, Low Volume Fertilizer – A certified fertilizer product under the Fertilizers Act is created that could be used for agricultural purposes, or could be used as a fuel for energy production. A drying process is used to considerably reduce the volume of the final end product.

Alternative 4: Thermal Reduction to Ash – Ash is created through burning of biosolids. Ash could be used as an industrial input but more likely, landfilled.

The current approach was also brought forward, recognizing that it is a good solution but needs operational flexibility with on site storage for the immediate short term.

### **Evaluation Outcomes**

With a thorough evaluation of the short listed alternatives, Alternative 3, produce dried, low volume fertilizer in a centralized facility configuration, was found to align well with the issues that matter and is recommended as the preferred alternative for the long term.

The benefits of this alternative include lower trucking trips, flexibility in end product use, the ability to mitigate odour nuisances to the surrounding environment and the lowest life cycle cost.

The evaluation was presented to the stakeholder committee, planning and technical

advisory committee and at three public consultation centers in December 2017, receiving general support of the method and recommendations. The main themes from the comments received included using biosolids as a useful product, having flexibility for end use products, and ability to incorporate innovative solutions.

Public feedback also encouraged the Region to consider:

- odour nuisances, amount of trucking, and impact on groundwater will be duly addressed
- the need for continued consultation when it comes to choosing a location for the biosolids facility
- preference to locate any new infrastructure at an existing wastewater facility before looking for other sites

The preferred alternative resembles the previous master plan's recommendation however there are three key differences. The first is not requiring the need for renewable energy source, as was the case with the previous master plan. The next is to look closer at site selection near existing wastewater plants before looking at green field locations. The third is to not limit the end product to a pellet, but consider any dried form of biosolids based on innovative technologies.

## Implementation

The recommendations from the Biosolids Strategy are grouped into two phases.

Phase 1: In the immediate term, the current strategy of using the Region's biosolids for land application, soil amendment and landfill as a back up will be continued. To allow for operational flexibility, on-site storage will be constructed at the Region's three largest wastewater treatment facilities.

The Region currently operates without short term operational storage (7 to 10 days). Short term operational storage was recommended to provide operational flexibility, regardless of the alternative and should be implemented immediately.

Phase two: In the mid to long term, the alternative entitled "produce dried low volume fertilizer" was selected as it aligned well with the issues that matter most to stakeholders and technical experts. Over the next decade, technology and energy management programs will be monitored, along with an update the Biosolids Strategy prior to implementation of the preferred alternative in the late 2020's.

The Region updates its master plans every five to ten years therefore the Biosolids strategy will be updated prior to any implementation. The next update should focus on any advancement in technologies, updated regulations and possible new synergies with other Regional green initiatives.

## Public Engagement

Public engagement has been an important part of the Biosolids Strategy. Initiatives included:

- Six rounds of public consultation in various formats including public open house, guest speakers, community workshop and on-line webinar
- Four online surveys with over 500 responses
- Use of public engagement tools including website, email address, and social media
- Eight biosolids bulletin e-newsletters
- Two biosolids videos
- Two virtual tours of the Region's existing biosolids facilities
- Educational resources including biosolids poster, teach resources and colouring book
- Two appearances at the Waterloo-Wellington Regional Science and Engineering Fair to facilitate a biosolids strategy design game with students

Apart from the above, three committees were created to aid with different aspects of the Biosolids Strategy development.

The Stakeholder Committee had representatives from the community representing technology providers, academics, public interest groups, municipalities, students, agricultural community and the public at large. As the Stakeholder Committee represented the broader community, they were critical in providing preliminary feedback on public consultation materials. They could also communicate the progress of the Biosolids Strategy to their group peers. The committee met four times during the study.

The Planning and Technical Advisory Committee had representatives from municipalities, the GRCA and the Province to provide technical input. Their representatives provided preliminary input on local municipal perspectives, and they provided initial feedback on the recommended alternative. The committee met three times during the study.

The Steering Committee had representatives from Regional Council and various Regional departments to help provide strategic direction to undertake the Biosolids Strategy. The committee met six times during the study.

## Recommended Next Steps

The Municipal Class Environmental Assessment process requires public advertisement of a Notice of Completion for the EA, and public release of the Environmental Study Report for review and comment for a period of at least 30 days following issue of the

notice. Water Services recommends that the Region approve the publication of the Notice of Completion, and placement of the Environmental Study Report for public review at the Regional Clerk's office, City of Cambridge Clerk's office, City of Kitchener Clerk's office, City of Waterloo Clerk's office and on the Region's website.

**Corporate Strategic Plan:**

The Biosolids Master Plan supports the Corporate Strategic Focus Area 3: "Environment and Sustainable Growth", Strategic Objective "Protect the quality and quantity of our water resources".

**Financial Implications:**

The Council approved 2018 ten year wastewater capital budget and forecast includes \$500,000 for undertaking further planning studies for the implementation of the Biosolids Strategy, and \$65 million for the implementation of the future biosolids management facility. It is expected that the capital cost for the implementation of the short term operational storage at the three largest plants in the Region (Kitchener, Waterloo and Galt) will be approximately \$5 to \$7 million in the immediate time frame, and that the long term facility to produce dried, low volume fertilizer will be approximately \$52 million towards the end of the 10 year capital plan. The changes will be incorporated in the 2019 wastewater capital budget and forecast, and used for the development of the Regional Development Charge By-law update.

**Other Department Consultations/Concurrence:**

Nil

**Attachments**

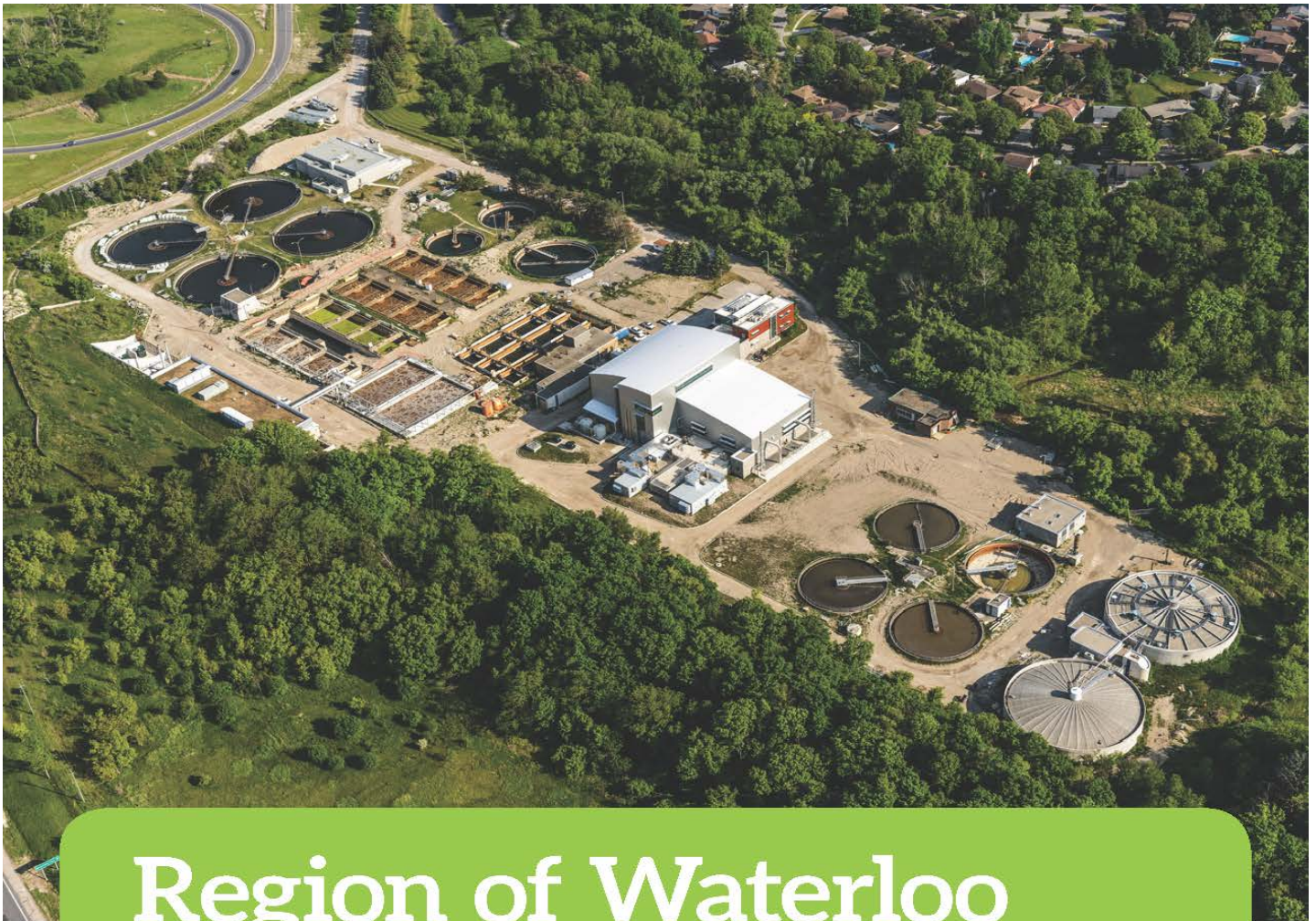
Attachment A - Region of Waterloo 2018 Biosolids Strategy at a Glance

**Prepared By:** Kaoru Yajima, Senior Project Engineer, Water Services

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services

## Attachment A

## 2018 Biosolids Strategy at a Glance



# Region of Waterloo 2018 Biosolids Strategy at a Glance

Draft - February 2018

**BIOSOLIDS**  
Strategy 



[www.regionofwaterloo.ca/biosolids](http://www.regionofwaterloo.ca/biosolids)

# Welcome to the 2018 Biosolids Master Plan

The Master Plan, driven by input from the community and stakeholders on the issues that matter most to them, creates a biosolids management strategy for the Region of Waterloo.

To complement the Master Plan's technical documentation, this summary was prepared to outline the strategy at a glance. If during your reading of the summary document, you require further information, look to the blue dots at the start of each chapter heading, indicating where in the report you can find the technical breakdown related to the section.

The steps undertaken during the study to develop the Biosolids Master Plan are outlined in this document, along with the resulting recommendation to develop storage facilities to support current operations in the short term, and a new processing facility to be located in the Region to produce dried, low volume fertilizer in the long term. The Master Plan sets the stage for community engagement in future Class Environmental Assessments to site this long term facility.

It is hoped the information provided here helps you understand the issues considered in developing the biosolids strategy, and the Region of Waterloo's plan to manage this material to 2051.

February 2018

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**BIOSOLIDS**  
Strategy


# What is this master plan?

Looking  
for more  
information?  
Refer to Tech  
Memo #1

## Introduction

The **Region of Waterloo Strategic Plan (2015-2018)** has identified the **Biosolids Master Plan** as a key component of its Environment and Sustainable Growth Focus Area.

The Region has embarked on a comprehensive process to develop a new Biosolids Master Plan, taking the interests of key stakeholders and the public to heart in order to identify the most suitable solutions for the whole community. The resulting Biosolids Strategy takes a critical look at today's practices, considers all applicable technologies, and develops a way to manage biosolids within the Region to the year 2051.

## What are biosolids?

**Biosolids are the processed organic material that remains after the treatment of our wastewater.**

Wastewater we generate is transported through a series of pipelines to a sewage treatment plants across the Region. Inside each plant, a series of processes are performed.

Water is separated and treated, and the clean water is returned to the environment.

The separated material is also treated; biosolids are the remaining product.

Biosolids can be applied to a range of uses, or disposed of as described on the following page.



## 1: What is this master plan?

**BIO SOLIDS**  
Strategy



### What can we do with biosolids?

Biosolids can be used for a range of purposes, as described below. Generally, biosolids are added to soil or used as an energy source. Otherwise, they are disposed of in a licensed landfill. Uses resulting in direct economic or environmental benefit are common and can include:

#### Use in Soil



#### Agricultural

**Biosolids that meet Provincial and Federal quality standards can be applied to crop lands as a nutrient source.** Key considerations include the quality of the biosolids produced, available lands for application, potential presence of substances of concern, trucking, the need to store biosolids in the winter, and application limits and restrictions.



