MEDIA RELEASE: Friday, November 4, 2011, 4:30 p.m.

# REGIONAL MUNICIPALITY OF WATERLOO
# PLANNING AND WORKS COMMITTEE
# AGENDA

Note Time Change →

Tuesday, November 8, 2011
**12:30 P.M.**
Regional Council Chamber
150 Frederick Street, Kitchener, Ontario

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**1. MOTION TO RECONVENE OPEN SESSION**

**2. DECLARATIONS OF PECUNIARY INTEREST UNDER THE MUNICIPAL CONFLICT OF INTEREST ACT**

**3. DELEGATIONS**

a) Brooke Ashfield, on behalf of Knox Church, Waterloo Re: E-11-106, Recommended Uptown Waterloo Light Rail Transit Route Alignment and Stations

**4. REPORTS – TRANSPORTATION AND ENVIRONMENTAL SERVICES**

**RAPID TRANSIT**

a) E-11-106, Recommended Uptown Waterloo Light Rail Transit Route Alignment and Stations *(staff presentation)* 1

**TRANSPORTATION**

b) E-11-083, Reserved Cycling lanes, Waterloo Street (Regional Road 1) Between Steinman Street and Queen Mary Street, Township of Wilmot 33

**WATER**

c) E-11-038, C2011-20 Region of Waterloo Groundwater Monitoring Program Consultant Selection 2012-2016 35

d) E-11-102, Approaches to Policies in the Source Protection Plan *(staff presentation) [Deferred from September 27, 2011]* 41

e) E-11-103.1, 2012 Rain Barrel Distribution 61

f) Approaches to Policy Development in the Source Protection Plan - Public Information Package 64

g) Kitchener Waste Water Treatment Plant - Phase 3 Upgrades Municipal Class Environmental Assessment – Public Information Package 77

**REPORTS – PLANNING, HOUSING AND COMMUNITY SERVICES**

**COMMUNITY PLANNING**



**TRANSPORTATION PLANNING**



**5. INFORMATION/CORRESPONDENCE**



**6. OTHER BUSINESS**



**7. NEXT MEETING –** December 6, 2011

**8. ADJOURN**

| MEETINGS | | | |
|---|---|---|---|
| **Date** | **Time** | **Description** | **Location** |
| **Planning and Works Committee** | | | |
| December 6, 2011 | 1:00 P.M. | Planning and Works Committee | Council Chamber<br>2nd Floor, Regional Administration Building<br>150 Frederick Street<br>Kitchener, Ontario |
| January 10, 2012 | 9:00 A.M. | Planning and Works Committee | Council Chamber<br>2nd Floor, Regional Administration Building<br>150 Frederick Street<br>Kitchener, Ontario |
| **Planning, Housing and Community Services** | | | |
| November 8, 2011 | 6:00 P.M. – 9:00 P.M. | Active Transportation Master Plan (Walk Cycle Waterloo Region) Public Consultation Centre | United Kingdom Club<br>35 International Village Drive<br>Cambridge, Ontario |
| November 9, 2011 | 6:00 P.M. – 9:00 P.M. | Active Transportation Master Plan (Walk Cycle Waterloo Region) Public Consultation Centre | First United Church<br>16 William Street<br>Waterloo, Ontario |
| November 17, 2011 | 6:00 P.M. – 9:00 P.M. | Active Transportation Master Plan (Walk Cycle Waterloo Region) Public Consultation Centre | St. Andrew's Presbyterian Church<br>54 Queen Street North<br>Kitchener, Ontario |
| November 21, 2011 | 4:00 P.M. – 8:00 P.M. | Ministry of Transportation Detail Design and Class Environmental Assessment Public Information Centre | Waterloo Inn Conference Centre<br>Strauss Salon A<br>475 King Street North<br>Waterloo, Ontario |
| **Transportation and Environmental Services** | | | |
| November 16, 2011 | 5:00 P.M. | Kitchener WWTP Phase 3 Upgrades Municipal Class Environmental Assessment – Public Information Package | Pioneer Park Public School, 55 Upper Canada Drive, Kitchener |
| November 16, 2011 | 5:30 P.M. | Source Protection Public Information Center | Front Lobby,<br>Administration Building<br>150 Frederick Street<br>Kitchener, Ontario |
| November 17, 2011 | 5:30 P.M. | Source Protection Public Information Center | Auditorium GRCA Headquarters, 400 Clyde Road |
| November 23, 2011 | 5:30 P.M. | Source Protection Public Information Center | New Dundee Community Centre, 1028 Queen Street, New Dundee |

**REGION OF WATERLOO**

**TRANSPORTATION AND ENVIRONMENTAL SERVICES**
**Rapid Transit**

**TO:** Chair Jim Wideman and Members of Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** A02-30/PW

**SUBJECT: RECOMMENDED UPTOWN WATERLOO LIGHT RAIL TRANSIT ROUTE ALIGNMENT AND STATIONS**

## RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the modification of the Uptown Waterloo light rail transit (LRT) route alignment and stations, as described in Report E-11-106, dated November 8, 2011, to:

a) Run the alignment northbound along the existing Waterloo Spur line through Waterloo Town Square from King Street to Caroline Street;
b) Include an additional Uptown Waterloo LRT station area at the intersection of King Street and Allen Street, with a northbound station on King Street and a southbound station on Allen Street; and
c) Move the location of the northbound LRT station at Willis Way to the Waterloo Spur line at Waterloo Town Square.

## SUMMARY:

The Region continues to plan for the implementation of a rapid transit system. High-quality rapid transit will be a crucial component in managing growth, facilitating intensification and reducing future “urban sprawl”. On June 15, 2011, Regional Council approved light rail transit (LRT) as the preferred technology from Conestoga Mall in the City of Waterloo to the Ainslie Street Terminal in the City of Cambridge, to be implemented in a staged approach, as well as the location of the rapid transit route and stations. Council also directed staff to consult with City of Waterloo staff, interested Waterloo citizens and Uptown businesses to explore the feasibility of adjusting the LRT alignment in Uptown Waterloo.

Staff held the Uptown Waterloo LRT Route Workshop on September 27, 2011, with approximately 120 participants, in three sessions. At the workshop, participants joined discussion tables where they were given the opportunity to provide feedback on LRT route alternatives through Uptown Waterloo. Regional and City of Waterloo staff guided the discussions to focus on the positives, enhancements, objections, remedies, and other suggestions for each alternative. The workshop workbook and displays presented nine route alternatives along with information on their impacts to operations (including traffic, intersections, services, and streetscape), property, utilities, the neighbourhood, and economic development. Workshop participants also suggested additional route alternatives or modifications.

Comments, suggestions, and concerns were recorded at the workshop and in the workbooks given to participants. Issues raised by participants generally included impacts to traffic, parking, access, transit operations, walkability, businesses, existing buildings, potential redevelopment, residences, and cost.

As a result of the technical considerations, consultation with City of Waterloo staff, and public input, staff recommend the modification of the Uptown Waterloo LRT route alignment and stations to:

a) Run the alignment northbound along the existing Waterloo Spur line through Waterloo Town Square from King Street to Caroline Street;
b) Include an additional Uptown Waterloo LRT station area at the intersection of King Street and Allen Street, with a northbound station on King Street and a southbound station on Allen Street; and
c) Move the location of the northbound LRT station at Willis Way to the Waterloo Spur line at Waterloo Town Square.

This alignment provides effective operations, minimal impacts to property and utilities, and allows Uptown Waterloo to maintain an attractive and welcoming streetscape. Furthermore, operating on the Spur presents an opportunity to use the existing rail alignment with minimal impact to the public square. A station at Allen Street will provide more LRT station service to Uptown Waterloo, with station spacing more similar to that planned in downtown Kitchener. With a station at Allen Street, a station at the Spur will provide more appropriate station spacing, and can be well integrated into Waterloo Town Square and future redevelopment.

**REPORT:**

## 1. Background

The Region continues to plan for significant population and employment growth over the next two decades. High-quality rapid transit has been approved by Regional Council as a crucial component in managing growth, facilitating intensification and reducing future “urban sprawl”. A high-quality rapid transit system is vital for the Region to evolve into a more compact urban form, helping to prevent sprawl and protect sensitive environmental landscapes and valuable farmlands from urban encroachment. A high-quality rapid transit system will also reduce the need for the construction of new or expanded roads in existing mature neighbourhoods and reduce road congestion.

On June 15, 2011, Regional Council approved LRT as the preferred technology from Conestoga Mall in the City of Waterloo to the Ainslie Street Terminal in the City of Cambridge, to be implemented in a staged approach, as well as the location of the LRT route and stations. Council also directed staff to consult with the City of Waterloo, interested Waterloo citizens and Uptown businesses to explore the feasibility of adjusting the LRT alignment in Uptown Waterloo.

It should be noted that, as part of the refinement of rapid transit implementation options, staff identified temporal separation of freight train and LRT operation on the Waterloo Spur line as a means to avoid constructing a third track and to reduce rapid transit construction costs by approximately $20 million. This will require freight trains using the Waterloo Spur line to operate at night, when LRT is not operating.

Staff considered the LRT alignment through Uptown Waterloo from the intersection of King/Allen Streets to the intersection of Erb/Caroline Streets. The route approved by Council in June 2011 for this section included northbound LRT on King and Erb Streets and southbound LRT on Caroline and Allen Streets, with stations on King and Caroline Streets at Willis Way.

## 2. Uptown Waterloo LRT Route Workshop

The Uptown Waterloo LRT Route Workshop was held at Knox Presbyterian Church at Erb and Caroline Streets in the City of Waterloo on September 27, 2011. Staff invited more than 170 interested citizens, Uptown businesses, and other stakeholders to participate in the workshop, including property owners adjacent to route alternatives. The workshop was also advertised in the Waterloo Chronicle, on the rapid transit website, the Region of Waterloo website, the City of Waterloo website, and the rapid transit and Region of Waterloo Facebook and Twitter pages. All those who wanted to participate were able to register in one of the three workshop sessions that were available at 3:45-5:30 p.m., 5:45-7:30 p.m. and 7:30-9:15 p.m. There were approximately 150 registered participants of whom approximately 120 attended.

At the workshop, participants joined discussion tables where they were given the opportunity to provide feedback on the Uptown Waterloo LRT route alternatives. Facilitators (Regional and City of Waterloo staff) guided participants through the discussion using an approach called the "POWER Tool". POWER is an acronym for the following words:

- **Positives**: What do you like about this LRT alternative — what are the strengths, advantages…what's good about it…what makes a lot of sense or resonates most strongly…why might it be a wise choice?
- **Objections**: What, if anything, is potentially problematic about this LRT alternative — what are the weaknesses or flaws, things that concern you, things that don't make sense to you…why might it be an unwise choice?
- **What else?**: What, if any, other comments, suggestions, ideas, or feedback about this alternative would you like to share?
- **Enhancements**: How can the 'positives' that have been identified be made even better — how can the perceived advantages be refined and made stronger?
- **Remedies**: How can your concerns, issues or objections be addressed — how can perceived weaknesses/disadvantages or flaws be mitigated, reduced or eliminated?

## 3. Uptown Waterloo LRT Route Alternatives

At the workshop, the workbook and displays presented nine Uptown Waterloo LRT route alternatives along with information on their impacts to property, utilities, the neighbourhood, economic development, and operations (including traffic, intersections, the streetscape, and services). The nine alternatives are summarized in Table 1 and shown in Appendix A.

**Table 1: Description of Uptown Waterloo LRT Route Alternatives**

| Alternative | Description |
|---|---|
| Uptown Loop | • One-way southbound along Caroline Street from Erb Street to Allen Street and along Allen Street from Caroline Street to King Street (curbside)<br>• One-way northbound along King Street from Allen Street to Erb Street and along Erb Street from King Street to Caroline Street (curbside) |
| Two-Way King Street | • Two-way along Erb Street from Caroline Street to King Street (curbside) and along King Street from Erb Street to Allen Street (centre-lane) |
| Two-Way Caroline Street | • Two-way along Caroline Street from Erb Street to Allen Street (centre-lane) and along Allen Street from Caroline Street to King Street (curbside) |
| Erb Street* | • One-way northbound along Erb Street from King Street to Caroline Street (curbside) |
| Spur Line* | • One-way northbound along the Spur through Waterloo Town Square from King Street to Caroline Street using the existing rail corridor |
| William Street* | • One-way southbound along William Street from Caroline Street to King Street (curbside) |
| Allen Street* | • One-way southbound along Allen Street from Caroline Street to King Street (curbside) |
| Caroline Street east side** | • One-way southbound along the east side of Caroline Street from William Street to Allen Street |
| Caroline Street west side** | • One-way southbound along the west side of Caroline Street from William Street to Allen Street |

*Variation for the Uptown Loop alternative
**Variation for the Allen Street alternative

## 4. Public Suggestions and Comments

Staff recorded feedback during the workshop discussions and gave each participant a workbook (contained in Appendix A) to further expand on their suggestions, comments, and concerns. There were 30 workbooks and emails returned with written comments. These workbooks and emails are available to view in the library of the Regional Councillors or upon request of Rapid Transit Division staff.

Appendix B contains a summary of the suggestions and comments recorded at the workshop or submitted separately by members of the public. The following are staff responses to other route alternatives and station locations suggested by the public.

### 4.1 Uptown Loop Alternative

Suggestion: Use Regina Street instead of King Street for the northbound LRT.
Response: This would not directly serve the heart of Uptown Waterloo and would have significantly more impact on properties and utilities. The travel time would increase because the length of the system would be longer and there would be three additional turns required (Spur line to Regina Street, Regina Street to William Street, and William Street to King Street).

Suggestion: Use Weber Street instead of King Street for the northbound LRT.
Response: This alignment does not serve the heart of Uptown Waterloo. It is a very circuitous route with greater impacts to property and utilities. The operating time would increase significantly because of the increased length of the route.

Suggestion: Move the southbound route to the east side of Caroline Street and/or switch the northbound route to the other side of King Street.
Response: These alignments would be a traffic operational concern because the LRT would be moving on the wrong side of the road against traffic with numerous driveways.

Suggestion: Run the route northbound on Caroline Street so that it can be on the east side and southbound on King Street on the west side.
Response: This alternative has two cross-overs at the intersections of King/Allen Streets and Caroline/Erb Streets, which would require additional signaling to allow the movement of vehicles. This would increase the conflict between light rail vehicles and other modes of transportation at these intersections.

Suggestion: Switch the route to the middle of King and Caroline Streets.
Response: This alignment would require that station platforms be located in the middle of the street instead of being integrated into the sidewalk, resulting in a wider rapidway and narrower sidewalks. Furthermore, access along King and Caroline Streets would be reduced to right in/right out only and additional utility relocation would be required.

### 4.2 Two-Way King Street Alternative

Suggestion: Use the Spur instead of Erb Street.
Response: A significant amount of parking would be removed and the Rude Native patio would be impacted. In addition, operating two-way along the Spur would close the Rude Native entrance. There would also be an additional cost to bury certain utilities in order to maintain a pedestrian trail. Property impacts to the Uptown Waterloo public square would be minimal or nil.

Suggestion: Shift LRT to the east side of King Street with both lanes of traffic on the west side of King Street or shift LRT to the west side of King Street with both lanes of traffic on the east side of King Street.
Response: These alignments would require a separate single 3.0 metre wide platform in addition to a curbside platform to accommodate both northbound and southbound stations on King Street. This platform would require the roadway to be widened. Furthermore, a right-turn lane at intersections would be required for northbound right-turning traffic to cross two LRT lanes. As a result of this additional widening there would be impacts to adjacent properties, the streetscape, and parking.

Suggestion: Move LRT lanes to curbside – one on each side of King Street.
Response: This alternative would incorporate the stations into the sidewalk, however, all parking and loading/unloading opportunities on King Street would be lost. Furthermore, operating curbside LRT on each side of the road increases the potential for conflict between light rail vehicles and other modes of transportation, and would be confusing for drivers, driving in between two tracks. Additionally, with a rapidway on the west side of King Street, turning from King Street to the Spur would require more land from the Uptown Waterloo public square.

Suggestion: Use the Spur and William and Regina Streets instead of King Street.
Response: Operating two-way along William Street would require major utility relocation and would impact a number of properties. Operating two-way along Regina Street would reduce traffic to one lane, turning Regina into a one-way street. A two-way service on the Spur line between King and Regina Streets would also impact all

properties on one side.

Suggestion: Use Erb Street and the Spur for a loop.
Response: This alignment would result in two rail corridors running through the north end of Uptown Waterloo and would impact both Erb Street and the Spur, instead of focusing the impacts on one corridor. It would also require two-way LRT on King Street south of the Spur.

Suggestion: Use a single LRT line alternating train direction.
Response: This alternative would present operational and scheduling challenges, especially when the frequency of service increases in the future. Additionally, two tracks would still be required at station locations.

Suggestion: Stay on King Street until Central Street (northbound).
Response: This alternative would further impact King Street between Erb Street and Central Street and does not take advantage of the opportunity to use the existing Spur line. It would also run through a residential neighbourhood on Central Street and would add an additional rail corridor through Waterloo Park.

Suggestion: Take King Street north to Union Street and then use the Spur line to avoid impacts to Uptown.
Response: This alternative does not serve the heart of Uptown Waterloo.

### 4.3 Two-Way Caroline Street Alternative

Suggestion: Use both William and Allen Streets.
Response: Travelling one way on William Street would result in the loss of sidewalk on one side of the road, require a retaining wall at seniors' residence, result in the loss of bridal shop, and require significant relocation of utilities.

Suggestion: Use William Street.
Response: This alternative would have the same negative impacts as traveling one way on William Street as noted above (loss of sidewalk, retaining wall at seniors' residence, loss of bridal shop, and significant relocation of utilities) and would also remove the turning lane.

Suggestion: Tracks should be curb side (both tracks on the west OR east side).
Response: These alignments would require a separate single 3.0 metre wide platform in addition to a curbside platform to accommodate both northbound and southbound stations on Caroline Street. This platform would require the roadway to be widened. Furthermore, a right-turn lane at intersections would be required for traffic to cross two LRT lanes. As a result of widening Caroline Street, there would be impacts to adjacent properties, the streetscape, and parking.

Suggestion: Both directions of LRT should share one lane.
Response: This alternative would present operational and scheduling challenges, especially when the frequency of service increases in the future. Additionally, two tracks would still be required at station locations.

### 4.4 William Street Alternative

Suggestion: Move the LRT to the other side of the road.
Response: This alignment would result in the LRT operating against the flow of traffic. There is no space to widen the road towards First United Church; therefore, the roadway would be shifted towards the seniors' residence. The bridal shop and the sidewalk on the west side of the road would be removed.

### 4.5 Allen Street Alternative

Suggestion: Have LRT run on the other side of Allen Street.
Response: Operating LRT on the opposite side of the road would no longer allow for the LRT lane to be accommodated in the existing grass boulevard at the north side. There is no space to widen the road towards the Bauer Marketplace; therefore, the roadway would be shifted towards the adult recreation centre. This alignment would also impact the loading/unloading operations for the Bauer Marketplace.

### 4.6 Station Locations

Suggestion: Move the station from King Street/Willis Way to the Spur line in Waterloo Town Square.
Response: A station at this location can be well integrated into the Waterloo Town Square and future redevelopment. It would also provide good connections to bus service at the existing bus bay that is integrated into Waterloo Town Square. This alternative would require realigning the existing curved freight tracks to accommodate a straight station platform, with impacts to the Rude Native entrance and to parking.

Suggestion: Add a station at the south end of Uptown Waterloo, near Allen Street.
Response: Providing a station area at Allen Street, with the northbound station on King Street north of Allen Street, and the southbound station on Allen Street, is physically feasible. An additional station at this location would provide more LRT station service to Uptown Waterloo, and provide station spacing more similar to that planned in downtown Kitchener.

Suggestion: Provide two stations, one at Allen Street and one at Barrelyards.
Response: This alternative would not directly serve the high ridership generated by the heart of Uptown Waterloo.

Suggestion: Move the station at King Street/Willis Way to the north side of Willis Way.
Response: With the northbound LRT alignment modified to run on the Spur line, there is not enough space to place a station on King Street north of Willis Way because of the turn from King Street to the Spur.

Suggestion: Move the station locations south.
Response: This alternative would not directly serve the high ridership generated by the heart of Uptown Waterloo.

Suggestion: Consider putting stations together instead of on the opposite side of the intersection for two-way options.
Response: Having the northbound and southbound stations together would require the roadway to be widened further impacting property and buildings.

## 5. Evaluating the Uptown Waterloo LRT Route and Station Alternatives

### 5.1 Full Uptown Route Alignment

The Uptown loop alternative is preferred over the two-way on King Street and two-way on Caroline Street alternatives and the other alternatives described in Sections 4.1, 4.2 and 4.3. The Uptown loop best serves the heart of Uptown Waterloo. With only one LRT lane on Caroline Street and one LRT lane on King Street, there will be more space to provide on-street parking and wider sidewalks than with a two-track option; this will preserve Uptown Waterloo's attractive and welcoming streetscape. The Uptown Loop will have more development potential and minimal impacts to property and utilities. Conversely, the two-way alternatives are limited to narrow sidewalks and would remove all on-street parking because there is not enough room in the existing roadway. Property, utilities, traffic, and intersection movements would also be significantly impacted with a two-way option.

### 5.2 North Alternatives

The Spur line alternative is preferred over the Erb Street alternative because it takes advantage of the opportunity to use the existing Spur line rail corridor and allows for the opportunity to integrate a station into Waterloo Town Square. Conversely, the Erb Street alternative would remove a traffic lane, operate against traffic, and require traffic controls on Erb Street at Albert Street. It would also result in two rail corridors running through the north of Uptown Waterloo, one for LRT and one for freight trains.

### 5.3 South Alternatives

The Allen Street alternative is preferred over the William Street alternative because it has less impact on property and utilities. Operating on Allen Street also allows for an additional station to be added at Allen Street. Conversely, operating on William Street would result in a two-way route on King Street between William and Allen Street (impacting property and utilities), remove a sidewalk on William Street, and require a retaining wall beside the seniors' residence.

With the preference to run on Allen Street, there are two alternatives for operating on Caroline Street between William and Allen Streets, east side and west side. The Caroline Street west side alternative is preferred over the east side alternative. The east side alternative would require significantly more utility relocation and would restrict access (including deliveries) to properties on the east side of Caroline Street including the seniors' residence, Brick Brewery, the funeral home, and the adult recreation centre. Additionally, with the east side alternative, intersection delay on Caroline Street at William Street would get worse because the LRT would have to switch to the other side of the road at this intersection.

### 5.4 Stations

An additional Uptown Waterloo station area at Allen Street is preferred because it will provide more LRT station service to Uptown Waterloo and provide station spacing more similar to that planned in downtown Kitchener. Given that the Spur line is preferred, and a station at Allen Street is preferred, a northbound station location on the Waterloo Spur line instead of on King Street at Willis Way is also preferred because it provides more appropriate station spacing, and because a station at this location can be well integrated into the Waterloo Town Square and future redevelopment. It will also provide good connections to bus service at the existing bus bay that is integrated into Waterloo Town Square.

## 6. Recommended Uptown Waterloo LRT Route and Stations

As a result of technical consideration, consultation with City of Waterloo staff, and public input, staff recommend the modification of the Uptown Waterloo light rail transit route alignment and stations to:

a) Run the alignment northbound along the existing Waterloo Spur line through Waterloo Town Square from King Street to Caroline Street,
b) Include an additional Uptown Waterloo LRT station area at the intersection of King Street and Allen Street, with a northbound station on King Street and a southbound station on Allen Street, and
c) Move the location of the northbound LRT station at Willis Way to the Waterloo Spur line at Waterloo Town Square.

This alignment provides effective operations, minimal impacts to property and utilities, and allows Uptown Waterloo to maintain an attractive and welcoming streetscape. Furthermore, operating on the Spur presents an opportunity to use the existing rail alignment with minimal impact to the public square. A station at Allen Street will provide more LRT station service to Uptown Waterloo and provide station spacing more similar to that planned in downtown Kitchener. With a station at Allen Street, a station at the Spur will provide more appropriate station spacing, and can be well integrated into Waterloo Town Square and future redevelopment.

## 7. Next Steps in the Rapid Transit Project

Staff anticipate that the next steps in the rapid transit project will include:

- November 2011: Notice of Commencement of the six-month Transit Project Assessment (TPA) for Stage 1;
- December 2011: report on a preferred project procurement and delivery method;
- January 2012: report on a preferred procurement consultant;
- January 2012: report on a preferred general engineering consultant;
- January 2012: public consultation centres for the TPA for Stage 1;
- May 2012: completion of the TPA for Stage 1;
- 2014: begin construction of LRT Stage 1 and begin the TPA for LRT Stage 2; and
- 2017: complete construction and begin operation of LRT Stage 1.

## CORPORATE STRATEGIC PLAN:

The report supports Focus Area 3.1 of Council's Strategic Focus: Develop an implementation plan for light rail transit including corridor and station area planning.

## FINANCIAL IMPLICATIONS:

The recommended changes to the Uptown Waterloo route alignment and stations will not affect the overall rapid transit capital budget of $818 million.

## OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

This report was prepared with input from Planning, Housing and Community Services and from Transportation and Environmental Services.

**ATTACHMENTS:**

Appendix A – Uptown Waterloo LRT Route Workshop – Workbook
Appendix B – Uptown Waterloo LRT Route Workshop – Summary of Public Comments
Appendix C – Map of Recommended Uptown Waterloo LRT Route Alignment and Stations

**PREPARED BY:** *Nancy Button*, Director, Rapid Transit

**APPROVED BY:** *Thomas Schmidt*, Commissioner, Transportation and Environmental Services

**Appendix A**

**Uptown Waterloo LRT Route Workshop – Workbook**

Rapid Transit

Region of Waterloo

connecting to the future

# Uptown Waterloo Light Rail Transit Route Workshop

## Workbook

Enclosed please find a copy of the various route alternatives discussed during the workshop. Should you wish to provide further feedback, in addition to the workshop discussion regarding the alternatives, please complete the lined pages provided and return the workbook to our office no later than **Friday October 7, 2011**. We appreciate your participation and input.

**Please return completed workbooks via mail to:**

**Rapid Transit Division**
Region of Waterloo
150 Frederick Street, 6th Floor
Kitchener, ON, N2G 4J3

## Thank you!

Rapid Transit

## Providing Feedback on the Route Alternatives

At the discussion tables, you will have the opportunity to provide feedback on the LRT route alternatives.

Your facilitator will walk you through the discussion using an approach called the **'POWER Tool'** — it allows you to meaningfully explore the alternative routes and invites diverse opinions. **POWER** is an acronym for the following words (and provides a framework for the related questions):

### Positives

What do you like about this LRT alternative — what are the strengths, advantages…what's good about it…what makes a lot of sense or resonates most strongly…why might it be a wise choice?

### Objections

What, if anything, is potentially problematic about this LRT alternative — what are the weaknesses or flaws, things that concern you, things that don't make sense to you…why might it be an unwise choice?

### What Else?

What, if any, other comments, suggestions, ideas, or feedback about this alternative would you like to share?

### Enhancements

How can the 'positives' that have been identified be made even better — how can the perceived advantages be refined and made stronger?

### Remedies

How can your concerns, issues or objections be addressed — how can perceived weaknesses/disadvantages or flaws be mitigated, reduced or eliminated?

**Please be prepared to share your views under each of these headings.**

**We welcome your valued perspective.**

Region of Waterloo

Rapid Transit

Region of Waterloo

# Uptown Loop Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- With only one LRT lane on Caroline Street and one LRT lane on King Street, there will be more space to provide on-street parking and wider sidewalks than with a two-track option
- Drivers can make left and right turns at all cross streets and driveways along King Street between Erb and Allen Streets
- Garbage collection and emergency access will not be affected

## Property

- A small piece of property will be required from the parking lot on Caroline Street at Willis Way to make room for a station
- A small piece of property will be required from the Adult Recreation Centre to make room for the LRT turn from Caroline Street to Allen Street

## Utilities

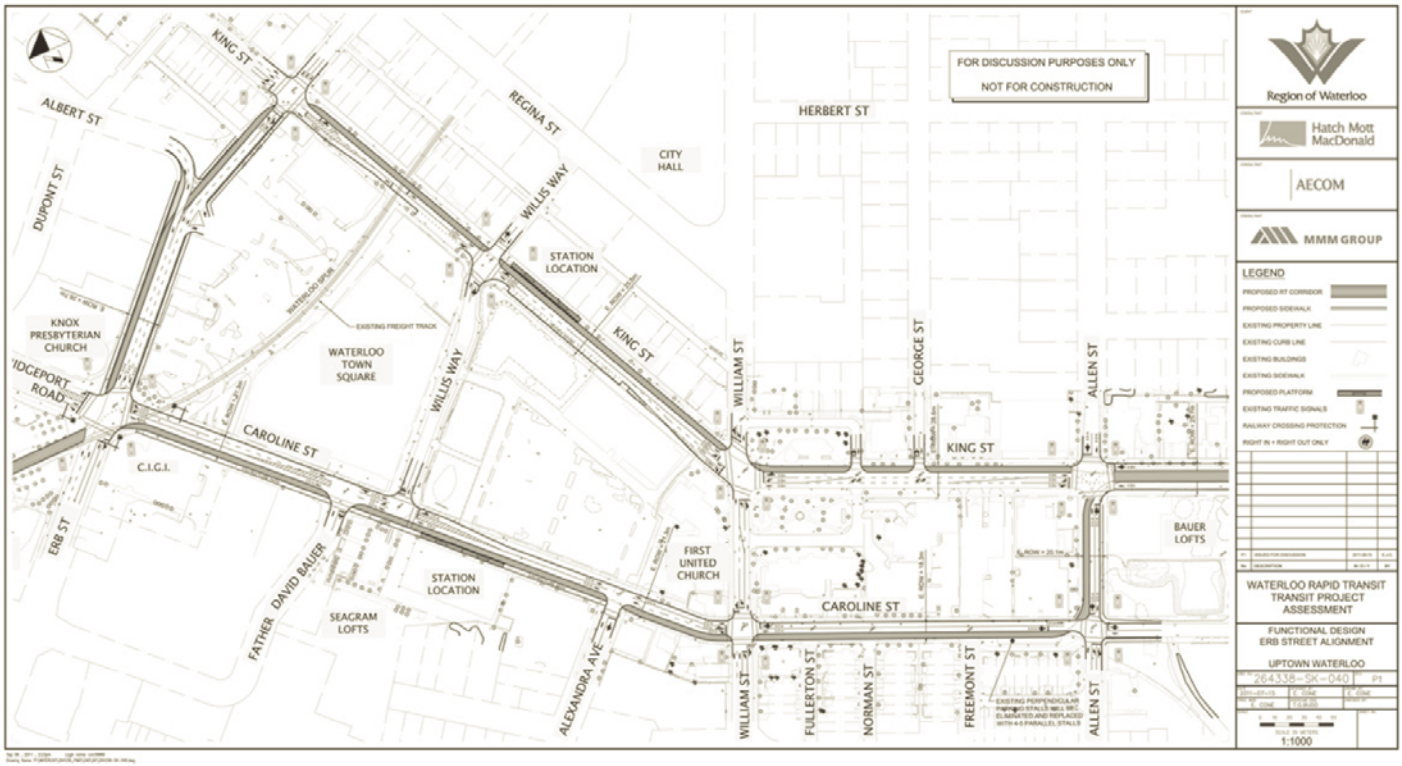
- Minimal relocation of utilities

## Neighbourhood

- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- The Iron Horse Trail, along Caroline Street from William to Allen Streets, will not be affected because the LRT lane will fit into the existing road allowance

## Economic Development

- King and Caroline Streets will keep some on-street parking
- Will serve the heart of Uptown Waterloo on King Street
- Sidewalks on King and Caroline Streets will keep their attractive and welcoming streetscape
- With a split station instead of a single station, there will be more development potential but it may be confusing for some passengers



Rapid Transit

Region of Waterloo

# Two-Way King Street Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- There is not enough room to build two LRT lanes with on-street parking and wide sidewalks without tearing down some buildings on King Street. Reducing the number of buildings that will be removed requires narrower sidewalks and no on-street parking
- Traffic on Erb Street will be worse than with a loop option.
- Access from Erb Street to Albert Street will be closed
- Drivers can only make right turns (no left turns) at cross streets and driveways along King Street between Erb and Allen Streets
- Garbage collection and emergency access will not be affected

## Property

- The stations at Willis Way will require more space, impacting properties like the Uptown Parkade, 70-74 King Street South, and 80 King Street South
- Designated heritage properties on King Street at Erb Street, including The Bank of Montreal, Hatashita Jewellers, Waterloo Hotel, and The Snyder-Hahn Building (Eleventh Hour Clothing), will be significantly impacted. For example, the Bank of Montreal will be torn down
- The newly constructed HSBC building at King and William Streets will be impacted

## Utilities

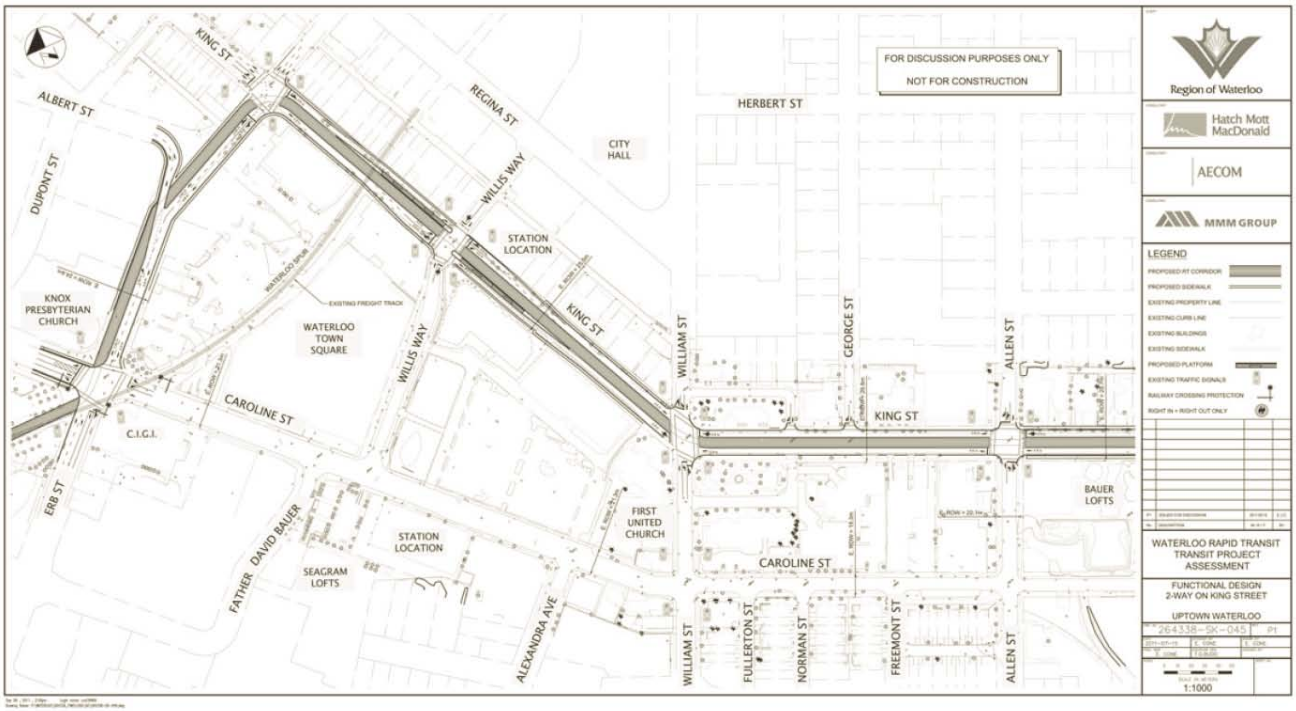
- There will be additional utility relocation of water mains, hydro poles, communications, and sanitary sewers more than what is needed for the loop alternative

## Neighbourhood

- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- The existing streetscape on King Street cannot be maintained (less room for wide sidewalks, planters, seating, and removal of trees)
- The local parkette on King Street at William Street, in front of the seniors' residence, will be impacted

## Economic Development

- There will be no on-street parking on King Street between Allen and Erb Streets
- There will be no direct access to rapid transit on Caroline Street
- With a single station instead of a split station, it will be less confusing for some passengers but there will be less development potential



Rapid Transit

Region of Waterloo

# Two-Way Caroline Street Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- There is not enough room to build two LRT lanes with on-street parking and wide sidewalks without tearing down some buildings on Caroline Street. Reducing the number of buildings that will be removed requires narrower sidewalks and no on-street parking
- Drivers can only make right turns (no left turns) at cross streets and driveways along Caroline Street between Erb Street and Allen Street
- Traffic signals will be added on Caroline Street at Willis Way
- Garbage collection and emergency access will not be affected

## Property

- Caroline Street will need to be widened
- The widening will impact either the Waterloo Town Square or the Centre for International Governance Innovation
- The widening will impact the parking lot to the southeast of the Seagram Lofts
- Between Allen and William Streets:
  - if the road is widened to the west, a portion of the Iron Horse Trail will be removed, and the LRT lane will be closer to residences or
  - if the road is widened to the east, the widening will impact the seniors' residence and the Brick Brewery

