Media Release: Friday, September 30, 2016 4:30 p.m.

Regional Municipality of Waterloo

Planning and Works Committee

Agenda

Tuesday, October 4, 2016

Approximately 12:30 P.M.

Regional Council Chamber

150 Frederick Street, Kitchener

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1. Declarations of Pecuniary Interest under the Municipal Conflict Of Interest Act

2. Delegations

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.

3. Request to Remove Items from Consent Agenda

4. Motion to Approve Items or Receive for Information

Energy Approval Public Consultation Centre #1 (Information)

4.4 **PDL-CPL-16-42**, Program Update on the Transit Supportive Strategy for Cambridge, 2016 (Information) 36

4.5 **PDL-CPL-16-43**, Status Report on Community Climate Adaptation (Information) 43

Regular Agenda Resumes

5. Reports – Transportation and Environmental Services

Design and Construction

5.1 **TES-DCS-16-16**, Consultant Selection – Detailed Design, Inspection and Contract Administration Services for Fairway Road North Widening, Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street, City of Kitchener 52

Recommendation:

That the Regional Municipality of Waterloo enter into a Consulting Services Agreement with MTE Consultants Inc. to provide engineering consulting services for the detailed design, inspection and contract administration services associated with the Fairway Road North Widening from Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street at an upset fee limit of $307,900 plus applicable taxes for the design phase, with construction inspection and contract administration services to be paid on a time basis in an estimated amount of $246,900, as described in report TES-DCS-16-16, dated October 4, 2016.

Also, that the Regional Municipality of Waterloo grant pre-budget approval of $50,000 in 2016 in order to allow design work to commence in 2016.

Transit Services

5.2 **COR-FSD-16-24/TES-TRS-16-21**, Public Transit Infrastructure Fund – Phase One 60

Recommendation:

1. That the Region of Waterloo approve the list of projects to be funded by the Public Transit Infrastructure Fund – Phase One as set out in Attachment ‘A’ to Report COR-FSD-16-24/TES-TRS-16-

21 dated October 4, 2016; and

2. That staff be directed to prepare the 2017-2026 Grand River Transit Capital Plan in accordance with Recommendation 1.

5.3 **TES-TRS-16-16**, Transit Safety, Security and Fare Enforcement 70

Recommendation:

That the Regional Municipality of Waterloo approve the proposed strategy for transit safety, security and fare enforcement as outlined in Report TES-TRS-16-16 dated October 4, 2016;

And that the Regional Municipality of Waterloo approve a two year temporary contract position starting in 2017 related to the implementation of the proposed strategy.

Transportation

5.4 **TES-TRP-16-20**, Lane Designation Changes - King Street (Regional Road 8) at Tu Lane Street, City of Kitchener 77

Recommendation:

That the Regional Municipality of Waterloo amend Traffic and Parking By-Law 06-072, as amended, to add Schedule 16 – Lane Designation, westbound left-turn, left/right-turn lane on Tu Lane Street at King Street (Regional Road 8) in the City of Kitchener, as outlined in Report TES-TRP-16-20, dated October 4, 2016.

Water Services

5.5 **COR-FSD-16-23/TES-WAS-16-21**, Clean Water and Wastewater Fund 81

Recommendation:

1. That the Region of Waterloo approve the list of projects to be funded by the Clean Water and Wastewater Fund as set out in Attachment ‘A’ to report COR-FSD-16-23/TES-WAS-16-21 dated October 4, 2016; and

2. That staff be directed to prepare the 2017-2026 Water and Wastewater Capital Plan in accordance with Recommendation 1.

5.6 **TES-WAS-16-20**, Update on East Side Lands Wastewater Servicing Environmental Assessment (Information) 87

Reports – Planning, Development and Legislative Services

Community Planning

5.7 **PDL-CPL-16-41**, Co-ordinated Land Use Planning Review – The Proposed Growth Plan for the Greater Golden Horseshoe and The Proposed Greenbelt Plan (Presentation) 99

Recommendation:

That the Regional Municipality of Waterloo forward Report PDL-CPL-16-41, dated October 4, 2016, to the Minister of Municipal Affairs in response to the Proposed Growth Plan for the Greater Golden Horseshoe and the Proposed Greenbelt Plan.

6. Information/Correspondence

6.1 Council Enquiries and Requests for Information 125

7. Other Business

8. Next Meeting – November 1, 2016

9. Adjourn

Next Meetings			
Date	**Time**	**Description**	**Location**
Planning and Works Committee			
November 1, 2016	1:00 P.M.	Planning and Works Committee	Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario
November 22, 2016	1:00 P.M.	Planning and Works Committee	Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario
Transportation and Environmental Services			
Tue., October 25, 2016	5:30 P.M. – 7:30 P.M.	Kitchener WWTP Cogeneration Facility Renewable Energy Approval Public Consultation Centre #1	Waterloo Region Museum Foyer 10 Huron Road Kitchener, Ontario
Thurs., November 3, 2016	5:30 P.M. – 7:30 P.M.	Waterloo WWTP Cogeneration Facility Renewable Energy Approval Public Consultation Centre #1	RIM Park Room 104 2001 University Avenue Waterloo, Ontario
Tue., November 1, 2016	5:30 P.M. – 7:30 P.M.	Galt WWTP Cogeneration Facility Renewable Energy Approval Public Consultation Centre #1	Waterloo Region Cambridge Offices Room 170 150 Main Street Cambridge, Ontario

Kitchener Wastewater Treatment Plant Cogeneration Facility Renewable Energy Approval

Public Consultation Centre #1

Welcome!

- Please sign in, and feel free to browse the information panels.
- Your comments are important to us. Please complete one of the comment sheets and place it in the box provided, or send it to the address on the form prior to:
  Tuesday November 1st, 2016.
- Staff from the Region and their consultants are available to answer any questions that you have.

Region of Waterloo
Pam Law, P.Eng.
Senior Project Engineer

Riepma Consultants Inc.
Clare Riepma, P.Eng., R.P.P.
Project Planner

CH2M
Ryan Connor, P.Eng.
Project Manager
Taryn Davis, P.Eng.
Project Engineer

Region of Waterloo

Riepma CONSULTANTS INC.

ch2m

Purpose and Goals of Public Consultation Centre #1

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Purpose

The Region of Waterloo (Region) is planning to install a Cogeneration Facility at its Kitchener Wastewater Treatment Plant (WWTP) and would appreciate your feedback.

Cogeneration will produce a sustainable form of **green energy** by turning a waste byproduct – biogas – into heat and electricity at the WWTP.

Note: Before the Region begins the design and construction of the Cogeneration Facility, a **Renewable Energy Approval (REA) application will be submitted to the Ministry of the Environment and Climate Change (MOECC)**.

Goals

Provide you with:

- Information about the Renewable Energy Approval process;
- An overview of the proposed Cogeneration Facility; and
- An opportunity to give feedback and tell us what you would like to see incorporated into the facility.

Renewable Energy Approval (REA) Process

What is a REA?

The REA process defines the scope of the project, identifies the potential impacts to the environment and finds ways to lessen them.

What is the REA Process?

The MOECC requires studies/assessments to support a REA for most solar, wind, or bio-energy projects in Ontario.

BIO ENERGY

Bio-energy projects include ones that use anaerobic digestion, biofuel, biogas, and thermal treatment facilities.

Public consultation plays a key part in the application process. At various stages, the public, municipalities, and Aboriginal communities will be consulted and will have an opportunity to review reports and documents, and participate in the process.

REA Process (Continued)

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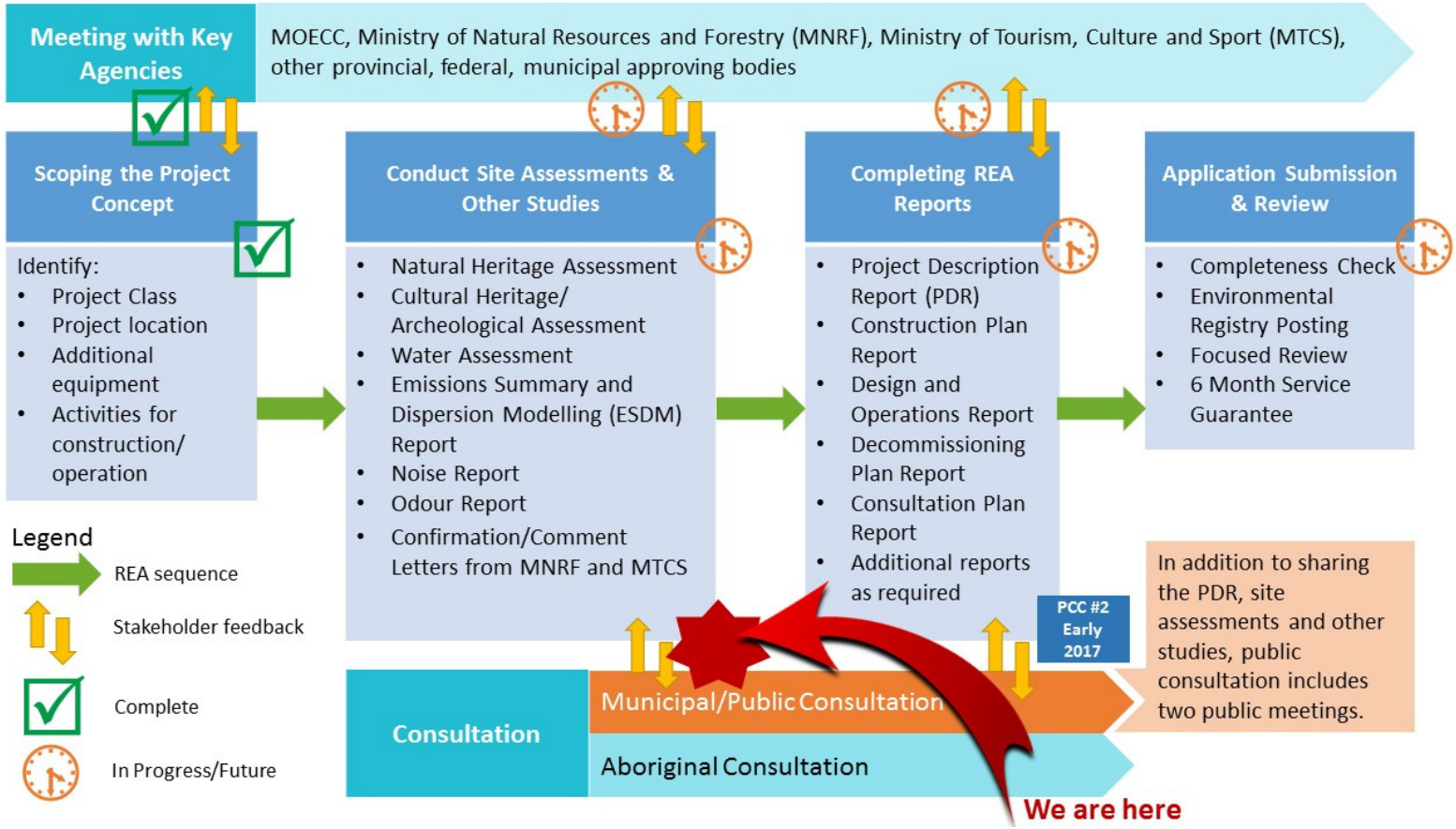
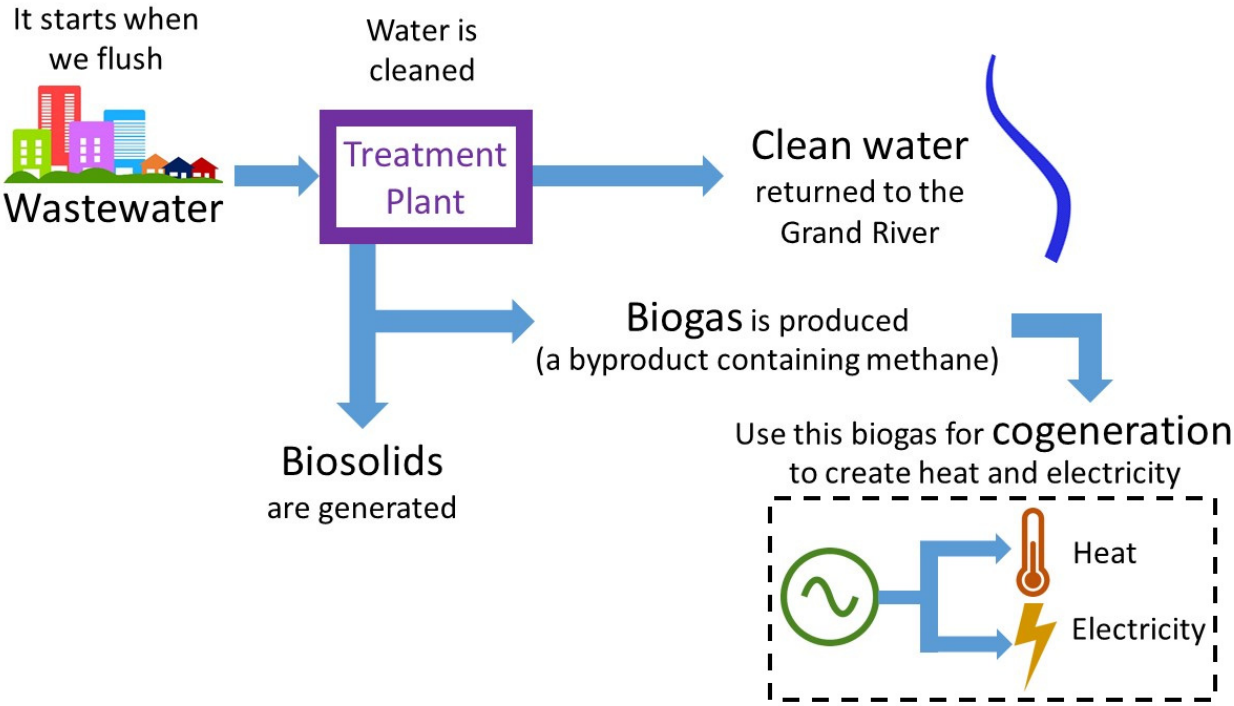
Where are we in the REA process?



What is Cogeneration?



How will the Kitchener WWTP benefit from Cogeneration?

- Cogeneration **can be used to heat water boilers and provide power to facilities onsite**.
- Cogeneration will produce a **sustainable form of green energy**.
- Cogeneration will **reduce the WWTP's reliance on conventional power and generate electricity at a lower cost** than power from the local electrical utility.

Cogeneration Facility Overview: Kitchener WWTP Site Plan

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Anticipated location of the Cogeneration Facility at 368 Mill Park Drive.

Cogeneration Facility Overview (Continued)

12

What happens to the biogas now?

- Biogas is used in the boilers to produce heat to warm up sludge and to heat buildings.

What do we propose to do with the biogas?

- Biogas will be used in the new cogeneration engines to produce both electricity and heat at the same time

Enough biogas produced to run a 800 to 1,000 kW engine

Electrical consumption reduction

by 65% (around 5,400 MW per year)

Note: kW means kilowatt
MW means megawatt

Did you know, 5,400 MW is the amount of electricity used on average by 540 houses per year?

How much does it cost to install cogeneration?

- Here are preliminary cost estimates for installing cogeneration engines based on an earlier study in 2015:
  - Installation at the Region's three largest WWTPs (Galt, Kitchener and Waterloo) is estimated to be $25.8 million.
  - Incentives are available to cover up to 40% of the costs.
  - Once complete, approximately 30 to 65% of the current energy usage can be offset for each of the WWTPs.

What is the expected payback period?

- Based on current electricity rates, the payback period is expected to be less than 10 years. More updated cost information will be provided in Public Consultation Centre #2.

Next Steps

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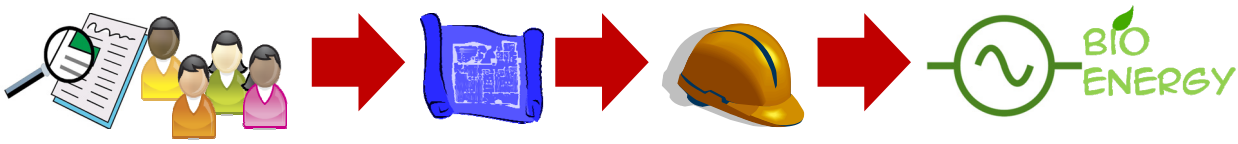
Activity	Step	Date
REA	Submit REA Application	February 2017
	Finalize Conceptual Design	March 2017
Design and Construction	Complete Detailed Design	March 2017 through February 2018
	Tender Contract & Construct	April 2018 through July 2020



Kitchener Wastewater Treatment Plant Cogeneration Facility Renewable Energy Approval

Public Consultation Centre

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Thank you!

Thank you for your interest in the Renewable Energy Approval process for the Cogeneration Facility at the Kitchener WWTP.

For further information, please contact:

Pam Law, P.Eng.
Senior Project Engineer
Region of Waterloo
Water Services
PLaw@regionofwaterloo.ca
519-575-4095

16 Waterloo Wastewater Treatment Plant 16
Cogeneration Facility
Renewable Energy Approval

Public Consultation Centre #1

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- **Thursday November 10th, 2016**.
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Purpose and Goals of Public Consultation Centre #1

17

Purpose

The Region of Waterloo (Region) is planning to install a Cogeneration Facility at its Waterloo Wastewater Treatment Plant (WWTP) and would appreciate your feedback.

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Note: Before the Region begins the design and construction of the Cogeneration Facility, a **Renewable Energy Approval (REA) application will be submitted to the Ministry of the Environment and Climate Change (MOECC)**.

Goals

Provide you with:

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What is a REA?

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BIO ENERGY

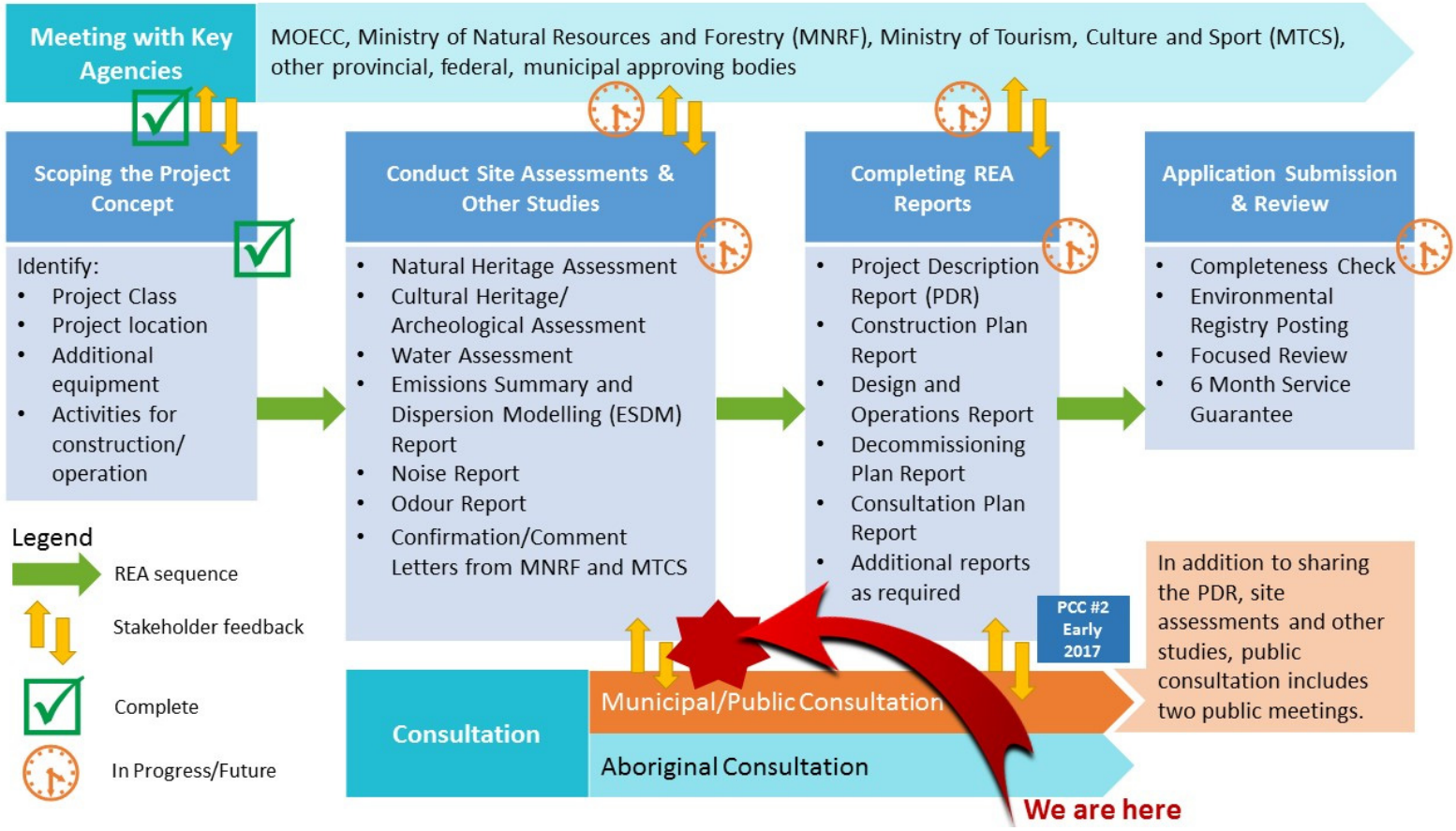
Bio-energy projects include ones that use anaerobic digestion, biofuel, biogas, and thermal treatment facilities.

Public consultation plays a key part in the application process. At various stages, the public, municipalities, and Aboriginal communities will be consulted and will have an opportunity to review reports and documents, and participate in the process.

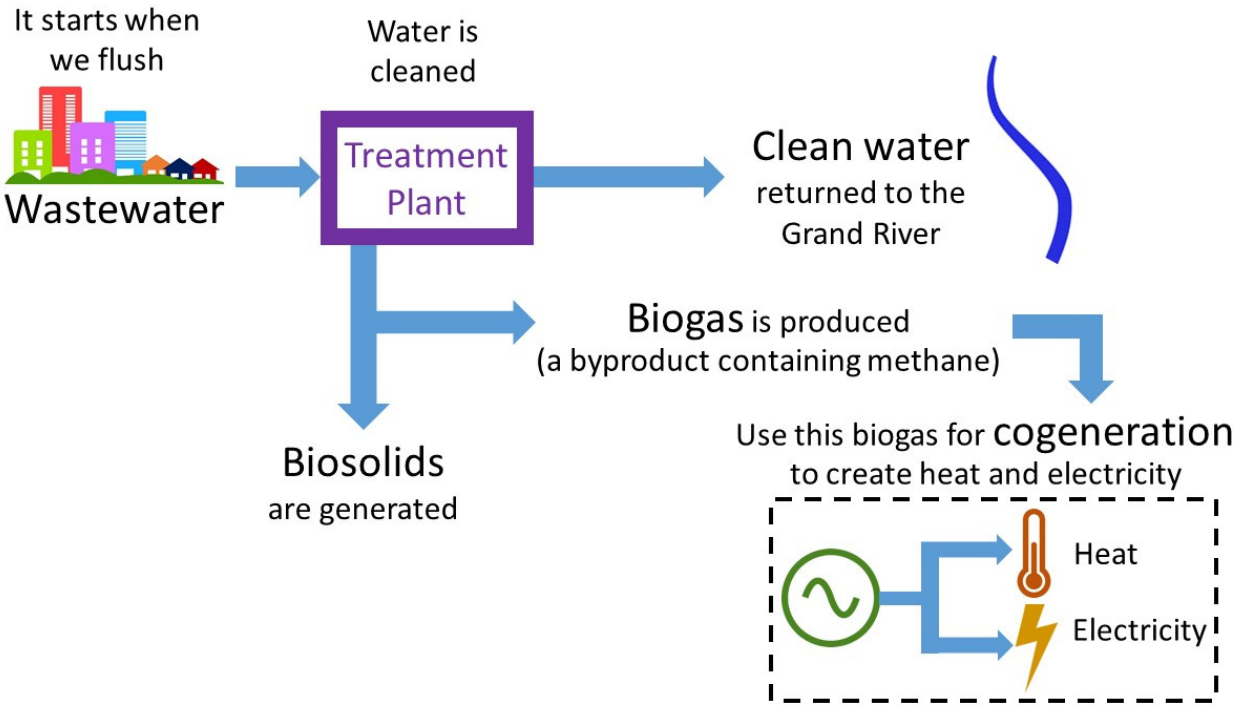
REA Process (Continued)

19

Where are we in the REA process?