#### Non-agricultural

This use includes biosolids application to forested areas to improve nutrient supply to the soil, enhancing degraded lands such as on mine tailings areas, and use as daily cover material for landfills. Key considerations include the quantity of biosolids produced, the availability of suitable sites for application, trucking, and the need to store biosolids awaiting transport.

#### Energy



#### Energy recovery

Energy can be recovered by burning biosolids or burning biogas generated from biosolids processing. **The energy recovered depends on many factors including the processing method and the biosolids dryness.** Key considerations include facility specifications, the cost of additional fuel to burn the product, and potential for air quality impacts.

**Disposal** resulting in no direct economic or environmental benefit can also occur, including by way of:

#### Disposal



#### Incineration

**Biosolids can be reduced to ash by incineration, which generates the smallest amount of material for disposal.** Key considerations include the approvals associated with an incineration facility, the cost of fuel, and potential for air quality impacts.



#### Landfill

**Biosolids can be disposed of in landfills that are allowed to accept this material. Landfilling has historically been used for managing biosolids when other end uses and disposal options are not available.** Key considerations include the possibility that existing facilities, or MOECC, will restrict landfilling biosolids in the future, costs associated with trucking biosolids to distant sites, and tipping fees.

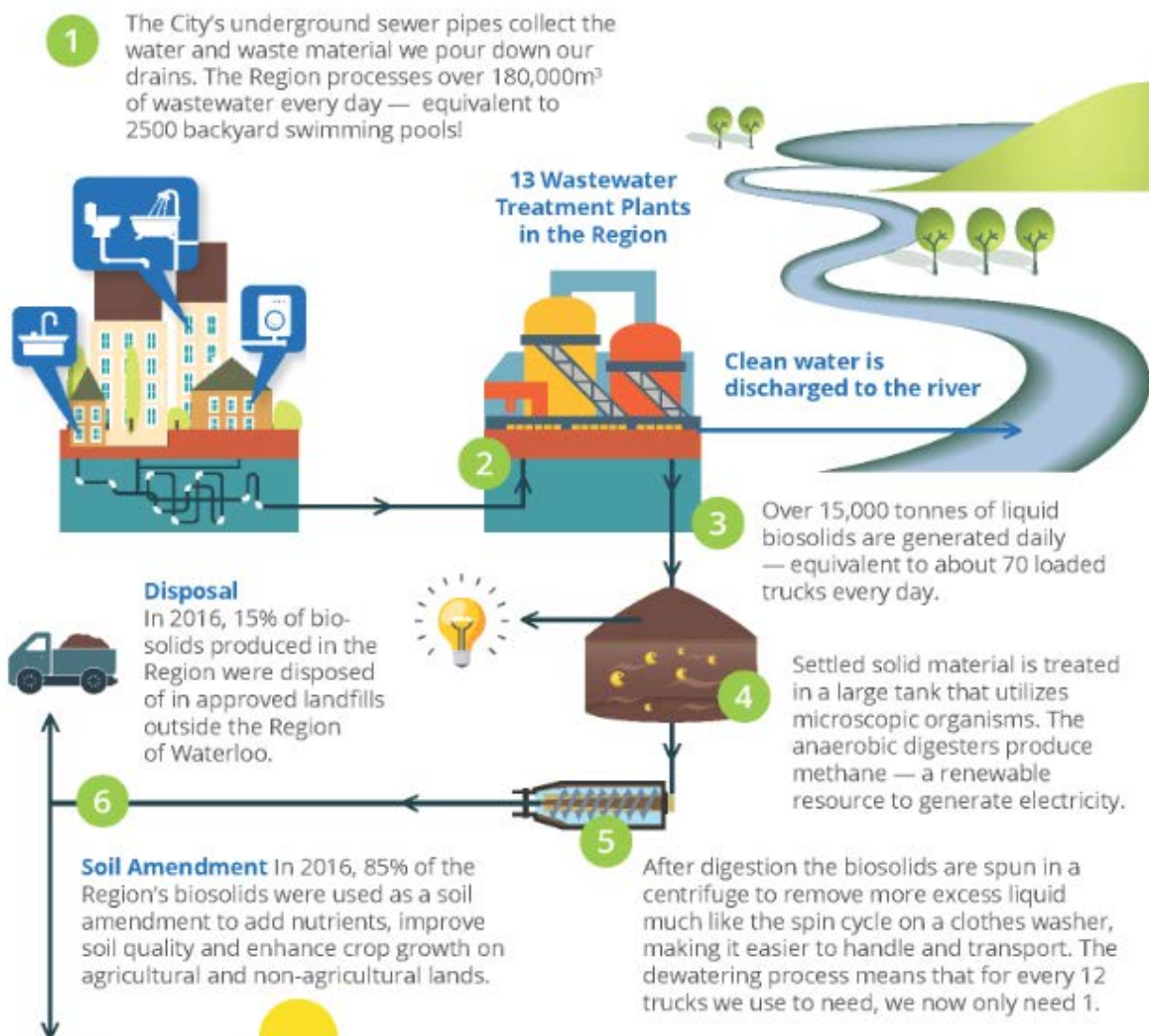
2

**BIO SOLIDS**  
 Strategy


# Biosolids management in Waterloo Region today

Looking  
for more  
information?  
Refer to Tech  
Memo #2

The diagram below illustrates how biosolids are currently managed in the Region.



## 2: Biosolids management in Waterloo Region today

**BIOSOLIDS**  
Strategy



### Transporting biosolids in the Region

Trucking is an important part of biosolids management in the Region today. There are two types of trips: trips between wastewater treatment plants for further processing of biosolids, and trips out of the Region for end use or disposal of processed biosolids.



In 2016, biosolids were transported outside of the Region for use or disposal as:



**45%**

Agricultural  
soil amendment



**40%**

Non-agricultural  
soil amendment



**15%**

Landfill



3

**BIOSOLIDS**  
Strategy


# The making of a strategy

Looking  
for more  
information?  
Refer to Tech  
Memo #1

## Why do we need a strategy?



### Growth

The Region of Waterloo is expected to grow and this means more biosolids.



### Security

The Region needs flexibility and adaptability to plan for emergencies, manage risk, and tackle mid- to long-term biosolids storage needs.



### Environmental Constraints

Environmental and social constraints must be considered, including land availability, possible uses, climate change, and transportation routes.



### Regulatory Changes

Updates to regulations can restrict how we use biosolids.



### Innovation

The Region should consider feasible new technologies and scientific advances that present opportunities for innovation.



### Increasing Costs

As the costs associated with trucking, storage and disposal of biosolids will continue to rise, it is important to consider the best value to the Region.

## Region of Waterloo's approach

The Biosolids Strategy follows the Municipal Class Environmental Assessment process for master plans, to develop the most suitable biosolids management approach for the Region.

### Guiding Principles

Emphasize public engagement and participation from the community.

Identify a long-term, flexible, secure, and sustainable strategy for the Region.

Broadly consider all possible alternatives in developing the strategy.

### Project Organization

The strategy has been developed by the Region's Water Services division, along with an external consultant team. Committees supporting the development of the strategy include the Steering, Stakeholder, and Project Technical Advisory Committees.

## 3: The making of a strategy

**BIOSOLIDS**  
 Strategy


## Spotlight on Security for the Biosolids Strategy: The need for storage

The Region currently does not have storage facilities for biosolids. There are two key types of storage needed:

### 1) Operational Storage: More Immediate Need

- Provides security during short-term emergencies
- Located at or near existing treatment plants, to hold up to 10 days' worth of dewatered biosolids
- Holds material awaiting final processing or end use/disposal

### 2) Product Storage: Future Long-Term Need

- Provides security if inclement weather results in transportation challenges
- Located along with a new processing facility to hold approximately four months' worth of processed biosolids
- Holds material awaiting transportation to the final end use or disposal destination

In the future, the way we store biosolids will depend on how much water is contained in the material.

The type of processing can reduce or increase the quantity of liquid by different amounts. However, reducing the amount of biosolids is a key part of the Region's management approach. Depending on how much liquid the biosolids contains, the volume of material would vary, and so would the type of **product storage** needed.

### Types of storage facilities

#### Outdoor Facility

If more than 75% liquid



For very wet material, an outdoor facility could be used, such as a tank with a flexible covering or lagoon with protective berms and liners to prevent biosolids from leaking out.

#### Indoor Facility

If less than 75% liquid



For drier material, an indoor facility could be used, such as a shed or tension-fabric storage unit.

**"We are all involved in creating biosolids, so we should all be involved in determining what we do with them as a community. The most suitable strategies take the whole community's interests to heart and we need the public to help us identify the solutions that fit."**

— Kaoru Yajima, Water Services Project Manager at the Region of Waterloo

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**BIO SOLIDS**  
Strategy


## Community engagement

Looking  
for more  
information?  
Refer to  
the Project  
Charter

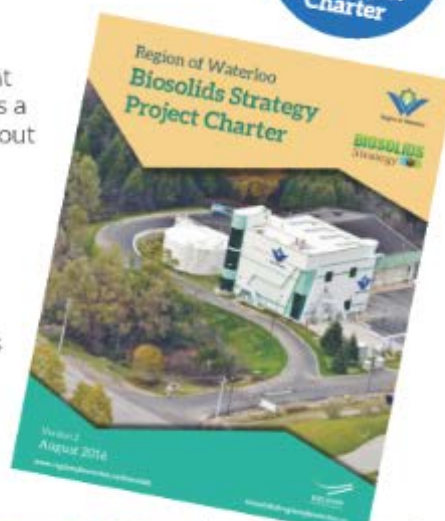
### Biosolids Strategy Project Charter

The **Project Charter** was developed to act as a guiding document for the project. It provides background information and serves as a reference tool for project team members and the public throughout the process, describing the scope and intent of the project.

### Principles of Engagement

The Region of Waterloo is committed to engaging citizens and collaborating with community partners to foster a meaningful and open conversation. The Biosolids Strategy Guiding Principles for engagement are:

- Accountability
- Responsiveness
- Inclusivity and accessibility
- Respect
- Transparency
- Clarity and simplicity



### Extensive Community Engagement

The Strategy development process emphasized community input and participation at multiple points to help identify values important to the public. Early and intensive engagement fundamentally shaped the course of the strategy and contributed to the development of the **Issues that Matter**, which became the **Strategy Objectives** and **Evaluation Criteria**.



