Regional Municipality of Waterloo
Planning and Works Committee

Agenda
Tuesday, December 8, 2015
1:00 P.M.
Regional Council Chamber
150 Frederick Street, Kitchener

1. Motion to Reconvene Into Open Session

2. Declarations of Pecuniary Interest under The Municipal Conflict Of Interest Act

3. Delegations

3.1 PDL-CPL-15-58, Climate Adaptation Planning – Observations and Projections for Waterloo Region (Information)
   i. Dr. Jason Thistlewaite, University of Waterloo

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.

4. Request to Remove Items from Consent Agenda

5. Motion to Approve Items or Receive for Information
5.1 **East Boundary Road Corridor Study**, Dundas Street to Townline Road, City of Cambridge - Information Package in Advance of Public Consultation Centre #2

5.2 **Bridgeport Road/Caroline Street**, ERB Street and Albert Street Reconstruction, City of Waterloo – Information Package in Advance of Public Consultation Centre #1

5.3 **TES-WAS-15-37**, Hauled Wastewater Receiving Station Site Selection Update (Information)

5.4 Management of Hauled Wastewater – Information Package in Advance of Public Consultation Centre

5.5 **PDL-CPL-15-59**, Regional Response to “A Blueprint for Change: A Proposal to Modernize and Strengthen the Aggregate Resources Act Policy Framework” (Environmental Bill of Rights Registry 012-5444)

**Recommendation:**


### Regular Agenda Resumes

6. **Reports – Transportation and Environmental Services**

**Design and Construction**

6.1 **TES-DCS-15-28**, Consultant Selection – Erb Street Roundabouts at Waterloo Waste Management Centre, Gates 1 and 2 (Costco Entrances), City of Waterloo

**Recommendation:**

That the Regional Municipality of Waterloo enter into a Consulting Services Agreement with Stantec Consulting Ltd. to provide consulting engineering services for the detailed design, construction contract administration and inspection services associated with Erb Street Roundabouts at Waterloo Waste Management Centre Gates 1 and 2, in the City of Waterloo, at an upset fee limit of $90,000.00 plus applicable taxes to complete the detailed design, and with construction contract
administration and inspection services to be paid on a time basis, at an estimated amount of $295,000 as outlined in report TES-DCS-15-28, dated December 8, 2015.

6.2 TES-DCS-15-33, Recommended Intersection Improvements at Ira Needles Boulevard and Westhill Drive, City of Waterloo

**Recommendation:**

That the Regional Municipality of Waterloo approve the implementation of a raised centre median thereby restricting traffic movements to right-in, right-out only from Westhill Drive onto Ira Needles Boulevard (Regional Road #70) in the City of Waterloo as described in Report No. TES-DCS-15-33, dated December 8, 2015.

Waste Management

6.3 TES-WMS-15-13, Woolwich Waste Transfer Station Update (Direction)

Water Services

6.4 TES-WAS-15-38.1, 2016 Rain Barrel Distribution

**Recommendation:**

That the Region of Waterloo distributes subsidized rain barrels to residents at a cost of $40 each during spring of 2016, as detailed in Report TES-WAS-15-38.1 dated December 8, 2015.


**Recommendation:**

That the Regional Municipality of Waterloo approve extension of the Rural Water Quality Program for a further five years to the end of 2020 and allocate $1.25 million for incentives to farmers as outlined in report TES-WAS-15-40, dated December 8, 2015.

6.7 TES-WAS-15-41, Clean Water Act Source Protection Plan – Impacts on Planning and Building Permit Applications (Information)


**Recommendation:**
That the Regional Municipality of Waterloo:

a) Enter into a Consulting Services Agreement with R.J. Burnside & Associates Limited to provide consulting geoscience services for the Region of Waterloo Groundwater Monitoring Program for the period January 1, 2016 to June 30, 2018 (Phase 1) at an upset limit of $842,800 plus applicable taxes; as presented in this report; and

b) Authorize staff to renew this contract for the period from January 1, 2018 through June 30, 2020 (Phase 2) at an upset limit of $912,831 plus applicable taxes, subject to acceptable performance of the consultant in meeting project outcomes and deliverables.

7. Information/Correspondence

7.1 Council Enquiries and Requests for Information Tracking List

8. Other Business


10. Adjourn
Next Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Planning and Works Committee</strong></td>
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<tr>
<td>January 12, 2016</td>
<td>9:00 A.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
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<tr>
<td>February 2, 2016</td>
<td>9:00 A.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
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<tr>
<td><strong>Transportation and Environmental Services</strong></td>
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<tr>
<td>Wed., December 9, 2015</td>
<td>5:00 P.M –</td>
<td>East Boundary Road Corridor Study, Dundas Street to Townline Road, City of Cambridge - Public Consultation Centre #2</td>
<td>Cambridge Golf Club 1346 Clyde Road Cambridge, Ontario</td>
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<tr>
<td>Wed., December 9, 2015</td>
<td>5:00 P.M –</td>
<td>Management of Hauled Wastewater – Public Consultation Centre</td>
<td>St. Matthew Catholic School 405 Pastern Trail Waterloo, Ontario</td>
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<td>Thur. December 10, 2015</td>
<td>5:00 P.M –</td>
<td>Management of Hauled Wastewater – Public Consultation Centre</td>
<td>St. Kateri Tekakwitha Catholic School 560 Pioneer Drive Kitchener, Ontario</td>
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<tr>
<td>Wed., January 27, 2016</td>
<td>5:00 P.M –</td>
<td>Bridgeport Road/Caroline Street, ERB Street and Albert Street Reconstruction, City of Waterloo – Public Consultation Centre #1</td>
<td>The Canadian Clay and Glass Museum 25 Caroline Street North Waterloo, Ontario</td>
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Region of Waterloo
Planning, Development, and Legislative Services
Community Planning

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: December 8, 2015 File Code: D06-80
Subject: Climate Adaptation Planning - Observations and Projections for Waterloo Region

Recommendation
For Information.

Summary:
The University of Waterloo’s Interdisciplinary Centre on Climate Change has recently completed research on climate projections for Waterloo Region compared to historical conditions over the past 30 years. An Executive Summary of the research is attached to this report. This research was jointly supported by the Region of Waterloo along with the Cities of Cambridge, Kitchener and Waterloo. Community concerns about the impact from changing climate conditions and extreme weather expressed during stakeholder consultations earlier in the year have resulted in the inclusion of climate adaptation planning within the Region’s new strategic plan.

The research compiled by the University informs climate adaptation planning at corporate and regional community scales. It will be shared with staff involved in asset management and infrastructure master planning as well as other stakeholders (e.g. Grand River Conservation Authority). During November 2015, the three City Councils received the University of Waterloo report and presentation. City staff is encouraging support for a coordinated approach to conduct climate adaptation planning in collaboration with the Region as a way to address common service areas and interests. If supported by City and Regional 2016 budget approvals, such collaboration would help identify and address specific local vulnerabilities and risks. Pending this approval of resources, City and Regional staff would report back in 2006552
the spring of 2016 with draft terms of reference for consideration by the City and Regional Councils for the collaborative adaptation planning endeavour using a framework which is generally being followed by Canadian municipalities.

Report:

Background - Clarity of Terminology and Existing Plans

Actions to address climate change are generally divided into two realms – mitigation and adaptation. Mitigation refers to initiatives that lead to a reduction in greenhouse gas (GHG) emissions which contribute to climate change. Adaptation refers to measures taken to cope with the level of change observed and expected from changing climate conditions and extreme weather events.

From the perspective of municipalities, mitigation and adaptation are often further divided into a corporate scope, where there is direct control over municipal operations and facilities, and a community scope, which includes factors beyond the direct control of municipalities. The Region of Waterloo has already made commitments and progress on mitigation for both the corporate scope, through its Corporate GHG Reduction Plan approved in 2011, and the community scope, through the Community Climate Action Plan approved in 2013.

It is widely accepted that mitigating climate change will require substantial and sustained reductions in GHG emissions on a global scale. However, no matter how successful these efforts may be, we are still faced with climate change impacts linked to past and ongoing GHG emissions that will be present in the atmosphere for many years to come. This means that both types of climate action are necessary, mitigation to avoid even more serious impacts, and adaptation to deal with the level of change expected over the next century or longer.

An increasing number of municipalities across Canada are engaging in adaptation planning in order to improve resilience to extreme weather events and projected changes in climate conditions. According to a survey conducted in 2012 involving University of Waterloo researchers, 238 communities across Canada are engaged in some form of climate adaptation planning activity but very few have an adaptation plan in place at this time. Several municipalities however are in the process of developing adaptation plans at the community scale and/or for specific infrastructure.

To make progress on adaptation, the first question to be addressed is “what conditions do we need to adapt to?” The process used to address this question is described below.

Dialogue within Waterloo Region

On October 10th, 2014, the University of Waterloo’s Faculty of Environmental Studies hosted a preliminary meeting to discuss the need to adapt to changing climate conditions including extreme weather events. In part this meeting was in response to several recent extreme weather events (e.g. severe ice, rain and wind storms) along with abnormally warm or cold
winter and spring seasons that occurred within Waterloo Region between 2012 and 2014 impacting agricultural crops, local homes, businesses, infrastructure and other community assets. Moreover, there is a growing awareness and concern of the impacts from climate change still to come.

The local meeting held in 2014 included representatives from:

- City of Cambridge
- Grand River Conservation Authority
- City of Kitchener
- Region of Waterloo
- City of Waterloo
- University of Waterloo
- Engineers Canada

Representatives from the four Townships were also invited but were unable to attend.

One of the outcomes of the meeting was that participants identified the need for localized and detailed climate projections in order to guide further work, help frame the issue for consideration by Area Municipal and Regional Councils as well as to engage other stakeholders. Participants agreed that it would be more efficient and cost effective to work collaboratively rather than for each jurisdiction to prepare its own research.

Stakeholder consultation conducted earlier in 2015, as part of the Region’s Strategic Planning process, identified community concerns arising from changing climate conditions and extreme weather. These concerns resulted in the inclusion of climate adaptation planning within the Region’s new Strategic Plan as well as similar recognition in the three Cities’ strategic plans.

The Region and the Cities of Cambridge, Kitchener and Waterloo collaborated with the University of Waterloo’s Interdisciplinary Centre on Climate Change to conduct research on modelled climate projections for Waterloo Region in order to help support local climate adaptation planning efforts. An overview of the research study is enclosed below.

**Research on Local Climate Projections in Waterloo Region**

The University of Waterloo’s Interdisciplinary Centre on Climate Change has recently completed research on climate projections for Waterloo Region compared to parameters observed over the past 30 years. The purpose of the report is to summarize information on various climate parameters for our area which will inform climate adaptation planning.

The report contains localized projections based on both historical weather data for the area and an ensemble of climate models. Projections for a number of different climate parameters are provided for three time periods: 2011-2040, 2041-2070 and 2071-2100 in comparison to historical records for the 1981-2010 period. It should be noted that the comparison period may be conservative as it does not include earlier climate norms from the 1951-1980 period.
The climate parameters studied within the research included:

- mean temperature (annual mean temperature, monthly mean temperature)
- extreme temperature thresholds (extreme heat, extreme cold, days below freezing and freeze-thaw cycles)
- degree days (heating demand, cooling demand, growing degree days)
- total precipitation (total annual and seasonal precipitation, days with precipitation, snowfall, freezing rain, wet and dry spells, precipitation return periods)
- wind gusts

The projections for each time period also cover three different future GHG emission scenarios:

1. A net-zero carbon emission scenario that would be necessary to limit global warming to two degrees Celsius;
2. An aggressive emission reduction scenario consistent with current emission reduction pledges of countries; and,
3. A business-as-usual (BAU) emission scenario

It is noted within the study that the BAU scenario is the current trajectory based on the most recent historical records of global GHG emissions.

The climate in Waterloo Region and beyond is changing. Localized climate projections indicate that there will be further changes over the next several decades. A sampling of modeled outcomes include:

- An expectation of 40% more freezing rain events by the period 2041-2070;
- Rainfall intensities to increase with large-magnitude rainfall events expected to occur more frequently across all scenarios and time periods;
- An increase in extreme heat days (temperatures over 30 degrees) from the current 10 days to 32 under the BAU scenario by 2041-2070, and then nearly double again to 60 days by the 2071-2100 period; and
- More wind gust events are expected as both large-scale frontal storms and local convective windstorms (i.e. damaging downdrafts) are projected to occur more frequently.

The full research study outlines some of the implications as a result of these changes such as potential for high damage costs to property and buildings, substantial power outages and service disruptions to transportation networks and water infrastructure along with health impacts from prolonged heat waves. The Executive Summary of the study entitled Localized Climate Projections for Waterloo Region is attached as Appendix A.
Proposed Next Steps

The University of Waterloo study provides a picture of what climate change may mean locally, and a basis upon which to examine risk and vulnerabilities. The research compiled by the University informs climate adaptation planning at corporate and regional community scales. It will be shared with staff involved in asset management and infrastructure master planning within the Region and Area Municipalities. The Cities and Region are currently exploring options to complete a coordinated approach to climate adaptation planning that would involve other region-wide agencies (emergency management, GRCA, etc.)

During November 2015, the three City Councils received the University of Waterloo report and presentation. City staff is encouraging support through appropriate channels for a coordinated approach to conduct climate adaptation planning in collaboration with the Region as a way to address overlapping service areas and interests. If this initiative is funded through the approval of the 2016 City and Regional Budgets, staff would prepare terms of reference using a framework suitable for Canadian municipalities. The terms of reference would be submitted for consideration by the respective Councils in the spring of 2016.

Area Municipal Consultation/Coordination

Staff at the Cities of Cambridge, Kitchener and Waterloo are working closely with Regional staff on this initiative and were consulted in the preparation of this report. Township staff will continually be invited to participate at their discretion and ability.

Corporate Strategic Plan:

Investigating localized climate projections supports Strategic Objective 3.4 of the Environment and Sustainable Growth Focus Area to “Improve the Region of Waterloo’s resilience to climate change and/or severe weather.”

Financial Implications:

The Region’s portion of the University of Waterloo Climate Projection Study cost is included in the approved 2015 Planning Capital Program under Community Sustainability (project 22036) to be funded from Revenue (Taxation) (100%, $7,100). A Budget Issue Paper for Climate Adaptation Planning has been endorsed by the Region’s Corporate Leadership Team for consideration by Regional Council as part of the 2016 budget process.

Other Department Consultations/Concurrence:

Regional staff working on Asset Management within Transportation and Environmental Services as well as the Manager of Risk Management have been consulted in the preparation of this report.
Attachments:
Attachment A – Localized Climate Projections for Waterloo Region, Executive Summary – October 2015

Prepared By: David Roewade, Sustainability Planner

Approved By: Rob Horne, Commissioner, Planning, Development and Legislative Services
Attachment A

Localized Climate Projections for Waterloo Region

Executive Summary – October 2015

Prepared by: Interdisciplinary Centre on Climate Change

Prepared for: Cambridge, Kitchener, Region of Waterloo
Cover photos:

- Top: The rooftop of the Seagram Lofts provides a bird’s eye view of a deadly thunderstorm rolling in over Uptown Waterloo on September 5, 2014. Credit: Jason Thistlethwaite
- Bottom left: Hail in Waterloo Region on August 2, 2015. Credit: Jason Thistlethwaite
- Bottom right: Flash flooding at Fairview Park Mall in Kitchener on June 28, 2013. Credit: Driveseat Kitchener via CTV News Kitchener

Contributors:

- Alex Cadel, Candidate for Master of Climate Change, University of Waterloo
- Sarah Brown, Interdisciplinary Centre on Climate Change, University of Waterloo
- Dr. Chris Fletcher, Department of Geography, University of Waterloo
- Dr. Daniel Scott, Department of Geography, University of Waterloo
- Dr. Jason Thistlethwaite, School of Environment, Enterprise & Development, University of Waterloo
Executive Summary

Addressing climate change is one of the global challenges of this century. Regions across Canada are experiencing changing climatic conditions such as higher average temperatures, new precipitation patterns, and increased frequency and severity of extreme weather events (e.g., heat waves, intense rainfall, and strong winds)\(^1\). These changes are having a variety of impacts on ecosystems and everyday life in Canadian communities, including property damage and infrastructure failure during extreme events, shifting growing seasons, a range of economic losses (e.g., construction delays, crop damage, tourism patterns), increased health risks posed by extreme weather, and shifts in the ranges of pests and infectious disease.

Climate adaptation refers to measures taken to reduce the vulnerability of natural and human systems to actual or expected effects of climate change. In addition to efforts to mitigate climate change by reducing greenhouse gas (GHG) emissions, the importance of climate adaptation is rising across Canada. Municipalities are being called upon to respond to vulnerabilities exposed by current changing conditions and recent extreme weather events, as well as to prepare for both risks and opportunities that may arise given longer-term local climate impacts. The City of Windsor and the City of Toronto, for example, have developed climate adaptation plans that were driven largely in response to extreme heat and urban flooding pressures affecting their respective communities. To enable effective adaptation planning and action that builds community resilience, it is imperative for municipal decision-makers to have access to locally relevant and robust climate projections that examine how temperature and precipitation are expected to change in the future.

The effort to develop localized climate projections for Waterloo Region was initiated in response to the need expressed by municipal staff to gain a greater understanding of climate-related risks that are relevant to our region as a means to inform municipal strategic and collaborative planning. The University of Waterloo’s Interdisciplinary Centre on Climate Change (IC3) prepared this report to contribute to ongoing climate collaborations on climate action between the Cities of Cambridge, Kitchener, and Waterloo, and the Region of Waterloo. The purpose of the report is to summarize information on projected climate change for our local region that could aid in advancing a local dialogue on climate adaptation planning and extreme weather resilience.

How are localized climate projections developed?

The process of developing climate projections uses both historical weather data for this region as well as an ensemble of climate models, which provide the best available scientific assessment of how future social and economic conditions will influence the global climate system and climate in this region.

For Waterloo Region, projections for a number of climate parameters of interest to municipal stakeholders (e.g. monthly mean temperature, seasonal precipitation) have been provided for three different time periods: the 2020s, 2050s, and 2080s (respectively covering the years of: 2011-2040, 2041-2070, and 2071-2100). The projected changes in climate are relative to historical data from the 1990s (1981-2010) as the baseline (or “observed”) period. Across each of these time periods, three different future GHG emissions scenarios are examined:

- A net-zero carbon emission scenario that would be necessary to limit global warming to 2°C;
- An aggressive emission reduction scenario consistent with the emission reduction pledges of countries; and,
- A business-as-usual (BAU) emission trajectory.

Our current trajectory as a global society is in line with the BAU scenario, and recent global efforts to curb GHG emissions have not yet been substantial enough to deviate from this path. The other two scenarios considered here are still plausible; however, substantial international commitment will be required to reduce emissions to the levels on which those scenarios are based.

**Which climate conditions are projected to change in Waterloo Region, by how much, and by when?**

**Temperature:**

- Annual mean temperature is projected to increase by about 2-3°C by the 2050s across all emission scenarios.
- Increases in monthly temperatures are projected to be the most marked throughout the winter and into early summer (see Table ES1). For example, under all scenarios the monthly mean temperature in February in 2050s is expected to be 3-5°C warmer than it is today, pushing the average temperature for the month closer to, or slightly above, 0°C.
- Currently, the region experiences around 10 days per year with extreme heat (daily maximum temperature exceeding 30°C). Under a BAU scenario, the number of days with extreme heat is projected to more than triple to 32 days by the 2050s, and then nearly double again to 60 days by the 2080s (see Figure ES1).
- Currently, around 22 days per year are observed with extremely cold temperatures (daily minimum temperature lower than −15°C). A reduction in the number of extremely cold days is projected under all scenarios, with less than half as many extreme cold days occurring in the 2020s as were recorded during the 1990s, and further reductions occurring over the rest of the century (as few as 6 days by the 2080s under a BAU scenario).
Table ES1: Range of projected changes for Waterloo Region by the 2050s compared to the 1990s

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Temperature Change (°C)</th>
<th>Precipitation Change (%)</th>
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<tbody>
<tr>
<td></td>
<td>Summer</td>
<td>Winter</td>
</tr>
<tr>
<td>Net-zero carbon</td>
<td>+ 1.1 to 2.1</td>
<td>+ 1.1 to 2.9</td>
</tr>
<tr>
<td>Aggressive mitigation</td>
<td>+ 1.6 to 2.6</td>
<td>+ 1.8 to 3.7</td>
</tr>
<tr>
<td>Business-as-usual</td>
<td>+ 2.8 to 3.5</td>
<td>+ 2.8 to 4.4</td>
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Figure ES1 demonstrates the average annual number of days projected to reach extreme heat conditions, which is defined as days where maximum air temperatures reach or exceed 30°C. These values are shown in comparison to the observed average value (10 days) for the 1990s period. Error bars represent the range of uncertainty for the multi-model ensemble.

Precipitation:

- Total annual precipitation is projected to increase by approximately 4—6% by the 2020s, and by approximately 8—12% in the 2050s and 2080s (see Table ES1).
- Seasonally, the largest precipitation increases are expected in winter, spring, and summer, although the magnitude of change in summer is associated with the largest range of uncertainty due to a lack of consensus between climate models.
• Increased amounts of precipitation are likely to initially result in increases in total annual snow in the 2020s, yet into the 2050s and 2080s, warmer winter temperatures are likely to cause less precipitation to fall in the form of snow, compared to today’s climate.

• In Southern Ontario, the months of December, January, and February are expected to experience 40% more freezing rain events by the 2050s, and 45% more freezing rain events by the 2080s.

• Rainfall intensities are projected to increase across all scenarios and time periods, with large-magnitude rainfall events expected to occur more frequently than in the historical record. If the variability of precipitation events does not change, then climate change is projected to slightly decrease the frequency of 6-day dry spells from an average of 14 to 13 events occurring per year by the 2050s.

Wind:

• More wind gust events are expected in Southern Ontario by the end of the century, as both large-scale frontal storms and local convective windstorms are projected to occur more frequently.

What action can be taken at the municipal level to respond to these projected changes?

Successful adaptation to climate change requires a robust range of projections on how the local climate is expected to evolve as well as an understanding of the remaining scientific uncertainties. Projections can be considered the starting point towards developing a shared base of information upon which to develop a plan and specific responses or projects. Having access to future scenarios of what climate is expected to look like in Waterloo Region is one of the foundational steps of an adaptation planning process, along with identifying stakeholders and assessing current climate impacts (both risks and opportunities). Using localized climate projections and other community knowledge as inputs, a full assessment of potential impacts and vulnerability across community assets and services can begin.
East Boundary Road Corridor Study

Dundas Street to Townline Road
City of Cambridge
Public Consultation Centre #2
Information Package

**What:** The Region of Waterloo is undertaking a Class Environmental Assessment (EA) study for the East Boundary Corridor from Dundas Street (Highway 8) at the proposed South Boundary Road Intersection to Townline Road in the City of Cambridge

**Where:** Dundas Street to Townline Road in the City of Cambridge

**Why:** To provide road improvements for traffic growth and transportation system improvements for transit, pedestrians and cyclists along the East Boundary Road corridor in the City of Cambridge

**When:** Completion of Environmental Assessment in 2016
Construction to begin after 2025

**Who:** Region of Waterloo Head Transportation Expansion
Marcos Kroker, P. Eng.
Region of Waterloo
Phone: (519) 575-4750
Email: MKroker@regionofwaterloo.ca

Public Consultation Centre #2
Wednesday December 9, 2015, 5:00PM to 8:00PM
Cambridge Golf Club
1346 Clyde Road
Cambridge, Ontario

There is a comment sheet at the back of this package. Please fill it out and share your comments with us.
1.0 What is the Purpose of this 2nd Public Consultation Centre (PCC)?

The Region of Waterloo is undertaking a Class Environmental Assessment (EA) study for the East Boundary Corridor from Dundas Street (Highway 8) at the proposed South Boundary Road Intersection to Townline Road in the City of Cambridge, the Township of North Dumfries and Puslinch Township (study area illustrated below).
The public is invited to this 2nd Consultation Centre which is a forum for you to provide input on the following:

- Identified study issues and problem statement;
- Alternative alignments considered for the East Boundary Road Corridor; and
- Criteria used in the evaluation of the alternative alignments.
- “Preferred” alignment identified by the Project Team;

2.0 What is a Class Environmental Assessment?

The Class Environmental Assessment (EA) process is a formal process approved under the Ontario Environmental Assessment Act that must be undertaken in advance of any construction improvements to ensure that all reasonable alternatives are considered.

The Class EA provides the framework for municipalities to plan, design and construct municipal infrastructure projects. This project is being planned as a “Schedule C” Class EA project. For additional details regarding the Municipal Class EA process, please refer to Appendix A.

3.0 Who is Directing This Project?

This project is being directed by a “Project Team” consisting of staff from the Region of Waterloo, City of Cambridge, Township of North Dumfries, Puslinch Township, Wellington County, Grand River Conservation Authority, and MTE Consultants, as well as Region of Waterloo Councilor Karl Kiefer (Cambridge) and Mayor Sue Foxton (North Dumfries), City of Cambridge Councilor Frank Monteiro and Township of North Dumfries Councilor Neil Ritchie.

4.0 How does this Project Relate to the Objectives of the Regional Official Plan and the Regional Transportation Master Plan?

During the last 10 years, south Cambridge has experienced rapid residential growth, and the east side of Cambridge is being planned for new development. As a result, the transportation network needs to be upgraded to accommodate future growth as identified in many studies and policies as well as accommodating traffic that is trying to bypass the City of Cambridge.
The initial concept for a bypass around the “City of Cambridge” was first identified in 1967 as part of a Planning Study undertaken by the City of Galt. In 1972, the Ministry of Transportation developed a Highway 8 bypass concept, connecting Highway 8 and Highway 24 to Highway 401. When responsibility for these roads shifted to the Region of Waterloo in 1988, the bypass concept was revised into an arterial corridor concept around the east, west, and south sides of the City of Cambridge as approved in the 1994 Cambridge Area Transportation Study (CATS). Included in the recommendations was a north-south bypass on the east side of Cambridge that was just east of the City of Cambridge boundary in North Dumfries.

The 1999 Regional Transportation Master Plan (RTMP) also identified the need for a North-South arterial, east of Franklin Boulevard in the City of Cambridge and the Township of North Dumfries.

In response to the transportation network needs identified in the 1999 RTMP, the Region of Waterloo initiated a Class EA Study in the City of Cambridge in 2000, called the Cambridge Area Routes Selection Study (CARSS). This study also identified a number of routes for an East Side Arterial Corridor east and west of the City of Cambridge boundary.

In 2004 a Detailed Transportation Network Review (DTNR) undertaken by the Region confirmed the need for an East Boundary Road. In addition, the Region Transportation Master Plan (2010 Update) also recommended the need for an East Boundary Road.