What is Cogeneration?



How will the Waterloo WWTP benefit from Cogeneration?

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Cogeneration Facility Overview: Waterloo WWTP Site Plan

21

Anticipated location of the Cogeneration Facility at 40 University Avenue East.

Cogeneration Facility Overview (Continued)

22

What happens to the biogas now?

- Biogas is used in the boilers to produce heat to warm up sludge and to heat buildings.

What do we propose to do with the biogas?

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Enough biogas produced to run a 400 to 600 kW engine

Electrical consumption reduction

by 30% (around 3,000 MW per year)

Note: kW means kilowatt
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Did you know, 3,000 MW is the amount of electricity used on average by 300 houses per year?

How much does it cost to install cogeneration?

- Here are preliminary cost estimates for installing cogeneration engines based on an earlier study in 2015:
  - Installation at the Region's three largest WWTPs (Galt, Kitchener and Waterloo) is estimated to be $25.8 million.
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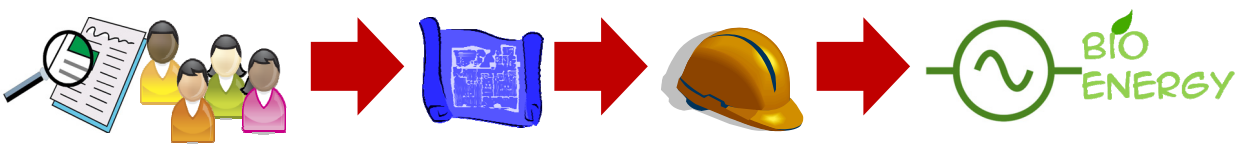

Waterloo Wastewater Treatment Plant Cogeneration Facility Renewable Energy Approval

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Public Consultation Centre

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For further information, please contact:

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Galt Wastewater Treatment Plant Cogeneration Facility Renewable Energy Approval

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Public Consultation Centre #1

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Purpose and Goals of Public Consultation Centre #1

27

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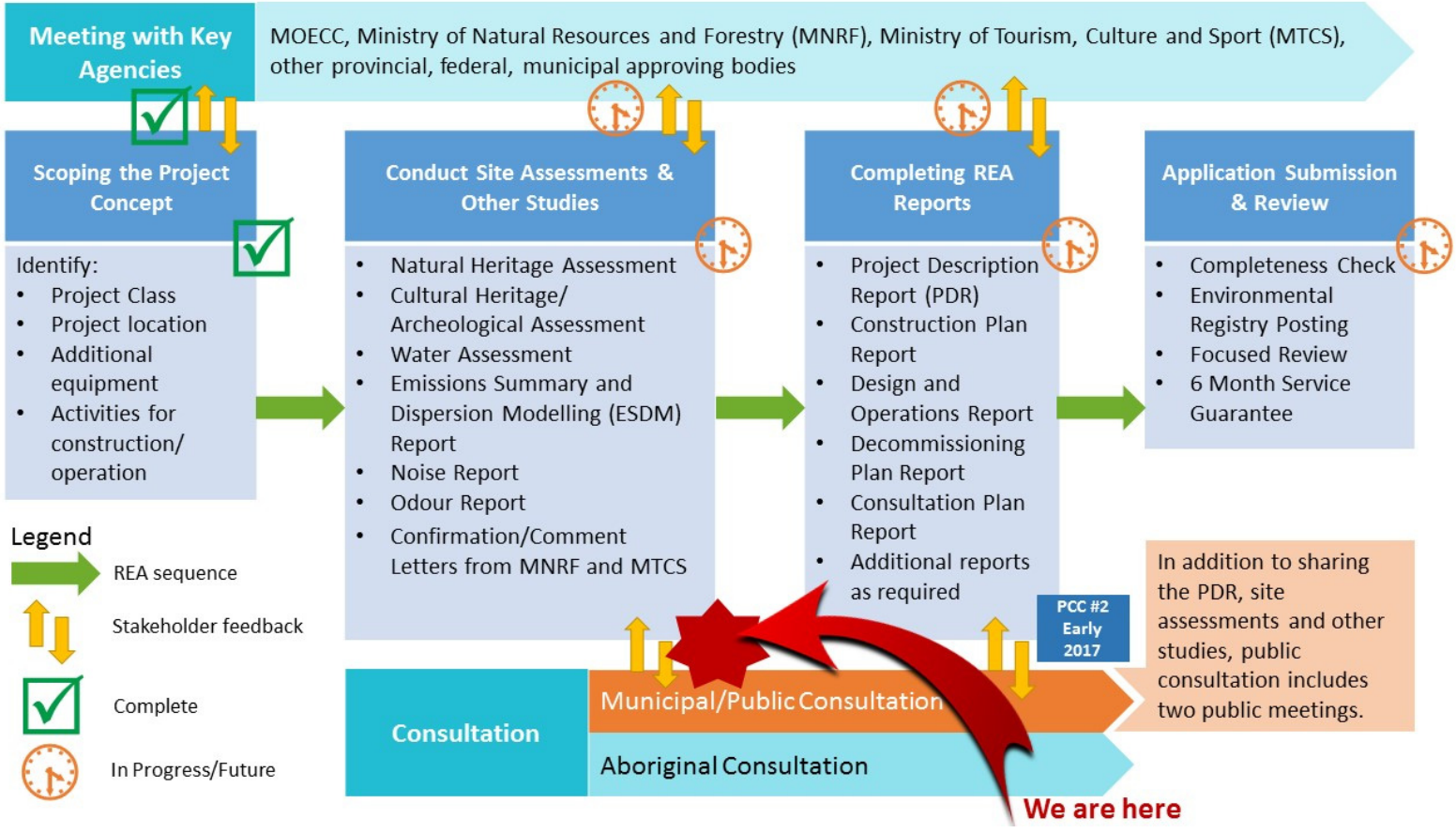

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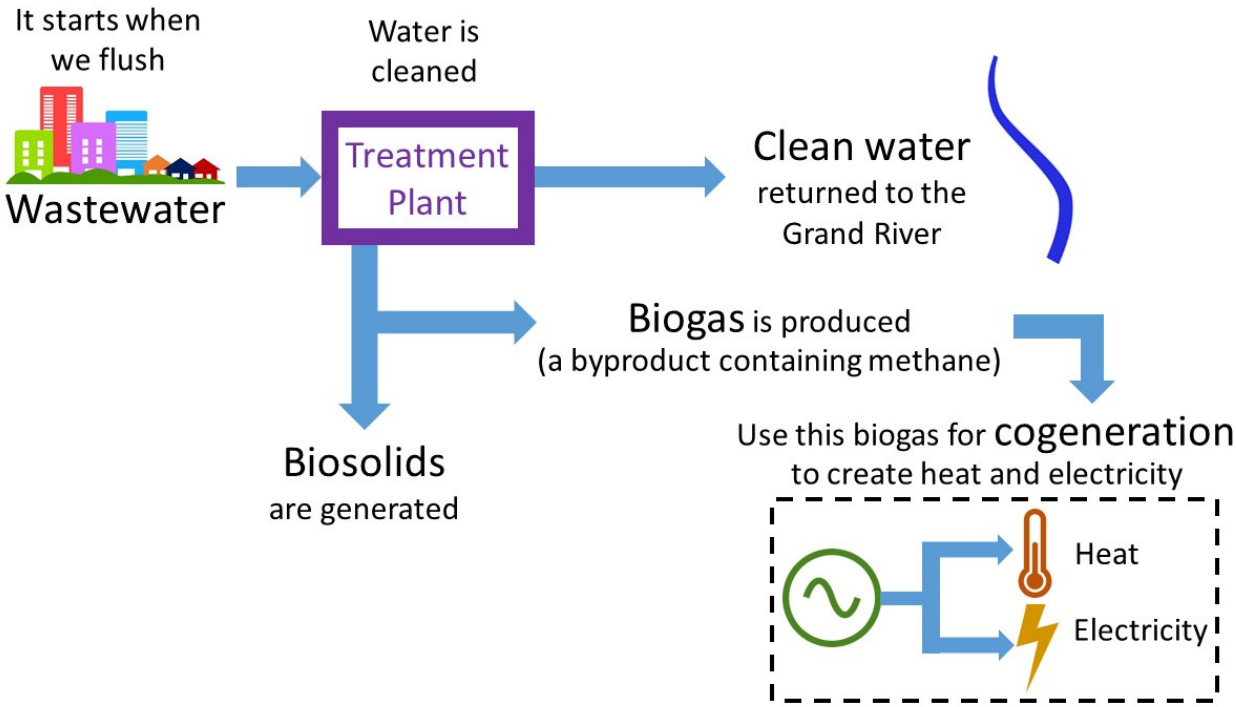

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Cogeneration Facility Overview: Galt WWTP Site Plan

31

Anticipated location of the Cogeneration Facility at 230 Water Street South.

Cogeneration Facility Overview (Continued)

32

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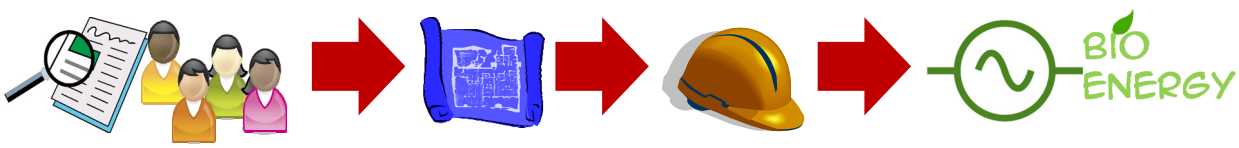

Galt Wastewater Treatment Plant Cogeneration Facility Renewable Energy Approval

Public Consultation Centre

35

Thank you!

Thank you for your interest in the Renewable Energy Approval process for the Cogeneration Facility at the Galt WWTP.

For further information, please contact:

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36

Report: PDL-CPL-16-42

Region of Waterloo

Planning, Development and Legislative Services

Community Planning

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

Date: October 4, 2016 **File Code:** D10-40(A)

Subject: Program Update on the Transit Supportive Strategy for Cambridge, 2016

Recommendation:

For information.

Summary:

As part of the approval of ION in 2011, Regional Council approved an annual allocation of $1 million for a period of 10 years to increase transit ridership, encourage transit supportive development, and ultimately accelerate implementation of Stage 2 LRT in Cambridge. The first annual Transit Supportive Strategy for Cambridge (TSS) Implementation Plan was approved by Regional Council in 2012 and the Region and City of Cambridge signed a TSS Funding Agreement in January 2014.

Since 2012, the TSS has been used to support 17 transit related initiatives in the City of Cambridge. This report provides an update on these initiatives as well as the city-wide ridership trends since 2011. Appendix 1 provides a complete project list.

Transit ridership or passenger activity generally improved where TSS funded transit service improvements and infrastructure investments were made, despite of a decrease in city-wide ridership in 2014 and 2015. Transit marketing and Transportation Demand Management (TDM) initiatives are still underway and are being monitored. Transportation and planning projects, some of which are also still underway, are expected to support increased transit ridership in the long term by providing the policy foundation necessary to encourage Transit Oriented Development.

Report:

As part of the approval of ION in 2011, Regional Council approved an annual allocation of $1 million for a period of 10 years to build transit ridership, encourage transit supportive development, and ultimately accelerate implementation of Stage 2 LRT in Cambridge. Planning and GRT staff work with City of Cambridge staff to develop an annual implementation plan for Regional Council's consideration.

Regional Council approved the first TSS implementation plan in 2012. Some of the earlier projects changed in scope or were delayed until 2014 and 2015. The Funding Agreement between the Region and City of Cambridge was signed on January 31, 2014. The Agreement clarified the project selection process and criteria for the development of future implementation plans. The Region and City agreed through the Funding Agreement that Regional Council is responsible for approving annual implementation plans, that the TSS can be used to accelerate planned GRT route enhancements for up to three years, and that any unspent funds can be carried over to future years within the 10-year term of the Agreement.

Since 2012, the TSS has funded 17 Regional and City of Cambridge initiatives in three categories: transit service and infrastructure improvements; marketing and Transportation Demand Management (TDM) projects, for example, the TravelWise Drive for Cambridge Corporate Members; and long-term transportation or planning studies to support Transit Oriented Development.

Cambridge City-Wide Ridership and User Satisfaction

Although many TSS funded initiatives are localised, city-wide ridership information provides an important context for this update. Cambridge city-wide ridership increased annually from 2011-13 and decreased in 2014 and 2015 (please see Table 1 below). As described in the Grand River Transit (GRT) Business Plan 2017-2021 Interim Report (TES-TRS-16-17, August 9, 2016), this recent region-wide ridership decline was due to several factors: i) loss of school board funded high school trips; ii) service impacts due to construction detours; iii) fare increases above inflation coupled with localized service reductions in 2013 and 2014. Construction on the major north-south routes including the Fountain Street and Speedsville Road bridge replacements, the Franklin Boulevard roundabout project, Highway 401 construction, and lane closures on Hespeler Road all impacted transit services.

The loss of student riders accounted for approximately 40 per cent of the Cambridge ridership decrease from 2013 to 2015. Other non-local factors include lower fuel prices and perhaps some transit trips shifting to Uber or similar services. These ridership trends are consistent with those experienced by many other transit authorities across Southern Ontario. With the completion of construction projects together with the planned service improvements in 2017-2021, ridership is expected to increase.

Table 1: Transit Ridership in the Cambridge Service Area, 2011 – 2015 (GRT data)

2011	2012	2013	2014	2015
3,338,147	3,628,641	3,661,007	3,117,162	2,855,988

Overall trip satisfaction for riders in Cambridge remains high, at 89 per cent in 2015 (GRT Customer Satisfaction Survey 2014-15). There was a 6 per cent increase in survey respondents who mentioned using transit on a daily basis between the 2010-11 GRT Customer Satisfaction Survey and the 2014-15 survey. As well, 90 per cent of respondents to the 2014-15 survey mentioned that they had increased or maintained their transit usage since the earlier survey. Total regular adult monthly pass sales (purchased at Cambridge retailers) increased from 8,118 in 2011 to 8,900 in 2015.

Despite the city-wide ridership decrease, ridership and passenger activity increased where TSS funded transit service or infrastructure improvements were made. TDM and marketing as well as transportation and planning initiatives are still underway. It is anticipated that these initiatives will have an impact in the medium and long term.

Transit Service and Infrastructure Improvements

The TSS helped sustain transit service hour increases in Cambridge, which have grown by 4.1 per cent since 2011. The TSS also funded projects that improved transit stop infrastructure, such as new sidewalks and shelters. These projects generally corresponded with ridership or passenger activity increases (causality not statistically verified). Examples of such improvements include the following:

- The TSS funded the expedited introduction of the 203 iXpress along Hespeler Rd and Maple Grove Rd. This new route is outperforming its original ridership projection, and meets GRT service utilization thresholds.
- Route 67 Lovell Industrial runs on roads that received TSS funded sidewalk improvements, and it has seen a 13 per cent increase in ridership from 2011 to 2015 (post-improvement).
- The Conestoga College discount pass program contributed to an average annual increase in pass sales of 17 per cent (2012–2015). Passenger activity increased by 35 per cent at stops serving the Conestoga College Doon and Cambridge campuses on routes originating from Cambridge.
- Approximately 500m of concrete sidewalk and asphalt walkways were installed at 5 bus stops in Cambridge industrial parks. Further, 36 stops were improved with concrete shelter pads, 20 of which have had shelters installed to date. Streetscape improvements and painting at Ainslie Terminal have also improved the aesthetics and user comfort of the terminal.

Transportation Demand Management and Marketing Initiatives

In 2011, 89.2 per cent of the trips taken by Cambridge residents were by automobile while transit use accounted for 3.2 per cent (Transportation Tomorrow Study, 2011). According to a survey conducted to inform the Moving Forward, Transportation Master Plan Update, Cambridge residents are also three times as likely as other residents in Waterloo Region to commute outside the region for work (Region of Waterloo Transportation Project, 2016 Public Opinion Report). In communities with these transportation characteristics, Transportation Demand Management (TDM) techniques are an important part of a comprehensive transit supportive strategy since they have proven effective at changing travel behavior over time.

The TSS has supported TDM initiatives over the last five years. For example, the TravelWise membership drive offers a two-year free membership to new corporate members and discounted transit passes to their employees. The TSS is also supporting the introduction of CarShare to Cambridge, a Neighbourhood Individualized Marketing Campaign and the City's TDM Coordinator/Station Area Planner. These projects are intended to increase the use of sustainable modes of transportation, such as transit.

The Free Transit Tickets for Special Events Pilot Project was run at three summer events, Canada Day, RibFest and Street Art Festival. Participants were asked to fill out a short survey. Staff are evaluating the processes and results of the project and will provide an update later this year.

Transportation and Planning Studies

The TSS is also supporting transportation and planning studies to provide the necessary policy foundation to encourage higher density Transit Oriented Development in the ION corridor. The GO Train Feasibility Study, Implementation of the Cambridge Comprehensive Commercial Review and the Groff Mill Creek Two Zone Flood Plain Study are complete. The City of Cambridge Transportation Master Plan and the Growth and Intensification Study are underway. The Region is tracking population and employment trends within the Central Transit Corridor on an annual basis. The impacts of these planning studies will be assessed when the development sector has had time to respond to the new policy environment.

Budget

With an annual funding allocation of $1 million, the maximum allocation from 2012–2016 was $5 million. Through the 2012–2016 TSS Implementation Plans, Regional Council approved a total of $4,885,000, leaving a carry-over balance of $115,789 in the TSS capital budget. Of the approved amount, actual expenses totalled $3,610,000 as of July 25, 2016.

2017 TSS Implementation Plan

Staff have begun discussing the proposed 2017 Implementation Plan in September 2016, which will be brought forward for Regional Council's consideration by March 31, 2017. City and Regional staff are considering the potential option of postponing some TSS spending in 2017 and 2018 in order to accumulate sufficient funds for larger initiatives in 2019.

Corporate Strategic Plan:

The TSS aligns with the 2015-2018 Corporate Strategic Plan. TSS initiatives help to achieve Focus Area 1: Thriving Economy; Focus Area 2: Sustainable Transportation; and Focus Area 3: Environment and Sustainable Growth. Many of the TSS initiatives contribute to multiple strategic objectives. In addition, the TSS supports several key objectives of the Community Building Strategy.

Financial Implications:

As stated in the TSS Funding Agreement between the Region and the City of Cambridge, any unspent TSS funds can be carried over to future years within the 10-year term of the Agreement. The timing of project implementation would affect annual cash flow, but not the total funding approved for the TSS program. The TSS budget is funded from property taxes generated as part of the Regional Transportation Master Plan funding strategy.

Area Municipal and Departmental Consultation and Concurrence:

GRT has provided most of the data contained in this update. GRT and City of Cambridge staff have reviewed this report and concur with its contents.

Attachment

Appendix A: Transit Supportive Strategy for Cambridge: Project List and Budget Summary

Prepared By: **John Hill**, Supervisor, Economic Development
Catherine Heal, Principal Planner, Reurbanization

Approved By: **Debra Arnold**, Acting Commissioner,
Planning, Development and Legislative Services

Appendix A

Transit Supportive Strategy for Cambridge: Project List and Budget Summary (dollar amounts in 000s)

Initiative	2012 - 2015 (Actuals)	2012 - 2015 (Committed)	2016 Plan (Committed)	Total	Year to Date (Actuals)
Completed Projects (2012-2015)					
Ainslie Terminal Improvement Study	50			50	
Ainslie Terminal, Phase 1 Design	44			44	
Ainslie Terminal Streetscape and Pedestrian Improvements Phase 1	318			318	
GO Transit Study, Phase 2 (2015)	132			132	
Lovell Industrial Park TravelWise Survey	29			29	
Transit Shelters / Sidewalks	456			456	
Approved and Ongoing Projects (2016)					
TravelWise @ Work Pilot	3	33		36	2
Growth & Intensification Study		295		295	
Groff Mill Creek Plan		80		80	
Neighbourhood Marketing Plan	40	70		110	
Cambridge Commercial Review		50		50	
Maple Grove iXpress (Weekday)	1,101		715	1,816	417
Weekend iXpress Service	48		144	192	84

Initiative	2012 - 2015 (Actuals)	2012 - 2015 (Committed)	2016 Plan (Committed)	Total	Year to Date (Actuals)
TDM Co-ordinator / Station Area Planner	128		90	218	53
City of Cambridge Transportation Master Plan (Expanded scope)		50	25	75	
Conestoga College Transit Pass Discount (Extension)	548		165	713	157
New Projects (2016)					
CarShare Vehicles in Downtown Cambridge			20	20	
Improvements to Local Stops in Hespeler Corridor			8	8	
Multi-use Trail on Conestoga Blvd			225	225	
Transit Tickets for Special Events			18	18	
Total	**$2,897**	**$578**	**$1,410**	**$4,885**	**$713**

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Report: PDL-CPL-16-43

Region of Waterloo

Planning, Development and Legislative Services

Community Planning

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

Date: October 4, 2016 **File Code:** D06-80

Subject: Status Report on Community Climate Adaptation

Recommendation:

For Information.

Summary:

Regional Council recognized the importance of addressing the challenge of global climate change at a local level with specific actions included within Region's Strategic Focus 2015 – 2018, under the Environment and Sustainable Growth Focus Area. One of these strategic actions includes the development of a Community-scale Climate Adaptation Plan to address the risks associated with extreme weather and changing climate conditions. This report provides an overview of climate adaptation planning and an update on the progress made by staff towards developing a community-scale climate change adaptation strategy and action plan for Waterloo Region.

Since 2013, Regional staff have been working with various community partners on several local initiatives to help prepare Waterloo Region for climate adaptation planning. Staff continues to work with Area Municipalities and various other organizations to identify additional adaptation measures required to reduce adverse climate impacts. Ongoing research, consultation and training are raising local capacity and fostering collaboration. These efforts aim to establish the appropriate strategic approach to identify vulnerabilities and risks which in turn will inform the identification and prioritization of potential remedial actions by the respective stakeholders. Currently, the Region is approximately half-way through the strategy development stage and expects to provide a further progress update in 2017.

Report:

Background

Climate change is a global issue that impacts our natural and built environment, people and the economy. Regional Council recognized the importance of addressing the challenge of global climate change at a local level by including four related actions within the Corporate Strategic Plan for 2015 – 2018 under the Environment and Sustainable Growth Focus Area. These actions include both a corporate and community focus on reducing greenhouse gas (GHG) emissions (also known as climate change mitigation) as well as climate adaptation to deal with local impacts of extreme weather events and changing weather conditions within Regional operations as well as the broader community.