Launch Event, November 17, 2015

### Key stakeholders in the consultation process

Groups invited to provide input, feedback, and direction on the Biosolids Strategy include:

- Community members
- Elected officials
- Regulatory bodies
- Technical experts
- Academic advisors
- Indigenous communities
- Community-based organizations
- Business and industry experts
- Agricultural groups
- Health, environmental, and scientific experts
- Municipal staff
- Students and youth

## 4: Community engagement

**BIO SOLIDS**  
 Strategy


## Public engagement at a glance

## Engagement Opportunities


 Biosolids Bulletin  
 email updates

 Biosolids Project  
 website

 Public consultation  
 events & workshops

 Surveys  
 Online, in-person  
 & telephone

 Online/multimedia  
 Open Town Hall Tool,  
 videos, webinar &  
 educational materials

 Social Media  
 Facebook, Twitter

**865**  
 Colouring  
 Books  
 handed out to  
 Children



**502**

 Responses in a  
 Telephone  
 Survey


Public Consultation Centre, March 23, 2017


**300**

 attendees at  
**Eight**

 Public  
 Consultation  
 Centres

**13**

 Pop-up  
 Events  
 with over

**1,650**

Interactions



Science Fair, April 4, 2017

Engagement with

**400+**

 Grade 7 & 8 students  
 through an activity presented at a

**Science Fair**


Bob McDonald at Launch Event encouraging the audience to get involved, November 17, 2015

 Insightful & knowledgeable  
**Keynote Speakers:**  
**CBC's Bob McDonald**  
 Author David Waltner-Toews  
**& The Water Brothers**

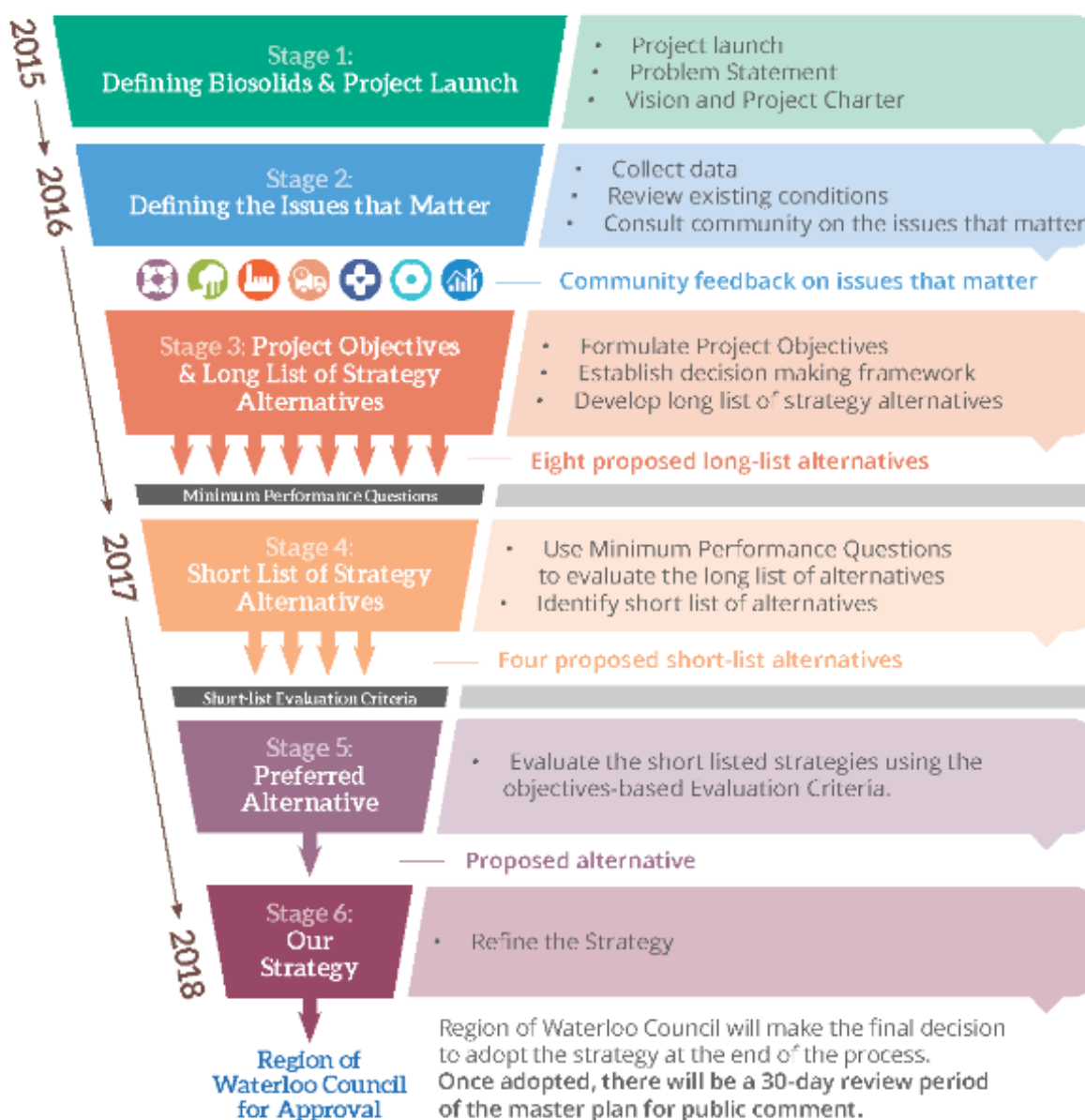

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**BIOSOLIDS**  
Strategy


# Methodology

Looking  
for more  
information?  
Refer to Tech  
Memo #3

The following roadmap outlines key phases in developing the Biosolids Strategy:



## 5: Methodology



## Objectives from issues that matter

Issues that matter were identified through public consultations and helped establish seven objectives that all alternatives must align with, through an **objectives-based evaluation** process. These project objectives include:

**Work collaboratively with the community to find solutions.**

Provide multiple opportunities for public engagement and input in the decision-making process.

**Align with existing biosolids infrastructure and management.**

The Region has significant investment in infrastructure and a strategy that maximizes this investment is preferred.

**Protect the natural environment.**

The preferred strategy should minimize impacts to the environment and surroundings.

**Protect health and safety.**

The strategy should support healthy living for both workers and the public.

**Minimize and manage operational risk.**

The preferred strategy must allow the Region to provide continual, uninterrupted biosolids management service to the public.

**Protect quality of life.**

Maintaining the existing quality of life for citizens should be considered when planning for biosolids infrastructure.

**Be cost effective and provide value.**

The cost of the preferred strategy must be reasonable to the Region, both now and in the future.

**What is an objectives-based evaluation?**

An objectives-based evaluation approach reflects a desire to achieve a particular vision or outcome defined by integrated environmental, social and economic objectives.

In the case of the Biosolids Strategy, alternatives are evaluated according to objectives, outlined on the left. The alternative with the closest alignment will be recommended for the Region's preferred strategy.



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**BIO SOLIDS**  
 Strategy


## The long list of alternatives

After a review of all available technological options, and with input received directly from biosolids technology providers through a Request for Information process, the Region developed the following eight alternatives for managing biosolids:

Looking  
for more  
information?  
Refer to Tech  
Memo #5

### Current approach with expanded capacity

The current approach provides stable biosolids management. Biosolids are used for their nutrient value on fields or used for land reclamation, or landfilled when these options are not available.

- **Solids preparation/modification:** Current dewatering (expansion with population growth)
- **Biosolids processing:** Current digestion (expansion with population growth)
- **New product storage facility size:** Large
- **Change in output volume from current dewatering process:** No change
- **End Uses & Disposal:** Agricultural soil amendment, non-agricultural soil amendment, landfill

### Current approach with solids preparation before digestion

This alternative can reduce the total solids by generating more biogas, and reduce the amount of liquid in the dewatered biosolids, with a similar end product.

- **Solids preparation/modification:** Thickening technology (new infrastructure)
- **Biosolids processing:** Current digestion (less expansion with population growth)
- **New product storage facility size:** Large
- **Change in output volume from current dewatering process:** No change
- **End Uses & Disposal:** Agricultural soil amendment, non-agricultural soil amendment, landfill

### Produce fertilizer

This alternative would make a fertilizer product that could be sold. Different technologies produce fertilizer products with varying volumes.

- **Solids preparation/modification:** Current dewatering (expansion with population growth)
- **Biosolids processing:** Stabilization or hydrolysis technologies (new infrastructure)
- **New product storage facility size:** Medium
- **Change in output volume from current dewatering process:** Ranges between 66% more to 33% depending on technology used
- **End Uses & Disposal:** Agricultural soil amendment, non-agricultural soil amendment, landfill

### Produce compost

This alternative would add composting to the current process.

- **Solids preparation/modification:** Current dewatering (expansion with population growth)
- **Biosolids processing:** Composting technology + associated buildings (new infrastructure)
- **New product storage facility size:** Medium
- **Change in output volume from current dewatering process:** 60% less, however the bulking amendment used in the process increases the volume of material to be handled by three times
- **End Uses & Disposal:** Agricultural soil amendment, non-agricultural soil amendment, landfill

## 6: The long list of alternatives



### Produce dried, low volume fertilizer

This alternative would add further drying to the current process to substantially reduce the total amount of product. The product is a fertilizer that could be sold or used as renewable fuel in certain applications.

- **Solids preparation/modification:** Current dewatering (expansion with population growth)
- **Biosolids processing:** Drying technology + potential associated buildings (new infrastructure)
- **New product storage facility size\*:** Small
- **Change in output volume from current dewatering process:** 75% less
- **End Uses & Disposal:** Agricultural soil amendment, non-agricultural soil amendment, landfill, energy from solids, incineration

### Thermal reduction with energy recovery

This alternative would 'burn' biosolids to ash and generate energy. Ash can be used as an industrial input, or disposed in landfill. This option requires enhanced dewatering that removes more water than the current approach and cannot be used in series with other energy recovery methods such as the existing anaerobic digesters that generate biogas used to produce heat and electricity for use at WWTPs.

- **Solids preparation/modification:** Current dewatering (expansion with population growth)
- **Biosolids processing:** Thermal reduction process + associated buildings (new infrastructure)
- **New product storage facility size\*:** No new storage needed
- **Change in output volume from current dewatering process:** 90% less
- **End Uses & Disposal:** Energy from solids, landfill

### Thermal reduction to ash (no energy recovery)

This alternative could use the current digested and dewatered biosolids as input and burn this to ash for use as an industrial input, or disposal in landfill.

- **Solids preparation/modification:** Thickening (new infrastructure)
- **Biosolids processing:** Incinerator + associated buildings (new infrastructure)
- **New product storage facility size\*:** No new storage needed
- **Change in output volume from current dewatering process:** 90% less
- **End Uses & Disposal:** Incineration, landfill

### Landfill all biosolids

This alternative would send all biosolids produced in the Region to a Provincially approved landfill. Existing infrastructure such as dewatering and digestion would need to be expanded with population growth.

- **Solids preparation/modification:** Current dewatering (expansion with population growth)
- **Biosolids processing:** Current digestion (expansion with population growth)
- **New product storage facility size\*:** No new storage needed
- **Change in output volume from current dewatering process:** No change
- **End Uses & Disposal:** Landfill

\* All alternatives require operational storage (see page 6) to be implemented for contingency purposes.



7




# The short list of alternatives

Looking for more information?  
Refer to Tech Memos #7

To narrow down the long list of eight alternatives to a short list, the Region of Waterloo applied a series of **Minimum Performance Questions** to each alternative based on the project objectives. The questions were built from the issues that matter, as described on Page 10. For an alternative to pass this screening step and become part of the short list of alternatives, it had to provide a 'yes' to all the questions below:



## Community Impact & Values

No specific evaluation criteria applied. This objective is addressed through the development of the strategy and is integrated into each stage of the screening process.



## Infrastructure Needs

- Is it compatible with the Region's existing wastewater treatment infrastructure?
- Is it based on commercially proven technology that provides a long term solution?



## Environment

- Does it meet current environmental regulations and is it capable of meeting permitting requirements?
- Does it align with best practices in the field of biosolids management?



## Health & Safety

- Does it meet current health and safety regulations?
- Does it align with best practices in the field of biosolids management?



## Operational Risk

- Can the Region control all the necessary elements of implementation?
- Can the storage requirements be permitted in the Region?



## Quality of Life

- Does it protect the quality of life for citizens regardless of where it is built?