## Utilities

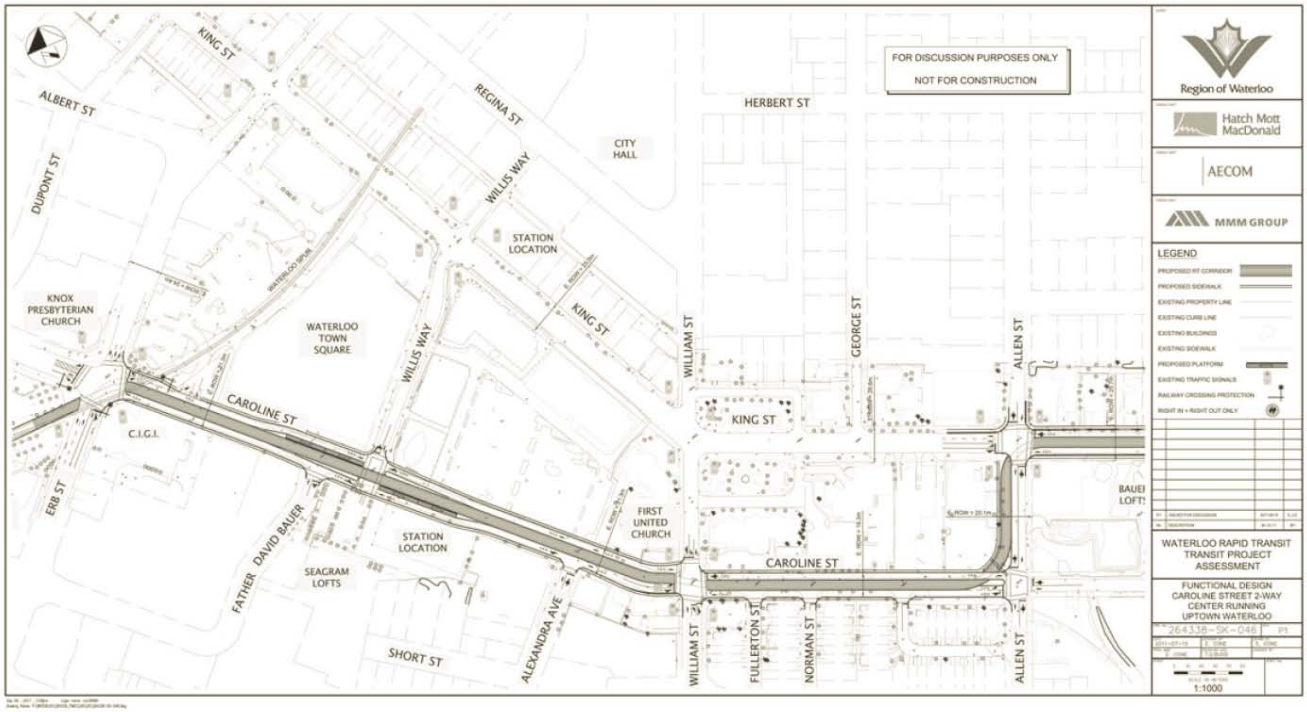
- There will be additional utility relocation of water mains, communications, hydro poles (buried hydro at the William Street intersection) and sanitary sewers, more than what is needed for the loop alternative

## Neighbourhood

- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- Removes a significant portion of parking from the seniors' residence
- Loss of historic building (bridal shop)
- Removal of trees on Allen and Caroline Streets

## Economic Development

- There will be no on-street parking on Caroline Street between Allen and Erb Streets
- Will not directly serve the heart of Uptown Waterloo on King Street
- With a single station instead of a split station, it will be less confusing for some passengers but there will be less development potential



Rapid Transit

Region of Waterloo

# Erb Street Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- Traffic controls (signs or signals) will be added on Erb Street at Albert Street
- Traffic will get worse on Erb Street
- LRT will run in the opposite direction to the one-way traffic on Erb Street

## Property

- No property required

## Utilities

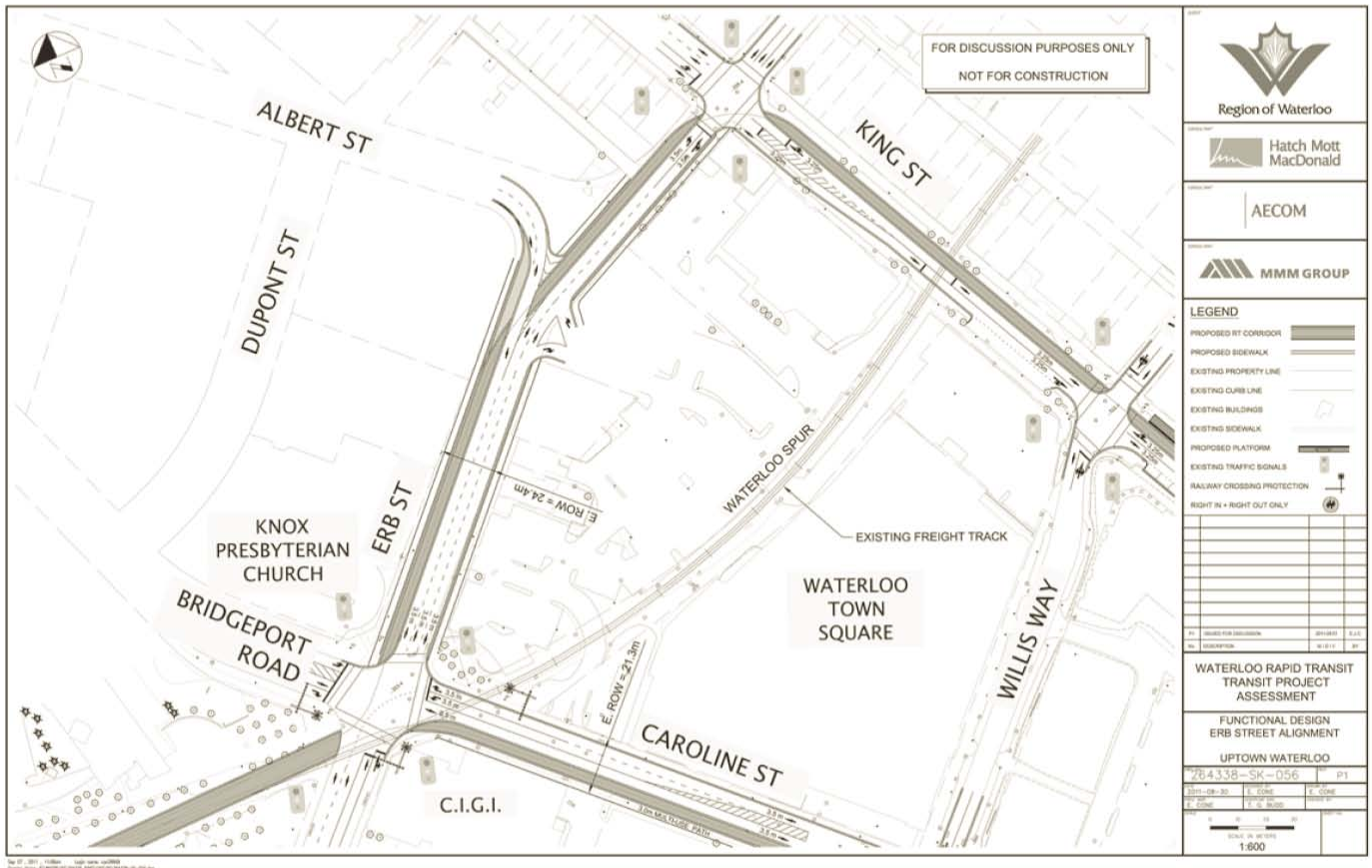
- Some utility relocation

## Neighbourhood

- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- Instead of a single track adjacent to Waterloo Town Square, there will be a track adjacent to Waterloo Town Square for freight trains and another track on Erb Street for northbound LRT
- LRT runs slightly closer to the Knox Presbyterian Church

## Economic Development

- On-street parking will be removed on King Street between Erb Street and the spur



Rapid Transit

Region of Waterloo

# Spur Line Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- Maintains traffic lanes on Erb Street
- A new "rail-only" signal will be required for the LRT to turn from the spur onto King Street

## Property

- A small corner of the Waterloo Town Square land on King Street at the spur will be required

## Utilities

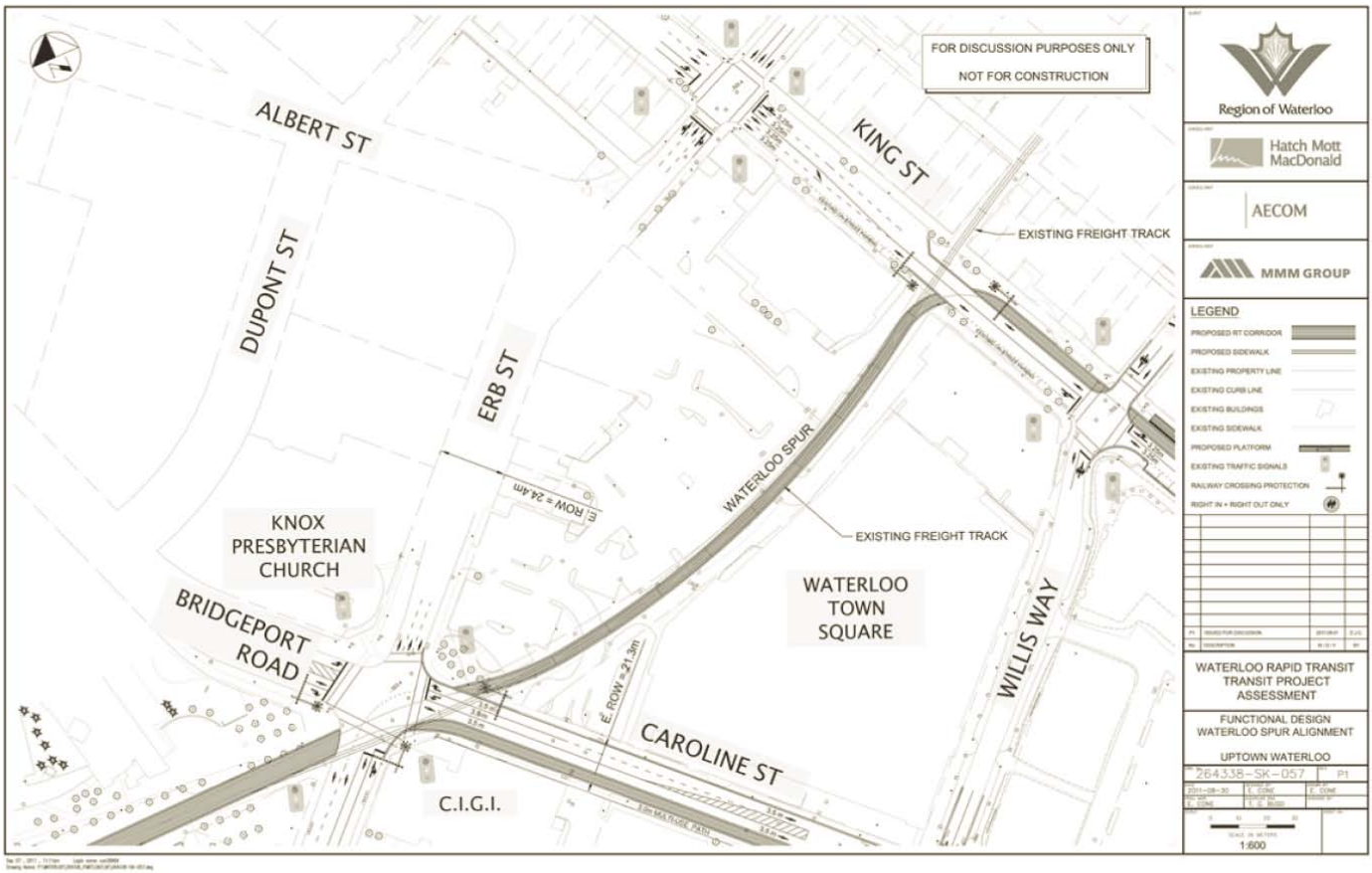
- Likely no utility impacts

## Neighbourhood

- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- There will be more trains running adjacent to Waterloo Town Square because the spur will be used for freight trains and northbound LRT, instead of just freight
- LRT runs slightly further from the Knox Presbyterian Church

## Economic Development

- Maintains on-street parking on King Street between Erb Street and the spur
- May limit the redevelopment of the parking lot north of the Waterloo Town Square



Rapid Transit

# William Street Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- Drivers can only make right turns (no left turns) at cross streets and driveways along King Street between William and Allen Streets
- Traffic will get worse at the Caroline/William and King/William Streets intersections

## Property

- William Street will be widened, taking some parking from the seniors' residence
- A small amount of property will be required on King Street between William and Allen Streets

## Utilities

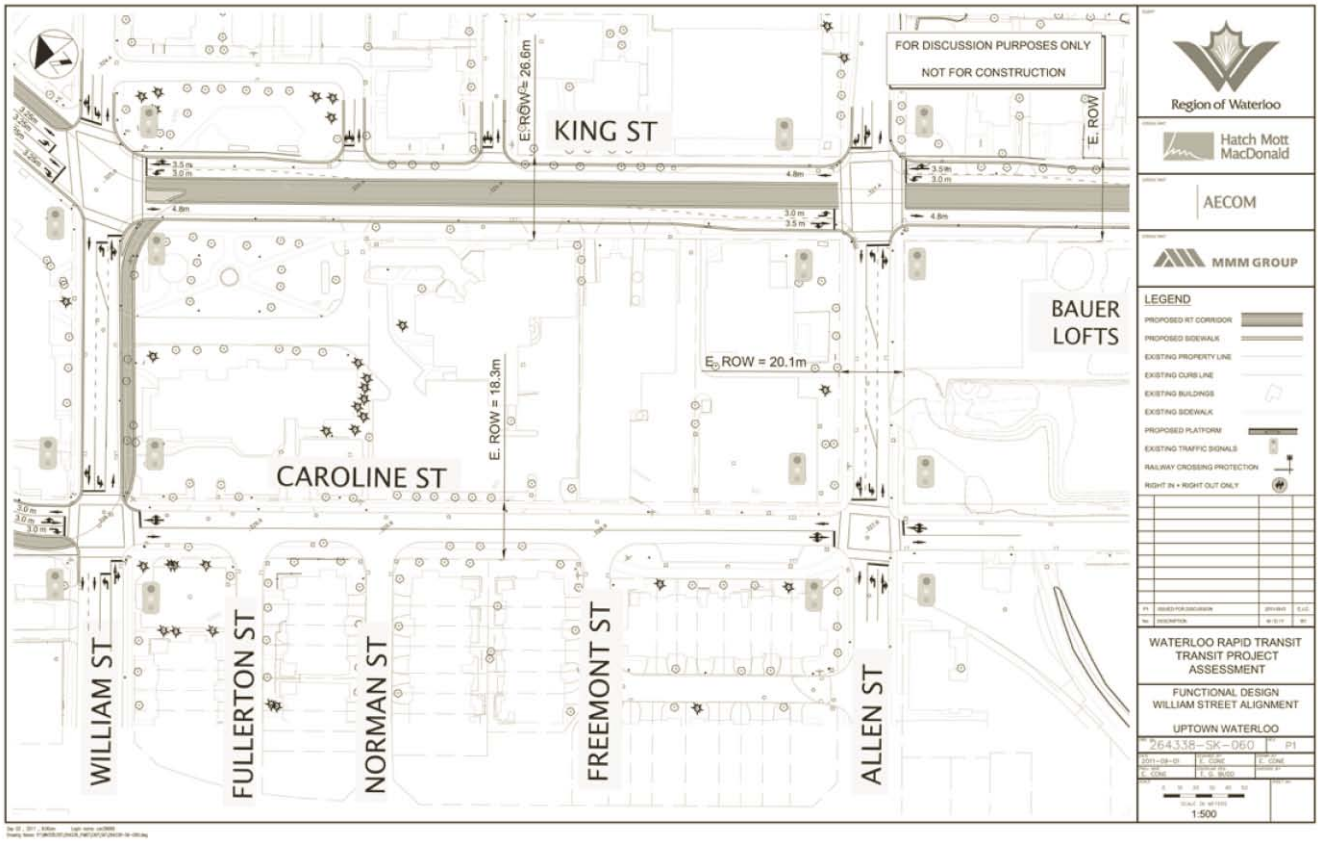
- Relocation of hydro, gas, and storm sewer utilities

## Neighbourhood

- LRT runs adjacent to seniors' residence
- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- A large retaining wall will be built beside the seniors' residence
- Loss of historic building (bridal shop)
- A portion of the local parkette on King Street and William Street, in front of the seniors' residence, will be removed to make room for the LRT turn from William Street to King Street
- A sidewalk will be removed on one side of William Street

## Economic Development

- There will be no on-street parking on King Street between William and Allen Streets



Rapid Transit

Region of Waterloo

# Allen Street Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- Outbound-only access from Fullerton, Norman and Freemont Streets to Caroline Street is a possibility. This would discourage:
  - neighbourhood cut-through traffic
  - illegal on-street parking on these streets

## Property

- Allen Street will be widened, taking some property from the Adult Recreation Centre

## Utilities

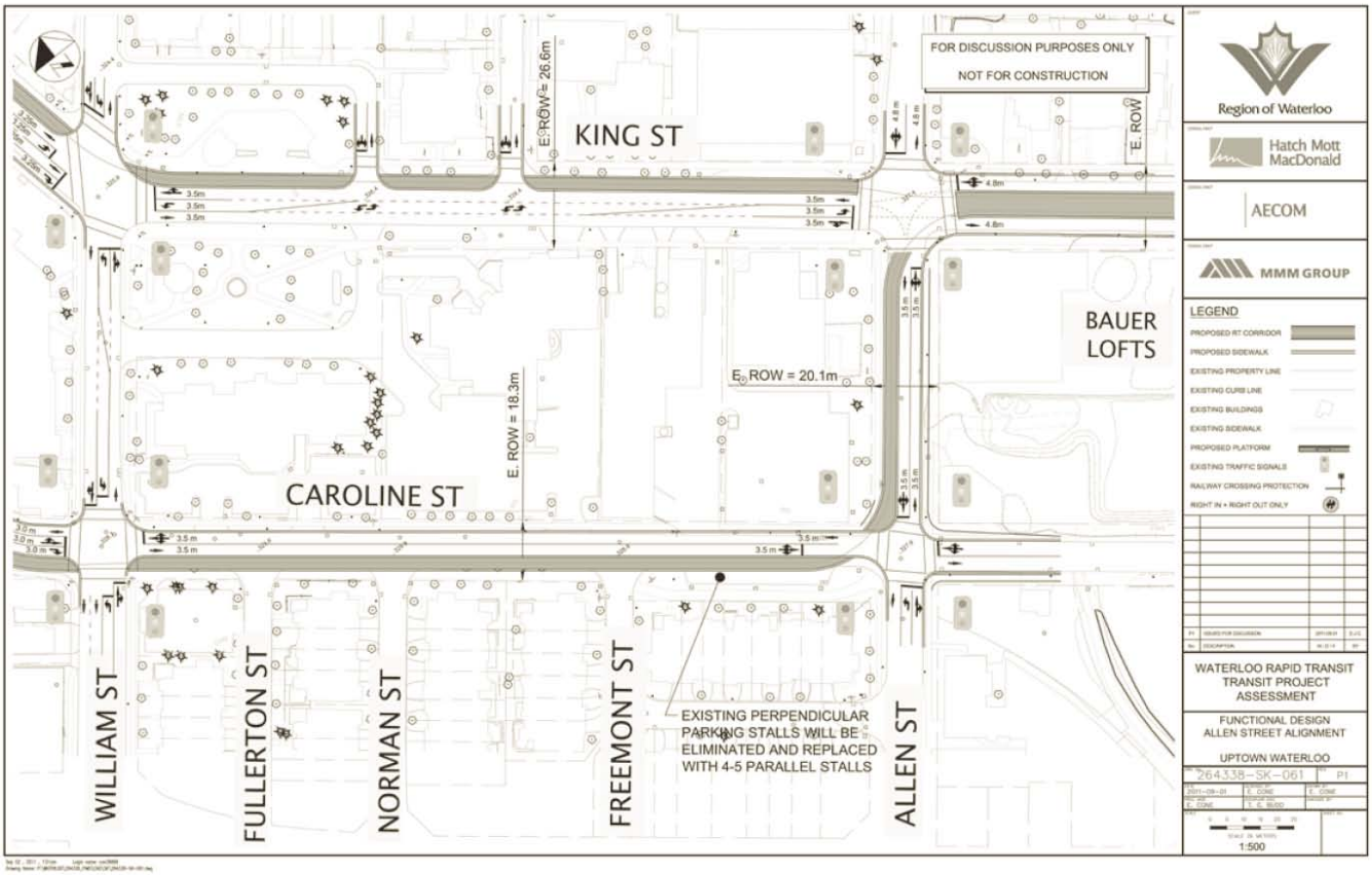
- Minimal utility impacts

## Neighbourhood

- LRT runs adjacent to the Catalina residences
- Noise and vibration levels are expected to be within Ministry of Environment accepted standards
- Loss of trees on Allen Street between Caroline and King Streets

## Economic Development

- Removal of on-street parking from one side of Caroline Street



Rapid Transit

Region of Waterloo

# Caroline Street – East Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- Properties on the east side of Caroline Street will have restricted access (including deliveries) because the LRT will be moving on the wrong side of the road against traffic. These properties include:
  - the seniors' residence,
  - Brick Brewery,
  - the funeral home, and
  - the Adult Recreation Centre
- Traffic on Caroline Street at William Street will get worse because the LRT has to switch to the other side of the road at this intersection

## Property

- More property will be required from the Adult Recreation Centre to make room for the LRT turn from Caroline Street to Allen Street

## Utilities

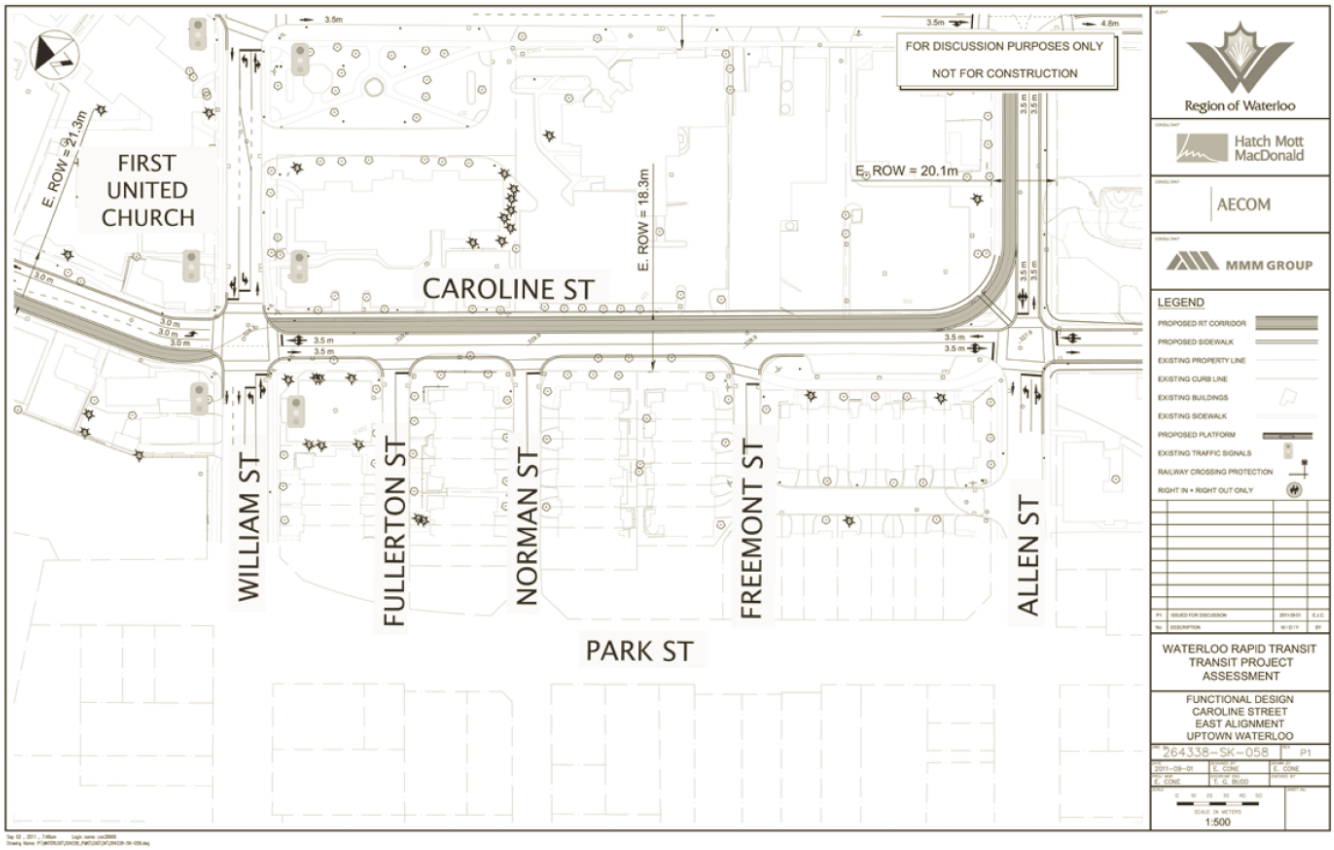
- Relocation of water mains, hydro poles, and sanity sewer utilities

## Neighbourhood

- Further from Catalina residences; closer to seniors' residence
- Noise and vibration levels are expected to be within Ministry of Environment accepted standards

## Economic Development

- On-street parking will be removed from the east side of Caroline Street between William and Allen Streets



Rapid Transit

# Caroline Street – West Alternative

## Operations (How traffic, intersections, the streetscape, and services will be impacted)

- Outbound-only access from Fullerton, Norman and Freemont Streets to Caroline Street is a possibility. This would discourage:
  - neighbourhood cut-through traffic
  - illegal on-street parking on these streets
- Traffic on Caroline Street at Allen Street will get worse because the LRT turns at this intersection

## Property

- Less property will be required from the Adult Recreation Centre

## Utilities

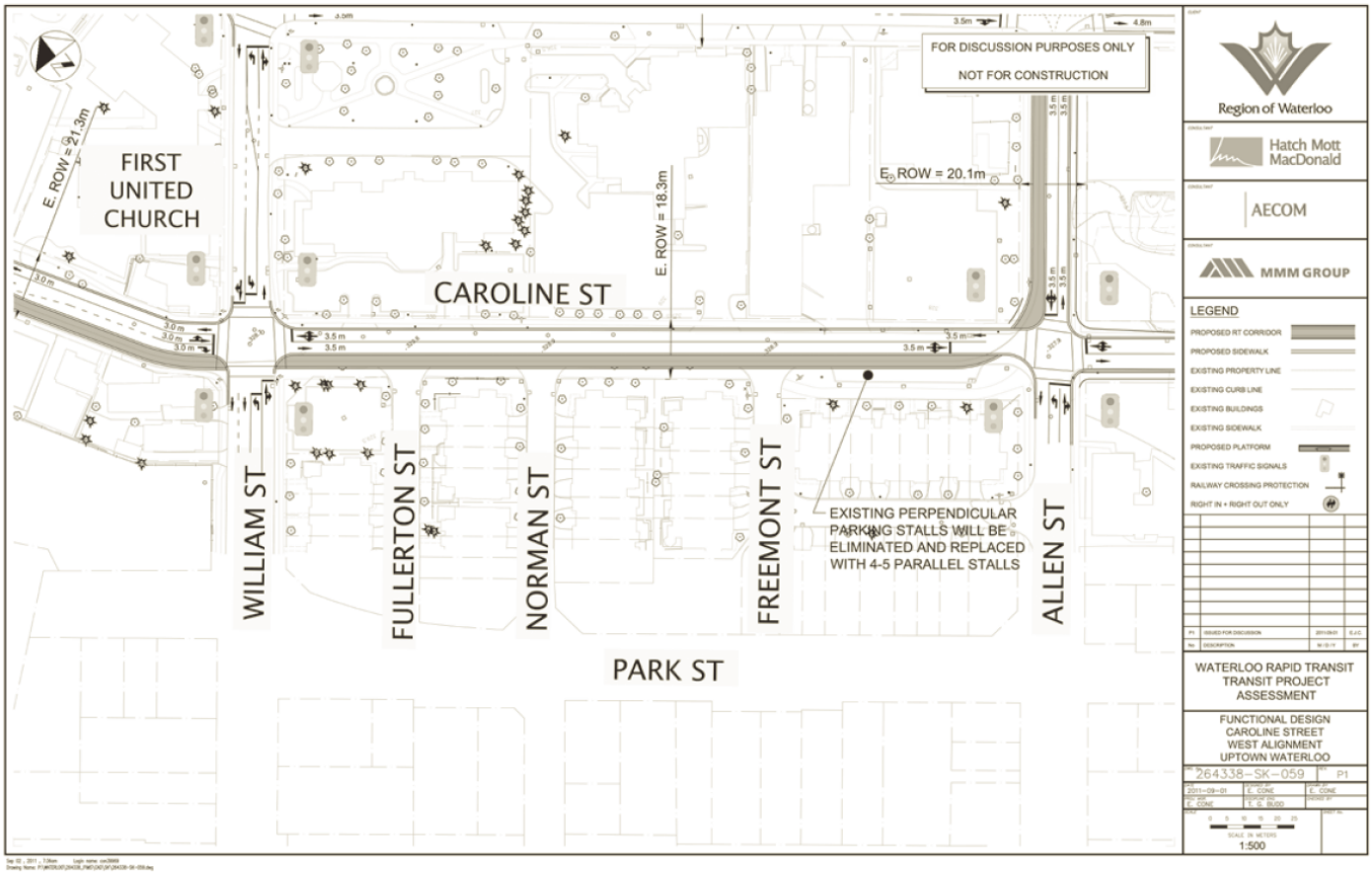
- No utility impacts

## Neighbourhood

- Further from seniors' residence; closer to Catalina residences
- Noise and vibration levels are expected to be within Ministry of Environment accepted standards

## Economic Development

- On-street parking will be removed from the west side of Caroline Street between William and Allen Streets



**Appendix B**

**Uptown Waterloo LRT Route Workshop – Summary of Public Comments**

| | Uptown Loop Alternative | Two-way King Street Alternative | Two-Way Caroline Street Alternative |
|---|---|---|---|
| **Positives** | • No curbs around tracks – can make left turns<br>• Less impact on traffic than two-way alternatives, better flow of traffic on King Street<br>• Full-movement intersections<br>• Only one traffic lane taken from Caroline and King Streets<br>• Safer because tracks are always on the right side of the road<br>• Maintains some parking; less impact than two-way alternatives<br>• Emergency access and garbage collection are not affected<br>• Spreads out pain/ gain<br>• Good bus connections on King Street<br>• Station locations good for using public square<br>• Two stations will encourage activity on Willis Way<br>• Split stations could make transit more apparent and result in more/ denser development, especially on Caroline Street<br>• Two parallel single-track lines could allow trains to use one track if the other is shut down for a special event or emergency | • Impacts fewer intersections<br>• Emergency services not affected<br>• Parking loss on street is minimal<br>• Would like to see on-street parking gone from King Street because it backs up traffic<br>• Simpler for those less familiar; less confusion<br>• Facilitates bus transfer<br>• One point of focus for transit stop and bus transfers; better connectivity<br>• Less confusing with stations in one place<br>• King Street more bustle, more vibrant<br>• More pedestrian friendly<br>• Maintains bike trails on Caroline Street<br>• Keeps Caroline Street free for more infrastructure to connect the Laurel and Iron Horse trails<br>• Keeps everything on one street<br>• Keeps focus on King Street, on the main street in both directions<br>• Clear focal point of entry<br>• Development potential not an issue, only one block difference<br>• No LRT on Caroline or Allen | • Simplifies corner of Erb Street/ Caroline Street<br>• Emergency services not affected<br>• Less parking loss than two-way King<br>• Intersections of Caroline/Allen Streets and Caroline/Erb Streets less busy than King/Erb Streets and King Street/Willis Way<br>• All on one street, less confusing<br>• Stations in same place, not split<br>• Space for stations within the parking lots<br>• Short walk to uptown<br>• Less impact on special events/festivals held on King Street<br>• Saves corner of King Street/Erb Street<br>• No impact to public square<br>• Keeps LRT out of uptown<br>• More space to widen Caroline Street than King Street<br>• Preserves businesses<br>• Less businesses face Caroline Street<br>• Easy access to LRT for properties on Caroline Street<br>• May encourage development/ |

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| | • More space on King and Caroline Streets for streetscaping<br>• Wider sidewalks; more walkable space<br>• Multi-use trail provided on Caroline Street between William and Erb Streets<br>• Keeps Iron Horse trails<br>• Uses existing roadway<br>• Less property acquisition; doesn't destroy buildings<br>• Preserves property for future Waterloo Town Square redevelopment opportunities<br>• Opportunity for redevelopment<br>• Good for exposure and coverage (larger area) – looks good<br>• Efficient use of land<br>• Least disruptive to built environment<br>• Equal impacts to King and Caroline Streets (including construction)<br>• May cost less<br>• Minimal relocation of utilities – less cost | Streets; keeps it away from Catalina neighbourhood<br>• Provides LRT to the heart of uptown<br>• Easy maintenance with adjacent tracks | intensification on Caroline Street; build a new retail area; provides more than a one-street uptown<br>• Benefits businesses on Willis Way because of pedestrian activity<br>• Benefits CIGI – close to station<br>• Property values could go up<br>• Noise levels will be within accepted standards<br>• Further away from Knox Church with less noise impact<br>• No LRT on Erb Street or King Street |
| **Enhancements** | • Opportunity to add bike lanes<br>• Move Route 5 bus stop to Willis Way<br>• Mark stations e.g. with coloured concrete<br>• Provide wayfinding signs<br>• Add a station between Bauer Lofts and Sunlife; more stations | • Remove parallel parking to add more walkability and beauty<br>• Build offstreet parking elsewhere<br>• Provide bus bays<br>• Make King Street a car-free/pedestrian street full time<br>• Bury hydro | • Remove parking on both sides of Caroline Street – line of sight issue for cyclists<br>• Add bus bays on Caroline Street<br>• Consider one-way traffic on Caroline Street<br>• Close Caroline Street to cars except emergency vehicles and |

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| | will result in less dwell time at each station because fewer passengers at each station<br>• Provide two stations, one at Allen Street and one at Barrelyards<br>• Move station to north side of Willis Way, away from the parkade | | trucks to businesses<br>• Close King Street to cars |
| **Objections** | • Traffic will worsen because there are fewer lanes; one lane each way on King Street is not enough; delivery trucks will stop all traffic; will affect emergency vehicles<br>• Construction interruptions on both King and Caroline Streets<br>• Impacts to King Street during construction<br>• Loss of some parking<br>• Is a negative impact to maintain more surface parking<br>• Bad connection with buses<br>• Bus bays will be lost, where will they be moved<br>• Buses will have a dramatic impact on traffic flow<br>• Split stations will cause user confusion; will be frustrating for transfers especially for passengers who are new to the city or new to transit<br>• Caroline Street/Willis Way station too far from heart of uptown – bad accessibility<br>• Stations not near mall entrance for handicapped persons | • Trains on Erb Street – decreased capacity<br>• Only one lane in each direction is not enough, traffic will get worse and be displaced; delivery trucks will stop all traffic; will affect emergency vehicles; snow removal may be difficult (traffic stuck behind plough)<br>• Intersection of King/Erb Streets is closed twice as frequently for trains to go through<br>• King Street is too narrow<br>• Turning issues – no left turns<br>• Access closed from Erb Street onto Albert Street<br>• Could divert traffic from King Street to Caroline Street<br>• Parking loss<br>• Don't like the station location<br>• Sidewalk space narrower, less enjoyable, less walkable space<br>• Accessibility concerns for pedestrians<br>• Makes it more difficult to jaywalk<br>• Negative impact to streetscape<br>• Noise impacts to public square | • Heavy traffic at Allen/Caroline Streets, Allen/King Streets<br>• Heavy traffic along Caroline Street<br>• Traffic from Bauer lofts and new developments will increase and be displaced to neighbourhoods<br>• No left turns<br>• Loss of parking at adult recreation centre, and on Caroline Street<br>• Detracts from transit demand on King Street<br>• Station location at a congested location<br>• Station is in no-man's land<br>• Tougher on pedestrians at Caroline/Erb Streets intersection<br>• Will intimidate pedestrians<br>• It's a long way from Caroline to King for persons with disabilities<br>• Tree removal is substantial<br>• Will impact King Street character<br>• No allowance for Iron Horse/Trans Canada trails, reduction of bike safety<br>• Requires more property |

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| | • Impacts to pedestrians<br>• Will destroy the feel of uptown (streetscape)<br>• It's a long way from Caroline to King for persons with disabilities<br>• Won't be able to fully close King Street for festivals<br>• Impacts twice as many properties<br>• More impact to business during construction because you're affecting two streets<br>• Divides the core | • King Street shut down for festivals<br>• No more car-free Sundays<br>• Requires too much property acquisition<br>• Destruction of historic property – BMO building removed<br>• Parkette at William Street impacted<br>• Impacts to businesses – limited access, building loss<br>• Won't facilitate as much new development on King Street<br>• Splits the city<br>• Utility relocation costs high | acquisition because of widening; destructive<br>• Caroline Street from William to Allen Streets too narrow<br>• Impact to CIGI<br>• Business deliveries impacted<br>• Impacts town homes – too close, increases noise, decrease of property value – impacts emergency access, snow removal<br>• Too close to seniors' residence<br>• Residences will feel train rumbling<br>• May limit potential redevelopment<br>• Doesn't showcase main road (waste of placement)<br>• Will take away business from core of Uptown<br>• Poor LRT access to Waterloo Town Square<br>• Too indirect; should go by the stores because people will be more engaged with what they see when they go by on LRT<br>• Additional utility relocation; more cost<br>• Two tracks instead of one and twice as many trains on Caroline Street, compared to the loop alternative |
| **Remedies** | • Signage pointing to other station location<br>• Signal at Willis Way for pedestrian crossing | • Don't put any barriers<br>• Buses and LRT should have integrated platform | • Move the station locations south<br>• Consider putting stations together instead of on opposite side of intersection |

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| | • Cut into public square to accommodate busses<br>• Bury hydro | • Stations should stop near side<br>• Close Willis Way instead of King Street for special events | • Take away cars – transit, multi-use only<br>• Reroute Trans Canada trail down Father David Bauer Drive<br>• Reroute Iron Horse trail<br>• Buy all the homes on Caroline Street<br>• Redevelop the townhomes<br>• Redevelop the parking lot |
| **Other alternatives** | • Use Regina Street instead of King Street<br>• Use Weber Street instead of King Street<br>• Move route to the east side of Caroline Street<br>• Run route northbound on Caroline Street so that it can be on the east side and southbound on King Street on the west side<br>• Switch the route to the other side of King Street<br>• Switch the route to the middle of King and Caroline Streets so that cars can turn and LRT is further from pedestrians | • Shift LRT to the east side of King Street with both lanes of traffic on the west side of King Street; adjacent lanes can be narrower so less property needed; then use spur two-way; remove Rude Native entrance<br>• Use William and Regina Streets instead of King Street to the spur<br>• Use spur instead of Erb Street and run on the west side of King Street<br>• Move LRT lanes to curbside – one on each side or together on one side<br>• Use Erb Street and Spur for a loop<br>• Single line alternating train direction<br>• Stay on King Street until Central Street<br>• Take King Street north to Union Street and then use spur line to avoid impacts to uptown | • Use both William and Allen Streets<br>• Use William Street<br>• Tracks should be curb side<br>• Both directions of LRT should share one lane<br>• Keep LRT on the east side of Caroline Street from Erb to Allen Streets |

| | Erb Street | Spur Line |
|---|---|---|
| **Positives** | • No additional traffic signal required<br>• Contra-flow makes train more visible to drivers<br>• Stays on roadways<br>• No property required<br>• Less impact to the public square<br>• More economic development opportunities for King Street merchants<br>• Brings route further north through uptown core<br>• Less noise impact to Waterloo Town Square | • Simplifies Caroline Street/Erb Street intersection<br>• No LRT on Erb Street<br>• Improved safety<br>• No impact to Waterloo Town Square parking<br>• No pedestrian impact to crossing Erb Street<br>• Aesthetically more pleasant, keeps character of uptown<br>• Less land required; less impact because using existing rail allowance<br>• Preserves heritage buildings<br>• Taking corner of square is okay as long as ice rink is preserved<br>• Will attract more people to uptown<br>• Adjacent to public space (opportunity to enhance urban space)<br>• Supports redevelopment around Waterloo Town Square<br>• Can liven up the square<br>• Further from Knox Church<br>• No utility impacts<br>• Less infrastructure<br>• Cost saving by using existing rail, good utilization<br>• Freight train presence is historic<br>• Makes more sense<br>• Adds to character – rail to rail |
| **Enhancements** | • Nil | • Move station to Waterloo Town Square; makes the station more visible; could heat the station; would provide gateway to CIGI, Knox Church, Perimeter Institute and the mall<br>• Add another station at the south end of uptown<br>• Provide bus transfers on Willis Way; passengers could have a weather-protected walk through the mall to an LRT station on the spur; pedestrian traffic through the mall would be better for the mall<br>• Transit-oriented development opportunity in parking lot |