The actions involving a community scope, by necessity, are dependent on collaboration with various community partners. One example of this type of collaboration is the Climate Action Waterloo Region initiative which involves area municipalities, local utilities and the leadership of two local non-governmental organizations, Sustainable Waterloo Region and REEP Green Solutions.

Mitigation efforts typically attempt to slow the progression of climate change by reducing emissions of GHGs into the atmosphere. However, despite progress made towards reducing GHG emissions, there is strong evidence that global and regional climates are already changing. Communities across Canada and internationally are working to understand and prepare for the potential ramifications of more severe changes still to come. This report provides an overview of climate change adaptation planning and an update on the progress made by staff towards developing a community-scale climate change adaptation strategy and action plan for Waterloo Region.

Corporate and Community Climate Adaptation

Climate change adaptation seeks ways to better protect communities from various climate impacts by reducing their vulnerability to potential risks. Climate adaptation strategies and actions can be divided into corporate-level and community-level initiatives. In the context of this report, corporate-level adaptation initiatives focus specifically on climate impacts that may adversely affect municipal operations and the delivery of programs and infrastructure services which are under direct municipal control such as Regional facilities, roads and water services. In contrast, community-level adaptation initiatives focus on areas beyond the operational control of an individual municipality or organization such as is the case with protecting community health and safety, flood preparedness or impacts to the built and natural environment as well as the local economy. Climate adaptation planning at a community-scale requires collaboration with various community partners to effectively address the wide range of potential risks associated with extreme weather and changing climate conditions.

Community-Scale Adaptation Planning

In the context of Waterloo Region, community-level climate change adaptation planning aims to address potential climate impacts in areas where the Region does not have direct control. This requires bringing together Area Municipalities and other key stakeholders such as the GRCA, local utilities, school boards and community agencies to be involved in the planning process. By collaborating with community partners, a range of potential climate change impacts, vulnerabilities and risks can be identified and assessed in a locally relevant manner. This in turn informs the identification of potential remedial actions and their prioritization by stakeholders in a position to manage the identified risks. This is the basis upon which an implementation plan can be developed to reflect the specific conditions and needs of Waterloo Region.

Research into the climate change adaptation planning efforts of other regional municipalities in Ontario indicates that adaptation planning often spans two main stages: 1) development of an adaptation strategy, and 2) the development of an adaptation action plan.

The strategy-building stage typically involves relationship-building with community partners and conducting research into climate projections and potential local impacts. This research informs a strategic document that communicates the need for climate adaptation and outlines a proposed process to develop an action plan involving local stakeholders and decision-makers. For a regional municipality, governance of a collaborative process involving multiple local governments and other agencies typically requires the development of a terms of reference or community charter document.

The climate adaptation action plan recommends specific measures to enhance the community's ability to develop resilience to climate change impacts and assigns agreed-upon responsibilities for undertaking related actions. An action plan should consider local conditions, vulnerabilities and risks identified through stakeholder consultations and technical assessments where necessary, involving those that would enable implementation as well as the monitoring and review of actions.

Based on the experiences of other regional municipalities in Ontario, creating an overall adaptation strategy can take approximately two years to complete, while the development and approval of a community action plan can take an additional two to four years depending on the breadth of risks addressed and the depth of the vulnerability and risk analyses conducted. Attachment A includes a Summary of Municipal Climate Adaptation Efforts to show the actual timelines experienced by several regional municipalities in Ontario. Currently, the Region is approximately half-way through the strategy development stage as further detailed below.

There are various frameworks and tools available to help Canadian municipalities undertake climate change adaptation. These range from issue-specific frameworks

focused on water resources, for example, to broader frameworks that provide high-level process guidance on a wider scope of issues but with less in-depth technical analysis. Generally, climate adaptation frameworks follow a similar root structure including the following main steps:

- Conducting preliminary research on regional climate projections, engaging stakeholders, and gaining necessary approvals to proceed with a defined planning process;
- Identifying and evaluating impacts, conducting vulnerability and risk assessments specific to a locale;
- Identifying practical and effective interventions or actions, prioritizing those that address the highest areas of risk;
- Identifying the necessary resources and seeking associated approvals for implementation of an action plan; and,
- Periodic monitoring and review for continual improvement.

Several tools are also available to offer more specific assistance with components of the climate change adaptation process. Examples of these tools include a protocol developed by Engineers Canada to assess the vulnerability of public infrastructure or a guidance framework developed by the World Health Organization for evaluating `risk to human health. Tools that are topic-specific support a deeper investigation of potential vulnerabilities and risks, while the broader frameworks are useful for helping to coordinate the overall process, and more likely provide a simplified screening-level vulnerability and risk assessment suitable for scoping and prioritization of where to conduct more in-depth investigations.

Progress Towards Climate Change Adaptation in Waterloo Region

Over the past few years, Regional staff have been working with Area Municipalities and other community partners on several local initiatives to help prepare Waterloo Region for the climate adaptation planning tasks that lie ahead. A summary of these local achievements to date are included as follows:

- Establishing local research capacity and expertise at the University of Waterloo including the Interdisciplinary Centre on Climate Change (IC3), the Intact Centre on Climate Adaptation (ICCA) and Partners for Action Initiative (2012 – 2015);
- Development of a climate adaptation toolkit for residents which has been prepared by the non-profit KW Transition group and funded by the Region's Community Environmental Fund - available at the following website address: http://www.transitionkw.com/initiatives/toolkit/ (2013/2014);
- A climate adaptation forum hosted by the University of Waterloo to raise awareness amongst Regional and Area Municipal staff (October 2014); and,

- Research on local Climate Projections as a collaboration between Area Municipalities, the Region and the University of Waterloo (PDL-CPL-15-58). The research was prepared as a detailed technical report as well as an infographic and video format all available through the following website address: https://uwaterloo.ca/climate-centre/research-0/research-projects.

In January 2016, Regional Council approved funding to support community climate adaptation planning consistent with the Region's Strategic Plan, specifically to hire two consecutive one-year full-time Masters Student Interns from May 2016 to April 2018. To date, the additional staff has conducted:

- Research into the climate adaptation strategies and action plans of several regional municipalities in Ontario.
- Research into climate change adaptation frameworks and risk assessment tools available to municipalities to help guide each stage of the planning process.
- A preliminary scan into existing local actions that may currently contribute to the ability of Waterloo Region to adapt to climate change and extreme weather.

Regional staff recently held a second Municipal Forum for Climate Adaptation in Waterloo Region on June 22nd, 2016. The event brought together staff from the Region and Area Municipalities, the GRCA and University of Waterloo (UW). UW researchers from IC3 and the ICCA initiative presented on the localized climate projections study for Waterloo Region and on several UW programs relevant to climate adaptation. Region of Waterloo staff presented their research into the adaptation planning experiences of other regional municipalities, the frameworks and tools available, and facilitated a discussion of a draft work plan and elements of the adaptation process in need of further collaboration. Follow-up conversations with forum attendees led to further considerations regarding potential governance models, use of tools/frameworks, timelines, addressing confusion on the difference between mitigation and adaptation and corporate versus community-scoping issues.

Most recently, Regional staff met with representatives from each of the three Cities to share updates on progress towards corporate and community climate adaptation. The Cities are in the very early stages of their corporate adaptation efforts and have differing staff resources to address climate adaptation. Efforts will also continue to engage representatives from the Townships to invite their involvement. As the Area Municipalities are key partners, it is essential that the Region's climate adaptation efforts integrate with Area Municipal climate change planning efforts, as this will have implications in areas with shared or overlapping responsibility. The Region will continue to facilitate discussions on community adaptation planning as well as encourage collaboration and coordination among stakeholders. Developing a common approach to addressing existing and potential adverse climate impacts within Waterloo Region is an essential first step to optimizing local adaptive measures.

Next Steps

The Region and the Cities of Cambridge, Kitchener and Waterloo are collaborating on arranging training and education workshops for municipal staff, intended to increase their awareness of how to incorporate climate change considerations within existing risk management frameworks. The training should help raise capacity to identify potential climate impacts and undertake screening-level vulnerability and risk assessments. Summary reports on the outcomes of these workshops will be included in the next community climate adaptation progress report in 2017.

Work to establish a terms of reference or project charter for community climate adaptation planning is ongoing. This document is envisioned to define the proposed scope for the plan, the goals, objectives and timelines for detailed assessments, and a governance structure outlining roles of involved stakeholders. An adaption strategy document is currently planned for completion in the first half of 2017 for consideration by Regional and Area Municipal Councils. Attachment B: Community Climate Adaptation – Work Plan Summary provides an overview of the anticipated next steps and timeline for the overall community climate adaptation process.

Corporate Strategic Plan

This report addresses Strategic Objective 3.4 Improve the Region of Waterloo's resilience to climate change and/or severe weather, specifically Action 3.4.2 Collaborate with stakeholders to develop a community-wide Climate Adaptation Plan.

Financial Implications

As part of the 2016 budget, Council approved $172,000 for 2016-2018 for the Community-wide Climate Adaptation Plan funded from the Tax Stabilization Reserve Fund with $80,000 for 2016**, $77,000 for 2017 and $15,000 for 2018. The funding covers graduate student intern costs as well as the Region's share of the training program costs referenced within this report.**

Other Department Consultations/Concurrence

Staff within Transportation and Environmental Services along with the Corporate Services Department were consulted in the preparation of this report as they are involved in a parallel Corporate Strategic Plan Action regarding adaption planning for Regional infrastructure and related services (3.4.1).

Attachments

Attachment A: Summary of Municipal Climate Adaptation Efforts

Attachment B: Community Climate Adaptation – Work Plan Summary

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

Nicholas Cloet, Student Planner – Climate Change

Approved By: **Debra Arnold**, Action Commissioner, Planning Development and Legislative Services

Attachment A: Summary of Municipal Climate Adaptation Efforts

Region	Approximate Timeline
City of Toronto	2007: Public consultations demonstrate support for climate adaptation 2008: Adaptation strategy 2011: Detailed climate projections 2013: Summary of climate projections presented to Council, separate recommendation for health & climate change strategy 2014: Climate change risk management policy 2015: New public health strategy specific to climate change impacts 2016: Three thematic working groups undertake vulnerability assessments (Transportation; Water, Wastewater and Storm Water; Utilities and Telecom)
Durham	2012: Climate change Local Action Plan 2014: Climate projections study, broad adaptation strategy 2015: Stakeholder involvement in Expert Task Force groups 2016: Draft program design (action plan), seeking approval 2017: Anticipated implementation
Peel	2010: Background research on climate adaptation, Peel conditions 2011: Broad adaptation strategy, Terms of Reference 2012 – 2015: Vulnerability assessments in various impact areas (i.e. health, natural heritage, public infrastructure), Peel-specific climate projections study, revised governance structure 2016: Synthesis report in progress (to include action plan)
York	2009: Staff training on climate adaptation 2011: Draft adaptation strategy (not approved by Council) 2014 - Present: new bottom-up approach. Local municipalities use the same tools, share information, undertake individual actions instead of common regional effort.
Niagara	2012: Broad adaptation strategy 2013: Combined mitigation and adaptation action plan (mostly mitigation) 2015: New council did not renew funding for climate change portfolio

Attachment B: Community Climate Adaptation – Work Plan Summary

Stage	Key Milestones and Tasks	Timeline
	PART A - CREATE THE OVERALL ADAPTATION STRATEGY	
1	**Strategy Development (project planning, building partnership) and Launch**	**Jan. 2016 - June 2017**
	• Region / Cities discuss collaborative approach to developing strategy and action plan, as well as coordination with corporate adaptation activities • Compile background info on adaptation framework and approaches by other Ontario municipalities • Re-engage participants from the initial Oct. 2014 municipal climate adaptation forum and invite feedback from key stakeholders on draft work plan, planning framework and update list of existing local actions • Provide training for municipal staff regarding climate adaptation, vulnerability and risk assessment to inform the scope of community adaptation plan • Draft Community Charter / Terms of Reference for collaboration based on stakeholder feedback and commitment for participation • Prepare report to Regional/City Councils for approval of overall strategy and Terms of Reference then establish committees and task forces as required	
	PART B - DEVELOP THE DETAILED ADAPTATION PLAN	
2	**Advance localized research and scoping**	**June 2017 - Jan. 2018**
	• Identify potential impacts on defined service areas based on climate projections and community conditions • Conduct detailed vulnerability and risk assessments; prioritize impacts to further address in stage 3 • Prepare and deliver interim report to Regional Council and update project website accordingly	
3	**Action Planning**	**Feb. 2018 - Oct. 2018**
	• Identify options and actions to address priority areas (including stakeholder consultation) • Determine supplementary resource needs, financing plan, implementation schedule including stakeholder roles and responsibilities, indicators to monitor progress • Present overview of Plan to Regional and City Councils	
4	**Approval of final strategy and resourcing implementation plan**	**Oct. 2018 - May 2019**
	• Prepare draft Adaptation Plan for final stakeholder/public consultation • Refine strategy from consultations as appropriate • Prepare and present final Adaptation Plan for approval by Regional/City Councils	

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Report: TES-DCS-16-16

Region of Waterloo

Transportation and Environmental Services

Design and Construction

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

Date: October 4, 2016 **File Code:** T04-20(A) / 07180

Subject: **Consultant Selection – Detailed Design, Inspection and Contract Administration Services for Fairway Road North Widening, Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street, City of Kitchener**

Recommendation:

That the Regional Municipality of Waterloo enter into a Consulting Services Agreement with MTE Consultants Inc. to provide engineering consulting services for the detailed design, inspection and contract administration services associated with the Fairway Road North Widening from Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street at an upset fee limit of $307,900 plus applicable taxes for the design phase, with construction inspection and contract administration services to be paid on a time basis in an estimated amount of $246,900, as described in report TES-DCS-16-16, dated October 4, 2016.

Also, that the Regional Municipality of Waterloo grant pre-budget approval of $50,000 in 2016 in order to allow design work to commence in 2016.

Summary:

The Regional Municipality of Waterloo intends to undertake widening and improvements on Fairway Road North from east of Lackner Boulevard to west of Pebble Creek Drive/Upper Mercer Street in the City of Kitchener. The improvements would include widening to 4 lanes, sidewalks and street lighting. Please refer to Appendix A for a key plan of the project limits.

A consultant selection process was conducted in accordance with the Region's Purchasing By-law and the Evaluation Team recommends that MTE Consultants Inc. be

retained to undertake this assignment at an upset fee limit of $307,900 plus applicable taxes for the design phase, with construction inspection and contract administration services to be paid on a time basis.

Funding for the improvements is not included in the 2016 Transportation Capital Program (TCP). As part of ongoing 2017 Transportation Capital Program (TCP) budget deliberations staff are recommending that funding of $3,050,000 for the design and construction of these improvements be included in the 2017 Transportation Capital Program (TCP). Staff recommend pre-budget approval of $50,000 for 2016 in order to allow design work to commence.

Report:

1. Background

In 1999 the Region completed the *Fairway Road Extension Alignment Study*, which was a scoped, Schedule B Class Environmental Assessment (EA) that established an alignment for Fairway Road east of Lackner Boulevard to (Old) Zeller Drive. Widening of Fairway Road North from Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street will complete the final link of (EA) approved widening of Fairway Road.

Within the project limits, Fairway Road North from Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street mainly consists of a 2-lane semi-urban/rural road (with urbanization at each end) and a 4-lane urban road through the signalized intersection at Pebble Creek Drive/Upper Mercer Street. The semi-rural section within the project limits is to be urbanized with widening to 4-lanes and the addition of curb and gutter, storm sewer and appurtenances (including extensions to existing infrastructure), concrete sidewalk, and street lighting (illumination). Most of this work is required in order to install new sidewalks.

Planning and Works Committee Report No. TES-TRP-16-04 / PDL-CPL-16-33, dated June 14, 2016, noted that the Waterloo Region District School Board (WRDSB) has received zone change approval from the City of Kitchener for a proposed development located in the northeast corner of the Lackner Boulevard/Fairway Road intersection. The development will include the future Chicopee Hills Public School scheduled to open in September 2017. The school site presents a number of challenges for pedestrian access, due to the lack of a continuous pedestrian facility linking the site to the adjacent residential neighbourhoods.

WRDSB has requested the Region to install a sidewalk on the north side of Fairway Road 400 metres easterly from Lackner Boulevard to provide a north side pedestrian facility for the Pebble Creek Drive subdivision residents. Based on review of all technical issues, and in collaboration with staff from both the WRDSB and City of Kitchener, Region staff agree that a new sidewalk on the north side of Fairway Road would

improve pedestrian access to the new school and recommend that the Fairway Road widening and improvements be completed as soon as possible.

Regional staff are fully committed to other capital projects at this time and therefore an external consultant must be hired to complete this project. Staff has determined that it is necessary to commence the engineering for this project now, in order to provide sufficient time to complete the planning and design phases, acquire any necessary property and complete utility relocations, if necessary, in advance of construction.

2. Consultant Selection

An invitation to submit Letters of Interest to provide engineering consulting services was advertised in both the Daily Commercial News and K-W Record, and on the Region's website, on July 8, 2016. Seven (7) Letters of Interest were submitted and evaluated by the Consultant Selection Team which consisted of the following staff:

- Justin Armstrong, Senior Project Manager, Transportation Expansion;
- Marcos Kroker, Head, Transportation Expansion;
- Frank Kosa, Senior Project Manager, Transportation Expansion and
- Tina Lumgair, Buyer, Treasury Services.

The Consultant Evaluation Team short-listed the following three (3) firms:

- MTE Consultants Inc. (Kitchener);
- WalterFedy (Kitchener) and
- IBI Group (Waterloo).

The short-listed consultants were asked to provide detailed Work Plans and Upset Fee Estimates for the work on this project.

The criteria used to evaluate the Letters of Interest, Work Plans and Upset Fee Estimates were in accordance with the Region's Purchasing By-law and included price as a factor in the selection process. These evaluation criteria and their respective weightings were as follows:

Quality Factors

- Project Approach and Understanding (35%)
- Experience of the Project Manager (20%)
- Experience on Similar Projects (15%)
- Experience of the Project Support Staff (10%)

Equity Factors

- Current Workload for the Region (3%)

- Local Office (2%)

Price Factor

- Upset Limit Fee (15%)

The Work Plans submitted by the short-listed consultants demonstrated a comprehensive understanding of the components of the project, capable project teams and experience on similar projects.

Based on the review of the Work Plans, and in consideration of the combination of quality, equity and price factors (described above), MTE Consultants Inc. scored the highest of the three (3) short-listed consultants and submitted the lowest upset fee. Therefore, the Consultant Selection Team recommends that MTE Consultants Inc. be retained to undertake the detailed design and construction inspection and contract administration services for this assignment.

3. Scope of Work

The scope of the assignment will have the consultant undertake detailed design and construction inspection and contract administration for:

- Widening of Fairway Road North from north/east of Lackner Boulevard to south/west of Pebble Creek Drive/Upper Mercer Street from two (2) to four (4) lanes and
- Improvements including urbanization of the north/west side of the road. Specifically, new curb and gutter, storm sewer installation, repair and replacement and new sidewalk along the north side of the road.

4. Schedule

Subject to Regional Council's approval of this consultant assignment, the proposed schedule for this assignment is as follows:

• Project Initiation, Data Collection, Background Review, Etc.	Fall 2016
• Preliminary Design	2016-2017
• Public Consultation Centre (PCC)	Summer 2017
• Property Acquisition and Utility Relocations	2017
• Detailed Design and Approvals	2017
• Construction (dependent upon property acquisition)	2018/2019

5. Consultant's Upset Fee

The short-listed consultants were requested to submit an upset fee for services required to complete the Detailed Design. An estimated fee for construction inspection and contract administration services was also submitted by each short-listed consultant for

budgetary purposes. As is Region practice, only the upset fee limit component was used in the consultant evaluation and selection process. MTE Consultants Inc.'s price was the lowest submitted from the three (3) short-listed consultants. The upset fee limit proposed by MTE Consultants Inc. to complete the detailed design is $307,900 plus applicable taxes. The fee provided is within the expected range of fees for this type of assignment and will be reflected in ongoing budget deliberations for the 2017 TCP. A breakdown of the proposed upset fee limit for this assignment is shown in Appendix B.

For road widening and improvements projects such as Fairway Road North, the fees required for construction inspection and contract administration services can vary significantly depending on the final design, weather conditions, unforeseen conditions encountered during construction, contractor performance, as well as other unknowns. Since an upset fee limit does not lend itself well to these types of services, it has been Region practice to pay for construction inspection and contract administration services on a time basis. The short-listed consultants were required to submit estimated construction inspection and contract administration fees based on a fixed construction period. The estimated fee provided by MTE Consultants Inc. for construction inspection and contract administration services is $246,900 plus applicable taxes. This amount will be reflected in ongoing budget deliberations for the 2017 TCP.

Corporate Strategic Plan:

Widening and Improvements for Fairway Road North between Lackner Boulevard and Pebble Creek Drive/Upper Mercer Street meets the 2015-2018 Corporate Strategic Plan objective to build infrastructure for, and increase participation in, active forms of transportation under Strategic Focus Area 2: Sustainable Transportation.

In addition, the Region's consultant selection process meets the 2015-2018 Corporate Strategic Plan objective to ensure Regional programs and services are efficient, effective and provide value for money under Strategic Focus Area 5: Responsive and Engaging Government Services.

Financial Implications:

The Region's approved 2016 Transportation Capital Program (TCP) does not include funds for the Fairway Road Widening.

As part of the ongoing 2017 TCP budget deliberations, staff are recommending that funding of $3,050,000 be included in the years 2017 to 2019 for the design and construction of Fairway Road from Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street, including: road widening and improvements and storm sewer works, to be funded from Regional Development Charges.

Staff recommend pre-budget approval of $50,000 to allow design work to commence in

2016.

Other Department Consultations/Concurrence:

Corporate Services (Purchasing) staff were consulted in the procurement of this consulting assignment.

Attachments:

Appendix A – Key Plan.