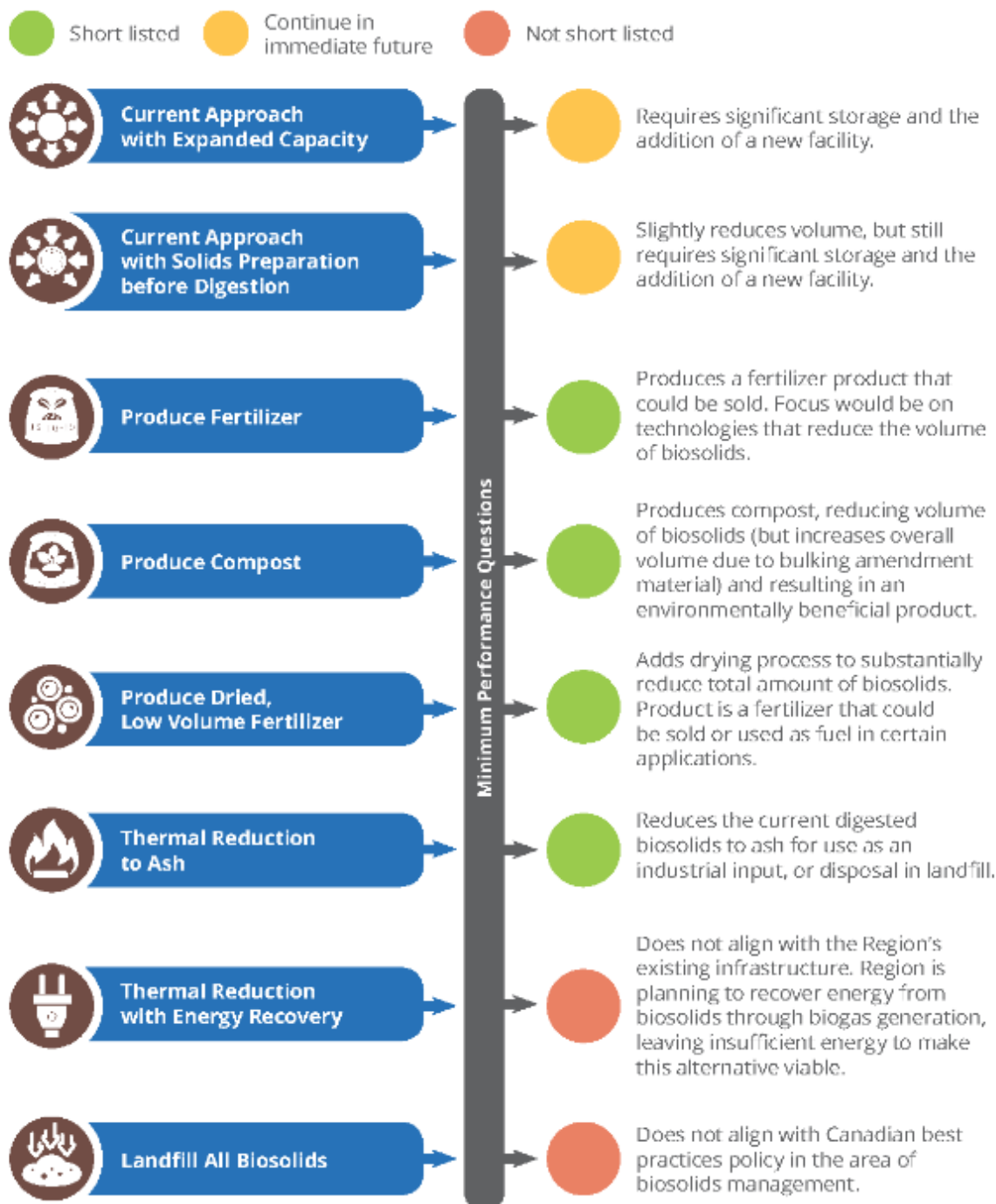
## Cost & Value

No specific evaluation criteria applied. This objective will be addressed through specific criteria for the short-listed strategies.

## 7: The criteria for a short list of alternatives



## Evaluation of alternatives using minimum performance questions



## 7: The criteria for a short list of alternatives



## The short list at a glance

**Produce Fertilizer**

This alternative would make a fertilizer product. Different technologies produce fertilizer products of varying volumes and quality. The focus will be on technologies that reduce the volume of biosolids, such as stabilization or hydrolysis. The facility would have space to store 4 months' of finished fertilizer product. This alternative could be built as either a single larger centralized facility (Option A) or four smaller decentralized facilities (Option B).

**Produce Compost**

This alternative would transform biosolids into a Category A compost that consists of 25% biosolids mixed with other organic material such as wood chips. Different technologies can produce compost products of slightly varying volumes and quality. The facility would have a compost processing and curing area. The facility would have space to store four months' of compost product.

**Produce Dried, Low Volume Fertilizer**

This alternative would add further drying to the Region's current biosolids management process to substantially reduce the total amount of product. The product would be a dried product that could be used as a fertilizer or fuel in certain applications. The facility would have space to store 4 months' of dried product. This alternative could be built as either a single larger centralized facility (Option A) or four smaller decentralized facilities (Option B).

**Thermal Reduction to Ash (No Energy Recovery)**

This alternative would reduce the current digested and dewatered biosolids to ash for use as an industrial input such as in cement, or disposal in landfill. A limited amount of storage would be needed for this alternative. In the Region of Waterloo, there is no current industrial use for the ash so the product would likely be landfilled.



8

BIOSOLIDS  
Strategy

## Evaluating the short list

Looking  
for more  
information?  
Refer to Tech  
Memos  
#3 & 8

The alternatives that satisfied the Minimum Performance Questions on Page 13 were assessed using a series of **Short List Evaluation Criteria**, which were also developed from the issues that matter and with community input.



### Community Impact & Values

Working with the community to find solutions is a guiding principle of the project, and is addressed through the development of the strategy and integrated into each stage of the screening process.

### Short list evaluation criteria



#### Infrastructure Needs

- Compatibility with existing Regional wastewater and biosolids processing infrastructure
- Requirements for new supporting municipal infrastructure (e.g., roads, power, water, etc.)
- Alignment with future municipal initiatives
- Adaptability to changing government regulations, policies, market demands, and population growth



#### Operational Risk

- Potential for delivery disruption of processed biosolids to end use or disposal site
- Reduction of volume/mass of end product to be managed
- Susceptibility to operational disruption (e.g., maintenance, labour supply, and end product quality, management or storage)



#### Environment

- Environmental impacts of the facility and potential end uses
- Likelihood of energy recovery
- Adaptability to climate change impacts
- Level of greenhouse gas emissions



#### Quality of Life

- Management of odour, dust (from process or transport), noise, visual effects, trucking
- Source water protection impacts
- Degree of likelihood that components of biosolids management can be done within Waterloo Region



#### Health & Safety

- Potential for health risks to public and workers
- Reduction or elimination levels of undesirable biosolids components
- Potential of an accident or adverse effect



#### Cost & Value

- Relative life cycle cost<sup>1</sup>
- Carbon credit opportunities
- Local economic benefit (job creation)
- Value of biosolids end product
- Level of innovation in approach, demonstrating leadership in the area of biosolids management

<sup>1</sup> Life Cycle Cost includes the cost of construction, commissioning, and operations to the year 2051

## 8: Evaluating the short list

**BIO SOLIDS**  
 Strategy


## Produce fertilizer

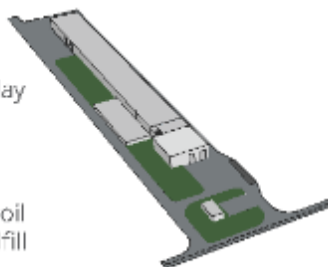
### Option A: Centralized facility

**Lifecycle cost:**  
\$187-241 million

**Conceptual Facility Layout:**

**Trucking:**  
7 trucks in and  
approximately  
7 trucks out per day

**End uses:**  
Agricultural soil  
amendment,  
non-agricultural soil  
amendment, landfill



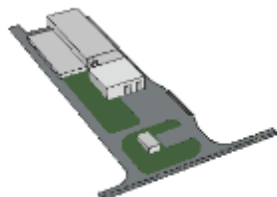
### Option B: Four decentralized facilities

**Lifecycle cost:**  
\$287-337 million

**Conceptual Facility Layout  
(One of Four Facilities shown):**

**Trucking:**  
Approximately  
14 trucks in and  
7 trucks out per day

**End uses:**  
Agricultural soil  
amendment,  
non-agricultural soil  
amendment, landfill



#### Evaluating the Alternative



- Some alignment with current Regional infrastructure, with some flexibility to adapt to future change
- May result in increased volume in final biosolids product, depending on technology
- Low potential to align with other Regional management initiatives
- Option A allows for better utilization of existing infrastructure



- Identified potential risks of contamination to the surrounding environment (air, water, groundwater) that can be mitigated
- Option B may have greater environmental effects depending on the locations of the facilities
- Fairly high greenhouse gas emissions



- Good operational flexibility to manage risks related to disruptions in ability to process or manage biosolids



- Greater potential impacts to the surrounding community resulting from odour and trucking
- Noise, dust, and other nuisances can be well managed



- Well established management of any potential health and safety concerns for workers and the public
- Limited levels of risk with respect to adverse events



- Relatively high life cycle cost to implement and operate as a result of the facility size, with a higher cost associated with Option B
- Fertilizer product may be sold to generate revenue for the Region

## 8: Evaluating the short list



## Produce compost

### Centralized facility

**Lifecycle cost:**

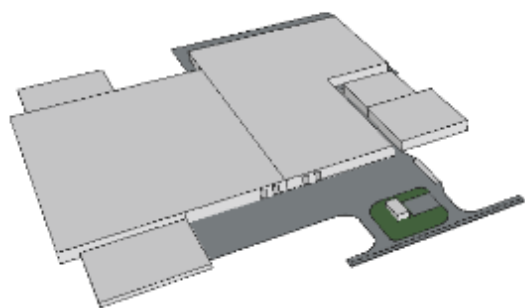
\$291-341 million

**Trucking:**

10 trucks in and 5 trucks out per day

**End uses:**

Agricultural soil amendment,  
non-agricultural soil amendment, landfill

**Conceptual Facility Layout:**


#### Evaluating the Alternative



- Some alignment with current Regional infrastructure, however would require sourcing, management and transport of a new stream of organic bulking amendment material
- Large volume of final compost product, requiring significant storage space
- Potential to align with other Regional management initiatives
- Limited new processing equipment needed



- Large facility footprint with identified potential risks of contamination to the surrounding environment (air, water, groundwater) that can be mitigated
- Potential positive benefits in moisture and organic matter addition to soil where compost is applied
- Low levels of greenhouse gas emissions associated with processing, but high levels associated with trucking



- Large facility footprint required resulting in challenges to siting the facility



- Greater potential impacts to the surrounding community resulting from odour and trucking
- Noise, dust, and other nuisances can be well managed



- Potential for some flammability risk of the compost product
- Limited levels of risk with respect to adverse events



- Life cycle cost could range significantly depending on processing system
- Compost product may be sold to generate revenue for the Region



## 8: Evaluating the short list

**BIOSOLIDS**  
 Strategy


## Produce dried, low volume fertilizer

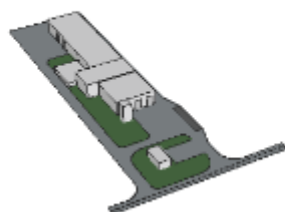
### Option A: Centralized facility

**Lifecycle cost:**  
\$156 million

**Trucking:**  
6 trucks in and  
2 trucks out per day

**End uses:**  
Agricultural soil  
amendment,  
non-agricultural soil  
amendment, landfill,  
energy from solids,  
incineration

**Conceptual Facility  
Layout:**



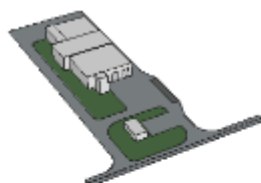
### Option B: Four decentralized facilities

**Lifecycle cost:**  
\$334 million

**Trucking:**  
13 trucks in and  
approximately  
3 trucks out per day

**End uses:**  
Agricultural soil  
amendment,  
non-agricultural soil  
amendment, landfill,  
energy from solids,  
incineration

**Conceptual Facility Layout  
(One of Four Facilities  
shown):**



#### Evaluating the Alternative



- Alignment with current Regional infrastructure, with some flexibility to adapt to future change
- Potential to align with other Regional management initiatives



- Identified lower potential risks of contamination to the surrounding environment (air, water, groundwater) that can be mitigated
- Option B may have greater effects and be more impacted by climate change depending on siting
- High levels of greenhouse gas emissions



- Operational flexibility to manage risks related to disruptions in ability to process or manage biosolids



- Potential impacts to the surrounding community resulting from odour and trucking
- Noise, dust, and other nuisances can be well managed



- More sophisticated technical process, requiring greater operating skill
- Limited levels of risk with respect to adverse events



- Life cycle cost is reasonable
- Dry fertilizer product may be sold to generate revenue for the Region

## 8: Evaluating the short list



## Thermal reduction to ash

### Centralized facility

**Lifecycle cost:**

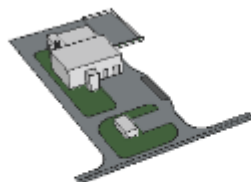
\$270 million

**Trucking:**

6 trucks in and 1 trucks out per day

**End uses:**

Landfill

**Conceptual Facility Layout:**


#### Evaluating the Alternative



- Alignment with current Regional infrastructure, with some flexibility to adapt to future change
- Potential to align with other Regional management initiatives in the future