The 1995 Regional Official Policies Plan (ROPP) as well as the recently approved new Regional Official Plan (ROP) both identify a Proposed Regional Corridor (as illustrated on Map 9 of the ROPP and Map 5b of the ROP) for the East Boundary Road that is consistent with the alignment identified under previous studies. It essentially ties into the South Boundary Road at Dundas Street, and connects into Shellard Sideroad to the east, runs north through Puslinch Township and ties into Townline Road. This route is currently shown in both the Region of Waterloo and Wellington County Official Plans. In summary, the need for an East Boundary Road has been firmly established through many previous studies; however, the exact alignment has not been identified through a Class Environmental Assessment. The Project Team has developed the following problem statement for the project, identifying the traffic and transportation needs to be addressed.
PROBLEM STATEMENT

Regional transportation studies dating back to the 1960s have all identified a future need for an arterial road connection on the east side of Cambridge between the south end of the City to Highway 401. This arterial road has commonly been referred to as the “East Boundary Road”. Recent transportation demand modelling results have confirmed that an arterial road on the east side of Cambridge will be needed to alleviate forecasted north-south roadway capacity deficiencies on Hespeler Road and Franklin Boulevard, as well as improve access to the Regional road network for residents of the Southeast Galt Community area, and provide an alternative for goods movements to avoid traffic congestion in downtown Cambridge.

A route for an “East Boundary Road” needs to be confirmed to facilitate any proposed developments in the area and to protect the land for this future roadway. With the recent approval of the South Boundary Road between Highway 24 and Dundas Street south of Myers Road and upgrades completed to Townline Road south of Highway 40, a route between Dundas Street in the south to Townline Road in the north must be identified for this Regional Road.

5.0 Where in the Class EA Process Are We?

As identified above, the project is being completed in accordance with the requirements of a Schedule “C” Municipal Class EA process. The requirements of the first two phases of the project (i.e. Phase 1: Identify Problem or Opportunity and Phase 2: Develop Alternative Solutions to the Problem) have already been addressed and documented in previously completed studies including the CARSS, the Cambridge Area Transportation Study, Regional Transportation Master Plan, and the Detailed Transportation Network Review (DTNR). These studies have considered alternative methods of addressing the transportation demands such as transit, carpooling, cycling and walking. They all concluded that the Preferred Solution is a new road on the east side of Cambridge.

Because these studies have: (1) already established the need and justification for an East Boundary Corridor and (2) have looked at alternative methods of addressing this need, and consulted with stakeholders, the requirements of the first two phases of the East Boundary Corridor Class EA project may be considered as being fulfilled.

This study is undertaking Phase 3: Alternative Design Concepts for the Preferred Solution, which will be followed by Phase 4: The Environmental Study Report documenting the study for public review.
6.0 What are other Current Projects in the Area and What Impact Do They Have on This Project?

Franklin Boulevard

The Region of Waterloo completed the Franklin Boulevard Class EA study in 2011 from Myers Road to north of Pinebush Road, in the City of Cambridge. The approved plan that has been developed, addresses the existing traffic operations, future traffic demand and capacity improvements for Franklin Boulevard. Franklin Boulevard is currently the key north-south connection on the east side of Cambridge. Construction of the majority of Franklin Boulevard will be complete by 2017 and the two intersections at Can-Amera Parkway and Saginaw/Elgin will be completed in approximately 2020. However the traffic projections for Franklin Boulevard that were used to justify improvements assume that an East Boundary Road (to the east of Franklin Boulevard) will be constructed in the future.

South Boundary Road

The Region of Waterloo completed the South Boundary Road Class EA study in 2013. The South Boundary Road Class EA established the corridor for a new road running along the south edge of the City of Cambridge from Water Street (Highway 24) to Dundas Street (Highway 8). The intersection of the South Boundary Road and Dundas Street was established as part of that study, and is the point where an East Boundary Road would connect in the south end. Detail design of the South Boundary Road is currently underway and construction of the west portion (Water Street to Franklin Boulevard) is scheduled to commence in 2017 while the east portion (Franklin Boulevard to Dundas Street) is scheduled to start construction in 2022.

Highway 24 Transportation Corridor Planning and Class EA

The Ministry of Transportation (MTO) initiated a Highway 24 Transportation Corridor Planning and Class EA Study from Highway 403 in Brantford to Highway 401 in Cambridge to develop a plan that addresses traffic capacity, operation and safety needs between Brantford and Cambridge. This study was put on hold. The construction of a future Highway 24 does not significantly impact the need for an East Boundary Road, as the East Boundary Road will not only serve as an arterial through the east side of Cambridge, but also serve local access purposes. However, the Project Team is in contact with the MTO to coordinate the East Boundary Road with the MTO Highway 24 study.
7.0 When is an East Boundary Road Needed?

The East Boundary Road is currently not scheduled for construction in the Region of Waterloo’s Ten Year Transportation Capital Program. However the planning and identification of a proposed route is being undertaken now (as part of this study) to establish an East Boundary Road Corridor so that planning for future development can proceed knowing where the new road will be. Since the need for an East Boundary Road will be somewhat dependent on how and when development occurs, the construction of a new East Boundary Road will likely be phased and not all built at the same time.

8.0 Will Cycling and Pedestrian Facilities be Incorporated into the Design?

The East Boundary Road will accommodate all modes of transportation such as walking, cycling, transit, and automobile. As part of this EA process the Region has considered sidewalks, multi-use trails and landscaping in the preliminary design. The Region of Waterloo is committed to providing a more integrated, sustainable and convenient transportation system. This improved system will provide improved access to jobs and services, and help to address increasing traffic congestion.

9.0 Are there any Natural Environment Corridors in the Study Area?

Two large natural heritage system corridors traverse the Study Area, are illustrated on the PCC displays.

The Provincially Significant Mill Creek Wetland Complex Corridor surrounds Mill Creek and enters the north boundary of the study area at the intersection of Gore Road and Shellard Road. Immediately to the northeast and outside of the Study Area, a large portion of the Mill Creek PSW also contains the Galt (Mill) Creek and Forests Life Science Area of Natural and Scientific Interest (ANSI).

The Provincially Significant Wetland (PSW) at Moffat Creek enters the middle portion of the study area at Shellard Road. Traversing in a northeast to southwest direction, the Moffat Creek PSW surrounds the main stem of Moffat Creek. Smaller pockets of wetland also associated with this complex are located away from the creek, in the vicinity of the east end of Savage Drive and the south end of Dobbie Drive.
In the southeast corner of the study area, smaller wetland pockets associated with the Sheffield-Rockton Complex PSW surround headwater area of Fairchild Creek at Shellard Road near Dundas Street. These wetland areas are associated with the headwaters of Fairchild Creek, a warmwater stream system that enters the Grand River downstream of Brantford.

10.0 Have any Natural Environmental Inventories been Completed?

Preliminary environmental mapping of the study area was initially compiled based on the review of background information from the Ministry of Natural Resources (MNR), Grand River Conservation Authority (GRCA), Region of Waterloo and various studies previously completed in the vicinity of the study area, to provide an understanding of the various land form based constraints within the study area. In addition, various natural heritage field surveys were completed in 2012 and 2013 to gain an understanding of specific natural heritage features and functions. These surveys included spring amphibian call surveys, breeding bird surveys, preliminary Ecological Land Classification and cursory vegetation surveys, and species at risk observations.

Further environmental inventories were completed in the spring, summer and fall of 2014 (including botanical, breeding bird, and breeding amphibian survey) as well as additional observations of area wildlife. Of particular note is a detailed survey of salamanders to determine if the endangered Jefferson Salamander species was present within the study area. Many hundreds of salamanders were captured at various locations, and a total of 68 salamanders were genetically tested to determine if they were the endangered Jefferson Salamander. No Jefferson Salamanders were indentified within the study area.

The natural environment investigations and field surveys identified a number of “Species at Risk” and Provincially Significant Species within the study area, including Barn Swallows, Bobolink, Eastern Meadowlark, Eastern Wood Peewee and Wood Thrush.

Natural Environment constraint mapping was developed to identify the various areas within the study area to assist with finalizing and determining the final location of the East Boundary Road. A report summarizing the natural environment investigations, results and constraints is available at the PCC and will be accessible via the Region’s website RegionofWaterloo.ca after the PCC.
11.0 Are there any Potential Developments in the Vicinity of the Study Area?

There are a number of proposed or partially completed developments within the Study Area, concentrated mainly in the southwest corner of the Study Area. Each of these developments are in various stages of approvals. The City’s “Southeast Galt Community Plan” is also located in this area. Please see the displays at the Public Consultation Centre to view maps of the proposed developments within the study area.

12.0 Are there any Buildings of Heritage Significance within the Study Area?

A Cultural Heritage Resource Inventory identified several buildings within the Study Area that have either “medium” or “high” heritage significance. In general, the buildings are mid-1800 stone farmhouses built by earlier settlers in the area. Any impacts to buildings of heritage significance will be determined as the study progresses. Every effort has been made to avoid and/or mitigate negative impacts to identified areas of heritage significance.

Reports are available at the PCC and will be accessible via the Region’s website Region of Waterloo after the PCC.

13.0 What Alignment Concepts Were Presented at PCC No. 1 for the East Boundary Road Corridor?

The Project Team looked at a number of constraints and opportunities in developing some Preliminary Alignment Concepts as a “starting point”. Some of these constraints and opportunities include: Mill Creek, Moffat Creek (including the Moffat Creek Wetland Complex), existing and new roadways, existing and proposed development, hydro corridors, heritage and archeological features, railways, wetlands and other natural environmental factors. These preliminary alignments were presented at Public Consultation Centre (PCC) No. 1 in April 2014 and public and agency input was obtained on these alignments. Please refer to Appendix “B” and the display at this PCC for a plan showing the Preliminary Alignment Concepts initially developed for PCC No. 1. The following sections include a description of the Preliminary Alignment Concepts that were developed by the Project Team and presented at PCC No. 1.
13.1 “DO NOTHING”

As part of any Class EA process, there is always a consideration of the “Do Nothing” alternative to assess what would happen if no action is taken to address the project concerns. This assessment provides a baseline against which the other project alternatives can be measured. Although the previous studies undertaken have already identified the need for a new East Boundary Road, the Do-Nothing alternative will continue to be considered for comparison purposes.

13.2 ROUTE A - “EASTERN ALIGNMENT”

Route A follows the route illustrated in the Region of Waterloo and Wellington County Official Plans. It ties into the current proposed location of the South Boundary Road at Dundas Street, goes eastward utilizing a portion of Ripplewood Road and ties into Shellard Sideroad. It then travels north on Shellard Sideroad going through Puslinch Township at the intersection of Gore Road and ties into Townline Road near Saginaw Parkway. This route would utilize and expand upon the existing crossings of Moffat Creek, Mill Creek and the CPR tracks. This route impacts existing communities along Shellard Sideroad.

13.3 ROUTE B - “WESTERN ALIGNMENT”

Route B is a western alignment that ties into the South Boundary Road at Dundas Street and follows a proposed City collector road (Wesley Boulevard). It then follows the eastern edge of the Cambridge Landfill Site, utilizes a portion of the Hydro One Corridor and travels eastward tying into Townline Road at the Cambridge/North Dumfries Boundary. This route is intended to replace an already-approved crossing of Moffat Creek near the proposed Wesley Boulevard, and will require a new crossing of Mill Creek (near dammed portion of the creek) near the rear lots of Grandy Lane. It will also require a new crossing of the CPR tracks. The City of Cambridge has continued to express significant concerns regarding this alignment and the impact it will have on its proposed “community campus” as well as other existing and proposed developments in the adjacent area. The City of Cambridge is concerned that construction of this route may make the community campus unviable.

13.4 ROUTE C - “CENTRAL ALIGNMENT”

Route C ties into the South Boundary Road at Dundas Street, then travels northeast to eventually follow the Cambridge North Dumfries Boundary and tying into Townline Road. This route will require a new crossing of Moffat Creek as well as a new crossing of Mill Creek (at dammed portion) near the rear lots of Grandy Lane. It will also require a new crossing of the CPR tracks.
13.5 ROUTE D - “HYDRO ONE CORRIDOR”

Route D ties into the South Boundary Road at Dundas Street then travels northeast to eventually follow the Hydro One Corridor until approximately Clyde Road where it ties into Route C near the Mill Creek crossing to tie into Townline Road. The northern portion of this alignment is shared with Route B. This route will require a new crossing of Moffat Creek as well as a new crossing of Mill Creek (at dammed portion) near the rear lots of Grandy Lane. It will also require a new crossing of the CPR tracks.

13.6 “HYBRID” ALIGNMENT CONCEPTS

A number of other short alignments connecting Route A and Route C were also considered as part of PCC No. 1. In addition, a short alignment concept for Route A crossing Moffat Creek further east than Shellard Sideroad was also considered.

13.7 CP RAIL CROSSINGS

All the identified preliminary alignments would have to cross the existing CP Rail Line north of Clyde Road. Route A would use the existing Shellard Sideroad crossing location, but all the other identified routes would require a new crossing location.

14.0 Are There Changes to the Route Alignments Presented at PCC No. 1?

The Project Team reviewed the public and agency input as well as the various inventories and identified constraints in the context of the identified route alignments. The project team evaluated the original route alignments based on all this information and modified them as follows:

14.1 “SCREENED OUT” ALTERNATIVES

Preliminary Route D which utilizes the existing Hydro One Corridor was screened out for further consideration at this time. Due to maintenance requirements on their high voltage line, Hydro One Networks (HON) could not properly provide required maintenance to the lines with an arterial roadway within their property corridor. Even if the road was moved adjacent to, but outside the existing Hydro One Corridor, preliminary Route D passes through the Moffat Creek Wetland Complex at one of its widest and most sensitive areas. Due to the issues associated with a large portion of the roadway adjacent to the HON Corridor and the significant impacts to the Moffat Creek Wetland Complex the Project Team decided to remove Route Alignment D from further consideration at this time.
Preliminary Route A North of The Gore Road – Preliminary Route Alignment A passes through Puslinch Township in the County of Wellington (i.e. outside the Regional Municipality of Waterloo) north of The Gore Road. The East Boundary Road is a Region of Waterloo Road to address traffic within the City of Cambridge and Township of North Dumfries. Building this Region Road outside the Region of Waterloo would present some significant jurisdictional issues and hurdles. In addition, the natural environment constraint mapping found few areas or gaps for which a new road could pass without resulting in impacts to significant natural environment features.

14.2 REVISIONS TO ROUTE ALIGNMENTS NOW BEING CONSIDERED

In addition to routes or portions of routes that have been “screened out”, original Routes A, B and C have been revised to address agency and public comments, to reduce impacts to significant natural environment features and heritage properties, to address the size of remnant properties and increased curve radii to make the curves more gentle and provide additional flexibility for adjustments during detail design. As a result there are four main routes alignments now being considered as illustrated in Appendix B and described as follows:

Route A1 – Route A1 is very similar to original Preliminary Route A. Revisions applied to Route A1 include:

- Curve radii increased to 450m
- Just north of Clyde Road, Route A1 heads to the northwest to tie into Townline Road at the Gore Road near the rear lots of Grandy Lane

Route A2 – Route A2 is similar to revised Route A1 at the south and north ends, but the middle portion is further east of Shellard Road. Revisions applied to Route A2:

- Curve radii increased to 450m;
- Route A2 crosses Shellard Road in the south end and is located east of Shellard Road until south of Clyde Road where it ties into the same alignment as Route A1.
- Route A2 follows Route A1 alignment on Shellard Road from south of Clyde Road to just north of Clyde Road, where it heads to the northwest to tie into Townline Road at the Gore Road near the rear lots of Grandy Lane;
- There is an opportunity to close Shellard Road within the Moffat Creek Wetland Complex, with access to Shellard Road for residents to be via Old Beverly Road in the south or the new East Boundary Road (A2) in the north.
Route B1 – Very similar to original Preliminary Route B. Revisions applied to Route B1 include:

- Curve radii increased to 450m;
- Near the Cambridge Landfill site, Route B1 has been moved slightly further east to reduce impacts to the existing composting area and storm drainage features;
- In the middle portion of the alignment, Route B1 has been moved eastward such that it is now adjacent to the Hydro One Corridor to avoid impacts to the physical aspects and maintenance activities for the Hydro One Corridor;
- Near the CPR tracks north of Clyde Road, Route B1 follows Route C1 alignment and ties into Townline Road at the Gore Road near the rear lots of Grandy Lane.

Route C1 – Similar to original Preliminary Route C. Revisions applied to Route C1 include:

- Curve radii increased to 450m;
- Alignment moved eastward in the south end towards Ripplewood Drive but avoids impacts to identified wetlands and minimizes impacts to the Auto Recycler at its southeast end;
- Crosses the Moffat Creek Wetland Complex slightly further west than Preliminary Route C to further minimize impacts to the natural environment, then heads north approximately 120 metres the Cambridge/North Dumfries boundary;
- Ties into Townline Road at the Gore Road near the rear lots of Grandy Lane;
- There is an opportunity to close Shellard Road within the Moffat Creek Wetland Complex, with access to Shellard Road for residents to be via Old Beverly Road in the south or Clyde Road in the north.

Option C2 – The same as Route Alignment C1 south of Clyde Road, then heads eastward to tie into Route Alignment A2 east of Shellard Road.

- There is an opportunity to close Shellard Road within the Moffat Creek Wetland Complex, with access to Shellard Road for residents to be via Old Beverly Road in the south or the new East Boundary Road (A2) in the north.
- Option C2 (sub-route of A2) was evaluated based on a similar scoring as A2.
15.0 How have the Various Alternative Alignments been Evaluated?

The various alternatives alignment concepts have been assessed against a set of evaluation criteria by the Project Team to determine which alignment is “preferred” and is considered to best address the need for an East Boundary Road and the surrounding transportation network. The evaluation criteria included the following:

<table>
<thead>
<tr>
<th>Evaluation Criteria for East Boundary Road Class EA Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Element</td>
</tr>
<tr>
<td>1) Social Environment</td>
</tr>
<tr>
<td>Community Impacts – What impacts will the alternative have on the local community i.e. noise, property requirements, etc.?</td>
</tr>
<tr>
<td>Access – How does the alternative impact access to existing residences, businesses and industries?</td>
</tr>
<tr>
<td>Development/Property – Will the alternative fragment land and/or limit development opportunities?</td>
</tr>
<tr>
<td>2) Natural Environment</td>
</tr>
<tr>
<td>How does the alternative affect existing vegetation, water quality, source (ground) water resources, wildlife and aquatic habitat, wetlands, terrestrial resources, woodlands, species at risk, surface drainage and existing floodplains?</td>
</tr>
<tr>
<td>3) Heritage/Archaeological/Cultural Environment</td>
</tr>
<tr>
<td>What are the potential impacts on heritage structures or landscapes and the potential disturbance of archaeological resources?</td>
</tr>
<tr>
<td>4) Traffic Capacity, Operations and Safety</td>
</tr>
<tr>
<td>How does the alternative serve the expected vehicular, transit, pedestrian and cycling traffic needs?</td>
</tr>
<tr>
<td>Does the alternative efficiently and safely handle the forecasted traffic from existing and future development properties?</td>
</tr>
<tr>
<td>5) Costs</td>
</tr>
<tr>
<td>How does the alternative compare with anticipated capital and property costs?</td>
</tr>
</tbody>
</table>

16.0 Has the Project Team Identified a Preferred Alternative Route?

The Project Team has identified Route C1 as the Preferred Alternative Route. Subject to additional comments received as a result of this PCC No. 2 and additional Agency comments, Route C1 is considered “Preferred”, compared to all the other routes based on its overall impacts on the Natural Environment, Social Environment, the Heritage, Archaeological and Cultural Environment, Traffic, Safety and Costs. Although Route B1 is listed first in many of the categories, Route C1 is a close second in 3 out of
4 categories. Route B1 also fared poorly in the social environment category which brought its overall score below Route C1.

A summary of the evaluation that resulted in the Project Team identifying Route C1 as Preferred at this point in the project is as follows. In general, the alignment considered to have the least impacts in each category is listed first, followed by the alignments that have been determined to have greater impacts such that the alignment with the most impacts is listed last:

<table>
<thead>
<tr>
<th>Evaluation Summary of Route Alternatives for East Boundary Road Class EA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study Element</strong></td>
</tr>
</tbody>
</table>

### 1) Social Environment

**Route C1** requires purchase of new right-of-way from approx. 14 existing properties. Minor impacts to existing residential streets and access. Noise studies will be required for existing residential properties near the tie-in location at Townline Road and Gore Road. Acceptable but less preferred than A1 or A2 by local School Boards. It has fewer impacts (compared to B1) on existing locations and proposed planning for schools.

**Route A2** requires purchase of new right-of-way from approx. 29 existing properties (incl. at least 2 full buyouts) and widening required from approx. 9 properties. Increased traffic on some portions of (former) Shellard Road will impact access to private properties and traffic operations. Preferred by local School Boards as it does not impact existing locations and proposed planning for schools.

**Route A1** requires purchase of new right-of-way from approx. 40 existing properties (incl. at least 1 full buyout) and widening required from approx. 36 properties. Increased traffic on (former) Shellard Road will impact access to private properties and traffic operations. Preferred by local School Boards as it does not impact existing locations and proposed planning for schools.

**Route B1** requires purchase of new right-of-way from approx. 12 existing properties and negotiations with Hydro One regarding roadway adjacent to their Corridor. Increased traffic on portions of Wesley Boulevard which is surrounded by residential and Community Complex Lands will impact the use of these properties. City of Cambridge has indicated that implementation of Route B1 will result in at least $7M of additional costs to revise existing and proposed planning and land use in the area of Wesley Boulevard. This $7M is included in the costs study element. Noise studies will be required for existing residential properties near the tie-in location at Townline Road and Gore Road. Least preferred by local School Boards as it will significantly impact existing locations and proposed planning for school.

### 2) Natural Environment

**Route B1** crosses the Moffat Creek Wetland Complex at one of its narrowest areas in the eastern portion of the Study Area. A new crossing of Moffat Creek is required but in
## Evaluation Summary of Route Alternatives for East Boundary Road Class EA

<table>
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<tr>
<th>Study Element</th>
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<tr>
<td>an area where a new crossing has been approved for other local roads. Approximately 400m of road crosses existing wetland areas.</td>
</tr>
</tbody>
</table>

**Route C1** crosses the Moffat Creek Wetland Complex at in the middle portion of the Study Area avoiding some natural environment features, but includes a new crossing of Moffat Creek – there is an opportunity to close Shellard Road and “naturalize” the Moffat Creek Wetland Complex along Shellard Road. Approximately 300m of road crosses existing wetland areas.

**Route A2** crosses the Moffat Creek Wetland Complex at one of its narrowest areas east of Shellard Road with a new crossing of Moffat Creek – there is an opportunity to close Shellard Road and “naturalize” the Moffat Creek Wetland Complex along Shellard Road; however a new crossing of Moffat Creek will be required. Approximately 550m of road crosses existing wetland areas.

**Route A1** crosses the Moffat Creek Wetland Complex at one of its widest points, but would utilize existing Shellard Road and its existing crossing location. Approximately 770m of road crosses existing wetland areas;

### 3) Heritage/Archaeological/Cultural Environment

- **Route B1** requires approx. 3500m of additional Archeological surveys, and 1 listed or “identified heritage properties potentially impacted;
- **Route A1** requires approx. 4950m of additional Archeological surveys, and 2 listed or “identified heritage properties potentially impacted;
- **Route C1** requires approx. 5250m of additional Archeological surveys, and 2 listed or “identified heritage properties potentially impacted;
- **Route A2** requires approx. 5400m of additional Archeological surveys, and 5 listed or “identified heritage properties potentially impacted;

### 4) Traffic Capacity, Operations and Safety

- **Route B1** is predicted to attract the most amount of traffic (approx. 8500 vehicles/day) given it is the shortest route (5120m), and closest to existing and planned developments. Existing and proposed residential driveways on Wesley Boulevard will impact operations and safety in the southern section. Will result in some “skewed” intersections with existing streets.
- **Route C1** is predicted to attract the 2nd most amount of traffic (approx. 7150 vehicles/day) given it is the 2nd shortest route (5300m), and 2nd closest to existing and planned developments.
- **Route A1** is predicted to attract a reduced amount of traffic (approx. 5700 vehicles/day) given it is 2nd longest route (6125m) and 2nd furthest away from existing and planned developments. Several existing driveways on Shellard Road will somewhat impact operations and safety.
- **Route A2** is predicted to attract a reduced amount of traffic (less than 5700...
5) Costs

**Route B1** is the shortest route and has the lowest estimated capital cost of $49M. Although B1 utilizes portions of existing or proposed Wesley Boulevard right-of-way, property still required for wider road. Approximately 400m of road crosses wetland areas that will require peat removal and/or strengthened road base;

**Route C1** is the 2nd shortest route and has the 2nd lowest estimated capital cost of $49.5M. Approximately 300m of road crosses wetland areas that will require peat removal and/or strengthened road base;

**Route A1** is the 2nd longest route and has the highest estimated capital cost of $55.5M. Although A1 utilizes existing Shellard Rd. and Ripplewood right-of-way, property still required for wider road. Approximately 770m of road crosses wetland areas that will require peat removal and/or strengthened road base;

**Route A2** is the longest route and has the highest estimated capital cost of $55M. Although A2 utilizes less length of existing Shellard Rd. and Ripplewood right-of-way than A1, property still required for wider road. Approximately 550m of road crosses wetland areas that will require peat removal and/or strengthened road base;

17.0 What Happens when Property is Required for the New Road?

While it is the intent of the design process to minimize as much as possible the need to obtain property for the East Boundary Road or any of the sidestreets within the study limits, all of the alternative alignment concepts being considered require obtaining or widening the road allowance onto private property, obtaining temporary easements during the construction period or in some cases outright purchase of entire properties. In areas where property is required, the property owner will be contacted directly by the Region of Waterloo’s Land Purchasing Officer during the future detail design process. Compensation will be provided at fair market rates based on recent similar area sales. Please refer to Appendix “C” for further information on the property acquisition process.
18.0 What are the Next Steps in the Project?

The Project Team will use the comments received from Public Consultation Centre #2, along with other input received from the public and approval agencies as well as technical data, to identify a **Recommended** alternative road alignment. Some of the next tasks to be arranged include additional natural environmental inventories and further discussions with external agencies including Hydro One, MNR, GRCA, CP Rail and others. Subject to comments received it is proposed to present the **Recommended** alternative road alignment to the Region of Waterloo’s Public Works Committee for formal approval. Following this confirmation of a **Recommended** alternative design, the study process and findings will be documented in an Environmental Study Report (ESR) for “filing” and public and agency comment. This filing of the ESR is a requirement of the Municipal Class Environmental Assessment Act and consists of advertising and sending notices to interested and affected parties advising of the mandatory 30 day review period for submission of any questions or “objections” (Part II Orders). Any Part II Orders unresolved after the 30 day review period will be sent to the Ministry of Environment for further consideration and ruling.

19.0 How Will I Receive Further Notification Regarding This Project?

All property owners within the Study Area and members of the public registering at this Public Consultation Centre or the first Public Consultation Centre will receive any forthcoming additional information, and be notified of any future meetings including Regional Council or Committee meetings. Advertisements will also be placed in local newspapers advising the public of the meetings and availability of the final Environmental Study Report for the East Boundary Road Class EA study.