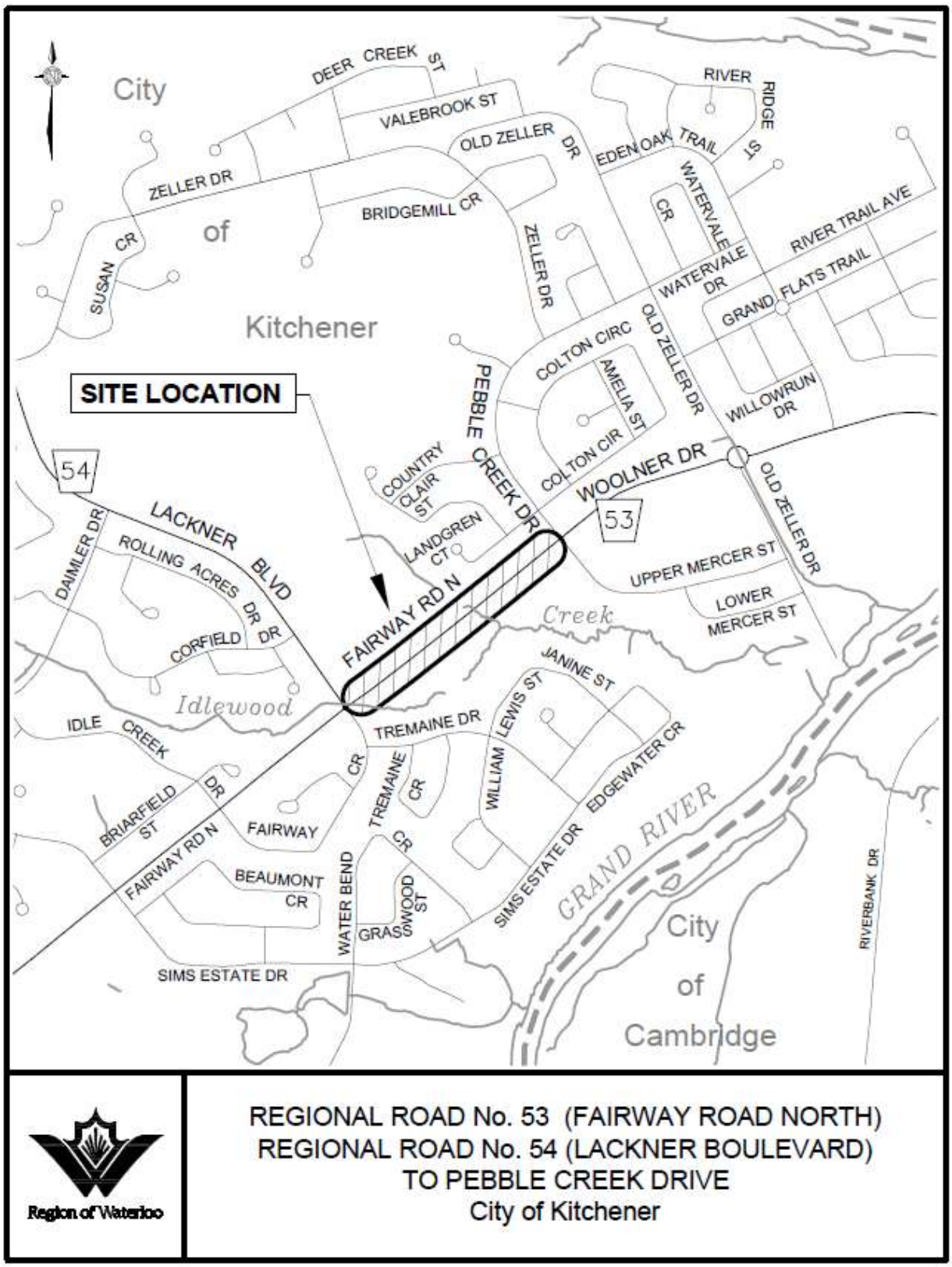
Appendix B – Breakdown of MTE Consultants Inc. Upset Fee Limit

Prepared By: **Justin Armstrong**, Senior Project Manager, Design & Construction

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

Appendix A

Key Plan



Appendix B

Breakdown of MTE Consultants Inc. Upset Fee Limit

Fairway Road North Widening

Lackner Boulevard to Pebble Creek Drive/Upper Mercer Street

City of Kitchener

Upset Fee for Detailed Design and (Construction) Inspection and Contract Administration based on Detailed Terms of Reference

1. Project Initiation, Data Collection, Background Review and Base Plan Preparation	$ 13,400
2. Preliminary Design, Meetings and Project Management	$ 165,600
3. Detailed Design	$ 111,800
4. Preparation of Contract Documents and Specifications	$ 17,100
Total Upset Fee Limit and Disbursements (excluding HST)	**$ 307,900**

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Report: COR-FSD-16-24

TES-TRS-16-21

Region of Waterloo

Corporate Services

Financial Services & Development Financing

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

Date: October 4, 2016 **File Code:** F01-80

Subject: Public Transit Infrastructure Fund – Phase One

Recommendation:

1. That the Region of Waterloo approve the list of projects to be funded by the Public Transit Infrastructure Fund – Phase One as set out in Attachment 'A' to Report COR-FSD-16-24/TES-TRS-16-21 dated October 4, 2016; and

2. That staff be directed to prepare the 2017-2026 Grand River Transit Capital Plan in accordance with Recommendation 1.

Summary:

The Region has been allocated $34,956,154 in federal funding under the Public Transit Infrastructure Fund – Phase One. This report provides an overview of the program and seeks Council approval of the recommended list of projects eligible for this funding and direction for staff to prepare the 2017-2026 capital plan on that basis.

Report:

On August 22, 2016 the Governments of Canada and Ontario announced that they had reached a bilateral agreement with respect to transit funding for municipalities. The federal government is providing funds of almost $1.5 billion under the Public Transit Infrastructure Fund (PTIF). The PTIF funds will be distributed based on ridership which results in the Region of Waterloo receiving $34,956,154 to spend on eligible transit projects. The eligible expenditures are quite broad and include:

a. Capital projects for the rehabilitation, optimization and modernization of public transit infrastructure, or that improve the efficiency, accessibility and/or safety of public transit infrastructure (including rehabilitation or enhancement of existing guide ways, maintenance and storage facilities, or other existing public transit capital assets; refurbishment or replacement of existing rolling stock; and replacement or enhancement of transit stations);

b. Expenditures to support the asset management capacity of a public transit system;

c. Expenditures to support the design and planning for the future expansion and improvements to public transit systems, including transportation demand management measures and studies and pilot projects related to innovative and transformative technologies; and

d. Projects for system expansion can be funded, which may include active transportation, if they can be completed within the program timeframe, subject to any additional flexibility that may be provided by the Minister on a case by case basis. Any unspent allocations would remain with the federal government.

Each project must meet at least one of the following objectives:

- Increased capacity or lifespan of the asset
- Enhanced service
- Improved environmental outcomes.

The program will provide funding for eligible expenditures made between April 1, 2016 and March 31, 2018. Up to 25% of program funding may be extended to March 31, 2019 should there be a demonstrated need. A key aspect of the PTIF relates to incrementality. The program guidelines state that project incrementality has been met when one of the following conditions has been met:

1. the project would not otherwise have taken place in 2016-17 or 2017-18 ; and/or
2. the project would not have been undertaken without federal funding

The Province is not cost-sharing this initiative, as it has previously committed $31.5 billion in funding for the “Moving Ontario Forward” program to improve public transit, transportation and other priority infrastructure projects across the province over the next 10 years. The program allocates approximately $16 billion to projects within the Greater Toronto and Hamilton area (GTHA) and approximately $15 billion for projects outside the GTHA.

Proposed Region of Waterloo Projects

The Regional projects identified in the federal media release in August represented a preliminary list of transit projects totaling $23 million in gross expenditures, and included projects such as the Fairview Mall Transit Terminal, University of Waterloo Transit Plaza, Northfield Drive Transit Facility and Transit Vehicle Replacements. Staff has since refined the list to utilize all available funding as set out in the following table and as further detailed in Attachment 'A'.

2016 Public Transit Infrastructure Fund - Project List			
$000	**Eligible Cost**	**Grants***	**Net Regional Cost**
Bus Replacements (48 buses)	$ 24,000	$ 12,000	$ 12,000
Bus Fleet Expansion (18 buses)	$ 9,000	$ 4,500	$ 4,500
GRT Voice Radio Infrastructure / Equip	$ 9,200	$ 4,600	$ 4,600
Northfield Dr Design / Site Preparation	$ 5,600	$ 2,800	$ 2,800
Active Transportation Improvements	$ 5,000	$ 2,500	$ 2,500
U of W Transit Plaza	$ 4,000	$ 2,000	$ 2,000
Fairview Mall Terminal	$ 2,000	$ 1,000	$ 1,000
On Board Camera Replacement	$ 2,000	$ 1,000	$ 1,000
Transit Safety & Security Measures	$ 2,000	$ 1,000	$ 1,000
iXpress Station and Bus Stop Upgrades	$ 4,112	$ 2,056	$ 2,056
Onboard Traffic Signal Priority Equip	$ 1,000	$ 500	$ 500
Design Studies	$ 2,000	$ 1,000	$ 1,000
	$ 69,912	$ 34,956	$ 34,956
Maximum permissible	**$ 69,912**	**$ 34,956**	
* Grant includes federal funding of 50%			

The majority of the projects are included in the Region's existing 10 year capital program. Certain projects will be accelerated to meet the incrementality requirements, some of which had no identified source of financing other than long term borrowing. The projects were not guaranteed to move forward until Regional Council approved the necessary funding sources. Funding from the federal government through PTIF will now ensure that these projects can proceed. Other projects are new and have been identified through the nearly completed Grand River Transit Business Plan.

Corporate Strategic Plan:

This report supports strategic objectives found in the Corporate Strategic Plan, and particularly Focus Area 1.2 - Plan for and provide the infrastructure and services necessary to create the foundation for economic success.

Financial Implications:

The receipt of Federal funds from the PTIF – Phase One will have little if any impact on the 2017 Regional Property tax levy, as the funding is for capital purposes only. Altering the GRT Capital Program to accommodate PTIF funding will in some cases accelerate the need for long term borrowing in the short term, although this is expected to be more than offset by the savings resulting from the $35 million in PTIF - Phase One funds.

Subject to Council approval of the recommendations, staff will prepare the 2017-2026 Grand River Transit Capital Plan on this basis. The regional share of these projects will be funded from a combination of reserves, development charges and long term borrowing. The proposed Transit development charges set out in the recently published Development Charges Background Study will be updated as required to reflect PTIF funding.

Other Department Consultations/Concurrence:

Staff from Facilities and Fleet Management was consulted in the preparation of this report.

Attachments:

Attachment ‘A’ – List of Projects to be funded by Public Transit Infrastructure – Phase One

Prepared By: Cathy Deschamps, Director, Financial Services & Development Financing

Eric Gillespie, Director, Grand River Transit

Approved By: Craig Dyer, Commissioner, Corporate Services/Chief Financial Officer

Thomas Schmidt, Commissioner, Transportation and Environmental Services

Attachment A – List of Projects to be funded by the Public Transit Infrastructure Fund

1. Conventional Bus Replacements

Project Description: Conventional bus replacements scheduled in the 2016 capital budget for 2017 and 2018

Proposed Order Date: November 2016

Proposed Delivery Date: 2017, subject to supplier delivery confirmation

Total Project Costs: $24,000,000

Budget Impact: amend 2017 GRT Capital Budget to advance 2018 replacements, include federal subsidy $12 million, GRT Reserve funding $12 million

Project Incrementality Criteria: Bus replacements scheduled for 2017 to be accelerated for ordering in 2016 and/or would not have proceeded without a funding source in 2017, and 2018 (18 buses) to be accelerated to 2017.

2. Conventional Bus – Fleet Expansions

Project Description: GRT Conventional bus fleet expansion to be included in 2017 Budget Issue Paper supporting the request for an additional 50,000 annual service hours commencing in fall 2017.

Proposed Order Date: January 2017

Proposed Delivery Date: 2017, subject to supplier delivery confirmation

Total Project Costs: $9,000,000

Budget Impact: amend 2017 GRT Capital Budget to include $9 million cost, federal subsidy $4.5 million, $819,000 RDC funding, $3,681,000 debenture funding.

Project Incrementality Criteria: These acquisitions are not included in the 2016-2025 capital program. Bus fleet expansion proposed for 2017 (18 buses) to be included in a 2017 Budget Issue Paper for Council deliberation during the 2017 budget process. If proposed service expansion is not approved by Council, these additional buses would be deployed as replacements for buses scheduled for retirement in 2019/2020.

3. Voice Radio Infrastructure and Equipment

Project Description: The GRT project cost share of the Region's Voice Radio System Infrastructure Replacement project ($22 million; 2016 – 18) is estimated in the $8 million to $9 million range based on GRT usage (35 – 40 %). $8 million of system infrastructure costs along with $1.2 million in equipment costs has been included in this project.

Proposed Order Date: January 2017

Proposed Construction / Delivery Date: 2017/2018

Total Project Costs: $9,200,000

Budget Impact: amend 2017 GRT / Facilities Capital Budgets to include federal subsidy $4.6 million, reduce RDC funding $678,000, reduce debenture funding $3,922,000.

Project Incrementality Criteria: Project heavily debt financed and may not proceed or could be deferred without subsidy funding.

4. Northfield Drive Maintenance Garage Design and Site Preparation

Project Description: This project includes design costs for the proposed GRT maintenance facility to be constructed on Northfield Drive. Also included are site preparation costs including building demolition of the existing structure on the site.

Proposed Start Date: January 2017

Proposed Completion Date: March 2018

Total Project Costs: $5,600,000

Budget Impact: amend 2017 GRT Capital Budget to advance project costs of $4.4 million from 2018, include federal subsidy of $2.8 million, reduce RDC funding $510,000, reduce debenture funding $2,290,000.

Project Incrementality Criteria: Project design originally scheduled to commence in 2018.

5. Active Transportation Improvements

Project Description: This project relates to the design and implementation of pedestrian environment improvements (i.e. walkways, lighting improvements) at various GRT locations. Those locations include the area adjacent to the R & T Park ION Station, a connection between the Iron Horse and Spur Line Trails and various other access points between GRT stops and ION stations.

Proposed Start Date: November 2016

Proposed Completion Date: March 2018

Total Project Costs: $5,000,000

Budget Impact: amend 2017 GRT Capital Budget to include $5 million project costs, federal subsidy $2.5 million, debenture funding $2.5 million.

Project Incrementality Criteria: Work contemplated under this project not budgeted in 2016 capital plan as approved by council in January 2016.

6. University of Waterloo Transit Plaza

Project Description: This project includes the design and construction of a multimodal transit passenger facility adjacent to the LRT station to integrate LRT with GRT, GO Transit and other inter-city carriers at the university.

Proposed Start Date: 2016 (project design commenced)

Proposed Completion Date: December 2017

Total Project Costs: $4,000,000

Budget Impact: amend 2017 GRT Capital Budget to include federal subsidy $2.0 million, reduce RDC funding $364,000, reduce debenture funding $1,636,000.

Project Incrementality Criteria: Project debt financed and may not proceed or could be deferred without subsidy funding.

7. Fairview Mall Transit Terminal

Project Description: This project includes the design and construction of a multimodal transit passenger facility adjacent to the LRT station to integrate LRT with BRT and other GRT connections including a passenger park and ride lot.

Proposed Start Date: 2016 (project design commenced)

Proposed Completion Date: March 2018

Total Project Costs: $2,000,000

Budget Impact: amend 2017 GRT Capital Budget to include federal subsidy $1.0 million, reduce RDC funding $182,000, reduce debenture funding $818,000.

Project Incrementality Criteria: Project debt financed and may not proceed or could be deferred without subsidy funding.

8. On Board Camera Replacement

Project Description: This project provides funding for the replacement of the onboard cameras installed on GRT buses in the 2011 – 2012 timeframe. This equipment generally has a lifecycle of 6 – 7 years.

Proposed Start Date: January 2017

Proposed Completion Date: December 2017

Total Project Costs: $2,000,000

Budget Impact: amend 2017 GRT Capital Budget to include $2.0 million project costs, federal subsidy $1.0 million, GRT Reserve funding $1.0 million.

Project Incrementality Criteria: Project not included in 2016-2025 Capital Budget, was originally to be included in 2017-2026 Capital Budget in 2021.

9. Transit Safety and Security Measures

Project Description: This project includes funding to expand the bus lock system (currently installed on buses at Conestoga garage) to the entire GRT conventional fleet, provide for the installation of a customer alert system at various GRT and ION stations and terminals, and includes funding for the supply of a bus driver training simulator to facilitate enhanced training techniques.

Proposed Start Date: January 2017

Proposed Completion Date: March 2018

Total Project Costs: $2,000,000

Budget Impact: amend 2017 GRT Capital Budget to include additional $1.0 million project costs, federal subsidy $1.0 million.

Project Incrementality Criteria: Project will not proceed or project scope altered significantly without subsidy funding.

10. iXpress Station and Bus Stop Upgrades

Project Description: This project includes iXpress stations on the Ottawa route and the route extension to Conestoga College. Also included are passenger amenities (i.e. bus pads, shelters, passenger information displays) at various GRT bus stops along with enhanced passenger amenities at various ION and iXpress stations.

Proposed Start Date: January 2017

Proposed Completion Date: March 2018

Total Project Costs: $4,112,000

Budget Impact: amend 2017 GRT Capital Budget to include additional $2,241,000 in project costs, federal subsidy $2,056,000, reduce RDC funding $170,000, increase debenture funding $355,000.

Project Incrementality Criteria: iXpress station costs debenture funded and could be deferred in the absence of subsidy funding. Bus stop improvements proposed in draft GRT Business Plan are not currently budgeted.

11. Onboard Traffic Signal Priority Equipment

Project Description: This project includes funding to equip the remaining GRT fleet with EMTRAC traffic signal priority equipment and technology.

Proposed Start Date: January 2017

Proposed Completion Date: March 2018

Total Project Costs: $1,000,000

Budget Impact: amend 2017 GRT Capital Budget to include $1.0 million in project costs, federal subsidy $ .5 million, GRT Reserve funding $ .5 million.

Project Incrementality Criteria: Project costs not currently provided for in GRT Capital Plan.

12. Transit Priority Design Studies

Project Description: This project includes funding for design work for a number of GRT initiatives including the Conestoga College terminal facility, a bus dedicated exit lane from Highway 8 to Fairway Road, a pedestrian bridge over the expressway from Southmoor / Avalon to Strasburg Road and transit priority improvements to the road network where there are currently traffic delays impeding transit service reliability.

Proposed Start Date: January 2017

Proposed Completion Date: March 2018

Total Project Costs: $2,000,000

Budget Impact: amend 2017 GRT Capital Budget to include $2.0 million in project costs, federal subsidy $1.0 million, GRT Reserve funding $1.0 million.

Project Incrementality Criteria: Project costs not currently provided for in GRT Capital Plan.

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Report: TES-TRS-16-16

Region of Waterloo

Transportation and Environmental Services

Transit Services

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

Date: October 4, 2016 **File Code:** L17-01

Subject: Transit Safety, Security and Fare Enforcement

Recommendation:

That the Regional Municipality of Waterloo approve the proposed strategy for transit safety, security and fare enforcement as outlined in Report TES-TRS-16-16 dated October 4, 2016;

And that the Regional Municipality of Waterloo approve a two year temporary contract position starting in 2017 related to the implementation of the proposed strategy.

Summary:

This report outlines the plan for fare enforcement on ION to support the proof of payment fare collection system. In addition this report provides an overview of the approach for Transit Security Management.

Transit security/fare enforcement personnel have the primary responsibility for not only overall safety and security in the transit system, but to also deter fare evasion and protect revenue by performing inspections at strategically targeted locations and on ION vehicles. Additionally there are costs identified for the fare enforcement program, the Security Operations Centre monitoring for ION, and for public awareness of the new proof of payment fare program.

Report:

Current Security Strategy

Currently, the security services at GRT are provided through a contract arrangement with Barber-Collins Security, a local security provider. The service is focused on static

guard services at both the Ainslie Street and Charles Street Transit Terminals. The primary duties of the contracted guards are to enforce the Region's Code of Use By-law (13-050). The By-law guides the conduct of persons entering upon and using Regional buildings, grounds and public transportation vehicles and contains a list of prohibited activities which are monitored and addressed as required by Security Staff.

The static guard services are supplemented with a limited mobile response unit (MRU) detail which can respond to select transit issues at some transit terminals. The current mobile response is limited to half days for six days per week. The By-law is enforced by providing education through warnings, requests for compliance or ban notices supported by the authority of the Trespass to Property Act. The 2016 annual budget for contracted security services for GRT is approximately $570,000.

Employees of Barber-Collins Security have been dually effective in the enforcement of the Region's Code of Use By-Law, while diplomatically serving as transit ambassadors, providing customer assistance on behalf of GRT since 2005. They were successfully reappointed again in 2014 through a competitive Request for Proposal (RFP) process.

When the "Building, Property and Mobile Security Services" RFP was issued in 2014, it outlined the characteristics, skills, experience and training requirements for security and fare enforcement staff to ensure the level of quality continues to meet the expectations of Region of Waterloo.

The Region provides oversight and manages the Barber-Collins Security contract, and provides investigation services through a team of Regional employees which include a Project Manager and a recently hired Security Enforcement Investigator.

Current Fare Enforcement Program

In terms of current fare collection, GRT requires Bus Operators to engage transit customers to present the proper fare products, or if they do not have the proper fare, to pay cash. In circumstances where there is a dispute over whether a proper fare has been provided, the incident is reported to a Transit Supervisor who deals with the issue on their own, engages Transit Security at a Terminal if available, or engages the Police in certain circumstances.

Future Security Services and Fare Enforcement Programs

With the launch of ION significant changes to Transit Security monitoring, deployment and Proof of Payment Fare Collection will take place.

1. Transit Security Monitoring for ION

   The Project Agreement for ION identifies security services will be provided by the Region. To satisfy this requirement the current transit security services needs to

be increased. A visible presence by uniform security on foot and in vehicles for mobile response is recommended. These guards will provide support to Operations, keep the peace, respond to passenger requests for assistance or information, and enforce the Code of Use By-law for the Region.

A Security Operations Centre (SOC) is now located at the GRT Operations Centre on Strasburg Rd. All security operations for the Region of Waterloo are coordinated from this location. The SOC is equipped with state of the art monitoring equipment. The Project Agreement for ION requires GrandLinq to provide additional monitoring equipment for the ION system at this SOC.

2. Transit Security Deployment

GRT conventional transit operations are undergoing a network redesign to a decentralized grid based service from the current radial route network operating out of Charles Street Terminal and Ainslie Street Terminal. This change will place a greater demand on mobile incident response for security related incidents. Currently on-street security issues are managed by Transit Supervisors and the Waterloo Regional Police. Additional security mobile response units (MRU) are required at GRT in 2017 to effectively respond to the expected increased demands of the grid based transit network to provide operational support for security incidents, fare evasion or fare disputes.

3. Proof of Payment Fare Collection

Unlike the conventional bus operations, ION services will not require customers to present their fare to an operator or into a fare box. Customers will be required to have pre-paid their fare at ticket vending machines or tap their electronic EasyGO fare card at validators located on each platform prior to boarding the Light Rail Vehicle (LRV). The expectation is for all customers on the LRV to have a valid ‘proof of payment’. To ensure customers have paid or tapped their fare card, fare inspection and enforcement services are required.

Future Fare Enforcement Plan

WSP | Parsons Brinckerhoff (WSP|PB) were retained to develop a Fare Enforcement Plan that identifies an approach based on industry best practices for enforcement, adjudication, staffing, technical resources, public education programs, and policies in order to optimize cost recovery and minimize fare evasion.

This plan also included a review of the design documents for the Electronic Fare Management System (EFMS) being implemented by Scheidt & Bachman for GRT, offering suggestion of how to improve the deliverables based upon WSP|PB’s experience in implementing smart card centered fare payment systems in Houston,

Denver and Los Angeles.

A proof of payment fare collection system carries a higher risk of fare-evasion incidents. To mitigate this risk, fare inspection and enforcement practices need to be consistent, noticeable and suitable to ensure safety and security of all passengers and the protection of fare revenue. These consistent fare enforcement practices must commence and have established work flow by early 2018 to ensure an operational readiness for ION revenue service.

The Fare Enforcement Plan identifies the optimal approach for inspection, enforcement, adjudication, staffing, public education programs, and fare policies in order to optimize cost recovery and minimize transit fare evasion, similar to programs in place in York Region and on GO transit.

The goal of the Fare Enforcement Plan is to establish a compliant rider culture that values and understands the need to pay transit fares.