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| | | • Plantings/flower beds can keep pedestrians off the rail line<br>• Provide cycling and pedestrian multi-use trail along spur<br>• Pedestrian crossing at intersection of King Street and spur<br>• Design to introduce a mix of people and LRT<br>• Will impact Town Square – it will become a rail/hang-out platform |
| **Objections** | • Traffic impacts from Erb/Caroline Streets to Erb/King Streets; complicates traffic flow<br>• Fewer lanes - Increased congestion on Erb Street<br>• LRT contra-flow on Erb Street, causing safety concerns<br>• Concern with access to Albert Street; Erb Street traffic has to cross the LRT to get to Albert Street<br>• Pedestrian impact crossing Erb Street<br>• Too close to Knox Church; safety and noise impacts to concert hall and church activities when train is stopping, starting or turning corner | • With signals at Erb Street, spur, and Willis Way at King Street, there will be interruptions to traffic; signals close together<br>• Lose parking at corner of Caroline/Erb Streets<br>• Impacts to adjacent parking lot<br>• Safety crossing the tracks because of more trains<br>• Concern with pedestrians crossing the track<br>• Concern if fence is used to control pedestrian crossing<br>• Noise impacts to public events in the square<br>• Mix of cyclists and pedestrians in the trail beside the spur<br>• Close to stage area in Waterloo Town Square<br>• Impact on Rude Native patio and atrium building<br>• Waterloo Town Square becomes a rail platform<br>• Time shift for freight |
| **Remedies** | • Add pedestrian crosswalk near Albert Street on Erb Street<br>• Add signals at Albert Street<br>• Make Erb Street a two-way street | • Education for LRT crossing<br>• Signage<br>• Close access to Rude Native<br>• Landscape to gate off tracks with specific crossing points<br>• Build a drop to separate the cyclists from the pedestrians in the trail along the spur<br>• Address interruptions to traffic through traffic signal timings |
| **Other alternatives** | • Nil | • Nil |

| | William Street | Allen Street |
|---|---|---|
| **Positives** | • Less impact to intersections<br>• Less impact on Caroline and Allen Streets<br>• William Street brings LRT route to King Street<br>• Not that many left turns on King Street between William and Allen Streets anyways<br>• Less busy than Allen Street<br>• Follows the flow of traffic<br>• More pedestrian friendly because it's not beside the Iron Horse trail<br>• Less impact to Iron Horse trail<br>• More space to work with<br>• In the boulevard<br>• Away from town houses<br>• Less impact to seniors' residences<br>• No windows on seniors' residence facing William Street<br>• No impact to Bauer Lofts/market place<br>• Bridal shop is not historically significant<br>• Doesn't impact business access on William/Allen Streets<br>• Closer to Waterloo Town Square<br>• More exposure for businesses on King Street<br>• Can see uptown as pass by on William Street<br>• Better gateway into uptown | • Less impact on traffic<br>• Keeps sidewalks on William Street<br>• Less impact on pedestrian traffic<br>• Keeps bridal shop<br>• King/Allen Street intersection is more developed<br>• Less impact on seniors' residence<br>• Increased property values for properties on Caroline Street<br>• Only eats into boulevard property<br>• No impact on utilities<br>• Costs less<br>• No two-way LRT on King Street between William/Allen Streets |
| **Enhancements** | • Roundabout at King/William Streets<br>• Only one lane of traffic – add bike lanes<br>• Take away one lane of traffic | • Nil |
| **Objections** | • Worsens traffic<br>• Right turn only on King Street from William to Allen Streets<br>• Traffic delays at King/William and William/Caroline Streets<br>• Less parking on King Street<br>• Sidewalk removed<br>• Loss of pedestrian friendly feel<br>• Ambulatory access is compromised | • Impact to traffic at Allen/Caroline, Allen/King Streets intersections<br>• Contra-flow on Allen Street<br>• New development will make traffic even worse<br>• Concerns for regular and emergency access to Fullerton, Freemont, Norman Streets<br>• 90 degree turn at Bauer; is already busy and blocked all the time, too restrictive |

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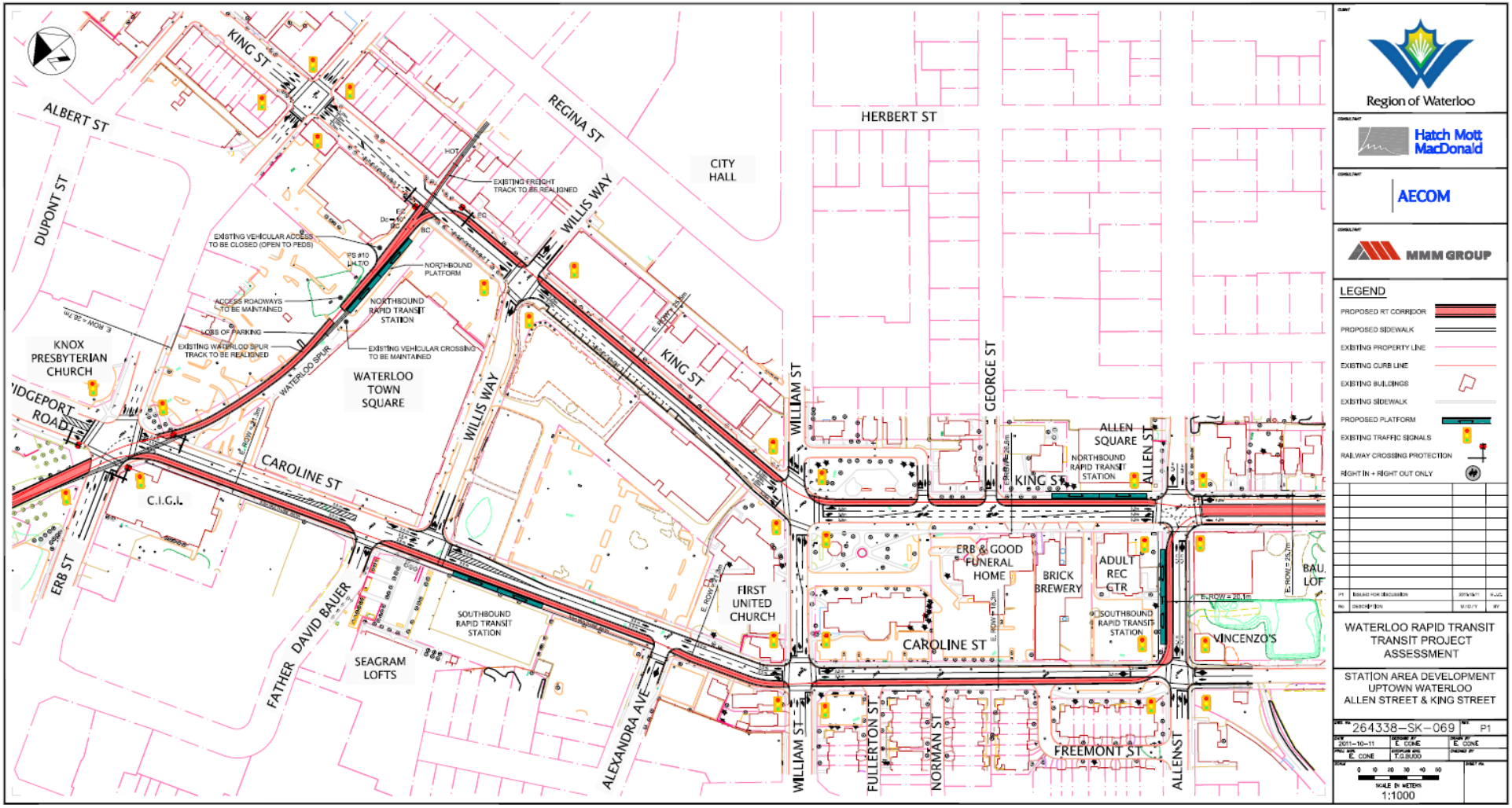
| | • Impact on bridal shop<br>• Less exposure to businesses at King/Allen Streets<br>• Pinch at William Street<br>• Retaining wall not pleasant<br>• Parkette compromised<br>• Noise to First United Church<br>• Major utility relocation | • Loss of parking at adult recreation centre<br>• Gates off area around Iron Horse trail<br>• No gateway into uptown<br>• Impacts residences on Caroline Street<br>• Noise, vibrations to residences – sharp turns will cause wheel squeal<br>• Obscure visibility of Bauer Kitchen<br>• Access and deliveries more difficult to (i.e. Vincenzo's) |
| **Remedies** | • Clear signage indicating access | • Nil |
| **Other alternatives** | • Move to other side of road<br>• Add a third lane of traffic on Allen Street | • Have LRT run in same direction as cars on Allen Street |

| | Caroline Street West | Caroline Street East |
|---|---|---|
| **Positives** | • Better for intersections, William Street intersection less confusing<br>• Easier turn at Allen Street<br>• Less traffic turning across LRT track<br>• Follows flow of traffic<br>• Less property required from adult recreation centre<br>• Better for business access | • Doesn't block residential streets<br>• Easier access to sidestreets for emergency, snow and garbage<br>• Retention of parking<br>• Less impact to town houses; further away |
| **Enhancements** | • Consider making Fullerton, Norman and Freemont Streets in-bound only or close access<br>• Outbound only access is favourable | • Nil |
| **Objections** | • Difficult access to Norman, Freemont, Fullerton Streets<br>• Town houses will need to turn across track<br>• Loss of parking on Caroline Street<br>• Not practical to have parallel parking spots between curb and LRT<br>• Impacts to garbage and snow removal for Catalina residences<br>• Possible loss of street trees<br>• Lots of seniors walking<br>• Still a challenge for business access<br>• Close to town homes | • Diagonal LRT crossing at William/Caroline Streets intersection<br>• LRT movement confusing to car drivers – contra-flow<br>• Loss of parking from seniors' centre<br>• Removes more parking from adult recreation centre<br>• Pedestrian safety concerns<br>• Lots of seniors walking<br>• Impact to business access (including deliveries)<br>• Too close to seniors' residence<br>• Utility relocation, higher costs |
| **Remedies** | • Improve turn radius by cutting through parking lot<br>• Put grass under tracks to make it more attractive for residences<br>• Allow full access or close access to Norman, Freemont, Fullerton Streets<br>• Residents can use Park Street instead | • Lighting design – for diagonal LRT crossing<br>• Signage for the confusing movements |
| **Other alternatives** | • Nil | • Go east along Caroline Street the whole way to avoid awkward crossing at Caroline/William Streets intersection |

## Appendix C

## Map of Recommended Uptown Waterloo LRT Route Alignment and Stations



**REGION OF WATERLOO**

**TRANSPORTATION AND ENVIRONMENTAL SERVICES**
**Transportation**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** T01-20/1

**SUBJECT: RESERVED CYCLING LANES, WATERLOO STREET (REGIONAL ROAD 1) BETWEEN STEINMAN STREET AND QUEEN MARY STREET, TOWNSHIP OF WILMOT**

**RECOMMENDATION:**

That the Regional Municipality of Waterloo amend Traffic and Parking By-law 06-072, as amended, to add to Schedule 24, Reserved Bicycle Lanes Anytime on both sides of Waterloo Street (Regional Road 1) between Steinman Street and Queen Mary Street in the Township of Wilmot, as outlined in Report E-11-083 dated November 8, 2011.

**SUMMARY:** NIL

**REPORT:**

Waterloo Street from Huron Street (Regional Road 1) to 200 metres (m) north of Laschinger Boulevard is scheduled for resurfacing in the 2011 Transportation Capital Program. The pavement width on Waterloo Street from Steinman Street to Queen Mary Street can accommodate 1.25 m reserved cycling lanes. As such, Transportation Division staff is recommending reserved cycling lanes on both sides of Waterloo Street between Steinman Street and Queen Mary Street.

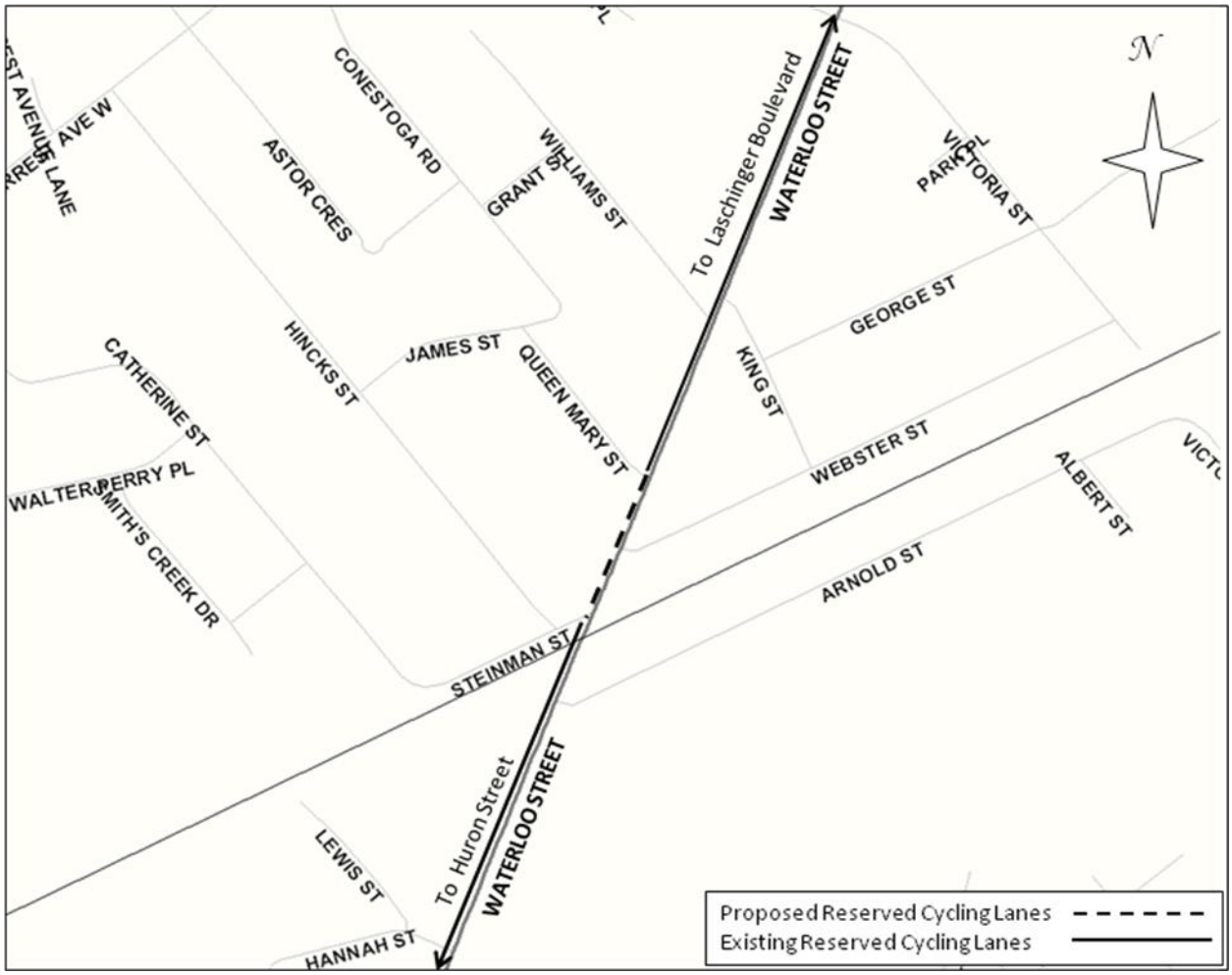
Currently, reserved cycling lanes are installed on both sides of Waterloo Street from Huron Street to Arnold Street, and from Queen Mary Street to 285 m north of Laschinger Boulevard. Installing reserved cycling lanes on this section of Waterloo Street will provide continuous reserved cycling lanes with exception of a 45 m distance between Arnold Street and Steinman Street due to the rail crossing and limited width.

Waterloo Street from Arnold Street to 285 m north of Laschinger Boulevard currently prohibits parking anytime on the east and west sides of the road. Parking therefore, will not be affected following the installation of the proposed cycling lanes. Figure 1 illustrates the proposed reserved cycling lanes.

From September 19 to September 30, 2011, Transportation staff placed information signs along Waterloo Street requesting comments on the proposed reserved cycling lanes from the public through the Region's website or via telephone; an internet questionnaire was setup to receive comments and a phone number was provided. As a follow up to the web survey, 8 questionnaires were hand delivered to residents fronting Waterloo Street within the project limits also requesting comments on the proposed changes. A total of 8 responses were received and all are in favour of installing reserved cycling lanes on both sides of the Waterloo Street between Stienman Street and Queen Mary Street.

Township of Wilmot staff were also contacted in this regard and support the proposed changes.

**Figure 1 – Existing and Proposed Reserved Cycling Lanes on Waterloo Street**




## CORPORATE STRATEGIC PLAN:

This report addresses the Region's goal to implement proven roadway safety strategies and education to enhance the safety of our roadways (strategic objective 3.3.2).

## FINANCIAL IMPLICATIONS:

The cost of installing the reserved cycling lanes along Waterloo Street between Steinman Street and Queen Mary Street is included in the resurfacing budget.

## OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

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

**ATTACHMENTS:** NIL

**PREPARED BY:** *Ashfaq Rauf*, Engineering Technologist (Traffic)

**APPROVED BY:** *Thomas Schmidt*, Commissioner, Transportation and Environmental Services

**REGION OF WATERLOO**

**TRANSPORTATION AND ENVIRONMENTAL SERVICES**
**Water Services**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** E06-70/4126/GMP-01; C06-60

**SUBJECT: C2011-20 REGION OF WATERLOO GROUNDWATER MONITORING PROGRAM CONSULTANT SELECTION 2012-2016**

## RECOMMENDATION:

THAT the Regional Municipality of Waterloo:

a) enter into a Consulting Services Agreement with R.J.Burnside & Associates Ltd. (Burnside) Ontario, to provide consulting geoscience services for the Region of Waterloo Groundwater Monitoring Program for the period January 1, 2012 to December 31, 2013 at an upset limit of $ 775,007 plus applicable taxes; as presented in Report E-11-038 dated November 8, 2011; and

b) authorize staff to renew this contract for the period from January 1, 2014 through June 30, 2016 at an upset limit of $ 940,576 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 and to meet monitoring and reporting requirements for the Region's water-taking permits. The goal of the program is to facilitate the management and protection of the Region's groundwater supply and to assess the potential impact of municipal pumping on the groundwater and surface water resources in the Region. 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. Region staff undertook a consultant selection process consistent with the Region's Consultant Selection Policy and recommend that Burnside be retained to undertake this monitoring.

## 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 extraction rates and water levels is fundamental to groundwater resource management. To ensure sustainable long-term production, it is necessary to assess the quantity and quality of groundwater available for pumping and to manage the production accordingly. As part of the process, it is important to assess the potential impact of pumping on groundwater and surface water as well as other private users. Water level monitoring is also required as a condition of the Permit to Take Water (PTTW) for each supply well.

The Region has collected water level data from production wells and monitoring wells dating back to the 1940s. Up to the end of the 1960s the data were collected primarily from production wells, but in the 1970s water level data were collected on a routine basis in some monitoring wells and private wells in Wilmot Township. Following implementation of the WRPS in 1994, Region staff developed a more formal monitoring program which included collection of water levels in all of the municipal production wells and selected monitoring wells. An assessment of water level trends has been completed every two years, starting in 1995.

The Region's current water level monitoring program has grown over the last four years and consists of measurement of water levels at 462 monitoring wells, compared to 283 previously. Over the last four years, new monitoring wells had been installed in well fields that previously had no monitoring wells available for or to fill gaps in the existing program. No new well installations are planned for the Groundwater Monitoring Program over the next four year period; however, the program may grow if new conditions are added to the PTTW.

Water quality samples are collected in 112 monitoring wells twice annually. The program includes monitoring a core group of monitoring wells to address specific conditions in the PTTW for each well field and an additional group of monitoring wells to further assess the sustainability of pumping and to develop an increased understanding of the regional aquifers. Water levels are taken using either continuous electronic data loggers or monthly manual measurements.

In addition to the main program above, a more intensive water level and water quality monitoring component has been established for the Wilmot Centre Well Field in Wilmot Township. This monitoring looks at the potential impacts on groundwater and surface water as a result of planned increased pumping at this well field over the next 40 years as part of the Water Supply Master Plan for the communities of Baden and New Hamburg. This component of the program involves increased water level and water quality monitoring at selected wells and stream flow measurements in the Hunsburger Creek Subwatershed and Baden area of Wilmot Township.

Similar to water level monitoring, the Region had monitored water quality since the implementation of the WRPS. The current Region-wide water quality monitoring program for monitoring wells was established in 2004. The goals of the geochemical water quality monitoring component are to assess the overall quality of the groundwater in the municipal water supply aquifers in the Region, detect any groundwater contamination before it potentially impacts Region water supply wells and facilitate management of existing supplies and exploration for new water supplies.

**Consultant Selection**

The consultant selection process followed a two-stage process conducted in accordance with the Region's Guidelines for Consultant Selection Process. Eight consultants responded to the Region's request for a Letter of Interest, made available on August 17, 2011. In the first stage, three consultants (Conestoga Rovers & Associates, AMEC and R.J. Burnside & Associates Limited) were short-listed based on weighted quality and equity factors. In the second stage, the short-listed consultants were asked to submit a detailed work plan, project schedule and upset cost estimate in a sealed envelope based on the scope of work defined in the Terms of Reference. Region staff re-evaluated scores based on the detailed work plans.

Region staff involved in the consultant selection process were:

- Rachel Vaillancourt, Hydrogeologist, Water Services
- Tammy Middleton, Senior Hydrogeologist, Water Services
- Michael Howlett, Hydrogeologist, Water Services

Consultants were evaluated based on the following weighted evaluation factors:

| | | |
|---|---|---|
| 1. | Quality Factors (80%) | |
| | Project Understanding and Approach | 25% |
| | Project Manager | 20% |
| | Project Support Staff | 15% |
| | Firm's Experience on Similar Projects | 20% |
| 2. | Equity Factors (5%) | |
| | Current Regional Workload | 3% |
| | Local Office | 2% |
| 3. | Price Factor (15%) | 15% |
| | **Total** | **100%** |

Based on the above, the consultant selection team recommends awarding the project to Burnside at an upset cost of $1,715,583 plus applicable taxes for the period from January 1, 2011 to June 30, 2016. Although Burnside was the highest price, they received the highest total combined score based on all factors.

**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 assessment reports to be completed by the consultant and their frequency is presented in Attachment A. The consultant will also evaluate the current network of monitoring sites to ensure it meets the Region's water management objectives and regulatory obligations. In addition, the consultant will update the existing inventory of monitoring wells on or adjacent to production well properties on an annual basis.

Subject to Council's approval, the consultant's assignment will be split into two segments: one for the period from January 1, 2012 to December 31, 2013 and a second for January 1, 2014 to June 30, 2016. A two year period is necessary for the consultant to become familiar with the network and data, develop program efficiencies and complete the biennial reporting requirements. A consulting services agreement would be developed for the first two-year period and extended to cover the second period subject to acceptable performance of the consultant in meeting project outcomes and deliverables. Attachment B contains a summary of the tasks and the respective two-year and total cost for these tasks.

**CORPORATE STRATEGIC PLAN:**

The Groundwater Monitoring Program helps implement the objective of the Region's 2011-2014 Strategic Plan to protect the quality and quantity of our drinking water as outlined in Focus Area 1: Environmental Sustainability: Protect and enhance the environment.

**FINANCIAL IMPLICATIONS:**

The approved 2011 Capital Program and 10-Year Capital Forecast includes a total of $4.6 M for source protection monitoring in 2012 through 2016, funded through Regional Development Charges and the Water Reserve Fund. Remaining funds will be utilized for other components of the groundwater monitoring program.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

NIL

**ATTACHMENTS:**

Attachment A: List of Reports Prepared By Consultant
Attachment B: Breakdown of Consultant's Costs by Task

**PREPARED BY:** *Rachel Vaillancourt*, Hydrogeologist, Hydrogeology and Source Water

**APPROVED BY:** *Thomas Schmidt*, Commissioner, Transportation and Environmental Services

**ATTACHMENT A**
**REGIONAL GROUNDWATER MONITORING PROGRAM**

**LIST OF REPORTS PREPARED BY CONSULTANT**

| Report Name | Description | Frequency |
|---|---|---|
| Monitoring Network Assessment Report | A detailed evaluation of whether the current water quality (WQ) and water level (WL) program meet the needs of the program with recommended improvements | WQ Due June 2012<br>WL Due June 2013 |
| Biennial Monitoring Reports | Present and assess water quality and quantity data for well fields focusing on data collected in previous two years. A total of approximately 35 reports will be prepared biennially. | Due 2014, 2016 |
| Interim Data Report | Presentation of water level data with emphasis of changes since last report. | 2013, 2015 |
| Seasonal Water Level Reports | Presentation of seasonal water levels outside the influence of production wells in relation to precipitation | Spring, Summer and Fall of each year (2012, 2013, 2014, 2015) |
| Water Quality Report | Presentation of water quality data. | Annually |
| Wilmot Centre Monitoring Program Report | Comprehensive presentation and assessment of water quality and quantity data for presentation to Wilmot Centre Monitoring Program Public Liaison Committee. | Annually |
| Wilmot Centre Trigger Assessment | Assessment of trigger levels established in the Wilmot Centre Monitoring program. | As required. |

**ATTACHMENT B**
**REGIONAL GROUNDWATER MONITORING PROGRAM**

**BREAKDOWN OF CONSULTANT'S COSTS BY TASK**

| Groundwater Monitoring Program | | Biannual Costs | | Total Cost |
|---|---|---|---|---|
| | | Period 1 | Period 2 | |
| Task 1: | Monitoring Network Evaluation | 12,940 | 12,400 | 25,340 |
| Task 2: | Collecting Water Level and Water Quality Data | 328,060 | 458,287 | 786,347 |
| Task 3: | Wilmot Centre Monitoring Program | 67,916 | 67,916 | 135,832 |
| Task 4: | Data Processing and Geoscience Database Management | 96,320 | 82,680 | 179,000 |
| Task 5 | Equipment Needs and Maintenance | 24,480 | 24,480 | 48,960 |
| Task 6 | Well Maintenance at Monitoring Well Sites | 21,240 | 21,240 | 42,480 |
| Task 7: | Reporting | 171,211 | 208,063 | 379,274 |
| Task 8: | Meetings and Public Consultation | 6,500 | 9,750 | 16,250 |
| Task 9: | Project Management | 46,340 | 55,760 | 102,100 |
| | **TOTAL:** | **775,007** | **940,576** | **1,715,583** |

**REGION OF WATERLOO**

**TRANSPORTATION AND ENVIRONMENTAL SERVICES**
**Water Service**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** C06-60/WS.11

**SUBJECT: APPROACHES TO POLICIES IN THE SOURCE PROTECTION PLAN**

## RECOMMENDATION:

For Information

## SUMMARY:

The last planning step in fulfilling the requirements of the Clean Water Act for watershed-based source water protection is the development of the Source Protection Plan (SPP). The SPP is to contain policies to reduce the risk from drinking water threats and is required to be submitted to the Ministry of Environment (MOE) for approval by August 2012. This report provides a summary of the approaches being considered by Region staff to develop risk-reduction policies for the SPP.

Development of the risk-reduction policies follows several principles including those identified in the Water Resources Protection Master Plan that was approved by Regional Council in 2007. Differing degrees of protection are integrated into the policies depending on whether there are drinking water quality *Issues* (deteriorating water quality trends) observed in a municipal drinking-water supply well and proximity of the threat to the well. A combination of prohibition, risk management, land-use planning, Prescribed Instruments e.g. certificates of approval issued by the Province, incentives, and education policies are proposed to reduce the risk from the 19 threats prescribed by the MOE. Development of the SPP is on-going and will include providing additional detail for each policy and consideration of other components of policy implementation including the scope of incentive programs and establishment of the Risk Management Official (RMO) and Risk Management Inspectors (RMI). Consultation on the policy approaches has commenced and will be expanded over the next several months to get property owner, public and agency feedback on the draft policies and SPP.

## REPORT:

### Background

The *Clean Water Act (2006)* establishes the legislative framework for undertaking watershed-based source water protection. The purpose of this initiative is to reduce water quality and quantity risks from threats to drinking water sources. The *Clean Water Act* and related regulations establish a multiple step process undertaken over a number of years to establish a SPP that will contain policies for reducing risks to drinking water sources. Several recent reports to Regional Council (E-10-082, E-10-012, E-09-110) have provided information on the risk assessment that are documented in an Assessment Report for each watershed. The Assessment Report for the Grand River Watershed provides the technical basis for development of the SPP. The completion of technical work for the Assessment Report and policy development in the SPP is a collaborative effort between

municipalities and Grand River Conservation Authority (GRCA) staff. The multi-stakeholder Lake Erie Source Protection Committee (SPC) is responsible for completing the Assessment Report and the SPP.

The Grand River watershed Assessment Report was submitted to the Province on December 20, 2010 and is currently undergoing Provincial review. The Region provided formal comments on the Assessment Report to the GRCA (E-10-082). In addition, Region and GRCA staff have been working on an update to the Assessment Report, as allowed under the *Clean Water Act*, to include new and updated information (E-11-013). The GRCA is unable to submit the report to the Province until it has received comments on the original Assessment Report. Region and GRCA staff are continuing to develop policies for the SPP based on the work in the Updated Assessment Report.

Development of risk reduction policies for inclusion in the SPP will need to consider numerous evaluation criteria, will involve extensive consultation with property owners affected by the policies and government agencies identified as implementing the policies, and will need to adhere to Provincial rules, regulations, and guidance. While Region staff has been identified as having the lead for local policy development, the Source Protection Committee will ultimately approve the SPP and submit it to the Province for approval. Policy development and consultation is to be completed in a relatively short period of time, as per *Clean Water Act* regulation, compared to the time taken for development of the Assessment Report.

This report provides a summary of the approaches being considered by Region staff to develop risk-reduction policies for the SPP. Specifically, it will identify the general principles Region staff are using to develop the policies and the preferred implementation tools for reducing risks. The report will also provide an update on the status of the Updated Assessment Report, will present some additional implementation issues that Region staff has been considering, and will provide a synopsis of the consultation and approval process for the SPP.

**Assessment Report Status**

The Grand River watershed Assessment Report contains a detailed assessment of drinking water sources in the watershed, including a risk assessment on each county, region or single-tier municipal system for the 19 water quality threats prescribed by the MOE. Risk was determined by identifying and ranking *Threats* (existing and future land uses and activities, intake water quality *Issues* and historic water contamination *Conditions*) in vulnerable drinking water areas including municipal well head and surface water intake protection areas. In addition, risk is calculated for significant groundwater recharge areas and areas of high vulnerability within the watershed. A risk "score" is calculated for each threat in each vulnerable area and any threat where the risk is calculated to be S*ignificant* must have a policy in the SPP to mitigate the risk.

As noted in report E11-057, a total of 2750 properties in Waterloo Region have been identified as having *Significant* threats that will need to be addressed in the SPP. Appendix A presents a summary table of the number of threats by well field and whether the threats are associated with a water quality *Issue*. The identification and ranking of threats was done using a combination of property-owner surveys and existing data sources. Accordingly the ranking is based on the best available information that will need to be confirmed as part of SPP policy development and implementation.

It is important to note that the Updated Assessment Report does not include the results of the Local Water Budget (Tier 3) and Risk Assessment project that was initiated in 2008 and was required under the Clean Water Act. This project looks at the overall water use in Waterloo Region and will assess water quantity threats to the Region's municipal water intakes. The Tier 3 project is

anticipated to be completed in 2012, the results of which will be incorporated into a further update of the Assessment Report.

**Overall Approach and Considerations**

A total of 7 municipalities plus the GRCA have been identified as leads for developing risk-reduction policies for the municipal intakes within the Grand River Watershed. To assist each of these agencies, a series of discussion papers were developed for each prescribed threat. Each discussion paper summarizes the circumstances that make the threat significant, reviewed existing legislative tools and voluntary programs that could be used to reduce the risk, and developed examples of policies. The examples were created for the different implementation tools identified by the Province that could be used as risk-reduction policies. Each tool has different advantages, disadvantages and legal effect depending on who is responsible for implementation. A brief description of each tool is presented in Appendix B. It is important to note that the first 4 approaches (prohibition, restricted land use, risk management plans and prescribed instruments) are new tools introduced in the Clean Water Act and related regulations that are available to Upper Tier municipalities for reducing risk. These tools provide authority to implement programs but require increased administration resources to implement. The remaining tools provide varying degrees of enforcement for source protection and have been available for many years. In addition to this information, the Province has issued numerous technical bulletins and support documents that describe the applicability and limitations of the tools.

The discussion papers and Provincial guidance provides the information needed to begin consideration of risk-reduction policies. Region staff have additional knowledge to offer as a result of over 15 years of experience in implementing source protection programs. Based on all of the above, several principles were identified to guide the development of risk-reduction policies as follows:

- Overall principles to reducing risk should consider previous source protection program implementation experience and align with approaches identified in the Region's Water Resources Protection Master Plan (E-07-076) including the need to balance voluntary and regulatory initiatives, where feasible and technically justified in relation to Clean Water Act, and build on existing programs before creating new programs;
- More protective policies (regulatory driven and/or shorter implementation time period) should be applied in areas closer to well (e.g. 100 m zone) compared to those further from the well.
- More protective policies should be developed for threats associated with a drinking water *Issue* compared to those for threats not associated with an *Issue*;
- A "carrot and stick" approach should be employed to enable voluntary implementation before requiring compliance in future implementation periods. As source protection is envisioned to be a continuous improvement process, the first round of risk management policies should emphasize voluntary implementation with or without financial incentives to reduce risk. If voluntary implementation is unsuccessful in this initial implementation period, the stronger enforcement tools enabled through the Clean Water Act would be used to require compliance and any financial incentives would be removed;
- A consistent approach to policies (e.g. degree of forcefulness) should be attempted for the various threats to ensure no individual threat is regulated to a greater degree than others;
- Existing prescribed instruments (e.g. Provincial certificates of approval and permits) and local programs (e.g. Rural Water Quality Program) should be used to achieve risk reduction objectives. Where no current program exists, development of new programs (e.g. business spill prevention incentives) would be considered. Where numbers of properties do not warrant development of a new program, consideration should be given to using risk management plan and/or education/awareness programs to achieve objectives;

- Compliance dates should be distributed over the five year implementation period to manage impact on Region/municipal staffing and property owners;
- Policies applied to existing properties must consider that land uses and activities may have been present for many years and allow for changes to be implemented in a reasonable time frame. Accordingly, financial incentives could be considered in recognition that they will be required to meet new legislative requirements; and,
- Costs to comply with the policies by property owners and to implement programs by municipalities and the GRCA are an important consideration in the development of policies.

Using these principles, guidance and discussion papers, a preliminary approach including the identification of the main tool to be used to reduce risk from the 19 prescribed threats has been developed and is presented in Tables 1 through 4. The tables list the primary tools to be used to address the threats identified by the Province and several additional threats identified by the Source Protection Committee that need to be included in the SPP. The four tables present the proposed tools for: existing threats without drinking water quality *Issues*; existing threats with *Issues*; future threats without *Issues*; and future threats with *Issues*. The tables list each threat and the tool that is proposed to be applied to specific vulnerable areas.

The tables together list a range of tools that are to be applied to a large number of properties for addressing a number of threats. It is important to note that this is a conceptual approach and is the first step in the development of policies. The approaches and tools will be refined though a detailed review of each property identified as a significant threat, may be different for different wells, and could change in response to public consultation and discussion at the Source Protection Committee. In addition, the actual policies contained in the SPP will be much more detailed (by well, threat and/or property) and will likely include compliance dates. Notwithstanding the above, the following general implications are provided.

- The policies may require existing property owners to undertake additional measures to reduce risk from their activities depending on the degree to which existing risk management measures have been undertaken.
- Policies to address future threats may require changes to the Regional Official Plan (ROP) and area municipal official plans at some point following approval of the SPP by the MOE. Where possible the proposed approaches have attempted to develop a similar level of protection as that afforded in ROP.
- The Region and area municipalities will have additional responsibilities arising from these proposed approaches including complying with policies on municipally-owned properties and implementing various programs. For policies that use the new Clean Water Act tools, the Region will need to establish risk-management office to implement these programs as discussed below. For example, area municipalities may have to implement inspection programs associated with septic systems in accordance with the Building Code.

It is important to note that the proposed approaches have not evaluated the detailed implementation costs for municipalities or staffing requirements to implement them. Staff will continue to develop this information to the extent possible as part of the policy development process, including further discussion with area municipal staff through the Source Water Protection Liaison Committee. It is anticipated that an assessment of the financial impacts to the Region and local municipalities will be developed to coincide with the formal consultation on the SPP in winter/spring 2012.

**Supporting Program Considerations**

While Region staff are familiar with the scope of several tools to be used for source protection (e.g. land-use planning or education programs), it is proposed that many of the identified threats are best addressed using the new tools enabled through the Clean Water Act and incentive programs. Accordingly the scope of these implementation approaches needs additional consideration to better evaluate the implications of using them. A description of these is provided below.