20.0 How Can I Voice My Comments At This Stage?

In order to assist us in addressing any comments or concerns you might have regarding this project, we ask that you please fill out the attached Comment Sheet and leave it in the box provided at the registration table. Alternatively you can mail, fax or e-mail your comments to one of the Project Team members listed below, no later than January 8, 2016.

We thank you for your involvement and should you have any questions or concerns please contact:
21.0 How Can I View Project Information Following the PCC?

All of the PCC display materials in addition to other relevant project information, notifications of upcoming meetings and contact information are available for viewing at the Region of Waterloo municipal offices as identified above, or on the Regional Municipality of Waterloo’s website regionofwaterloo.ca.
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

ONTARIO ENVIRONMENTAL ASSESSMENT ACT

The purpose of the Ontario Environmental Assessment Act (EA Act) is to provide for “the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management of the environment in Ontario”. Environment is applied broadly and includes the natural, social, cultural, built and economic components.

The key principles of successful environmental assessment planning include:

- Consultation with stakeholders and affected members of the public;
- Consideration of a reasonable range of alternatives;
- Assessment of the environmental impacts for each alternative;
- Systematic evaluation of alternatives; and
- Clear documentation of the process followed.

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT (EA)

The Municipal Class EA is a planning process approved under the Environmental Assessment Act that is used by municipalities to plan infrastructure enhancement projects while satisfying the requirements of the Environmental Assessment Act. Under the Class EA process, projects are planned in one of three ways depending on their scope, complexity, and potential for adverse environmental impacts.

Schedule “A” - Includes routine maintenance, operation and emergency activities.
- The Municipality can proceed with this work without further approval or public consultation.

Schedule “B” - Includes projects with the potential for some adverse environmental effects.
- These projects are subject to a screening process that includes consultation with directly affected public and agencies.

Schedule “C” - Includes larger, more complex projects with the potential for significant environmental effects.
- These projects are subject to all phases of the Class EA and require a minimum of 3 points of public contact.
PUBLIC INVOLVEMENT

Members of the public that have a stake in the project are encouraged to provide comment throughout the Class EA process. For Schedule “C” projects there are a minimum of three (3) opportunities for public contact. These typically include two Public Consultation Centre’s and the Notice of Study Completion.

Class EA Process for Schedule “C” Projects

Change in Project Status – Appeal Provision

It is recommended that all stakeholders (including the proponent, public and review agencies) work together to determine the preferred means of addressing a problem or opportunity. If you have any concerns, you should discuss them with the proponent and try to resolve them. In the event that there are major issues which cannot be resolved, you may request the Minister of the Environment by order to require a proponent to comply with Part II of the EA Act before proceeding with a proposed undertaking which has been subject to Class EA requirements. This is called a “Part II Order”. The Minister will make one of the following decisions:

1. Deny the request (with or without conditions);
2. Refer the matter to mediation; or
3. Require the proponent to comply with Part II of the EA Act, ordering a full Environmental Assessment.

All stakeholders are urged to try to resolve issues since it is preferable for them to be resolved by the municipality in which a project is located, rather than at the provincial level.

To request a Part II Order, a person must send a written request to:

Minister of the Environment
135 St. Clair Avenue West
12th Floor
Toronto, ON
M4V 1P5

The request must address the following with respect to the identified concerns:

- Environmental Impacts and specific concerns;
- Adequacy of the planning and public consultation process;
- Involvement of the person in the planning process; and

Details of discussions held between the person and the proponent.
Appendix C

Property Acquisition Process Information Sheet

The following information is provided as a general overview of the property acquisition process and is not legal advice. Further, the steps, timing and processes can vary depending on the individual circumstances of each case.

Once the Recommended Design Concept has been approved, the property acquisition process and the efforts of Regional Real Estate staff will focus on acquiring the required lands to implement the approved design. Regional staff cannot make fundamental amendments or changes to the approved design concept.

**Property Impact Plans**
After the project has been approved and as it approaches final design, the project planners will generate drawings and sketches indicating what lands and interests need to be acquired from each affected property to undertake the project. These drawings are referred to as Property Impact Plans (PIP).

**Initial Owner Contact by Regional Real Estate Staff**
Once the PIPs are available, Regional Real Estate staff will contact the affected property owners by telephone and mail to introduce themselves and set-up initial meetings to discuss the project and proposed acquisitions.

**Initial Meetings**
The initial meeting is attended by the project engineer and the assigned real estate staff person to brief the owner on the project, what part of their lands are to be acquired or will be affected, what work will be undertaken, when, with what equipment, etc. and to answer any questions. The primary purpose of the meeting is to listen to the owner and identify issues, concerns, effects of the proposed acquisition on remaining lands and businesses that can be feasibly mitigated and/or compensated, and how the remaining property may be restored. These discussions may require additional meetings. The goal of staff is to work with the owner to reach mutually agreeable solutions.

**Goal — Fair and Equitable Settlement for All Parties**
The goal is always to reach a fair and equitable agreement for both the property owner and the Region. Such an agreement will provide compensation for the fair market value of the lands and address the project impacts (such as repairing or replacing landscaping, fencing, paving) so that the property owner will receive the value of the lands acquired and the restoration of their remaining property to the condition it was prior to the Project.

The initial meetings will form the basis of an initial offer of settlement or agreement of purchase and sale for the required lands or interests.
Steps Toward Offer of Settlement or Agreement of Purchase and Sale

The general steps towards such an offer are as follows:

1) the Region will obtain an independent appraisal of the fair market value of the lands and interests to be acquired, and an appraisal of any effect on the value of the rest of the property resulting from the acquisition of the required lands and interests;
2) compensation will be estimated and/or works to minimize other effects will be defined and agreed to by the property owner and the Region;
3) reasonable costs of the owner will be included in any compensation settlement;
4) an offer with a purchase price and any other compensation or works in lieu of compensation will be submitted to the property owner for consideration; and
5) an Agreement will be finalized with any additional discussion, valuations, etc. as may be required.

Depending on the amount of compensation, most agreements will require the approval of Council. The approval is undertaken in Closed Session which is not open to the public to ensure a level of confidentiality.

Expropriation

Due to the time constraints of these projects, it is the practice of the Region to commence the expropriation process in parallel with the negotiation process to insure that lands and interests are acquired in time for commencement of the Project. Typically, over 90% of all required lands and interests are acquired through the negotiation process. Even after lands and interests have been acquired through expropriation an agreement on compensation can be reached through negotiation, this is usually referred to as a 'settlement agreement'.

Put simply, an expropriation is the transfer of lands or an easement to a governmental authority for reasonable compensation, including payment of fair market value for the transferred lands, without the consent of the property owner being required. In the case of expropriations by municipalities such as the Region of Waterloo, the process set out in the Ontario Expropriations Act must be followed to ensure that the rights of the property owners provided under that Act are protected.
Please complete and hand in this sheet so that your views can be considered for this project. If you cannot complete your comments today, please take this home and mail, fax or e-mail your comments by December 24, 2015 to either:

Mr. Marcos Kroker P.Eng.  
Head, Transportation Expansion  
Region of Waterloo  
150 Frederick Street, 6th Floor  
Kitchener, ON N2G 4J3  
Telephone: (519) 575-4750  
Fax: (519) 575-4430  
Email: kmarcos@region.waterloo.on.ca

Mr. Dave Hallman, P. Eng.,  
Vice President, Municipal  
MTE Consultants  
502 Bingemans Centre Drive  
Kitchener, ON N2B 3X9  
Telephone: (519) 743-6500  
Fax: (519) 743-6513  
Email: dhallman@mte85.com

1. Do you think there are any other problems or needs that should be considered and added to the project Problem Statement?

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

2. Do you have any additional suggestions for possible solutions or alternative alignments to address the problem/needs?

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________
3. Are there any other Evaluation Criteria that you think should be considered?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

4. What are the 3 most important criteria that you feel should be considered when the alternatives are being analyzed?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

5. Are there any other general comments you have on this project?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Do you wish to be placed on the mailing list for this project? Yes ☐ No ☐

Name: __________________________________________

Address: ________________________________________

Postal Code: _____________________________________

Phone & email: ___________________________________

Thank you for your interest and time.

COLLECTION NOTICE

All comments and information received from individuals, stakeholder groups and agencies regarding these projects and meetings are being collected to assist the Region of Waterloo in making a decision. Under the “Municipal Act”, personal information (such as name, address, telephone number, and property location) that may be included in a submission becomes part of the public record. Questions regarding the collection should be forwarded to the staff member noted above.
Bridgeport Road/Caroline Street, ERB Street And Albert Street Reconstruction

City Of Waterloo

What: Reconstruction of Bridgeport Road/Caroline Street, Erb Street, and Albert Street

Where: Bridgeport Road & Caroline Street from Erb Street to King Street

Erb Street from Caroline Street to King Street

Albert Street from Bridgeport Road to Erb Street

Why: To replace pavement and improve active transportation facilities within the project limits

When: Construction in 2018

Who: Mr. Jim Ellerman, A.Sc.T.
Project Manager, Capital Projects
Regional Municipality of Waterloo
150 Frederick Street, 6th Floor
Kitchener, ON N2G 4J3
Phone: 519-575-4757 ext. 3757
Email: jellerman@regionofwaterloo.ca

We Want Your Input!
There’s A Comment Sheet At The Back of This Package. Please Fill It Out And Share Your Comments With Us.

Public Consultation Centre #1
Wednesday, January 27th, 2016, 5:00 p.m. to 8:00 p.m.
The Canadian Clay and Glass Museum, 25 Caroline Street North, Waterloo
1. **Why is the Region doing this project?**

The Region of Waterloo is considering improvements to Bridgeport Road from King Street to Albert Street, Caroline Street from Albert Street to Erb Street and Erb Street from Caroline Street to King Street. In conjunction with this project, the City of Waterloo is considering improvements to Albert Street from Bridgeport Road to Erb Street. Please refer to the Key Plan on the backside of the cover page of this Information Package for a drawing of the study area. Within the study area, Erb Street, Bridgeport Road and Caroline Street are arterial roadways under the jurisdiction of the Region of Waterloo. Albert Street is a local roadway under the jurisdiction of the City of Waterloo. The water main and sanitary sewers beneath these sections of roadway are owned and operated by the City of Waterloo.

This project has been initiated to:

a) Address the deteriorated pavement condition of these sections of roadways;

b) Replace the aging sanitary sewer and watermain on Erb Street and on Albert Street;

c) Consider enhanced facilities for pedestrians and cyclists within the study area; and

d) Consider opportunities for improvements to existing intersection configurations

The sections of roadways within the study area are located within the Urban Core Area of the City of Waterloo and need to support future development intensification through prioritizing walking, cycling and public transit while accommodating significant peak hour traffic volumes.

2. **Who is directing this project?**

The planning for this project is being directed by a Project Team consisting of staff from the Regional Municipality of Waterloo and the City of Waterloo and City of Waterloo Councillor Melissa Durrell. The Region has retained the local consulting engineering firm WalterFedy to assist with the planning, design and contract administration of this project.
3. **How is this project being planned?**

   This project is being planned in accordance with the requirements of the Municipal Class Environmental Assessment (Class EA) process. The Municipal Class EA is a planning and decision-making process approved under the Environmental Assessment Act that is used by municipalities to plan public infrastructure projects so that potential environmental impacts and mitigating measures are identified before a project is approved. The Class EA process requires consultation with the public and involved stakeholders throughout the planning of the project. This project is being planned as a Schedule ‘B’ project under the Class EA process. For more information about the Class EA process, please refer to Appendix ‘A’.

4. **What is the purpose of this Public Consultation Centre?**

   The public is invited to this Public Consultation Centre (PCC) to:

   - review the improvements being considered for this project;
   - ask questions of staff from the Region of Waterloo and the City of Waterloo; and;
   - provide comments and input regarding the planning and design of the improvements being considered.

   A Comment Sheet is attached to the back of this Information Package. Interested members of the public are requested to fill out this Comment Sheet and put it in the box at the Consultation Centre, or send it to the address indicated on the Comment Sheet. All comments received will be considered along with other information received over the course of the project to assist the Project Team in completing the planning and design for this project.

5. **What improvements are being considered?**

   Based on a review of technical studies completed for this project, relevant Regional policies, master plans and design guidelines, and input received from the Region’s Active Transportation Advisory Committee and the City of Waterloo’s Advisory Committee on Active Transportation, the Project Team has developed a Preferred Design Concept for the proposed improvements consisting of:
Street Name | Preferred Design Concept
--- | ---
**Bridgeport Road/ Caroline Street**

- a) Complete replacement of the pavement structure including new concrete curb and gutter;
- b) Replacement of the storm sewers;
- c) Replacement of the City's watermain and sanitary sewer from King Street to 100 metres west of Albert Street;
- d) Construction of a 4.0 metre wide boulevard multi-use trail on the north side of Bridgeport Road from King Street to Dorset Street;
- e) Construction of a 3.0 metre wide boulevard multi-use trail on the north side of Bridgeport Road/Caroline Street from Dorset Street to Erb Street;
- f) Replacement of the existing 1.50 metre wide sidewalk on the south side of Bridgeport Road from King Street to Albert Street with 2.0 metre wide sidewalk;
- g) Construction of new 2.50 metre wide sidewalk on the south side of Caroline Street from Albert Street to Dupont Street;
- h) Replacement of the existing 1.50 metre wide sidewalk on the south/east side of Caroline Street from Dupont Street to Erb Street with 2.0 metre wide sidewalk;
- i) Removal of the existing westbound curb lane on the north side of Bridgeport Road/Caroline Street from King Street to Erb Street to accommodate the proposed boulevard multi-use trail;
- j) Construction of a new designated westbound right-turn lane on Bridgeport Road at Albert Street; and
- k) Enhanced boulevard landscaping where space permits.

**Erb Street**

- a) Complete replacement of the pavement structure including new concrete curb and gutter;
- b) Replacement of the storm sewers;
- c) Replacement of the City's watermain and sanitary sewer on Erb Street from King Street to Caroline Street;
d) Replacement of the existing 1.50 metre wide sidewalk on the north side of Erb Street from 90 metres east of Caroline Street to 30 metres west of King Street with a 2.50 metre wide sidewalk;

e) Replacement of the existing 2.0 metre wide sidewalk on the south side of Erb Street from Caroline Street to 100 metres west of King Street with a 2.50 metre wide sidewalk; and

f) Removal of the existing designated left-turn lanes on Erb Street at Albert Street.

**Albert Street**

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<tbody>
<tr>
<td>a)</td>
<td>Complete replacement of the pavement structure including new concrete curbs;</td>
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<tr>
<td>b)</td>
<td>Replacement of the City’s watermain, sanitary sewer and storm sewer;</td>
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<tr>
<td>c)</td>
<td>Conversion of the existing westerly curb lane on Albert Street from Erb Street to Bridgeport Road/Caroline Street from a through lane to an on-road parallel parking lane;</td>
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<td>d)</td>
<td>Construction of a northbound on-road cycling lane on the east side of Albert Street from Erb Street to Bridgeport Road/Caroline Street;</td>
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<td>e)</td>
<td>Replacement of the existing 2.0 metre wide sidewalk on the west side of Albert Street from Erb Street to Bridgeport Road/Caroline Street with a 1.50 metre wide sidewalk, to accommodate the proposed on-road cycling lane;</td>
</tr>
<tr>
<td>f)</td>
<td>Replacement of the existing 1.50-2.50 metre wide sidewalk on the east side of Albert Street from Erb Street to Bridgeport Road/Caroline Street with a 2.0 metre wide sidewalk;</td>
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<tr>
<td>g)</td>
<td>Removal of the existing channelized islands at the intersection of Bridgeport Road/Caroline Street and Albert Street.</td>
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Please refer to Appendix ‘B’ for a drawing of the Project Team’s Preferred Design Concept for the proposed improvements.
6. How do the improvements being considered relate to the objectives of the Regional Transportation Master Plan, the Regional Active Transportation Master Plan and the Regional Transportation Corridor Design Guidelines?

The Region of Waterloo’s Transportation Master Plan (RTMP), updated in 2010, is a high-level strategic plan that assesses existing and future travel patterns for the Regional transportation system. The goals of the plan are to optimize the transportation system, promote transportation choice, foster a strong economy and support sustainable development. Bridgeport Road/Caroline Street and Erb Street provide important transportation links within the City of Waterloo, bringing travelers to and from Uptown Waterloo as well as east-west across the City. The RTMP recommends that, within the project area, priority be given to walking, cycling, and public transit rather than driving alone, and aims to improve the cycling and pedestrian networks in the project area.

The Regional Active Transportation Master Plan (ATMP) identifies Bridgeport Road and Caroline Street as on-road cycling routes with sidewalks on both sides of the roadway. Through consultation with the City of Waterloo’s Advisory Committee on Active Transportation and the Region’s Active Transportation Advisory Committee, the installation of a boulevard multi-use trail is being proposed along the north side of Bridgeport Road/Caroline Street in lieu of on-road cycling lanes in order to allow two-way movement of cyclists along this stretch of roadway. Since Bridgeport Road and Caroline Street are one-way streets within the project area, the Project Team believes that a boulevard multi-use trail providing two-way movement for cyclists is preferred over on-road or segregated cycling lanes, which would provide only one direction of travel. Additionally, the proposed boulevard trail on the north side of Bridgeport Road/Caroline Street would connect to the existing Iron Horse Trail at the intersection of Erb Street and Caroline Street.

The ATMP also recommends a two-way cycle track on Erb Street within the project limits. Due to the extremely close proximity of the buildings on Erb Street, there is no room to accommodate cycling facilities within the roadway corridor in the project area without removal of an existing travel lane. A separate, broader study to consider implementation of a two-way cycle track on Erb Street from Caroline Street to Margaret Avenue will be completed by the Region of Waterloo in the future. This study will consider removal of a travel lane on Erb Street to accommodate an on-road two-way cycle track. Until this study is completed, the transportation implications of removing a travel lane on Erb Street are unknown. Accordingly, the Project Team’s Preferred Design Concept does not include any...
designated cycling facilities on Erb Street within the project area. However, should the Region’s separate study ultimately recommend a two-way cycle track be implemented on Erb Street from Caroline Street to Margaret Avenue, the two-way cycle track on Erb Street from King Street to Caroline Street could, under the Project Team’s Preferred Design Concept, be implemented through means of revised roadway line markings and signage without the need for additional construction.

The ATMP also recommends sidewalks on each side of Bridgeport Road/Caroline Street and Erb Street. Sidewalks currently exist on the each side of Bridgeport Road/Caroline Street from King Street to Erb Street, with the exception of a missing section on the south side of the road from Albert Street to Dupont Street. Sidewalks currently exist on both sides of Erb Street from King Street to Caroline Street.

The existing sidewalk on the north side of Bridgeport Road/Caroline Street from King Street to Erb Street will be replaced by a boulevard multi-use trail under the Project Team’s Preferred Design Concept. The Project Team’s Preferred Design Concept includes construction of a new 2.50 metre wide sidewalk on the south side of Bridgeport Road/Caroline Street from Albert Street to Dupont Street in order to provide a continuous section of sidewalk on the south side of the road. Additionally, the Preferred Design Concept also includes replacement of the existing sidewalks on all sections of these roadways with wider sidewalks where feasible.

The City of Waterloo’s Transportation Master Plan identifies Albert Street as a recommended signed cycling route. The Project Team’s Preferred Design Concept includes a northbound on-road cycling lane on the east side of Albert Street.

The Context Sensitive Regional Transportation Corridor Design Guidelines (CDG) is a planning policy document that guides the design of Regional Roads. The CDG identifies design parameters for necessary features within road allowances such as vehicular lanes, cycling lanes, sidewalks and boulevards. According to the CDG, Bridgeport Road/Caroline Street and Erb Street are all classified as Neighbourhood Connectors – Main Streets within the project limits. As a fundamental part of this classification, these streets should be designed to support and prioritize public transit and active transportation modes, including walking and cycling.
7. Why is Albert Street reduced from Two (2) to One (1) travel lane?

The Project Team has reviewed traffic demand forecasts for Albert Street between Bridgeport Road and Erb Street and found that one travel lane is adequate to accommodate long-term forecast traffic volumes. By eliminating one travel lane, additional space is available for both the on-road parallel parking lane and the on-road cycling lane proposed under the Project Team’s Preferred Design Concept.

8. Why is Bridgeport Road/ Caroline Street reduced from Three (3) Lanes to Two (2) Lanes from King Street to Erb Street?

There is insufficient space to maintain three (3) travel lanes for vehicles and include a designated cycling facility on Bridgeport Road from King Street to Albert Street without the removal of one through lane of traffic. The Project Team has confirmed that two through lanes on Bridgeport Road/Caroline Street from King Street to Erb Street, combined with a new designated right-turn lane on Bridgeport Road at Albert Street, is adequate to accommodate long-term forecast traffic volumes without undue delay or congestion.

9. Have additional pedestrian crossings on Erb Street or Caroline Street been considered?

The Region of Waterloo uses a warrant process that considers the installation of a pedestrian crossing signal where the number of pedestrians crossing exceeds 260 pedestrians per day. Pedestrian counts completed on Erb Street at Albert Street and on Caroline Street at Dupont Street within the past five (5) years did not meet the Region’s warrant for a pedestrian signal crossing.

The Region is currently conducting updated pedestrian crossing counts to determine whether the warrant is be met based on the latest pedestrian crossing movements. The Region will continue to monitor the pedestrian crossing numbers in these areas, and a pedestrian crossing signal could be installed in the future if crossing demand meets the Region’s warrant and if approved by Regional Council.

10. Who will be responsible for winter maintenance of the new sidewalk and multi-use trail?

The new boulevard multi-use trail on the north side of Bridgeport Road/Caroline Street from King Street to Erb Street and the new sidewalk on the south side of Caroline Street from Albert Street to Dupont Street will be cleared by the City of Waterloo. Snow clearing responsibilities in all areas of existing sidewalk will
remain unchanged. Existing sidewalks not cleared by the City will continue to be cleared by property owners.

11. **Will the posted speed be changed?**

No change to the existing 50 km/hr posted speed limit is proposed.

12. **How will existing trees, driveways, retaining walls and lawns be affected?**

Most driveways and grassed areas will have to be disturbed to some degree beyond the property line to accommodate sidewalk replacement and/or water/sanitary service replacements to property line. All driveways or grassed areas that are disturbed during construction will be repaired to equal or better condition. Grassed areas will be repaired with topsoil and sod. Driveways will be reinstated with the same material (i.e. asphalt or concrete) as exists today. The anticipated grading limits at each private property are shown on the plan view drawings at this evening’s Consultation Centre.

There is minimal impact anticipated to trees along the project. The existing trees along Albert Street are located behind the existing sidewalk, beyond the limits of the proposed construction.

Some shrubs may require removal where new sidewalk is being proposed along Caroline Street, but no trees are expected to be impacted by the proposed design concept.

New boulevard landscaping, including salt resistant trees and shrubs, will be included as part of the project where feasible. Any new landscaping typically occurs in a separately tendered landscaping contract in the year following construction.

13. **Is any private property required for this project?**

The improvements being considered for this project will not require the acquisition of any property.

14. **Will any heritage resources be impacted by this project?**

Heritage resources, including buildings, can be designated or listed under the Ontario Heritage Act. Please refer to Appendix “C” for definitions of the various heritage classifications under the Ontario Heritage Act.
 Portions of the proposed works occur within the City of Waterloo’s MacGregor-Albert Neighbourhood Heritage Conservation District. There are a number of properties either abutting the roadway within the project area or located in close proximity to the project area that are designated under the Ontario Heritage Act, in addition to a number of non-designated properties with cultural heritage value or interest.

Designated properties include: 2-4 King St. N., 3 King St. S, 4-6 King St. S., 14 Erb St. W., 57 Erb St. W., 12 Dupont St. W., 40 Albert St, 47 Albert St., 49 Albert St., 50 Albert St., 54 Albert St., 55 Albert St., 57 Albert St., 58 Albert St., 65 Albert St., 66 Albert St., 71 Albert St., 16 Bridgeport Rd., 19 Bridgeport Rd., and 22 Bridgeport Rd.

Non-Designated properties include: 2 King St. S., 1 King St. N., 10 King St. N., and 77 King St. N.

Construction of the proposed improvements to Erb Street, Bridgeport Road/Caroline Street and Albert Street will be confined to the existing rights-of-way and is not expected to adversely impact any heritage properties.

Region and City heritage staff will be consulted as the project proceeds.

15. When will construction occur? Will there be detours?

Construction is tentatively scheduled to commence in 2018. The Region’s Transportation Capital Program is reviewed annually and the timing of the project may change depending on various factors. The timing of this project will also be coordinated with construction of the King Street Streetscape Improvement Project and the construction for ION Transit at the intersection of Caroline Street and Erb Street.

It is anticipated that through traffic will be maintained on Bridgeport Road/Caroline Street during construction with lane restrictions in effect. It will be necessary to fully close Erb Street from King Street to Caroline Street to through traffic in order to complete the construction. Through traffic and transit service will be detoured via Caroline Street and Allen Street. Local and emergency traffic will be maintained during construction on Erb Street. It is anticipated that one through lane of traffic will be maintained on Albert Street at most times during construction.

Pedestrian access will be maintained along each street during construction. Where the sidewalk is close to deep excavations, the sidewalk will be separated from the work area by temporary fencing. Signage will be erected in order to direct pedestrians through the project area.
The City of Waterloo Fire Department, Waterloo Regional Police and Ambulance Services will all be advised of the traffic restrictions during the construction period. Grand River Transit (Route 5) and ION service will be maintained during construction through the intersection of Caroline Street and Erb Street.

As is customary during Regional Road reconstruction projects, motorists will be advised of the construction timing and traffic restrictions through advance signage and through information on the Region’s web site.

16. How will access to properties be maintained during construction?

Access to residential/commercial driveways will be maintained to the greatest extent possible during construction. The Contractor will be required to temporarily block access to and from driveways for short-term periods when completing certain construction operations. Where a disruption to your driveway is expected, the Contractor is required to hand-deliver a notice at least 48 hours in advance advising you of the time and duration of the driveway disruption. If necessary, alternate parking arrangements will be made, such as provision for temporary parking on adjacent side streets.

During the closure of Erb Street, access to the parking lot for the Waterloo Town Centre on Erb Street will be closed. Access to the parking lot will be available via Caroline Street.

For commercial properties, access for customers will be maintained at all times. If only one driveway access exists, the Contractor will endeavour to complete the work across the driveway in two stages where feasible in order to maintain customer access.

Property and business owners are asked to contact the site supervisor if they have any concerns in relation to access, signage or other issues during the project so it can be determined if reasonable changes or modifications can be made.