- Identified lower potential risks of contamination to the surrounding environment (air, water, groundwater) that can be mitigated
- High level of energy demand and greenhouse gas emissions
- End product goes directly to landfill



- Low volume of end product that is easy to manage



- Lower impacts to the surrounding community resulting from odour and trucking
- Noise, dust, and other nuisances can be well managed



- More sophisticated technical process, requiring greater operating skill
- Limited levels of risk with respect to adverse events



- Life cycle cost is reasonable
- Final ash product does not have market value and would have a cost associated with landfilling

## 8: Evaluating the short list

**BIO SOLIDS**  
 Strategy


## Overall Evaluation Summary

The following is a summary of each of the four alternatives when assessed using the Short List Evaluation Criteria that are based on the Objectives-Based Evaluation approach explained on page 10.

| Objective                            | Produce Fertilizer |               | Produce Compost | Produce Dried Low Volume Fertilizer |               | Thermal Reduction to Ash |
|--------------------------------------|--------------------|---------------|-----------------|-------------------------------------|---------------|--------------------------|
|                                      | Centralized        | Decentralized |                 | Centralized                         | Decentralized |                          |
| Align with existing Infrastructure   |                    |               |                 |                                     |               |                          |
| Protect the natural environment      |                    |               |                 |                                     |               |                          |
| Protect health and safety            |                    |               |                 |                                     |               |                          |
| Minimize and manage operational risk |                    |               |                 |                                     |               |                          |
| Protect quality of life              |                    |               |                 |                                     |               |                          |
| Be cost effective and provide value  |                    |               |                 |                                     |               |                          |

Not Well Aligned
 Somewhat Aligned
 Well Aligned
 Very Well Aligned

9

**BIOSOLIDS**  
Strategy


## The preferred alternative

Looking  
for more  
information?  
Refer to Tech  
Memo #9



The alternative to **Produce Dried, Low Volume Fertilizer** emerged as having the strongest alignment with the Strategy objectives.

The results of the detailed evaluation were presented to the community, and the feedback received was integrated with input from technical experts and Region staff. Based on the input obtained through the public engagement and consultation process and the results of the life cycle cost assessment, it was concluded that a centralized configuration for a new facility to produce dried, low volume fertilizer would be the preferred solution for managing biosolids in the Region in the long term. The end uses of this material would be agricultural and non-agricultural land application.

The Preferred Strategy therefore consists of this alternative as the primary component. The Region may also consider adopting other technologies to manage biosolids at the smaller wastewater treatment plants on-site in order to reduce trucking requirements to a centralized facility.

The life cycle cost of implementing this alternative is very similar to the cost of continuing with the current approach to 2051, so the Region has the flexibility to move forward with implementation at any point in the future.



10

**BIOSOLIDS**  
Strategy

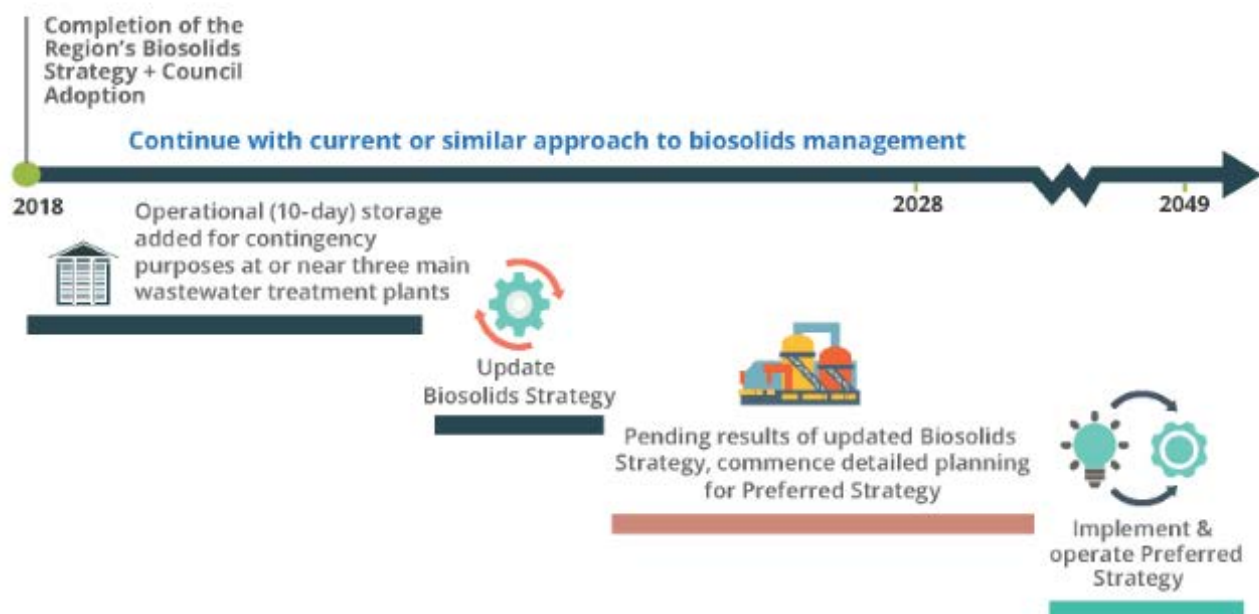

# What is the process to implement the strategy?

Looking  
for more  
information?  
Refer to Tech  
Memo #9

The Region's current biosolids management approach is considered a best practice and can be continued for several years. Implementation will therefore take place in two phases:

**Phase 1 (Immediate Term):** Implementation of storage at existing Regional wastewater treatment facilities, within the footprint of the existing sites. This will reduce the amount of biosolids currently going to landfill, by creating space to store biosolids during winter storm events that make trucking difficult.

**Phase 2 (Mid to Long Term):** The Biosolids Strategy to be updated again in five to ten years to confirm that the Preferred Strategy is still the best route forward. Detailed planning for the preferred strategy would then proceed through the Municipal Class Environmental Assessment process, and the community engaged in future steps including site selection for the new facility.



Phase 2 implementation timing would be dependent on a range of factors, including (but not limited to):



# Stay involved

[www.regionofwaterloo.ca/biosolids](http://www.regionofwaterloo.ca/biosolids)

If you have questions or comments, please contact:

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Senior Project Engineer

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[@RegionWaterloo](https://twitter.com/RegionWaterloo)

**BIOSOLIDS**  
Strategy





[www.regionofwaterloo.ca/biosolids](http://www.regionofwaterloo.ca/biosolids)



**Report:** TES-WAS-18-06

## **Region of Waterloo**

### **Transportation and Environmental Services**

#### **Water Services**

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**To:** Chair Tom Galloway and Members of the Planning and Public Works Committee

**Date:** February 27, 2018

**File Code:** A02-40

**Subject:** NSERC Chair and Research Funding – University of Waterloo

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#### **Recommendation:**

That The Regional Municipality of Waterloo approve the following research grants with the University of Waterloo:

- a) provide funding of \$75,000 per year from 2018 to 2022 to support the 6th term of the Natural Sciences and Engineering Research Council Chair in Drinking Water Research at the University of Waterloo.
- b) provide funding of \$50,000 per year from 2018 to 2020 to support the continued research on the recovery of fish endpoints in the Grand River in response to wastewater treatment optimization process upgrades in the Department of Biology at the University of Waterloo.
- c) provide funding of \$100,000 per year from 2018 to 2022 to support the continued collaborative study Water and Wastewater treatment plant with the Water Science, Technology and Policy group in the Department of Civil and Environmental Engineering at the University of Waterloo.

as outlined in Report TES-WAS-18-06 dated February 27, 2018.

**Summary:** Nil

#### **Report:**

The Region of Waterloo has been supporting three research initiatives with the University of Waterloo in the areas of drinking water research, environmental impacts from wastewater and in water and wastewater treatment optimization. To continue with

these research initiatives, there is a requirement for continued in-kind support and to confirm the financial support from the Region to the University of Waterloo. The research has provided technology advancement in the supply of drinking water and treatment of wastewater, optimization of treatment operations, improved understanding of the water quality, and developmental opportunities for technical capacity with Region staff.

### **NSERC 5 year Chair in Drinking Water Research**

The Region has provided support of the Natural Sciences and Engineering Research Council (NSERC) Chair in Drinking Water Research at the University of Waterloo, since 1993. The research from the past five years has benefited the Region of Waterloo as highlighted:

- Study of natural organic matter removal through the full-scale and pilot-scale processes at the Mannheim drinking water treatment plant has supported improved treatment and safety of the drinking water.
- Assessment of cyanotoxin (toxins produced by bacteria called cyanobacteria known as blue-green algae) removal using different treatment methods with pilot –scale processes located at the Mannheim drinking water plant has allowed development of an standard operating procedure approved by the Ministry of Environment and Climate Change to monitor and treat for cyanobacteria.
- Assessment of Cryptosporidium removal by various filtration processes and ozone dosages for contaminant removal has allowed for optimization of the ozone system.
- Assess the reduction of organic and mineral substance by ozone and characterizing Mannheim ozone treatment creating improved understanding of treatment and critical control points.

Participation in the NSERC program provides Region staff opportunities to improve their technical expertise and knowledge. These opportunities include attendance at technology transfer seminars, participation in the development of papers and presentations for conferences, and participation in research projects.

Additionally, research inspires/reinforces public confidence in the management and safety of drinking water produced by the Region and other Chair partners. Long term planning and awareness of emerging issues pre-emptively deals with potential health risks and the public perception of risk as these issues are raised in the media.

The proposed fifth five-year term of NSERC Chair includes the following main research themes:

- The study of lead control measures in drinking waters.
- The study of sustainable approaches to reduce manganese levels in the drinking

water.

- Pilot testing of alternate softening systems to further the research undertaken by the Region of Waterloo and City of Guelph on alternate softening systems.
- The study of sustainable water systems to focus on municipal water reuse.

The NSERC program relies on a combination of funding from public and private partners with matching funding provided by NSERC. The Region of Waterloo's proposed commitment to the NSERC Chair is \$75,000 per year for the five-year term. The NSERC Chair team at the University of Waterloo is continuing to pursue additional private and public partners.

### **Recovery of Fish Endpoints**

The Region has supported the Department of Biology at the University of Waterloo in examining the biological responses (endpoints) in fish associated with wastewater effluent in the Grand River. This work to date has shown a dramatic recovery in the fish populations downstream of the Kitchener Wastewater Treatment Plant (WWTP) following partial completion of upgrades in 2012.

The research over the last 10 years has benefited the Region as highlighted:

- Studies showing significant and rapid recovery of fish populations downstream of the Kitchener WWTP following partial upgrades.
- Data demonstrating reduction in endocrine disrupting compounds (i.e. hormones and pharmaceuticals) in the effluent from the Kitchener WWTP following upgrades.
- Collection of data assisting in the development of a model to predict the fate of endocrine disrupting compounds through the treatment process and in the environment.
- Positive media coverage both in local and international publications highlighting the investment of the Region in wastewater infrastructure and the positive environmental impacts associated with the upgrades.

The proposed three year study with the Department of Biology will include the following research items:

- Study of fish populations and associated recoveries downstream of the Waterloo WWTP following continuing upgrades.
- Confirmation of reduction in endocrine disrupting compounds in the effluent from the Waterloo WWTP following upgrades.
- Data to further support multiple barrier drinking water protection as the Waterloo WWTP is upstream of the Mannheim Water Treatment Plant intake.
- Study of any additional benefits downstream of the Kitchener WWTP as

upgrades continue at this plant.

- Development of a concise summary of the findings of the research program that the Region can use in communicating benefits associated with wastewater infrastructure investments.

The commitment from the Region in the research thus far has been in kind through provision of data and staff support. The Region of Waterloo's proposed commitment to this research is \$50,000 per year for the next three years. An application for NSERC is being submitted to provide matching funding.

### **Collaborative Research Proposal**

The Region of Waterloo has supported studies with the Department of Civil and Environmental Engineering at the University of Waterloo for over 10 years. From 2014 to 2017, the University of Waterloo has undertaken Collaborative Research with the Region of Waterloo focusing on pre-treatment and filter performance to provide more cost-efficient, high quality water and help the Region meet its MOECC regulatory requirement of continuous improvement.