This plan has the following (3) three objectives for fare enforcement:

1. Maintain fare evasion across all GRT services at 3% or less as measured annually by on-board and on-platform observations as well as analysis of collected data;

2. Complete annual inspections of 10% of GRT's total daily ION ridership and,

3. Realize a safe and secure environment onboard buses and trains, in facilities and on platforms.

To achieve the goals and objectives of the Fare Enforcement Plan requires having the correct staffing levels to ensure effective coverage across the transit system to minimize fare evasion as well as to enhance customer safety and security due to the presence of transit security staff.

The deployment of Closed Circuit Television (CCTV) at ION stations and on trains supplements the enforcement activities of a physical security presence. Transit security/fare enforcement staff will offer a visible presence across the system, deterring crime and offences, and are available, to respond quickly to incidents. Wider benefits from fare enforcement activities are significant. For example, ancillary duties can include regular customer support and assistance, reduction of crime and anti-social behavior, customer safety and security, and supporting agency services during special events.

The following outlines the stepped process to be used by transit security for transit fare enforcement;

Step 1 is a documented Verbal Warning or documented Written Warning under certain circumstances which may include a ban from service notice under the Code of Use By-law (13-050).

Step 2 is a by-law charge under By-law 13-050 in the form of a Part I Provincial Offence Notice with an out of court settlement of $200.00 plus victim surcharge of $40.00 (total payable $240.00). This may include a ban from service notice.

Step 3 is a By-law Charge Summons in the form of a Part III Provincial Offence Notice Summons compelling the offender to court for a higher fine (maximum $5000.00). This will include a ban from service notice.

Safety and Security Program – Security Coordinator Position (Temporary)

The Project Agreement with GrandLinq outlines the requirements for the development of a System Security Plan and a Security Committee to oversee security issues on ION (with emphasis on customer and employee security). To initiate and lead the development of the Security Plan, a temporary Security Committee Coordinator position was identified. Currently the Project Manager, Transit Security at GRT will commence this work during pre-operations phase. It is recommended that a contract position fulfill the requirements for 2017 and 2018, to establish the Steering Committee so they can develop and approve a System Security Plan for ION.

Public Education/Awareness Campaign for Proof of Payment

To introduce the new Proof of Payment fare collection system on ION requires wide-ranging Public Awareness and Customer Education programs. These awareness campaigns will educate customers on how Proof of Payment works, and also become a direct appeal to transit riders, the general public and frontline transit employees to raise awareness of the costs associated with fare evasion.

Internal and external strategies such as transit advertising, signs on platforms/terminals as well as messaging on internal public address systems at ION stations and in trains and on buses will all be incorporated into a broad public awareness campaign. Street teams will also be deployed to each ION station to provide education on how to use the Ticket Vending Machines and Platform Validators to inform customers on how to pay their fare before boarding the train.

Awareness and peer pressure are some of the most effective methods to reduce fare evasion. Focusing communications on the customer directly, on buses using interior bus cards and fare box signs; at bus stop shelters, public outreach efforts at schools, public events and meetings should all include a common message; that all riders pay the transit fare most appropriate for the service they ride. The awareness campaign will also

provide information on how fare enforcement will be conducted and what the potential fines and penalties are for fare evaders.

Corporate Strategic Plan:

This report addresses the 2015-2018 Corporate Strategic Plan Focus Areas of:

2.1 Create a public transportation network that is integrated, accessible, affordable and sustainable. 4.5 Enhance community safety and crime prevention.

Financial Implications:

The annual costs in 2017 / 2018 required to implement the proposed Transit Security Strategy including fare enforcement initiatives are summarized in the following table:

ON-GOING OPERATING COSTS ($000's) (incremental amounts)	2017	2018	2019	Annualized
Contract Guard Services: Mobile response, Fare enforcement, Security	105	690		795
Security Committee Coordinator	75		(75)	-
Equipment		20		20
Technical Services		20		20
Proof of Payment Education / Awareness	150	(100)		50
Total Expenditures	330	630	(75)	885
Funded from GRT Operating Budget	105			105
Funded from RT Operating Budget (RTMP Reserve Fund)	225	630	(75)	780

These costs will be included in the 2017 GRT base operating budget and the 2017 RT operating budget.

Other Department Consultations/Concurrence:

Representatives from Corporate Services and Transportation and Environmental Services provided input to this report.

Attachments - Nil

Prepared By: Dave Mathes, Project Manager Transit Security, Transit Services

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

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Report: TES-TRP-16-20

Region of Waterloo

Transportation and Environmental Services

Transportation

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

Date: October 4, 2016 **File Code:** T08-50/169K

Subject: Lane Designation Changes - King Street (Regional Road 8) at Tu Lane Street, City of Kitchener

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Recommendation:

That the Regional Municipality of Waterloo amend Traffic and Parking By-Law 06-072, as amended, to add Schedule 16 – Lane Designation, westbound left-turn, left/right-turn lane on Tu Lane Street at King Street (Regional Road 8) in the City of Kitchener, as outlined in Report TES-TRP-16-20, dated October 4, 2016.

Summary:

Regional staff recently reviewed the intersection of King Street (Regional Road 8) and Tu Lane Street to assess potential signal timing and geometric improvements to reduce excessive queuing on the westbound leg at this intersection. The westbound left-turn movement from Tu Lane Street onto King Street is operating at a poor Level of Service (LOS) during the afternoon peak period, Monday to Friday. Staff analysis indicated that the left-turn operation could be improved by implementing geometric changes at this intersection. Regional staff recommends converting the westbound right-turn lane to a shared left/right-turn lane to create a dual left-turn from Tu Lane Street onto King Street. This change would reduce delay and queuing for motorists turning left from Tu Lane Street onto King Street.

Report:

1.0 Background

Transportation staff has observed excessive westbound left-turn delay and queueing on Tu Lane Street from King Street back to Gateway Park Drive. This is due to the Highway 401 construction within the City of Cambridge. Many drivers use this route as a detour route to avoid construction on and adjacent to the Highway 8 flyover to eastbound Highway 401.

Transportation staff reviewed and revised the timing of traffic signals in the area surrounding the King Street and Tu Lane Street intersection in 2015. During the shift change at the Toyota Motor Manufacturing Canada Inc. (TMMC) plants along Fountain Street in Cambridge, thousands of employees exit the plants and enter nearby Regional roads. During these periods special signal timing plans are in place to limit congestion and increase road safety. With improved signal timing changes in place, the intersection of King Street and Tu Lane Street continues to operate poorly during the afternoon peak period.

2.0 Operational Review

The westbound left-turn movement from Tu Lane Street onto King Street is currently operating poorly (LOS F), as transit and motorists are experiencing excessive delay from Tu Lane Street. Transportation staff have observed westbound left-turning traffic on Tu Lane Street extending back to Gateway Park Drive and requiring more than one signal cycle to clear the intersection.

3.0 Potential Improvement

Transportation staff have reviewed the existing lane configuration at King Street and Tu Lane Street and determined that lane configuration changes could be implemented on Tu Lane Street. Currently the westbound right-turn traffic demand is low, and because of this the curb lane on Tu Lane Street could be changed from an exclusive right-turn lane to a combined left/right-turn lane. The proposed lane configuration and signal timing adjustments would reduce the queuing substantially by 57% and delay by 30% during the afternoon peak period. Figure 1 and 2 below shows the existing and proposed lane configuration respectively.

Figure 1 – Existing Lane Configuration – King Street and Tu Lane Street

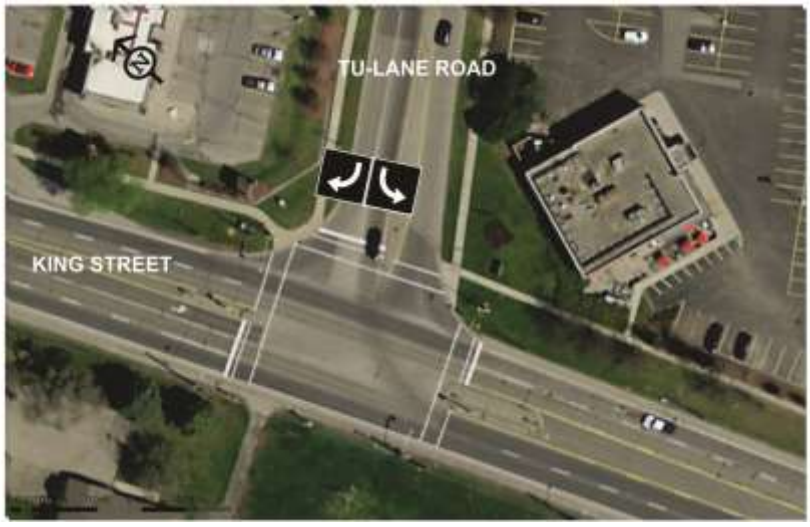

Figure 2 – Proposed Lane Configuration – King Street and Tu Lane Street

4.0 Required Modifications

In order for the proposed lane configuration to be implemented and to accommodate the dual left turning vehicle paths, a modification would be required to the median island and pedestrian crossing on the south leg of King Street. The island would need to be reduced in size and the pedestrian crossing would need to be removed as staff do not recommend operating dual left-turn lanes concurrently with pedestrian crossings. Pedestrians can use the pedestrian crossing on the north leg to cross King Street.

5.0 Area Municipal Consultation

Tu Lane Street is under the jurisdiction of the City of Kitchener. City staff support the proposed lane configuration to increase capacity and reduce congestion.

6.0 Recommendation

Based on staff's review, the anticipated improvement to operations and staff support from the City of Kitchener, Transportation staff recommend the westbound approach of Tu Lane Street be revised to include a westbound left-turn and a left/right-turn lane. A modification to the median island and a removal of the pedestrian crossing on the south leg of King Street would be required to accommodate the lane reconfiguration.

Corporate Strategic Plan:

This report addresses the Region's goal to optimize road capacity to safely manage traffic congestion (Strategic Objective 3.3.1).

Financial Implications:

The Region's Transportation Capital Program includes $275,000 for minor traffic signal modernizations funded from the Roads Rehabilitation Capital Reserve Fund. The cost to implement the proposed lane configuration, including traffic signal and median island works is approximately $35,000.

Other Department Consultations/Concurrence:

The Council and Administrative Services Division will be required to prepare the amending by-law.

Attachments

Nil

Prepared By: **Christina Mastrangelo**, Traffic Systems Management Analyst

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

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Report: COR-FSD-16-23

TES-WAS-16-21

Region of Waterloo

Corporate Services

Financial Services and Development Financing

Transportation and Environmental Services

Water Services

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

Date: October 4, 2016 **File Code:** F01-80

Subject: Clean Water and Wastewater Fund

Recommendation:

1. That the Region of Waterloo approve the list of projects to be funded by the Clean Water and Wastewater Fund as set out in Attachment 'A' to report COR-FSD-16-23/TES-WAS-16-21 dated October 4, 2016; and

2. That staff be directed to prepare the 2017-2026 Water and Wastewater Capital Plan in accordance with Recommendation 1.

Summary:

The Region has been allocated $7,115,979 in federal funding and $3,557,990 in provincial funding under the Clean Water and Wastewater Fund. This report provides an overview of the program and seeks Council approval for the recommended list of projects eligible for this funding and direction for staff to prepare the 2017-2026 capital plan on that basis. Recommended projects include upgrades to the Hespeler, Preston and Foxboro wastewater treatment plants as well as inlet upgrades at the Mannheim water plant.

Report:

On September 14, 2016 the Governments of Canada and Ontario announced they had reached a bilateral agreement with respect to water and wastewater capital funding for municipalities to support the rehabilitation and modernization of drinking water, wastewater and stormwater infrastructure, and the planning and design of future facilities and upgrades to existing systems.

The federal government is providing funds of almost $570 million under the Clean Water and Wastewater Fund (CWWF). Federal funding will be available to fund up to 50% of eligible costs and the province will fund up to 25% of project costs.

CWWF funds are allocated based on the amount of water, wastewater and stormwater assets owned by municipalities and their economic conditions which results in the Region of Waterloo receiving $7,115,979 in federal funds to spend on eligible water and wastewater projects and an additional $3,557,990 as the Province will fund 25% of eligible costs. The gross expenditures to be incurred by the Region under this program total approximately $14.2 million. The categories of eligible expenditures are quite broad and include:

- Rehabilitation projects;
- New construction projects;
- Optimization initiatives; and
- Planning and design work to meet federal wastewater regulatory requirements.

The objectives of the CWWF are to:

- Improve reliability of drinking water, wastewater and storm water systems and meet legislated standards and guidelines;
- Rehabilitate and modernize Ontario's aging infrastructure; and
- Accelerate short-term community infrastructure investments across Ontario.

The program will provide funding for eligible expenditures for projects which are substantially complete by March 31, 2018. Eligible expenditures include:

- Environmental assessment costs (if any)
- Engineering costs, including tendering and contract administration
- Project management costs
- Materials
- Construction
- Contingency costs

Expenditures must be incurred between April 1, 2016 and March 31, 2018. Where the need is demonstrated, up to 25% of costs can extend after March 31, 2018 with prior approval from the federal and provincial governments. A key aspect of the CWWF relates to incrementality. The program guidelines state that project incrementality has been met when one of the following conditions has been met:

1. the project would not otherwise have taken place in 2016-17 or 2017-18 ; and/or
2. the project would not have been undertaken without federal funding

Four projects were chosen because they meet the criteria set out for the funding. They include rehabilitation and optimization components and comply with the incrementality criteria. Staff is recommending that the 2017-2026 Wastewater Capital Program be prepared as set out in Appendix A which will provide CWWF funding to the following projects:

- Hespeler Wastewater Treatment Plant Upgrades
- Preston Wastewater Treatment Plant Upgrades
- Foxboro Wastewater Treatment Plant Upgrades
- Mannheim Reservoir Inlet Piping Upgrades

These projects were included in the initial list of projects when the agreements with the federal and provincial governments were announced. Council resolution is required for these projects to proceed. The list of projects must be submitted to the Province by October 31, 2016. The grants program will be administered by the Ontario Ministry of Infrastructure.

Corporate Strategic Plan:

This report supports strategic objectives found in the Corporate Strategic Plan, and particularly Focus Area 1.2 - Plan for and provide the infrastructure and services necessary to create the foundation for economic success.

Financial Implications:

The receipt of this funding will allow for the acceleration of three rehabilitation projects and one new construction project. The federal and provincial funding will reduce the Region's contribution from Water and Wastewater Reserves and RDC Reserves as shown in the following table.

$000	Eligible Cost	Grants*	Net ROW Cost	Year of Construction Original	Revised
Hespeler WWTP	$4,000	$3,000	$1,000	2018/19	2017/18
Preston WWTP	3,000	2,250	750	2018/19	2017/18
Foxboro WWTP	3,000	2,250	750	2018/19	2017/18
Mannheim Res Inlet	7,000	3,174	3,826	2018/19	2017/18
Total	$17,000	$10,674	$6,326		
Maximum permissible	$14,232	$10,674			

*Grant includes federal 50% and provincial 25%

It should be noted that the gross cost of the projects identified ($17 million) exceeds the maximum permissible expenditure to allow the reallocation of funds between projects in the event that one or more projects is delayed.

Other Department Consultations/Concurrence:

Staff from Transportation and Environmental Services (Water Services) was consulted in the preparation of this report.

Attachments:

Attachment ‘A’ – List of Projects to be funded by Clean Water and Wastewater Fund

Prepared By: Cathy Deschamps, Director, Financial Services & Development Financing

Jorge Cavalcante, Manager, Engineering and Planning

Approved By: Craig Dyer, Commissioner, Corporate Services/Chief Financial Officer

Thomas Schmidt, Commissioner, Transportation and Environmental Services

Attachment A - List of Projects to be funded by Clean Water and Wastewater Fund

1. **Hespeler WWTP Upgrades - $4 million Eligible Cost**

Project Description: Construct one additional secondary clarifier and secondary treatment upgrades.

Eligible Investments Category: 1. Capital projects for the rehabilitation of water treatment and distribution systems, and wastewater and storm water collection, conveyance and treatment systems.

Project Nature: Rehabilitation

Forecasted Start Date: July 1, 2016

Forecasted End Date: March 31, 2018

Total Project Cost: $15,000,000

Budget Impact – include $4 million gross cost in 2017 budget, federal subsidy $2,000,000; provincial subsidy $1,000,000; 25% RDC funded, increase rate supported debentures by $750,000 in 2017.

Project Incrementality Criteria: Construction of this project was planned to commence in 2018.

2. **Preston WWTP Upgrades – $3 million Eligible Cost**

Project Description: Upgrade the plant existing headworks, blowers and electrical system

Eligible Investments Category: 1. Capital projects for the rehabilitation of water treatment and distribution systems, and wastewater and storm water collection, conveyance and treatment systems.

Project Nature: Rehabilitation

Forecasted Start Date: June 1, 2016 (Council approval – Detailed Design)

Forecasted End Date: March 31, 2018

Total Project Cost: $3,000,000

Budget Impact – increase 2017 budget by $3 million in gross expenditures, federal subsidy $1,500,000; provincial subsidy $750,000; 21.8% RDC funded, balance user rate funded.

Project Incrementality Criteria: Construction was scheduled to commence in 2018-19.

3. Foxboro WWTP Upgrades - $3 million Eligible Cost

Project Description: Replacement of the existing WWTP aging components and treatment upgrades to meet effluent criteria.

Eligible Investments Category: 1. Capital projects for the rehabilitation of water treatment and distribution systems, and wastewater and storm water collection, conveyance and treatment systems.

Project Nature: Rehabilitation

Forecasted Start Date: April 1, 2016

Forecasted End Date: March 31, 2018

Total Project Cost: $3,000,000

Budget Impact – increase 2017 budget by $3 million in gross expenditures, federal subsidy $1,500,000; provincial subsidy $750,000; 0% RDC funded, 100% user rate funded.

Project Incrementality Criteria: This project was rescoped in 2016 and planned for construction in 2017/2018. Funding for this project will need to be increased in the 2017 Wastewater Capital Program.

4. Mannheim Reservoirs Inlet Piping Upgrades - $7 million Eligible Cost

Project Description: Twin inlet pipe to Mannheim Reservoirs to increase operating flexibility and safety

Project Funding Category: Water

Eligible Investments Category: 1. Capital projects for the rehabilitation of water treatment and distribution systems, and wastewater and storm water collection, conveyance and treatment systems.

Project Nature: New

Forecasted Start Date: July 1, 2016 (CAO Award for Detailed Design)

Forecasted End Date: March 31, 2018

Total Project Cost: $7,000,000

Budget Impact – increase 2017 budget by $7 million in gross expenditures, federal subsidy $2,115,979; provincial subsidy $1,057,990; 26% RDC funded.

Project Incrementality Criteria: This project has been planned for construction in 2018-19.

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Report: TES-WAS-16-20

Region of Waterloo

Transportation and Environmental Services

Water Services Division

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

Date: October 4, 2016 **File Code:** C06-60; E13-20/08302

Subject: Update on East Side Lands Wastewater Servicing Environmental Assessment

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Recommendation:

For information only.

Summary:

The “East Side Lands” (ESL) have been identified as an area to accommodate future greenfield growth in the Region. The 2007 Wastewater Treatment Master Plan (WWTM) and the 2014 ESL Master Environmental Servicing Plan (MESP) identified the need for a new Regional pumping station and forcemain to convey wastewater from the new development areas to the Kitchener Wastewater Treatment Plant (WWTP).

In February 2013, Regional Council awarded an engineering assignment to Associated Engineering Ltd. (The Consultant) for completion of a Class Environmental Assessment (Class EA) for analyzing in detail the recommendation of the 2007 WWTMP and 2014 MESP, and confirming the preferred wastewater servicing option for the ESL (Report E-13-021 of February 26, 2013).

As the Class EA study has evolved and new information has been gathered, the need for changes to the project scope was recognized. The conceptual design of the short-listed alternative solutions for the pumping station and forcemain indicated that viable gravity sewer solutions could exist (potentially reducing or even eliminating the need for pump station and forcemain infrastructure). Regional staff also identified the opportunity for servicing Stage 1 of the East Side Lands in the short-term through the

Preston WWTP. The infrastructure for conveyance of wastewater from the East Side Lands to the Kitchener WWTP would still be the ultimate long-term solution, but construction could likely be deferred until a date later than originally anticipated. The ongoing Wastewater Treatment Master Plan Update was initiated in June 2015 (Report TES-WAS-15-19, June 25, 2015), and will further evaluate and confirm the option for short-term servicing the ESL through the Preston WWTP.

Based on the factors above, the Region worked with the Consultant to expand the project scope to also consider the gravity alternatives in the ongoing Class EA study. Another change is that this study will only focus on the identification of the preferred long-term solution for wastewater conveyance to the Kitchener WWTP, deferring decision-making on the construction timing of the long term infrastructure to the WWTMP update.

The preferred route for the gravity sewer was through the Deer Ridge subdivision in the City of Kitchener. This route was the shortest length and had lowest overall environmental, social and financial impacts. The trunk sewer would start north of Freeport Creek at the end of the future North-South Collector Road, which is part of the City of Cambridge transportation plan for servicing Stage 1 of the ESL. It will then cross under Highway 8, and follow proposed easements along parkland and trails in the Deer Ridge subdivision. The preferred conveyance methodology for crossing the Grand River was a bridge to support the gravity trunk sewer from a location near the Pioneer Tower historical site to the Kitchener WWTP.

Consultation with the public and other stakeholders, and incorporation of their input into the decision-making process for the preferred solution, is a critical component of this project. Notices of project commencement were published in 2013, and in September 2014 an update was mailed to approximately 1000 property owners within the study area. Another update notice explaining the change in scope, the potential alternatives, and the preferred alternative will be mailed to the same list of local property owners used for the 2014 notice by early October 2016.

A Public Consultation Centre (PCC) will be held on November 8, 2016, from 5:00 p.m. to 7:30 p.m., at the Deer Ridge Golf Club, 200 Deer Ridge Dr., Kitchener. The information to be presented at this PCC will be included in a package to be provided at the November 1, 2016, Planning & Works Committee Meeting.

After the PCC, public comments will be incorporated into the Environmental Study Report (ESR). A new report will be submitted to Regional Council for the approval of the ESR and to recommend Regional staff to place the ESR for a 30 day public review according to the Municipal Class EA process. Any comments from the public or

agencies will be incorporated into the project file.

Appropriate timing for the preliminary design, detailed design, and construction of the recommended long-term solution will be established through the ongoing Wastewater Treatment Master Plan update.

Report:

Background

The East Side Lands (ESL) refers to an area of land located in the eastern portion of Region of Waterloo (Region) surrounding the Waterloo Regional Airport. These lands have been identified for accommodating future greenfield growth in the Region. The Region completed in 2014 a Master Environmental Servicing Plan (MESP) for servicing Stage 1 development of the ESL, which comprises of approximately 300 net hectares (741 net acres) of land for employment uses. The MESP identified construction of a new sewage pumping station (in the vicinity of the ESL) and a forcemain to convey wastewater to the Kitchener Wastewater Treatment Plant (WWTP) as the preferred wastewater servicing solution for the entire ESL (consistent with the Region's Wastewater Treatment Master Plan [WWTMP], 2007).

In February 2013, Regional Council awarded an engineering assignment to Associated Engineering Ltd. (The Consultant) for completion of a Class Environmental Assessment (Class EA) study for analyzing in detail the recommendation of the 2007 WWTMP and 2014 MESP, and confirming the preferred wastewater servicing option for the ESL (Report E-13-021 of February 26, 2013.

Class EA Study Progress

This Class EA study was initiated based on the recommendations of the 2007 WWTMP and the 2014 MESP for the implementation of a sewage pumping station and forcemain to the Kitchener WWTP for servicing the ESL.