*Scope of incentives*

The Rural Water Quality Program (RWQP) has had considerable success in improving water quality related to farming activities. Accordingly, it was felt that this program could be used to meet Clean Water Act risk-reduction objectives. As noted above, incentives could be provided during this initial few years of SPP implementation. However, unlike the original RWQP, an incentive program would target contacting property owners in vulnerable areas to encourage their participation and inform them that this is a time-limited offer. Incentive programs are also a proposed approach for application of road salt and chemical storage/handling. Some further information on the scope of these programs is provided below:

- Risk reduction from agricultural activities would be addressed through the RWQP with a higher priority for properties in well fields with drinking water quality issues. As with the original program, the incentives would cover a portion of the cost of the specific measure. Where the threat is application of manure or fertilizer, the incentive covers approximately 30 percent of the cost up to $1000 for preparation of a Nutrient Management Plan (NMP). For manure or fertilizer storage, the cost share is the same with an upper limit of $15,000 in recognition of the much higher costs for constructing storage facilities some of which can exceed $100,000. The current structure of the RWQP is well suited to meeting the objectives of the Clean Water Act.
- For application of road salt, incentives would be provided to property owners to undertake the assessment and accreditation as part of the **smart about salt™** program. It is envisioned that the scope of incentives would be similar to that of preparation of a NMP.
- An incentive program would be developed for addressing fuel storage and organic solvents primarily targeting properties where the chemical use is "secondary" to the land use. At this time, it is proposed that the incentive programs would not be available to property owners where the primary use of the property is for fuel or chemical storage (e.g. gas station). It is assumed that these companies likely have stringent regulations and/or follow association beneficial management practices that minimize the opportunity for spills and that incentives would only cover a very small percentage of the cost to upgrade any of these facilities. The incentive programs would use a similar structure to that of the RWQP and the Business Water Quality Program that was terminated in 2005.

Development of these proposed incentive programs including evaluation of financial and staffing implications is ongoing.

*Risk Management Official and Inspectors*

The Clean Water Act includes tools for prohibiting activities, restricting land use, and requiring risk management plans to reduce the risk from threats. Each of these tools requires the development of a Risk Management Official (RMO) and Risk Management Inspectors (RMI) for implementation. Together these persons would comprise a RMO "office" that would have extensive enforcement authority including provisions for: issuing, amending, renewing and revoking risk management plans; power of entry to gather information necessary for the preparation of the SPP; issuance of

enforcement orders and the authority to cause work to be done at the property owner's expense; and charging processing fees and/or recouping work expenses where the property owner refused to take action. Appeals of decisions made by the RMO Office can be made to the Environmental Review Tribunal. Accordingly, development of additional detail on this process is necessary to understand the implications of using these tools.

Region staff has developed a conceptual approach to the RMO Office including development of administrative process associated with these tools, identification of specific tasks, the time required to undertake them, and the experience needed to perform these activities. This process has been developed following MOE guidance, participation on an informal municipal/MOE working group, participation in a pilot training session for RMO/RMI developed by the MOE, and consultation with Legal Services and Community Planning staff. A summary of this structure is as follows:

- The RMO Office would be operated within Water Services. The RMO would report to the Manager, Hydrogeology and Source Water.
- To the extent possible, existing staff resources would be utilized for undertaking these new activities. There may be some opportunity for the RMO/RMI activities to be integrated into existing job descriptions.
- Technical support for review of risk management plans would be undertaken using existing staff. Compliance dates for risk management plans would be staggered to reduce requirements for new staff. Additional database management and/or administrative support may be necessary to ensure the functionality of the RMO Office.
- The preliminary assessment of the content of risk management plans for salt, nutrient, chemical and pesticide management has been developed to better understand the scope of the plans and staffing needs. It is important to note that each risk management plan is to be negotiated individually with each property owner.

The development of the RMO Office is on-going. As with the incentive programs, further details on the financial, staffing, and administrative process will be developed for early 2012 to enable a full evaluation of the implications of these functions as part of the Region's comments on the SPP.

**Next Steps Including Public Consultation**

Regulations require the SPP to be submitted to the MOE by August 12, 2012. By this time period, the policies must be developed, and then undergo three levels of consultation: public engagement, pre-consultation, and formal consultation. Public engagement is an optional consultation step available to agencies with the lead for policy development and involves direct discussion with stakeholders. Pre-consultation is a recommendation by the MOE to forward draft polices to municipal and Provincial agencies that would be responsible for policy implementation for their comment. Formal consultation is set in regulation and includes advising agencies and property owners of their opportunity to comment on the draft SPP. As discussed above, discussion papers, regulations and guidance will be used by the lead agencies to formulate draft policies that will then be provided to the GRCA for inclusion in SPP. The next steps in the policy and consultation process are as follows:

- Region staff will continue to implement public engagement with local municipal staff through the Source Water Protection Liaison Committee. Public engagement will be expanded to include notification to property owners with significant threats, stakeholder association presentations and the hosting of four Public Information Centres in October and November 2011.
- Staff will prepare a report to Regional Council for December 2011 providing proposed policies to be forwarded to the SPC for their inclusion in and public consultation on the SPP.

- Further public engagement and pre-consultation will occur between December 2011 and March 2012 on the draft policies.
- The SPC is scheduled to consider the draft SPP in March 2012 and approve it for formal public consultation including a public meeting. A 35 day commenting period is available for public and municipal comments on the SPP. Region staff will prepare a report on the draft SPP for Regional Council's consideration.
- A revised draft SPP is scheduled to be approved for further 30 day commenting period in May 2012.
- The SPC is scheduled to approve the SPP in late June 2012.

**CORPORATE STRATEGIC PLAN:**

The preparation of the SPP contributes to the implementation of the Strategic Objective to protect the quality and quantity of our drinking water sources of Focus Area 1: Environmental Sustainability.

**FINANCIAL IMPLICATIONS:**

The scope of policies and programs including financial implications as discussed in this report are on-going. Further assessment of anticipated staffing needs and implementation costs to implement the SPP will be undertaken and included in the 2013 budget process.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

Corporate Resources (Legal Services), Planning, Housing and Community Services (Community Planning) staff have been consulted in the selection of policy approaches and related support programs. Public Health staff participate in SPC meetings and the Source Water Protection Liaison Committee.

**ATTACHMENTS**

Appendix A: Summary of Significant Threats by Well Field
Appendix B: Legal Affect of Policy Tools
Tables 1 through 4: Proposed Policy Tools

**PREPARED BY:** *Eric Hodgins*, Manager, Hydrogeology and Source Protection

**APPROVED BY:** *Thomas Schmidt*, Commissioner, Transportation and Environmental Services

**Appendix A: Enumeration of Significant Threats by Wellfield for the Updated Assessment Report**

| Well Field | Total Number of Significant Threat Activities | Total Number of Properties with Significant Threats | Total Number of Properties with Significant Threats Related to Issues | Drinking Water Quality Issues |
|---|---|---|---|---|
| Ayr | 1 | 1 | 0 | |
| Baden | 135 | 70 | 64 | Nitrate |
| Blair Road | 3 | 3 | 0 | |
| Branchton Meadows | 10 | 10 | 10 | Salt |
| Clemens Mill | 16 | 11 | 0 | |
| Conestogo | 43 | 34 | 0 | |
| Dunbar Road | 2 | 2 | 0 | |
| Elgin Street | 130 | 106 | 105 | Salt, TCE |
| Elmira | 25 | 5 | 0 | |
| Erb Street | 8 | 4 | 0 | |
| Fountain Street | 1 | 1 | 0 | |
| Foxboro Green | 5 | 2 | 0 | |
| Greenbrook | 201 | 177 | 174 | Salt |
| Heidelberg | 20 | 14 | 0 | |
| Hespeler | 114 | 108 | 106 | Salt (H3), Salt & Nitrate (H4) |
| Lancaster | 14 | 8 | 0 | |
| Linwood | 19 | 17 | 0 | |
| Mannheim | 615 | 357 | 350 | Nitrate (K23, K24 & K26) |
| Maryhill | 32 | 24 | 0 | |
| Middleton | 893 | 795 | 743 | Salt, TCE |
| New Dundee | 47 | 32 | 0 | |
| New Hamburg | 10 | 5 | 0 | |
| Parkway | 338 | 293 | 291 | Salt |
| Pinebush | 143 | 124 | 107 | Salt (G5) |
| Pompeii / Forwell | 20 | 8 | 0 | |
| Roseville | 24 | 21 | 0 | |
| Shades Mill | 26 | 11 | 0 | |
| St. Clements | 45 | 41 | 0 | |
| Strange Street | 19 | 14 | 7 | Salt (K10A) |
| Strasburg | 3 | 3 | 0 | |
| Waterloo North | 9 | 8 | 0 | |
| Wellesley | 9 | 4 | 0 | |
| West Montrose | 6 | 4 | 0 | |
| Willard | 33 | 26 | 0 | |
| William Street | 346 | 331 | 326 | Salt, TCE |
| Wilmot Centre | 164 | 92 | 90 | Nitrate |
| Woolner | 8 | 6 | 0 | |
| Grand River Intake | 0 | 0 | 0 | |

**Note:** Some properties lie in areas of overlapping protection zones and are ranked and counted separately for each well field. Total number of significant threat properties with overlaps removed equals 2750.

**Appendix B: Legal Effect of Policy Tools**

| Responsible Party for Implementing Policy: | Provincial | Municipality, Local Board or Source Protection Authority | Other Bodies |
|---|---|---|---|
| **SIGNIFICANT THREAT POLICIES- ACTIVITIES** | | | |
| Part IV Tools [1] | Comply[3] | Comply | Comply |
| Prescribed Instruments | Must Conform | N/A | N/A |
| Land Use Planning Approaches | | Must Conform | Must Conform |
| Education and Outreach/ Incentive Programs | Strategic Action | Comply | Strategic Action |
| Other[2] | | | |
| **SIGNIFICANT THREAT POLICIES-CONDITIONS** | | | |
| Part IV Tools[1] | N/A | N/A | N/A |
| Prescribed Instruments | Must Conform | | |
| Land Use Planning Approaches | | Must Conform | Must Conform |
| Education and Outreach/ Incentive Programs | Strategic Action | Comply | Strategic Action |
| Other[2] | | | |
| **MONITORING POLICIES** | | | |
| All Policy Tools | Comply | Comply | Comply |
| **OTHER** | | | |
| Transport Pathways | Strategic Action | Strategic Action | Strategic Action |
| Climate change data collection | | | |
| Spill prevention, contingency or response plans along highways, railways or shipping lanes | | | |

**Notes:**

1. Part IV Tools include Section 57 Prohibition, Risk Management Plans and Restricted Land Uses
2. Other approaches authorized by the regulation include: specify the action to be taken to implement the source protection plan or to achieve the plan's objectives; establish stewardship programs; specify and promote best management practices; establish pilot programs; and govern research.
3. The legal effect of the Source Protection Plan will vary according to the following: persons carrying out significant threat activities must comply with policies that use *Clean Water Act* Part IV authorities; municipalities, local boards and Source Protection Authorities must comply with any obligation identified in the Source Protection Plan; *Planning Act* decisions and issuance of Prescribed Instruments must conform to the Source Protection Plan; Strategic Action policies do not have legal implementation requirements.

N/A - not applicable

**ACRONYMS USED IN TABLES 1 - 4**

| | | | |
|---|---|---|---|
| ASM | Agricultural Source Material e.g. Manure | NMP | Nutrient Management Plan under the Nutrient Management Act |
| CEPA | Canadian Environmental Protection Act | PI | Prescribed Instrument |
| DNAPL | Dense Non-Aqueous Phase Liquid | RMP | Risk Management Plan |
| E | Education | ROP | Regional Official Plan |
| GUDI | Well with groundwater under direct influence of surface water | RWQP | Rural Water Quality Program |
| I | Incentives | SA | Specified Action |
| K23 | Municipal well named K23 | SAS | Smart About Salt Program |
| LUP | Land Use Planning | SLP | Salt Loading Potential |
| MOE | Ontario Ministry of the Environment | SMP | Salt Management Plan |
| N/A | Not Applicable | TSSA | Technical Standards and Safety Authority |
| NASM | Non-agriculture Source Material e.g. Biosolids | V | Vulnerability Score |

**TABLE 1: PROPOSED POLICY TOOLS FOR EXISTING THREATS WITHOUT DRINKING WATER QUALITY ISSUES**

| Existing Threat (No Issues)* | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to Well Head Protection Area – B Where Vulnerability Scores 10 |
|---|---|---|
| Agricultural Source Material (ASM) – Application | Risk Management Plan (RMP) (equivalent to NMP) | PI – NMP or<br>I – RWQP |
| ASM – Storage | RMP | PI – NMP or<br>I – RWQP |
| ASM Generation – Confinement | RMP | I – RWQP |
| ASM Generation – Grazing | I – RWQP | I – RWQP |
| Commercial Fertilizer – Application | RMP (equivalent to NMP) | I – RWQP |
| Commercial Fertilizer – Storage/Handling | RMP | I – RWQP |
| DNAPL Storage/Handling | Prohibit above and below ground | RMP (V>=8); I – Spill prevention incentives (V>=6); E – (V<6) |
| Fuel – Storage/Handling | Prohibit – below ground storage<br>RMP – above ground storage | I – encourage upgrades where secondary use<br>E – to TSSA and owner where primary use |
| Fuel – Home Heating Oil | E – home owner and fuel distributor | E – home owner and fuel distributor |
| Non Agricultural Source Material (NASM) – Application | Not permitted under Nutrient Management Act | PI – NMP or<br>I – RWQP |
| NASM – Storage | RMP | PI – NMP or<br>I – RWQP |
| Organic Solvent Storage/Handling | Prohibit – below ground storage<br>RMP – above ground storage | I – encourage upgrades where secondary use<br>RMP – where handling/storage is primary land use |
| Pesticide – Application | RMP | RMP |
| Pesticide – Storage/Handling | RMP | RMP |

| Existing Threat (No Issues)* | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to Well Head Protection Area – B Where Vulnerability Scores 10 |
|---|---|---|
| Salt – Application on Roads | RMP (equivalent to SMP submitted for CEPA) | RMP (equivalent to SMP submitted for CEPA) |
| Salt – Application on parking lots | RMP – large lots<br>I – encourage SAS Certification for small lots | RMP – large lots<br>I – encourage SAS Certification for small lots |
| Salt – Application on parking lots (less than 8 parking spots) | E – awareness of salt impact on water supply | E – awareness of salt impact on water supply |
| Salt – Storage/Handling | N/A | RMP |
| Sanitary Sewers and Related Pipes | PI – request MOE review maintenance and/ or inspection requirements and prioritize<br>SA – require municipalities to assess and prioritize inspections | PI – request MOE review maintenance and/or inspection requirements and prioritize<br>SA – require municipalities to assess and prioritize inspections |
| Septic System – Small (including holding tanks) | SA – Municipal inspection program | SA – Municipal inspection program |
| Septic System – Large | PI – MOE review and inspect | PI – MOE review and inspect |
| Snow Storage | Prohibit above ground >5 ha and below ground >0.5 ha | Prohibit above ground >5 ha and below ground >0.5 ha |
| Stormwater Retention Pond Discharge | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater |
| Waste Disposal Site - Landfilling (Municipal Waste) | N/A | PI – request MOE require spill management and containment |
| Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial) | N/A | PI – request MOE require spill management and containment |
| Waste Disposal Site - PCB Waste Storage | PI – request MOE require spill management and containment | PI – request MOE require spill management and containment |
| Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites | PI – request MOE require spill management and containment | PI – request MOE require spill management and containment |
| Waste Disposal Site - Storage of wastes - (p),(q),(r),(s),(t) or (u) of the definition of hazardous waste | PI – request MOE require spill management and containment | PI – request MOE require spill management and containment |
| Waste Water Treatment Plant – Storage Tanks | PI - request MOE review for spill prevention | PI - request MOE review for spill prevention |
| ***Additional Threat Policies Identified by the Source Protection Committee*** | | |
| Conditions Arising from Historic Contamination | SA – request MOE advise municipality of reports and Risk Assessments to;<br>SA – request MOE review certificates of approval, advise municipalities, and prioritize for further action | SA – request MOE advise municipality of reports and Risk Assessments to;<br>SA – request MOE review certificates of approval, advise municipalities, and prioritize for further action |
| Transportation Corridors – Need for Emergency Response Plans | SA – municipalities update plans | SA – municipalities update plans |
| Transport Pathways | To Be Determined | To Be Determined |

| Existing Threat (No Issues)* | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to Well Head Protection Area – B Where Vulnerability Scores 10 |
|---|---|---|
| Preventing Medium/Low Threats From Becoming Significant – Monitoring Policies for ASM Application, Commercial Fertilizer Application, Pesticide Application, and Snow Storage | To Be Determined | To Be Determined |

* There are no existing aircraft deicing, Waste Water Treatment Plant direct discharge, liquid industrial waste injection, tailings pond waste disposal, application of untreated septage, petroleum waste landfarming or hazardous waste landfilling activities identified as Significant threats in Waterloo Region.

**TABLE 2: PROPOSED POLICY TOOLS FOR EXISTING THREATS WITH DRINKING WATER QUALITY ISSUES**

| Existing Threats With Issues | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to WHPA B/C where Vulnerability Scores >=8* | Tool Applied to Other Well Head Protection Areas |
|---|---|---|---|
| Nitrate Issue (Baden, Hespeler (H4), Mannheim West, Wilmot Centre) | | | |
| Agricultural Source Material (ASM) – Application | Prohibit | RMP (equivalent to NMP)<br>K26 – also require soil nitrate testing | I – (V=6)<br>E – (V<6) |
| ASM – Storage | Prohibit | I – RWQP | I – (V=6)<br>E – (V<6) |
| ASM Generation – Confinement | Prohibit | I – RWQP | I – (V=6)<br>E – (V<6) |
| ASM Generation – Grazing | Prohibit | I – RWQP | I – (V=6)<br>E – (V<6) |
| Commercial Fertilizer – Application | Prohibit | RMP when V>=8<br>K26 – also require soil nitrate testing | I – V>=6; E – (V<6) |
| Commercial Fertilizer – Storage/Handling | Prohibit | I – RWQP | I – V>=6; E – (V<6) |
| Non Agricultural Source Material (NASM) – Application | Not permitted under Nutrient Management Act | RMP (equivalent to NMP)<br>K26 – also require soil nitrate testing | I – (V=6)<br>E – (V<6) |
| NASM – Storage | Prohibit | I – RWQP | I – (V=6)<br>E – (V<6) |
| Sanitary Sewers and Related Pipes | PI – request MOE review maintenance and/or inspection requirements and prioritize<br>SA – require municipalities to assess and prioritize inspections | PI – request MOE review maintenance and/or inspection requirements and prioritize<br>SA – require municipalities to assess and prioritize inspections | SA – require municipalities to assess and prioritize inspections |
| Septic System – Small (including holding tanks) | SA – Municipal inspection program | SA – Municipal inspection program | E – to homeowners |
| Septic System – Large | PI – MOE review and inspect | PI – MOE review and inspect | PI – MOE review and inspect (V=6); E – (V<6) |
| Snow Storage | Prohibit above ground >5 ha and below ground >0.5 ha) | Prohibit – V=10;<br>SA – request MOE implement assessment guidelines (V=8) | SA – request MOE implement assessment guidelines (V=6); E – (V<6) |
| Stormwater Retention Pond Discharge | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater |
| Waste Disposal Site - Landfilling (Municipal Waste) | N/A | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring |
| Waste Disposal Site - | N/A | PI – request MOE require | PI – request MOE |

| Existing Threats With Issues | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to WHPA B/C where Vulnerability Scores >=8* | Tool Applied to Other Well Head Protection Areas |
|---|---|---|---|
| Landfilling (Solid Non Hazardous Industrial or Commercial) | | spill management and monitoring | require spill management and monitoring |
| TCE Issue (Elgin Street, Middleton, William Street) | | | |
| DNAPL Storage/Handling (25 L exemption) | Prohibit above and below ground | RMP where V>=8 | I - Spill prevention incentives (V=6); E – (V<6) |
| Waste Disposal Site - Landfilling (Municipal Waste) | N/A | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring |
| Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial) | N/A | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring |
| Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring |
| Waste Disposal Site - Storage of wastes - (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring | PI – request MOE require spill management and monitoring |
| Chloride Issue (Branchton Meadows, Elgin Street (G9), Greenbrook, Hespeler (H3,H4), Middleton, Parkway, Pinebush (G5), Strange Street (K10A), William Street) | | | |
| Salt – Application on Roads | RMP (equivalent to SMP submitted for CEPA) | RMP (equivalent to SMP submitted for CEPA) | E – to public about impacts of salt |
| Salt – Application on parking lots | RMP – all lots require SAS Certification<br>SA – agencies to use SAS certification on contracts | RMP where V>=8 and large lots:<br>SA – agencies to use SAS certification on contracts | I – V=6<br>E – V<6 |
| Salt – Application on parking lots (less than 8 parking spots) | E – awareness of salt impact on water supply | E – awareness of salt impact on water supply | E – awareness of salt impact on water supply |
| Salt – Storage/Handling | N/A | RMP where V>=8: | E – property owners |
| Snow Storage | Prohibit above ground >5 ha and below ground >0.5 ha) | Prohibit – V=10;<br>SA – request MOE implement assessment guidelines (V=8) | SA – request MOE implement assessment guidelines (V=6); E – V<6 |
| Stormwater Retention Pond Discharge | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater | PI – request MOE review maintenance and monitoring requirements for those that infiltrate groundwater |
| Septic System – Small (including holding tanks) | SA – Municipal inspection program | SA – Municipal inspection program | E – to homeowners |
| Septic System – Large | PI – MOE review and inspect | PI – MOE review and inspect | PI – MOE review and inspect (V=6); E – |

| Existing Threats With Issues | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to WHPA B/C where Vulnerability Scores >=8* | Tool Applied to Other Well Head Protection Areas |
|---|---|---|---|
| | | | (V<6) |

* The tool applied in this column does not supersede the tool applied for WHPA B where vulnerability score is greater than or equal to 10 in Table 1 if it is more protective of drinking water.

**TABLE 3: PROPOSED POLICY TOOLS FOR FUTURE THREATS WITHOUT DRINKING WATER QUALITY ISSUES**

| Future Threat (No Issue) | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to Well Head Protection Area – B Where Vulnerability Scores 10 |
|---|---|---|
| Agricultural Source Material (ASM) – Application | Prohibit | PI – NMP or<br>I – RWQP |
| ASM – Storage | Prohibit | Prohibit |
| ASM Generation – Confinement | Prohibit | Prohibit |
| ASM Generation – Grazing | I – RWQP | I – RWQP |
| Aircraft Deicing | Prohibit | Prohibit |
| Commercial Fertilizer – Application | RMP (equivalent to NMP) | I – RWQP |
| Commercial Fertilizer – Storage/Handling | Prohibit | Prohibit |
| DNAPL Storage/Handling | Prohibit | Prohibit |
| Fuel – Storage/Handling | LUP or Prohibit – prohibit above and below ground storage | LUP or Prohibit – prohibit below ground storage; LUP study for above ground storage<br>LUP or Prohibit – prohibit bulk storage |
| Fuel – Home Heating Oil | Prohibit | Prohibit |
| Non Agricultural Source Material (NASM) – Application | Not permitted under Nutrient Management Act | PI – NMP or<br>I – RWQP |
| NASM – Storage | Prohibit | Prohibit |
| Organic Solvent Storage/Handling | LUP or Prohibit – prohibit above and below ground storage | LUP or Prohibit – prohibit below ground storage: LUP study for above ground storage |
| Pesticide – Application | Prohibit | RMP |
| Pesticide – Storage/Handling | Prohibit | RMP (retail only)<br>LUP – Prohibit manufacturing or wholesale distribution |
| Salt – Application on Roads | LUP – assess new roads to see if increase to SLP | LUP – assess new roads to see if increase to SLP |
| Salt – Application on parking lots | LUP – prohibit large lots<br>RMP – including SAS certification for sm lots | RMP – large lots<br>LUP – study for small lots |
| Salt – Storage/Handling | Prohibit | Prohibit |
| Sanitary Sewers and Related Pipes | PI – request MOE require enhanced construction.<br>LUP– Prohibit certain size and require enhanced construction | PI – request MOE require enhanced construction.<br>LUP– Prohibit certain size and require enhanced construction |
| Septic System – Small (including holding tanks) | LUP or Prohibit - Prohibit (as currently in ROP) | GUDI wells – LUP prohibition<br>Other wels – LUP study |
| Septic System – Large | PI - Request MOE not approve new | PI - Request MOE not approve new |
| Snow Storage | Prohibit | Prohibit |
| Stormwater Retention Pond Discharge | Prohibit | LUP or Prohibit – prohibit for wells in rock aquifers; LUP study to assess impact and mitigation measures for non-rock systems |
| Waste Disposal Site – Application of Untreated Septage | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Disposal Site – Liquid Industrial Waste Injection | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Disposal Site – | LUP prohibit and PI – require | LUP prohibit and PI – require |

| Future Threat (No Issue) | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to Well Head Protection Area – B Where Vulnerability Scores 10 |
|---|---|---|
| Landfarming Petroleum Waste | MOE to not approve CofAs | MOE to not approve CofAs |
| Waste Disposal Site - Landfilling (Municipal Waste) | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial) | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Disposal Site - PCB Waste Storage | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Storage of wastes - (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| Waste Water Treatment Plant – Effluent Discharge | PI – require MOE to not approve CofAs | PI – require MOE to not approve CofAs |
| Waste Water Treatment Plant – Storage Tanks | LUP – prohibit below grade storage | LUP – prohibit below grade storage |
| Waste Disposal Site – Tailings Pond | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs |
| ***Additional Threat Policies Identified by the Source Protection Committee*** | | |
| Conditions Arising from Historic Contamination | LUP – Require Record of Site conditions | LUP – Require Record of Site conditions |
| Transportation Corridors – Need for Emergency Response Plans | SA – municipalities update plans | SA – municipalities update plans |
| Transport Pathways | LUP – prohibit aggregate extraction, geothermal wells, underground parking garages and other permanent below grade structures | LUP – prohibit aggregate extraction, geothermal wells, underground parking garages and other permanent below grade structures |
| Preventing Medium/Low Threats From Becoming Significant – Monitoring Policies for ASM Application, Commercial Fertilizer Application, Pesticide Application, and Snow Storage | To Be Determined | To Be Determined |

**TABLE 4: PROPOSED POLICY TOOLS FOR FUTURE THREATS WITH DRINKING WATER QUALITY ISSUES**

| Future Threats With Issues | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to WHPA B/C where Vulnerability Scores >=8* | Tool Applied to Other Well Head Protection Areas |
|---|---|---|---|
| Nitrate Issue (Baden, Hespeler (H4), Mannheim West, Wilmot Centre) | | | |
| Agricultural Source Material (ASM) – Application | Prohibit | RMP (equivalent to NMP) | RMP – V=6<br>E – V<6 |
| ASM – Storage | Prohibit | RMP | I – V=6<br>E – V<6 |
| ASM Generation – Confinement | Prohibit | RMP | I – V=6<br>E – V<6 |
| ASM Generation – Grazing | Prohibit | I – RWQP | E – V<=6 |
| Commercial Fertilizer – Application | Prohibit | RMP when V>=8 | I – V=6<br>E – V<6 |
| Commercial Fertilizer – Storage/Handling | Prohibit | RMP | I – V=6<br>E – V<6 |
| Non Agricultural Source Material (NASM) – Application | Prohibit | RMP (equivalent to NMP) | RMP – V=6<br>E – V<6 |
| NASM – Storage | Prohibit | RMP | I – V=6<br>E – V<6 |
| Sanitary Sewers and Related Pipes | PI – request MOE require enhanced construction.<br>LUP – Prohibit certain size and require enhanced construction | PI – request MOE require enhanced construction.<br>LUP – Prohibit certain size and require enhanced construction | LUP (V=6) – Require enhanced construction |
| Septic System – Small (including holding tanks) | LUP - Prohibit (as currently in ROP) | K22/K23 – LUP prohibition<br>Other wells – LUP study<br>SA – require municipalities to inspect functioning of any tertiary treatment systems | LUP – study (V=6)<br>E – property owner (V<6)<br>SA – require municipalities to inspect functioning of any tertiary treatment systems |
| Septic System – Large | PI - Request MOE not approve new | PI - Request MOE not approve new | PI (V=6) - Request MOE not approve new<br>PI (V<6) Request MOE require enhanced nitrate treament |
| Snow Storage | Prohibit | Prohibit | Prohibit (V=6)<br>SA – request MOE implement assessment guidelines (V<6) |
| Stormwater Retention Pond Discharge | LUP – prohibit<br>PI – Request MOE not approve new | LUP or Prohibit – prohibit for wells in rock aquifers; LUP study to assess impact and mitigation measures for non-rock systems | LUP study to assess impact and mitigation measures |

| Future Threats With Issues | Tool Applied to Well Head Protection Area – A (100m) | Tool Applied to WHPA B/C where Vulnerability Scores >=8* | Tool Applied to Other Well Head Protection Areas |
|---|---|---|---|
| Waste Disposal Site - Landfilling (Municipal Waste) | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial) | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs |
| Waste Disposal Site – Application of Untreated Septage | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs (V=6)<br>PI – require MOE to include study that assesses impact to municipal well |
| Waste Water Treatment Plant –Effluent Discharge | PI – require MOE to not approve CofAs | PI – require MOE to not approve CofAs | PI – require MOE to not approve CofAs (V=6)<br>PI – require MOE to include study that assesses impact to municipal well (V<6) |
| Waste Disposal Site – Tailings Pond | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs | LUP prohibit and PI – require MOE to not approve CofAs (V=6)<br>PI – require MOE to include study that assesses impact to municipal well (V<6) |
| TCE Issue (Elgin Street, Middleton, William Street) | | | |
| DNAPL Storage/Handling (25 L exemption) | Prohibit | Prohibit | RMP |
| Waste Disposal Site - Landfilling (Municipal Waste) | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Landfilling (Solid Non Hazardous Industrial or Commercial) | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Storage Of Hazardous Waste At Disposal Sites | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs |
| Waste Disposal Site - Storage of wastes -(p),(q),(r),(s),(t)or(u) of definition of hazardous waste | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs | LUP and PI – require MOE to not approve CofAs |
| Chloride Issue (Branchton Meadows, Elgin Street (G9), Greenbrook, Hespeler (H3,H4), Middleton, Parkway, Pinebush (G5), Strange Street (K10A), William Street) | | | |
| Sanitary Sewers and Related Pipes | PI – request MOE require enhanced construction.<br>LUP – Prohibit certain size and require | PI – request MOE require enhanced construction.<br>LUP – Prohibit certain size and require enhanced construction | LUP study to assess impact and mitigation measures |

| | | | |
|---|---|---|---|
| | enhanced construction | | |
| Salt –Application on roads | Prohibit new roads | RMP where V>=8: | LUP study where V<8 |
| Salt – Application on parking lots | LUP – prohibit large and small parking lots | RMP where V>=8 and large lots: SA – require SAS contractors on municipal properties | SA – require SAS contractors on municipal properties<br>E – encourage participation in SAS |
| Salt – Storage/Handling | Prohibit | Prohibit | LUP study where V=6<br>E – V<6 |
| Septic System – Small (including holding tanks) | LUP - Prohibit (as currently in ROP) | K22/K23 – LUP prohibition<br>Other wells – LUP study<br>SA – require municipalities to inspect functioning of any tertiary treatment systems | LUP – study (V=6)<br>E – property owner (V<6)<br>SA – require municipalities to inspect functioning of any tertiary treatment systems |
| Septic System – Large | PI - Request MOE not approve new | PI - Request MOE not approve new | PI (V=6) - Request MOE not approve new<br>PI (V<6) Request MOE require enhanced nitrate treament |
| Snow Storage | Prohibit | Prohibit | SA – request MOE implement assessment guide-lines (V=6), LUP (V<6) study |
| Stormwater Retention Pond Discharge | LUP – prohibit<br>PI – Request MOE not approve new | LUP or Prohibit – prohibit for wells in rock aquifers; LUP study to assess impact and mitigation measures for non-rock systems | LUP study to assess impact and mitigation measures |

* The tool applied in this column does not supersede the tool applied for WHPA B where vulnerability score is greater than or equal to 10 in Table 3 if it is more protective of drinking water.

**REGION OF WATERLOO**

**TRANSPORTATION AND ENVIRONMENTAL SERVICES**
**Water Services**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** E07-40

**SUBJECT: 2012 RAIN BARREL DISTRIBUTION**

**RECOMMENDATION:**

THAT the Region of Waterloo distributes subsidized rain barrels to residents at a cost of $40 each during the final distribution in April of 2012, according to Report E-11-103.1 dated November 8, 2011.

**SUMMARY:** NIL

**REPORT:**

Water Services has successfully purchased and distributed 200 litre rain barrels in Waterloo Region for 11 consecutive years. A total of 25,000 rain barrels have been distributed to residents at the subsidized cost of $20 each from 2001 to 2005, 15,000 rain barrels have been distributed for $30 each from 2006 to 2010, and 3,000 rain barrels were distributed at a cost of $40 each in 2011. Cumulative water savings from the 43,000 rain barrels distributed is estimated to be 51,600 cubic metres ($m^3$) per year. The water saved is enough to supply the needs of 188 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.

Rainwater harvesting is one of several water conservation programs approved in the Water Efficiency Master Plan, 2007 to 2015. 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 8,146 $m^3$ per day by 2015 (1.8 million gallons per day).

The Water Efficiency Advisory Committee (WEAC), through Council, endorsed phasing out rain barrel distributions following the spring of 2012 (report E-10-089), and to review the options for rainwater harvesting in 2013 and beyond. As part of the phasing out, it was suggested that staff review the possibility of raising the rain barrel cost to homeowners to $50 each in 2012 from the $40 charged per barrel in 2011. The intent of this report is to review 2011 program participation and costs, and make a recommendation regarding the 2012 per unit rain barrel charge. A future report will table recommendations regarding rainwater harvesting program options for 2013.

**2011 Rain Barrel Program Summary**

Water Services awarded the contract to Shirlon Plastics in Cambridge for the supply and one-day distribution of 3,000 200-litre rain barrels on April 30, 2011. Barrels were sold at a cost of $40 each at three parking lot locations: Cambridge Centre, Fairview and Conestoga malls. A maximum of one barrel per household was sold to residents who showed proof they lived within the Region of Waterloo.

Despite early lineups at each of the locations, the barrels did not sell out for the first time in program history. Approximately 150 surplus barrels were later sold on a first come, first served basis. Region residents learned of the surplus barrels through web postings and calling Water Services directly following the distribution day. Barrels were picked up on designated days at the Region's Operations Centre in Cambridge two weeks following the April 30 distribution.

Staff believes there are two main reasons the barrels did not sell as quickly in 2011:

- The price was raised from $30 to $40 per unit
- The amount spent on advertising the distribution was reduced from $30,000 in 2010 to under $15,000 in 2011, resulting in lower awareness.

Other possible reasons for the reduced public response could have been the change in rain barrel model distributed, or that the market demand for rain barrels has declined as many households already have one or more units. A 2009 survey indicated 33 per cent of Waterloo Region households have at least one rain barrel in use. About half the households using rain barrels purchased them at a Region of Waterloo distribution event.

**2011 Rain Barrel Net Capital Program Costs**

| Description | Cost |
|---|---|
| Barrel Purchase & distribution event (tax incl.) | $106,207 |
| Promotion & Advertising | $ 14,491 |
| Total Cost | $120,698 |
| Revenue from sales | (118,640) |
| Net 2011 Program Cost | $ 2,058 |

As detailed above, the net capital program cost for the rain barrel distribution in 2011 was $2,058.

**October 19 Water Efficiency Advisory Committee Recommendation**

Members of the Water Efficiency Advisory Committee (WEAC) reviewed rain barrel recommendations tabled by staff in Report E-11-103 at a meeting held October 19. Following a discussion regarding the financial aspects of the program, WEAC members voted in favour of keeping 2012 rain barrel costs at $40 per unit and keeping advertising spending at $15,000. It is also recommended that 3,000 200-litre Shirlon Plastics barrels again be supplied using optional second year pricing of $104,370 (before tax), as per proposal P-2010-01.

**CORPORATE STRATEGIC PLAN:**

The implementation of the Rainwater Harvesting Program relates to the Strategic Focus Area 1: Environmental Sustainability: Protect and enhance the environment. The strategic objective 1.4 states, "Protect the quality and the quantity of our drinking water sources."

**FINANCIAL IMPLICATIONS:**

The 2012 rain barrel program is estimated to cost $122,000 with $120,000 of that amount anticipated to be recovered from the sale of the rain barrels. A total net capital cost of approximately $2,000 will be charged to the Outdoor Water Use Capital Budget which has a proposed 2012 budget of $180,000. The remaining funds in this budget are allocated to other Water Use projects such as Water Conservation By-law patrolling and enforcement, advertising and promotion, and public education.

Water Efficiency capital projects are financed through Regional Development Charges.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:** Nil

**ATTACHMENTS:** Nil

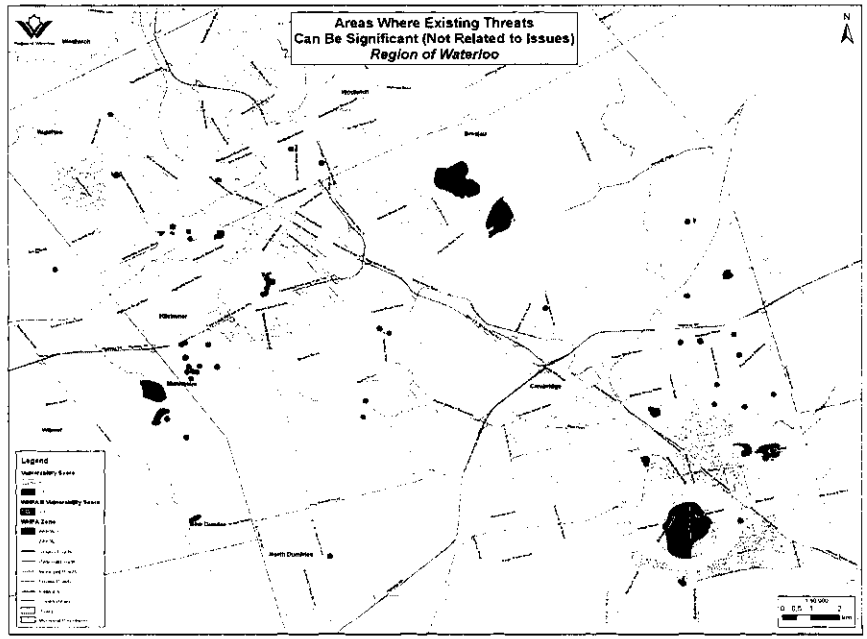
**PREPARED BY:** *Steve Gombos*, Manager, Water Efficiency, Water Services

**APPROVED BY:** *Thomas Schmidt*, Commissioner, Transportation and Environmental Services

# Approaches to Reducing Risk from Existing Urban Threats to Drinking Water Sources

| Type of Threat | Within 100m of Well | Other (Well Head Protection Area B where Vulnerability Score equals 10) |
|---|---|---|
| | POLICY TOOL | POLICY TOOL |
| **Fuel storage and handling** | • **Part IV Prohibition**[1] of below-ground storage<br>• **Risk Management Plan** for above-ground storage | • **Incentives** to encourage upgrades where activity is a secondary land use<br>• **Education** to Technical Standards and Safety Authority and owner where activity is the primary land use |
| **Fuel – home heating oil** | • **Education** – home owner and fuel distributor | • **Education** – home owner and fuel distributor |
| **Organic solvent storage** | • **Part IV Prohibition**[1] of below-ground storage<br>• **Risk Management Plan** for above-ground storage | • **Incentives** to encourage upgrades where activity is secondary land use<br>• **Risk Management Plan** where handling/storage is primary land use |
| **Dense Non-Aqueous Phase Liquid (DNAPL) storage and handling** | • **Part IV Prohibition**[1] of above and below-ground storage | ***For Well Head Protection Areas B & C***<br>• **Risk Management Plan** where Vulnerability Score equals 8 or more<br>• **Incentives** for spill prevention where Vulnerability Score is 6 or more<br>• **Education** where Vulnerability Score is less than 6 |
| **Application on roads** | • **Risk Management Plan** (equivalent to Salt Management Plan submitted for Canadian Environmental Protection Act) | • **Risk Management Plan** (equivalent to Salt Management Plan submitted for Canadian Environmental Protection Act) |
| **Application on parking lots** | • **Risk Management Plan** for large lots (> 80 parking spots)<br>• **Incentives** – encourage Smart about Salt Certification for medium lots (8 to 80 parking spots)<br>• **Education** to increase awareness of salt impact on water supply for small lots (< 8 parking spots) | • **Risk Management Plan** for large lots<br>• **Incentives** – encourage Smart about Salt Certification for medium lots<br>• **Education** to increase awareness of salt impact on water supply for small lots |
| **Salt storage/handling** | • Not applicable | • **Risk Management Plan** to prevent spills and leaks |

[1] Part IV refers to new authorities provided for in the Clean Water Act (2007).