17. Will there be water service shutdowns during construction?

In order to make connections to the existing system, temporary water service interruptions will be required as part of this work. Water service interruptions will likely be less than ½ a day in duration and will likely occur between 9:00 am and 2:30 pm Monday to Friday unless other arrangements have been made. "Notices of Water Service Interruption" will be delivered to your front door a minimum of 48 hours before any required water service shutdown.
18. **Can my existing water service be upgraded?**

Replacement of the existing distribution watermain on each of these roadway sections will be completed as part of this project and water service connections will be completed up to the property line with this work. Alternatively, should a property owner wish to increase the size of the water service within the road allowance up to their property line beyond its existing size to achieve increased flow, they may choose at their own cost to have this work included during this project, subject to a mutual agreement between the City of Waterloo and the property owner. Undertaking these improvements in conjunction with the proposed construction typically results in cost savings to the property owner as compared to undertaking the work independently at another time in the future.

If you do wish to discuss an increase in the size of your water service, please indicate so on your comment sheet. From this information, staff will contact you at a later date to discuss your plans and any further requirements.

Additionally, property owners may wish to consider replacing the water service on their private property (i.e. between the property line and their building) during the construction activities. Property owners can inquire to arrange this work directly with the Region’s Contractor on-site during construction but it cannot be guaranteed that the Contractor will be able to accommodate this additional work request.

19. **Can my existing sanitary service be up-graded?**

Replacement of the existing sanitary sewer on each of these roadway sections will be completed as part of this project and sanitary service connections up to the property line will be completed with this work. Alternatively, should a property owner wish to increase the size of the sanitary service within the road allowance up to their property line beyond its current size to achieve increased flow, they may choose at their own cost to have this work included during this project, subject to a mutual agreement between the City of Waterloo and the property owner. Undertaking these improvements in conjunction with the proposed construction typically results in cost savings to the property owner as compared to undertaking the work independently at another time in the future.

If you wish to discuss an increase in the size of your sanitary service, please indicate so on your comment sheet. From this information, staff will contact you at a later date to discuss your plans and any further requirements.

Additionally, property owners may wish to consider replacing the sanitary service on their private property (i.e. between the property line and their building) as part
20. **What is the estimated cost of this project? How will it be funded?**

The Region of Waterloo is funding the roadworks portion of this project for the improvements to Bridgeport Road/Caroline Street and Erb Street. The City of Waterloo is funding the replacement of sanitary sewers and watermain on Bridgeport Road/Caroline Street and Erb Street and the Albert Street road improvements. The preliminary estimated cost for both the Region and City combined is $3.9 million. The Region’s estimated share of the project cost is $2.9 million and the City’s estimated share of the project costs is $1.0 million.

21. **What are the next steps?**

Prior to finalizing a recommended concept for the improvements, the Project Team is asking for the public’s input on the improvements being considered. This Public Consultation Centre is your opportunity to ask questions, provide suggestions, and make comments. The Project Team will use the comments obtained from the public during this Public Consultation Centre to refine and finalize a recommended concept in conjunction with other technical data.

22. **When will a final decision be made?**

The Project Team will review the public comments received from this evening’s Public Consultation Centre and use them as input for confirming the Final Recommended Design Concept for this project. It is anticipated that this Final Recommended Design Concept will be presented to Regional Planning and Works Committee and Council in 2016 for ultimate project approval. In advance of these meetings, letters will be sent to all adjacent property owners and tenants (as well as to all members of the public specifically registering at this Public Consultation Centre) so that anyone wishing to speak to Committee or Council about this project can do so before final approval. The project would then proceed to detailed design for construction in 2018.

23. **How will I receive further notification regarding this project?**

Adjacent property owners and members of the public registering at this Public Consultation Centre will receive all forthcoming public correspondence, and will be notified of any future meetings. Alternatively, all correspondence and related
24. **How can I view project information following the PCC?**

All of the Display Boards from this Public Consultation Centre and other relevant project information, notifications of upcoming meetings and contact information are available for viewing by appointment at the Region of Waterloo municipal office at 150 Frederick Street, Kitchener. Alternatively, you may visit the Region’s website to view project specific documents, drawings or Regional Master Plans and design guidelines at the web links below:

<table>
<thead>
<tr>
<th>Project Information</th>
<th>Documents and Drawings:</th>
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</thead>
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We thank you for your involvement and should you have any questions or concerns please contact one of the following:

Mr. Jim Ellerman, A.Sc.T.  
Project Manager, Capital Projects  
Regional Municipality of Waterloo  
150 Frederick Street, 6th Floor  
Design and Construction Division  
Kitchener, ON N2G 4J3  
Phone: 519-575-4757 ext. 3757  
Email: jellerman@regionofwaterloo.ca

Mark Christensen, P.Eng.  
Project Manager  
WALTERFEDY  
675 Queen St. S., Suite 111  
Kitchener, ON N2M 1A1  
Phone: 519.576.2150 x285  
Email: mchristensen@walterfedy.com
Appendix “A”

Class EA Process

Municipal Class Environmental Assessment

Ontario Environmental Assessment Act

The purpose of the Ontario Environmental Assessment Act (EA Act) is to provide for “the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management of the environment in Ontario”. Environment is applied broadly and includes the natural, social, cultural, built and economic components.

The key principles of successful environmental assessment planning include:

- Consultation with stakeholders and affected members of the public;
- Consideration of a reasonable range of alternatives;
- Assessment of the environmental impacts for each alternative;
- Systematic evaluation of alternatives; and
- Clear documentation of the process followed.

Municipal Class Environmental Assessment (EA)

The Municipal Class Environmental Assessment (EA) is a planning process approved under the Environmental Assessment Act that is used by municipalities to plan infrastructure enhancement projects while satisfying the requirements of the Environmental Assessment Act. Under the Class EA process, projects are planned in one of three ways depending on their scope, complexity, and potential for adverse environmental impacts.

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<th>Schedule</th>
<th>Description</th>
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<tr>
<td>Schedule “A”</td>
<td>Routine projects that are considered straight-forward and minimally impactful, such as maintenance, operations and emergency activities. Such projects are designated as “pre-approved” under the Class EA and may proceed directly to implementation.</td>
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<tr>
<td>Schedule “A+”</td>
<td>Routine projects that are considered straight-forward with minor or short-term impacts. Such projects are designated as “pre-approved” under the Class EA and may proceed directly to implementation; however, the proponent is required to advise area residents and stakeholders of the pending commencement of the project.</td>
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</table>
Schedule “B” Projects with the potential for some adverse environmental effects. Such projects must undergo a program of public, stakeholder and agency consultation and a detailed Project File documenting the planning process must be placed on the public record. Subsequently, the project is considered to be “approved” under the Class EA.

Schedule “C” Larger and more complex projects with the potential for significant environmental effects. Such projects must undergo a program of public, stakeholder and agency consultation, including 3 points of formal public contact. A detailed Environmental Study Report (ESR) must be completed and placed on the public record. Subsequently, the project is considered to be “approved” under the Class EA.

Public Involvement

Members of the public that have a stake in the project are encouraged to provide comment throughout the Class EA process.
Class EA Process for Schedule “B” Projects

### Change in Project Status – Appeal Provision

It is recommended that all stakeholders (including the proponent, public and review agencies) work together to determine the preferred means of addressing a problem or opportunity. If you have any concerns, you should discuss them with the proponent and try to resolve them. In the event that there are major issues which cannot be resolved, you may request the Minister of the Environment by order to require a proponent to comply with Part II of the EA Act before proceeding with a proposed undertaking which has been subject to Class EA requirements. This is called a “Part II Order”. The Minister will make one of the following decisions:

1. Deny the request (with or without conditions);
2. Refer the matter to mediation; or
3. Require the proponent to comply with Part II of the EA Act, ordering a full Environmental Assessment.

All stakeholders are urged to try to resolve issues since it is preferable for them to be resolved by the municipality in which a project is located, rather than at the provincial level.

To request a Part II Order, a person must send a written request to:

Minister of the Environment  
135 St. Clair Avenue West  
12th Floor  
Toronto, ON M4V 1P5

The request must address the following with respect to the identified concerns:

- Environmental Impacts and specific concerns;
- Adequacy of the planning and public consultation process;
- Involvement of the person in the planning process; and
- Details of discussions held between the person and the proponent.
Appendix “B”
Preferred Design Concept

BRIDGEPORT ROAD
(DORSET STREET TO KING STREET)
TYPICAL SECTION
N.T.S.
BRIDGEPORT ROAD
(ALBERT STREET TO DORSET STREET)
TYPICAL SECTION
N.T.S.

Region of Waterloo
CAROLINE STREET
(ERB STREET TO ALBERT STREET)
TYPICAL SECTION
N.T.S.
ERB STREET
(CAROLINE STREET TO KING STREET)
TYPICAL SECTION
N.T.S.
ALBERT STREET
(BRIDGEPORT ROAD TO ERB STREET)
TYPICAL SECTION
N.T.S.
See Plan 3 of 3

Prefered Design Concept (EB Street to King Street) Caroline Street and Bridgeport Road
SEE PLAN 2 OF 3
Information Package
Bridgeport Road, Caroline Street, Erb Street and Albert Street Region of Waterloo
Information Package
Bridgeport Road, Caroline Street, Erb Street and Albert Street Region of Waterloo

SEE PLAN 1 OF 2

ALBERT STREET
(PREFERRED DESIGN CONCEPT
(2 OF 2))
Appendix “C”

Ontario Heritage Act – Cultural Heritage Definitions

Designated Properties – Protected from demolition and other adverse impacts

A designation confers a legal status on a property by a specific municipal by-law under the Ontario Heritage Act. Designation may fall under one of two categories under the Ontario Heritage Act: Part IV (individual designation) or Part V (district designation). Designation is an Area Municipal responsibility. The Area Municipal Council has the legal authority to refuse an application that will adversely affect the property’s heritage attributes.

Municipally Registered/Listed Properties – Interim protection from demolition

The municipal register is the official list or record of cultural heritage properties that have been identified as being important to the community. The register includes all properties in the municipality that are designated under Part IV (individual designation) and Part V (district designation) of the Ontario Heritage Act. In addition, the municipal register may include properties of cultural heritage value or interest that have not been designated under the Ontario Heritage Act. This is commonly known as “listing.” The Area Municipal Council must be given at least 60 days notice of intention to demolish or remove a building or structure on the property. This allows time for the municipality to decide whether to begin the designation process to give long term protection to the property.

Pre-1900 Residential Properties – For information

Residential structures in the project area that were built prior to 1900 have been identified. These identified historic structures have no formal heritage protection. However, historic buildings that have maintained their heritage value could be candidates for further heritage protection. Property data is taken from the Municipal Property Assessment Corporation (MPAC). The date that is assigned to a property represents the oldest structure on the lot.

Scenic Roads – Identified as possessing cultural value and require additional design consideration

Certain transportation corridors are characterized by natural, cultural heritage and recreational features that contribute to their scenic value or special character. Area municipalities are responsible for the designation of those municipal roads that possess scenic or cultural value. Likewise, the Region has identified sections of Regional road corridors that are considered scenic. The Special Character Streets and Scenic Roads Resource Document is a supplement to the Implementation Guidelines for Regional Transportation Corridor Design. It identifies and provides recommendations for the treatment of Scenic Roads and Special Character Streets that are part of the Regional road system within the Region of Waterloo. These recommendations should be considered before undertaking any work on a road that has been identified as possessing scenic value.
Comment Sheet

Regional Municipality of Waterloo

Bridgeport Road, Caroline Street, Erb Street, and Albert Street Improvements

City of Waterloo

Public Consultation Centre

Please complete and hand in this sheet so that your views can be considered for this project. If you cannot complete your comments today, please take this home and mail, fax or e-mail your comments by Wednesday, February 17, 2016 to:

Mr. Jim Ellerman, A.Sc.T.
Project Manager, Capital Projects
Regional Municipality of Waterloo
150 Frederick Street, 6th Floor
Design and Construction Division
Kitchener, ON N2G 4J3
Phone: 519-575-4757 ext. 3757
Email: jellerman@regionofwaterloo.ca

Mark Christensen, P.Eng.
Project Manager
WALTERFEDY
675 Queen St. S., Suite 111
Kitchener, ON N2M 1A1
Phone: 519.576.2150 x285
Email: mchristensen@walterfedy.com

Are you interested in upgrading your water service as part of this project?

☐ YES ☐ NO

Are you interested in upgrading your sanitary service as part of this project?

☐ YES ☐ NO

Comments or concerns regarding this project:
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

77
Name: ________________________________________________________________
Address: ______________________________________________________________
Postal Code ___________________________________________________________
Phone: _________________________ Email: ________________________________

Collection Notice

All comments and information received from individuals, stakeholder groups and agencies regarding this project are being collected to assist the Region of Waterloo in making a decision. Under the “Municipal Act”, personal information such as name, address, telephone number, and property location that may be included in a submission becomes part of the public record.
Region of Waterloo
Transportation and Environmental Services
Water Services

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

Date: December 8, 2015  

File Code: C06-60(A); E13-20(A)/08305

Subject: Hauled Wastewater Receiving Station Site Selection Update

Recommendation:

For Information.

Summary:

Certain areas of the Region do not have centralized municipal wastewater service, and have septic disposal systems or holding tanks that rely on private contractors to remove their wastewater and septage. Some of this material can be applied without treatment to agricultural lands as fertilizer at certain times of the year, but there is an increasing surplus of this material that cannot be land applied. Since 2002, the Region has accepted and treated hauled wastewater from these sources at the New Hamburg Wastewater Treatment Plant (WWTP) as a pilot program. This facility was adequate for the pilot program and the current volume of hauled wastewater received. If the Region decides to expand the program, the current site is not suitable for long-term management.

The Region is evaluating concepts for long-term management which includes a new hauled wastewater facility (identifying a preferred location) and reviewing the feasibility of a new facility based on a business case based on a revenue-neutral approach.

Consultants have evaluated alternative locations for a new facility and identified the Region’s Wastewater Residual Management Facility (WWRMF) on Manitou Drive as the preferred location, pending confirmation through public and stakeholder consultation, and ultimate endorsement by Regional Council. The Region will host public consultation centres in December 2015 to seek comment on the proposed location, and
once a preferred site has been selected, staff will develop a business case with estimated fees prior to making a recommendation to Council in early 2016.

The information boards to be displayed at the PCCs have also been included in Planning & Works Committee agenda for December 8, 2015.

If Regional Council endorses the selection of the site and approves the feasibility of the business case, the Region would be able to proceed with design and construction of the facility. It is anticipated that construction of this facility can be completed over a two-year time frame. The preliminary capital cost estimate for the facility is $1.6 million, and this amount has been included in the proposed 2016 Wastewater Capital Program.

Before implementation, Region staff will also be assessing the disposal fees that should be charged to hauled wastewater contractors. Rates currently charged will need to be increased if the Region wishes to provide the service on a revenue-neutral basis.

It is proposed that only waste originating within the Region will be accepted.

Report:

Some rural areas and smaller urban centres of the Region of Waterloo are not serviced by municipal wastewater collection and treatment systems. Homes and businesses in these unserviced areas rely on either septic systems with sub-surface leaching beds, or holding tanks. Holding tanks must be emptied regularly, and septic system tanks must be emptied every few years to maintain proper operation. Wastewater collected in portable toilets used for public events, construction sites and other unserviced locations also needs to be hauled away for disposal. A number of private companies, called hauled wastewater contractors, are licensed and regulated by the Province to haul away and dispose of stored wastewater from these various sources.

Hauled wastewater, except from portable toilets, can be applied by licensed contractors to agricultural lands during certain times of the year (sprayed on or injected into the soil), and acts as a fertilizer. The Province regulates where and when this can occur, and how much can be applied.

The Province has previously announced plans to eventually phase out land application of any untreated hauled wastewater on agricultural land, although no timetable for this change has been proposed. Furthermore, land application of hauled wastewater has become more challenging due to seasonal limitations and availability of farms willing to accept the product.

In 2002, as a result of discussions with the MOE, residents, and contractors, the Region voluntarily initiated a pilot program to receive hauled wastewater generated in the Region at the New Hamburg Wastewater Treatment Plant (WWTP) (Report E-02-018.1
dated December 3, 2002). The pilot program was found to be successful and has continued as an interim service since that time. Licensed private haulers are charged a disposal fee by the Region to accept and co-treat the hauled wastewater along with the wastewater collected by the Township of Wilmot’s sewer systems for New Hamburg and Baden.

Although the Region is not obligated by legislation at this time to accept hauled wastewater, and disposal by land application is still permitted (except for portable toilet wastes), Region staff continue to provide this service to the licensed haulers, for the benefit of residents and businesses in unserviced areas within the Region.

Discontinuation of this service would result in much of the Region’s hauled wastewater needing to be directed to more distant storage and treatment facilities outside the Region, and likely result in significant cost increases to those residents and businesses relying on the hauled wastewater contractors.

The Region has recognized that the New Hamburg WWTP is not suited to long-term management of these wastes, as quantities increase over time, and community growth in New Hamburg and Baden places additional demands on the WWTP capacity. The Region’s proposed long-term strategy includes construction of a hauled wastewater receiving station at a more suitable location. Hauled wastewater receiving at New Hamburg WWTP will then be discontinued.

In 2014, the Region completed a study to identify and evaluate potential sites for the permanent facility and recommended a short-list of preferred sites. Study results were reported to the Committee in Report E-14-093, dated August 12, 2014.

The study estimated that up to 61,000 cubic metres per year of hauled wastewater would need to be accepted and treated, in the future scenario where land application of untreated wastewater is banned and the Region ultimately accepts 100 per cent of the Region’s generated wastes. The ability of a site to accommodate this upper limit in the future was established as a key criterion for the selection of a preferred site. Currently, about 26,000 cubic metres per year are received.

The short-list of potential sites from this study was as follows:

1. The existing Region Wastewater Residuals Management Facility (WWRMF) on Manitou Drive in Kitchener
2. The existing Waterloo WWTP on University Avenue in Waterloo
3. The proposed East Side Lands Wastewater Pump Station to be located somewhere near the Kitchener-Cambridge City border, near Stage 1 of the East Side Lands developed area.
Subsequent to the 2014 study, the third location was dropped from the preferred site short-list as a result of analysis conducted within the scope of the ongoing East Side Lands Wastewater Servicing Environmental Assessment (EA).

The preliminary evaluation of the remaining two sites has now been completed. A weighted-ranking method using a combination of environmental, social, technical and financial factors was used to compare the two site options. The preliminary results show that the Region’s WWRMF on Manitou Drive in Kitchener is the preferred location for the station.

Public Consultation Centres (PCCs) in Kitchener and Waterloo are scheduled for December 2015. The information boards to be displayed at the PCCs have also been included in Planning & Works Committee Agenda for December 8, 2015.

Once consultation has been completed and a preferred site has been selected, staff will develop a business case prior to returning to Regional Council with a recommendation. If the decision is to proceed with the design phase of the hauled wastewater receiving station, it is anticipated that the design and tendering will be completed by 2017 and construction will be completed in 2018.

During the design phase, a more detailed cost estimate and proposed receiving fees for the new facility will be developed. A fee structure recommendation will be submitted to Council for consideration. It is expected that fees would need to be increased in order for the Region to recover the full cost of providing the service, including the new infrastructure.

**Corporate Strategic Plan:**

The development of a long-term solution for management of hauled wastewater, and the elimination of the temporary hauled wastewater receiving station at the New Hamburg WWTP, support the Corporate Strategic Focus Area: “Thriving Economy” in the 2015-18 Strategic Plan; specifically Strategic Objective 1.2: “Plan for and provide the infrastructure and services necessary to create the foundation for economic success.”

**Financial Implications:**

The Consultant’s analysis has indicated that the receiving facility cost is mostly independent of the site selection (likely less than a 5 per cent difference in cost between the two short-listed sites). Based on a conceptual level estimate, the proposed 2016 Wastewater Capital Program includes $1.6 million for the implementation of a new Regional hauled wastewater facility.
Cost estimates for constructing the hauled wastewater receiving facility will be further refined during preliminary and detailed design work, which will commence after the current study is completed and the approach is approved by Regional Council. The 2017 capital budget will be adjusted to reflect the cost estimates developed during design.

Currently, the Region charges the following rates for accepting hauled wastewater at New Hamburg WWTP:

- Septic tank wastewater: $173.77 per truckload
- Domestic holding tank wastewater: $86.17 per truckload
- Industrial, commercial, or institutional wastewater: Assessed case-by-case

The revenues from the existing service averages $125,000 annually which offsets the treatment costs at the New Hamburg WWTP. The fee structure is under review to recognize the variability of the strength of the hauled waste. The new fee structure would need to account for the full strength of the material and the capital costs associated with the receiving site and treatment.

Fees to be charged at the proposed new Regional facility have not yet been developed. Preliminary assessment suggests that fees would need to be increased from current rates to fully recover both the capital and operating costs for the proposed new hauled wastewater receiving facility.

Once further information is available, staff will prepare a separate report outlining proposed new fees for Regional Council’s consideration.

**Other Department Consultations/Concurrence:**

Nil

**Attachments**

Nil

**Prepared By:** Dave Arsenault, Senior Project Engineer

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
Management of Hauled Wastewater

Public Consultation Centre

December 9, 2015 – 5:00 p.m. to 7:00 p.m.
St. Matthew Catholic School
405 Pastern Trail, Waterloo, ON
Management of Hauled Wastewater

Public Consultation Centre

December 10, 2015 – 5:00 p.m. to 7:00 p.m.
St. Kateri Tekakwitha Catholic School
560 Pioneer Drive, Kitchener, ON
Welcome!

This is your opportunity to provide comments and ask questions. We are here to:

- Explain hauled wastewater services, how the Region is involved and the purpose of the project
- Explain how alternative sites for a long-term facility to receive hauled wastewater were evaluated
- Outline conclusions reached to date
- Answer your questions, hear your comments, and get your feedback
- Outline next steps
The Region's Perspective

Purpose of this Study

- Evaluate sites for a long-term facility to receive hauled wastewater produced in the Region
- Recommend a preferred site for a long-term facility to receive and manage this hauled wastewater
- Develop a conceptual design for this facility at the preferred site
- Provide opportunities for public input and comment
What is Hauled Wastewater?

• **Hauled wastewater** is privately generated and collected wastewater that has been collected from septic tanks (commonly called “septage”), wastewater holding tanks or portable toilets that is transported by privately-operated trucks to a disposal location or treatment facility.

  Hauled Wastewater is Not Biosolids …

• **Biosolids** are the treated solids produced by wastewater treatment processes managed by the Region, and can be used for compost, fertilizer, etc.
# Hauled Wastewater and Biosolids – Key Differences

<table>
<thead>
<tr>
<th>Source</th>
<th>Hauled Wastewater</th>
<th>Biosolids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Homes and Businesses</td>
<td></td>
<td>Regional Wastewater Operations</td>
</tr>
<tr>
<td>Regulated by the Province</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>(Waste Management Act and Clean Water Act)</td>
<td>(Nutrient Management Act and Clean Water Act)</td>
</tr>
<tr>
<td>Spread on Land by Region</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Treated Before Spreading on Fields</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Prohibited from Drinking Water Protection Areas</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
A Typical Wastewater Hauling Truck

Trucks hauling wastewater are self-contained and generally are relatively small.

The current fees charged by the Region to wastewater haulers are: $173.77 per load for septage; and $86.17 per load for holding tanks. It is expected that these fees would need to be increased to cover the Region’s costs of accepting the wastewater, however, the new fees have not yet been developed.
Why is the Region Involved?

• Some rural areas do not have municipal wastewater servicing → these areas have septic or holding tanks which are pumped out by private contractors

• The Region voluntarily accepts and treats some of this waste for a fee

• The Region does not accept hauled wastewater from other municipalities; this policy is proposed to continue at the new facility
Study Background

- Hauled wastewater is currently trucked to New Hamburg Wastewater Treatment Plant (WWTP) for treatment (interim)

- Region examining alternatives for a new long-term facility to accept and treat hauled wastewater because of concerns with:
  - Capacity limitations at New Hamburg WWTP
  - Limitations on the application of untreated hauled wastewater to farm land
  - Projected amount of septage
# Evaluation of Possible Receiving Sites

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Kitchener WWTP</th>
<th>Waterloo WWTP</th>
<th>Galt WWTP</th>
<th>Spring Valley PS</th>
<th>East Side Lands PS</th>
<th>Bridgeport PS</th>
<th>WWRMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td></td>
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<tr>
<td>Social / Cultural / Community</td>
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<td>Cost</td>
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<td></td>
</tr>
<tr>
<td>Technical</td>
<td></td>
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</tr>
<tr>
<td>Ranking of Alternatives</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>5</td>
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<td>Alternative Short-Listed</td>
<td>X</td>
<td>√</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
</tbody>
</table>

Most Preferred (least impact) → Least Preferred (most impact)

This long list of alternatives were examined in a previous study, and endorsed by Regional Council in August 2014.
Short List of Alternative Sites

Not considered further due to uncertainty with timing of construction.
Evaluation Criteria

Environment

• Potential for spilled wastewater to enter Regional drinking water aquifers

Cost

• Relative 25-year lifecycle cost

Social, Cultural, Community

• Potential for traffic impacts
• Potential for odour, noise and dust impacts

Technical

• Ease of construction / implementation
• Future expandability / constraints
• Operational requirements
• Site accessibility
Waterloo Wastewater Treatment Plant

Advantages:
- Central location with access to Conestoga Parkway
- Site can accommodate future expansion
- Large site for construction vehicles and activities
- Existing screening disposal facilities and service
- Marginally lower operating and maintenance costs

Disadvantages:
- Proximity to residential area
- Historically, more collisions on road leading to WWTP than on road leading to WWMRC
- Site access potentially difficult due to high traffic volumes and no controlled intersection

Both sites have similar capital costs (preliminary capital cost estimate: approximately $1.6 million. Risk to the environment is low for both sites.
Wastewater Residuals Management Centre (Kitchener)

Advantages:
- Central location with access to road network
- Historically, fewer collisions on road leading to WWRMC than road leading to Waterloo WWTP
- Commercial / industrial area with reduced odour and noise concerns
- Fewer commercial accesses and pedestrians and cyclists on Manitou Dr.

Disadvantages:
- May need to use adjacent property during construction
- Site may limit ability to accommodate hauled wastewater beyond 2031
- New screening facilities required
- Marginally higher operating and maintenance costs

Both sites have similar capital costs (preliminary capital cost estimate: approximately $1.6 million. Risk to the environment is low for both sites.
How will traffic be affected?

- Both sites located on Regional roads (Manitou Drive, University Avenue) designed to handle truck traffic
- Daily traffic on both roads is similar
- Transportation Planning has advised that the Estimated Total Daily Vehicle Load (all kinds of vehicles) for both Manitou Drive and University Avenue is around 25,000 vehicles
- Any increase in truck traffic would not be significant → estimated to be an annual average of 8 to 15 trucks each weekday by 2031
- During peak hauling season (i.e., summer months), there could be 40 trucks per weekday
Preliminary Evaluation of Short-listed Sites

Based on the preliminary evaluation, this alternative ranked higher than the Waterloo WWTP.