As part of this study, the Consultant conducted extensive investigation including ecological field studies and land surveying, carried out extensive consultation with stakeholders, established the ultimate capacity of the infrastructure, and developed numerous alternative solutions (potential pump station locations and forcemain routes). These alternatives were comparatively evaluated based on environmental, social, and technical criteria to obtain a shortlist of most promising alternatives. Conceptual designs of the shortlisted alternatives were developed in more detail, for further analysis and comparison.

As more detailed information became available during the development of the shortlisted conceptual design alternatives, the Consultant identified potentially feasible

options for conveying wastewater to the Kitchener WWTP by gravity sewer for most of or all of the way to the WWTP. This approach could potentially avoid the need for a Regional pump station, or perhaps allow the pump station to be located closer to the existing Kitchener WWTP property, which would minimize the extent of the forcemain required and reduce construction and operation challenges.

The Consultant provided a preliminary opinion that the full or partial gravity alternatives would have the potential to be less expensive and easier to operate than the pumping station and forcemain alternative recommended in the 2007 WWTMP and the 2014 MESP.

The ESL is expected to be gradually developed in stages over several years. Any of the alternatives for wastewater servicing of the ESL would require very deep infrastructure to cross Highway 8 and along the developed area of the Deer Ridge subdivision in the City of Kitchener. Phasing construction of this infrastructure will be very challenging as the deeper sections would likely need to be constructed using micro-tunneling, which is a complex and costly construction process. Moreover, disturbance of the developed areas mentioned above in multiple phases would also be challenging and likely face public opposition. Based on these factors, it is expected that infrastructure for servicing the ESL will be designed for servicing the ESL build-out and will be constructed in a single phase. As a result, flows in the initial phases of development will be too low to allow the proper operation of the new infrastructure, creating operational challenges.

Regional staff evaluated other alternatives for servicing the ESL until sufficient flows would be available for properly operating the proposed connection to the Kitchener WWTP. An option is to service Stage 1 of the ESL through the Preston WWTP in the City of Cambridge. Since diversion of flows from the industrial area previously going to this plant to the Galt WWTP in 2011, the Preston WWTP has spare capacity that could be used to service growth in the Preston WWTP catchment area and Stage 1 of the ESL for a decade or more before there would be a need to divert ESL wastewater to Kitchener WWTP.

In June 2015, the Region initiated a project to update the WWTMP (Report TES-WAS-15-19 of June 25, 2015). This study is further evaluating the option for short-term servicing the ESL through the Preston WWTP. The City of Cambridge has also initiated a study under the Class EA process to evaluate options for conveying wastewater from the ESL Stage 1 to the Preston WWTP until the time the connection to the Kitchener WWTP is required.

Based on the factors above, the Region worked with the Consultant to expand the project scope to also consider the gravity alternatives in the ongoing Class EA study.

This study is focusing only on the identification of the preferred long-term solution for wastewater conveyance to the Kitchener WWTP and deferring decision-making on the construction timing of the long term infrastructure to the WWTMP update. More details about this change in scope have been provided in Report TES-WAS-15-22 of August 11, 2015.

ESL Wastewater Servicing Strategy

As described above, the detailed analysis of alternative solutions for wastewater servicing of the ESL identified that the construction of a gravity trunk sewer between the ESL and the Grand River would be the preferred solution for servicing the ESL in the long term. The ultimate wastewater servicing strategy for the ESL would consist of two distinct components: the linear component consisting of the gravity trunk sewer between the ESL and the eastern bank of the Grand River; and the conveyance methodology for crossing the Grand River. As construction technologies for these two components of the strategy are distinct, the evaluation of alternatives was divided into two parts. Part 1 was for the identification of the preferred route for the trunk sewer. Part 2 was for the identification of the preferred conveyance methodology.

Preferred Gravity Sewer Route

As part of the extensive investigation undertaken in Part 1 of the Class EA study, the preferred route for the gravity sewer was through the Deer Ridge subdivision in the City of Kitchener. This route was the shortest and had lowest overall environmental, social, and financial impacts. The trunk sewer would start north of Freeport Creek at the end of the future North-South Collector Road, which is part of the City of Cambridge transportation plan for servicing Stage 1 of the ESL. It will then cross under Highway 8, and follow along a proposed easement located in parkland behind lots along Deer Ridge Dr. and continue up to the intersection of Deer Ridge Dr. and the access to the Pioneer Sportsmen Club. The final section of the trunk sewer will generally follow the local Deer Ridge Trailway. Attachment A shows the preferred route for the gravity sewer between the ESL and the Grand River.

Conveyance Options

Part 2 of the Class EA study identified two preferred locations for crossing the Grand River, as shown in Attachment A. Location 1 is located near the City of Kitchener's Pioneer Tower Sewage Pumping Station (PS) on the north-western area of the Deer Ridge subdivision. The Grand River embankment in this area is flatter on both sides of the river, and this crossing would better suit the construction of a Regional PS and a short forcemain to the Kitchener WWTP. Two sub-alternatives for the location of the PS were identified. In the first sub-alternative (Alternative 1), the PS would be located on the Deer Ridge subdivision side of the Grand River with the forcemain crossing under

the river into the Kitchener WWTP. In the second sub-alternative (Alternative 2), the PS would be located on the Kitchener WWTP area with the extension of the gravity sewer crossing under the river. Location 2 is located near the Pioneer Tower historical site with a steep river embankment on the Pioneer Tower side and flatter embankment on the Kitchener WWTP side. This crossing would better suit the extension of the gravity sewer all the way to the Kitchener WWTP with a bridge supporting the trunk sewer line crossing the Grand River (Alternative 3). No PS and forcemain would be required for this alternative. Attachment B shows the approximate bridge crossing location and pump station locations considered for the conveyance alternatives.

Considerations for Pumping Station Alternatives

The Region supplemented the information collected for the analysis of Part 1 of the study, and conducted a thorough analysis of the three alternatives above. Alternatives 1 and 2 would have a higher environmental impact on the Grand River during the construction. Crossing of the river could be done by open cut with a shallower trench and using coffer-dams for the construction of the crossing. Alternatively, the crossing could use tunneling at a much deeper depth and much higher cost. The construction risk is quite high for either method. The need for a PS would also add the risk for additional odours on the Deer Ridge side (Alternative 1). Both alternatives would have a higher operation and maintenance cost due to the need of a new PS.

Considerations for Bridge Crossing Alternative

Alternative 3 would add a new bridge crossing the Grand River. However, construction would have a lower impact on the river than Alternatives 1 and 2. The bridge will have no supporting piers on the river bed, as all piers will be located on the Kitchener WWTP side of the river. Special protection of the steep river embankment near the Pioneer Tower will be required to avoid long term erosion in the area that the trunk sewer line will cut through the river embankment. It was confirmed that from the residential community, the visible impact from the proposed bridge would be minimal. The aerial section of the trunk main will be fully encased so that any leaks could be easily identified and repaired. This is a great benefit compared to under the river crossings where leaks in a large diameter pipe, such as the one proposed, could stay undetected for years, and could have a high environmental impact and repair costs.

Financial Considerations

The construction, operation and maintenance costs for Alternative 3 are much lower (approximately 30%) than for Alternatives 1 and 2, as the all gravity solution requires no PS and no use of electrical energy. Details regarding the opinion of probable costs are summarized in Table 1. It can be noted lifecycle costs are presented as a net present worth, assuming a service life of 50 years and an interest rate of 5%.

Table 1: Opinion of Probable Costs for Alternatives

Alternative	Capital Cost	Lifecycle Cost
Alternative 1	$37,000,000	$43,100,000
Alternative 2	$36,800,000	$42,800,000
Alternative 3	$28,900,000	$29,500,000

Upon completion of the above analysis, and discussions with the Steering Committee, Alternative 3 was identified as the preferred conveyance methodology for crossing the Grand River. Attachment C shows draft renderings of the preferred Grand River crossing concept.

Public Consultation

Consultation with the public and other stakeholders, and incorporation of their input into the decision-making process for the preferred solution, is a critical component of this project. The project directly impacts the Cities of Cambridge and Kitchener, and the Township of Woolwich. The wastewater system will initially service portions of the East Side Lands that are within the City of Cambridge, and ultimately in the future will also service portions of the Township of Woolwich. However, much of the Regional wastewater infrastructure will be built within the City of Kitchener between Highway 8 and the Grand River. Residents in this area are the most likely to be impacted by construction and operation of the proposed infrastructure.

The development of the East Side Lands is a multi-municipality initiative that is expected to bring economic benefits and employment opportunities to the whole Region. The decision to use the Kitchener WWTP to provide wastewater treatment for the East Side Lands was determined though the Master Planning process to be the best alternative for the Region as a whole, considering financial, environmental, social and technical factors.

A Steering Committee was formed to participate in the project. This Committee includes staff members from the Region Water Services, Planning and Design & Construction, the Cities of Kitchener and Cambridge, the Township of Woolwich, political representation from the Region and the involved municipalities, and the Grand River Conservation Authority (GRCA). Seven Steering Committee meetings were held since the inception of the project with the most recent one in August 2016.

Notices of project commencement were published in 2013. In 2014, the Region mailed out an information notice about the East Side Lands Class EA to the owners of all

addresses located in the vicinity of all routes being considered. This mail out was sent to about 1000 homes, businesses, and institutions, mainly in the Deer Ridge, Pioneer Tower, Grand Hill, and Sportsworld Crossing areas of Kitchener. The notice explained the purpose of the EA and the proposed works, and advised the public about the plan for future public consultation meetings to obtain community feedback and address any concerns the public may have. A copy of this notice was attached to Report TES-WAS-15-22 of August 11, 2015.

At the time the notice was mailed, it had been anticipated that a Public Consultation Centre would have occurred in early 2015. However, due to the expanded scope of the ESL wastewater servicing Class EA, the Public Consultation Centre (PCC) will be held on November 8, 2016, from 5:00 p.m. to 7:30 p.m., at the Deer Ridge Golf Club, 200 Deer Ridge Dr., Kitchener. The information to be presented at this PCC will be included in a package to be provided at the November 1, 2016, Planning & Works Committee meeting.

A notice will be mailed out to the same list of local property owners used for the 2014 notice approximately 2 weeks before the PCC. It will provide an update on the change in scope, the potential alternatives, and the preferred alternative. A Notice of PCC will concurrently be advertised in local newspapers and posted to the Region's website.

After the PCC, public comments will be incorporated into the Environmental Study Report (ESR). A new report will be submitted to Regional Council for the approval of the ESR and to recommend Region staff to place the ESR for a 30 day public review according to the Municipal Class EA process. Any comments from the public or agencies will be incorporated into the project file.

Updated Schedule

As a result of the revised project scope, the revised anticipated schedule is as follows:

- Publication of project update notices: mid October 2016
- Public Consultation Meeting (PCC): November 8, 2016
- Completion of the ESR: December 2016
- ESR recommendation to Planning & Works Committee: early 2017
- Place the Environmental Study Report for the 30 day public and stakeholder review and comments: early 2017, following Council approval of the ESR

Appropriate timing for the preliminary design, detailed design, and construction of the recommended long-term solution will be established through the ongoing Wastewater Treatment Master Plan update.

Corporate Strategic Plan:

The East Side Lands Wastewater Servicing Class EA supports the Corporate Strategic Focus Area 1: “Thriving Economy,” Strategic Objective 1.2: “Plan for and provide the infrastructure and services necessary to create the foundation for economic success.”

Financial Implications:

As explained in this report, the implementation of the long-term wastewater servicing of the ESL will likely be delayed by several years, and the preliminary design will be combined with the detailed design. Award of the combined preliminary and detailed design for the ESL long-term wastewater servicing alternative will be part of a future Planning & Works Committee Report.

The Council approved 2016 Ten Year Wastewater Capital Program includes $111,000 in 2016 for the completion of the ESL Class EA study, and $800,000 from 2023 to 2025 for the initiation of the preliminary design and the detailed design.

The preliminary estimated costs for the construction of the preferred alternative for wastewater servicing of the ESL is approximately $30 million (Alternative 3). This project will be 100% funded by the Region’s Wastewater Development Charges. These cost estimates will be refined and updated in future Wastewater Capital Programs during the undertaking of the preliminary and detailed design.

Other Department Consultations/Concurrence:

Members from Planning, Development, and Legislative Services were part of the Steering Committee.

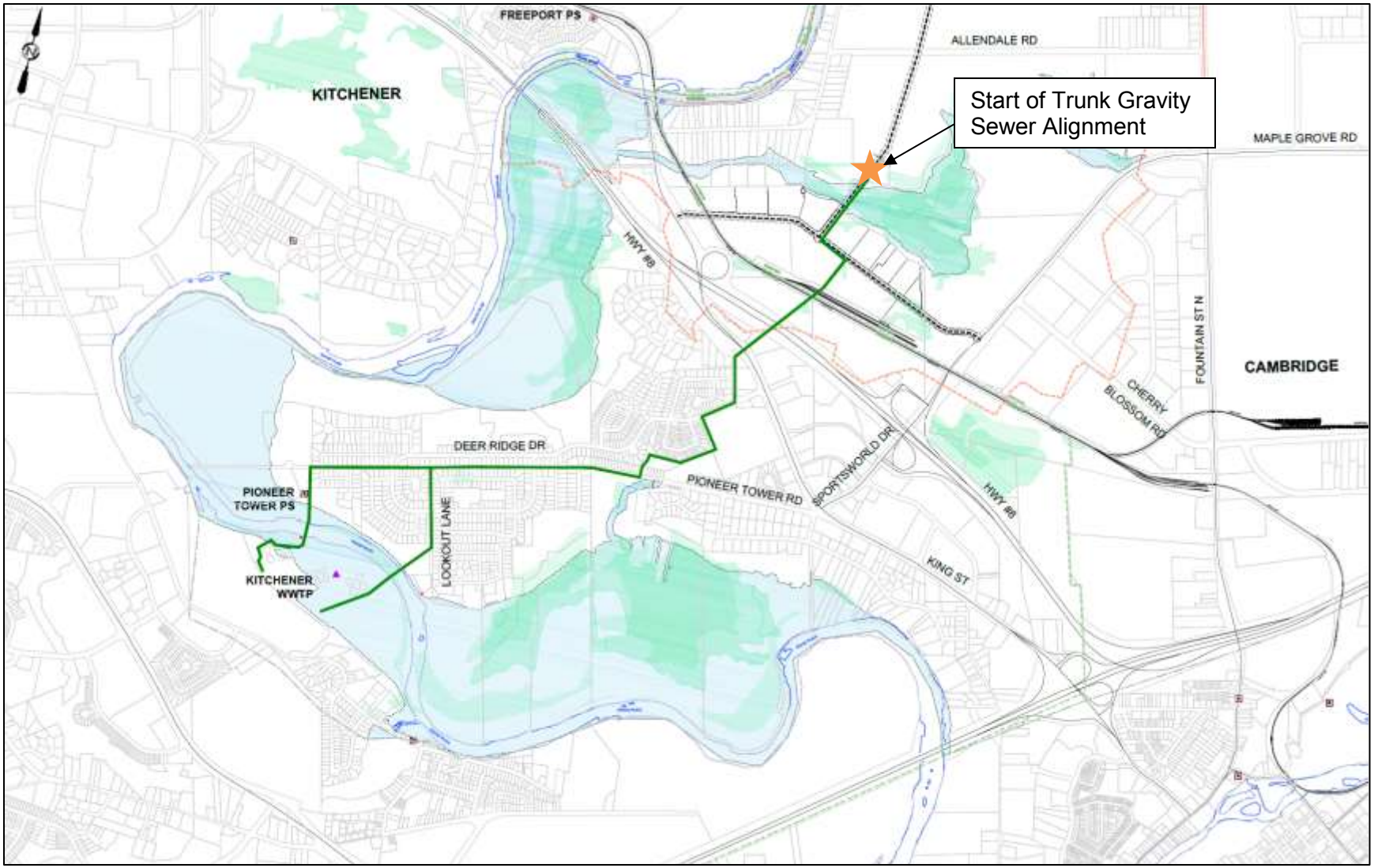
Attachments
Attachment A: Preferred Route for the Gravity Sewer and Locations for the Grand River Crossing
Attachment B: Proposed Conveyance Alternatives

Attachment C: Draft Renderings of the Preferred Grand River Crossing Concept

Prepared By: **Jorge Cavalcante**, Manager Engineering & Planning, Water Services

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

Attachment A: Preferred Route for the Gravity Sewer and Locations for the **Grand River Crossing**



Attachment B: Proposed Conveyance Alternatives

Attachment C: Renderings of Preferred **Grand River Crossing Concept**

Figure 1: Preferred Grand River Crossing Concept – View from Kitchener WWTP

Figure 2: Preferred Grand River Crossing Concept – Aerial View

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Report: PDL-CPL-16-41

Region of Waterloo

Planning Development and Legislative Services

Community Planning

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

Date: October 4, 2016 **File Code:** D16-60

Subject: Co-ordinated Land Use Planning Review – The Proposed Growth Plan for the Greater Golden Horseshoe and The Proposed Greenbelt Plan

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Recommendation:

That the Regional Municipality of Waterloo forward Report PDL-CPL-16-41, dated October 4, 2016, to the Minister of Municipal Affairs in response to the Proposed Growth Plan for the Greater Golden Horseshoe and the Proposed Greenbelt Plan.

Summary:

On May 10, 2016, the Province of Ontario released the Proposed Growth Plan for the Greater Golden Horseshoe (GGH) and the Proposed Greenbelt Plan for public input and feedback. The Proposed Growth Plan would replace the previous Growth Plan which came into effect on June 16, 2006. The Proposed Greenbelt Plan would replace the previous Greenbelt Plan which came into effect on February 28, 2005. The proposed changes to the Plans reflect the results of the Co-ordinated Land Use Planning Review which commenced in February 2015 and resulted in the release of an advisory panel report entitled “Planning for Health, Prosperity and Growth in the Greater Golden Horseshoe: 2015-2041” and made 87 recommendations to help the Plans better achieve their objectives.

The Proposed Growth Plan and Proposed Greenbelt Plan continue to provide policy direction on matters of Provincial interest relating to growth and development in the Greater Golden Horseshoe. They are important policy documents which aim to revitalize downtowns, create complete communities, provide greater housing choice, curb sprawl, protect farmland and natural areas and improve access to transportation choices. In addition to these policy directions, the scope of the Proposed Growth Plan

has been expanded to provide more detailed direction on protection of the natural environment and key hydrologic areas, infrastructure, an agricultural system and mineral aggregate resources.

The Growth Plan applies to 21 upper- and single-tier municipalities in the GGH including the entirety of the Region of Waterloo. The Greenbelt Plan applies to a broad band of nearly two million acres (800,000 hectares) of protected land surrounding the GGH. Only a small portion of the Greenbelt Plan extends into the Region of Waterloo near the Beverly area of the Township of North Dumfries. Under the Planning Act, all planning decisions made by municipalities for areas that fall within the boundaries of the Plans, the Province and the Ontario Municipal Board, must conform with the policies of the Growth Plan and the Greenbelt Plan. As a result, Regional and Area Municipal planning staff refer to these Plans on a regular basis in their work and the policies of the Regional Official Plan (ROP) and the Area Municipal Official Plans must conform with the Plans.

Regional staff continue to endorse the objectives of the Growth Plan and the Greenbelt Plan to reduce urban sprawl, support economic development, and to better protect the region's natural areas, agricultural lands and valuable water resources. The proposed changes to the Growth Plan are intended to provide a foundation on how to accommodate future growth in the GGH in a more sustainable way by providing for development of a more compact and transit-supportive urban form and by protecting the region's valuable farmlands and natural resources.

This report provides an overview of the Proposed Growth Plan, highlights the key policy changes, identifies areas of the plan where additional clarification, detail or stronger policy language is recommended including:

- intensification targets for the built-up area;
- density targets for designated greenfield areas;
- the identification of excess lands;
- the uses permitted within employment areas;
- natural heritage system policies;
- source water protection; and
- transition policies.

This report also highlights areas where it is recommended that the Greenbelt Plan should be strengthened to provide the same level of protection as currently provided by the Regional Official Plan.

If approved by Regional Council, this report will be forwarded to the Ministry of Municipal Affairs to help inform the proposed changes to the Provincial land use plans.

Regional staff will report back to Regional Council when the new Plans are released by the Province.

Staff has consulted with the Province, the Area Municipalities, the GRCA and several Greater Golden Horseshoe municipalities in the preparation of this report.

Report:

On May 10, 2016, the Province of Ontario released the Proposed Growth Plan for the Greater Golden Horseshoe and the Proposed Greenbelt Plan for public input and feedback. If approved, these Plans would replace the current Growth Plan which came into effect on June 16, 2006 and the current Greenbelt Plan which came into effect on February 28, 2005.

The Growth Plan provides policy direction on matters of Provincial interest relating to growth and development in the Greater Golden Horseshoe (GGH). The Growth Plan applies to 21 upper- and single-tier municipalities in the GGH including the entirety of the Region of Waterloo. The Growth Plan is an important policy document that aims to revitalize downtowns, create complete communities, provide greater housing choice, curb sprawl, protect farmland and natural heritage features and improve access to transportation choices. The Proposed Growth Plan builds upon the existing policy direction and now also provides direction regarding protection of the natural environment and key hydrologic areas, infrastructure, an agricultural system and mineral aggregate resources.

The Greenbelt Plan applies to a broad band of nearly two million acres (800,000 hectares) of protected land surrounding the GGH. Only a small portion of the Greenbelt Plan extends into the Region of Waterloo near the Beverly area of the Township of North Dumfries. The Greenbelt Plan identifies areas where urbanization should not occur to permanently protect the agricultural land base and natural heritage features.

Under the Planning Act, all planning decisions made by municipalities for areas that fall within the boundaries of the Plans, the Province and the Ontario Municipal Board must conform to the policies of the Growth Plan and the Greenbelt Plan. The transition policies of the Proposed Growth Plan requires that planning decisions that take place after the Plan is in effect must conform to the requirements of the Plan. It is also anticipated that municipalities will be required to bring their official plans into conformity with the new Plans within 5 years of the Plans coming into effect.

Regional Council previously provided comment on the Co-ordinated Land Use Planning Review as Report PDL-CPL-15-31 in May 2015 and outlined several areas where the 2006 Growth Plan could be improved including the land budget process, employment conversions, long term planning for employment lands and updating the Region's population and employment forecasts. Many of Regional staff's recommendations for

improvement have been addressed by the policy changes of the Proposed Plans.

General Comments

Regional staff continue to endorse the policy directions of the Growth Plan and the Greenbelt Plan to provide a foundation on how to accommodate growth in the Greater Golden Horseshoe in a more sustainable way, to provide for the development of a more compact and transit-supportive urban form and to protect valuable farmlands and natural resources.

Regional staff commend the Province for the leadership it has provided over the past several years in the field of growth management. The policies of the proposed Plans in many ways complement the policy directions that the Region of Waterloo and its Area Municipalities have been advocating for some time, including increasing transportation choices, promoting a more compact urban form, fostering a strong and competitive economy, protecting the natural environment, protecting source water, and constructing the ION rapid transit system.

The Growth Plan for the Greater Golden Horseshoe

Key Changes

Planning Horizon

The Proposed Growth Plan now directs municipalities to plan to the 2041 horizon year of the Plan and permits municipalities to designate land to 2041. Previously, municipalities could designate lands up to a maximum of 20 years. Regional staff support the clarification this policy change provides.