The benefits of the research from the past three years include enhanced filtration performance at the Mannheim Water Treatment Plant and effective pre-treatment at the Hidden Valley reservoir. The specific studies are below:

- Concurrent Optimization of Coagulation and High Rate Biological Filtration resulted in a new filter backwashing procedure called extended terminal subfluidization wash (ETSW). This procedure is an advanced filter backwashing strategy that removes the backwash particles that are normally left within the media.
- The evaluation of filter impacts on pilot-scale high rate biological filtration performance and the characterization of the sediment in each cell of the Hidden Valley Reservoir. Additionally, the water quality was characterized for phosphorous concentrations in each of the cells and evaluating the impact of algae growth in each cell.
- The evaluation of nutrient impacts on pilot-scale high rate biological filtration performance with filter capping, the prediction of chemical release.
- The evaluation and optimization of chemical sludge removal and management

The Mannheim filter treatment and backwash procedures have improved as a result of implementing the recommendations from this study. The quality of drinking water is at a higher standard and is achieved with more cost effective techniques.

The expertise available in the Department of Civil and Environmental Engineering is unique and the proposed five-year study includes:

- Evaluation of water treatability impacts related to the reservoir intake and

protective strategies for the intake.

- Application of geophysical tools for assessment of water quality and specific water quality parameters.
- Pilot testing of ozonation and filtration (water) for improved treatment of cyanobacteria (blue-green algae) during changing conditions.
- Assessment of implications of various discharges on drinking water treatment quality and performance.
- Evaluating fine solids and associated phosphorus removal by tertiary filtration (wastewater) to optimize treatment and improve removal efficiency.
- Evaluation of micro plastics presence and abundance in wastewater discharges and investigate treatment removal through filtration.

Region staff recommend funding for this research as the Department of Civil and Environmental Engineering at the University of Waterloo provides unique and specific research for the treatment at the Region. The program relies on funding from its partners as the research meets strategic goals and defined program objectives. The Region of Waterloo's proposed commitment is \$100,000 per year for the five-year term. An application for funding is being submitted to the federal program to provide matching funding.

#### **Corporate Strategic Plan:**

This initiative supports Corporate Strategic Plan Focus Area 3, protect and enhance the environment.

#### **Financial Implications:**

The 2018 Water and Wastewater Operating Budget includes funding for the NSERC Chair (\$75,000 annually) for the next five years, funding for the Collaborative Research and funding (\$50,000 annually) for the next three years and funding for the Water Science, Technology and Policy Group (\$100,000 annually for the next five years).

There will be no impact on the Region's Water and Wastewater User Rates.

#### **Other Department Consultations/Concurrence:**

Corporate Services - Finance staff was consulted in the preparation of this report.

**Attachments:** Nil

**Prepared By:** Pam Law, Senior Project Manager, Water Services

**Trevor Brown**, Manager of Engineering and Wastewater Programs,  
Water Services

**Olga Vrentzos**, Manager Water Operations and Maintenance, Water Services

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services



**Report:** TES-18-02/PDL-18-01

## **Region of Waterloo**

### **Transportation and Environmental Services**

### **Planning, Development and Legislative Services**

### **Commissioner's Office**

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**To:** Chair Tom Galloway and Members of the Planning and Works Committee

**Date:** February 27, 2018 **File Code:** C04-30/PWC/CORR

**Subject:** 2018 Planning and Works Project Team Membership

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#### **Recommendation :**

That the Regional Municipality of Waterloo appoint Regional Councillors to the project and study teams as noted in Appendix A to Report TES-18-02/PDL-18-01, dated February 27, 2018;

And that the Regional Municipality of Waterloo forward the requests for area Councillor representatives on project and study teams to the Area Municipalities.

**Summary:** Nil.

#### **Report:**

Major Planning and Transportation and Environmental Services projects or studies have been directed, for many years, by multi-disciplinary project teams which have usually included one or more Regional or Area Municipal Councillors. The involvement of elected officials has always made a significant, positive impact on the successful completion of these projects. These committees and project teams are distinct from formal sub-committees of Council (e.g. Water Efficiency Advisory Committee), whose Council members have already been appointed.

A list of ongoing major projects and studies to be undertaken in 2018, including the current political or stakeholder representatives on each group, is provided in Appendix A. The project timelines noted are based on the 2018 Capital Programs.

Those projects and studies which do not already have and would most benefit from political representative(s) are noted in the table below. These are typically projects which may have high public interest and/or significant implications for the Region.

In addition to the projects listed below, participation by Councillors on any of the project teams noted in Appendix A is welcomed. After appointing appropriate Regional Councillors to these teams, it is recommended that this list be forwarded to the appropriate Area Municipalities to provide them an opportunity to appoint their Councillors to some of the project teams.

| No. | Description                                                                                                                                                                                                            | Area Municipality     | Suggested Council Representative                                                              |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------|
| 3.  | Ad-hoc Region Noise Policy Review Committee                                                                                                                                                                            | Region                | <b>3 Regional Councillors</b>                                                                 |
| 4.  | Road Safety Public Education                                                                                                                                                                                           | Region                | <b>1 Regional Councillor</b>                                                                  |
| 5.  | Airport Master Plan Implementation Project                                                                                                                                                                             | Region                | <b>4 Regional Councillors</b>                                                                 |
| 21. | Kressler Road, Lobsinger Line to Apollo Drive and Lobsinger Line, Anita Street to 0.8km West of Hergott Road, and Hergott Road, Lobsinger Line to north limits of St. Clements<br><br>Design 2018<br>Construction 2019 | Woolwich<br>Wellesley | <b>1 Local Councillor (Wellesley)</b><br><br>Mark Bauman<br><br>Joe Nowak                     |
| 29. | Myers Road Reconstruction Branchton to Water Street<br><br>Design 2018 - 2019<br>Construction 2020 – 2021                                                                                                              | Cambridge             | <b>1 Local Councillor</b><br><br><b>Suggest:</b><br><br>Shannon Adshade<br><br>Frank Monteiro |
| 51. | University Avenue, Bridge Street to Lincoln Road<br><br>Design 2018 – 2019<br>Construction 2020                                                                                                                        | Waterloo              | <b>1 Local Councillor</b>                                                                     |
| 60. | Cambridge Zone 3 Water Supply Class EA                                                                                                                                                                                 | Cambridge             | <b>1 Local Councillor</b><br><br>Helen Jowett                                                 |

### Corporate Strategic Plan:

The involvement of Regional Councillors on Transportation and Environmental Services and Planning, Development and Legislative Services Project Teams is consistent with the Strategic Focus Area Five: Responsive and Engaging Government Services which

ensures that the Region's programs and services foster a culture of citizen/customer service that is responsive to community needs.

**Financial Implications**

The costs for the various projects outlined in Appendix A to Report TES-18-02/PDL-18-01 are included in each Division budget.

**Other Department Consultations/Concurrence:** Nil

**Attachments:** Appendix A – Planning and Works – Project Teams - 2018

**Prepared and Approved By:**

**Thomas Schmidt**, Commissioner, Transportation and Environmental Services

**Rod Regier**, Commissioner, Planning, Development and Legislative Services

| Planning And Works – Project Teams – 2018 |                                                                                                  |                   |                                                                                                                              |
|-------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------|
| No.                                       | Description                                                                                      | Area Municipality | Political/Stakeholder Representative                                                                                         |
| <b>General</b>                            |                                                                                                  |                   |                                                                                                                              |
| <b>Steering Committees</b>                |                                                                                                  |                   |                                                                                                                              |
| 1.                                        | King Victoria Transit Hub Steering Committee                                                     | Region            | Ken Seiling<br>Tom Galloway<br>Geoff Lorentz<br>Sean Strickland<br>Berry Vrbanovic<br>Sarah Marsh –<br>(F. Etherington alt.) |
| <b>Transportation</b>                     |                                                                                                  |                   |                                                                                                                              |
| 2.                                        | Separated Bike Lane Network Pilot Project                                                        | Region            | Jane Mitchell                                                                                                                |
| 3.                                        | Ad-hoc Region Noise Policy Review Committee                                                      | Region            | <b>3 Regional Councillors</b>                                                                                                |
| <b>Studies</b>                            |                                                                                                  |                   |                                                                                                                              |
| 4.                                        | Regional Transportation Master Plan                                                              | Region            | Tom Galloway<br>Elizabeth Clarke                                                                                             |
| 5.                                        | Road Safety Public Education                                                                     | Region            | <b>1 Regional Councillor</b>                                                                                                 |
| <b>Airport</b>                            |                                                                                                  |                   |                                                                                                                              |
| 6.                                        | Airport Master Plan Implementation Project                                                       | Region            | <b>4 Regional Councillors</b>                                                                                                |
| <b>Design and Construction</b>            |                                                                                                  |                   |                                                                                                                              |
| 7.                                        | South Boundary Road, Water Street to Franklin Boulevard<br><br>Construction ongoing in 2018-2019 | Cambridge         | None Required at this time                                                                                                   |
| 8.                                        | Franklin Boulevard Widening – Pinebush Road to Myers Road<br><br>Construction ongoing in 2018    | Cambridge         | None Required at this time                                                                                                   |

| Planning And Works – Project Teams – 2018 |                                                                                                                                                                  |                   |                                                              |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------|
| No.                                       | Description                                                                                                                                                      | Area Municipality | Political/Stakeholder Representative                         |
| 9.                                        | Homer Watson Boulevard Improvements, Doon South Drive to Conestoga College Boulevard<br><br>Construction in 2018                                                 | Kitchener         | Tom Galloway<br><br>Elizabeth Clarke<br><br>Yvonne Fernandes |
| 10.                                       | Victoria Street, Edna Street to Bruce Street<br><br>Construction in 2018 in conjunction with MTO work on Hwy 7/8.                                                | Kitchener         | None Required at this time                                   |
| 11.                                       | Swan Street Improvements, Hilltop Drive to Stanley Street and Northumberland Street /Stanley Street, Swan Street to Rail Tracks<br><br>Construction in 2018-2019 | North Dumfries    | Sue Foxton<br><br>Rod Rolleman                               |
| 12.                                       | River Road Extension, King Street to Manitou Drive<br><br>Detailed Design ongoing 2018-2019<br><br>Construction in 2020-2021                                     | Kitchener         | None Required at this time                                   |
| 13.                                       | Weber Street Improvements, Benjamin Road to King Street<br><br>Design in 2018-2021<br><br>Construction in 2022                                                   | Waterloo          | Mark Bauman<br><br>Jeff Henry                                |
| 14.                                       | Weber Street Improvements Forwell Creek Road to Milford Avenue<br><br>Design in 2018<br><br>Construction in 2019                                                 | Waterloo          | Diane Freeman                                                |
| 15.                                       | Northfield Drive Widening, Davenport Road to Bridge Street<br><br>Construction in 2018                                                                           | Waterloo          | None Required at this time                                   |
| 16.                                       | Ottawa Street Improvements, Imperial                                                                                                                             | Kitchener         | Frank Etherington                                            |

| Planning And Works – Project Teams – 2018 |                                                                                                                                                                                |                             |                                                             |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------|
| No.                                       | Description                                                                                                                                                                    | Area Municipality           | Political/Stakeholder Representative                        |
|                                           | Drive to Pattondon Drive<br>Design in 2018<br>Construction in 2019                                                                                                             |                             |                                                             |
| 17.                                       | Bridge Street Improvements, Woolwich Street to University Avenue<br>Design in 2018<br>Construction in 2019                                                                     | Kitchener<br>Waterloo       | None Required at this time                                  |
| 18.                                       | Church Street Improvements, Arthur Street to Spruce Lane, Elmira<br>Design in 2018<br>Construction in 2019                                                                     | Woolwich                    | Scott Hahn                                                  |
| 19.                                       | Ainslie Street Reconstruction, Walnut Street to Parkhill Road and Parkhill Road Reconstruction, Ainslie Street to Water Street<br>Design in 2018-2020<br>Construction in 2021  | Cambridge                   | Jan Liggett                                                 |
| 20.                                       | East Boundary Road Corridor Planning Study<br>Environmental Assessment ongoing in 2018                                                                                         | Cambridge<br>North Dumfries | Sue Foxtan<br>Karl Kiefer<br>Frank Monteiro<br>Neil Ritchie |
| 21.                                       | St. Andrews Street Improvements<br>Cambridge Boundary to Grand Avenue<br>Construction ongoing in 2018                                                                          | Cambridge                   | None Required at this time                                  |
| 22.                                       | Kressler Road, Lobsinger Line to Apollo Drive and Lobsinger Line, Anita Street to 0.8km West of Hergott Road, and Hergott Road, Lobsinger Line to north limits of St. Clements | Woolwich<br>Wellesley       | <b>1 Local Councillor (Wellesley)</b><br>Mark Bauman        |