<table>
<thead>
<tr>
<th>Category</th>
<th>Waterloo WWTP</th>
<th>Manitou WWRMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>👁</td>
<td>👁</td>
</tr>
<tr>
<td>Social / Cultural / Community</td>
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<td>👁</td>
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<tr>
<td>Financial</td>
<td>👁</td>
<td>👁</td>
</tr>
<tr>
<td>Technical</td>
<td>👁</td>
<td>👁</td>
</tr>
<tr>
<td>Ranking of Alternatives</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: The evaluation criteria used for the short-listed sites above is more comprehensive than the criteria that were used for the evaluation of all possible sites. Therefore, some of the ratings for some categories above may differ from the ratings for the evaluation of all possible sites.
In Summary Highest Ranking Alternative …

Wastewater Residuals Management Centre on Manitou Drive

- Located in industrial / commercial area
- More centrally located with fewer commercial access points, pedestrians and cyclists → easier access for trucks and good road safety history
- Maximizes travel on Regional roads in all directions
- Both sites have low risk to the environment
- Similar capital costs to Waterloo WWTP site

A final decision on the preferred site will not be made until public consultation is completed and Regional Council endorses the recommended preferred site.
Other Region of Waterloo Studies

The Region is also undertaking the following studies for other wastewater-related Regional services:

• **Biosolids Master Plan**
  – A study to develop a strategy for dealing with biosolids produced at the wastewater treatment plants in the Region to 2049

• **Wastewater Treatment Master Plan Update**
  – A study to develop a strategy for dealing with wastewater treatment and disposal needs of the Region over the next 35 to 40 years

There will be separate public consultation programs for these studies, including Public Consultation Centres.
What Happens Next?

**Winter 2015 / 2016**
Consider comments received at this Public Consultation Centre,
Confirm preferred site for facility

**2016 to 2017**
Prepare Conceptual Design and Detailed Design for facility

**2018**
Construct the facility at the preferred site
We'd like to hear from you

Please deposit your comment sheet in the box provided or forward to the Region.

Contact information:

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Senior Project Engineer
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150 Frederick St, 7th Floor
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DArsenault@regionofwaterloo.ca

Emil Rafanan
Project Manager
XCG Consultants Ltd.
2620 Bristol Circle, Suite 300
Oakville, ON  L6H 6Z7
905-829-8880, ext. 253
Emil.Rafanan@xcg.com
Region of Waterloo
Planning, Development, and Legislative Services
Community Planning

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

Date: December 8, 2015  File Code: D05-02

Subject: Regional Response to “A Blueprint for Change: A Proposal to Modernize and Strengthen the Aggregate Resources Act Policy Framework” (Environmental Bill of Rights Registry 012-5444)

Recommendation:


Summary:

On October 21, 2015, the Province of Ontario released “A Blueprint for Change: A Proposal to Modernize and Strengthen the Aggregate Resources Act Policy Framework” (the Blueprint). The Aggregate Resource Act (ARA) is the primary legislation governing the approval and operation of pits and quarries within Ontario. This legislation first came into place in 1990 and was last updated in 1997.

The Blueprint was released as a component of the Province’s review of the ARA, initiated in 2012. It outlines a series of proposed policy changes to improve the aggregate regulatory framework in four key areas:

1. stronger oversight;
2. greater environmental accountability;
3. new tools to deal with existing sites; and
4. improved record keeping and reporting.
The consultation process is the first step in what is anticipated to be a multi-year review of the ARA and eventually the Regulation and Provincial Standard. The Province will provide further opportunities for public input as it refines its proposed policy changes later in the process. As aggregate production is a matter of significant municipal interest as well as provincial interest, Regional staff expect to provide further input at that time.

This report provides Regional staff's comments on the Province's proposed changes to the ARA, based on staff's experience in working with the ARA over the past 25 years as it applies to sand and gravel pits. The key messages of this report are:

1. Mineral aggregate extraction is an important aspect of Waterloo Region's economy, and we commend the Province for initiating this review to improve and strengthen the ARA, in the interest of providing an appropriate supply of aggregate resources while minimizing the impact extraction operations can have on the environment and the communities that surround them.

2. Regional staff generally support the key policy changes outlined in the Blueprint. If implemented, they would result in significant improvements in the way aggregate resources are managed in Ontario. The proposed changes would help strengthen the ARA regulatory framework by offering stronger oversight, improving public participation in the aggregate licensing process, and striking a better balance between our need for aggregate resources with other priority land uses, such as farmland preservation, source water protection, and environmental sustainability.

3. Despite our general support for the proposals in the Blueprint, there are areas where, based on Regional staff’s experience with many applications, Official Plan policy development, and OMB hearings, we recommend that the proposed policy changes be further refined or clarified as the review process continues:

   - Water resources protection
   - Requirements for requests to lower extraction below the water table
   - Study requirements for applications on agricultural lands
   - Maximum disturbed area on site plans and rehabilitation

The Blueprint addresses several other topics which are discussed in the report below.

Protecting water resources from the potential impacts of aggregate extraction was addressed in the policies of the Council-adopted ROP, and was the subject of appeals. The Settlement endorsed by Regional Council on June 3, 2015 (Report: PDL-15-04) and subsequently approved by the OMB on June 18, 2015, agreed that a resolution to these issues should await the finalization of the source water protection plan under the Clean Water Act and the completion of the review of the ARA of which the Blueprint is an important step. The Settlement deferred resolution of the ROP policies until the next comprehensive review of the ROP anticipated to occur in 2019.
Report:

Background

The siting of new aggregate pits and quarries, and the operation and eventual rehabilitation of existing operations is a matter of widespread public interest in Ontario. Aggregate operations are often perceived to damage the environment and detract from the quality of life in host communities, yet there is general agreement that an adequate supply of stone, sand, and gravel is essential to our way of life and future prosperity.

Waterloo Region is currently the fifth largest aggregate producer by volume in Ontario and the second largest in Southwestern Ontario. In 2014, the region’s aggregate industry produced approximately seven million tonnes of sand, gravel and other materials with an estimated value of $46 million. Output from pits in the region is used locally and shipped to users beyond our borders. The re-urbanisation and infrastructure development transforming our urban centres is utterly reliant upon aggregate and products made from aggregate.

Despite the need for aggregates, few planning issues seem to generate as much public interest as aggregate extraction. Waterloo Region’s aggregate resources underlie many significant woodlands, wetlands and watercourses, and coincide with some of the Region’s largest groundwater recharge areas, many of which are the primary sources of our municipal drinking-water supply. Through policies in successive iterations of the Regional Official Plan (ROP), the Region has sought to balance the need to produce an adequate supply of aggregates close to our market while preventing any potential negative impacts to the natural environment and host communities.

Provincial Review of ARA

Responding to growing concern about the aggregate industry, the Provincial government in March 2012 authorized the Standing Committee of General Government (an all-party committee of the Legislative Assembly), to initiate a review of the Aggregate Resources Act (ARA). Administered by the Ministry of Natural Resources and Forestry (MNRF), the ARA is the primary legislation governing the approval and operation of pits and quarries in Ontario. This legislation first came into effect in 1990 replacing the Pits and Quarries Act, 1971, and was last updated in 1997.

After holding a series of public hearings across Ontario, the Standing Committee completed its review of the ARA and tabled its final report to the Provincial Legislature in October 2013. The Committee’s report included 38 recommendations on a wide range of matters, such as the relationship of aggregate resource extraction to other land uses, the potential cumulative impact of aggregate operations on surface and groundwater supplies, and the improved rehabilitation of active aggregate sites.
In February 2014, the MNRF, in collaboration with several other ministries, issued its comprehensive response to the Standing Committee’s report on the review of the ARA. The response report acknowledged the need to strengthen the ARA, and to initiate a series of policy and regulatory changes consistent with the Standing Committee’s recommendations.

On October 21, 2015, the Province released a document titled “A Blueprint for Change: A Proposal to Modernize and Strengthen the Aggregate Resources Act Policy Framework” (the Blueprint). This document proposes a series of policy changes to achieve four key goals:

1. Provide stronger oversight – by introducing new tools and powers that improve effectiveness, efficiency and flexibility;
2. Strengthen environmental accountability – by enhancing application requirements, developing new tools to deal with existing sites, and improving record keeping and reporting;
3. Improve information and participation – by enhancing opportunities for public involvement and making information more accessible and easier to understand; and
4. Increase and equalize fees and royalties – by indexing fees and royalties, and working with municipalities to address infrastructure impacts and creating provisions for the future.

The above goals cover a wide range of specific policies, but this report will limit itself to some of the key proposed policy changes of relevance to Waterloo Region. Attachment 1 to this report contains a summary of all the policy changes proposed in the Blueprint.

The Province is seeking feedback from municipalities, stakeholders and the broader public on its proposed policy changes. In particular, it is looking for input on whether the proposed changes are comprehensive enough, and whether there is broad public support for the government to implement the proposed changes outlined in its Blueprint. This consultation process is the first step in what is anticipated to be a multi-year review of the ARA, and eventually the Regulation and the Provincial Standard that implement it. The Province will provide further opportunities for public input as it refines its proposed policy changes later in the process, and Regional staff expect to provide further comment as the review proceeds.

The following comments are based on staff’s experience in working with the ARA over the past 25 years. That experience, however, is limited to sand and gravel pits as there are no stone quarries operating in the region. Regional staff has frequently been involved with proponents, review agencies, Area Municipal staff and the broader community in the review and approval of many aggregate applications. Most have been satisfactorily resolved, but several have been adjudicated by the Ontario Municipal Board (OMB). In addition, staff has received complaints from members of the public and public interest groups about the operation of particular pits. Recently, staff has also
participated in the development of a voluntary socially and environmentally responsible aggregate certification programme by the Cornerstone Standards Council (Report PDL-CPL-15-49). The comments made in this report reflect the collective experience gained by participating in those processes.

General Comments

Regional staff generally support the policy changes proposed by the Province. Many of the proposed changes reflect policies that the Region and the Area Municipalities have been promoting for many years. The Region’s work in the areas of environmental planning, water resource and source water protection, farmland preservation and cultural heritage landscapes are just a few examples of where the Region’s goals align with and complement the goals outlined in the Province’s Blueprint.

Taken together, the proposed policy changes would result in significant improvements in the way aggregate resources are managed. The changes would help strengthen the ARA regulatory framework by offering stronger oversight, improving public participation in the aggregate licensing process, and striking a better balance between our need for aggregates and other priority land use concerns such as farmland preservation, water resource protection and environmental sustainability.

Four topics in the Blueprint are of particular interest to the Region, and warrant detailed discussion.

- Water resources protection
- Requirements for requests to lower extraction below the water table
- Study requirements for applications on agricultural lands
- Maximum disturbed area on site plans and rehabilitation

1. Water Resources Protection

Protecting water resources from the potential impacts of aggregate extraction was addressed in the policies in the Council-adopted ROP, and was the subject of appeals. The Settlement endorsed by Regional Council on June 3, 2015 (Report: PDL-15-04) and subsequently approved by the OMB on June 18, 2015, deferred the policies until after the finalization of the source water protection plan under the Clean Water Act and the completion of the review of the ARA of which the Blueprint is an important step. The Settlement deferred resolution of the policies until the next comprehensive review of the ROP anticipated to occur in 2019.

Regional Water Services staff participated on the Water Technical Committee with which the Province consulted on impacts related to water resources with particular emphasis on municipal drinking water sources.
a) Enhanced Study Requirements for Water Impact Assessments

The Province is proposing a risk-based approach for study requirements for water impact assessments in which the level of risk associated with proposed activities will determine the scale of the required impact assessment. The water impact assessment will rely on the opinion of a qualified expert to identify the need for more detailed assessment, including the requirement for analysis of cumulative impacts.

Overall, Regional staff support the intent of these proposed changes although many details still need to be fleshed out. For example:

- risk thresholds/triggers for initiating enhanced study requirements for water impact assessments;
- criteria for determining what would be considered a low- or high-risk aggregate activity; and
- what constitutes a qualified expert.

In the absence of these details, it is impossible to assess whether the special provisions in the enhanced water impact study requirements will be sufficient to protect municipal drinking water sources.

The Blueprint also recommends that any changes to water impact assessments be consistent with current government approaches and policies. However, Regional staff is of the opinion that the existing legislation does not sufficiently address changes in aquifer vulnerability resulting from subsurface construction and/or aggregate extraction. Changes to the ARA or the Regulation or Provincial Standard should try to close this gap.

Staff support provisions that would allow the MNRF to require existing sites to submit studies and update site plans. Before this is implemented, however, there need to be mechanisms in place to ensure transparency and fairness by which licensees and permittees could make submissions opposing new requirements or proposing alternate approaches.

b) Aggregate Extraction within the Two-Year Time of Travel of a Municipal Well

The ROP policies related to source water protection and aggregate extraction were deferred when the OMB approved the ROP on June 18, 2015. These policies would have prohibited new aggregate extraction within the two-year time of travel of a municipal well, the distance it would take water to travel from a given location to the well. Instead of prohibiting extraction within this area as the ROP attempted to do, the Province is proposing enhanced water impact study requirements for these sites. Before the Region would be in a position to consider and comment further on this approach, specific details about the study requirements would have to be made public. This
information will be relevant when the ROP deferrals are considered beginning in 2019.

In addition to demonstrating that any potential risks of extraction within the two-year time of travel could be prevented or satisfactorily mitigated, Regional staff also strongly recommend that the water impact study demonstrate that any potential risks to the municipal water supply resulting from the rehabilitation and after-use of the site could similarly be prevented or mitigated, both while the licence is in effect and after it is surrendered. It is not clear at this time how this could be implemented as the ARA does not govern land use as the Planning Act does, which is the only tool that is currently available to the Region for managing land use activities after the licence is surrendered.

Waterloo Region’s heavy reliance on groundwater for our municipal water supply makes it imperative that areas where recharge occurs remain available for water supply with the greatest amount of intrinsic protection intact. Removal of aggregate reduces the depth from the rehabilitated ground surface to the water table, and this has the potential to increase the vulnerability to the municipal water supply to contamination.

Moreover, water impact studies for extraction on prime agricultural land should also evaluate post-rehabilitation suitability from a groundwater protection perspective. Here too, there would be a shorter distance for residual agricultural chemicals, fertilisers, and other nutrients to enter the water table.

c) Source Protection Plans

The Province has the new ability to establish conditions on both existing and proposed aggregate sites related to source water protection plans under the Clean Water Act. The Grand River Source Protection Plan has been submitted to the Minister for approval, and is expected to be in force and effect by July 1, 2016.

Local source water protection plans can require that aggregate instruments (e.g., both existing and future licences, permits, site plans) include requirements or conditions that are consistent with the policies in the plan, such as, for example, requirements for the storage and handling of fuel. It is also proposed that new regulations for fuel storage and handling would apply automatically to existing aggregate sites within vulnerable municipal drinking water protection areas.

While Regional staff strongly support this measure, the concern remains that the existing source water protection framework does not sufficiently address the Region’s concerns related to the increased risk to municipal water supply due to changes in vulnerability resulting from subsurface construction and/or aggregate extraction. It is recommended that changes to the regulations seek to close this gap, and Regional staff remain committed to consulting with the Province on the development of the detailed regulations.
2. Requirements for requests to lower extraction below the water table

One very short paragraph in the document addresses the matter of amending the site plan of an existing pit to extend the depth of extraction below the water table. This has been a very contentious matter in the approval of the ROP and remains at issue as 13 of the 14 deferrals relate to policies and chapter preambles addressing aggregate extraction as it might affect groundwater resources.

As it stands, a new aggregate operation may be licensed to allow extraction above (typically 1.5 metres above) the seasonally high water table, or to extend down into the water table. Either type of application is thoroughly reviewed by Regional Water Services staff, and comments are forwarded to the Area Municipality which grants the required zone change to permit extraction as well as to the MNRF, which then grants the licence to create the aggregate pit. Problems arise, however, when a previously-licensed above-water-table operation applies to extend extraction down into the water table. Under present policy, all that is required to extend the depth of extraction is a site plan amendment which is approved by the MNRF under the ARA. Such an amendment is typically circulated by the MNRF to affected municipalities, but municipalities have only a limited commenting role in the process and no right of appeal if they have strong objections to the extension.

Currently, the MNRF has the sole discretion to decide whether and to whom to circulate any proposed amendments to an aggregate license. The decision to circulate is determined by the significance of the proposed change and the potential for impacts on neighbouring properties. Anyone having a concern with a proposed change to an aggregate license must submit written comments to the MNRF within 30 days. Depending on the scope of the change, this period is often too short to accommodate a municipality’s internal review processes and council schedules. Consequently, many municipalities often struggle to review and comment on site plan changes within the designated timeframe. Even if the municipality does respond with the 30 day time period, the MNRF may refuse to address the municipality’s concerns in the licence amendment. In that case, neither the municipality nor an affected party has any rights of appeal under the ARA, or the Environmental Bill of Rights.

In drafting the “Source Water Protection” and “Managing Aggregate Resources” policies of the ROP, the Region sought to address this problem by increasing the level of municipal involvement whenever existing aggregate operators proposed to extend the depth of extraction down into the water table. This was to be achieved through policies in the ROP that required the Area Municipalities to regulate the depth of extraction in their Zoning By-law (i.e., commonly referred to as “vertical zoning”). These policies were intended to trigger a zone change application under the Planning Act whenever an aggregate operator proposed to extend the depth of extraction, instead of only a site plan amendment under the ARA. This zone change application would then enable the Region and the Area Municipalities to require such proposals to submit special studies.
to identify any potential groundwater impacts. The policies were appealed and subsequently deferred when the OMB approved the ROP earlier this year.

The Province is proposing to change its current policy so that existing sites, which are only approved to extract above the water table, would now be required to submit a new application under the ARA for approval to lower the depth of extraction below the water table. This change could potentially achieve the same objective as the Region’s “vertical zoning” approach, but without actually triggering a zone change application under the Planning Act.

If the Province proceeds to amend the ARA to incorporate this principle, it may or may not have implications for the ROP deferral noted above. On the one hand, a new application for the extension of existing pits into the water table would provide municipalities the right to require special studies, and if need be, appeal the approvals if they were considered to pose an unacceptable impact to groundwater resources. This could achieve the bare minimum of what the deferred ROP policies set out to do. It would also put enforcement of the amended site plan under the jurisdiction or MNRF rather than the municipality under the Planning Act.

While the Region of Waterloo has hydrogeologists on staff who could participate knowledgeably in the monitoring of below-water table pits, this would not be the case in smaller municipalities throughout the Province, and so a provincial role would be advantageous in such jurisdictions. On the other hand, the municipality would be dependent upon provincial aggregate inspectors and hydrogeologists to monitor the depth of extraction occurring on aggregate sites. As is well-known, the inspection of aggregate operations by Provincial inspectors typically occurs only once every four or five years or on a complaint-driven basis. This may not be sufficient to identify and address concerns about impacts to groundwater resources in a timely fashion.

While the Region receives this proposed change with interest, it would be premature at this time to state a definitive position in the absence of draft amendments to the ARA as well as the technical details that would have to be included in the Regulation and the Provincial Standards document. Such information will help inform future discussions about the resolution of this ROP deferral.

3. **Study Requirements for Applications on Agricultural Lands**

The extraction of aggregates on prime agricultural lands and in prime agricultural areas is a matter of concern to the rural community as well as to municipalities. The Provincial Policy Statement (PPS) permits the extraction of aggregate in prime agricultural areas as an interim use provided the site will be rehabilitated back to an agricultural condition. The PPS also permits consideration of extraction below the water table in these areas if there is a substantial quantity of aggregate below the water table and the depth of extraction makes rehabilitation to an agricultural condition infeasible. The ROP had
proposed to require Regional and Area Municipal Official Plan Amendments to permit aggregate extraction below the water table within the prime agricultural area because agricultural lands so extracted are thereby lost to agricultural production forever. Such lands then fall into another land use category and may result in environmental and social impacts to the locality. However, this policy was subsequently deleted as part of the negotiated settlement reached earlier this summer between the Region and the appellants of the new ROP.

The Blueprint is proposing that new agricultural impact studies be required for proposed extraction on prime (Class 1-3) agricultural lands or on lands within prime agricultural areas as defined by the PPS. The studies will establish the pre-extraction soil capability of the site, and provide guidance and objectives for rehabilitation. Given the public concern about the incremental loss of good agricultural lands, this provision is strongly supported.

Topsoil is a valuable resource that takes many years to develop under the influence of weather, vegetation, soil micro-fauna, and tillage practices. Storing stripped topsoil in berms for the decades around a pit may result in degradation of the structure and properties of the soil. It is therefore recommended that the Provincial Standard provide detailed up-to-date guidelines for the stripping, storage, re-application, and rehabilitation of topsoils to return them to productive agricultural use as soon as possible. Extraction of pits often results in depressions in the local topography. Typically, the side-slopes are required to be stabilised at a 3:1 slope. This can provide some challenge to the large agricultural equipment in use today. It is recommended that consideration be given to requiring more gradual side slopes to facilitate the return of the property to productive agricultural use.

4. Pit Rehabilitation and Maximum Disturbed Area on Site Plans

Rehabilitation is a significant concern to host communities who typically want to see operations cease, rehabilitation completed, and pits closed. The Province is proposing several policy changes to strengthen the requirements for progressive and final rehabilitation of aggregate sites. Currently, the ARA requires every operator to complete “progressive rehabilitation” and “final rehabilitation” of their site, and all licenses issued since 1990 must specify how the site will be used following rehabilitation. Progressive rehabilitation refers to the sequential rehabilitation of sub-areas within the pit once extraction is completed and as extraction continues elsewhere in the pit. Final rehabilitation occurs after the site is depleted of all aggregate material.

The requirement for progressive rehabilitation is intended to minimize the amount of disturbance and local impacts at any given time. It also advances the after-use of the site. Although there have been several examples of successful and timely site rehabilitation in Waterloo Region, rehabilitation rates here and elsewhere in Ontario are perceived to be unacceptably slow and lag behind the rate at which new areas are
opened for extraction. Some pits appear to operate continually with no closing date in sight. Several sites appear to be virtually mined out, yet there appear to be few, if any “triggers” to require final rehabilitation.

To help address this problem, it is proposed to update the Provincial Standard to establish a maximum disturbed area for all new sites in order to minimise site disturbance at any given time and compel timely rehabilitation. In general, this approach is supported as a means of preventing the persistence of extensively disturbed sites showing little evidence of rehabilitation. Nevertheless, a hard and fast requirement may be problematic in a couple of instances. For example, it is generally not practicable to rehabilitate below water table quarries until extraction is complete. Also, larger pits that produce various types and grades of sand and gravel may need to operate several pit-faces to produce materials for custom blends. Nevertheless, it is recommended that this approach be pursued in a manner sensitive to the particular circumstances of individual operations. The best approach may be more stringent compliance monitoring of rehabilitation of mined-out areas of a pit to alleviate many of the concerns of neighbouring property owners about vast expanses of exposed soils.

The Province is proposing to require aggregate applicants to establish performance indicators to monitor and report on the progress and success of rehabilitation. While Regional staff strongly support these proposed changes, we note that increased monitoring and reporting of rehabilitation activities will not of themselves “trigger” increased rehabilitation rates in Ontario.

It is recommended that the Province hold a broader discussion with municipalities, the aggregate industry and other stakeholders on how to increase the rehabilitation rates of aggregate sites in Ontario to the point where they roughly equal the rate of new site disturbance. In addition to the measures identified in the Blueprint, the Province could consider the need for security deposits, tighter timelines, and increased enforcement and fines for unnecessary delays in rehabilitation. The Province should also consider the need for improved documentation and reporting of surrendered licenses to municipalities and the public to better assess the success of rehabilitation to specified after-uses.

5. Other Proposed Policy Changes Supported by Staff

Regional staff strongly support the following proposed policy changes:

- Enhanced requirements for studying impacts related to the natural environment, water resources, cultural heritage, noise, traffic, and dust
- Enhanced summary statement requirements in plain language for all applications
- New timeframes, notification and consultation requirements
- Updated communication requirements for applications
• Provisions added to allow for peer review of technical studies in the future
• New ability to establish conditions on existing aggregate sites related to source water protection plans
• New reporting requirements for site rehabilitation and for accounting for recycled or blended materials
• New requirements for record-keeping on the importation of fill for rehabilitation
• Increased maximum fines for significant offences and provision for tickets for minor contraventions
• Enhanced provisions for compliance inspection and false reporting
• Aggregate licensing fees indexed to the Consumer Price Index

a) Enhancements to Requirements for Studies

The ARA was enacted in 1990, before the issuance of Provincial Policy Statements (PPS) dealing with natural heritage later in the decade of the 1990s. Municipal Official Plans adopted since the 1990s have had to reflect these natural heritage policies, and have required Environmental Impact Statements in support of zone change applications to permit aggregate operations. It is fitting that the provincial documents will be updated to address the natural heritage matters of the PPS as well as the Endangered Species Act of 2007. The inclusion of study requirements for cultural heritage resources, cultural heritage landscapes, and archaeological resources is welcome. It is suggested that consideration also be given to scenic roads as these could be adversely affected by heavy aggregate truck traffic.

To prevent duplication, it is recommended that there be direction to applicants to meet with provincial, municipal, and conservation authority approval agencies in order to consolidate terms of reference for the required studies.

At present, review agencies often consult to harmonise terms of reference for required studies. It is recommended that this be a general requirement in order to minimise consultant costs and prevent situations where applicants submit essentially different studies to different agencies. It remains to be discussed how a situation would be resolved where the MNRF and municipalities reviewed the same studies and disagreed about the implications of those studies for their jurisdictional mandates. It would be helpful to outline an approach to resolving such situations. The Blueprint mentions a potential future framework for peer reviews, a mechanism that has proved helpful in past disputes, but it need to be clarified how this could intersect with the local planning process.

b) Enhanced Summary Statement Requirements for all Applications

Summary statements are descriptive overviews of significant aspects of an aggregate proposal prepared by the applicant. The Blueprint proposes to enhance the
requirements for such documents, and lists some topics to be covered. It is recommended that the list also include brief summaries of the natural environment and water resources implications of the proposal as well.

c) Enhancing Public Participation

The zoning and licensing of a new aggregate operation often causes concern in the host community. Where concerns cannot be satisfactorily resolved, this can result in protracted and costly OMB hearings which in effect take the final decision out of the hands of local authorities. Reforms that improve the public process to foster meaningful participation by the local community are for that reason to be welcomed. The requirement for “plain language” in summary documents as well as in executive summaries of technical reports will assist interested community members. Also, the proposal to extend the review and comment period is welcome. Typically, community members are less well-versed in aggregate planning procedures and need time to become acquainted with terminology, operational considerations, and procedural matters in order to participate effectively.

The proposal to have different comment periods and notification distances based on the proposed annual tonnage of the pit is a concern. In reality, even relatively small operations can cause significant concerns to community members. There needs to be some flexibility in cases where the public express concerns that may require more time to discuss and seek a resolution. There is therefore strong support for the proposal to allow flexibility to extend the review timeframe where community or agency concerns need more time to be resolved. It is proposed to permit applicants to make such requests. It is recommended that this also apply to public agencies.