Minimum Intensification and Density Targets

The Built-Up Area

The Growth Plan includes a number of targets including a minimum intensification target. This target requires a prescribed percentage of growth to occur within a municipality's Built-up Area (BUA). Previously, municipalities were required to have a minimum of 40 percent of all residential development annually within the BUA. The Proposed Growth Plan increases this minimum to require that 60 percent of all new residential development occurs annually within the BUA. The new minimum intensification target would not come into effect until municipalities have undertaken a municipal comprehensive review to bring their official plan into conformity with the Growth Plan.

Regional staff are generally supportive of increases to the minimum intensification target. Development taking place in the BUA utilizes existing infrastructure, supports

Region of Waterloo initiatives such as the construction of ION rapid transit system and reduces the amount of agricultural land needed to accommodate growth.

The ROP requires that a minimum of 45% of all residential development occurs annually within the BUA and Regional staff monitor the achievement of this target on a regular basis. In 2015, 49% of all new residential units were constructed within the BUA, exceeding both the minimum targets in the ROP and the Growth Plan. This is the sixth year that these targets have been exceeded. From 2010 to 2015, an average of 54% of all new residential units has been constructed annually within the BUA. Although the Region has met or exceeded the minimum intensification rate over the last several years, it is important to recognize that some of this intensification can be attributed to purpose-built student dwellings recently constructed in the City of Waterloo and the build-out of single detached lots in plans of subdivisions that were included within the BUA when the Built Boundary was established by the Province. This type of construction is not anticipated to continue at these levels in the future.

Although the Region continues to work towards increasing the amount of development occurring within the BUA, it is anticipated the proposed increase to the minimum intensification target will be ambitious for the Region of Waterloo to achieve in the short term. Regional staff recommend that the Province utilize a phased approach to the minimum intensification target, similar to the phasing in of the intensification target in the 2006 Growth Plan, which would allow municipalities to complete the necessary planning work to determine the appropriate locations within the BUA to accommodate the proposed increase.

Recommendation: That the Province phase the implementation of the new annual minimum intensification target of 60 percent of all new residential development within the BUA in a similar manner to the "phase in" of the minimum intensification target in the 2006 Growth Plan.

Major Transit Station Areas

The Proposed Growth Plan now contains policies regarding minimum density targets for Major Transit Station Areas (MTSA). The Plan proposes a minimum density of 160 persons and jobs per hectare for all MTSAs served by LRT or BRT and 150 persons and jobs per hectare for all MTSAs served by GO Transit. The density targets would be measured over the area within 500 meters of the MTSA. Where the MTSA is located within a Prime Employment Area (discussed below), the density target would not apply.

Regional staff are supportive of policies which require minimum density targets for MTSAs and recognize the considerable amount of work undertaken by the Cities of Kitchener and Waterloo to undertake station area plans for the Region's ION rapid transit system. As such, there is concern over the lack of flexibility in the Proposed Growth Plan to determine alternative targets or exempt MTSAs from density

requirements where higher densities are not desirable or feasible due to physical constraints (parks, floodplains, etc.), existing development (stable residential neighbourhoods, employment areas) or where the targets conflict with other targets of the Plan.

The latter is of particular concern in the City of Cambridge where the proposed MTSA density target of 160 persons and jobs per hectare is greater than the density target of 150 persons and jobs required in Cambridge's Urban Growth Center (UGC) resulting in densities along the BRT corridor which are greater than those required in the UGC where the greatest level of intensification is intended to occur.

There is also concern about the ability to meet the minimum density target proposed for GO Stations of 150 persons and jobs per hectare for the Breslau GO Station. This station is located within a suburban area with recent development approvals that would see the much of the remaining land in this area develop at a density of 55 persons and jobs per hectare, much lower than the proposed GO Station minimum density target.

Recommendation: That the Province provide flexibility for municipalities to determine alternative minimum density targets, the area within which the target is to be achieved, and to identify MTSAs which should be exempt from the target, to allow for appropriate density targets to be established for each MTSA based upon local circumstances such as physical constraints and existing development located within or in proximity to the station area.

Designated Greenfield Areas

Designated Greenfield Areas (DGA) are lands located outside of the BUA and are designated to accommodate growth. The 2006 Growth Plan required that the DGA be planned to achieve a minimum density target that is not less than 50 persons and jobs per hectare. The minimum DGA density target is intended to support the early introduction of public transit, assist in the development of complete communities, to help make better use of the existing land supply and to use infrastructure in a more efficient manner.

The changes to the Growth Plan propose an increase to the minimum density target for the DGA from 50 persons and jobs per hectare to 80 persons and jobs per hectare. While Regional staff is generally supportive of increasing densities in the DGA, there are concerns with the implementation of the proposed increase, specifically with respect to how the density target is applied across the entirety of the DGA, the mix of unit types required to achieve the density target and ultimately the location and form of community that will need to be planned and developed to meet the target.

The Growth Plan requires that the minimum density target be measured over the entire DGA, excluding a list of features where development is prohibited. Growth Plan Policy

2.2.7.3 states that “The minimum density target will be measured over the entire designated greenfield area of each upper- or single-tier municipality, excluding the following:…”. The list that follows does not include lands within the DGA that have been subject to a complete application, draft approved, registered, built or within an approved secondary plan, community plan or district plan. Since the built boundary and the DGA were established in 2006, planning approvals and development have occurred in the DGA in a manner which has contributed to the achievement of the 50 persons and job per hectare density target of the 2006 Growth Plan. As a result of this development and because these areas are not excluded from the DGA density calculation, the remaining vacant DGA land will be required to achieve a density greater than 80 persons and jobs per hectare to “compensate” for the DGA lands that have previously received development permissions or developed in conformity with density requirements of the 2006 Growth Plan in order to achieve 80 persons and jobs per hectare across the entirety of DGA.

Regional staff estimate that the Region’s remaining vacant, uncommitted DGA would need to be planned to achieve a density approximately 2.5 times as dense as the development that has already been planned and built DGA to meet the proposed minimum density target of 80 persons and jobs per hectare across the entirety of the DGA. It is anticipated that achievement of this density would require a built form comprised of mostly apartment dwellings.

Regional staff are concerned about the ability to achieve the unit mix required to meet the density target in conjunction with the ability to meet the increased minimum intensification target. The achievement of the DGA density target will require a continued shift away from ground-oriented dwellings to apartment dwellings, particularly as compensation for the lower densities on the previously developed DGA is required. This, in combination with the increased number of apartment dwelling required to achieve the proposed intensification targets, cause concern about the ability to plan for complete communities and to continue to provide for a range and mix of housing required by Policy 1.4.3 of the 2014 PPS while achieving the targets of the Proposed Growth Plan.

Regional staff are also concerned with the location of the uncommitted DGA that will be required to achieve densities of 80 or more people and jobs per hectare. For the most part, the uncommitted DGA is located on the outer edge of the Region’s urban areas where development at these densities may not be appropriate or desirable due to the lack of available public transit, infrastructure constraints and to provide for a transition to the Region’s adjacent agricultural areas.

There is also a concern regarding how the proposed DGA density increase impacts recently completed or in-process master plans for transportation, transit, water and wastewater. Many of these plans are premised upon population growth in the DGA

occurring at a density of 50 people and jobs per hectare. At this time, there has been no analysis completed to determine whether the proposed increase in population in the DGA as a result of the increased density target can be accommodated within existing or planned services or the costs associated with planning for, upgrading or building new infrastructure to accommodate the additional people and jobs

As such, Regional staff request that the Province consider modifying how the DGA density target is measured to assist in the reasonable achievement of these targets. It is anticipated that the proposed density target of 80 persons and jobs per hectare will be ambitious to achieve and will require a continued shift in the built form of the DGA towards more apartment and multiple dwellings. However, removing the portions of the DGA which have been committed through the planning approvals process from the calculation of this target will assist in the more reasonable achievement of the target over the planning horizon of the Proposed Growth Plan and the development of a built form which provides for a range and mix of housing, contributes to planning for a complete community and is appropriate for the location for where it is being planned.

Recommendation: That the Province include lands in the DGA that have been subject to a complete application, draft approved, registered, built or included within an approved secondary plan, community plan or district plan in conformity with the 2006 Growth Plan to the list of features which can be excluded from the calculation of the DGA minimum density target in Growth Plan Policy 2.2.7.3.

Growth Plan Policy 2.2.7.3 requires that the minimum density target be measured over the entire DGA, excluding certain areas and features where development is not permitted. The 2006 Growth Plan permitted the exclusion of a specific list of features where the applicable provincial plan or policy statement prohibited development within the feature including wetlands, woodlands, valley lands, areas of natural and scientific interest, habitat of endangered and threatened species, wildlife habitat and fish habitat. The Proposed Growth Plan has expanded the list of features permitted to be excluded from the DGA density calculation to include floodplains, electricity transmission lines, energy transmission lines, freeways, railways and prime employment lands. As drafted, the Plan does not provide guidance on how to determine the physical limits of these features and Regional staff request additional guidance be provided either through policy modifications or through the Provincial land needs assessment methodology to assist in the determination of the appropriate physical limit of these features for the purpose of calculating the DGA density target.

Regional staff also request that the Province give consideration to expanding the list of features in Policy 2.2.7.3 to include land uses which do not contribute the achievement of the density target, are not available for development, and form essential components of the urban fabric such as parks, cemeteries, landfills and arterial roads.

Recommendation: That the Province amend the list of features excluded from the calculation of DGA density target to include parks, cemeteries, landfills and arterial roads.

Recommendation: That the Province modify the definition of "Natural Heritage Features and Areas" to include Significant Woodlands to be consistent with direction of the 2006 Growth Plan in relation to features excluded from the density calculation and to better align with the 2014 PPS definition of "Natural Heritage Features and Areas".

Recommendation: That the Province include additional guidance to municipalities either through policy modification or through the Land Needs Assessment Methodology to assist in the determination of the appropriate physical limit of the features permitted to be excluded from the calculation of the DGA density target.

Decoupling Population and Employment Densities

Both the 2006 and the Proposed Growth Plan measure the density of the DGA using the number of persons and jobs per hectare combined. Municipalities do not have the same level of influence over how employment lands develop and many of these areas may develop at a slower rate and at lower densities than the residential portions of the DGA. Because of this, the residential portions of the DGA are required to "compensate" for the lower densities on the employment land portions of the DGA in order to achieve the density target across the entirety of the DGA.

While the Proposed Plan permits the exclusion of Prime Employment Lands from the measurement of the DGA density target in an effort to recognize the low employment densities associated with these areas and lessen the density compensation required on the residential portions of the DGA, the ability to exclude these areas from the density calculation may have limited impact. As currently proposed, Prime Employment areas do not permit office uses and as a result there may be a limited number of employment areas which meet the definition of Prime Employment in order to be excluded from the density calculation.

As such, Regional staff recommend that the Province consider removing all employment density (excluding population related employment and work at home employment) from the calculation of the DGA density.

Recommendation: That the Province separate people from employment-area related jobs in the calculation of the minimum DGA density target.

Employment Lands

Prime Employment Areas

The policies regarding employment lands in the Proposed Growth Plan have been modified in an effort to provide greater clarification of the uses permitted within employment areas and the circumstances where the employment conversion and associated municipal comprehensive review policies would apply. One of the key changes is the introduction of new policies regarding Prime Employment Areas.

Prime Employment Areas are areas of employment that are land extensive or have low employment densities, including manufacturing, warehousing and logistics and appropriate associated uses and ancillary facilities. The Proposed Growth Plan contains policies requiring municipalities to identify and designate lands near major goods movement facilities and corridors as Prime Employment Areas. Land uses such as residential, retail, commercial, institutional uses and office use which are not ancillary to the primary employment use are not permitted. Because of the low employment densities associated with the types of employment anticipated to be located in Prime Employment Areas, these areas are permitted to be excluded from the DGA density calculations.

Prime Employment Lands as contemplated by the proposed Growth Plan align well with the Prime Industrial Strategic Reserve (PISR) policies and designation in the ROP. Lands designated in the ROP as PISR are located on the East Side in north Cambridge and in the 401/97 employment area in the Township of North Dumfries. Regional staff are supportive of this policy direction and appreciate the clear policies which detail the types of uses permitted in Prime Employment Areas.

Employment Areas

The policies of the Proposed Growth Plan regarding other Employment Areas have also been modified. Regional staff request that additional clarification is provided on the types of uses permitted in these employment areas.

The Proposed Growth Plan defines Employment Area as “Areas designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices and associated retail and ancillary facilities”. Policy 2.2.5.6 a) of the Proposed Growth Plan states that “…employment areas within settlement areas will be designated and planned to: a) direct any permitted commercial uses to locations that support active transportation and are serviced by transit, where that service is available;…”. It is unclear as to what is meant by “permitted commercial

use" and whether it refers to the "associated retail and ancillary facilities" in the definition of Employment Area or whether it provides for greater permission for the establishment of commercial uses within Employment Areas. Furthermore, no direction is provided on major retail uses which have traditionally been characterized as non-employment uses and whether these uses are now permitted within Employment Areas. Regional staff are concerned that without clear direction on the types of commercial uses permitted in Employment Areas there is the potential for dispute on whether a municipal comprehensive review and employment conversion is required when commercial uses that are not ancillary or accessory are proposed.

Recommendation:

That the policies regarding Employment Areas be revised to provide for clear direction on the types of commercial uses permitted in "Employment Areas" and to provide for the continued restriction of major retail uses and other commercial uses which are not considered to be associated retail and ancillary facilities within Employment Areas in order to retain employment lands for traditional employment uses such as manufacturing, warehousing and office.

Municipal Comprehensive Review

The Proposed Growth Plan contains a change to the definition of municipal comprehensive review (MCR) and Area Municipal planning staff have raised a concern with the proposed change. The change would require that MCRs be initiated only by an upper or single tier municipality. A MCR is required to expand settlement area boundaries and to convert employment areas to non-employment uses. In the past, the MCR to expand settlement area boundaries has been completed by the Region and any comprehensive review requirements with respect to the conversion of employment lands has been undertaken by the Area Municipalities. Generally this process has worked well as the ROP does not contain detailed "Employment Area" designations but does provide a policy framework to be used when an area municipality undertakes a MCR to support the conversion of employment lands.

Recommendation: That the definition of Municipal Comprehensive Review be modified to permit any municipality (upper, single or lower tier) to initiate a municipal comprehensive review to address the conversion of employment lands.

Settlement Area Boundary Expansions

Land Needs Assessment

A key challenge associated with the implementation of the 2006 Growth Plan related to the method of converting growth forecasts into a municipality's future land requirements. The process is commonly referred to as a land needs assessment or a land budget.

The 2006 Growth Plan does not include a clear set of rules, standards or methodology on how municipalities should prepare a land budget. As a result, the land budgeting exercise, the appropriate methodology to use, and the assumptions used in the land budget methodology were a key issue in the appeals to the ROP and the resulting lengthy OMB hearing. The proposed Growth Plan contains a policy commitment from the Province to release a standard land needs assessment methodology to be used in the assessment of land needs across the Greater Golden Horseshoe within two years of the Plan being adopted.

Recommendation:

That the Province consult with municipalities in the development of the standard land needs assessment methodology to draw upon the experience gained from the previous Growth Plan conformity exercises and the related land needs assessment and OMB processes.

That the Province complete the land needs assessment methodology within a year of the proposed Plan coming into force and effect so that the Region of Waterloo can continue with the anticipated timing for its next municipal comprehensive review scheduled to occur in 2019.

Feasibility of Settlement Boundary Expansions

The Proposed Growth Plan also contains new criteria that must be addressed by a municipal comprehensive review where settlement area boundary expansion has been proposed. These policies assess the feasibility of expansion against a new set of criteria to determine the most appropriate location for the expansion to occur. These criteria include: the availability of existing or planned infrastructure to support growth; alignment with water and wastewater master plans; ensuring that the quality and quantity of groundwater recharge is maintained; and that key hydrologic areas, the natural heritage system, and prime agricultural areas be avoided. Regional staff support the addition of policy language in the Growth Plan to provide parameters on the appropriate location of settlement area boundary expansions that include considerations regarding infrastructure, ground water and natural areas.

Excess Lands

The proposed Growth Plan contains new policies requiring the identification and management of Excess Lands. Excess Lands are lands located within a settlement area that are not required to accommodate the forecasted growth after a municipality has completed a land needs assessment as part of a municipal comprehensive review. Policy 2.2.1.6 requires upper or single tier municipalities in the outer ring (which includes the Region of Waterloo) to identify excess lands in their official plans and prohibit development on all excess lands to 2041. Policy 2.2.8.3 outlines the steps an

outer ring municipality must follow if it intends expand a settlement area boundary despite having identified excess lands. This proposed policy would require the municipality to redesignate the excess lands to remove development permissions from these lands in order to reduce the overall quantity of excess lands.

Regional staff are concerned with these policies for a number of reasons. Firstly, until the Province releases the Land Need Assessment Methodology municipalities cannot assess whether they will have land designated in excess of what is required to accommodate the population and employment forecasts of the Growth Plan and thereby assess the impact (or applicability) of this proposed policy.

Secondly, it is anticipated that the decision to identify lands as excess and prohibit development on these lands will be controversial and ultimately contested at the OMB. As currently drafted, the policies regarding Excess Lands do not provide guidance or parameters to be used in the determination of which lands are identified as excess and be subject to the associated prohibition of development. In addition, the plan does not prohibit an appeal to the OMB on a municipality's identification of excess lands.

Recommendation: That the Province develop, in consultation with the outer ring municipalities, policies containing criteria to be used in the identification of excess lands similar to the settlement area boundary expansion criteria contained in Growth Plan policy 2.2.8.2.

Recommendation: That the Province prohibit OMB appeals of a municipality's decision to identify lands as excess.

Updating the Region's Population and Employment Forecasts

Schedule 3 of the Growth Plan contains population and employment forecasts that upper and single-tier municipalities must use for planning and managing growth. Growth forecasts are an essential component of land use, infrastructure and financial planning and due to the uncertainty surrounding long-term demographic and economic forecasting, the proposed Growth Plan requires that the forecasts contained in Schedule 3 be reviewed at least every five years to ensure the forecasts remain appropriate.

The last review of the Province's population and employment forecasts occurred in 2013 and resulted in Amendment 2 to the Growth Plan. This amendment updated the original population and employment forecasts and extended the growth planning horizon to 2041. The Proposed Growth Plan does not propose any revisions to the population and employment forecasts at this time.

Waterloo Region's growth outlook remains both very positive and is somewhat consistent with that experienced over recent decades, although its current growth rate is

slower than originally forecast in the Growth Plan.

Given the importance of the Region's growth forecasts for land use, infrastructure and financial planning, Regional staff recommend that the Province review and revise the Region's population and employment forecasts in conjunction with the results of the 2016 Census.

Recommendation: That the Province review and revise the Schedule 3 population and employment forecasts in conjunction with the results of the 2016 Census.

Natural Heritage System Policies

One of the most substantial changes to the Growth Plan is the inclusion of detailed policies regarding the Natural Heritage System, Key Natural Heritage Features, Key Hydrologic Features and Key Hydrologic Areas which are similar to the natural heritage policies of the Greenbelt Plan. In addition to the proposed policies, the Province will map a Natural Heritage System for the Greater Golden Horseshoe (GGH) within two years of the approval of the proposed Plan. The policies of the Proposed Growth Plan regarding natural heritage and hydrology do not apply within settlement areas and for these areas the PPS continues to apply.

Regional staff recognize the importance of a GGH-wide Natural Heritage System to provide for the connectivity of features which cross municipal boundaries and to provide a consistent level of protection for natural heritage features, key hydrologic areas and key hydrologic features across the GGH. However, there are concerns that the proposed policy framework may lessen the level of protection that the ROP currently provides and remove the ability for "made in Waterloo Region" approaches for natural heritage features in the Region of Waterloo.

Contiguous

The policies of the proposed Growth Plan require that a natural heritage evaluation be completed where a proposal for development is within 120 meters of a key natural heritage feature. Currently, the ROP utilizes the term contiguous to determine the requirement for an environmental impact study (EIS) where development is proposed in proximity to a natural heritage feature. Using contiguous rather than a set limit within which a study is required provides flexibility to Regional Environmentally Planning staff to exercise professional judgment based on the physical, hydrological and ecological context of a development proposal when determining the requirement for an EIS. Because contiguous focuses more on the contextual basis of a development proposal, it can result in the requirement for an EIS where a development proposal is physically separated from a natural heritage feature (by more than 120 meters) but has ecological or hydrological connections. It may also result in waiving the requirement for an EIS

where a development proposal is located within 120 meters of a natural heritage feature but no ecological or hydrological connection exists.

Recommendation: That the policies of the Proposed Growth Plan with respect to the requirement for a natural heritage evaluation within 120 meters of a development proposal be amended to provide for an approved alternative municipal approach that evaluate the physical, hydrological and ecological context of a site to determine the requirement for a natural heritage evaluation.

Adverse Environmental Impact

The policies of the Proposed Growth Plan use the term “no negative impact” to assess the acceptable level of impact on a natural heritage feature from proposed development. Dating back to the 1995 Regional Official Policies Plan, the Region has used the term “Adverse Environmental Impact” to assess the acceptable level of impact on a natural heritage feature. The ROP definition of “adverse environmental impact” provides a prescriptive list of the types of impacts which are intended to provide guidance on what is considered to be an adverse environmental impact which is much more detailed than the definition of “negative impact” contained in the Provincial Policy Statement (2014). The types of impacts considered to be an adverse impact includes the disruption of corridors and linkages, substantial alteration of natural topography and the alteration of the quality, quantity and timing of flow of surface water.

Recommendation: That the Province incorporate flexibility in the Proposed Growth Plan policies to allow for an approved alternative municipal approach to assessing impact of development on natural heritage features.

Environmentally Sensitive Policy Areas

The Region of Waterloo has a long tradition of strong environmental protection including the designation of the Environmentally Sensitive Policy Areas (ESPAs) in the 1976 Regional Official Policies Plan. The ESPA designation provides a high level of protection to environmental features which are more ecologically diverse than Provincially Significant Wetlands or Significant Woodlands. Regional staff are concerned about changes to the level of protection currently afforded to ESPAs based on the policies of the Proposed Growth Plan. Since 1994, Regional policy has not permitted Mineral Aggregate Extraction within areas designated as ESPA. However, the policies of the Proposed Growth Plan would permit extraction within ESPAs as they are not included in the Growth Plan’s list of features where extraction is not permitted.

Recommendation: That the Province amend the proposed policies regarding Mineral Aggregate Resource Extraction to recognize features where extraction is

currently not permitted in approved municipal official plans or alternatively, that the Plan be amended to include clear language of the circumstances in which municipal official plans can contain more restrictive or stringent policies than that of the Growth Plan.

Environmentally Sensitive Landscapes

In 2007, the Region designated two Environmentally Sensitive Landscapes (ESL), the first municipality in Ontario to designate landscape level features in a municipal official plan. The number of ESLs designated in the Region expanded to four with the approval of the ROP in 2015. In many ways, the ESL designation is similar to the Natural Heritage System in the Proposed Growth Plan. However, there are some key differences. The ROP contains detailed policies regarding the types of uses prohibited within the ESLs (i.e. golf courses, illuminated playfields, farm implement dealerships, sod farming operations) and has strict restrictions on the creation of lots and the expansions of settlement area boundaries within the ESLs.