| Planning And Works – Project Teams – 2018 |                                                                                                                        |                   |                                                                          |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------|
| No.                                       | Description                                                                                                            | Area Municipality | Political/Stakeholder Representative                                     |
|                                           | Design 2018<br>Construction 2019                                                                                       |                   | Joe Nowak                                                                |
| 23.                                       | Dundas Street Improvements, Elgin Street to Hespeler Road, Cambridge<br>Design 2018 - 2019<br>Construction 2020 - 2021 | Cambridge         | Jan Liggett                                                              |
| 24.                                       | Sawmill Road Improvements, King Street to Waterloo / St Jacobs Tracks<br>Construction 2018                             | Woolwich          | Mark Bauman                                                              |
| 25.                                       | Highland Road Improvements, Highland Hills Mall Entrance to Trussler Road<br>EA and Design 2018<br>Construction 2019   | Kitchener         | Geoff Lorentz<br>Bil Ioannidis                                           |
| 26.                                       | University Avenue Improvements, Keats Way to Erb Street<br>Construction 2018                                           | Waterloo          | Jane Mitchell<br>Jeff Henry                                              |
| 27.                                       | King Street Reconstruction, Bishop Street to Eagle Street<br>Design 2018<br>Construction 2019 - 2020                   | Cambridge         | Karl Kiefer                                                              |
| 28.                                       | Ottawa Street Reconstruction, Alpine Road to Fischer-Hallman Road<br>Design 2018 - 2020<br>Construction 2020 – 2021    | Kitchener         | Paul Singh                                                               |
| 29.                                       | Fountain Street Widening, Maple Grove Rd to Kossuth Rd<br>Design 2018-2019<br>Construction 2020 – 2021                 | Cambridge         | Karl Kiefer<br>Donna Reid (alt. M. Mann)                                 |
| 30.                                       | Myers Road Reconstruction Branchton to Water Street<br>Design 2018 - 2019<br>Construction 2020 – 2021                  | Cambridge         | <b>1 Local Councillor (suggested: Shannon Adshade)</b><br>Frank Monteiro |

| Planning And Works – Project Teams – 2018 |                                                                                                                                                                                     |                   |                                            |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------|
| No.                                       | Description                                                                                                                                                                         | Area Municipality | Political/Stakeholder Representative       |
| 31.                                       | Bridgeport Road/Caroline Street, King Street to Erb Street<br><br>Design 2018<br>Construction 2019                                                                                  | Waterloo          | Melissa Durrell                            |
| 32.                                       | Victoria Street Reconstruction, Lawrence Avenue to Fischer Hallman Road and Westmount Road, Victoria Street to Glasgow Street<br><br>Design 2018 - 2019<br>Construction 2020 - 2021 | Kitchener         | Zyg Janecki                                |
| 33.                                       | Fischer Hallman Road Widening, Plains Road to Bleams Road<br><br>Design 2018<br>Construction 2019-2023                                                                              | Kitchener         | Tom Galloway<br><br>Kelly Galloway-Sealock |
| 34.                                       | Erb Street Improvements<br>Fischer Hallman Road to Wilmot Line<br>EA and Design 2018<br>Construction 2019                                                                           | Waterloo          | Jane Mitchell<br><br>Bob Mavin             |
| 35.                                       | Weber Street Reconstruction, Borden Avenue to Queen Street<br><br>Construction 2018-2019                                                                                            | Kitchener         | Sarah Marsh                                |
| 36.                                       | Snyder's Road, Foundry Street to Gingerich Road<br><br>Design 2018<br>Construction 2019                                                                                             | Wilmot            | Barry Fisher                               |
| 37.                                       | Ottawa Street Reconstruction, Highway 7 to West of Charles Street<br><br>Design ongoing in 2018<br>Construction 2019 – 2020                                                         | Kitchener         | Sarah Marsh<br><br>Frank Etherington       |

| Planning And Works – Project Teams – 2018 |                                                                                                                                                             |                   |                                        |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------|
| No.                                       | Description                                                                                                                                                 | Area Municipality | Political/Stakeholder Representative   |
| 38.                                       | King Street Improvements, Bridgeport Road to University Avenue<br>Construction 2019 and 2020                                                                | Waterloo          | Melissa Durrell                        |
| 39.                                       | Weber Street Reconstruction, Blythwood Road to Northfield Drive<br>Design 2018 – 2019<br>Construction 2020                                                  | Waterloo          | Angela Vieth                           |
| 40.                                       | King Street Improvements, Eagle Street to Fountain Street and Fountain Street Improvements, King Street to Shantz Hill Road<br>Construction ongoing in 2018 | Cambridge         | None Required at this time             |
| 41.                                       | Fountain Street North Improvements, King Street to Cherry Blossom Road<br>Construction ongoing in 2018                                                      | Cambridge         | None Required at this time             |
| 42.                                       | Fischer-Hallman Road Widening EA – Columbia Street to Westmount Road<br>Class EA and Design 2018 - 2019<br>Construction 2020                                | Waterloo          | Jane Mitchell<br>Brian Bourke          |
| 43.                                       | Bleams Road Widening, Strasburg Road to Fischer-Hallman Road<br>Class EA and Design 2018 – 2019<br>Construction 2020                                        | Kitchener         | Tom Galloway<br>Kelly Galloway-Sealock |
| 44.                                       | Victoria Street Reconstruction, Frederick Street to Bruce Street<br>Design 2018 – 2019<br>Construction 2020                                                 | Kitchener         | Scott Davey                            |
| 45.                                       | Lancaster Street Reconstruction, Victoria Street to Bridgeport Road<br>Design 2018 – 2019<br>Construction 2020                                              | Kitchener         | Sarah Marsh                            |
| 46.                                       | University Avenue - King Street to                                                                                                                          | Waterloo          | Jeff Henry                             |

| Planning And Works – Project Teams – 2018 |                                                                                                                                                                |                   |                                      |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------|
| No.                                       | Description                                                                                                                                                    | Area Municipality | Political/Stakeholder Representative |
|                                           | Weber Street- Bike lanes<br>Design 2018 – 2020<br>Construction 2021                                                                                            |                   |                                      |
| 47.                                       | Fairway Road Widening – Pebblecreek Drive to Lackner Blvd.<br>Construction 2018                                                                                | Kitchener         | Dave Schnider                        |
| 48.                                       | Fairway Road Reconstruction and Widening – Lackner Blvd. to King Street<br>Design 2018 – 2020<br>Construction 2021                                             | Kitchener         | Tom Galloway<br>Dave Schnider        |
| 49.                                       | King Street Reconstruction – Hwy 401 to Sportsworld Drive and Sportsworld Drive Reconstruction from King to Gateway<br>Design 2018 – 2019<br>Construction 2020 | Kitchener         | John Gazzola                         |
| 50.                                       | Bleams Road, Fischer-Hallman Road to Trussler Road<br>Class EA and Design 2018-2020<br>Construction 2021                                                       | Kitchener         | Kelly Galloway-Sealock               |
| 51.                                       | Design Study- Pedestrian/Cycling Bridge over Highway 7/8 connecting Chandler Drive to Avalon Place<br>Class EA and Design - 2018<br>Construction 2020          | Kitchener         | Geoff Lorentz                        |
| 52.                                       | University Avenue, Bridge Street to Lincoln Road<br>Design 2018 – 2019<br>Construction 2020                                                                    | Waterloo          | <b>1 Local Councillor</b>            |

| Planning And Works – Project Teams – 2018     |                                                                                            |                     |                                           |
|-----------------------------------------------|--------------------------------------------------------------------------------------------|---------------------|-------------------------------------------|
| No.                                           | Description                                                                                | Area Municipality   | Political/Stakeholder Representative      |
| <b>Water Services</b>                         |                                                                                            |                     |                                           |
| <b>Advisory Committees</b>                    |                                                                                            |                     |                                           |
| 53.                                           | Source Water Protection Liaison Committee                                                  |                     | Jane Mitchell<br>Elizabeth Clarke         |
| <b>Water Supply – Studies and Pre-Design</b>  |                                                                                            |                     |                                           |
| 54.                                           | Wilmot Centre Monitoring Program and Public Liaison Committee                              | Wilmot              | Les Armstrong                             |
| 55.                                           | Cambridge East Environmental Assessment                                                    | Cambridge           | Karl Kiefer                               |
| 56.                                           | William Street Wellfield and Uptown Waterloo TCE Assessment<br><br>Study ongoing into 2018 | Waterloo            | None Required at this time                |
| 57.                                           | Pinebush Well G5 Salt Impact Assessment<br><br>Study ongoing into 2018                     | Cambridge           | None Required at this time                |
| 58.                                           | Strasburg Wellfield Hydrogeologic Assessment<br><br>Study ongoing in 2018                  | Kitchener           | None Required at this time                |
| 59.                                           | Middleton System Manganese treatment Conceptual Design                                     | Cambridge           | None required at this time                |
| 60.                                           | Wells K50s Manganese Treatment Upgrades Class EA                                           | Kitchener<br>Wilmot | None required at this time                |
| 61.                                           | Cambridge Zone 3 Water Supply Class EA                                                     | Cambridge           | <b>1 Local Councillor</b><br>Helen Jowett |
| <b>Water Supply – Design and Construction</b> |                                                                                            |                     |                                           |
| 62.                                           | Zone 4 Trunk Watermain<br><br>Construction ongoing 2018-2019                               | Kitchener           | None Required at this time                |

| Planning And Works – Project Teams – 2018 |                                                                                                    |                   |                                                       |
|-------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------|
| No.                                       | Description                                                                                        | Area Municipality | Political/Stakeholder Representative                  |
| 63.                                       | Weber Street Watermain and Resurfacing (Union to Erb)<br>Construction 2018                         | Waterloo          | None Required at this time                            |
| 64.                                       | William Street and Strange Street Water Supply Upgrades<br>Design 2018<br>Construction 2018 – 2020 |                   | Jane Mitchell<br>Melissa Durrell<br>Frank Etherington |
| 65.                                       | Cambridge New Zone 1W Water Supply<br>Design 2018<br>Construction 2019 – 2020                      |                   | Karl Kiefer                                           |
| 66.                                       | Waterloo North Upgrades<br>Design 2018<br>Construction 2019 – 2020                                 |                   | None Required at this time                            |
| 67.                                       | Mannheim WTP ASR Stage 1A<br>Design 2018 - 2019<br>Construction 2019 – 2020                        | Kitchener         | None Required at this time                            |
| 68.                                       | Kress Hill PRV and Pump Station Decommissioning<br>Design 2018<br>Construction 2019                | Cambridge         | None Required at this time                            |
| Wastewater – Design and Construction      |                                                                                                    |                   |                                                       |
| 69.                                       | Kitchener Wastewater Treatment Plant Upgrades<br>Construction ongoing in 2018 - 2020               | Kitchener         | Geoff Lorentz<br>John Gazzola<br>Yvonne Fernandes     |
| 70.                                       | Preston Wastewater Treatment Plant Upgrades<br>Construction ongoing in 2018                        | Cambridge         | None Required at this time                            |

| Planning And Works – Project Teams – 2018 |                                                                                             |                        |                                                           |
|-------------------------------------------|---------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------|
| No.                                       | Description                                                                                 | Area Municipality      | Political/Stakeholder Representative                      |
| 71.                                       | New Hamburg Waste Water Treatment Plant Expansion<br>Construction 2018 - 2020               | Baden /<br>New Hamburg | Les Armstrong<br>Barry Fisher                             |
| 72.                                       | Galt Process Upgrades<br>Construction ongoing 2018 - 2020                                   | Cambridge              | None Required at this time                                |
| 73.                                       | Galt, Kitchener and Waterloo WWTPs Co-Generation<br>Construction 2018 - 2020                |                        | None Required at this time                                |
| 74.                                       | Hespeler WWTP Upgrade<br>Construction ongoing 2018-2019                                     | Cambridge              | None Required at this time                                |
| Waste Management                          |                                                                                             |                        |                                                           |
| 75.                                       | Waterloo Region Landfill Liaison Committee                                                  | Region                 | Jane Mitchell                                             |
| 76.                                       | Waste Management Master Plan Working Group                                                  | Region                 | Tom Galloway<br>Karl Kiefer<br>Jane Mitchell<br>Joe Nowak |
| 77.                                       | Waterloo Landfill Site New Cell SE-4B and Stormwater Management Pond 5<br>Construction 2018 | Waterloo               | None Required at this time                                |