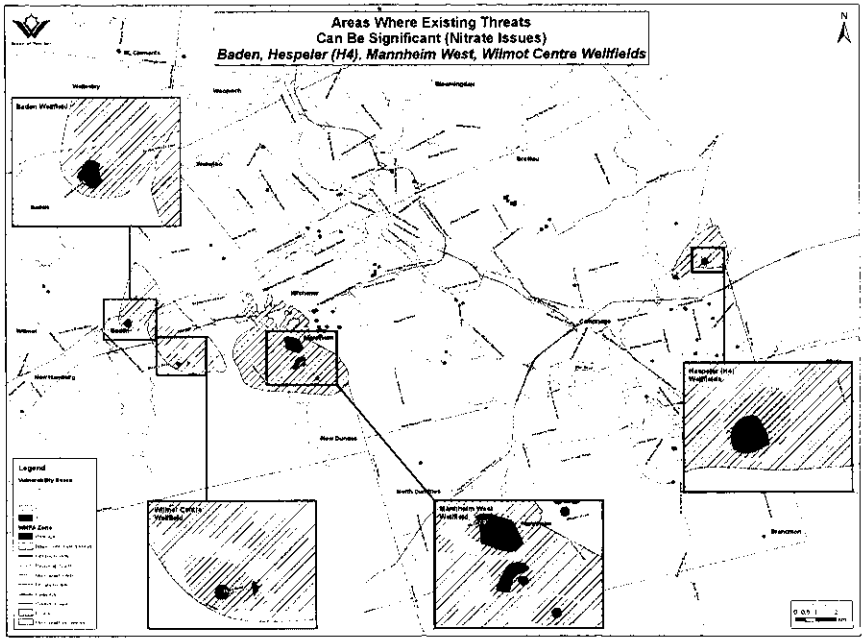


# Approaches to Reducing Risk from Existing Threats to Drinking Water Sources with Nitrate Issues

| Type of Threat | Within 100m of Well | Well Head Protection Area B/C where Vulnerability Score equals 8 or more | Other Well Head Protection Areas |
|---|---|---|---|
| | POLICY TOOL | POLICY TOOL | POLICY TOOL |
| Agricultural source material (ASM) application | • Part IV Prohibition[1] | • **Risk Management Plan** equivalent to Nutrient Management Plan<br>• For municipal well K26 will also require **soil nitrate testing** | • **Incentives** under the RWQP* where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| ASM storage | • Part IV Prohibition[1] | • **Incentives** under the Rural Water Quality Program | • **Incentives** under the RWQP* where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| ASM generation – confinement | • Part IV Prohibition[1] | • **Incentives** under the Rural Water Quality Program | • **Incentives** under the RWQP* where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| ASM generation – grazing | • Part IV Prohibition[1] | • **Incentives** under the Rural Water Quality Program | • **Incentives** under the RWQP* where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| Commercial fertilizer – application | • Part IV Prohibition[1] | • **Risk Management Plan** when Vulnerability Score is 8 or more<br>• For municipal well K26 will also require **soil nitrate testing** | • **Incentives** under the RWQP* where Vulnerability Score is 6 or more<br>• **Education** where Vulnerability Score < 6 |
| Commercial fertilizer – storage/handling | • Part IV Prohibition[1] | • **Incentives** under the Rural Water Quality Program | • **Incentives** under the RWQP* where Vulnerability Score is 6 or more<br>• **Education** where Vulnerability Score < 6 |
| Non Agricultural Source Material (NASM) storage | • Part IV Prohibition[1] | • **Incentives** under the Rural Water Quality Program | • **Incentives** under the RWQP* where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| NASM application | • **Not permitted** under the Nutrient Management Act | • **Risk Management Plan** equivalent to Nutrient Management Plan<br>• For municipal well K26 will also require **soil nitrate testing** | • **Incentives** under the RWQP* where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| Septic system – small (including holding tanks) | • **Specified Action** – municipal inspection program | • **Specified Action** – municipal inspection program | • **Education** for property owners |
| Septic system – large | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements, and conduct inspection | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements, and conduct inspection | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements and conduct inspection where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |

[1] Part IV refers to new authorities provided for in the Clean Water Act (2007).

* RWQP = Rural Water Quality Program



# Approaches to Reducing Risk from Existing Rural Threats to Drinking Water Sources

| Type of Threat | Within 100m of Well | Other (Well Head Protection Area B where Vulnerability Score equals 10) |
|---|---|---|
| | **POLICY TOOL** | **POLICY TOOL** |
| Agricultural source material (ASM) application | • **Risk Management Plan** – equivalent to Nutrient Management Plan | • **Prescribed Instrument** – require Ministry of Environment to review and monitor Nutrient Management Plan<br>• **Incentives** under the Rural Water Quality Program |
| ASM storage | • **Risk Management Plan** | • **Prescribed Instrument** – Nutrient Management Plan<br>• **Incentives** under the Rural Water Quality Program |
| ASM generation – confinement | • **Risk Management Plan** | • **Incentives** under the Rural Water Quality Program |
| ASM generation – grazing | • **Incentives** under the Rural Water Quality Program | • **Incentives** under the Rural Water Quality Program |
| Commercial fertilizer – application | • **Risk Management Plan** – equivalent to Nutrient Management Plan | • **Incentives** under the Rural Water Quality Program |
| Commercial fertilizer – storage/handling | • **Risk Management Plan** | • **Incentives** under the Rural Water Quality Program |
| Septic system – small (including holding tanks) | • **Specified Action** – municipal inspection program | • **Specified Action** – municipal inspection program |
| Septic system – large | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements and conduct inspection | • **Prescribed Instrument** – require Ministry of Environment to review and conduct inspection |

Region of Waterloo

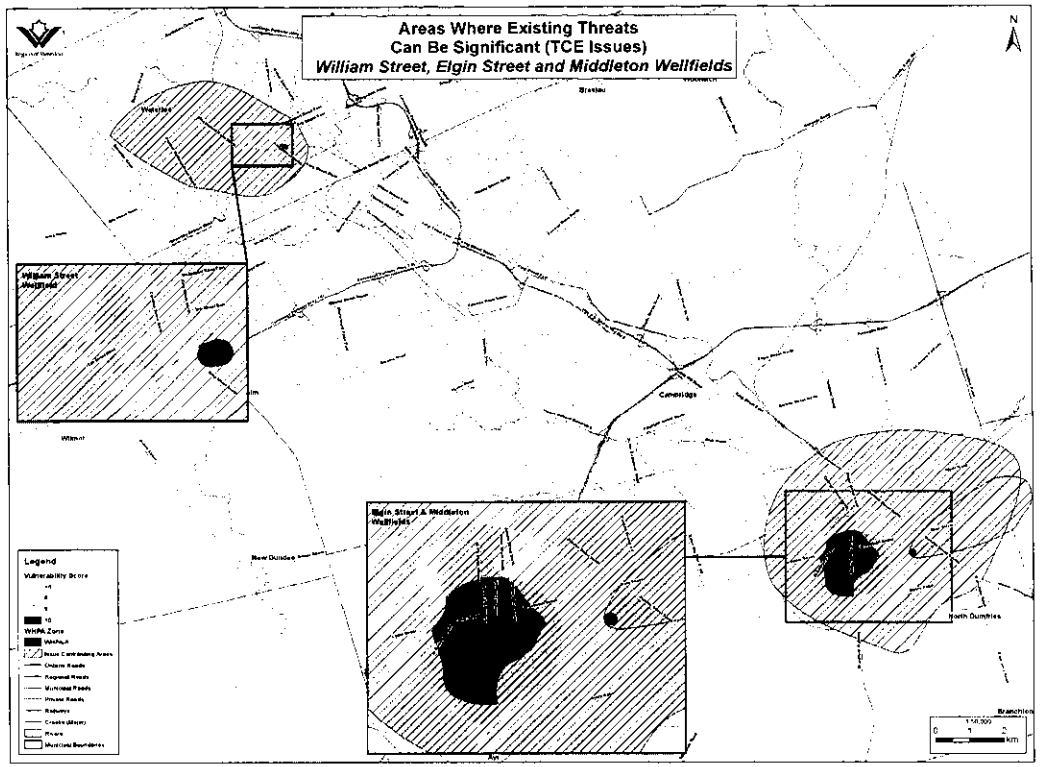
# SPP Policy Tools

# Approaches to Reducing Risk from Existing Threats to Drinking Water Sources with Trichloroethylene (TCE) Issues

| Type of Threat | Within 100m of Well | Well Head Protection Area B/C where Vulnerability Score equals 8 or more | Other Well Head Protection Areas |
|---|---|---|---|
| | **POLICY TOOL** | **POLICY TOOL** | **POLICY TOOL** |
| **Dense Non-Aqueous Phase Liquid (DNAPL) storage and handling (25 litre exemption)** | • **Part IV Prohibition**[1] of above and below-ground storage | • **Risk Management Plan** | • **Incentives** for spill prevention where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |
| **Waste disposal site – landfilling (municipal waste)** | • Not applicable | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring |
| **Waste disposal site – landfilling (solid non-hazardous industrial or commercial)** | • Not applicable | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring | • **Prescribed Instrument** – require Ministry of Environment to require spill management and monitoring |
| **Waste disposal site – storage of hazardous waste at disposal sites** | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring |
| **Waste disposal site – under the definition of hazardous waste, storage of wastes (p),(q),(r),(s),(t) or (u)*** | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring | • **Prescribed Instrument** – require Ministry of Environment to review spill management and monitoring |

[1] Part IV refers to new authorities provided for in the Clean Water Act (2007).

* Definition of Waste Disposal clauses (p), (q), (r), (s), (t), or (u) include small quantities of hazardous waste, the storage of empty hazardous waste containers, and the storage of residues or contaminated materials from the cleanup of a small spill.



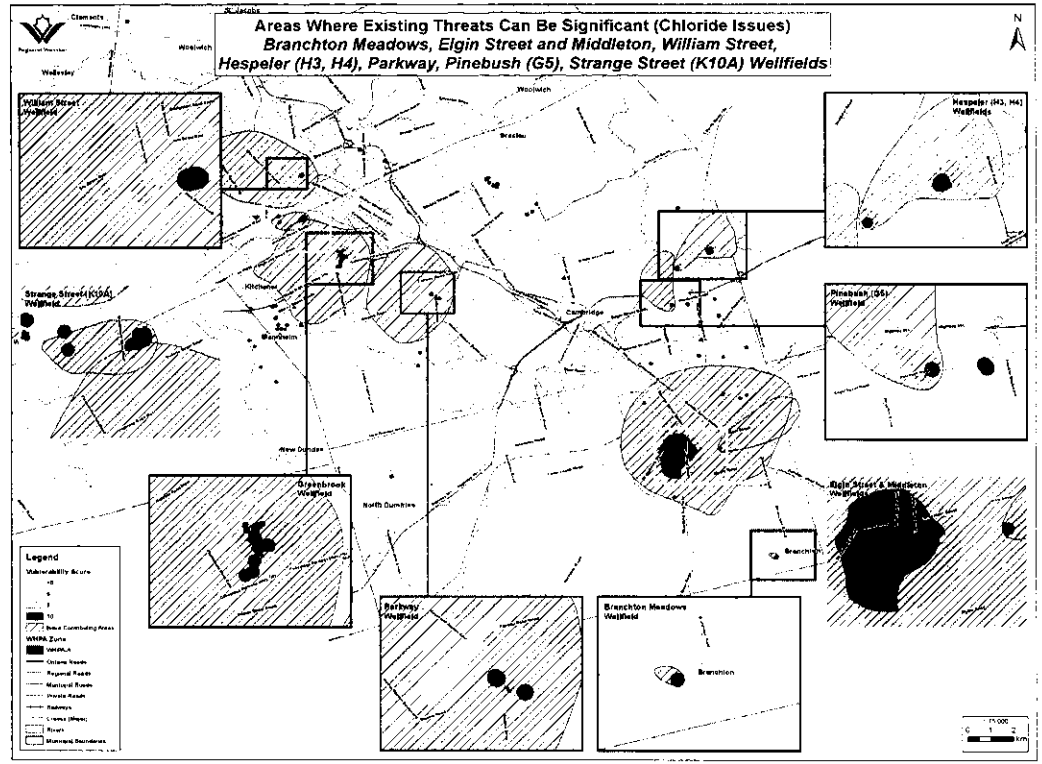

DRAFT - October 2011

Region of Waterloo

# SPP Policy Tools

# Approaches to Reducing Risk from Existing Threats to Drinking Water Sources with Chloride Issues

| Type of Threat | Within 100m of Well | Other (Well Head Protection Area B where Vulnerability Score greater than or equal to 8) | Other Well Head Protection Areas |
|---|---|---|---|
| | **POLICY TOOL** | **POLICY TOOL** | **POLICY TOOL** |
| Salt application on roads | • **Risk Management Plan** (equivalent to Salt Management Plan submitted for Canadian Environmental Protection Act) | • **Risk Management Plan** (equivalent to Salt Management Plan submitted for Canadian Environmental Protection Act) | • **Education** to public about the impact of salt |
| Salt application on parking lots | • **Risk Management Plan** – all lots require Smart about Salt (SAS) certification<br>• **Specific Action** – agencies to use Smart about Salt certification on contracts<br>• **Education** to increase awareness of salt impact on water supply | • **Risk Management Plan** for large lots (> 80 parking spots)<br>• **Incentives** – encourage Smart about Salt Certification for medium lots (8 to 80 parking spots)<br>• **Education** to increase awareness of salt impact on water supply for small lots (< 8 parking spots) | • **Incentives** for large and medium lots where Vulnerability Score = 6<br>• **Education** for large and medium lots where Vulnerability Score < 6<br>• **Education** to increase awareness of salt impact on water supply |
| Salt storage/handling | • Not applicable | • **Risk Management Plan** to prevent spills and leaks | • **Education** to property owners about the impact of salt on water supply |
| Stormwater retention/ pond discharge | • **Prescribed Instrument** – require Ministry of Environment to review maintenance and monitoring requirements for ponds that infiltrate groundwater | • **Prescribed Instrument** – require Ministry of Environment to review maintenance and monitoring requirements for ponds that infiltrate groundwater | • **Prescribed Instrument** – require Ministry of Environment to review maintenance and monitoring requirements for ponds that infiltrate groundwater |
| Septic system – small (including holding tanks) | • **Specified Action** – municipal inspection program | • **Specified Action** – municipal inspection program | • **Education** to homeowners |
| Septic system – large | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements and conduct inspection | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements and conduct inspection | • **Prescribed Instrument** – require Ministry of Environment to review maintenance, monitoring and discharge requirements and conduct inspection where Vulnerability Score = 6<br>• **Education** where Vulnerability Score < 6 |

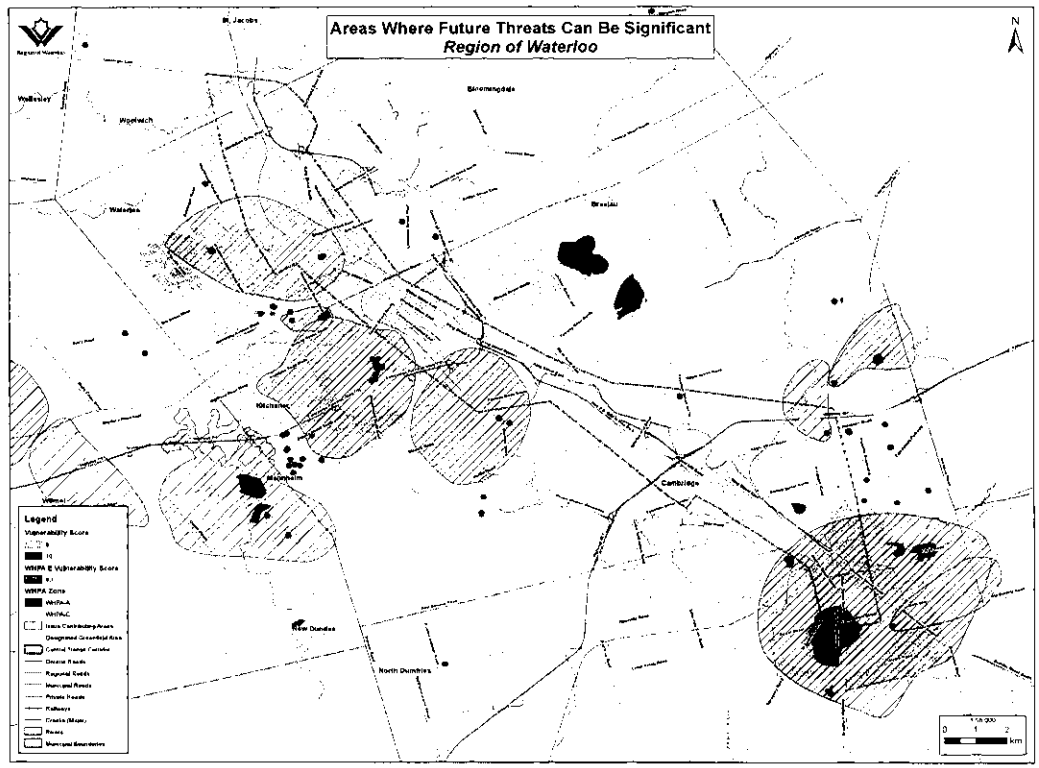



DRAFT - October 2011

# Approaches to Reducing Risk from Future Threats to Drinking Water

| Type of Threat | Within 100m of Well | Other (Well Head Protection Area B where Vulnerability Score equals 10) |
|---|---|---|
| | **POLICY TOOL** | **POLICY TOOL** |
| Fuel storage and handling | • **Land Use Planning or Part IV Prohibition**[1] above and below-ground storage | • **Land Use Planning or Part IV Prohibition**[1] below-ground storage<br>• **Land Use Planning study** for above-ground storage<br>• **Land Use Planning or prohibit** bulk storage |
| Fuel – home heating oil | • **Part IV Prohibition**[1] | • **Part IV Prohibition**[1] |
| Organic solvent storage | • **Land Use Planning or Part IV Prohibition**[1] above and below-ground storage | • **Land Use Planning or Part IV Prohibition**[1] below-ground storage<br>• **Land Use Planning study** for above-ground storage |
| Stormwater retention/ pond discharge | • **Part IV Prohibition**[1] | • **Land Use Planning or Part IV Prohibition**[1] for wells in rock aquifers<br>• **Land Use Planning study** to assess impact and develop mitigation measures for non-rock systems |
| Transport pathways | • **Land Use Planning** – prohibit aggregate extraction, geothermal wells and underground parking garages | • **Land Use Planning** – prohibit aggregate extraction, geothermal wells and underground parking garages |

[1] Part IV refers to new authorities provided for in the Clean Water Act (2007).



# Taking Action Together To Protect Our Drinking Water Sources

## Public Information Centre – Approaches to Policy Development In the Source Protection Plan

Region of Waterloo
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Water Services

Welcome to the Region of Waterloo's Public Information Centre on Approaches to Policy Development in the Source Protection Plan (SPP).

This Centre will present the approaches being considered by the Region to develop risk-reduction policies for the SPP to meet our obligations in the Clean Water Act (2006). It will present the principles and primary tools to reduce risks from water quality threats in vulnerable well head and intake protection areas around our municipal supply sources. Information will also be provided on the next steps in the process and ways you can help protect our drinking water supplies from past, present and future threats. There will be an opportunity to ask questions and to speak with Region and Grand River Conservation Authority staff.

### The Clean Water Act (2006)

The Clean Water Act requires communities across Ontario to carry out work to protect municipal drinking water sources. The Clean Water Act and related regulations contain criteria to identify vulnerable areas, rank the risk from 19 water quality threats, and prepare a SPP containing policies to reduce the risk from these threats. Municipal and Grand River Conservation Authority staff are working together to undertake the technical work and create the SPP.

The Region is leading the development of risk-reduction policies for our municipal drinking water systems. We have identified 2750 properties where Significant threats occur and for which risk-mitigation policies will be required in the SPP. As part of the consultation on the draft Assessment Report in November 2010 and the amended Assessment Report in May 2011, which present the vulnerable areas and risk assessment, notices were provided to property owners where Significant threats were identified. These same property owners received notices about this Public Information Centre.

Maps of wellhead protection areas and intake protection zones are available for the public to view at this session and in Chapter 9 of the Grand River draft amended Assessment Report posted online at www.sourcewater.ca.

### What's Next?

The approaches presented at the Public Information Centre are just the first step in developing policies for the SPP. These approaches will be refined by the Region as additional analysis is undertaken and in response to your feedback. The draft policies are to be presented to Regional Council on December 6, 2011 and will be forwarded to the Grand River Conservation Authority

staff for compiling into the SPP. Additional opportunities to comment on the Region's proposed policies will occur in February 2011. The draft proposed SPP for the Grand River watershed is anticipated to be approved for formal public consultation in May 2012. The SPP is to be submitted to the Ministry of Environment in August 2012.

Thank you for your participation in this session.

To determine eligibility for funding or to learn more about the Assessment Report or the Source Protection Plan, visit www.sourcewater.ca or call the GRCA at 519-621-2761.

**There is a comment sheet attached.**
**If you wish, please fill it out and deposit it in the Comments box or send comments to the Region by November 30, 2011.**

# SOURCE WATER PROTECTION PLAN
## PUBLIC INFORMATION CENTRES

Region of Waterloo

Wednesday, November 16, 2011 – Kitchener
Thursday, November 17, 2011 – Cambridge
Wednesday, November 23, 2011 – New Dundee

Please fill in this sheet so that your views can be considered for this project.
If you cannot complete your comments today, please take it home and mail, fax or email your comments by **Tuesday, November 30, 2011** to:

P. Palmer,
Project Communications Assistant
Region of waterloo - Water Services,
150 Frederick Street,
Kitchener, Ontario N2G 4J3
Phone: 519 575-4726
Email: PPalmer@regionofwaterloo.ca

Name: .....

Address: .....

.....

Phone and email: .....

Thank you for your interest and time.

COLLECTION NOTICE
Personal information requested on this form is collected under the authority of the Municipal Act, and will be used to assist the Region of Waterloo in responding to comments or concerns about this project. Any personal information such as name, address, telephone number and property location included in a submission from the public becomes part of the public record for this matter. Questions regarding the collection of this information should be forwarded to the Region staff member indicated above.

Region of Waterloo

# Preliminary Risk Management Plan Framework for Chemical Handling

## 1. Introduction/Background

- Property description
- Clearly define the site with a map of it in a local context, identifying significant threats, other prescribed activities, and preferential pathways. Include a scale bar, legend, and north arrow.
- Describe the threats

## 2. Information on Risk Prevention/Reduction

Provide information on industry standards, regulations, best management practices, and policies that are in place to help prevent contamination from the activity. Include current practices as well as planned practices. For planned practices, include an implementation schedule. Examples of management practices include:

### Risk reduction

- Locating chemical storage, handling, and use in a low risk and vulnerability area
- Increasing separation distances between well heads and intakes (but not necessarily out of high risk/vulnerability)
- Reduction in volume of chemicals stored/handled on site through process or equipment modification
- Replacement of below-ground tanks with above-ground tanks

### Spill/leak prevention measures

- Double walled and/or lined tanks and pipelines
- Instrumentation such as liquid level indicators, leak detectors, and alarm systems
- Backflow prevention
- Corrosion prevention
- Maintenance, inspection, leak testing, and staff training protocols
- Selection of chemically appropriate storage containers
- Separation of non-compatible chemicals

### Spill/leak prevention measures (continued)

- Site security measures such as sealed storage areas and locked doors
- Decontamination/equipment washing areas with oil-water separators and controls for runoff
- Staff training on all spill/leak prevention measures
- Closure plans for unused tanks storage containers and whole facilities

### Spill containment measures

- Bunds, pads, and trays
- Enclosures with sealed floors
- Dykes, trenches, lagoons
- Staff training on all spill containment measures

### Spill response measures

- Spill response plan including notification procedures and specific spill clean-up techniques. Staff training on same.
- Injection of Amierolants
- Post-spill sampling, monitoring, and inspections
- Appropriate disposal of collected materials

## 3. Monitoring Plan (minimum requirements)

- Procedures and schedules for qualified persons to inspect the site and its contamination prevention measures to ensure that they are functioning as intended
- Comprehensive record-keeping for all chemicals stored/used on the property
- Schedule of reporting to the Region of Waterloo
- Schedule to review and update the plan (e.g. every 5 years or more frequently if major changes occur at the site)

## 4. Conclusions and Recommendations

Region of Waterloo

# Preliminary Risk Management Plan Framework for Nutrient Management

## 1. Introduction/Background

- Property description
- Clearly define the site with a map of it in a local context, identifying significant threats, other prescribed activities, and preferential pathways. Include a scale bar, legend, and north arrow.
- Describe the threats

## 2. Information on Risk Prevention/Reduction

**If storing salt, nutrients, or pesticides, then spill prevention, containment and response measures will be required, as outlined in the Preliminary RMP Framework for Chemical Handling.**

Provide information on industry standards, regulations, best management practices and policies that are in place to help prevent contamination from the activity. Include current practices as well as planned practices. For planned practices, include an implementation schedule. Examples of management practices include:

### Risk reduction

- Moving nutrient storage and/or handling to a low vulnerability area (cessation of application in high vulnerability area)
- Increasing separation distances between well heads and intakes
- Reduction in volume of nutrients stored and/or handled on site

### Modification of application practices

- Effective irrigation systems to reduce runoff
- Confirm the suitability of the soils to the nutrients being applied and rate of application
- Restrict application of nutrients during (and prior to) periods of heavy rain, high wind, snow cover, or frozen ground
- Observe application setbacks from wells, waterways, and seasonally flooded areas
- Pre-till fields to remove preferential pathways
- For application of septage: spread uniformly, use multiple passes to ensure maximum application depth is not exceeded, avoid compaction of the soil where possible, and incorporate into the soil within a few days of application
- Minimize product applied by using reduced or split application rates and slow release nutrients

### Control and treatment of surface runoff, washwater

- Construct a tile drainage system
- Utilize detention basins and berms
- Vegetative filter strips, buffer zones, managed riparian zones
- Treatment using wetlands, bioreactors, monitored natural attenuation, trenches

### Control the generation of manure

- Slatted floors
- Selection of bedding type and amount
- All-in/all-out feeding systems
- Total barn confinement systems

### Herd management

- Prevent stripping of vegetation through reduction of stocking density and/or rotational grazing
- Construct fencing to protect setbacks
- Vaccination to reduce pathogens

### Pretreatment of all nutrients to be applied to remove pathogens

- Stabilization
- pH adjustment
- Aeration
- Aerobic or anaerobic digestion
- Heat treatment
- Composting

## 3. Monitoring Plan (minimum requirements)

- Procedures and schedules for qualified persons to inspect the site and its contamination prevention measures to ensure that they are functioning as intended
- Comprehensive record-keeping of all chemicals stored/used on the property
- Schedule of reporting to the Region of Waterloo
- Schedule to review and update the plan (e.g. every 5 years or more frequently if major changes occur at the site)

## 4. Conclusions and Recommendations

Region of Waterloo

# Preliminary Risk Management Plan Framework for Salt Management

## 1. Introduction/Background

- Property description
- Clearly define the site with a map of it in a local context, identifying significant threats, other prescribed activities, and preferential pathways. Include a scale bar, legend, and north arrow.
- Describe the threats

## 2. Information on Risk Prevention/Reduction

**If storing salt, nutrients, or pesticides, then spill prevention, containment and response measures will be required, as outlined in the Preliminary RMP Framework for Chemical Handling.**

Provide information on industry standards, regulations, best management practices, and policies that are in place to help prevent contamination from the activity. Include current practices as well as planned practices. For planned practices, include an implementation schedule. Examples of management practices include:

### Risk reduction

- Locating salt and snow storage and/or use in a low-risk and low-vulnerability area
- Increasing separation distances from well heads and intakes (but not necessarily out of high risk/vulnerability)
- Reduction in volume of salt stored on site
- Eliminate sources of water (e.g. downspouts, low spots) to prevent ice formation

### Modification of application practices

- Use of anti-icing agents to prevent ice formation
- Instrumentation (linked to GPS possibly) to measure spreading rates and locations
- Weather monitoring to determine most efficient application times
- Drift control to reduce snow buildup on paved surface

## 3. Monitoring Plan (minimum requirements)

- Procedures and schedules for qualified persons to inspect the site and its contamination prevention measures to ensure that they are functioning as intended
- Comprehensive record-keeping of all chemicals stored/used on the property
- Schedule of reporting to the Region of Waterloo
- Schedule to review and update the plan (e.g. every 5 years or more frequently if major changes occur at the site)

## 4. Conclusions and Recommendations

Region of Waterloo

# Preliminary Risk Management Plan Framework for Integrated Pest Management

## 1. Introduction/Background

- Property description
- Clearly define the site with a map of it in a local context, identifying significant threats, other prescribed activities, and preferential pathways. Include a scale bar, legend, and north arrow.
- Describe the threats

## 2. Information on Risk Prevention/Reduction

**If storing salt, nutrients, or pesticides, then spill prevention, containment and response measures will be required, as outlined in the Preliminary RMP Framework for Chemical Handling.**

Provide information on industry standards, regulations, best management practices, and policies. that are in place to help prevent contamination from the activity. Include current practices as well as planned practices. For planned practices, include an implementation schedule. Examples of management practices include:

### Risk reduction

- Locating nutrient storage and handling in a low risk and vulnerability area
- Increasing separation distances between well heads and intakes (but not necessarily out of high risk/vulnerability)
- Cessation of pesticide application in high vulnerability areas

### Modification of application practices

- Larger nozzle, less pressure, and proper water volume rates to reduce drift
- Avoid times of high winds or prior to heavy rain
- Regularly calibrate pesticide spreaders
- Use of short half-life pesticides
- Management practices to reduce soil erosion
- Scout fields for weeds to confirm need
- Proper plant management to improve plant health and reduce the need for pesticides
- Maintain proper drainage and aeration to encourage the growth of microbes
- Reduce watering to control seepage of pesticides to the ground water
- Plants that attract predatory species, such as birds and bats, can enhance landscaping and naturally reduce pests

### Modification of application practices (continued)

- Manual activities such as spading, hoeing, hand-picking weeds and pests, setting traps, and mulching
- Select healthy seeds and seedlings that are known to resist diseases
- Alternate plants each year. Insects will move to another location where they can find nutrients, and weeds will remain dormant until their nutrient source is replenished
- Ensure the pesticide matches the weed
- Evaluate reduced or split application rates
- Rotating herbicide and pesticide
- Apply pesticides with precision to reduce application volumes

### Control and treatment of surface runoff, washwater

- Construct a tile drainage system
- Utilize detention basins and berms
- Vegetative filter strips, buffer zones, managed riparian zones
- Treatment using wetlands, bioreactors, monitored natural attenuation, trenches

## 3. Monitoring Plan (minimum requirements)

- A procedure and schedule for qualified persons to inspect the site and its contamination prevention measures to ensure that they are functioning as intended
- A comprehensive record keeping of all chemicals stored/used on the property
- A schedule of reporting to the Region of Waterloo
- A schedule to review and update the plan on a regular basis (e.g. every 5 years or more frequently if major changes occur at the site)

## 4. Conclusions and Recommendations

REGIONAL MUNICIPALITY OF WATERLOO

# KITCHENER WWTP PHASE 3 UPGRADES MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

# INFORMATION PACKAGE

Public Information Centre
November 16, 2011
5:00 PM to 7:00 PM

in

Kitchener

Region of Waterloo

Table of Contents

# NOTICE OF PUBLIC INFORMATION CENTRE #1
# KITCHENER WASTEWATER TREATMENT PLANT UPGRADES
# MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

**The Study**

Wastewater generated in the City of Kitchener is treated at the Kitchener Wastewater Treatment Plant (WWTP) located at 368 Mill Park Drive. The Kitchener WWTP is comprised of two separate treatment plants served by a common headworks facility and primary clarifier facility, which were constructed in the early 1960s followed by expansion in the mid-1970s. The effluent from both facilities is disinfected prior to being discharged in the Grand River. In order to upgrade treatment and ensure better effluent quality in the future, the Region is completing a Municipal Class Environmental Assessment (EA) Study for upgrading the treatment process, as well as for the provision of standby power to provide security to ensure essential operations will continue in the event of a power failure at the plant. The proposed upgrades are part of the last of three WWTP upgrade phases and will not increase the existing WWTP capacity. Some of the upgrades will however improve how odours are managed at the plant.

**The Process**

The study is being conducted in accordance with the requirements for Schedule "B" projects as described in the Municipal Engineers Association's, Municipal Class EA document (October 2000 as amended in 2007 and 2011). The Class EA process includes public and review agency consultation, an evaluation of alternative solutions, an assessment of the impacts of the proposed upgrades, and identification of measures to mitigate any adverse impacts.

**Public Information Centre # 1**

As part of the study, two Public Information Centres (PIC) are planned to present the third and final phase of the WWTP upgrades. The first PIC will consist of an informal drop-in centre with displays to present background information on the study including work completed to date, scope of proposed improvements and an overview of existing conditions, as well as the next steps in the study. Representatives from the Region and its consultants, AECOM, will be present at the PIC to answer questions and discuss the project. PIC # 1 is scheduled for:

| | |
|---|---|
| **Date:** | **Wednesday November 16, 2011** |
| **Time:** | **5:00 pm to 7:00 pm** |
| **Location:** | **Pioneer Park Public School** |
| | **55 Upper Canada Drive, Kitchener** |

The second PIC is planned for winter/spring 2012 and will present further details on the recommended design improvements including specific construction impact management strategies and proposed mitigation measures. Notification of PIC # 2 will be provided at the appropriate time by means of a similar newspaper advertisement and with notification to those on the project mailing list.

**Comments**

You are encouraged to attend PIC # 1 and provide your comments so that they may be included in the study. Comments received through the course of the study will be considered in finalizing the design and implementation of the proposed upgrades. Please contact either one of the following project team members if you would like to be included on the mailing list, have any questions or wish to obtain more information on the project:


**José Bicudo**
**Senior Project Engineer, Water Services**
**Regional Municipality of Waterloo**
**150 Frederick Street, 7th Floor**
**Kitchener ON N2G 4J3**

**Phone:** (519) 575-4757 x3416
**Fax:** (519) 575-4452
**Email:** jbicudo@regionofwaterloo.ca

**John Armistead, P.Eng.**
**Project Manager**
**AECOM**
**250 York Street, Suite 410**
**London ON N6A 6K2**

**Phone:** (519) 963-5860
**Fax:** (519) 673-5975
**Email:** john.armistead@aecom.com


**Region website**: http://www.regionofwaterloo.ca/kitchenerwwtp

*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. Questions regarding the collection of this information should be referred to Mr. José Bicudo.*

This notice issued ____, 2011.

# Kitchener Wastewater Treatment Plant
# Phase 3 Upgrades
# Municipal Class Environmental Assessment

## Public Information Centre #1

| | |
|---|---|
| Date: | Wednesday November 16, 2011 |
| Location: | Pioneer Park Public School<br>55 Upper Canada Drive, Kitchener |
| Time: | 5-7 p.m. |

# 1 Welcome to Public Information Centre (PIC) # 1

Purpose of PIC # 1

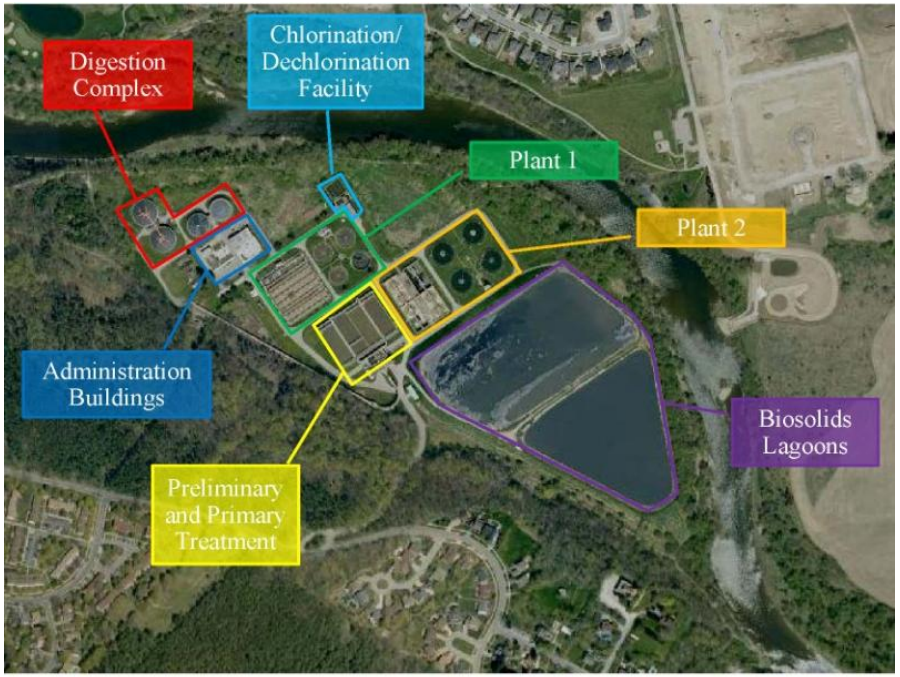
The purpose of this PIC is to introduce the next phase of the Kitchener WWTP Upgrade project including:

- The need for the project and EA planning process to be followed;
- Work completed to date;
- Existing conditions;
- WWTP upgrade components;
- Approach to odour management;
- Overview of anticipated impacts from construction and preliminary mitigation measures;
- Timeline/Preliminary cost estimates; and
- Next steps.