The proposed policies of the Growth Plan would only discourage settlement area boundary expansions into the Natural Heritage System and would permit consideration of the establishment of uses such as golf courses. Regional staff are very concerned about the ability to maintain the strong level of protection currently afforded to the ESLs in the ROP in the context of the policies in the Proposed Growth Plan and request that the Growth Plan be modified to include policies which recognize municipally-designated environmental features and the level of protection currently provided to them.

Recommendation: That the Proposed Growth Plan be amended to include clear language permitting municipal official plans to be more restrictive than that of the Growth Plan to allow municipalities, like the Region of Waterloo, to recognize and maintain the level of protection currently provided to the locally-developed and municipally-designated Environmentally Sensitive Landscapes.

Mapping

The policies of the Proposed Growth Plan contain a commitment by the Province to map a Natural Heritage System for the GGH within two years of the approval of the Plan. The Region of Waterloo has invested extensive resources into mapping the Region's natural heritage features and Regional staff encourage the Province consult with the Region and utilize Map 4 – Greenlands Network of the ROP (Attachment 1) when undertaking the mapping of the Natural Heritage System mapping for the Growth Plan (a larger, colour version of Map 4 is available in the Councillor's library).

Recommendation: That the Province utilize the designations on Map 4 – Greenlands Network of the ROP (Attachment 1) and consult with Region of Waterloo staff in the mapping of the Natural Heritage System for the Region of

Waterloo.

Agricultural System

The Proposed Growth Plan also contains policies similar to the Greenbelt Plan requiring the establishment Agricultural System mapping and related policies. The Province will identify an agricultural system for the Greater Golden Horseshoe within two years of approval of the Plan.

Regional staff recognize the importance of a GGH-wide Agricultural System and related policies to protect agricultural lands and to provide for the land uses which support the agricultural community. Regional staff encourage the Province consult with the Region and utilize Map 7 – The Countryside of the ROP (Attachment 1) when undertaking the mapping of the Agricultural System mapping for the Growth Plan (a larger, colour version of Map 7 is available in the Councillor's library).

Recommendation: That the Province utilize the designations on Map 7 – The Countryside of the ROP (Attachment 2) and consult with Region of Waterloo staff in the mapping of the Agricultural System for the Region of Waterloo.

Cultural Heritage Conservation

The Cultural Heritage policies of the Proposed Growth Plan have been revised and improved to better align with other Provincial land use plans. These changes include strengthening the requirement for cultural heritage conservation in the historic core areas of intensifying communities. The Proposed Growth Plan also contains a number of new definitions related to cultural heritage including definitions for Built Heritage Resource and Cultural Heritage Landscape. The inclusion of these definitions minimize the potential for conflict and confusion between the Provincial land use plans and Regional staff support this effort made by the Province to improve the consistency of cultural heritage conservation policies throughout these plans.

Source Water Protection

The Region of Waterloo relies primarily on groundwater for the Region's municipal drinking water supplies and the protection of these groundwater resources are of great importance. While the changes to the Proposed Growth Plan include more policy direction regarding key hydrologic areas, greater consideration of source water protection is required in the Plan to ensure that the protection of municipal drinking water supplies are integrated into planning for growth. There are a number of areas in the Plan where this could be achieved, including:

- a reference to source water protection in the Guiding Principles of the Growth Plan;
- a reference to source water protection and the protection of water for human

consumption in the definition of “water resource system”;
- a reference to source water protection in Growth Plan policy 4.2.3.2 to protect drinking water supplies alongside significant recharge areas and highly vulnerable areas;
- a reference to source water protection in the settlement area boundary expansion criteria contained in Growth Plan policy 2.2.8.2;
- a reference to source water protection in the definition of watershed planning; and
- a reference to source water protection as a consideration in the preparation of stormwater management plans.

Recommendation: That the Province entrench source water protection into the policies of the Growth Plan in a similar manner to the examples outlined above to ensure that source protection is integrated into the planning for growth.

Infrastructure

The policies related to infrastructure in the Proposed Growth Plan have been expanded to ensure that a more integrated approach is used for infrastructure and land use planning. Regional staff is supportive of this direction, however, there are several areas where the infrastructure policies and related scheduled of the Proposed Growth Plan could be improved or clarified, including:

- Providing parameters or guidance for terms such as “sufficient” , “full life cycle costs” and “a complete streets approach”;
- Modifying the definition of “Transportation System” to include the policies, programs and information technology which are put in place to support the transportation system;
- Policies which would limit surface parking throughout a municipality rather than only within MTSAs and employment areas;
- Identifying GO Transit between Milton and Cambridge on Schedule 5 Moving People - Transit;
- Identifying the “missing link” on Schedule 6 – Moving Goods. The “missing link” is an alternate route for heavy freight movements to improve rail capacity on the existing lines for passenger movements;
- Revising the GTA West Corridor location on Schedule 6 – Moving Goods. While the Future Transportation Corridors are intended to be conceptual, the GTA West Corridor arrow explicitly points to downtown Guelph, which is not the current direction of the corridor, as determined in 2012;
- As currently drafted, the Proposed Growth Plan would only permit the construction of a Great Lakes pipeline in the event of public health and safety or to service a settlement area that has an Urban Growth Center. Regional staff

recommend that this policy be revised that in the event the construction of a pipeline to a Great Lake source is required, settlement areas that do not have an Urban Growth Centre but are currently part of an integrated municipal system can continue received services provided by the pipeline;

- Improving the consistency of the proposed policies with the Provincial Water Management Guideline (Policy 1 and Policy 2) specifically with respect to the water and wastewater master plans and acceptable impacts;
- The language of Policy 3.2.6.2 c) ii) makes reference to assimilative capacity, however, a definition of assimilated capacity is not provided in the Plan. Regional staff recommends that a definition for assimilative capacity be provided.
- Improving the consistency of policies with MOEE policies, for example Policy 3.2.6.2 c) ii) is more stringent that the current MOEE policies regarding assimilative capacity; and
- Master Plans do not currently contain net zero components and Regional staff encourage the Province to provide funding for municipalities to purchase the necessary technology to implement net zero components into Master Plans.

Recommendation: That the Province modify the infrastructure policies of the Proposed Growth Plan in a manner similar to the examples outlined above.

Climate Change

The Proposed Growth Plan also contains new policies that would require municipalities to incorporate greenhouse gas reduction targets and climate adaptation strategies into municipal official plans. Regional staff are supportive of this direction as these policies are well aligned with the commitments in the Region's Corporate Strategic Plan (Environment and Sustainable Growth Focus Area) to further develop and implement climate change related strategies.

Measuring the Implementation of the Growth Plan

Regional staff are supportive of performance monitoring as a means of evaluating the effectiveness of policies and identifying opportunities for improvement. In 2014, the Province initiated a process to measure the implementation of the 2006 Growth Plan. At that time, Regional staff identified a number of concerns with the proposed performance indicators, specifically the methodology and the data sources being utilized. Regional staff support the continued commitment to performance monitoring in the Proposed Growth Plan and encourage the Province to utilize data sources (i.e. building permit data) maintained by municipalities in any future performance indicator exercise.

Recommendation: That the Province continue to work collaboratively with municipalities to refine the performance monitoring program associated with

implementation of the Growth Plan to accurately measure the success of the Growth Plan using the best available data sources.

Transition Policies

The implementation policies of the proposed Growth Plan require that all decisions with respect to planning matters shall conform to this Plan as of its effective date. Regional staff are concerned with the impact of this transition provision on development applications in process, the implementation of secondary plans, district plans and community plans, Area Municipal official plans that are before the OMB for adjudication, and the policies of the ROP which implement items related to conformity with the 2006 Growth Plan (as amended). As currently proposed, these transition policies would not allow municipalities to complete conformity exercises with respect to the 2006 Growth Plan and would require municipalities to revisit development applications in process and approved secondary plans, district plans or community plans to ensure conformity with the revised targets of the new Growth Plan.

There is a specific concern regarding the requirement that would have the 80 persons and job per hectare density target effective immediately upon the Proposed Growth Plan coming into force. Several of the Region's area municipal official plans are currently before the OMB and any decisions made by the OMB would need to conform with the 80 persons and jobs density requirement. This would mean that the OMB could require the area municipal official plans to contain the new, higher density targets before the Region has had the opportunity to undertake the process to comprehensively assess and allocate the new density requirements across the Region.

Recommendation: That the Province provide transition provisions similar to that of Amendment 2 to the 2006 Growth Plan which would permit municipalities to complete the implementation of policies and development approvals associated with the exercises to achieve conformity with the 2006 Growth Plan (as amended).

The Greenbelt Plan

As part of the Co-ordinated Land Use Planning Review, the Province also reviewed and proposed policy revisions to the Greenbelt Plan which originally came into effect on February 28, 2005. The Proposed Plan continues to provide for a broad band of permanently protected land in an effort to reduce the fragmentation and loss of agricultural land, protect significant natural heritage and water resource systems.

During the development of the Greenbelt Plan in 2004 and 2005, the Region expressed support for the Province's Greenbelt initiative and requested the Province to extend the Greenbelt to Waterloo Region to include the Paris, Galt and Waterloo Moraines, proposed Environmentally Sensitive Landscapes, and prime agricultural areas. The Region's support for any extension was conditional upon the Greenbelt Plan being

revised to provide such features the same or higher level of protection provided as by the Region's official plan.

The Region of Waterloo has worked diligently to increase the level of protection for significant natural heritage features, significant ground water resources and prime agricultural areas in the Region of Waterloo. These efforts are reflected in the Regional Recharge Area, Environmentally Sensitive Landscape, Countryside Line and Protected Countryside designations and related policies in the ROP. In many ways the policy direction of the ROP compliments the policy direction of the Greenbelt Plan. However, there are several key differences between the two plans that should be highlighted where the policies of the ROP are stronger than the Proposed Greenbelt Plan.

Under the Planning Act, any planning decisions made by municipalities, including the Region of Waterloo, the Province and the Ontario Municipal Board, must conform to the policies of the Greenbelt Plan. The Greenbelt Plan stipulates that municipalities cannot adopt more restrictive official plan policies than the Greenbelt Plan with respect to agricultural uses and mineral aggregate resources.

This is of particular concern with respect to mineral aggregate extraction in ESPAs. Since 1994, Regional policy has prohibited the extraction of mineral aggregate resources within ESPAs. Because ESPAs are municipally-designated natural heritage features, and not included in the Greenbelt list of features where extraction is not permitted, any ESPA located within the Greenbelt would be afforded less protection from mineral aggregate extraction than is currently provided by the ROP. The potential for mineral aggregate extraction to be proposed within an ESPA is high. The ROP currently designates 93 ESPAs and many of these are located in areas of the Region also designated as Mineral Aggregate Resource Area. Ultimately, any extension of the Greenbelt to Waterloo Region should be accompanied with associated Greenbelt policy revisions to ensure that municipally-designated natural heritage features and their functions are protected to at least the degree that the ROP protects them today.

Recommendation: That the Province amend the Greenbelt policies regarding Mineral Aggregate Resource Extraction to include municipally-designated natural heritage features as lands where extraction is not permitted in approved municipal official plans into the list of features where mineral aggregate extraction is not permitted.

There are a number of other significant areas where the policies of the ROP provide greater protection of the environment and agricultural lands than those of the Greenbelt Plan, including:

- Permissions for surplus farm dwelling severances for abutting and non abutting farm consolidations. The ROP does not permit the severance of a dwelling surplus to farm operation to prevent the fragmentation of agricultural land and to

minimize conflicts between agricultural and residential uses. The Greenbelt Plan permits consideration of these types of severances;

- Permissions for residential lot creation in the Rural Area. The Greenbelt Plan provides for residential severances for three or less lots in the rural area. The ROP does not permit multiple residential lot creation in the rural areas to prevent the fragmentation of agricultural land and to minimize conflicts between agricultural and residential uses;
- The use of the term "contiguous" in the ROP to assess the impact of development on a natural heritage feature. The Greenbelt Plan requires an evaluation for any development proposal within 120 meters of a natural heritage feature (discussed in greater detail under the Proposed Growth Plan);
- The use of the detailed "adverse environmental impact" definition in the ROP to assess the impact of development on a natural heritage feature. The Greenbelt Plan uses "no negative impact" (discussed in greater detail under the Proposed Growth Plan);
- Uses permitted in the ESLs. The ROP does not permit sod farming, golf courses, or farm implement dealerships to be established within the ESLs. Greenbelt Plan policies 3.2.2.1 and 4.1.2 would permit consideration of these uses within the Natural Heritage System; and
- Source Water Protection. The ROP provides a high level of protection for source water protection and ground water resources. The Greenbelt Plan does not contain detailed policies to provide for the protection of these municipal drinking water resources.

While the policies of the ROP could continue to provide more restrictive requirements (with the exception of agricultural uses and mineral aggregate resources) than the Greenbelt Plan, any decision to be more restrictive could be exposed to challenge at the OMB as a result of the Region's conformity exercise.

Recommendation: That the Province consider the following changes to strengthen the policies of the Greenbelt Plan:

- **Removing permission for surplus farm severances.**
- **Removing permission for the creation of 3 or less residential lots in the rural area.**
- **Additional policy language to protect municipal drinking water supplies.**
- **Removing permissions for golf courses, driving ranges, illuminated play fields, farm implement dealerships and sod farming within the Natural Heritage System.**
- **That the requirement for a natural heritage evaluation within 120 meters of a development proposal be amended to provide for an approved alternative municipal approach that evaluates the physical, hydrological**

and ecological context of a site to determine the requirement for a natural heritage evaluation.

- **New policies which would allow for an approved alternative municipal approach to assess the impact of development on natural heritage features.**

Growing the Greenbelt

The Proposed Greenbelt Plan does not include any large scale expansions or additions to the Greenbelt. However, the Plan does contain new policies that support and streamline the implementation of a Provincially-led process to identify additional areas of ecological significance and important water features where urbanization should not occur. If it is determined that additional areas would benefit from Greenbelt protection, the Minister of Municipal Affairs may initiate amendments to the Greenbelt boundary regulation and Greenbelt Plan to add these lands to the Greenbelt. This process is separate from the Co-ordinated Plan Review and has been initiated by the Province with a focus on identifying potential areas of hydrological and ecological significance to be added to the Protected Countryside of the Greenbelt. Under the proposed changes to the Greenbelt Plan, municipal support would not be required to add new lands to the Greenbelt.

When the new Greenbelt Plan is in force and effect, Regional staff will review the new Plan to determine if the Plan has been revised to provide the same or higher level of protection as the ROP and whether there is merit to considering portions of the Region of Waterloo for inclusion in the Greenbelt.

At this time, Regional staff continues to monitor the Growing the Greenbelt initiative.

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 Growth Plan for the Greater Golden Horseshoe and the Proposed Greenbelt Plan. Ultimately, any revisions to the Province's Growth Plan or 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. 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. There are several policies of the Proposed Growth Plan policies would come into effect immediately, such as the proposed increase to the minimum DGA density targets. Any planning approvals that take place after the Proposed Growth Plan comes into force and effect would be required to conform to these policies.

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.

Corporate Strategic Plan:

The Proposed Growth Plan and the Proposed Greenbelt Plan support the Region's priorities with respect to Focus Area 2 (Growth Management and Prosperity) and Focus Area 3 (Sustainable Transportation) of the Corporate Strategic Plan.

Financial Implications:

Nil.

Other Department Consultations/Concurrence:

Staff from Transportation and Environmental Services have been consulted in the preparation of this report.

Attachments

Attachment 1 – Map 4 of the Regional Official Plan – Greenlands Network

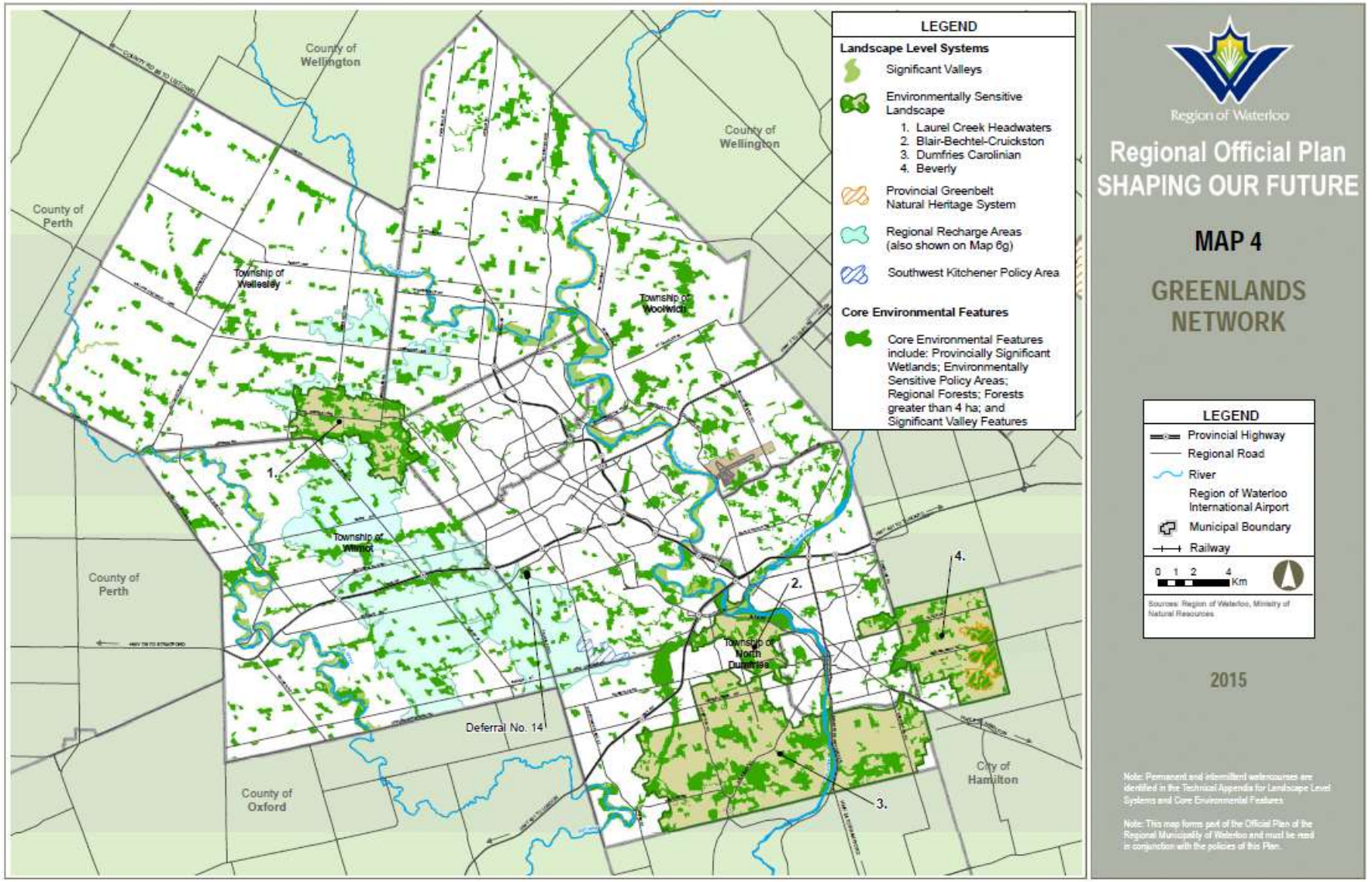
Attachment 2 – Map 7 of the Regional Official Plan – The Countryside

Prepared By: **Alyssa Bridge**, Principal Planner

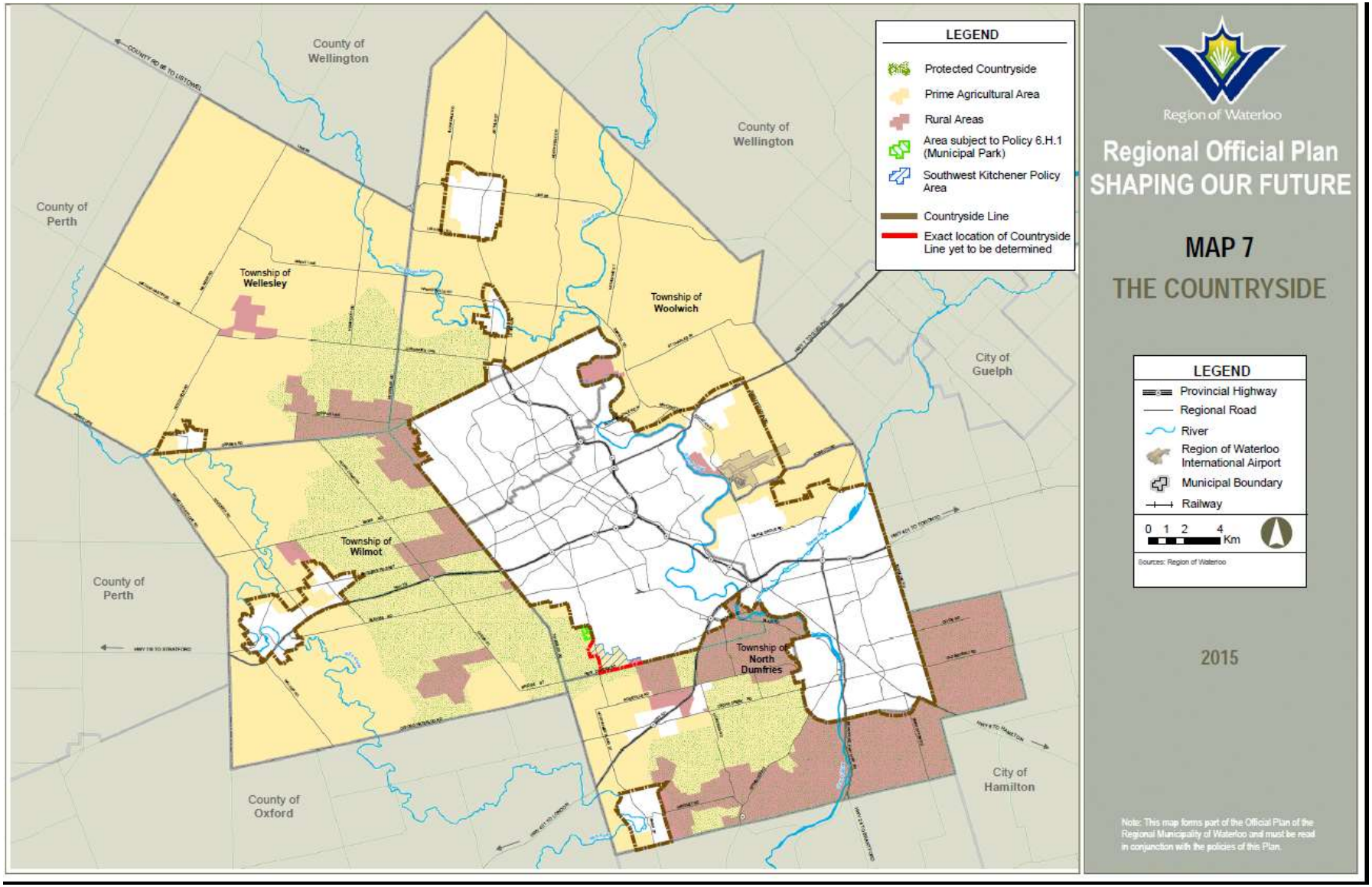
Michelle Sergi, Director of Community Planning

Approved By: **Debra Arnold**, Acting Commissioner of Planning, Development and Legislative Services

Attachment 1



Attachment 2



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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 2016
09-Aug-16	J. Nowak	Report on installing Roundabouts at rural intersections (Ament Line/Herrgott Road)	TES	Nov-2016