Digital communications have advanced significantly since the ARA was passed, and it is appropriate that the required updates reflect these changes. It is very desirable that supporting studies be made available in digital form to interested members of the public. Where applications generate controversy, it would be appropriate to have all studies of a non-confidential nature made available on a MNRF, municipal, or corporate website to help inform interested members of the public.

The approval of an aggregate operation is a fairly detailed and complex process. Members of the public often find the dual municipal and provincial approvals confusing. It will be important to have an outline of the existing Official Plan Amendment/zone change process under the Planning Act and updated licensing process under the ARA made readily available to the public.

d) Streamlining the Aggregate Approvals Process for Small Operations

The general approach to small temporary extractive operations on farms is acceptable. The Blueprint is proposing a “Permit by Rule” for small extractions for personal use on private lands. There should be provision to circulate such applications to municipalities.
to determine whether natural or cultural heritage features would be jeopardised by the operation.

e) Additional Information/Updated Site Plans for Existing Aggregate Sites

There are still a number of aggregate operations operating pursuant to licences granted under the former Pits and Quarries Act, 1971, licences renewed but often not substantively changed following approval of the Aggregate Resources Act in 1990. Such older operations often show less regard for natural heritage features and groundwater than more recently-licensed operations. It is therefore appropriate that it is proposed to allow the Ministry to request new or updated studies and establish new conditions on existing pits to recognise important legislation passed subsequent to the original approval such as the Clean Water Act and the Endangered Species Act. To prevent undue burdens on operations operating in compliance with their original approvals, it is essential that the Regulation set out clear criteria where such additional studies or conditions would be required. There would also need to be a “natural justice” appeal mechanism that would permit an operator to contest such orders if they were seen to be arbitrary or unnecessary, or if there were less costly means of achieving the same objective.

f) Promoting Aggregate Recycling and Re-use

Traditionally, aggregate operations produced virgin stone, sand, and gravel. In recent years, however, road upgrades, re-urbanisation, and infrastructure renewal has resulted in huge volumes of discarded aggregate products and spoil from excavation. Simply disposing of such materials is unacceptably costly in terms of financial costs, landfill space, foregone land use, and the energy embodied in discarded concrete, asphalt, and re-bar. It is thus very much in the public interest that such materials be recycled for further use, and that clean fill from excavations be used to refill exhausted aggregate operations and restore to some extent the topography of mined-out lands.

Recycling has implications for the operation of aggregate operations as well as for the host communities. It is therefore appropriate that it be addressed in the proposed revisions to the Act, Regulation, and Provincial Standard. Several items in the Discussion Paper touch upon recycled aggregate. While there is general support for recycling, some community groups express the concern that high rates of recycling will prolong the active life of a pit beyond what was contemplated when it was initially licensed. In addition, there is concern about the impact of large volumes of recycled materials on groundwater, pit maintenance, and traffic. Comments have been made to the effect that operations working primarily with recycled material are essentially industrial operations and should be located in appropriately zoned and designated areas rather than in the rural areas where most aggregate operations are located. Proposed changes will help the Ministry and local community have a better understanding of the nature, extent, and implications of aggregate recycling.
g) Standardizing Tonnage Conditions

Host communities experience the effects of aggregate operations beyond the operation of the pits themselves. Heavy trucks leaving the sites increase traffic, dust, noise, and wear and tear on roads. Being able to quantify such traffic impacts at the time of pit licensing helps local communities plan how to mitigate such effects. It is thus essential to ensure that maximum tonnages can be determined with some accuracy. It is proposed to clarify that tonnage is defined in the Act as “removed from site” rather than “removed from pit or quarry.” This will ensure that recycled and reprocessed aggregate materials exported from the site are counted as part of the tonnage. Nevertheless, as aggregate recycling and re-use is highly desirable from many perspectives and should not be hampered by disincentives, it is proposed that recycled content in pit output will not be subject to fees.

h) Compliance Assessment Reporting

In 1997, changes to the ARA shifted a number of responsibilities from the MNRF to the aggregate industry itself. One such change relates to compliance assessment reporting. Currently, all operators are required to conduct a self-compliance assessment to document how operations on their site comply with their approval conditions. The assessment must be completed annually and the standardized report form (called a Licensee’s Compliance Assessment Report) must be filed with the MNRF and municipalities. In practice, these reports are typically collected by the MNRF but are not systematically monitored or reviewed for errors or omissions.

The Province is proposing that the existing self-compliance assessment reporting requirements be scoped to improve relevancy, and that a more efficient “short form” report be developed for inactive or dormant sites (i.e., inactive for the entire period since last reporting) that could be used for every second reporting cycle.

It is also proposed that the frequency of self-compliance be changed from annual to biennial reporting (for Class A licences over 20,000 tonne per year limit) and every three years (for Class B licences 20,000 tonnes or less per year). Site operators would still have the option to voluntarily report on an annual basis.

While Regional staff support the need for greater efficiency, we are concerned that proposed changes may downgrade the current self-compliance assessment approach, which has been criticized the Environmental Commissioner of Ontario (ECO). According to the ECO reports, the current self-assessment approach of the aggregate industry has many shortcomings. In particular, the ECO has noted that some compliance reports submitted by producers have been late or lacked important information, such as the depth of extraction and rehabilitation information. In a few instances, reports have simply been photocopied from the previous year.
Regional staff’s concern for accurate reporting information may be alleviated somewhat by the Province’s proposal to strengthen the offence provisions in the ARA, to clarify that it is an offence to provide false information related to any reporting requirement. The enforcement of any such offences would ultimately depend on the availability of MNRF inspectors. Currently, the MNRF’s Guelph District office has only two full-time aggregate inspectors responsible for overseeing several hundred aggregate operations located in six different regions and counties. The inspector assigned to Waterloo Region is responsible for supervising about 250 pits and quarries in Brant County, Niagara Region and Waterloo Region.

One option to address these concerns may be to determine the compliance assessment reporting requirements for any given aggregate operation when the application is first approved. This approach could allow smaller, non-contentious aggregate operations to file a report every two years, whereas larger, more complex operations involving groundwater or natural heritage resources could be required to complete an assessment report annually. Alternately, operations that have been shown to have operated satisfactorily in all respects may be permitted to report biennially. Annual reporting should remain the rule for operations where deficiencies of any sort have been self-reported or reported by Ministry inspectors. Such operations should not revert to biennial reporting until two consecutive annual reports indicate that the operation is again fully compliant.

i) Indexing Aggregate License Fees to the Consumer Price Index

The ARA and its Regulation currently require aggregate operators to pay a licensing fee of 11.5¢ per tonne of aggregate removed from a site each year. This annual licensing fee is disbursed as follows:

- 52% or 6.0¢ per tonne to the local municipality
- 13% or 1.5¢ per tonne to the County or Regional municipality
- 4% or 0.5¢ per tonne to the Aggregate Resources Trust (to be used for abandoned site rehabilitation and research)
- Any portion of fee remaining is retained by the Provincial government.

Based on the amount of aggregates extracted in 2014, the aggregate licensing fees generated just over $105,000 for the Region and approximately $420,000 for the Area Municipalities. The Region uses its share of the licensing fees to help pay for the repair and maintenance of Regional roads.

The above licensing fees have been the same for many years and have not kept up with the rate of inflation. To help address this problem, the Province is proposing to index the current licensing fees to the Consumer Price Index. Regional staff strongly support increased assistance to help municipalities keep up with growing road maintenance costs. It is recommended that the fees be increased to more accurately reflect the full
cost of road upgrades and maintenance required for aggregate transportation, and that they be indexed thereafter to the Construction Price Index rather than the Consumer Price Index, as is the case with Development Charges. To provide some context, the average cost in 2014 for granular A and B (combined) in Regional construction contracts was $12 per tonne, supplied, placed and compacted. The total licensing fee of 11.5¢ per tonne, of which 7.5¢ goes to upper-tier and local municipalities combined, represents a minute proportion of the cost of aggregate.

j) Increasing Ministry Staff Resources to Administer the ARA

One issue that is not addressed in the Blueprint but which needs to be raised at this time is the ability of the MNRF to administer and enforce the policy changes proposed to ARA. While many of the proposed changes are very good ideas, they would require additional Ministry oversight and administration to ensure effective implementation.

Under the current framework, the Ministry’s aggregate staff are supposed to carry out routine site inspections such that each aggregate operation is inspected at least once within a five year period. As noted above, however, the former Environmental Commissioner of Ontario has shown that the MNRF has not always been able to meet field auditing targets because of staffing limitations.

Regional staff recognize that an aggregate inspector may visit a site more frequently once a compliance issue is identified. In many cases, however, such issues are only identified through complaints from the public. The most common aggregate infractions in Waterloo Region generally relate to: fencing deficiencies, insufficient dust suppression, improper storage of scrap materials and equipment, and inadequate erosion control. Usually, such matters are promptly addressed once the aggregate inspector has been notified.

As part of its final review of the ARA, we would encourage the Province to review and if necessary, increase the number of aggregate inspectors to ensure the MNRF has sufficient resources to administer the proposed changes to the ARA.

Area Municipal Consultation/Coordination

Staff has circulated the preliminary draft of this report to the Area Municipalities who requested a copy. The Township of North Dumfries will be submitting its own comments to the Province on the review of the ARA.

Corporate Strategic Plan:

Strengthening aggregate resources policy in Ontario will help Strategic Objectives 3.2 Protect the quality and quantity of our water resources, and 3.5 Preserve, protect and enhance green space, agricultural and environmentally sensitive lands.
Financial Implications:

Nil.

Other Department Consultations/Concurrence:

Water Services contributed significantly to the preparation of the sections on water resources.

Attachments:

Attachment 1 - Summary of Proposed Changes to the Aggregate Resources Act Policy Framework

Prepared By:  Chris Gosselin, Manager, Environmental Planning and Stewardship

John Lubczynski, Principal Planner

Approved By:  Rob Horne, Commissioner, Planning, Development and Legislative Services
Attachment 1

Summary of Proposed Changes to the Aggregate Resources Act Policy Framework

1.0 Proposed Changes for Establishing New Sites

1.1 Applications for Licences and Permits

1.1.1 Enhancements to Requirements for Studies and Information

- Enhanced requirements for studying impacts related to the natural environment, water, cultural heritage, noise, traffic and dust
- New study requirements for applications on agricultural lands
- Enhanced summary statement requirements for all applications
- Updates to site plan information requirements (e.g., establishing a maximum disturbed area) and prescribed conditions
- New requirements for applications proposing to extract aggregates from the bed of a lake or river
- New requirement for plain language summaries of project proposals and technical studies

1.1.2 Update to Notification, Consultation and Communication Requirements

- New timeframes, notification areas and consultation requirements
- New provisions regarding notification and consultation with Aboriginal communities
- Updated communication requirements for applications

1.2 Other Provisions Related to Applications

- New requirements for requests to lower extraction depth below the water table
- New application for small, temporary extraction operations on farms
- New requirements for proposals to extract stockpiles of Crown-owned aggregate
- New permitting requirements for removing stockpiles of aggregate
- New ability to waive application requirements in unique circumstances
- New ability to refuse to accept applications on Crown land
- Provisions added to allow for peer review requirements for technical studies in the future
- Create flexibility for grandfathering existing sites in newly designated areas

1.3 New Tools and Approaches for Low-Risk or Non-Commercial Activities
- Enable a new ‘permit by rule’ approach for low-risk activities, removing the requirement to apply for a permit or licence if certain conditions or rules set in regulation are followed
- Establish new rules and maximums for the extraction of aggregates from private land for personal use that will not require a licence
- New ability for ministry to add conditions and time limits to primary purpose exemption orders

2.0 Proposed Changes to the Management and Operation of Existing and Future Sites

2.1 Studies, Information, Site Plans and Conditions

- New provision allowing the ministry to require additional studies, information and updated site plans for existing aggregate sites
- New ability to establish conditions on existing aggregate sites related to source water protection plans

2.2 Standardizing Tonnage Conditions

- Standardize references and interpretation of tonnage limits across the policy framework, clarifying that the total tonnage limit includes both blended and recycled materials

2.3 Changes to Reporting and Record-Keeping Requirements

- New reporting requirements for site rehabilitation and for removal of recycled or blended materials
- Establish new requirements for record-keeping on the importation of fill for rehabilitation
- Clarify requirements for detailed record-keeping during operation
- Streamlining and changing the frequency of self-compliance reports

2.4 Site Plan and Condition Amendments

- Clarify requirements for requests for a site plan amendment or a change to a licence or permit condition, enhancing local involvement on significant changes
- Enable self-filing of amended site plans for minor changes in certain situations

2.5 Improved Enforcement and Administrative Provisions
- Remove minimum and increase maximum fines issued for offences under the Act
- Enhance and clarify provisions for compliance inspection and false reporting
- New and enhanced powers related to ‘no consent’ transfers and revocation in special circumstances
- Administrative changes to provide liability protection for ministry employees

3.0 Proposed Changes to Fees and Royalties

3.1 Current Fees and Royalties

3.2 Equalizing and Indexing Fees between Crown and Private Land

- Align annual fees for Crown land aggregate permits with those for private land licences
- New ability to disburse fees to recipients that have road responsibilities
- Index fees and royalties to the Consumer Price Index
- Changes to royalty charge on aggregate sites with a mining lease and easier to find administrative fees
- New ability to waive fees on private land sites

3.3 Provisions for the Future

- Create ability to make changes in the future that allow for broadening of the collection, disbursement and use of fees, and for programs to evaluate their effectiveness

4.0 Other Proposed Changes

4.1 Creating Greater Flexibility for the Future

- New powers to modify the Aggregate Resources Trust agreement and establish performance reporting requirements in the future
- Move specific requirements for application, amendments and reporting from the Act to the Regulations or Standards
- Consolidate all exemptions to the definition of “rock” into one location
- New ability to establish performance reporting requirements in the future
- New ability to establish certification and training programs in the future

4.2 ‘Housekeeping’ Amendments

- Housekeeping amendments to improve clarity and reflect current practices
Region of Waterloo
Transportation and Environmental Services
Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: December 8, 2015
File Code: T04-20, 7327
Subject: Consultant Selection – Erb Street Roundabouts at Waterloo Waste Management Centre, Gates 1 and 2 (Costco Entrances), City of Waterloo

Recommendation:

That the Regional Municipality of Waterloo enter into a Consulting Services Agreement with Stantec Consulting Ltd. to provide consulting engineering services for the detailed design, construction contract administration and inspection services associated with Erb Street Roundabouts at Waterloo Waste Management Centre Gates 1 and 2, in the City of Waterloo, at an upset fee limit of $90,000.00 plus applicable taxes to complete the detailed design, and with construction contract administration and inspection services to be paid on a time basis, at an estimated amount of $295,000 as outlined in report TES-DCS-15-28, dated December 8, 2015.

Summary:

In June 2015, Regional Council approved implementation of multi-lane roundabouts on Erb Street at the Waterloo Waste Management Centre (WMC) Gates 1 and 2, in the City of Waterloo, to provide access improvements necessary for development of the West Waterloo Commercial Centre lands on the north side of Erb Street. Please refer to the Key Plan in Appendix A. The primary tenant for this development is a Costco warehouse membership club and gas bar.

Construction of the two roundabouts on Erb Street is planned for 2016. Construction of the Ira Needles Blvd. widening from the Boardwalk’s north entrance to Chablis Drive and a new roundabout at Thorndale Drive is also planned for 2016.

As a condition of development approvals, the roundabouts on Erb Street at WMC Gates
1 and 2 are required to be constructed and operational prior to the opening of Costco to the public. Costco has identified a desire to open at the earliest possible date in 2016.

Construction of the roundabouts is expected to start in early spring of 2016. In order to meet the expedited 2016 construction timeline, an engineering consultant must be hired now to undertake this project.

In order to construct the roundabouts on Erb Street at the WMC Gates 1 and 2 in 2016 for the opening of Costco, the developer has already retained Stantec Consulting Ltd. to complete most of the detailed design. Stantec has the expertise and familiarity with the project details and requirements to complete the detailed design within this very tight project timeline. Region staff recommends that Stantec Consulting Ltd. be retained to complete the remaining detailed design work at an upset fee limit of $90,000.00 plus applicable taxes, with construction contract administration and inspection services to be paid on a time basis.

The estimated total cost for design and construction of the roundabouts is $5.0 million. The developer, Rice Group, and the Region have entered into a cost sharing agreement for the design and construction of the roundabouts. The Region’s cost is estimated at $3.6 million (approximately 72%) for the related Erb Street road improvements and the roundabout at the intersection of the WMC Gate 2 and the future City of Waterloo north-south collector road. The developer’s cost share is estimated at $1.4 million (approximately 28%) for the roundabout at their site access and WMC Gate 1. Stantec's fees will be cost-shared in the same proportions as the construction costs. Funding for the Region’s cost share is included in the 2015 and draft 2016 Ten Year Transportation Capital Program for design and construction of road improvements in the years 2015 to 2019.

Report:

1. Background

In June 2015 Regional Council approved implementation of multi-lane roundabouts on Erb Street at the Waterloo Waste Management Centre (WMC), Gates 1 and 2, in the City of Waterloo. Please see the Key Plan in Appendix A. The Erb Street roundabouts and related road improvements are required to provide access to the West Waterloo Commercial Centre lands on the north side of Erb Street opposite the WMC. The primary tenant for this north side development site is a Costco warehouse membership club and gas bar, with additional future uses on the site for retail, restaurants and services.

Construction of the two roundabouts on Erb Street is planned for 2016. Construction of the Ira Needles Blvd. widening from the Boardwalk’s north entrance to Chablis Drive and a new roundabout at Thorndale Drive is also planned for 2016.
As a condition of development approvals, the roundabouts on Erb Street at WMC Gates 1 and 2 are required to be constructed and operational prior to the opening of Costco to the public. In recognition of Costco’s desire to open at the earliest possible date in 2016, the developer will be undertaking on-site construction concurrently with the Region’s construction of the roundabouts on Erb Street. Construction of the roundabouts is expected to start in early spring of 2016.

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

As a condition of development approvals for the West Waterloo Commercial Centre, the developer, Rice Group, has entered into a cost sharing agreement with the Region for the design and construction of the Erb Street roundabouts. Construction of the roundabout at the development site entrance opposite WMC Gate 1 on Erb Street is to be fully funded by the developer as a need solely associated with a new access to the Costco development. Construction of the other related road improvements on Erb Street and the roundabout at the City’s north-south collector road opposite WMC Gate 2 is the responsibility of the Region with the north-south collector road opened as a public roadway by the City of Waterloo.

The estimated cost of the roundabouts at WMC Gates 1 and 2 and other related road improvements on Erb Street is $5.0 million of which the Region’s estimated cost share is $3.6 million (approximately 72%) and the developers estimated cost share is $1.4 million (approximately 28%). In accordance with the cost sharing agreement, Rice Group has provided the necessary securities for their share of the roundabout costs.

2. Consultant Selection

In order to construct the roundabouts on Erb Street at WMC Gates 1 and 2 in 2016 for the proposed opening of Costco, the Rice Group has already retained Stantec Consulting Ltd. to complete most of the detailed design. Region staff have been working closely with the Rice Group and Stantec to review the detailed design for approvals and implementation as quickly as possible once the development agreement with the Rice Group and the Region for cost sharing on the roundabouts was executed and securities provided. The cost sharing agreement between the Region and the Rice Group has now been completed and the Region of Waterloo wishes to proceed with completion of detailed design as quickly as possible to allow for starting construction in early 2016.

Stantec is familiar with the project details and requirements to complete the detailed design in accordance with the project schedule. Stantec was requested to submit a Fee Proposal to complete consulting engineering services for the detailed design,
construction contract administration and inspection services associated with the Erb Street Roundabouts at WMC Gates 1 and 2, in the City of Waterloo. Although there are other consulting firms with the ability to provide these services, staff has assessed that Stantec has the familiarity and expertise to provide this service more quickly and at a lower cost than other consulting firms who have no prior specific knowledge of the project. Stantec is very familiar with the services required by the Region due to their significant experience on this project, and successful completion of similar work for the Region in the past. Clause 21 (1) (g) of the Region’s Purchasing By-law allows for the purchase of services by negotiation where the extension of an existing or previous contract would prove more cost effective or beneficial for the Region. Region staff recommends that Stantec Consulting Ltd. be retained to undertake completion of the remaining detailed design at an upset fee limit of $90,000.00 plus applicable taxes, with construction contract administration and inspection services to be paid on a time basis.

3. **Scope of Work**

To date, approximately 90% of the detailed design has been completed by Stantec for the Rice Group. For this project assignment, the consultant shall complete the detailed design, including all studies, reports, investigations and approvals as necessary, prepare contract drawings, specifications and documents, and provide contract administration and inspection for construction of the Erb Street roundabouts and related road improvements.

4. **Schedule**

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

- Completion of Detailed Design and Approvals  
  December 2015 to May 2016
- Coordination of Utility Relocations  
  December 2015 to May 2016
- Construction (Estimated)  
  May 2016 to October 2016

5. **Consultant’s Upset Fee**

Stantec has submitted an upset fee limit of $90,000.00 (+HST) for completion of the detailed design consulting services as identified above. A breakdown of the proposed upset fee limit for completion of the detailed design for this assignment is shown in Appendix B of this report. Region staff have reviewed Stantec’s upset fee limit for completing the detailed design and find it to be fair and reasonable for the work required. The fee provided is within the expected range of fees for this type of assignment and is within the amount budgeted in the approved 2015 Transportation Capital Program.

An estimated fee for construction contract administration and inspection services was
also submitted for budgetary purposes. For road reconstruction and widening projects such as Erb Street Roundabouts, the fees required for construction contract administration and inspection services can vary significantly depending on the final design, weather conditions, unforeseen conditions during construction, contractor performance, and other unknown variables. Since an upset fee limit does not lend itself well to these types of services, it has been the Region’s practice to pay for construction contract administration and inspection services on a time basis. Stantec was required to submit estimated construction contract administration and inspection fees based on a fixed construction period. The estimated fee proposed by Stantec for construction contract administration and inspection services is $295,000.00 plus applicable taxes and this is within the amount budgeted in the 2015 and proposed 2016 Ten Year Transportation Capital Program for design and construction of road improvements.

6. Cost Sharing

To date, approximately 90% of the detailed design has been completed by Stantec on behalf of the Rice Group at an estimated cost of $220,000.00 (+HST). Including Stantec’s fees of $90,000.00 (+HST) for completion of the detailed design, the total detailed design fees are estimated at $310,000.00 (+HST).

In accordance with the agreement between the Region and the Rice Group, the total estimated engineering fees of $605,608.00 (+HST) for the detailed design ($310,000.00 +HST) and contract administration and inspection ($295,608.00 +HST) are to be cost shared between the Region and the Rice Group. The Region’s cost share of the engineering fees is estimated at $436,037.76 (+HST) (approximately 72%) for costs associated with the roundabout at WMC Gate 2 and related road improvements on Erb Street. The Rice Group’s cost share of the engineering fees is estimated at $169,570.24 (+HST) (approximately 28%) for costs associated with the roundabout at the development site entrance opposite WMC Gate 1 on Erb Street.

Corporate Strategic Plan:

The Erb Street Roundabouts at WMC Gates 1 and 2, when complete, will support: Focus Area 1 – Thriving Economy, in accordance with Strategic Objective 1.2, to plan for and provide the infrastructure and services necessary to create the foundation for economic success; and, Focus Area 2 – Sustainable Transportation, in accordance with Strategic Objectives 2.1, to create a public transportation network that is integrated, accessible, affordable and sustainable, and Strategic Objective 2.4, to optimize road capacity to safely manage traffic and congestion.

The Region’s consultant selection process supports Focus Area 5 – Responsive and Engaging Government Services in supporting Strategic Objective 5.4, by ensuring Regional programs and services are efficient, effective and provide value for money.
Financial Implications:

The Region’s 2015 Ten Year Transportation Capital Program includes a total of $6,580,000 for the Region’s share of costs for this project and the Environmental Assessment to widen Erb Street from Ira Needles Blvd. to Wilmot Line in the years 2015 to 2019 funded 100% from the Development Charge Reserve Funds. Additional funding of $1,715,000 will be required for construction of the works in 2016 and is included in the proposed 2016 Ten Year Transportation Capital Program. The upset fee limit proposed by Stantec Consulting Ltd. of $90,000.00 and estimated contract administration and inspection fees of $295,000.00 are within the amount allocated for this assignment as part of the total budget for this project. Funding for the Region’s cost share of the design fees is available in the 2015 Ten Year Transportation Capital Budget, with funding for the construction, contract administration and inspection included in the proposed 2016 Ten Year Transportation Capital Program for construction in 2016.

Other Department Consultations/Concurrence:

Nil

Attachments

Appendix A: Project Key Plan
Appendix B: Breakdown of Consultant’s Upset Fee Estimate
Appendix C: West Waterloo Road Improvements

Prepared By: William Gilbert, Senior Project Manager, Design and Construction
Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix A

Key Plan - Erb Street Roundabouts at WMC Gates 1 and 2
Appendix B

Breakdown of Upset Fee Limit

Erb Street Roundabout Improvements at Waterloo Waste Management Centre
Gates 1 and 2

City of Waterloo

Upset Fee for Completion of Detailed Design and Related Services based on Fee Proposal by Stantec dated October 20, 2015

1. Detailed Design and Approvals $ 73,000.00
2. Project Management $ 5,000.00
3. Preparation of Drawings, Contract Documents and Specifications $ 12,000.00

Total Upset Fee Limit (excluding HST) $ 90,000.00
Region of Waterloo
Transportation and Environmental Services
Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: December 8, 2015 File Code: 07282
Subject: Recommended Intersection Improvements at Ira Needles Boulevard and Westhill Drive, City of Waterloo

Recommendation:
That the Regional Municipality of Waterloo approve the implementation of a raised centre median thereby restricting traffic movements to right-in, right-out only from Westhill Drive onto Ira Needles Boulevard (Regional Road #70) in the City of Waterloo as described in Report No. TES-DCS-15-33, dated December 8, 2015.

Summary:
Widening of Ira Needles Boulevard from the north Boardwalk Development entrance to Chablis Drive and the construction of a new roundabout at Thorndale Drive are scheduled for 2016. It is recommended that a centre median be installed at Westhill Drive as part of this widening project. The centre median will restrict movements at Westhill Drive and the Westhill Meadows Golf Course to right-in/right-out only and will eliminate the potential for left-turn collisions at this intersection.

Construction of two roundabout on Erb Street at the Waterloo Waste Management Centre Gates 1 and 2 (Costco Entrances) is also planned for 2016.

Report:

1. Background

As directed by Regional Council, the Region is proceeding with the widening of Ira Needles Boulevard from the Boardwalk’s northerly entrance to Chablis Drive in the City of Waterloo. The widening will include the intersection at Westhill Drive.
turns are permitted into and exiting from Westhill Drive and into and exiting the Westhill Meadows Golf Course access located opposite Westhill Drive. Westhill Drive is a cul-de-sac with an access to a retirement living facility and three (3) residences. Currently, motorists on Westhill Drive and Westhill Meadows Golf Course users are turning left in and out by crossing a two lane section of Ira Needles Boulevard. Over the past 5 years there has been 1 collision at this intersection.