***At 6:00 p.m. a short presentation on the project will be given followed by questions and answers.***

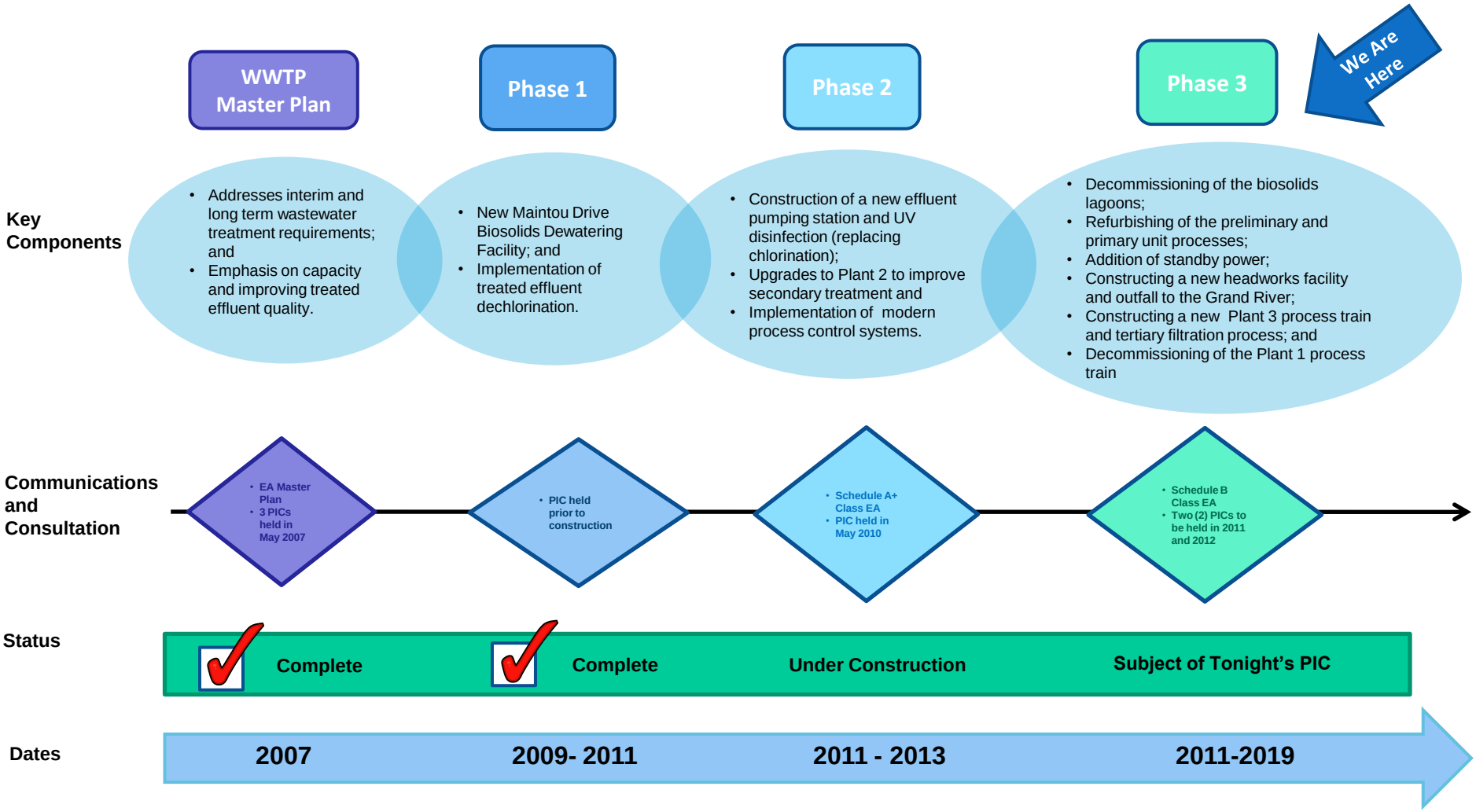
# 2 Kitchener WWTP

- Conventional secondary treatment facility (rated capacity of 122,745m$^3$/d);
- Constructed in the 1960s followed by expansion in the 1970s;
- Two separate treatment plants;
- Discharge to the Grand River following chlorination/dechlorination;

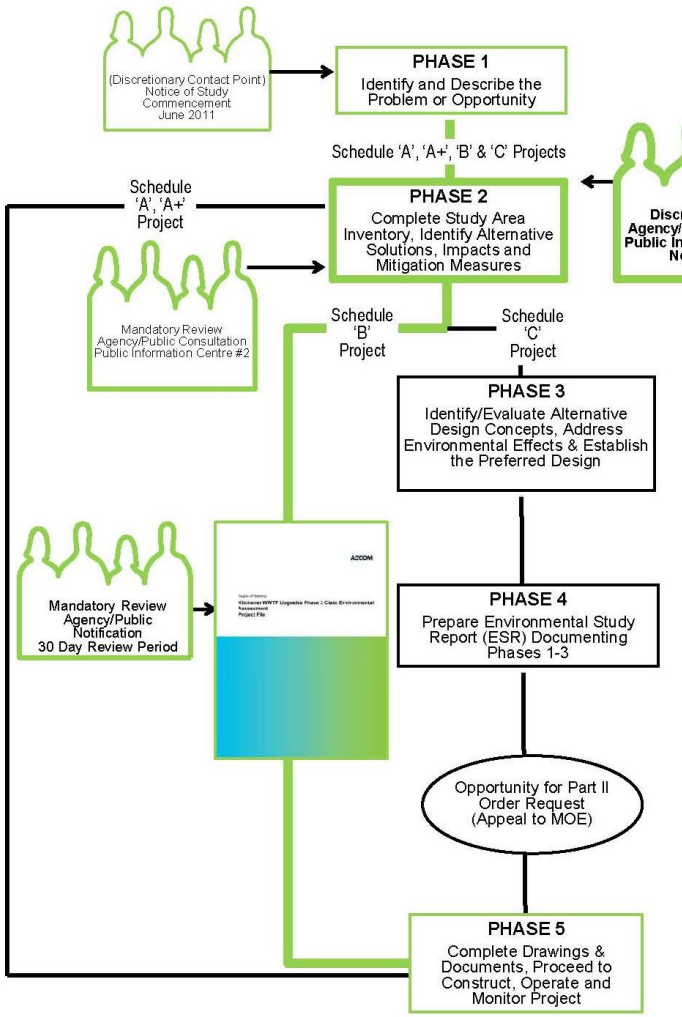



- Biosolids storage lagoons have been slated for decommissioning; and
- Digested/stabilized sludge is sent off-site to a dewatering/transfer station, then sent to land/landfill.

# 3 Wastewater Treatment Master Plan Strategy



# 4 Overview of Municipal Class Environmental Assessment Process




Planning Process Being Followed

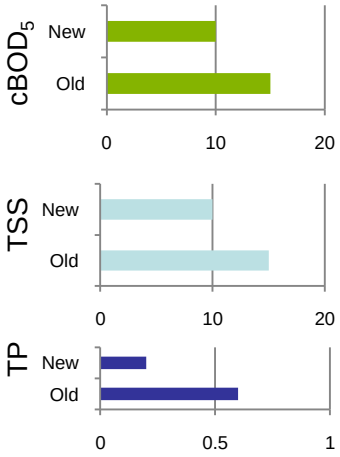
## Rationale for Schedule B Planning Process

- The proposed WWTP improvements will not increase wastewater treatment capacity beyond the plant's approved rated capacity; and
- The Schedule B planning process is being followed to collectively consider impacts from proposed construction and operations.

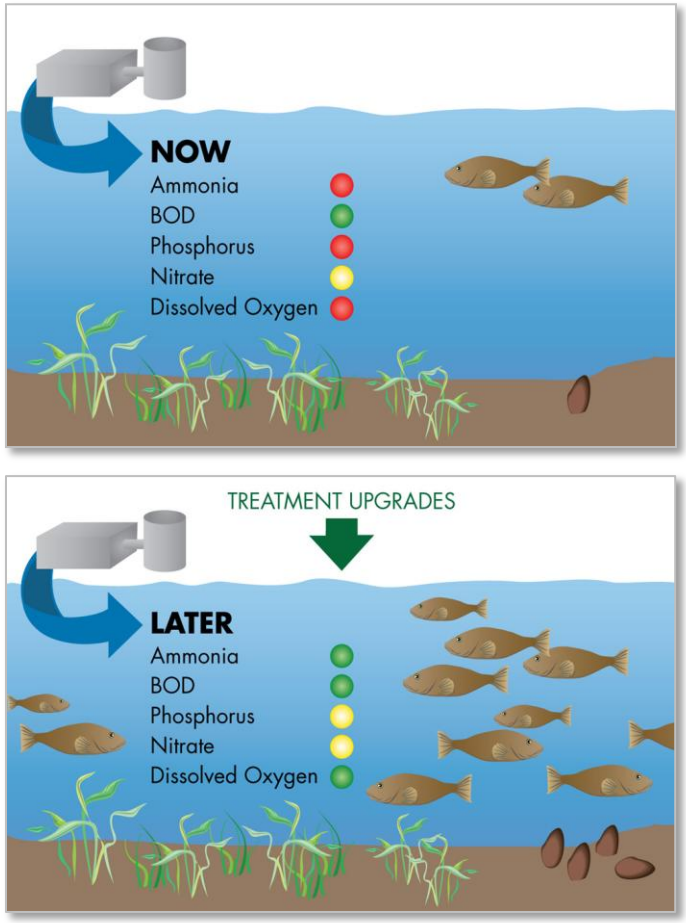
# 5 Effluent Quality Proposed in the Grand River Assimilative Capacity Study

**Effluent Quality proposed in the Assimilative Capacity Study**

| Effluent Parameter | New Objective (Proposed) | Old Objective (Existing) |
|---|---|---|
| $cBOD_5$ (Carbonaceous Biochemical Oxygen Demand) | 10 mg/L | 15 mg/L |
| Total Suspended Solids | 10 mg/L | 15 mg/L |
| Total Phosphorus | 0.2 mg/L | 0.6 mg/L |
| Total Ammonia<br>-Non-freezing Period<br>-Freezing Period | <br>2<br>5 | N/A |
| E. Coli (coliforms) | <100 organisms/ 100mL | < 100 organisms/ 100mL |
| pH | 6.0 – 8.5 | N/A |




**Impacts of WWTP upgrades on Grand River**



# 6 Key Project Drivers and EA Problem/Opportunity Statement

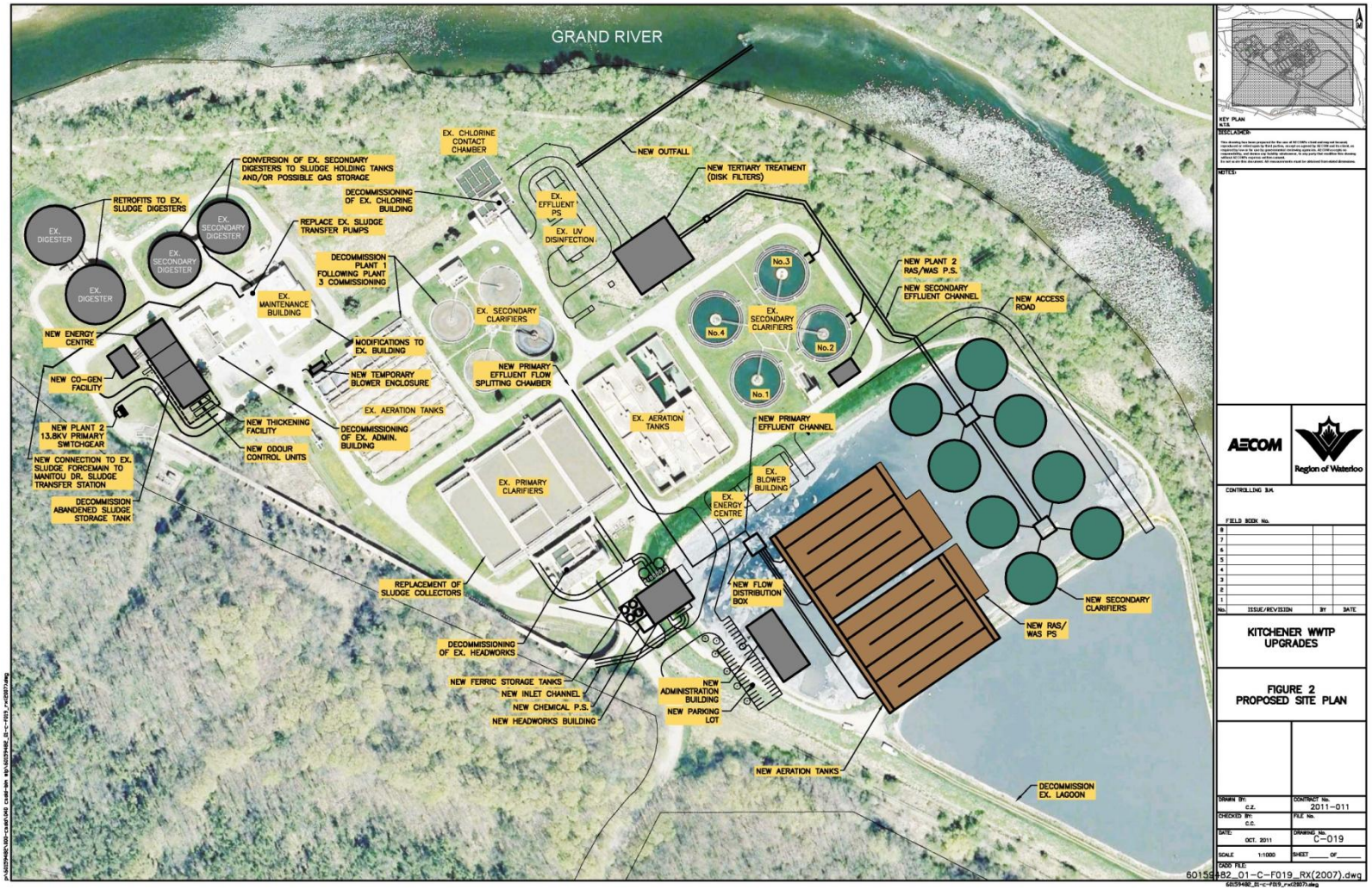
## Key Project Drivers

- ✓ Provide better effluent quality and odour management;
- ✓ Provide reliable, long term operation and performance;
- ✓ Decommission existing biosolids storage lagoons; and
- ✓ Improve process efficiency (replace aging equipment).

## Problem/Opportunity Statement

*The existing Kitchener WWTP has performed satisfactorily but has experienced issues with respect to odours. Treatment upgrades are required to ensure that better effluent quality is achieved prior to being discharged into the Grand River. By improving effluent quality long term Grand River water quality will be improved having a positive effect on recreational uses and fish communities.*

# 7 Existing WWTP and Proposed Overall Site Plan



# 8 Site Wide Facility Plan – Liquid Train Key Options

| Component | Options | Recommendations |
|---|---|---|
| Headworks: | ➢ Upgrade existing or Replace | ➢ *Replace - condition, new technology, maintain operations* |
| New Plant 3 Secondary Treatment: | ➢ Plant 1 to be decommissioned (age/condition); and<br>➢ Anoxic selector /full nitrification vs. Full nitrification/denitrification | ➢ *Anoxic selector/full nitrification - meet effluent objectives, lower capital cost, flexibility to modify* |
| Tertiary Treatment: | ➢ Disk Filters or Deep Sand Filters | ➢ *Disk Filters - meet effluent objectives, lower capital cost, avoid intermediate pumping, lower energy consumption* |
| Outfall: | ➢ Twin existing vs. upsize and replace | ➢ *Upsize and replace - hydraulic efficiency, only 1 structure in river* |

**Nitrification** – removal of ammonia

**Denitrification** – removal of total nitrogen, including nitrites, nitrates, and organic nitrogen

# 9 Site Wide Facility Plan – Solids Train

| Component | Options | Recommendations |
|---|---|---|
| Solids Thickening: | ➢ Co-Thicken (current) vs. WAS thickening vs. WAS and Primary Sludge thickening. | ➢ *Staged approach - WAS thickening then Primary Sludge Thickening – Optimize digester efficiency/capacity and cash flow and defer need for additional digesters.* |
| Primary Anaerobic Digestion: | ➢ Upgrade and continue to flare; and<br>➢ Upgrade with co-generation/heat recovery; Upgrade with CAMBI process to improve efficiency and purify gas for use in vehicles. | ➢ *Upgrade with Co-generation/heat recovery - offers the most environmental benefit, with the highest net energy recovery from the biosolids.* |
| Secondary Anaerobic Digestion: | ➢ Upgrade and use as secondary digesters; convert to sludge holding tanks, convert to sludge holding tanks with gas storage. | ➢ *Convert one to sludge holding tank with gas storage - capital cost, reduced odour source, consistent with recommendation for Co-Gen.* |

**WAS** – waste activated sludge
**CAMBI** – patented thermal hydrolysis process (basically sludge cooking at high temperature and pressure)

# 10 Evaluation of Alternative Solutions for Standby Power

- The current standby power system does not meet MOE and Regional power standby guidelines; and
- Therefore, the following alternative standby power solutions were evaluated:

| Alternative | | Advantages | Impacts |
|---|---|---|---|
| 1 | Do Nothing | ➢ Low costs. | ➢ There are staffing and response time requirements for an emergency situation; and<br>➢ Risk of untreated effluent discharge to the Grand River. |
| 2 | Permanent Pad Mounted Self-Contained Standby Power Facilities | ➢ Generator will be sized to provide power to all necessary plant equipment; and<br>➢ All equipment contained within enclosure. | ➢ Higher capital cost compared to Alternative 1;<br>➢ Generator sized to provide power to all necessary plant equipment would be very large for an outdoor unit; and<br>➢ Noise and emissions concerns can be mitigated through proper design of enclosure to house generator and will meet all noise and emissions regulations. |
| 3 | Permanent Indoor Standby Power Facilities | ➢ Generator will be sized to provide power to all necessary plant equipment;<br>➢ All equipment contained within building provides increased security and greater noise mitigation; and<br>➢ Facilitates maintenance. | ➢ Higher cost compared to Alternative 2;<br>➢ Noise and emissions concerns will be mitigated through proper design of building to house generator and will meet all noise and emissions regulations; and<br>➢ Desirable to have generators in a building structure that facilitates efficient maintenance and response to start up and operational problems, especially in emergency situations. |

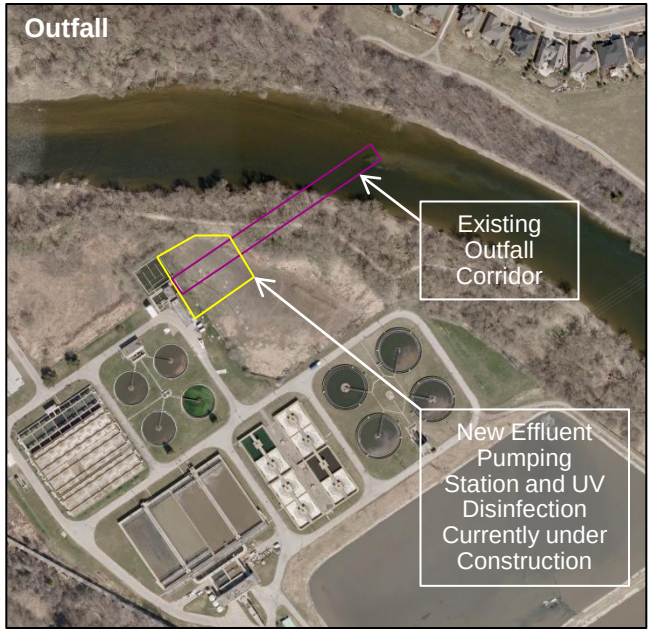
# 11 Standby Power – Recommended Solution

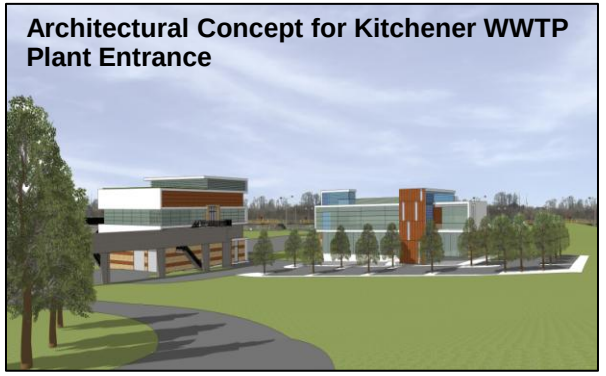
***Recommendation: Permanent Indoor Standby Power Facilities.***

- A new standby power system will meet MOE and Regional power standby guidelines for the new upgraded plant;
- Installation of permanent standby power facility within new electrical building/power centre;
- Best addresses operations and maintenance requirements;
- The design of the standby power facilities will include noise and air emissions modeling to support a Certificate of Approval for the new facility; and
- Design will proceed concurrently with other required upgrades at the site.

# 12 Views from Grand River Trail and Visual Impacts

- All construction activity will be within the Kitchener WWTP Boundaries with the exception of the new outfall pipe;
- The change in view of the WWTP from the Grand River Trail will be minimal with the exception of clearing a small amount of trees/vegetation for the new Grand River outfall that will be reinstated following construction;
- An approach to restoration will be developed in conjunction with GRCA; and
- New vegetative screening is included in the landscape design, which will minimize visible changes from the Grand River Trail.



# 13 Odour Management

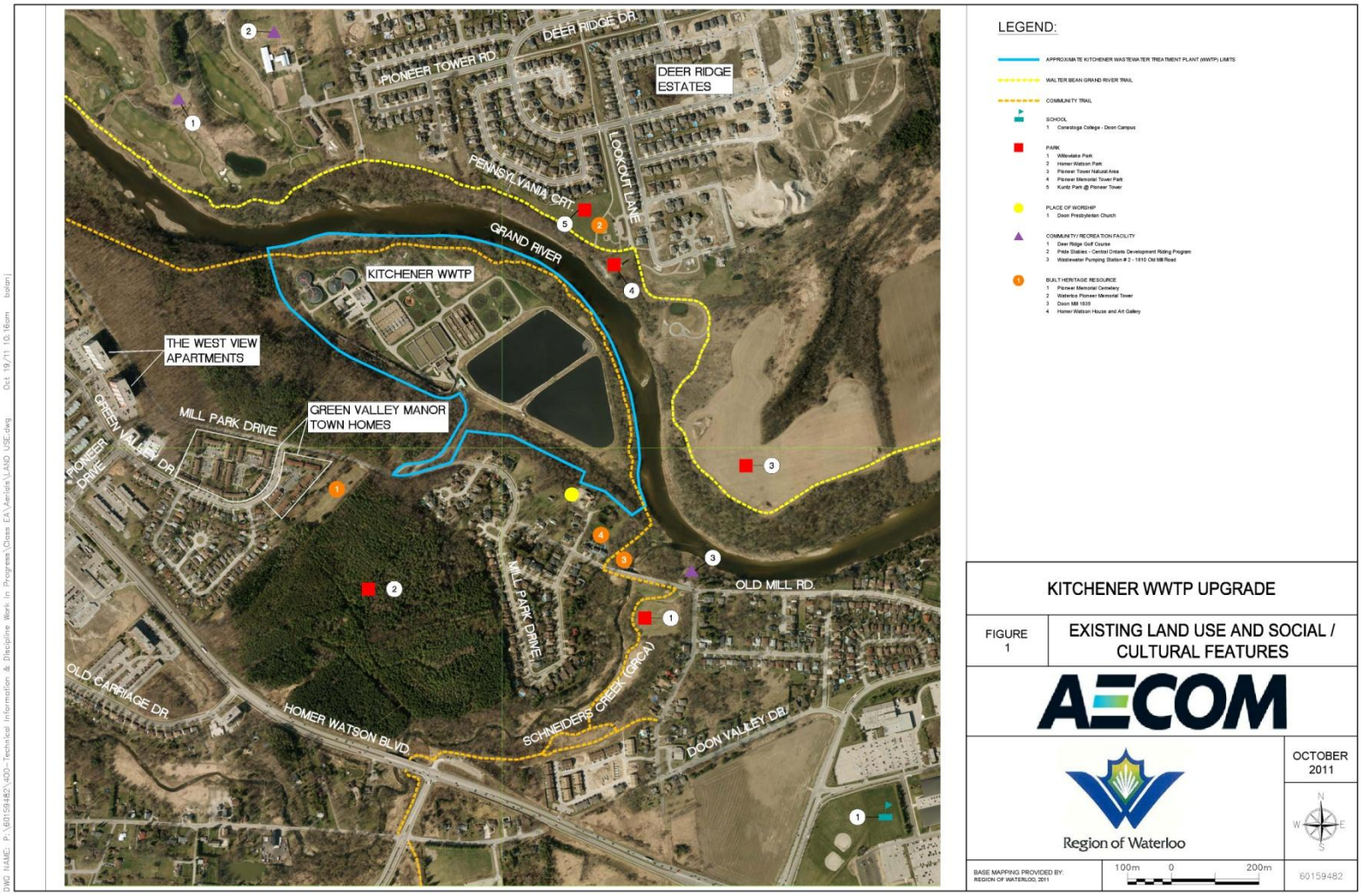
- Source of odour problems:
  - ✓ **Biosolids Storage Lagoons**
  - ✓ **Primary Clarifiers**
  - ✓ **Headworks**
  - ✓ **Mechanical Surface Aerators**
- The Region acknowledges these problems and addressed them by completing several odour studies, which involved identifying immediate improvements and modifications for odour mitigation; and
- Following implementation of its Odour Mitigation Plan, the Region has seen a significant reduction in odour complaints.
- Phase 3 works will further address odour management by:
  - Decommissioning the biosolids lagoons which are no longer required;
  - Constructing/installing new Headworks and Sludge Thickening equipped with biofilters for odour management;
  - Modifying primary clarifier operation; and
  - Replacing mechanical surface aerators with diffused air.

# Proposed Lagoon Decommissioning Contract 1

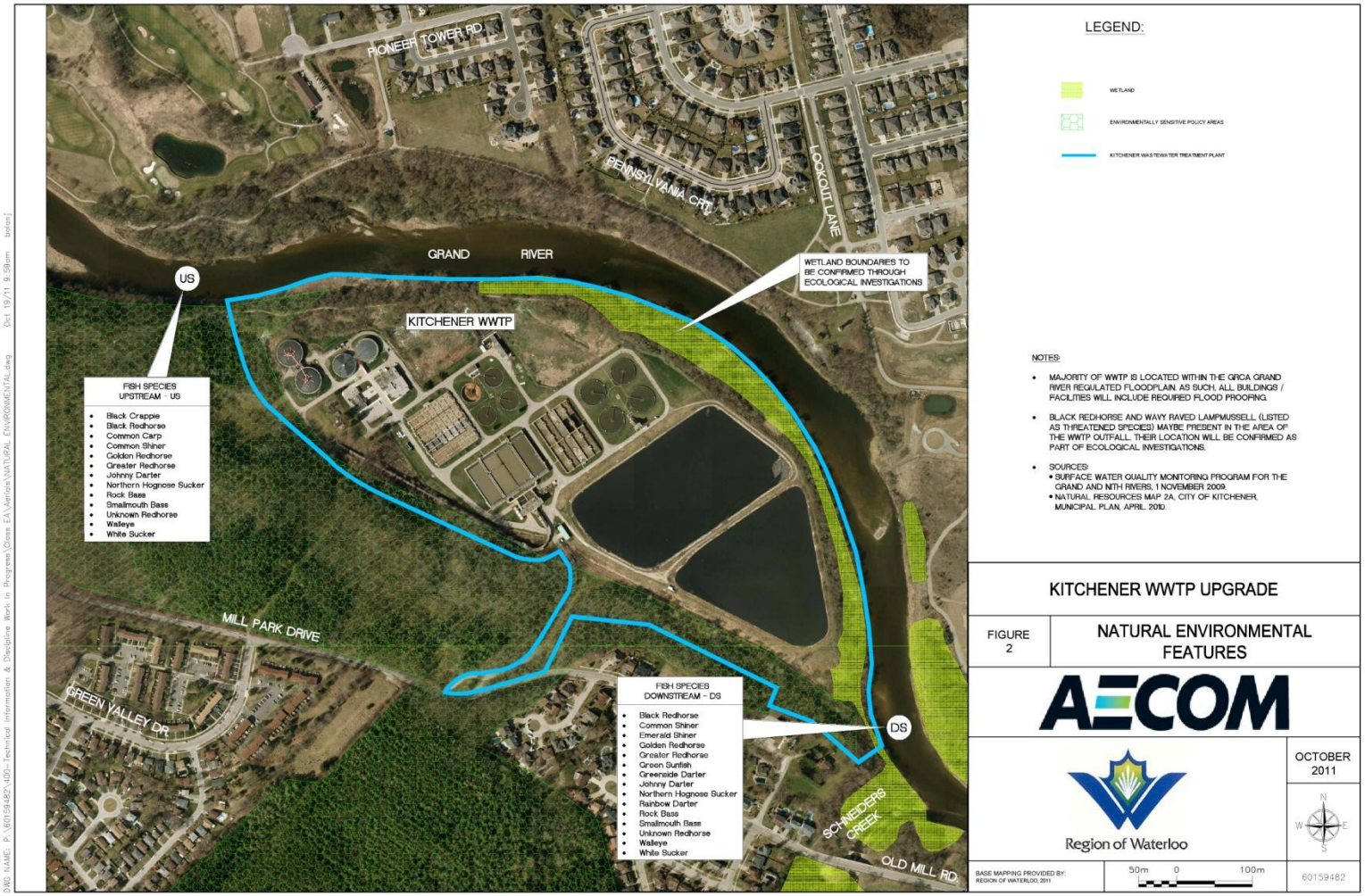
Studies underway to characterize biosolids, soils and groundwater.

- Contract 1:
  - *Odour management plan during construction;*
  - *Remove all biosolids and soils as appropriate to prepare site for future construction in Cell 1;*
  - *Remove sludge pumping equipment;*
  - *Install new sludge pumping equipment in Digester Complex to pump directly to Manitou; and*
  - *Cell 2 footprint maybe used for future expansion and/or possible stormwater management function.*

# Existing Conditions: Land Use and Social/Cultural Features



# Existing Conditions: Natural Environmental Features



# 17 Project Timing and Cost Estimate

| Contract | Description | Project Cost Estimate | Approx. Timing |
|---|---|---|---|
| 1. Lagoon Decommissioning and Digested Sludge Pumping | ➢ Decommission the existing sludge lagoons and prepare site for construction of new Plant 3 facilities; and<br>➢ Construct new pumping system to pump digested sludge to Manitou Drive Biosolids Facility. | $13.4 M | 2012/14 |
| 2. Power Centre, Sludge Digestion | ➢ Construct new power supply and energy centre including standby power; and<br>➢ Implement digester modifications. | $40.0 M | 2013/15 |
| 3a. Headworks<br>3b. Tertiary Treatment and Outfall | ➢ Headworks including screening and grit removal, tertiary filtration system, new outfall sewer and diffuser. | $77.2 M | 2013/15<br>2015/17 |
| 4 . Plant 3, Plant 2 Upgrades, RAS/WAS Pumping | ➢ New aeration tanks, secondary clarifiers, New Plant 2 RAS/WAS pumping station , and minor plant upgrades. | $100.1 M | 2015/18 |
| 5 . Administration/ Maintenance Building, Sludge Thickening Building, Miscellaneous Works | ➢ New Administration Building including laboratory and modifications to existing Maintenance Building. Sludge thickening, Plant 1 decommissioning and miscellaneous plant upgrades. | $65.2 M | 2018/20 |
| | Total | $298 M | |

# Capital Works Budget and Water and Wastewater Rates

- The proposed Kitchener WWTP capital works and associated operating costs have been included in the Council approved 2011 ten-year Capital Program; and
- The following proposed whole sale user rates ($/m$^3$) are based on this and other capital works within the Region.
- The retail rate charged by area municipalities are the sum of the whole sale rate and the area municipality rate

| Year | Wholesale User Rates ($/m$^3$) |
|---|---|
| 2011 | $0.6965 |
| 2012 | $0.7515 |
| 2013 | $0.8109 |
| 2014 | $0.8750 |
| 2015 | $0.9441 |
| 2016 | $1.0187 |
| 2017 | $1.0991 |
| 2018 | $1.1860 |
| 2019 | $1.2559 |
| 2020 | $1.3300 |

# 19 Managing Impacts from Construction

- The following impacts related to construction are anticipated:

| Impact | Mitigation Measure |
|---|---|
| ➢ Noise/Vibration/Dust/Traffic | ➢ City to be notified of upcoming construction activity peaks and expected road usage;<br>➢ Construction operations will be restricted to the day shift;<br>➢ Use of designated construction haul routes and traffic management as required;<br>➢ Dust control by spraying water, street sweeping; and<br>➢ Prepare and implement traffic management plan.  |
| ➢ Temporary Grand River Trail Closure:<br>• Required to install new outfall | ➢ Temporary closure of trails similar to current trail closure (part of current WWTP upgrade construction);<br>➢ Use of signage/fencing and trail detours; and<br>➢ Notification to public and trail users.   |
| ➢ Tree/Vegetation Removal<br>• Primarily related to outfall | ➢ Complete survey of proposed construction footprint;<br>➢ Protect mature and mid aged trees along the edge of the alignment; prepare tree preservation plan, as required; and<br>➢ Restore disturbed areas/habitat to natural or better conditions.  |
| ➢ Groundwater management, dewatering impacts/wetlands<br>• Related to facility and outfall construction | ➢ Review current construction dewatering practices; and<br>➢ Complete hydrogeological assessment prior to construction to identify proper dewatering techniques required and impact.  |
| ➢ Fish Habitat<br>• Related to outfall construction | ➢ Complete fisheries habitat-assessment;<br>➢ Conduct hydrodynamic modeling and design of the outfall diffuser to achieve the in-stream water quality as required by MOE guidelines;<br>➢ Location of outfall to avoid the near shore nursery habitats where possible;<br>➢ Complete/submit GRCA permit application; and<br>➢ Implement restoration of habitat to natural or better conditions and include monitoring.  |

- Once the preliminary design is finalized specific construction impact management strategies and mitigation measures will be developed and presented at PIC 2 planned for early 2012.

# Next Steps

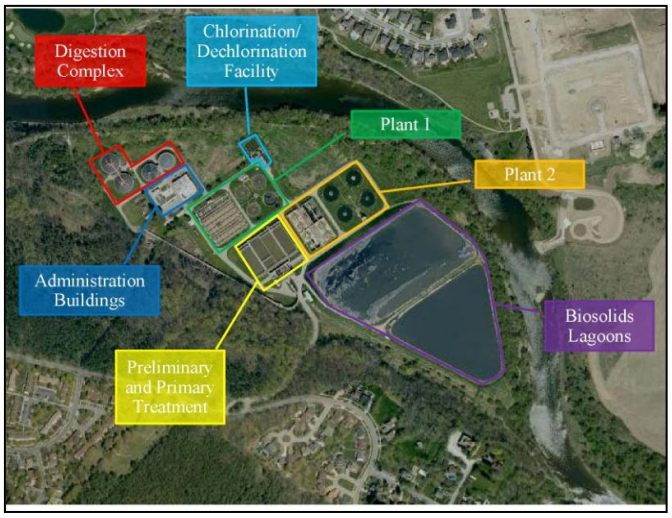
- Review comments from PIC #1;
- Draft Pre-Design;
- Draft Environmental Study Report;
- Conduct PIC #2;
- Complete Pre-Design;
- Complete Environmental Study Report;
- Submit to Regional Council for approval; and
- File report for 30-day public review.

Region of Waterloo

Handout for Public Information Centre #1

# Kitchener Wastewater Treatment Plant Upgrades
# Municipal Class Environmental Assessment

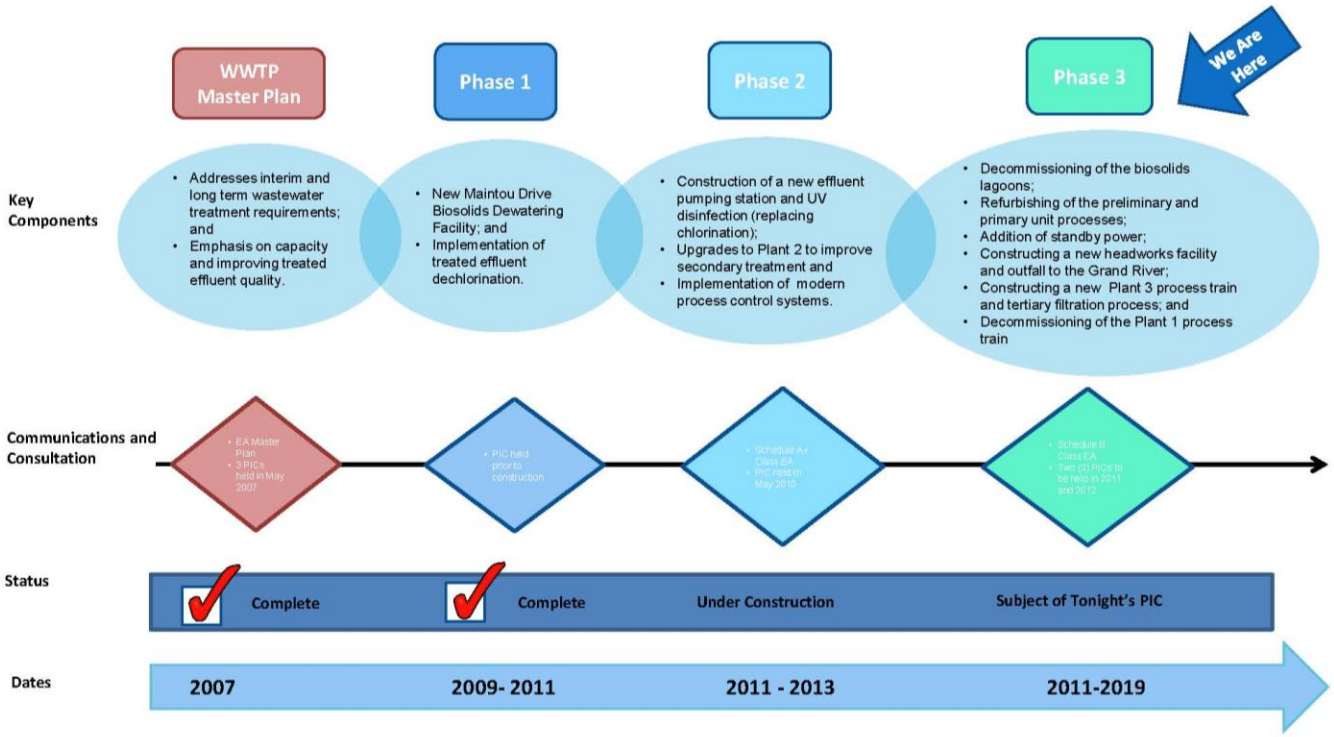
## 1. Background




Wastewater generated in the City of Kitchener is treated at the Kitchener Wastewater Treatment Plant (WWTP), located at 368 Mill Park Drive. The following information provides an overview of the existing WWTP:

- The existing Kitchener WWTP is a conventional secondary treatment facility (rated capacity of 122,745m$^3$/d) that was originally constructed in the 1960s followed by expansion in the 1970s;
- The plant is comprised of two separate treatment plants served by a common headworks facility and primary clarifier facility;
- Both plants discharge through an outfall to the Grand River following chlorination/ dechlorination;
- Two biosolids storage lagoons have been slated for decommissioning to allow for process replacements and improvements; and
- The digested/stabilized sludge is pumped to a recently upgraded off-site dewatering/transfer station at Manitou Drive where material is hauled off-site for disposal to agricultural land or landfill.