**Report:** COR-FFM-18-02

TES-18-01

## **Region of Waterloo**

## **Corporate Services**

## **Facilities and Fleet Management**

## **Transportation and Environmental Services**

## **Commissioner's Office**

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**To:** Chair Tom Galloway and Members of the Planning & Works Committee

**Date:** February 27, 2018

**File Code:**

**Subject: Municipal Asset Management Planning Regulation Update**

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### **Recommendation:**

For Information

### **Summary:**

In May 2017, the Province released a proposed Municipal Asset Management Planning Regulation under the "Infrastructure for Jobs and Prosperity Act." The draft Regulation was posted on the Province's Environmental Registry for a 60 day review and comment period. Public comment was obtained through a series of workshops, presentations to municipalities and other organizations and opportunity to provide written comments by letter or on the Registry.

In July 2017, Regional staff submitted comments on the proposed regulation to the Ministry of Infrastructure (see report TES-17-02/COR-FFM-17-11 dated August 22, 2017). In December 2017, the Ministry filed O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure. The final Regulation has specific requirements for municipalities related to content of both the Strategic Asset Management Policy and Municipal Asset Management Plans. It also stipulates a phased implementation with key dates for completion of each planning document.

The Ministry has addressed many of the concerns with the proposed regulation as raised by staff. This report summarizes the new Regulation and how comments have been addressed from the earlier draft regulation.

**Report:**

As part of Ontario's Municipal Infrastructure Strategy, the "Infrastructure for Jobs and Prosperity Act" was proclaimed in 2016 and provided the Province with the authority to regulate municipal asset management planning. The purpose of the regulation is to ensure municipalities are creating long term asset management plans to address aging infrastructure. The Province intends to require all municipalities to develop strategic asset management policies, asset management plans and subsequent updates.

A draft regulation under the Act was released for comment on May 25, 2017. In July 2017, Regional staff submitted comments on the proposed regulation to the Ministry of Infrastructure (see report TES-17-02/COR-FFM-17-11 dated August 22, 2017). The Region commended the Ministry for encouraging the development of comprehensive asset management programs, yet identified five (5) concerns with the proposed regulation. The concerns identified by staff were as follows:

1. Overlap between the proposed Asset Management Regulation and the Development Charges Act (DCA) and its regulations should be managed by removal of asset management requirements from the DCA.
2. The proposed regulation is too prescriptive, and should allow alignment with other concurrent plans and activities.
3. Remove the requirement for an asset management plan "to be approved in writing by a licensed engineering practitioner representing the municipality, and the executive lead of the municipality prior to it being presented to the municipal council for approval."
4. Public input would be better sought through the development of master plans, official plans and strategic plans (as well as the annual budget process).
5. The requirement to develop and adopt a strategic asset management policy by January 1, 2019 conflicts with the municipal election cycle. Staff suggest that the deadline to develop and adopt a strategic asset management policy be moved to January 1, 2020.

**Ontario Reg. 588/17: Asset Management Planning for Municipal Infrastructure**

The Ministry filed O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure on December 27, 2017. The final Regulation has specific requirements for municipalities related to content of both the Strategic Asset Management Policy and

Municipal Asset Management Plans. It also stipulates a phased implementation with key dates for completion of each planning document.

### **Strategic Asset Management Policy**

The regulation requires all municipalities to develop a strategic asset management policy by July 1, 2019 with a formal review at least every five years. Required contents of the policy include:

- Alignment with municipal objectives (i.e. strategic plan, official plan, master plans)
- Process on how the asset management plan would assist with budget development and long-term financial strategies
- Approach to continuous improvement and best practices associated with asset management planning
- Principles to guide asset management planning
- Commitment to consider asset management planning to address risks that may be caused by climate change
- Alignment with relevant policies under the Planning Act and municipal official plans
- Determination of capitalization thresholds for inclusion of assets in the asset management plan in conjunction with the tangible capital asset policy
- Identify asset management governance structure including Council involvement
- Provide opportunities for public to provide input into asset management planning

### **Municipal Asset Management Plans**

Under the regulation, municipalities are required to present an asset management plan in two phases, as follows:

1. Phase 1 is to include core infrastructure assets with a completion date of July 1, 2021 (core infrastructure defined as roads; bridges; culverts; any assets used in the collection, distribution, treatment or disposal of water/waste water and storm water management). Within the first phase, the following requirements are listed:
  - Measure current levels of service (community and technical)
  - Inventory assessment analysis of existing assets
  - 10-year cost forecast to sustain current levels of service
  - Estimated costs for service growth
2. Phase 2 is to include remaining infrastructure assets by January 1, 2023 (remaining tangible capital assets). Additional information in the final phase included:
  - Proposed levels of service (community and technical)
  - Updated inventory analysis
  - Lifecycle management strategy to maintain proposed levels of service and manage risk

- 10-year financial strategy for proposed levels of service
  - Outline funding challenges and associated risks of not meeting the proposed level of service
  - Financial strategy related to service growth
3. Phase 3 is to build on the previous plan and also include a discussion of activities required to meet proposed levels of service, and a strategy to fund the activities by July 1, 2024.

### **Key Date Commitments**

The regulation requires that every municipality prepare its first strategic asset management policy by July 1, 2019 and shall review and, if necessary, update it at least every five (5) years. Council approved the Region's Corporate Asset Management Policy in 2016. This Policy will require an update to align with the new requirements listed in the asset management regulation. Region staff proposes to complete their second asset management policy during the first six months of 2019 to meet the July 1 deadline. While the regulation requires updates to this policy every five (5) years, staff proposes to update this policy every four (4) years in order to align with the Regional Strategic Planning Cycle.

Furthermore, the regulation requires that every municipality prepare an asset management plan in respect of its core municipal infrastructure assets by July 1, 2021, and in respect of all of its other municipal infrastructure assets by July 1, 2023. The initial Region of Waterloo Corporate Asset Management Plan already includes all infrastructure assets and staff propose that the second version of the Asset Management Plan be completed in 2020 using 2019 data inclusive of all municipal infrastructure as required of the province by July 1, 2023. While the regulation requires updates to the Asset Management Plan every five (5) years, again staff propose to update this plan every four (4) years to align with the regional strategic planning cycle; therefore the third AM Plan would be completed in 2024.

The previous council report that spoke to the draft regulation provided for stakeholder comment, proposed that Region staff complete all three phases of the AM regulation by 2020 based on the draft timelines. In light of the adjusted dates within the Regulation staff propose meeting the first two phases of the Reg. in the 2020 AM Plan update, and meeting the final phase in the 2024 update, in line with the July 1, 2024 regulation deadline.

Finally, the Regulation requires that every municipality shall conduct an annual review of its asset management progress on or before July 1 in each year, starting the year after the municipality's asset management plan is completed. Staff propose that the State of the Asset report as described in the Corporate Asset Management Policy be

submitted to Council annually, between each AM Plan update to satisfy this requirement.

### **Commentary on the Final Regulation**

The Region is pleased that the Ministry has addressed many of the concerns with the proposed regulation as raised by staff, including:

- Asset Management planning alignment with Ontario's land-use planning framework has improved.
- The level of detail required within the financial strategy section of municipal asset management plans has been reduced.
- The requirement for municipal asset management plans to be approved by a licensed engineering practitioner has been removed.
- Other opportunities to display engagement through existing processes are now permitted.
- Timelines have been shifted to remove the conflict with the municipal election cycle. The timing to phase-in regulation compliance has been extended from four years to six years (i.e. all requirements must be met by July 1, 2024). The first requirement of the Regulation, which is the development of an asset management policy, has been extended by six months, to July 1, 2019.

It is noted that the regulation under the DCA still requires detailed asset management plans for transit until 2024 when the Asset Management regulation under the "Infrastructure for Jobs and Prosperity Act" requirements are fully phased in. At that point the asset management requirements in the regulation to the DCA will be removed, although the requirement for asset management plans as part of a DC background study will remain in the DCA, and such plans will therefore continue to be subject to appeal.

### **Concluding Comment**

The Region is in a favourable position already having a Corporate Asset Management Governance Structure, Framework, Asset Management Policy and Asset Management Plan. Council approved the Region's Corporate Asset Management Policy in early 2016 (TES-WAS-16-01/COR-FFM-16-01) and the Asset Management Plan in the fall of 2016 (TES-WAS-16-17/COR-FFM-16-11). Future updates to both of these documents will need to reflect requirements of the regulation.

In addition, the Region is engaged in an Asset Management System Implementation Project that includes corporate-wide work management and decision support systems. These systems will help automate the data collection and analysis for future AM Plans, improving data quality and the implementation help define and track service levels across all assets. In summary, the Region's current Corporate Asset Management

governance structure, framework, Policy, and Asset Management Plan, all serve as a good foundation to build from for conformance with the new Regulation.

**Corporate Strategic Plan:**

Municipal asset planning aligns with the 2015-2018 Corporate Strategic Plan objective to plan for and provide the infrastructure and services necessary to create the foundation for economic success under Strategic Focus Area 1, Thriving Economy. This includes continuing to implement and improve an asset management policy and plan to optimize the use and availability of existing and new infrastructure.

**Financial Implications:**

Previous reports have noted the disconnect between long-term asset management and renewal planning and the Federal and Provincial Governments' emphasis on short-term, application-based infrastructure funding programs which have an "incrementality" requirement. Such programs require municipalities to consider projects which have not been planned for, or to change the timing of capital projects in order to access such funds. This is, in staff's view, entirely inconsistent with the principles behind such a regulation. The Region expects that the Province will, in the future, take a longer view and align the requirement for long-term asset planning with infrastructure funding programs to help ensure that the right projects are completed at the right time, for the benefit of all taxpayers.

Staffing levels associated with the ongoing Asset Management Program are assessed on an ongoing basis. Any proposed changes to the staffing complement that may result will be presented for Council's consideration as part of the annual budget process.

**Other Department Consultations/Concurrence:**

Staff representatives from Divisions within Transportation and Environmental Services, Planning, Development and Legislative Services, and Corporate Services are involved in the Corporate Asset Management Program and have been consulted in the preparation of this report.

**Attachments:** Nil

**Prepared By:** Charles Allen, Assistant Director, Facilities Management

Tim Walton, Manager, Asset Management & Strategic Initiatives

**Approved By:** Craig Dyer, Commissioner, Corporate Services/Chief Financial Officer

Thomas Schmidt, Commissioner, Transportation and Environmental Services

| Council Enquiries and Requests for Information |             |                                          |                     |                           |
|------------------------------------------------|-------------|------------------------------------------|---------------------|---------------------------|
| Planning and Works Committee                   |             |                                          |                     |                           |
| Meeting date                                   | Requestor   | Request                                  | Assigned Department | Anticipated Response Date |
| 08-Dec-15                                      | J. Mitchell | Report on using Renewable Energy for LRT | TES                 | Fall 2017                 |
| 12-Sep-17                                      | T. Galloway | Report on Portland Loo                   | TES                 | Dec-2017                  |