2. **Left Turn Prohibition**

Staff predict that collisions at this intersection will increase in the future if it were to remain open to left turn movements after widening to four lanes and with increased traffic volumes. It is expected that 10 or more collisions can be avoided over a five year period by prohibiting left turns at Westhill Drive. Left turns can be prohibited by constructing a centre median across Westhill Drive.

Regional staff recognize that the implementation of a centre median will cause inconvenience to the residents on Westhill Drive and the Westhill Meadows Golf Course, however the roundabouts at Erb St. and Thorndale Drive (to be constructed in 2016) will facilitate access to Westhill Drive. As illustrated in Appendix A, traffic leaving Westhill Drive wishing to go south on Ira Needles Boulevard would turn right onto Ira Needles Boulevard at Westhill Drive and then proceed with a u-turn at the roundabout on Erb Street and then south on Ira Needles Boulevard (Movement 1). Traffic coming from the north on Ira Needles Boulevard wishing to go to Westhill Drive can make a u-turn at the Thorndale Drive roundabout and right onto Westhill Drive (Movement 2). Similar movements for the access to and from the Westhill Meadows Golf Course are illustrated in Movements 3 and 4. It is estimated that these movements increase the travel times for left turn vehicles by approximately 1 minute on average.

Staff have concluded that the convenience of providing left turns into Westhill Drive and the Westhill Meadows Golf Course is far outweighed by the safety benefits in collision reductions that the centre median would provide. Regional staff is recommending that a centre median be constructed to restrict the Westhill Drive intersection with Ira Needles Boulevard to right-in, right-out only traffic movements.

Emergency services will be accommodated with a drop curb and flexible bollards at the Westhill Drive entrance to ensure quick access (see Appendix B attached).

Widening of Ira Needles Boulevard and the construction of a new roundabout at Ira Needles Boulevard and Thorndale Drive is scheduled for 2016. Staff recommends that the centre median at Westhill Drive be constructed as part of the 2016 Widening Contract. Construction of two roundabout on Erb Street at the Waterloo Waste Management Centre Gates 1 and 2 (Costco Entrances) is also planned for 2016.
3. Public and Agency Consultation

Prior to presenting the recommended option for this project, staff sought public input on the left turn prohibition at Westhill Drive. Letters were hand delivered to business owners/residents within the immediate vicinity of the intersection on November 2, 2015. The City of Waterloo and Emergency Services were also contacted to comment on the proposed median design.

4. Public and Agency Response

The City of Waterloo supports the design of the median. Paramedic Services and the Fire Department also have no concerns with the median design. Westhill Meadows Golf Course and the owners of Westhill Retirement Living responded and recognized and acknowledged the safety benefits of the median. There were also concerns expressed from Westhill Retirement Living about the inconvenience of eliminating the left turn access that would result from longer travel times.

Property owners and residents of Westhill Drive and the Westhill Meadows Golf Course have been notified that this recommendation is being presented to Planning and Works Committee on December 8th, 2015.

Corporate Strategic Plan

This project supports Focus Area 2 – Sustainable Transportation and specifically 2.4 Optimize road capacity to safely manage traffic and congestion.

Financial Implications:

The Region’s 2015 Ten Year Transportation Capital Program includes a total budget of $5.72 million for the widening of Ira Needles Boulevard from the north entrance of the Boardwalk to Chablis Drive in 2016 to be funded from the Regional Development Charges Reserve Fund. The current funding for the widening of Ira Needles Boulevard is sufficient to cover the estimated cost for the centre median across Westhill Drive.

Other Department Consultations/Concurrence:

Nil.

Attachments

Appendix A – Access Plan Movements

Appendix B – Raised Centre Median with Flexible Bollards

Prepared By: Marcos Kroker, Head, Transportation Expansion, Design and Construction

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix A - Access Plan Movements

Appendix A cont. - Access Plan Movements
Appendix B – Raised Centre Median with Flexible Bollards

MEDIAN
EMERGENCY ACCESS

PLAN VIEW

SIDE VIEW

Region of Waterloo
Transportation and Environmental Services
Waste Management

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

Date: December 8, 2015  File Code: E20-40

Subject: Woolwich Waste Transfer Station Update

Recommendation: For direction.

Summary:
All four (4) rural waste transfer stations are scheduled to permanently close at the end of 2015. The Township of Woolwich, in a letter dated November 24th and attached as Appendix A, have respectfully requested that the Region continue operations at the Woolwich transfer station until the end of May 2016 to allow the Township to complete a process to explore potential private sector operating alternatives. The cost for the Region to continue the existing every other Saturday operation of the Woolwich transfer station to May 31, 2016 is estimated to be in the range of $45,000 to $50,000 (net of revenue). Currently there is no funding to maintain site operations as part of the 2016 base budget nor has there been any indication of any funding available from the Township, although it is our understanding that Township Council has given the Mayor support to discuss partial cost sharing options should it be raised by Regional Council.

At this time, Region staff continue to recommend the full closure of the four (4) rural transfer stations as per previous Council direction. However, further Regional Council direction is required with respect to extending site operations at the Woolwich transfer station until May 31, 2016 as per the request of the Township of Woolwich.

Report:

Background

The rural transfer stations have been operating for over 25 years and since the introduction of enhanced curbside collection in 2009 as well as implementation of a
minimum fee in 2013, less usage of the sites has been observed while curbside collection has increased. The majority of users of the sites are residential and repeat customers with a significant portion of the material handled in 2015 being yard waste. With respect to cost/revenue implications, the transfer stations operate on a 20% to 30% cost recovery basis. The sites continue to operate on an every other Saturday schedule with the final day of operation scheduled for December 12th for the North Dumfries and Woolwich sites and December 19th for the Wellesley and Wilmot sites in accordance with Regional Council direction provided as part of the 2015 budget process. Accordingly, the pending closure of the sites has been communicated to users through various forms of communication including the Region’s website, handouts to users of the transfer stations and signs displayed at the respective sites.

At the September 15, 2015 Planning & Works Committee meeting, Regional Council reconfirmed their previous approval to close all four (4) rural waste transfer stations at the end of 2015 and that Regional Council would review and consider operating alternatives brought forward by any of the Townships including private sector operations or continued Region operation funded by the Townships.

As presented in Appendix A and discussed below, the Township of Woolwich is looking at a potential private sector operating alternative and has requested that the Region continue operation of the Woolwich transfer station to the end of May 2016. At this time, no other alternatives have been identified by any of the other Townships.

**Township of Woolwich Request/Process**

The Township of Woolwich has respectfully requested that the Woolwich waste transfer station remain operational until the end of May 2016 to allow them to explore potential private sector opportunities for the Woolwich Transfer Station. The Township has also indicated that their request for extension of site operations is warranted as the Region’s process to review potential private sector alternatives took considerable time and that the Township should have time to complete their process.

The exploration of private sector opportunities is being directed and undertaken by Township staff with Regional staff providing input/assistance as necessary. Township and Region staff have been actively and collaboratively working since the end of September on this project. The overall process consists of three (3) stages as follows:

Stage 1: obtain additional information from potential prospective private operators to further inform what a private sector waste transfer operation may look like (currently nearing completion);

Stage 2: provision of Stage 1 information as part of public consultation in early 2016 with Township residents to receive feedback/identify level of support regarding required changes to the nature of the operation;
Stage 3: use the information gathered in Stages 1 and 2 to go through a formal Request for Proposal (RFP) process to determine if an acceptable longer term private sector operation is determined feasible.

At the conclusion of the Township process, it is Region staffs’ understanding that the Township would then be in a position to either approve a private sector operating alternative (assuming it also meets Regional Council approval) or abandon the process altogether.

The 2016 base budget does not currently account for continuation of operations of any of the rural transfer stations. It is estimated that an increase in the Waste Management Division base budget in the range of $45,000 to $50,000 would be required to continue site operations to the end of May 2016 to accommodate the request of the Township of Woolwich. In addition, communication to users of the site of any extension of site operations would be necessary.

It should also be noted that if a private sector opportunity does appear feasible, time would be required to complete any necessary property and waste permit transactions before a private operator would be in a position to commence operations at the site. This is based on the assumption that:

- the transfer station property would be transferred back to the Township in accordance with the existing property deed and subject to specific terms/conditions of such a property transfer;
- the Township would in turn complete a transfer/sale of the property to the successful private operator chosen from the RFP process;
- the Region would assist and allow the existing MOECC operating permit to be transferred to the successful private operator. The private operator would then be required to amend the operating permit accordingly to meet their operating requirements. This process is dictated by the MOECC but could be done in parallel with the property transaction process above.

Based on the above and the assumption that the Township RFP process is successful, a private sector alternative would not be expected to be operational for at least another one to two years at a minimum.

**Corporate Strategic Plan:**

This report has been prepared consistent with 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 2016 Waste Management Division operating budget does not currently provide for the continued operation of the four (4) rural waste transfer stations beyond the end of December, 2015 and also reflects the equivalent of a reduction of 1.5 FTEs in the Waste Management Division budget due to the full closure of the four sites. The estimated cost (net of revenue) to maintain operation of the Woolwich transfer station to the end of May 2016 is estimated to be in the range of $45,000 to $50,000 and would primarily be accommodated through staff overtime. At this time, it is also our understanding that the Township of Woolwich is not in a position to fully fund continued operation of the site but the Mayor has Township Council support to discuss partial cost sharing options should it be raised by Regional Council.

In addition, there is currently no capital budget provision for any of the rural transfer stations in the Waste Management Division budget. The need to undertake any significant capital upgrades in the near term are not anticipated, however, should site operations extend beyond the five (5) month extension requested by the Township, capital budget provisions would be necessary.

Financial implications associated with a potential transfer of the Woolwich transfer station site to the Township of Woolwich are not known at this time and would be subject to further negotiations/discussions.

Other Department Consultations/Concurrence:

Staff from the Corporate Services and Planning, Development and Legislative Services Departments were consulted and provided input toward the preparation of this report.

Attachments:

Appendix A – Township of Woolwich Letter (November 24th, 2015)

Prepared By: Jon Arsenault, Director, Waste Management Division

Approved By: Thomas Schmidt, Commissioner, Transportation & Environmental Services
November 24th, 2015

Chair Ken Seiling
Region of Waterloo
150 Frederick St.
Kitchener, Ontario

Dear Chair Seiling and Members of Regional Council:

The Council of the Township of Woolwich would like to respectfully request that the Region of Waterloo continue the operation of the Transfer Station in Elmira until May 31, 2016.

Woolwich Council makes this request because Township staff have been actively working with Region of Waterloo waste management staff, through stages of a Request for Proposal process that will hopefully result in a successful private sector proposal being put forward for consideration by both Councils.

Stage One is almost complete and saw Township staff, with the support of Region staff, develop a series of questions that were sent out to private sector operators to clarify the parameters and conditions that will be necessary to successfully operate a private waste transfer station.

In Stage Two, the Township will summarize the information with assistance from Region staff, and present it to Township residents at a Public Meeting in January of 2016. This is an important stage so that Council can receive feedback from residents with respect to whether they would support a private sector operation that would potentially be very different to the existing operation.

In Stage Three, the Township would use the information gathered in the first two stages to go through a formal RFP process. As noted above, the hope would be that the Township would be able accept a solid proposal that would be given appropriate consideration by both Councils.

As you can appreciate the above process will take considerable time to complete. I'm sure Regional Council will recall the process Region staff went through earlier this year took approximately six months. As such, this is why Council is requesting that the Region keep the Elmira Transfer Station open until the end of May of 2016.

Thanks for your ongoing support and consideration of the above request.

Regards,

[Signature]

Mayor Sandy Shantz
On behalf of Woolwich Township Council

Cc: Members of Woolwich Township Council
   David Brenneman, CAO, Woolwich Township
   Mike Murray, CAO, Region of Waterloo
   Jon Arsenault, Director of Waste Management, Region of Waterloo

"Proudly remembering our past: Confidently embracing our future."
Region of Waterloo
Transportation and Environmental Services
Water Services

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

Date: December 8, 2015   File Code: E07-40

Subject: 2016 Rain Barrel Distribution

Recommendation:

That the Region of Waterloo distributes subsidized rain barrels to residents at a cost of $40 each during spring of 2016, as detailed in Report TES-WAS-15-38.1 dated December 8, 2015.

Summary:

A recent survey indicated that 87 per cent of residents believe the Region of Waterloo should resume its one-day rain barrel distribution events. Rainwater harvesting is one of several water conservation programs approved in the Water Efficiency Master Plan, 2015 – 2025.

In addition to promoting water conservation, the rain barrel distribution days bring thousands of people together in support of environmental sustainability. If reinstated, the events will provide an opportunity to raise awareness and support for other environmental programs.

It is recommended that a reduced quantity of rain barrels be sold through locations in Cambridge, Kitchener and Waterloo on one day in May, 2016, at the subsidized cost of $40 each.

Five Water Efficiency Advisory Committee (WEAC) members reviewed, discussed and endorsed the 2016 rain barrel proposal (report TES-WAS-15-38) at a meeting held December 2, 2015.
Report:

Water Services successfully distributed 46,000 200-litre rain barrels in Waterloo Region from 2001 to 2012. Estimated water savings from these barrels total 55,000 cubic metres ($m^3$) per year. The water saved is enough to supply the needs of 250 average households.

In addition to water savings, rain barrel distributions benefit the community by:

- Increasing public awareness about the importance of water conservation;
- Encouraging and supporting participation in the Water Conservation By-Law;
- Promoting a conservation ethic that leads to other water saving practices;
- Helping to slow storm water flows to sewer during rainfall events.

Rainwater harvesting is one of several water conservation programs approved in the Water Efficiency Master Plan, 2015 – 2025. Other Council-endorsed outdoor water conservation measures include the Water Conservation By-Law, efficient landscaping seminars and other marketing initiatives. The overall master plan goal is to achieve a cumulative water savings of 1,370 million litres per year by 2025, and specifically to reduce per capita residential water consumption from 202 to 165 litres per day.

The rain barrel distribution was discontinued following slower than usual sales in 2012. A total of 3,000 barrels were available for purchase by Regional residents at a cost of $40 each during a one-day sale held at Cambridge Centre, Fairview, and Conestoga Malls. By 3:00 p.m., approximately 75 barrels were left. These barrels were later distributed from the Regional Operations Centre.

Possible reasons for slower sales include:

- The subsidized sale price was raised from $30 to $40 per unit in 2011;
- Many households already have rain barrels.

Proposed Rain Barrel Sale in 2016

Water Services continues to receive requests from the public wishing to acquire rain barrels. In fact, a telephone survey of over 700 residents conducted this fall revealed that 87 per cent of locals want the Region sales to resume. With retail prices for common 200-litre barrels ranging from $90 to $150, a $40 cost for equivalent Region barrels remains appealing.

In addition to promoting water conservation over the longer term, the rain barrel distribution days bring thousands of people together in support of environmental sustainability. If reinstated, the events will provide an opportunity to raise awareness and support for other environmental programs.

Staff recommends a distribution of 2,400, 200-litre barrels during one day in April or May of 2016, at a subsidized cost of $40 each. The reduction in units from 3,000 to
2,400 should ensure all the barrels are sold within one day. With Council approval to proceed, distribution locations in Cambridge, Kitchener and Waterloo will be confirmed.

**Water Efficiency Advisory Committee Endorsement**

Five Water Efficiency Advisory Committee (WEAC) members reviewed, discussed and endorsed the 2016 rain barrel proposal (report TES-WAS-15-38) at a meeting held December 2, 2015. Members agreed that it would be beneficial to use the proposed distribution event to promote other water-related initiatives, including the benefit of rain barrels controlling storm water flowing to storm sewers. WEAC members also encouraged staff to use the event to help promote municipal drinking water. It was agreed that the Water Wagon trailer would be set up to dispense drinking water at one of the rain barrel distribution locations.

With only five voting members of WEAC present, the committee was one person short of quorum. However, all members present spoke in favour of the recommendation to proceed with a distribution of 2,400 200-litre rain barrels, as detailed in this report. Staff will report back to WEAC on the outcome of the 2016 distribution and make recommendations on whether to proceed with a distribution in 2017.

**Corporate Strategic Plan:**

Delivery of Water Efficiency programs support strategic objective 3.2, to “Protect the quality and quantity of our water resources.”

**Financial Implications:**

The costs to purchase, deliver, promote and sell 2,400 rain barrels will not exceed $136,000. Barrels sold at $40 each will generate revenue of $96,000, for an estimated net program cost of $40,000. The proposed 2016 Water Capital Budget for the Outdoor Water Use Program (Project 4943) is $180,000, and will cover costs to implement the Water Conservation By-Law, rain barrel distribution and landscaping promotion.

Water Efficiency capital projects are 100 per cent financed through Regional Development Charges.

**Other Department Consultations/Concurrence:**

Nil

**Attachments**

Nil

**Prepared By:** Steve Gombos, Manager, Water Efficiency, Water Services

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
Region of Waterloo
Transportation & Environmental Services
Water Services

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

Date: December 8, 2015  File Code: E30-01(A)

Subject: Protecting Water From Winter Salt: “Curb the Salt” Campaign

Recommendation:
For information

Summary:
Winter salt (made of sodium and chloride) is impacting most of the Region’s drinking water sources. In fact, sodium and chloride concentrations in most drinking water wells are increasing. Roads and parking lots – public and private - are major sources of salt from winter maintenance. Most residents (92%) say protecting sources of drinking water is their top environmental priority but many are unaware that salt is a pollutant.

The “Curb the Salt” campaign, first launched in 2014, highlights the impact of salt on our drinking water sources and empowers residents with practical solutions to improve winter safety with less salt. For the 2015/2016 winter season, the Region will promote the Curb the Salt campaign on the radio, buses, bus shelters, local papers, and publications as well as online. The “Curb the Salt” campaign is one component of a multi-pronged approach to protect our drinking water sources from chloride.

The Region’s leadership in adopting improved winter de-icing practices can inspire others, including area municipalities, to take action and help protect our drinking water sources.
Winter salt is impacting most of the Region’s drinking water sources
Sodium and chloride concentrations in Waterloo Region’s drinking water wells are increasing. Attachment A illustrates the locations and relative chloride levels in the Region’s water supply wells. Sodium in some drinking water supplies across the Region are above the provincial standard of 20 mg/L. This triggers notices to doctors so patients on salt restricted diets can consider sodium in drinking water. Although chloride is not a health concern, high concentrations of both sodium and chloride can cause the water to taste salty. The only way to remove sodium and chloride from water is treatment with reverse osmosis, which is very expensive.

The primary source of increasing sodium and chloride concentrations is winter salt. Although salt is critical for winter safety, it impacts our water. When snow melts or when it rains, the salt dissolves and washes into our waterways or travels underground.

Increasing sodium and chloride concentrations are Drinking Water Issues for several wells in the Source Protection Plan (SPP). The SPP will require development of Risk Management Plans for hundreds of parking lots and all roads within wellhead protection areas where there is a Drinking Water Issue. The Region and area municipalities are major appliers of salt on roads, sidewalks and municipally owned parking lots. While roads are a significant contributor, application on private parking lots is also a significant contributor especially in areas of high parking lot density.

92 per cent of residents say protecting sources of drinking water is their top environmental priority but many are unaware that salt is a pollutant

Nearly all residents surveyed (92%) believe protecting drinking water sources should be the top environmental priority for the region according to the Community Priorities and Satisfaction Research prepared for the Region of Waterloo.

However, many residents do not realize salt and “environmentally–friendly” de-icers can impact local water sources. In addition, many residents are unaware of the actions they can take to help protect our drinking water sources and reduce salt use on their own property and within the community.

“Curb the Salt” campaign identifies practical solutions for all to protect our water from salt impacts

The “Curb the Salt” campaign, first launched in 2014, highlights the impact of salt on our drinking water sources and empowers residents with practical solutions to improve winter safety. The campaign acknowledges the Region’s efforts to reduce salt use on roads and our own properties. However, salt is also used extensively on private parking lots, sidewalks and driveways, so the “Curb the Salt” message encourages everyone to do their part.
For the 2015/2016 winter season, the Region will promote the Curb the Salt campaign on the radio, buses, bus shelters, local papers and publications as well as online. All materials will direct residents to the program website located at [www.curbthesalt.com](http://www.curbthesalt.com), for additional resources, including a quiz to test salt knowledge. The following key messages rotate throughout the winter season depending on weather conditions and audience:

- Shovel sooner rather than later
- Use salt alternatives
- Use salt wisely
- Prevent ice
- Wear winter boots
- Put snow tires on your car.

Attachment B includes samples and placement of the promotional materials for the campaign.

**The “Curb the Salt” campaign is one component of a multi-pronged approach to protect our drinking water sources from chloride**

For over fifteen years, Water Services staff have been working collaboratively with other Regional departments, area municipalities, local businesses and residents to develop approaches to reduce salt use and maintain safety. The following list identifies the Region’s other approaches:

- **Improving our own operations**
  - On roads, Transportation Operations, in conjunction with area municipalities, have developed practice standards, adopted new technologies and trained drivers to improve salt management practices.
  - On properties, Facilities Management hires Smart About Salt Certified Contractors, and Region staff complete Smart About Salt training.

- **Requiring higher salt management standards for roads and parking lots**
  - The Region is required to negotiate Risk Management Plans with public and private property owners using salt for de-icing in wellhead protection areas where there is a drinking water issue.
  - Risk Management Plans, required under the Grand River Source Protection Plan, will include salt management standards and reporting requirements.

- **Influencing design of urban infrastructure for winter water management**
  - Region staff collaborate with Kitchener and Waterloo stormwater utilities to ensure stormwater credit projects minimize impact on water sources.
  - Region staff provide recommendations on new development to reduce salt impacts on water supply wells.
• **Encouraging better salt management practices**
  - Helping businesses implement salt management plans:
    - Offering grants through the Source Protection Plan
    - Providing resources and educational materials
    - Sponsoring local Smart About Salt training workshops
  - Empowering residents:
    - Promoting the “Curb the Salt” campaign as outlined in Report TES-WAS-15-39 dated December 8, 2015
    - Offering education to school children through classroom visits and the Waterloo Wellington Children’s Groundwater Festival.

The Region’s leadership in adopting improved winter de-icing practices can inspire others to take action. The Region is promoting better salt management because of its water supply responsibilities. Region staff will forward this report to area municipalities to highlight the Region’s priorities and commitments and to encourage the adoption of similar approaches for their winter maintenance operations to help protect drinking water sources.

**Corporate Strategic Plan:**

Promotion of the “Curb the Salt” campaign relates to the Strategic Objective 3.2 “Protect the quality and quantity of our water resources.”

**Financial Implications:**

The proposed 2016 Water Capital Budget includes $505,000 for Source Protection Planning and Programs of which $131,300 is funded from Regional Development Charges and $373,700 from Water Reserves. This includes an allocation of $150,000 for the 2015/2016 Curb the Salt campaign.

**Other Department Consultations/Concurrence:**

Internal collaborations are on-going between staff from Corporate Services, Planning, Development and Legislative Services, and Public Health and Emergency Services.

**Attachments**

Attachment A: 2015 Waterloo Region drinking water well chloride concentrations map
Attachment B: Curb the Salt campaign – examples of promotions materials and placement

**Prepared By:** Leanne Lobe, Supervisor, Source Water Protection Programs
Colleen Brown, Coordinator Communications (Source Water)

**Approved By:** Thomas Schmidt, Commissioner, Transportation & Environmental Services
Water quality at Region of Waterloo well sites

2014 to 2015 chloride concentrations (mg/L) for production wells:
- < 25
- 25 - 50
- 50 - 100
- 100 - 200
- 200 - 400
- > 400

*The Ontario Drinking Water Objective for chloride is 250 mg/L. A salty taste is detectable at this level.*
### Summary highlighting 2015/2016 Curb The Salt advertising schedule

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Format</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-15</td>
<td>Mar-16</td>
<td>digital screen</td>
<td>City of Waterloo display terminals</td>
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<tr>
<td>Dec-15</td>
<td>Feb-16</td>
<td>print ad</td>
<td>City activity &amp; leisure guides</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Mar-16</td>
<td>transit shelter</td>
<td>GRT Transit Shelters</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Feb-16</td>
<td>print ad</td>
<td>KPL In Touch magazine</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Mar-15</td>
<td>online banner</td>
<td>The Weather Network</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Feb-16</td>
<td>print ad</td>
<td>SNAP Kitchener Waterloo</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Feb-16</td>
<td>print ad</td>
<td>Community newspapers</td>
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<tr>
<td>Dec-15</td>
<td>Feb-16</td>
<td>online banner</td>
<td>Fairway Group websites</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Mar-16</td>
<td>bus</td>
<td>GRT bus - exterior (back &amp; side)</td>
</tr>
<tr>
<td>Dec-15</td>
<td>Feb-16</td>
<td>radio</td>
<td>radio</td>
</tr>
</tbody>
</table>
Sample Print Advertisements (2)

![Curb the Salt Ad 1](image1)

- **Curb the Salt**
  - Salt impacts our water. We all have a role to play.
  - Wear winter boots.
  - Wear a pair of winter boots with good tread to keep you safe and warm. We can't always expect bare pavement.
  - [www.curbthesalt.ca](http://www.curbthesalt.ca)

![Curb the Salt Ad 2](image2)

- **Curb the Salt**
  - Salt impacts our water.
  - Shovel sooner than later.
  - Clear the white stuff as soon as you can so a snowy sidewalk doesn't become an icy one. Instead of salt, let the sun do the melting for you.
  - [www.curbthesalt.ca](http://www.curbthesalt.ca)
Ad for bus exterior (back)

One of three ads for bus shelters
Region of Waterloo

Transportation and Environmental Services

Water Services

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

Date: December 8, 2015

File Code: E06-05

Subject: Rural Water Quality Program: Five-Year Extension to the End of 2020

---

Recommendation:

That the Regional Municipality of Waterloo approve extension of the Rural Water Quality Program for a further five years to the end of 2020 and allocate $1.25 million for incentives to farmers as outlined in report TES-WAS-15-40, dated December 8, 2015.

Summary:

The Rural Water Quality Program has protected local water quality for over fifteen years by providing grants for improving farming practices. The Region’s $4.5 million in grants was enhanced by the $10.5 million investment from farmers. The Rural Water Quality Program operates in parallel to the Source Protection Incentive Program to ensure continued protection of all water sources with an emphasis on drinking water sources. Staff recommends allocating $250,000 annually to fund this program for a further five years to the end of 2020.