In 2007, the Region of Waterloo completed a Wastewater Treatment Master Plan which recommended a number of upgrades to the Kitchener WWTP, to be implemented using a phased approach as shown below.




AECOM

Region of Waterloo

Handout for Public Information Centre #1

## 2. Environmental Assessment Process

The study is being conducted in accordance with the approved requirements for a Schedule "B" project as described in the Municipal Engineers Association's Class EA document (October 2000, as amended in 2007 and 2011). The Class EA process includes public and review agency consultation, an evaluation of alternative solutions, an assessment of the impacts of the proposed upgrades, and identification of measures to mitigate any adverse impacts.

## 3. Purpose of Public Information Centre #1

The purpose of Public Information Centre (PIC) #1 is to introduce the study to landowners; municipal, provincial, and federal representatives; and other interested and potentially affected members of the public with respect to the following key information:

- Existing conditions;
- WWTP upgrade components;
- Approach to odour management;
- Overview of anticipated impacts from construction and preliminary mitigation measures; and
- Next steps.

## 4. Key Project Drivers

- Provide reliable, long term operation and performance (better effluent quality and odour/management);
- Decommission existing biosolids storage lagoons; and
- Improve process efficiency (replace aging equipment).

## 5. Problem/Opportunity Statement

The existing Kitchener WWTP has performed satisfactorily but has experienced issues with respect to odours. Treatment upgrades are required to ensure that better effluent quality is achieved prior to being discharged into the Grand River. By improving effluent quality long term Grand River water quality will be improved having a positive effect on recreational uses and fish communities.

## 6. WWTP Upgrade Components

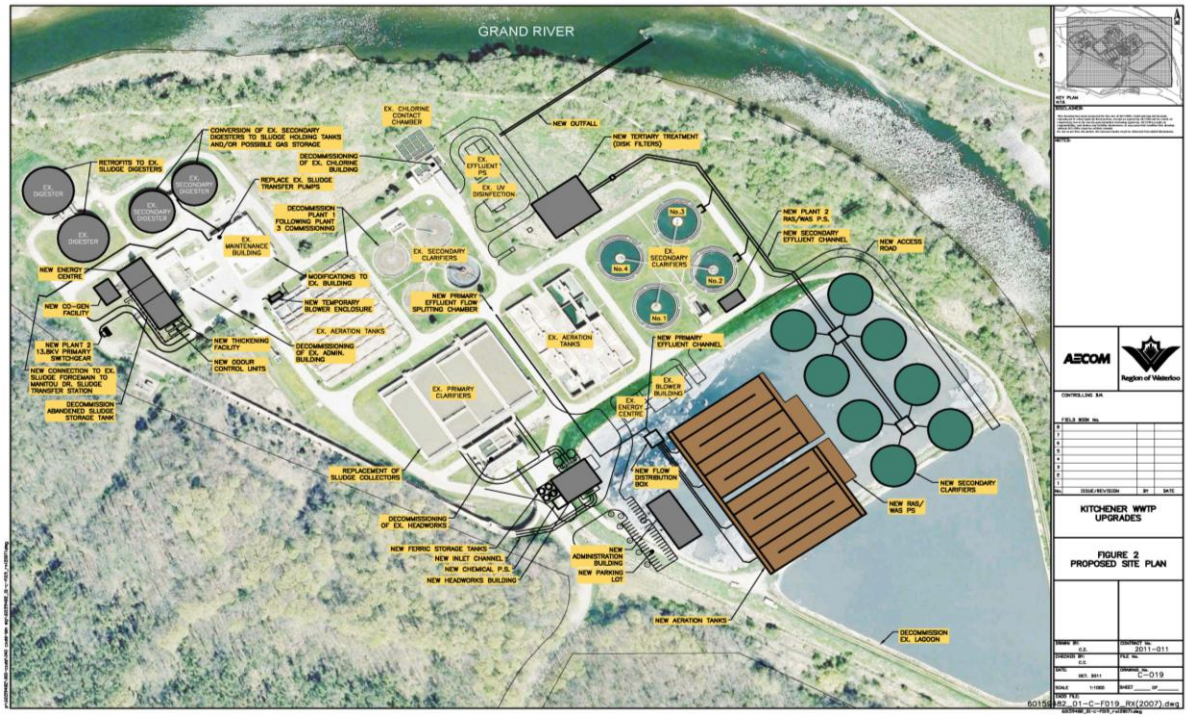
Currently completing Phase 3 of the project, which includes the following key components:

- Decommissioning of the existing biosolids storage lagoons to provide the area necessary for the construction of a new treatment plant (Plant 3);
- Upgrades to headworks and processing of biosolids (thickening, pumping);
- Construction of Plant 3 with capacity of approximately 80 to 90 MLD to provide, as a minimum, nitrification and tertiary treatment for enhanced phosphorus removal;
- Upgrade or replacement of the existing outfall to convey treated effluent to the Grand River;
- Provision of standby power facilities to ensure reliability in the event of a power failure;
- Implementation of cogeneration engines to provide energy recovery and produce electricity from digester gas.

AECOM

Region of Waterloo

Handout for Public Information Centre #1




## 7. Odour Management

Source of odour problems:

- ✓ **Biosolids Storage Lagoons**
- ✓ **Primary Clarifiers**
- ✓ **Headworks**
- ✓ **Mechanical Surface Aerators**

The Region acknowledges these problems and addressed them by completing several odour studies, which involved identifying immediate improvements and modifications for odour mitigation.

- Phase 3 works will further address odour management by:
  - Decommissioning the biosolids lagoons which are no longer required;
  - Constructing/installing new Headworks and Sludge Thickening equipped with biofilters for odour management;
  - Modifying primary clarifier operation; and
  - Replacing mechanical surface aerators with diffused air.

## 8. Overview of Anticipated Impacts

The following impacts related to construction are anticipated:

- Noise/Vibration/Dust/Traffic;
- Temporary Grand River Trail Closure (required to install new outfall);
- Tree/Vegetation Removal (primarily related to outfall);
- Groundwater Management, Dewatering Impacts/Wetlands (related to facility and outfall construction); and
- Fish Habitat (related to outfall construction).

AECOM

Handout for Public Information Centre #1

Once the preliminary design is finalized specific construction impact management strategies and mitigation measures will be developed and presented at PIC #2 planned for early 2012.

**9. Estimated Project Implementation Schedule:**

- PIC # 2 – early 2012
- Complete Schedule B Class EA Planning process - 2012
- Detailed Design – 2012 through 2014
- Construction – 2013-2019
- In-service Date – 2018

**10. The following tasks will be completed prior to PIC # 2:**

- Respond to written questions and comments;
- Conduct the second Public Information Centre in winter/spring 2012 (tentative) where the Region will present for your review and comments:
- Upgrade component design including estimated capital costs;
- Detailed odour management strategy;
- Proposed construction impact management strategies including mitigation measures to manage potential impacts; and
- Refined implementation schedule.

**11. We welcome your comments!**

We encourage you to fill out the comment sheets provided and drop them off in the comment box. Alternatively, you can mail, fax, or email your comments to the individuals listed below:


**José Bicudo**
**Senior Project Engineer, Water Services**
Regional Municipality of Waterloo
150 Frederick Street, 7th Floor
Kitchener, Ontario N2G 4J3
Phone: 519-575-4757 x 3416
Fax: 519-575-4452
Email: jbicudo@regionofwaterloo.ca

**John Armistead, P.Eng.**
**Project Manager**
**AECOM**
250 York Street, Suite 410
London ON N6A 6K2
Phone: (519) 963-5860
Fax: (519) 673-5975
Email: john.armistead@aecom.com


Additional information related to the project and consultation process may be obtained through the study website: http://www.regionofwaterloo.ca/kitchenerwwtp

*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. Questions regarding the collection of this information should be referred to Mr. José Bicudo.*

# COMMENT SHEET

## Public Information Centre # 1 – Wednesday November 16, 2011

## Background

Wastewater generated in the City of Kitchener is treated at the Kitchener Wastewater Treatment Plant (WWTP) located at 368 Mill Park Drive. The Kitchener WWTP is comprised of two separate treatment plants served by a common headworks facility and primary clarifier facility, which were constructed in the early 1960s followed by expansion in the mid-1970s. The effluent from both facilities is disinfected prior to being discharged in the Grand River. In order to upgrade treatment and ensure better effluent quality in the future, the Region is completing a Municipal Class Environmental Assessment (EA) Study for upgrading the treatment process, as well as for the provision of standby power to provide security to ensure essential operations will continue in the event of a power failure at the plant. The proposed upgrades are part of the last of three WWTP upgrade phases and will not increase the existing WWTP capacity. Some of the upgrades will however improve how odours are managed at the plant. Additional information related to the project and consultation process may be obtained through the study website: http://www.regionofwaterloo.ca/kitchenerwwtp

You are invited to provide comments on the materials presented today as well as any other issues that you feel are important to this Class EA study. Please take a few minutes to provide your comments. All comments will be considered in finalizing the preferred solution.

## Question 1.

**Do you agree with the recommended standby power solution (permanent indoor standby power facilities)?**

## Question 2.

**Do you have any comments on the other proposed WWTP upgrades?**

## Question 3.

**Is there anything located within the study area that needs to be considered as part of the design and construction of the WWTP upgrades?**

## Question 4.

**Is there any other information that you would like to provide or do you require any information?**

# Thank you for participating in this study.

Please return this completed **Comment Sheet** to our one of the project team members or place it in the 'Comment Box'. You can also send them to any of the following (see below) by **November 30, 2011**:


**José Bicudo**
**Senior Project Engineer, Water Services**
Regional Municipality of Waterloo
150 Frederick Street, 7th Floor
Kitchener, Ontario N2G 4J3
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Fax: 519-575-4452
Email: jbicudo@regionofwaterloo.ca

**John Armistead, P.Eng.**
**Project Manager**
**AECOM**
250 York Street, Suite 410
London ON N6A 6K2
Phone: (519) 963-5860
Fax: (519) 673-5975
Email: john.armistead@aecom.com


**Optional:** Please provide your contact information if you would like to receive future updates on this project, including Notice of Project Completion.

*Name:* _____

*Address:* _____

*Telephone:* _____ *Fax:* _____

*Email:* _____

**Note: Information will be collected in accordance with the Municipal *Freedom of Information and Protection of Privacy Act.* With the exception of personal information, all comments will become a part of public record.**

**REGION OF WATERLOO**

**PLANNING, HOUSING AND COMMUNITY SERVICES**
**Community Planning**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** D17-30

**SUBJECT: REFERRAL OF A PORTION OF MAP 5 OF THE CITY OF KITCHENER OFFICIAL PLAN (THE LANDS LOCATED NORTH OF OTTAWA STREET THAT ARE SUBJECT TO DEFERRAL 3a) TO THE ONTARIO MUNICIPAL BOARD FOR CONSOLIDATION INTO AN EXISTING HEARING**

## RECOMMENDATION:

THAT the Regional Municipality of Waterloo, in its role as the delegate of the Minister of Municipal Affairs and Housing, refer the currently unapproved portion of Map 5 of the City of Kitchener Official Plan (the lands located north of Ottawa Street that are subject to Deferral 3a) to the Ontario Municipal Board under the provisions of Section 17(11) of the Planning Act R.S.O. 1990 and request this referral be consolidated with the Official Plan Amendment, Plan of Subdivision application and Zoning By-law amendment appeals by Activa Holdings Inc. and 2140065 Ontario Inc. currently the subject of Ontario Municipal Board Case No. PL110574, as explained in Report No. P-11-086, dated November 8, 2011.

## SUMMARY:

On May 25, 1995, the Region, in its role as the delegate of the Minister of Municipal Affairs and Housing, approved the City of Kitchener Official Plan. As part of this approval, in consultation with the City of Kitchener, no decision was made with respect to a portion of Map 5 of the Official Plan as it applied to lands on the west and southwest portion of the City of Kitchener. The area to which no decision was made was identified as Deferral 3a within the approval document.

On May 27, 2011, Activa Holdings Inc. and 2140065 Ontario Inc. appealed their proposed Official Plan Amendment, Plan of Subdivision and Zoning By-law amendment applications as they apply to 54.6 hectares (134.9 acres) of land located on Trussler Road, south of Highway 7 and north of Ottawa Street to the Ontario Municipal Board (OMB) (see Appendix 'A'). The lands subject to the appeals by Activa Holdings Inc. and 2140065 Ontario Inc. are within the area affected by Deferral 3a.

In order to ensure that all outstanding issues related to the subject lands can be appropriately addressed by the OMB, Regional staff is recommending that Deferral 3a, as it applies specifically to the lands subject to the appeals by Activa Holdings Inc. and 2140065 Ontario Inc. be referred to the OMB and consolidated with the appeals by Activa Holdings Inc. and 2140065 Ontario Inc. City of Kitchener staff concurs with the request to refer the portion of Deferral 3a lands.

## REPORT:

On May 25, 1995, the Region in its role as the delegate of the Minister of Municipal Affairs and Housing, approved the City of Kitchener Official Plan. As part of this approval, in consultation with the City of Kitchener, no decision was made with respect to a portion of Map 5 of the Official Plan as

it applied to lands on the west and southwest portions of the City of Kitchener. The area to which no decision was made was identified as “Deferral 3a” within the approval document.

The purpose of Deferral 3a was to permit the completion of a “West Side Study” by the City of Kitchener. The “West Side Study” that commenced in 1986 was a comprehensive planning exercise to address future development of the lands on the west side of the City of Kitchener. It was intended at that time that the results of the “West Side Study” would determine the appropriate land use designations for inclusion into the City of Kitchener Official Plan. The “West Side Study” was never formally completed by the City of Kitchener and as a result Deferral 3a has yet to be resolved.

On August 6, 2008, Activa Holdings Inc. and 2140065 Ontario Inc. submitted Official Plan Amendment, Plan of Subdivision and Zoning By-law amendment applications as they apply to 54.6 hectares (134.9 acres) of land located on Trussler Road, south of Highway 7 and north of Ottawa Street (see Appendix A). These applications propose development of the lands for residential purposes.

On May 27, 2011, Activa Holdings Inc. and 2140065 Ontario Inc. appealed these applications to the Ontario Municipal Board (OMB). The basis for this appeal was the failure of the City of Kitchener to make a decision with respect to the subject applications within the time frames provided for within the *Planning Act*. The lands subject to the appeals by Activa Holdings Inc. and 2140065 Ontario Inc. are within the area affected by Deferral 3a.

In order to ensure that all outstanding issues related to the subject lands can be appropriately addressed by the OMB, Regional staff is recommending that Deferral 3a, as it applies specifically to the lands subject to the appeals by Activa Holdings Inc. and 2140065 Ontario Inc., be referred by Regional Council to the OMB.

This request for referral to the OMB is being made in accordance with the provisions of the *Planning Act* as it existed at the time of the original approval of the City of Kitchener Official Plan, which still governs the further processing of this application. No similar provision exists in the current version of the *Planning Act*. The authority to refer applications to the OMB is not provided for within the Regional Planning Housing and Community Services delegation By-law No. 01-028 and as a result, Regional staff is recommending Regional Council refer Deferral 3a specifically as it applies to the subject lands to the OMB .

**Area Municipal Consultation/Coordination**

Regional staff continues to consult with City of Kitchener staff in preparation for the OMB pre-hearing hearing in December. City of Kitchener staff concurs with the request to refer the 3a deferral lands to the OMB and consolidate the referral with the appeals by Activa Holdings Inc. and 2140065 Ontario Inc.

**CORPORATE STRATEGIC PLAN:**

The actions described in this report are consistent with the 2011 - 2014 Strategic Plan Strategic Objectives: 1.1 Integrate environmental considerations into the Region’s decision-making, 1.4 Protect the quality and the quantity of our drinking water sources, and 1.5 Restore and preserve green space, agricultural land and sensitive environmental areas.

**FINANCIAL IMPLICATIONS:**

Costs associated with the filing of this appeal and any costs associated with the Ontario Municipal Board Hearing process can be provided through funds already budgeted for such purposes.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

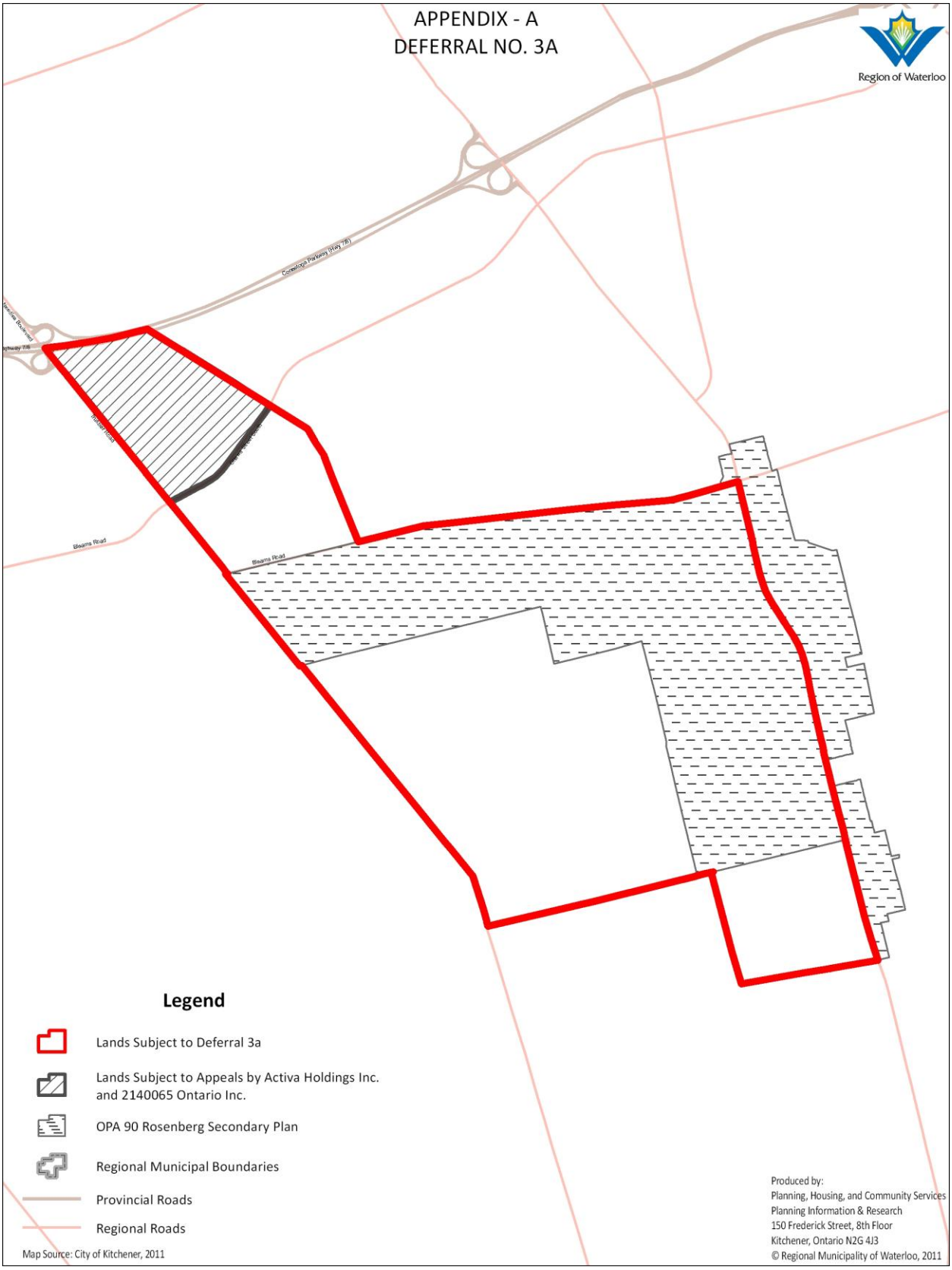
Legal Services have been directly involved in the preparation of the Region's referral request to the OMB and concur with the recommendations of this report.

**ATTACHMENTS:**

Appendix A – Location Map illustrating the lands subject to appeals by Activa Holdings Inc. and 2140065 Ontario Inc., the deferral 3a lands and OPA 90 Rosenberg Secondary Plan.

**PREPARED BY:** *Brenna MacKinnon*, Manager, Greenfield Planning

**APPROVED BY:** *Rob Horne*, Commissioner of Planning, Housing and Community Services


APPENDIX - A
DEFERRAL NO. 3A
Region of Waterloo
Conestoga Parkway (Hwy 7/8)
Bleams Road
Bleams Road
Legend
Lands Subject to Deferral 3a
Lands Subject to Appeals by Activa Holdings Inc. and 2140065 Ontario Inc.
OPA 90 Rosenberg Secondary Plan
Regional Municipal Boundaries
Provincial Roads
Regional Roads
Map Source: City of Kitchener, 2011
Produced by:
Planning, Housing, and Community Services
Planning Information & Research
150 Frederick Street, 8th Floor
Kitchener, Ontario N2G 4J3
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**REGION OF WATERLOO**

**PLANNING, HOUSING AND COMMUNITY SERVICES**
**Transportation Planning**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** T15-40/50 WAT

**SUBJECT: AMENDMENT TO REGIONAL MUNICIPALITY OF WATERLOO CONTROLLED ACCESS BY-LAW #58-87, FOR ACCESS TO REGIONAL ROAD #50 (NORTHFIELD DRIVE), CITY OF WATERLOO**

## RECOMMENDATION:

THAT the Regional Municipality of Waterloo amend Controlled Access By-law #58-87 to include a right-in, right-out only access on the south side of Regional Road #50 (Northfield Drive) approximately 113 metres east of Parkside Drive in the City of Waterloo subject to site plan approval by the City of Waterloo and the Ministry of Transportation.

AND THAT the Regional Municipality of Waterloo amend Controlled Access By-law #58-87 to include the existing access on the south side of Regional Road #50 (Northfield Drive) approximately 70 metres east of Parkside Drive, in the City of Waterloo, as explained in Report P-11-068, dated November 8, 2011.

## SUMMARY:

The Zehr Group is proposing to redevelop the former Laurel Springs site located at 139 Northfield Drive, City of Waterloo. The proposal includes construction of a new 3 storey office building and renovations to an existing 1 storey building at the rear of the property for a multi-tenant office building. The current site has a full-turns access that pre-dates the Controlled Access By-law. The new site plan proposes a new right-in, right-out only access approximately 113 metres east of Parkside Drive and closing the existing full movement access on Northfield Drive. Staff has been working with the developer on the design of the access to facilitate the right-in, right-out movements. Access to the property is also available to Parkside Drive.

As part of a previously approved site plan for Waterloo Nissan located at 141 Northfield Drive, access to Northfield Drive was relocated by 12 metres. The site had previously contained a full-turns access that pre-dated the Controlled Access By-law. This distance of relocation requires an amendment to the Controlled Access By-law #58-87 for this access. Staff is recommending the By-law be updated to reflect the current access located approximately 70 metres east of Parkside Drive. Access to 141 Northfield Drive is also available from Parkside Drive.

Appendix A is a map showing the location of the subject properties at 139 and 141 Northfield Drive.

Appendix B is a site plan showing both properties at 139 and 141 Northfield Drive including the proposed amendments to Controlled Access By-law 58-87.

Staff have reviewed all proposed accesses to Regional Road #50 (Northfield Drive), confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendments. The affected property owners, City of Waterloo staff and the Ministry of Transportation support the location of the proposed accesses.

**REPORT:**

By-law #58-87, "A By-law to Designate and Regulate Controlled Access Roads", was enacted to control the construction or alteration to the geometric design of any private means of access to a Regional road. All Regional roads are included in either Schedule "A" or Schedule "B" of the By-law. Regional roads included in Schedule "A" (Controlled Access – Prohibited), include arterial roads and freeways where access to these roads should be restricted because of high traffic volume and speed. All requests for changes to existing accesses or for new accesses require an amendment to the By-law. Regional roads included in Schedule "B" (Controlled Access – Regulated) include all remaining arterial roads within the Regional road system. Typically, these roads are front lotted with access available only to the Regional road or are comparatively lower volume roads.

Appendix A is a map showing the location of the subject properties at 139 and 141 Northfield Drive.

Appendix B is a site plan showing both properties at 139 and 141 Northfield Drive including the proposed amendments to Controlled Access By-law 58-87.

The Zehr Group has submitted a site plan to redevelop the former Laurel Springs site at 139 Northfield Drive, in the City of Waterloo (Appendix B). The proposal includes construction of a new 3 storey office building and renovations to an existing 1 storey building at the rear of the property for a multi-tenant office building. The site currently has a full-turns access that pre-dates the Controlled Access By-law.

The plan shows a proposed new right-in, right-out access on Northfield Drive located approximately 113 metres east of Parkside Drive and closing the existing full movement access. Staff has been working with the developer on the design of the access to facilitate the right-in, right-out movements. The proposed right-in, right-out access at 139 Northfield Drive is located approximately 80 metres west of the future Rapid Transit line. Access to the property is also available to Parkside Drive.

As part of a previously approved site plan for Waterloo Nissan located at 141 Northfield Drive, access to Northfield Drive was relocated by 12 metres (Appendix B).This distance of relocation requires an amendment to the Controlled Access By-law #58-87 for this access. Staff is recommending the By-law be updated to reflect the current access located approximately 70 metres east of Parkside Drive. Access to 141 Northfield Drive is also available from Parkside Drive.

At this location Northfield Drive is designated as a Controlled Access – Prohibited Road under the Region's Controlled Access By-law #58-87. An amendment to this by-law is required to permit the proposed access to 139 Northfield Drive and recognize the existing access at the Waterloo Nissan site at 141 Northfield Drive.

It is recommended that approval of the amendment to Controlled Access By-law #58-87 for 139 Northfield Drive be conditional upon approval of the site plan by the City of Waterloo and Ministry of Transportation.

Staff have reviewed all proposed accesses to Regional Road #50 (Northfield Drive), confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendments. The affected property owners, City of Waterloo staff and the Ministry of Transportation support the location of the proposed accesses.

**Area Municipal Consultation/Coordination**

City of Waterloo staff support the proposed amendments to the Controlled Access By-law.

**CORPORATE STRATEGIC PLAN:**

Managing access to the Regional Road system is integral to the development approval process and is represented in Focus Area 2: Growth Management and Prosperity: Manage growth to foster thriving and productive urban and rural communities.

**FINANCIAL IMPLICATIONS:**

The developer will be responsible for all costs associated with the closure of the existing access and construction of the right-in, right-out access at 139 Northfield Drive, Waterloo.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

Upon issuance of a Regional Access Permit for 139 Northfield Drive, a Regional Work Permit will be required to perform works within the Regional right-of-way.

Corporate Resources will be required to amend the Controlled Access By-law #58-87.

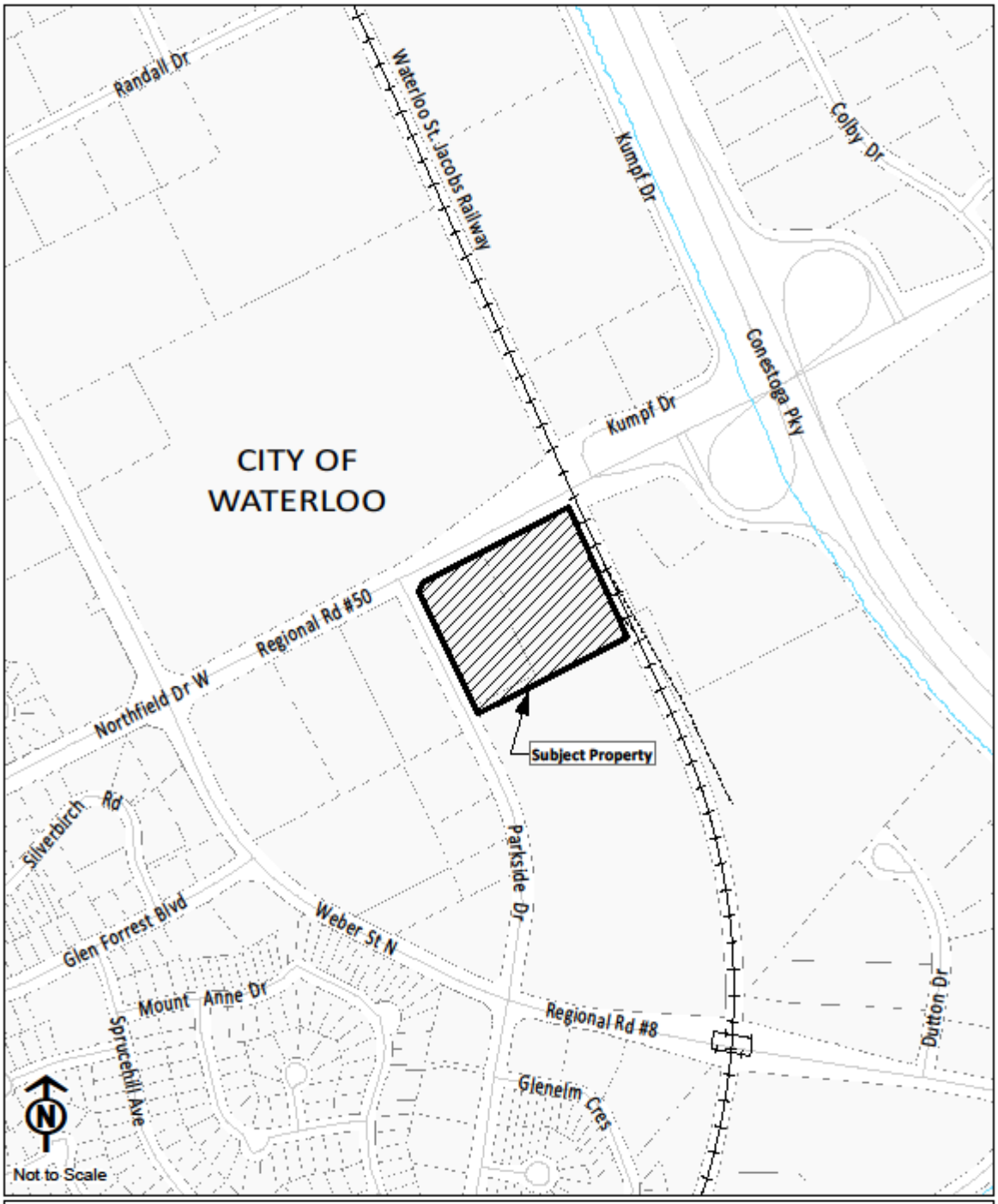
Legal Services was consulted regarding the relocation of this access.

**ATTACHMENTS:**

Appendix A – Map showing the location of the subject property.
Appendix B – Site Plan of 139 Northfield Drive showing the location of the proposed right-in, right-out access to Northfield Drive, the existing access to be closed and the existing access to the Waterloo Nissan site at 141 Northfield Drive.

**PREPARED BY:** *Cheryl Marcy*, Transportation Planner

**APPROVED BY:** *Rob Horne*, Commissioner of Planning, Housing and Community Services.


Randall Dr
Waterloo St. Jacobs Railway
Kumpf Dr
Colby Dr
Conestoga Pky
CITY OF WATERLOO
Kumpf Dr
Regional Rd #50
Northfield Dr W
Subject Property
Silverbirch Rd
Parkside Dr
Glen Forrest Blvd
Weber St N
Mount Anne Dr
Regional Rd #8
Dutton Dr
Sprucehill Ave
Glenelm Cres
N
Not to Scale
APPENDIX A
SUBJECT PROPERTY
Produced by:
Planning, Housing, and Community Services
Planning Information & Research
150 Frederick Street, 8th Floor
Kitchener, Ontario N2G 4J3
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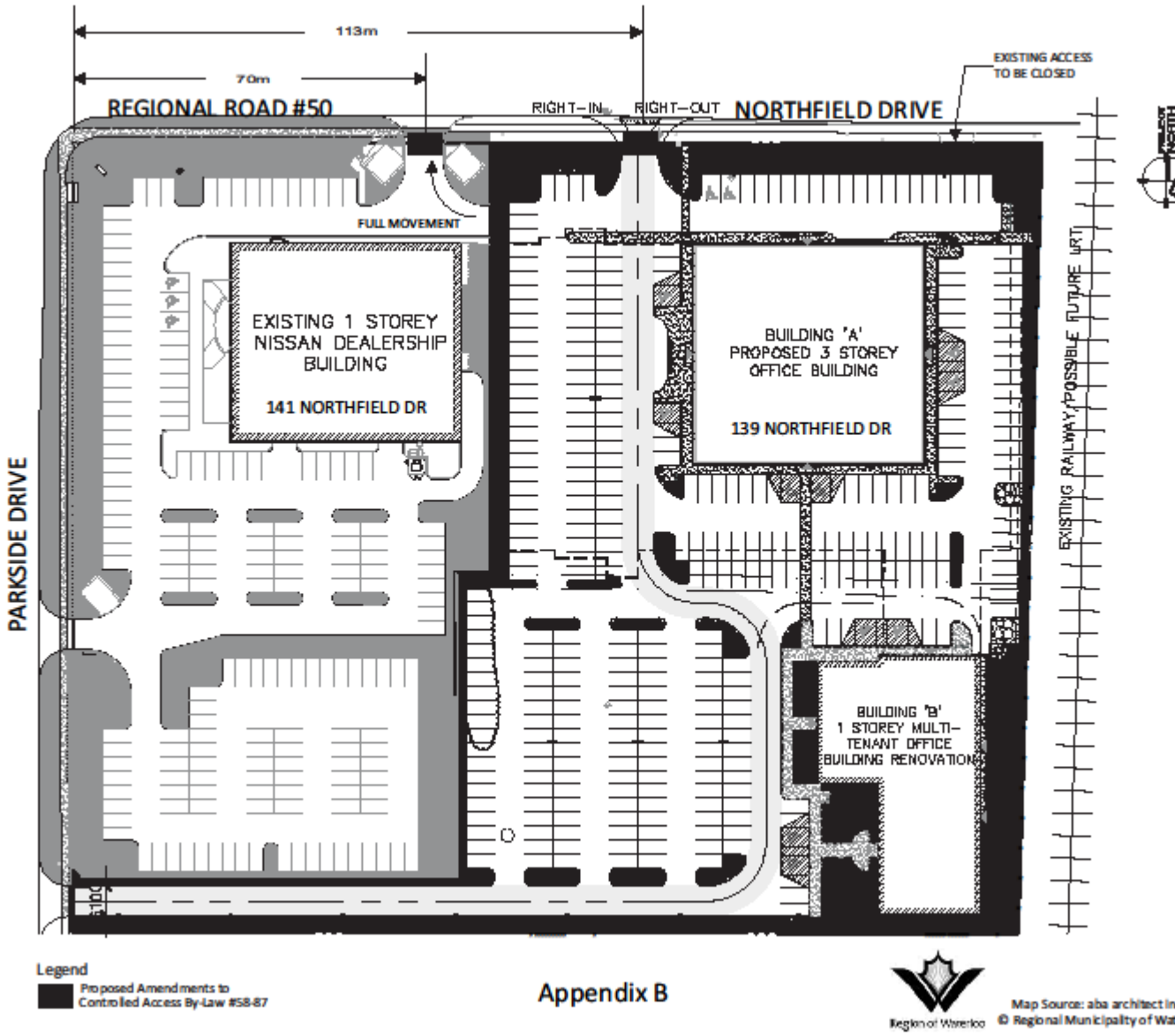

113m
70m
REGIONAL ROAD #50
RIGHT-IN
RIGHT-OUT
NORTHFIELD DRIVE
EXISTING ACCESS TO BE CLOSED
FULL MOVEMENT
EXISTING 1 STOREY NISSAN DEALERSHIP BUILDING
141 NORTHFIELD DR
BUILDING 'A' PROPOSED 3 STOREY OFFICE BUILDING
139 NORTHFIELD DR
BUILDING 'B' 1 STOREY MULTI-TENANT OFFICE BUILDING RENOVATION
PARKSIDE DRIVE
EXISTING RAILWAY, POSSIBLE FUTURE LRT
Legend
Proposed Amendments to Controlled Access By-Law #58-87
Appendix B
Region of Waterloo
Map Source: aba architect in
© Regional Municipality of Wa

**REGION OF WATERLOO**

**PLANNING, HOUSING AND COMMUNITY SERVICES**
**Transportation Planning**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** T15-40/33, C13-20/CA

**SUBJECT: AMENDMENT TO REGIONAL MUNICIPALITY OF WATERLOO CONTROLLED ACCESS BY-LAW #58-87 FOR THE CLOSURE OF TWO ACCESSES TO REGIONAL ROAD #33 (TOWNLINE ROAD), AND FOR FIVE NEW ACCESSES TO REGIONAL ROAD #33 (TOWNLINE ROAD), CITY OF CAMBRIDGE, AND TOWNSHIP OF PUSLINCH, COUNTY OF WELLINGTON**

## RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve an amendment to Controlled Access By-Law #58-87 to close a full movement access 592 metres south of Concession 1, in the Township of Puslinch, County of Wellington; and to close a full movement access 670 metres north of Concession 1, in the Township of Puslinch, County of Wellington, both accesses being under the jurisdiction of the Region of Waterloo;

AND THAT the Regional Municipality of Waterloo Controlled Access By-law #58-87 be amended to include the following accesses, as explained in Report P-11-087, dated November 8, 2011:

a) A temporary full movement construction access on the west side of Regional Road # 33 (Townline Road) approximately 114 metres south of Kenwood Drive, in the City of Cambridge.

b) A permanent full movement farm access on the east side of Regional Road # 33 (Townline Road) approximately 185 metres south of Canamera Parkway, in the Township of Puslinch, County of Wellington.

c) A permanent full movement residential access on the east side of Regional Road # 33 (Townline Road) approximately 675 metres north of Concession 1, in the Township of Puslinch, County of Wellington.

d) A permanent full movement residential access on the east side of Regional Road # 33 (Townline Road) approximately 665 metres north of Concession 1, in the Township of Puslinch, County of Wellington.

e) A permanent full movement residential access on the east side of Regional Road # 33 (Townline Road) approximately 635 metres south of Concession 1, in the Township of Puslinch, County of Wellington.