---

Report:

**Rural Water Quality Program has protected water quality for over 15 years**

Through the Rural Water Quality Program (RWQP), developed by the Region in 1998, approximately 1500 projects have been implemented to protect local water quality, including groundwater, rivers, and streams. The RWQP has been and continues to be an important component of the Region’s approach to source water protection and Grand River watershed management.
The RWQP is a voluntary program that provides grants to eligible farmers to share the cost of approved projects. Projects include decommissioning or upgrading wells to prevent contamination, improving manure storage to prevent spills, and fencing to restrict livestock access to streams to improve water quality. The Grand River Conservation Authority delivers the program, works directly with farmers and distributes the grants.

**Region’s financial investment more than doubled by farmers’ investment**

Since 1998, approximately $16 million dollars has been invested in Waterloo Region to improve and protect surface water and groundwater quality. Regional Council has provided approximately $4.5 million, while external funding sources account for approximately $1.5 million. However, the greatest portion of the cost has been incurred by grant recipients (local farmers) who have contributed over $10.5 million towards these projects.

Over 1300 projects have been completed (Attachment A) since 1998. These projects have resulted in 46 kilometres of treed stream buffers planted, 53 kilometres of streams fenced, 613 acres of land retired from production and an estimated 425,052 kilograms of phosphorous annually retained on the land. The details of the current incentive program are included in Attachment B.

Staff recommends extending the program for a further five years allocating $250,000 annually for 2016 to 2020 inclusive, for a total commitment of $1.25 million.

**Rural Water Quality Program would operate in parallel to the Source Protection Incentive Program**

To continue to protect the quality of our drinking water sources, Region staff recommends extending the RWQP funding to run the program in parallel with the new Source Protection Incentive Program (SPIP). The Grand River Source Protection Plan (SPP) contains policies that will require the Region to implement incentive programs to manage significant threats. Regional Council approved the new SPIP’s guiding principles (report TES-WAS-15-25 dated October 6, 2015). After July 1, 2016, the anticipated implementation date for all SPP programs, including the SPIP, Region staff recommends the RWQP and SPIP operate in parallel.

The RWQP is a voluntary program available to farmers within the Region; whereas the SPIP is targeted and funding will only be available to those engaged in a “significant” activity in priority wellhead protection areas. Although these two programs have different scopes and mandates, they both protect local water sources. Property owners eligible for SPIP funding would not be eligible for RWQP funding.

SPIP program details and budget will be presented to Regional Council for consideration prior to the SPP implementation date.
Corporate Strategic Plan:

Implementation of the Rural Water Quality Program relates to the Strategic Objective 3.2, to “Protect the quality and the quantity of our drinking water resources.”

Financial Implications:

The proposed 2016 Wastewater Capital Budget includes $1,250,000 to cover the costs of incentives for the program of which $328,750 is funded from Regional Development Charges and $921,250 is funded from Water Reserves. This report recommends extension of the RWQP to 2020. Further extension beyond 2020 would occur through subsequent department reports.

Other Department Consultations/Concurrence:

Public Health distributes brochures and ensures awareness of the program in the townships.

Attachments:

Attachment A: List of projects and number completed
Attachment B: RWQP promo brochure with list of grant rates

Prepared By: Leanne Lobe, Supervisor, Source Water Protection Programs

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
### Number of Projects Completed in Waterloo Region: 1998 - 2014

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Projects Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Water Diversion</td>
<td>111</td>
</tr>
<tr>
<td>Cover Crops</td>
<td>6</td>
</tr>
<tr>
<td>Dead Stock</td>
<td>3</td>
</tr>
<tr>
<td>Erosion Control</td>
<td>31</td>
</tr>
<tr>
<td>Fencing</td>
<td>119</td>
</tr>
<tr>
<td>Fragile Land Retirement</td>
<td>359</td>
</tr>
<tr>
<td>Fuel Storage</td>
<td>31</td>
</tr>
<tr>
<td>Innovative</td>
<td>6</td>
</tr>
<tr>
<td>Manure Storage</td>
<td>180</td>
</tr>
<tr>
<td>Milk Waste</td>
<td>47</td>
</tr>
<tr>
<td>Natural Area Restoration</td>
<td>1</td>
</tr>
<tr>
<td>Nutrient Management Plan</td>
<td>186</td>
</tr>
<tr>
<td>Tillage</td>
<td>8</td>
</tr>
<tr>
<td>Well Plugging</td>
<td>142</td>
</tr>
<tr>
<td>Well Upgrades</td>
<td>85</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1315</strong></td>
</tr>
</tbody>
</table>

\(^1\) New project category in 2014
Eligible projects

Financial assistance may be available to qualified landowners in the Region of Waterloo to share the cost of selected best management practices that improve and protect ground and surface water quality. An Environmental Farm Plan is required.

<table>
<thead>
<tr>
<th>Project</th>
<th>Grant rate</th>
<th>Maximum grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure Storage</td>
<td>60%</td>
<td>$25,000</td>
</tr>
<tr>
<td>Clean Water Direction</td>
<td>60%</td>
<td>$6,000</td>
</tr>
<tr>
<td>Livestock Access Restriction</td>
<td>75%-100%</td>
<td>$10,000</td>
</tr>
<tr>
<td>Fuel Storage/Handling</td>
<td>60%</td>
<td>$4,000</td>
</tr>
<tr>
<td>Fertilizer and/or Chemical Handling and Storage</td>
<td>60%</td>
<td>$2,820</td>
</tr>
<tr>
<td>Erosion Control Structures (grassed waterways, water &amp; sediment control basins, stream bank stabilization)</td>
<td>75%</td>
<td>$10,000</td>
</tr>
<tr>
<td>Machinery Crossing Improvements</td>
<td>60%</td>
<td>$6,000</td>
</tr>
<tr>
<td>Tree Planting – stream buffers, fragile land elements, field windbreaks</td>
<td>75%</td>
<td>$7,820</td>
</tr>
<tr>
<td>Cover Crops</td>
<td>11A</td>
<td>11A</td>
</tr>
<tr>
<td>Wellhead Protection</td>
<td>75%</td>
<td>$2,000</td>
</tr>
<tr>
<td>Wellhead Abandonment</td>
<td>100%</td>
<td>$2,500</td>
</tr>
<tr>
<td>Dead Stock Composting</td>
<td>50%</td>
<td>$4,000</td>
</tr>
<tr>
<td>Milkhouse Waste</td>
<td>60%</td>
<td>$6,000</td>
</tr>
<tr>
<td>Measure Storage Decommissioning</td>
<td>60%</td>
<td>$3,000</td>
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<tr>
<td>Tile Drain Control Structures</td>
<td>75%</td>
<td>$7,820</td>
</tr>
<tr>
<td>Living Snow Fences</td>
<td>75%</td>
<td>$7,820</td>
</tr>
<tr>
<td>Natural Area Restoration and Creation</td>
<td>75%</td>
<td>$7,820</td>
</tr>
<tr>
<td>Nutrient Management Plans</td>
<td>60%</td>
<td>$2,000</td>
</tr>
</tbody>
</table>

Performance Incentives

- $5,000 per year for 3 years Advanced Practices
- $10,000 per year, maximum 20 acres

Rural Water Quality Program grant rates may be adjusted if combined with other funding programs for a total grant of 80%-100%.

How to apply

Contact the Rural Water Quality Program staff at the Grand River Conservation Authority at (519) 521-2781 or ruralwater@grandriver.ca. They will help you plan your project and complete your application.

A committee will evaluate your project on its potential to improve and protect water quality.

Upon approval by the committee, you can proceed with the project. You will receive payment for the project after completion and inspection by staff.
Region of Waterloo
Transportation and Environmental Services
Water Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: December 8, 2015  File Code: E06-05
Subject: Clean Water Act Source Protection Plan – Impacts on Planning and Building Permit Applications

Recommendation:

For Information

Summary:

It is anticipated that the Grand River Source Protection Plan (SPP), the development of which is a requirement under the Clean Water Act, will come into effect on July 1, 2016. After that date, all planning and building permit applications within drinking water source areas will require screening by Region staff to determine if the application is impacted by the policies in the SPP. If policies apply, the applicant may be prohibited from undertaking certain activities or may have to negotiate a Risk Management Plan with the Region’s Risk Management Official before a planning application can be submitted and/or a building permit issued. The Risk Management Plan will require measures to be implemented to reduce the risk to drinking water sources.

Although the SPP is not yet in effect, planning and building permit applications that are being prepared but will not have all planning approvals and/or building permits issued by the effective date may become subject to the SPP policies as of July 1, 2016.

To inform the planning and building industry as well as the general public on the implications of the new SPP policies on planning and building permit applications, staff has created as information sheet to be distributed through Regional and local planning and building departments.
Report:

Planning and Building Permit Applications Affected By Source Protection Plan After July 1, 2016

The Grand River Source Protection Plan (SPP), the development of which is a requirement under the Clean Water Act, was submitted to the province for final approval in June 2015 (TES-WAS-15-12). Staff anticipate approval of the SPP by the end of 2015 with an effective date of July 1, 2016. After the effective date, the Clean Water Act requires all planning and building permit applications in vulnerable source water areas be screened by Region staff to determine if SPP policies apply. This screening will be completed prior to submission of an application under the Planning Act or Condominium Act (including applications for site plan approval) or the issuance of a building permit.

Risk Management or Prohibition Policies May Apply to Planning or Building Permit Applications

There are three possible outcomes from the screening. The application may not be affected by policies in the SPP; policies in the SPP may prohibit some activities (e.g. storage of fuel); or policies in the SPP may require a Risk Management Plan (RMP) to be negotiated to manage the activity. If the screening indicates an RMP or Prohibition policy applies to the application, the applicant will need to contact the Region for further discussion and documentation prior to submitting their planning and/or building permit application.

If a RMP is required, it will be negotiated with the Region of Waterloo’s Risk Management Official to ensure activities on the property are conducted in a way that is protective of drinking water. If a Prohibition policy applies, the planning application will not be accepted nor will a building permit be issued unless it complies with the SPP. Complying with the SPP may only require minor modifications such as moving the location of activities, or reducing the volume of specific chemicals stored on the site to allow the application to proceed.

Based on a review of applications filed in recent years, staff anticipate most applications will be unaffected by the SPP and approximately five to ten applications per year will require modifications to meet RMP and Prohibition policies.

Current Planning and Building Permit Applications May Be Impacted

Although the policies in the SPP are not yet in effect, some current planning or building permit applications may be impacted if all required approvals are not in place by July 1, 2016. In order to inform the planning and building industry as well as the general public in advance of the effective date, staff have developed the attached information sheet.
The information sheet, which has been prepared with the input of local municipal planning staff, will be distributed via Regional and local planning and building departments.

**Full Source Protection Communication Plan in 2016**

Staff are in the process of designing a full communication plan to explain the impact of all policies in the Source Protection Plan on existing and new activities. To avoid unexpected delays in planning and building permit applications filed after the effective date, staff have developed this information sheet in advance of the communication program.

**Corporate Strategic Plan:**

Implementation of the Source Water Protection Plan relates to the Strategic Objective 3.2 “Protect the quality and quantity of our water resources.”

**Financial Implications:**

The proposed 2016 Water Capital Budget contains a total of $2,850,000 for Clean Water Act Implementation between 2016 and 2025 which includes funding of the Risk Management Office and related communication. Of this, $741,000 is funded from regional development charges and $2,109,000 is funded from water reserves.

**Other Department Consultations/Concurrence:**

Planning, Development and Legislative Services was consulted on this report and in the development of the attached information sheet.

**Attachments**

**Attachment A:** Source Protection and New Development Information Sheet

**Prepared By:** Amy Domaratzki, Senior Hydrogeologist / Risk Management Official

**Approved By:** Thomas Schmidt, Commissioner of Transportation and Environmental Services
Source Protection – Planning and Building Permit Approvals

What is the Source Protection Plan?

The Ontario government passed the Clean Water Act in 2006 to help protect drinking water at the source as part of its multi-barrier strategy to safeguard human health and the environment. The Clean Water Act established a process for developing local, watershed-based Source Protection Plans (SPP). The SPP is intended to protect municipal wells and surface water intakes from specific activities that could pose a threat to our drinking water.

The potential threats that are addressed in SPPs include:

- Application and/or storage of de-icing salt on paved, concrete, and gravel surfaces.
- Storage of fuel, organic solvents, and other chemicals.
- Handling or storage of waste including hazardous waste, PCBs, liquid industrial waste, etc. Note: this does not include household or office waste that is regularly picked up for disposal elsewhere.
- Sewage works including stormwater management facilities, municipal sewage works, and private septic systems.
- Application and/or storage of manure, fertilizer, and pesticides.
- Storage of snow collected from an off-site location.

For more information on the Clean Water Act and the Source Protection Plan, visit www.sourcewater.ca

Policies in the Grand River’s Source Protection Plan apply in Waterloo Region and may impact planning and building permit applications in vulnerable areas beginning July 1, 2016. These policies can apply to applications regardless of the current zoning on the site. Read on for more information about how the new policies may affect your project.
New tools to protect drinking water sources

The SPP outlines traditional and new tools to manage threats to our drinking water. The traditional tools include incentive programs, provincial approvals (under the Nutrient Management Act and Environmental Protection Act, for instance), and education and outreach. The new tools are outlined in Sections 57 and 58 of Part IV of the Clean Water Act:

Section 57: Prohibition

Prohibition is used for activities that pose an unacceptable level of risk in the immediate vicinity of drinking water supplies. If a proposed activity is prohibited by the Source Protection Plan, the applicant must not engage in that activity at the specific locations identified in the SPP.

Section 58: Risk Management Plans

Risk Management Plans are intended to manage proposed drinking water threats through best management practices. They are legally binding agreements negotiated between the applicant and Region of Waterloo’s Risk Management Official to regulate how an activity is managed on a specific property.

Risk Management Plans allow activities that are drinking water threats to continue to occur if the relevant measures agreed upon in the Risk Management Plan are followed.

Note that the policies of the SPP apply to the activities proposed to occur on a property regardless of the property’s existing zoning under a municipality’s zoning by-law. For example, a proposed chemical storage facility may be subject to the requirements of the SPP, even though the property is currently zoned to permit such a facility on the property.
How will the SPP apply to Planning and Building Permit Applications?

After the Effective Date of July 1, 2016
After the effective date of July 1, 2016, all planning and building permit applications (including site plan applications) in a vulnerable source protection area will require screening for potential drinking water threats and associated SPP policies. This initial screening will be completed online by the applicant who will answer questions about proposed activities. If the activities do not trigger a Prohibition or Risk Management Plan policy in the SPP, no further action will be required.

If you are proposing to undertake an activity that needs a Risk Management Plan, you will need to negotiate the details of the plan with the Region’s Risk Management Official (contact information provided below) before your planning application will be accepted or your building permit issued.

If you are proposing to undertake an activity that is Prohibited in the SPP, your planning application will not be accepted and your building permit will not be issued. You may be able to change your application so that it complies with the SPP. Complying with the SPP may only require minor modifications such as moving the location of activities, reducing the volume of certain chemicals stored, or using an alternate chemical. If these details are modified, the Prohibition may no longer apply and your application can proceed.

Between now and July 1, 2016
If your project will have planning or building permit applications filed but not approved before July 1, 2016, you are encouraged to determine how the new process may affect your approvals after July 1, 2016. To assist you in determining if the new policies could apply to you, mapping is available at:

www.regionofwaterloo.ca/en/aboutTheEnvironment/Protection2.asp

Please check this mapping if you will require any building or planning approval before July 1, 2016. If your site falls within the area outlined at the above site and you are proposing any potential significant threats as listed on page 1, please contact the Region’s Risk Management Official for more information.

Want to Learn More?
As the implementation date nears the Region of Waterloo will be launching its SPP screening website and hosting voluntary training workshops. If you would like to be added to our mailing list to be informed when the website is live or if you have any other questions, please contact the Region’s Risk Management Official:

Amy Domaratzki
Risk Management Official
Region of Waterloo
519-575-4829
riskmanagementofficial@regionofwaterloo.ca
Region of Waterloo
Transportation and Environmental Services
Water Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: December 8, 2015
File Code: E06-04/4125/PRJMGMT
Subject: Groundwater Monitoring Program 2016-2020 Consultant Selection

Recommendation:

That the Regional Municipality of Waterloo:

a) Enter into a Consulting Services Agreement with R.J. Burnside & Associates Limited to provide consulting geoscience services for the Region of Waterloo Groundwater Monitoring Program for the period January 1, 2016 to June 30, 2018 (Phase 1) at an upset limit of $842,800 plus applicable taxes; as presented in this report; and

b) Authorize staff to renew this contract for the period from January 1, 2018 through June 30, 2020 (Phase 2) at an upset limit of $912,831 plus applicable taxes, subject to acceptable performance of the consultant in meeting project outcomes and deliverables.

Summary:

The Region performs water level and water quality monitoring in specific monitoring wells to ensure sustainable long term water supply for existing and future supply sources and to meet monitoring and reporting requirements for the Region’s water-taking permits. Monitoring is conducted at over 500 monitoring wells and surface water features and Region staff has hired consultants to complete this work since the early 1990s. The scope of this assignment involves collection and assessment of groundwater level data, water quality data, geoscience database management, monitoring well inspections, public communication and reporting.
The Region carried out a public procurement process, Request for Consultant Services C2015-18, to procure professional consulting services for the Groundwater Monitoring Program 2016-2019. Fourteen consultant proposals were received, one was disqualified, and the other thirteen were evaluated. The evaluation committee found that the submission by R.J. Burnside & Associates Limited of Guelph, Ontario provided the best overall value to the Region. It is recommended that the Region award the consulting contract C2015-18 to R.J. Burnside & Associates Limited at a cost of $842,800 for the period January 1, 2016 to June 30, 2018 (Phase 1) and authorize Region staff to renew the contract for the period from January 1, 2018 through June 30, 2020 (Phase 2) at a cost of $912,831.

Report:

Background

The Groundwater Monitoring Program is an integral component of the Water Resources Protection Strategy (WRPS), implemented by the Region in 1994. Ongoing monitoring of pumping rates, water levels and water quality is fundamental to groundwater resource management.

The program objectives include:

1. Assess potential impact of pumping on groundwater, surface water and other private users;
2. Complete required water level monitoring in accordance with conditions of Permits to Take Water (PTTW) for municipal supply wells;
3. Track trends and changes in source water quality that may impact current or future municipal supply;
4. Evaluate seasonal groundwater response to changes in climate or droughts;
5. Inspect and maintain monitoring well equipment and infrastructure.

A comprehensive water level monitoring program was initiated as part of the implementation of the WRPS in 1994. The program has grown considerably since inception and in 2016 consists of measurement of water levels at 593 monitoring wells, water quality sampling of 186 wells at least twice annually and surface water monitoring at 32 sites. The program includes monitoring a core group of monitoring wells to address specific conditions in the PTTW for each well field and additional monitoring wells to assess the sustainability of pumping to existing and future sources and provide increased understanding of the regional aquifers. Samples collected are analyzed at the Region’s own accredited water quality laboratory. Due to the scope of this program, the Region has hired consultants to perform these activities since the early 1990’s.
An important component of this program is intensive water level and water quality monitoring for the Wilmot Centre Well Field in Wilmot Township. The monitoring evaluates potential impacts on groundwater and surface water as a result of short term testing at increased pumping rates at this well field over the next 35 years during the implementation of the Water Supply Master Plan for the communities of Baden and New Hamburg. In this area, stream flow measurements are collected in the Hunsburger Creek Subwatershed and Baden area of Wilmot Township and an annual report is prepared.

**Consultant Selection**

A two-stage Request for Consulting Services for the Groundwater Monitoring Program 2016-2019 was advertised in the Kitchener-Waterloo Record and on the Region’s website on August 7, 2015. Fourteen consultants responded to the Region’s request for a Letter of Interest; one was disqualified, and the other thirteen were evaluated in the first stage. Four consultants were short-listed based on weighted quality and equity factors to submit Detailed Work Plans, schedules and upset cost estimates in stage two. Region staff re-evaluated scores based on the stage two submissions from these firms:

- Golder Associates Ltd.;
- Matrix Solutions Inc.;
- WSP Canada Inc.;

The individuals on the Project Team involved in the consultant selection were:

- Karl Belan, Project Hydrogeologist, Water Services;
- Tammy Middleton, Senior Hydrogeologist, Water Services;
- Richard Wootton, Senior Hydrogeologist, Water Services.

The evaluation criteria used for selecting the successful consultant was consistent with the Region’s Purchasing By-law and consultant selection policies. The evaluation criteria and their respective weightings were:

1. **Quality Factors (80%)**
   - Project Understanding and Approach 25%
   - Project Manager 20%
   - Project Support Staff 20%
   - Firm’s Experience on Similar Projects 15%
2. **Equity Factors (5%)**  
   Current Regional Workload 3%  
   Local Office 2%  
3. **Price Factor (15%)**  
   15%  

**Total** 100%  

After reviewing the Detailed Work Plans, schedules, and upset budget, R.J. Burnside & Associates Limited had the highest overall score. R.J. Burnside & Associates Limited provided the lowest bid price, and they received the highest total combined score based on all factors.

Based on this evaluation, the consultant selection team recommends that R.J. Burnside & Associates Limited undertake this assignment at an upset cost of $1,755,865 plus applicable taxes.

**Program Scope**

The scope of this assignment involves collection and assessment of groundwater level and water quality data, geosciences database management, electronic data logger and monitoring well inspections, public consultation and reporting. A list of project deliverables to be completed by the consultant and their frequency is presented in Attachment A. Consistent with previous consultant selection for this project, the services to be provided span four (4) years. Expansion of the program due to new hydrogeologic assessments and/or expanded conditions on PTTWs has been accounted for within the proposed budget.

Subject to Council’s approval, the consultant’s assignment will be split into two phases to provide the option to the Region to complete another consultant selection process in the event of unacceptable performance during the first phase of the project. A consulting services agreement would be developed for the first two and a half year period and extended over the second period subject to acceptable performance of the consultant in meeting project outcomes and deliverables. Attachment B contains a summary of the tasks to be completed during Phase 1 and Phase 2 and the total cost for these tasks.

**Corporate Strategic Plan:**

The Groundwater Monitoring Program helps implement the objective of the Region’s 2015-2018 Strategic Plan to protect the quality and quantity of our drinking water resources as outlined in Focus Area 3: Environment and Sustainable Growth.
Financial Implications:

The Region’s proposed 2016 Water Capital Program includes a total budget of $7,002,000 for the Source Protection Assessment (Project #04125) for 2016 through 2020 to be financed from the Water Reserve Fund (74%; $5,321,500) and Regional Development Charges (26%; $1,680,500). Of this amount $1,800,000 is allocated for the groundwater monitoring program. The cost of the work is $44,369 (approximately 3%) under budget. This variance is attributable primarily to competitive bidding. Remaining funds in the Source Protection Assessment project will be spent on well specific hydrogeologic assessments such as the G5 salt investigation.

Other Department Consultations/Concurrence:

Procurement Services staff were consulted regarding the financial implications of this project and participated in the consultant selection process.

Attachments

Attachment A: List of Reports and Deliverables Prepared By Consultant
Attachment B: Breakdown of Consultant Costs by Task

Prepared By: Karl Belan, Project Hydrogeologist, Hydrogeology and Source Water

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
# Attachment A

## Regional Groundwater Monitoring Program

### List of Reports and Deliverables Prepared By Consultant

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Description of Deliverables</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Maintenance</td>
<td>Update of the Well Inspection Database</td>
<td>Annually</td>
</tr>
<tr>
<td>Equipment Needs and Maintenance</td>
<td>Information update of the datalogging and sampling equipment details within wells.</td>
<td>Annually</td>
</tr>
<tr>
<td>Monitoring Well Inventory</td>
<td>Search for and inspect test wells and monitoring wells within 500 m of Municipal Supply Wells to ascertain current condition.</td>
<td>2016 and 2018</td>
</tr>
<tr>
<td>Groundwater Level Data</td>
<td>a) Groundwater Monitoring Reports as required by Permits to Take Water.</td>
<td>2018 and 2020</td>
</tr>
<tr>
<td></td>
<td>b) Updated water level information to Region staff.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>c) Seasonal Recharge and Drought Monitoring Reports.</td>
<td>3 times annually</td>
</tr>
<tr>
<td></td>
<td>d) Summary of program for the Region’s website.</td>
<td>Annually</td>
</tr>
<tr>
<td>Geochemical Water Quality</td>
<td>a) Interim Data Reports</td>
<td>Twice annually</td>
</tr>
<tr>
<td></td>
<td>b) Geochemical Water Quality Reports</td>
<td>Biennial</td>
</tr>
<tr>
<td></td>
<td>c) Summary of program for the Region's website.</td>
<td>Annually</td>
</tr>
<tr>
<td>Wilmot Centre Monitoring Program</td>
<td>a) Wilmot Centre Monitoring report.</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>b) Presentation to Wilmot Centre Monitoring Program Public Liaison Committee.</td>
<td>As Required</td>
</tr>
<tr>
<td></td>
<td>c) Trigger Level Assessment Report(s) as required.</td>
<td>As Required</td>
</tr>
<tr>
<td>Data Processing and Management</td>
<td>a) Water level database synchronization</td>
<td>4 times annually</td>
</tr>
<tr>
<td></td>
<td>b) Water quality database synchronization</td>
<td>Annually</td>
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</table>
## Regional Groundwater Monitoring Program

### Breakdown of Consultant Costs by Task

<table>
<thead>
<tr>
<th>Groundwater Monitoring Program Tasks</th>
<th>Program Costs Phase 1</th>
<th>Program Costs Phase 2</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>Well Maintenance at Monitoring Sites</td>
<td>$ 8,228</td>
<td>$ 18,228</td>
<td>$ 36,456</td>
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<td>Equipment Needs and Maintenance</td>
<td>$ 24,430</td>
<td>$ 23,170</td>
<td>$ 47,600</td>
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<tr>
<td>Monitoring Well Inventory</td>
<td>$ 24,195</td>
<td>$ 10,325</td>
<td>$ 34,520</td>
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<tr>
<td>Groundwater Level Data Collection and Reporting</td>
<td>$ 287,481</td>
<td>$373,626</td>
<td>$ 661,107</td>
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<tr>
<td>Geochemical Water Quality Data Collection and Reporting</td>
<td>$ 250,466</td>
<td>$277,551</td>
<td>$ 528,017</td>
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<td>Wilmot Centre Monitoring Program</td>
<td>$ 92,552</td>
<td>$ 74,168</td>
<td>$ 166,720</td>
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<tr>
<td>Data Processing and Geoscience Database Management</td>
<td>$ 97,338</td>
<td>$ 97,275</td>
<td>$ 194,613</td>
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<td>Project Management</td>
<td>$ 37,650</td>
<td>$ 30,120</td>
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<td>Meetings</td>
<td>$ 10,460</td>
<td>$ 8,368</td>
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<td><strong>TOTAL:</strong></td>
<td><strong>$842,800</strong></td>
<td><strong>$912,831</strong></td>
<td><strong>$1,755,631</strong></td>
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<td>Meeting date</td>
<td>Requestor</td>
<td>Request</td>
<td>Assigned Department</td>
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<tr>
<td>Planning and Works Committee</td>
<td>Council Enquiries and Requests for Information</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>