## SUMMARY:

A number of accesses are proposed on Regional Road 33 (Townline Road), a Controlled Access Prohibited roadway (Appendix A).

**Proposed Access A**

Proposed Access A is to provide temporary construction access to a rear yard back lotted to Townline Road so that an addition may be constructed onto an existing house. This access is proposed to be located 114 metres south of Kenwood Drive, and will be used for the duration of construction and will be closed upon completion of construction.

**Proposed Access B**

Proposed Access B is an existing field farm access at 1873 Townline Road and is proposed to be relocated approximately 25 metres northerly towards Can-Amera Parkway because of construction constraints (elevation changes),

**Accesses C and D**

Accesses C and D had Regional Council's endorsement through previously approved Planning Works Committee Report P-04-024 (March 2004). During the construction project, it was discovered that these two accesses were not constructed in accordance with the approved Regionally-issued Access Permit. The access for Part 1 of Plan 61R-9696 was constructed approximately 5 metres north of where it was approved, and the access for 1639 Townline Road was constructed approximately 5 metres south of where it was approved. A modification to the Regional Municipality of Waterloo Controlled Access By-law #58-87 is required to ensure that these previously constructed accesses are in compliance.

**Proposed Access E**

Proposed Access E, affected through the Townline Road construction project is an existing access, proposed to be relocated approximately 42 metres to the south of where the existing access is currently located. This existing access had Regional Council's endorsement through previously approved Planning Works Committee Report E-07-042 (April 2007). The proposed change to the access would allow the property owner to make better use of the large open space at the front of his property.

Accesses B – E on Townline Road will be relocated as part of the reconstruction of Regional Road 33 (Townline Road) (Appendices C, D and E).

Staff has reviewed all proposed accesses to Regional Road 33 (Townline Road), confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendment. The affected property owners, City of Cambridge staff, and Township of Puslinch staff support the location of the proposed accesses.

**REPORT:**

By-law #58-87, A By-law to Designate and Regulate Controlled Access Roads, was enacted to control the construction or alteration to the geometric design of any private means of access to a Regional road. All Regional roads are included in either Schedule "A" or Schedule "B" of the By-law. Regional roads included in Schedule "A" (Controlled Access – Prohibited), include arterial roads and freeways where access to these roads should be restricted due to high traffic volume and speed. All requests for changes to existing accesses or for new accesses require an amendment to the By-law. Regional roads included in Schedule "B" (Controlled Access – Regulated) include all remaining arterial roads within the Regional road system. Typically, these roads are front lotted with access available only to the Regional road or are comparatively lower volume roads.

**Proposed Access A**

Regional staff was contacted by Dyet By Design Contracting to obtain rear access to 36 Sweeny Crescent, in the City of Cambridge, via Townline Road. Dyet By Design has been retained by the property owners of 36 Sweeny Crescent to design and construct an addition to the existing dwelling. The proposed addition will require a building foundation to be constructed. As there is insufficient room between the houses on Sweeny Crescent to access the rear yard, the contractor requires access to the rear yard from Townline Road.

Dyet By Design Contracting is requesting permission to construct a temporary construction access to Townline Road approximately 114 metres south of Kenwood Drive Road. A plan showing the proposed access is shown on Appendix B (noted as Access A on the Key Plan). Approval of the By-law amendment to permit a temporary construction access to Townline Road would be required by Regional Council prior to the issuance of an Access Permit. Staff have reviewed the request for a temporary construction access to Townline Road, confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendment.

**Proposed Access B**

Proposed Access B is an existing field farm access at 1873 Townline Road and is proposed to be relocated approximately 25 metres northerly towards Can-Amera Parkway because of construction constraints (elevation changes). A plan showing the proposed access is shown on Appendix C (noted as Access B on the Key Plan). This field farm access is proposed to be included in the current Townline Road construction project. As this access preceded Regional Municipality of Waterloo Controlled Access By-law #58-87, no deletion from the by-law is required. Staff has reviewed the proposed location of the access to Townline Road, confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendment.

**Access C and D**

Accesses C and D, which are affected by the construction project on Townline Road, had Regional Council's endorsement through previously approved Planning Works Committee Report P-04-024 (March 2004). A plan showing the proposed accesses is shown on Appendix D (noted as Accesses C & D on the Key Plan). Through construction of the Townline Road project, it was discovered that these two accesses were not constructed in accordance with the approved Regionally-issued Access Permit. The access for Part 1 of Plan 61R-9696 was constructed approximately 5 metres north of where it was approved, and the access for 1639 Townline Road was constructed approximately 5 metres south of where it was approved. A modification to the Regional Municipality of Waterloo Controlled Access By-law #58-87 is required to ensure that these previously constructed accesses are in compliance. The previously approved access will need to be removed from the Controlled Access By-law (669 metres north of Concession 1, in the Township of Puslinch, County of Wellington), in addition to the inclusion of the location of the new accesses (664 metres north of Concession 1, and 674 metres north of Concession 1, in the Township of Puslinch, County of Wellington). Staff has reviewed the location of the proposed accesses to Townline Road, confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendment.

**Proposed Access E**

Proposed Access E, affected through the Townline Road project, is an existing access to be relocated approximately 42 metres to the south of where the existing access is currently located. This existing access had Regional Council's endorsement through previously approved Planning Works Committee Report E-07-042 (April 2007). A plan showing the existing and proposed accesses is shown on Appendix E (noted as Access E on the Key Plan). The proposed change to

the access would allow the property owner to make better use of the large open space at the front of his property. The previously approved access will need to be removed from the Controlled Access By-law (592 metres south of Concession 1, in the Township of Puslinch, County of Wellington), in addition to the inclusion of the location of the new access (680 metres south of Concession 1, in the Township of Puslinch, County of Wellington). Staff has reviewed the proposed location of the access to Townline Road, confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendment.

Staff has reviewed all proposed accesses to Regional Road 33 (Townline Road), confirmed visibility exceeds minimum standards, and recommends approval of the By-law amendment. The affected property owners, City of Cambridge staff, and Township of Puslinch staff support the location of the proposed accesses.

**Area Municipal Consultation/Coordination**

City of Cambridge and Township of Puslinch staff support the location of the proposed accesses.

**CORPORATE STRATEGIC PLAN:**

Managing access to the Regional Road system is integral to the development approval process and is represented in Focus Area 2: Growth Management and Prosperity: Manage growth to foster thriving and productive urban and rural communities.

**FINANCIAL IMPLICATIONS:**

The applicant for proposed Access A will be responsible for the cost to construct and close the access, and all related road improvements. The remaining Accesses, B, C, D and E will be constructed as part of the Townline Road reconstruction that has an approved budget in the 2011 Transportation Capital Program.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

Upon issuance of a Regional Access Permit, Transportation Engineering will issue a Regional Work Permit to perform works within the Regional right of way.

Corporate Resources will be required to amend Controlled Access By-law #58-87.

Design & Construction has included the construction of accesses B, C, D & E into the Townline Road reconstruction project.

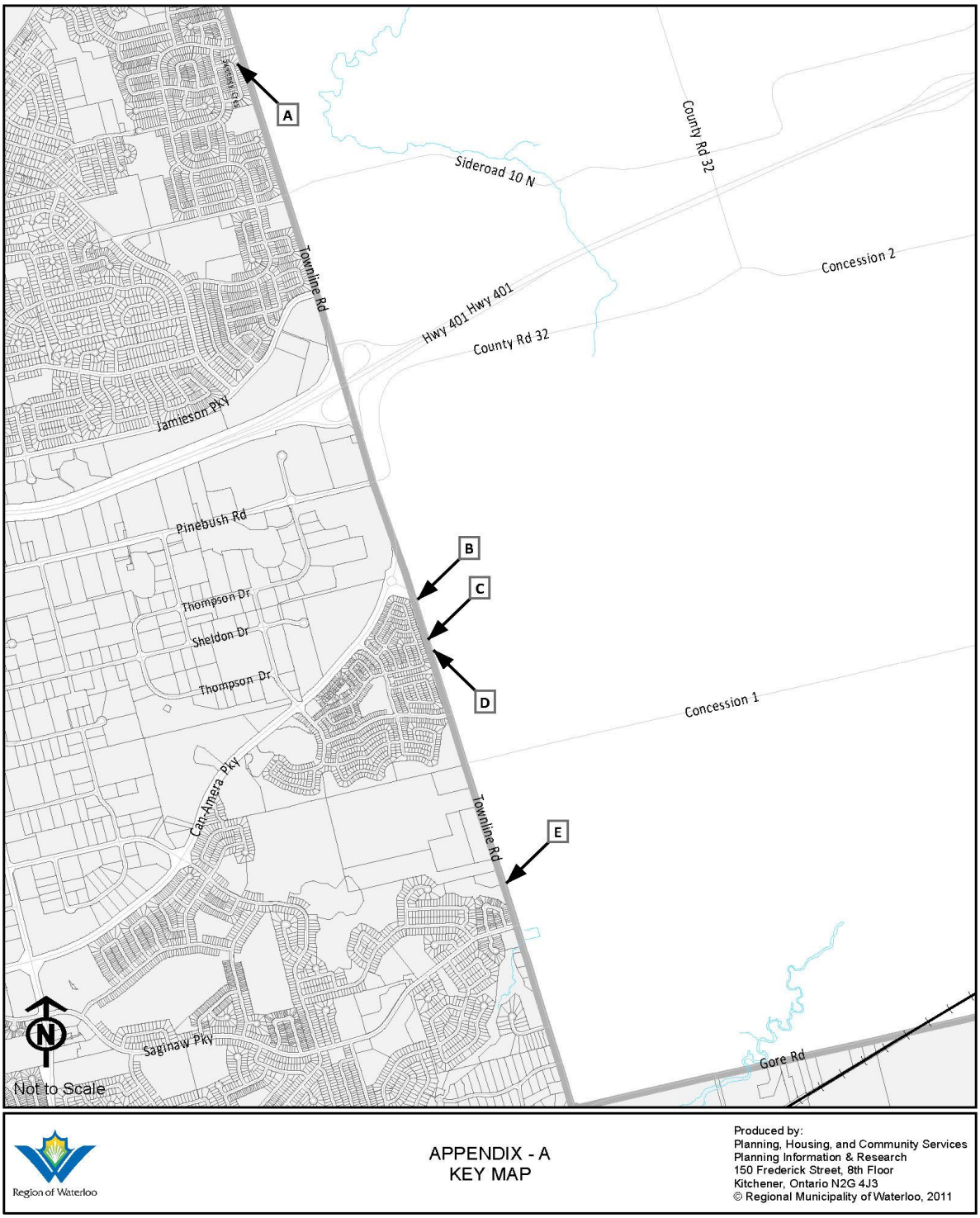
**ATTACHMENTS:**

Appendix A - Key Map showing the location of the accesses onto Townline Road.
Appendix B - Location of Proposed Access A and proposed amendment
Appendix C - Location of Proposed Access B and proposed amendment
Appendix D - Location of Accesses C & D and proposed amendments
Appendix E - Location of Proposed Access E and proposed amendment

**PREPARED BY:** *Richard Parent*, Transportation Planner

**APPROVED BY:** *Rob Horne*, Commissioner of Planning, Housing and Community Services

Appendix A


A
B
C
D
E
Sideroad 10 N
County Rd 32
Concession 2
Hwy 401 Hwy 401
County Rd 32
Townline Rd
Jamieson Pky
Pinebush Rd
Thompson Dr
Sheldon Dr
Thompson Dr
Concession 1
Can-Amera Pky
Townline Rd
Saginaw Pky
Gore Rd
N
Not to Scale
Region of Waterloo
APPENDIX - A
KEY MAP
Produced by:
Planning, Housing, and Community Services
Planning Information & Research
150 Frederick Street, 8th Floor
Kitchener, Ontario N2G 4J3
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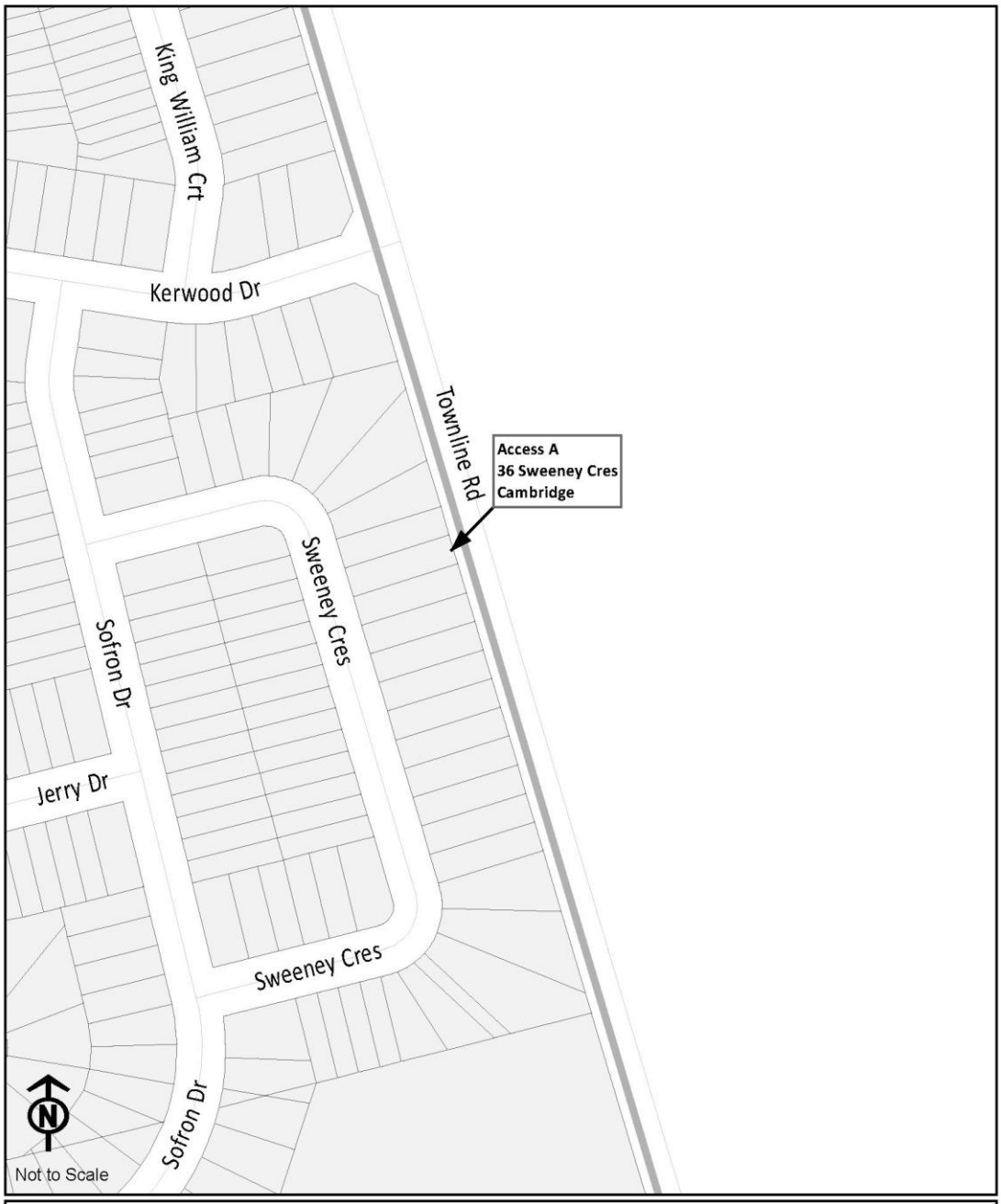


Region of Waterloo

APPENDIX B
LOCATION OF PROPOSED ACCESS A

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Appendix C


Region of Waterloo

APPENDIX C
LOCATION OF PROPOSED ACCESS B

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Appendix D


Region of Waterloo

APPENDIX D
LOCATION OF PROPOSED ACCESS C & D

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Appendix E


Region of Waterloo

APPENDIX E
LOCATION OF PROPOSED ACCESS E

Produced by:
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Kitchener, Ontario N2G 4J3

**REGION OF WATERLOO**

**PLANNING HOUSING AND COMMUNITY SERVICES**
**Transportation Planning**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** D09-90(A)

**SUBJECT: WALK CYCLE WATERLOO REGION – ACTIVE TRANSPORTATION MASTER PLAN WORKSHOPS**

## RECOMMENDATION:

For Information.

## SUMMARY:

In June 2010, Regional Council approved a new Regional Transportation Master Plan (RTMP) that included 17 action items; one was to complete an Active Transportation Master Plan (ATMP). In addition, in 2010, Regional Council approved the Context Sensitive Regional Transportation Corridor Design Guidelines that set the framework for accommodating all modes of transportation on Regional roads. The ATMP will provide more detailed direction on priorities for active transportation and integrate facility design to provide clear direction to reduce conflicts between pedestrians, cyclist and drivers. The new ATMP, called Walk Cycle Waterloo Region, will update the Region's Cycling Master Plan, 2004, while integrating a new regionally significant transportation network for pedestrians. As part of the development of the plan, key destinations such as Rapid Transit Stations will be targeted to ensure good access for those walking, cycling or rolling (in-line skating, skateboarding, mobility devices).

A project team, consisting of Regional staff, Regional Councillors Jane Mitchell and Geoff Lorentz along with staff representation from the Cities of Cambridge, Kitchener, and Waterloo with assistance from the IBI Group is leading the project.

For this first public event, the project team would like public input in a number of areas, including changes or improvements that would make it easier for people to walk, cycle or roll in Waterloo Region.

The workshop invitation (Attachment 1) has been sent to a list of recipients that have shown interest in past projects such as the Regional Transportation Master Plan and the Rapid Transit Plan. Social media such as Facebook and Twitter are also being used for promotion. In addition, there have been ads placed in the Record, Cambridge Times, Waterloo Chronicle, Kitchener Post – and the Kitchener Citizen. The workshops are planned to be held in three locations from 6:00 p.m. to 9:00 p.m., on November 8, 2011 at the United Kingdom Club, 35 International Village Dr., Cambridge, on November 9, 2011 at the First United Church, 16 William St., Waterloo and on November 17, 2011 at St. Andrew's Presbyterian Church, 54 Queen St. N., Kitchener

The input received at the workshops will help in the development of a series of nine action plans that will include: Design Guidelines for Active Transportation, Cycling and Walking Network, Localized Active Transportation Projects of Regional Significance, Infill / Gaps Action Plan, Winter Network, Strategic Signage, Behavioural Shift Program Review, Performance Monitoring, and a Signature Projects Plan.

Following this workshop, the Region and consulting team will review and consider public input, which will be used to develop the draft action plans. The Region will continue to consult with area municipalities, advisory committees, and stakeholders to help in the development of the draft action plans.

In spring 2012, we will invite the public to give input on the draft action plans that will form the basis of the final recommended plan for Walk Cycle Waterloo Region. This input will be used to further refine the active transportation networks.

The Region anticipates the plan will be completed by fall 2012.

**REPORT:**

In June 2010, Regional Council approved a new Regional Transportation Master Plan that included 17 action items; one was to complete an Active Transportation Master Plan (ATMP). As well, in the Regional Official Plan, there is policy that directs staff to prepare pedestrian and cycling master plans on a regular basis. In addition, in 2010, Regional Council approved the Context Sensitive Regional Transportation Corridor Design Guidelines that set the framework for accommodating all modes of transportation on Regional roads. The new ATMP will provide more detailed direction on priorities for active transportation and integrate facility design to provide clear direction to reduce conflicts between pedestrians, cyclist and drivers. The new ATMP, called Walk Cycle Waterloo Region, will update the Region's Cycling Master Plan, 2004, while integrating a new regionally significant transportation network for pedestrians. It will integrate and expand on existing and planned Regional and Area Municipal active transportation routes for health, recreation, tourism, and commuting purposes. In August 2011, the Region retained IBI Group to assist in the development of the plan.

The main objective of Walk Cycle Waterloo Region is to increase cycling and walking rates over the next 20 years. Increasing cycling and walking rates has several strategic environmental, community health and social benefits including decreasing greenhouse gases and providing for natural exercise opportunities. The Region's Area Municipal partners have shown leadership in developing active transportation supportive policy environments including a focus on complete streets, complete neighbourhoods, intensification, mixed-use supportive zoning, shared parking, and a growing network of cycling and trail facilities.

The purpose of this study is to produce a comprehensive plan of action for the Region of Waterloo to integrate cycling and walking with transit and land-use (the built form). Walk Cycle Waterloo Region will develop a strategy for safe and comfortable pedestrian and cyclist access to make cycling and walking an easier choice for transportation in the Region of Waterloo. The Plan will recommend short and long-term priorities to enhance Waterloo Region's growing active transportation network and reflect the principles, goals, objectives, and policies of the Region's Official Plan, Transportation Master Plan, and Context-Sensitive Regional Transportation Corridor Design Guidelines.

At this first public event, the project team would like input from the public in a number of areas, including any changes or improvements that would make it easier for people to walk, cycle or roll (in-line skating, skateboarding, mobility devices) in Waterloo Region.

This input will help in the development of a series of nine action plans that will include:

1. **Design Guidelines -** Explore new design ideas for cycling and walking facilities on Regional roads, such as the types of facilities to be built and how cyclists are accommodated at intersections.

2. **Cycling and Walking Network -** Recommend cycling and walking facilities that continue to build on the existing network that will move towards creating a complete regional network (may include facilities on Regional roads, City roads, and off-road trails).
3. **Localized Active Transportation Projects of Regional Significance -** Through partnerships with Cities and Townships, the Region will determine how it can contribute to local improvements that will increase the number of trips made by cycling and walking. Trails of regional significance, like the Iron Horse Trail, the Waterloo Spur Line Multi-use Trail and Walter Bean Trail, will be considered in this plan.
4. **Infill / Gaps –** Consideration will be given to completing the cycling and walking network including parts that are not being constructed in the 10-year Transportation Capital Program for roads.
5. **Winter Network –** A review of current winter practices and resources will be undertaken to develop an Action Plan for maintaining a walking and cycling network for the winter months.
6. **Strategic Signage -** In collaboration with the Cities and Townships, the Region will consider way finding and distance signage to Regional destinations for cyclists and pedestrians.
7. **Behavioural Shift Program -** A review of the current walking and cycling education programs (transportation demand management) and determine short and long term enhancements.
8. **Performance Monitoring –** A review of the ongoing monitoring program to ensure that it will measure success, refine efforts and report progress to decision-makers and the public.
9. **Signature Projects -** Potential demonstration projects that will highlight new ideas, solve key issues or bring together partners will be brought forward. Plans will be prepared to illustrate what these signature projects will look like, along with costs for construction.

Specifically, the workshops will be an interactive environment that will give the public an opportunity to give input in the following areas;

- Preference of type of cycling facilities for Regional roads (bike lanes or paved shoulders, multi-use trails in the boulevard, segregated bikes lanes or cycle tracks, or local routes near Regional roads).
- Identify high priority, missing connections (trail, sidewalks or bikeways).
- Identify projects in specific neighbourhoods that could significantly increase the number of people walking or cycling.
- Identify Regional roads or trails that should be maintained in the winter to make walking and cycling in the winter viable.
- Signage development, information to be included on signs to help cyclists find their way around the region.
- Factors that make a neighbourhood a walkable or a bicycle-friendly community.
- Most effective incentives for getting more people walking and cycling.

The workshop invitation (Attachment 1) has been sent to a list of recipients that have shown interest in past projects such as the Regional Transportation Master Plan and the Rapid Transit Plan. In addition, there have been ads placed in the Record, Cambridge Times, Waterloo Chronicle, Kitchener Post – and the Kitchener Citizen. The workshops are planned to be held in three locations from 6:00 p.m. to 9:00 p.m., on;

- November. 8, 2011 - United Kingdom Club, 35 International Village Dr., Cambridge
- November 9, 2011 - First United Church, 16 William St., Waterloo
- November 17, 2011 - St. Andrew's Presbyterian Church, 54 Queen St. N., Kitchener

**Next Steps**

Following this workshop, the Region and consulting team will review and consider public input, which will help us to develop the draft action plans. The Region will continue to consult with area municipalities, advisory committees, and stakeholders to help in the development of the draft action plans.

In spring 2012, we will invite the public to give input on the draft action plans that will form the basis of the final recommended plan for Walk Cycle Waterloo Region. This input will be used to further refine the active transportation networks.

The Region anticipates the plan will be completed by fall 2012.

**Area Municipal Consultation/Coordination**

Area Municipal representatives from Cambridge, Kitchener, and Waterloo are participating on the Project Team for Walk Cycle Waterloo Region. The Townships are key stakeholders and will continue to be consulted for input throughout the project.

## CORPORATE STRATEGIC PLAN:

The Walk Cycle Waterloo Region plan supports the 2011- 2014 Regional Council's Strategic Focus Area 3: Sustainable Transportation: Develop greater, more sustainable and safe transportation choices.

## FINANCIAL IMPLICATIONS:

The 2011 Transportation Capital Program includes funding allocation of $250,000 for the Active Transportation Master Plan Study. The costs for holding the public workshops have been budgeted within this allocation.

## OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Transportation and Environmental Services and Public Health have representatives on the Project Team for this project that includes Regional Councillors Jane Mitchell and Geoff Lorentz.

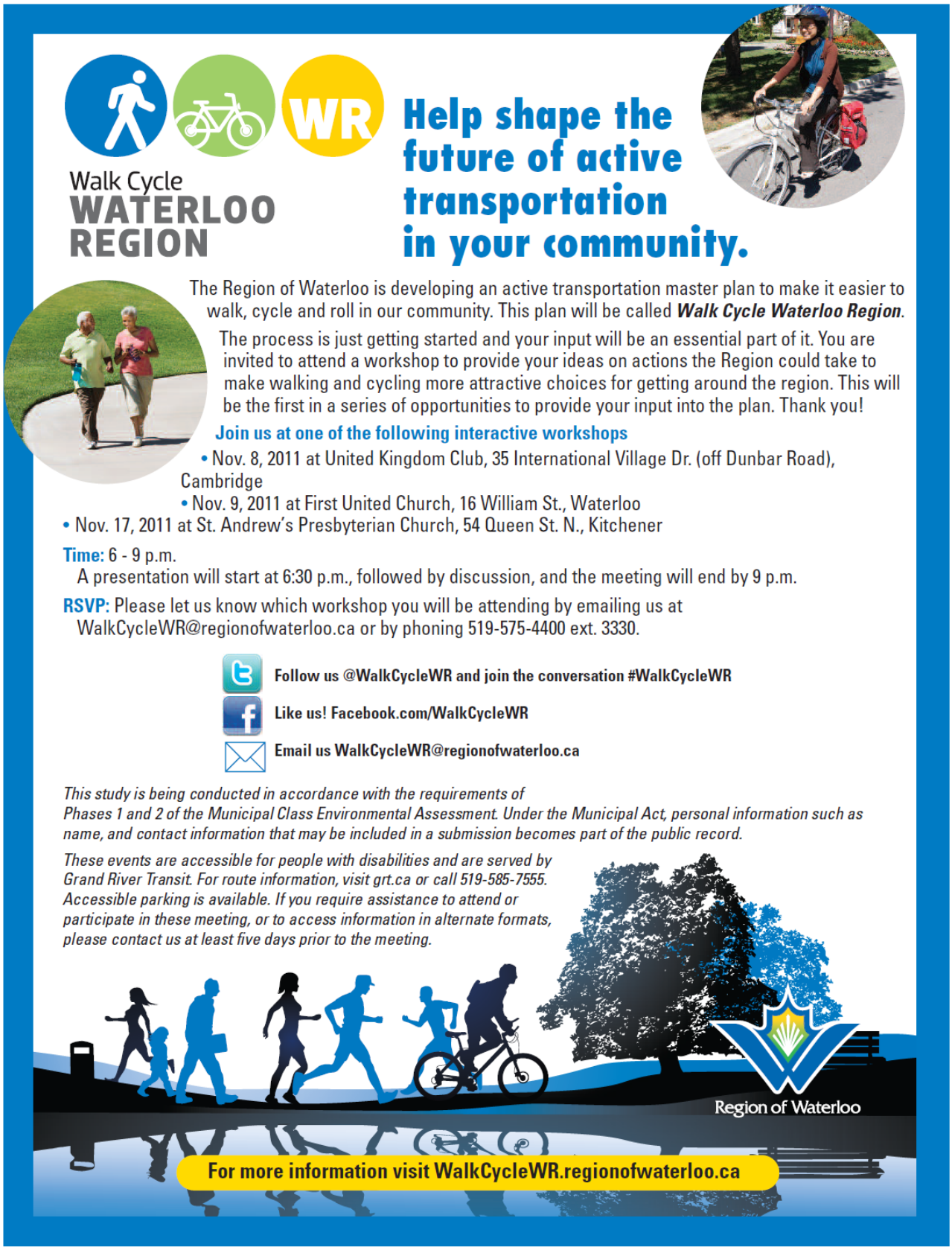
## ATTACHMENTS:

Attachment 1 - Workshop Invitation
Attachment 2 - Workshop Public Information Booklet

**PREPARED BY:** *Paula Sawicki*, Manager, Strategic Transportation Planning

**APPROVED BY:** *Rob Horne*, Commissioner of Planning, Housing and Community Services

**Attachment 1: Workshop Invitation**



**Attachment 2: Workshop Public Information Booklet**

Region of Waterloo


Walk Cycle
WATERLOO
REGION

INFORMATION BOOKLET
November 2011

## What is Walk Cycle Waterloo Region?

The Region of Waterloo is developing a plan to make it easier to walk, bike and roll (in-line skating, skateboarding, mobility devices) in our community. This plan will be called Walk Cycle Waterloo Region.

This study is being conducted in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment. The process is just getting started and your input is an essential part of it. This is the first event in a series of opportunities to provide your input into this plan.

The Region is collaborating with the Cities of Cambridge, Kitchener and Waterloo, and the Townships of North Dumfries, Wellesley, Wilmot and Woolwich to complete this plan.

By promoting and integrating active forms of transportation, Walk Cycle Waterloo Region will help us to achieve the Region's vision to "be an inclusive, thriving and sustainable community committed to maintaining harmony between rural and urban areas and fostering opportunities for current and future generations." It also aims to specifically achieve the objective: "develop, promote and integrate active forms of transportation (cycling and walking)."

Walk Cycle Waterloo Region will provide guidance to Council and staff on actions to take to make it easier for residents of and visitors to choose active transportation. Some forms of active transportation include:

- walking
- cycling
- skateboarding
- in-line skating
- people with mobility devices

Active transportation can take place along roads, sidewalks and trails. Walk Cycle Waterloo Region will be an action plan to create attractive and comfortable spaces that encourage more people to walk, cycle or roll to their favourite destinations.

## What is the purpose of this meeting?

The purpose of this Public Workshop is to introduce Walk Cycle Waterloo Region to the community and to gather public input on actions the Region could take to make walking and cycling more attractive choices for getting around the region.

## The Regional Transportation Master Plan sets the framework!

The Region of Waterloo approved the Regional Transportation Master Plan (RTMP) in 2010. It informs this study with a vision for transportation. The goals of the RTMP are to:

- Optimize the Transportation System
- Promote Transportation Choice
- Foster a Strong Economy
- Support Sustainable Development

The Region has committed to ensuring that the health and social benefits of an active lifestyle direct transportation planning and design decisions. Generally, priority will be given in the following order:

1. Walking
2. Cycling
3. Public transit
4. Carpooling and other smart commute strategies
5. Driving alone (single occupant vehicles)

However, local context will influence transportation design choices.

The RTMP sets a goal of increasing the number of trips by walking from seven per cent in 2006 to nine per cent in 2031, and cycling from 0.7 per cent in 2006 to three per cent in 2031. Along with investments in public transit, supporting active transportation will help the Region of Waterloo achieve its vision and transportation goals for a growing population and work force.

The following will also provide guidance to the Walk Cycle Waterloo Region Plan:

- **Regional Council Strategic Plan 2011 to 2014: Focus Area 3: Sustainable Transportation.** Regional Council direction includes developing greater, more sustainable and safe transportation choices.
- **Context Sensitive Regional Transportation Corridor Guidelines:** how we design and plan transportation corridors in the Region, in a manner that is site specific (context sensitive), while also considering the transportation needs of transit users, cyclists and pedestrians.
- **Pedestrian Charter:** a commitment to ensuring that walking is a safe, comfortable and convenient mode of urban travel.

## Status of Walking and Cycling today:

The Region of Waterloo supports and encourages people to take more trips by walking and cycling through a variety of programs and initiatives:

- Providing bike racks on buses and bicycle parking at iXpress transit stops and transit terminals
- Offering the TravelWise program to make it easier for businesses to encourage their employees to commute in sustainable ways (walking, cycling, transit and carpooling)
- Providing a combined cycling and transit map and collaborating with Google to provide interactive directions for cyclists on Google Maps
- Partnering to offer cycling skills courses (Can-Bike) to youth and adults
- Providing pedestrian refuge islands at street crossings
- Creating a new pedestrian bridge over Highway 401 near Conestoga College
- Widening sidewalks
- Constructing paved shoulders in rural areas on many Regional roads
- Constructing bike lanes to complete the Cycling Master Plan, 2004
- Creating multi-use trails that are separate from traffic

## What will Walk Cycle Waterloo Region look like?

As part of Walk Cycle Waterloo Region, the Region will develop nine action plans:

### 1. Design Guidelines

Explore new design ideas for cycling and walking facilities on Regional roads, such as the types of facilities to be built and how cyclists are accommodated at intersections.

### 2 Cycling and Walking Network

Recommend cycling and walking facilities that continue to build on the existing network that will move towards creating a complete regional network (may include facilities on Regional roads, City roads, and off-road trails).

### 3. Localized Active Transportation Projects of Regional Significance

Through partnerships with the Cities and Townships, the Region will determine how it can contribute to local improvements that will increase the number of trips made by cycling and walking. Trails of regional significance, like the Iron Horse Trail, the Waterloo Spur Multi-use Trail and the Walter Bean Trail, will be considered in this plan.

### 4. Infill / Gaps

The Region will consider ways to complete the cycling and walking network including parts that are not being constructed in the 10-year Transportation Capital Program for roads.

### 5. Winter Network

The Region will review current winter practices and resources, and develop an action plan for maintaining a walking and cycling network for the winter months.

### 6. Strategic Signage

In collaboration with the Cities and Townships, the Region will consider way-finding and distance signage to Regional destinations for cyclists and pedestrians.

### 7. Behavioural Shift Program

The Region will review its current walking and cycling education programs and determine short and long term enhancements.

### 8. Performance Monitoring

The Region of Waterloo will measure success, refine efforts and report progress to decision-makers and the public.

### 9. Signature Projects

The Region will look for potential demonstration projects that will showcase new ideas, solve key issues or bring together partners. Plans will be prepared to illustrate what these signature projects will look like, along with costs for construction.

## Your input is important!

We want to hear from you about any changes or improvements you would like to see that would make it easier for people to walk, cycle or roll in the Region of Waterloo. Your input will help us to develop nine action plans that will improve active transportation in the Region of Waterloo.

**Please take a moment to fill out the attached comment form. If you can't complete the form this evening, please mail/fax/email your comments by Nov. 28, 2011.**

## Next Steps:

Following this workshop, the Region and consulting team will review and consider your input, which will help us to develop the draft action plans. The Region will also continue to consult with Area Municipalities, advisory committees, and stakeholders to help in the development of the draft action plans.

In spring 2012, we will invite the public to give input on the draft action plans that will form the basis of the final recommended plan for Walk Cycle Waterloo Region. This input will be used to further refine the active transportation networks.

The Region anticipates the plan will be completed by fall 2012.

Visit **WalkCycleWR.regionofwaterloo.ca**

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Join the conversation **#WalkCycleWR**

Like us! **facebook.com/WalkCycleWR**

Email us! **WalkCycleWR@regionofwaterloo.ca**

Walk Cycle
WATERLOO
REGION

Region of Waterloo

The Walk Cycle Waterloo Region Team:

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**REGION OF WATERLOO**

**PLANNING, HOUSING AND COMMUNITY SERVICES**
**Transportation Planning**

**TO:** Chair Jim Wideman and Members of the Planning and Works Committee

**DATE:** November 8, 2011 **FILE CODE:** D10-790

**SUBJECT:** **TRAVELWISE TRANSPORTATION MANAGEMENT ASSOCIATION – PROPOSED PILOT PROGRAM**

## RECOMMENDATION:

THAT The Regional Municipality of Waterloo (the Region) enter into an agreement (the TravelWise Program Services Agreement) with interested organizations and Area Municipalities in Waterloo Region to provide a pilot program of Transportation Demand Management (TDM) services including, but not limited to, online ridematching services, the Grand River Transit online Corporate Pass, and Emergency Ride Home services, as outlined in Report P-11-089, dated November 8, 2011, in a form satisfactory to the Regional Solicitor;

THAT Fees and Charges By-law No. 11-015 be amended effective January 1, 2012 to include a fee for TravelWise program services, as described in Report P-11-089, dated November 8, 2011;

AND THAT Fees and Charges By-law 11-015 be amended effective January 1, 2012 to include the TravelWise Corporate Transit Pass fees that to be charged in accordance with the TravelWise Program Services Agreement as follows, be based on the cost of an adult monthly pass:

- Twelve (12) month passes to be discounted by 15 percent;
- Nine (9) month passes to be discounted by 11.25 percent;
- Six (6) month passes to be discounted by 7.5 percent; and
- Three (3) month passes to be discounted by 5 percent.

## SUMMARY:

In December 2010, Research In Motion, the University of Waterloo, Sun Life Financial, Equitable Life Insurance and Open Text approached the Region to help them determine the feasibility of developing a Transportation Management Association (TMA) for Waterloo Region. Over the following 11 months, Regional staff worked with this group, which has grown to over fifteen organizations and the Cities of Cambridge, Kitchener and Waterloo.

In other communities, TMAs are instrumental to building a shift to active and more sustainable transportation. TMAs work with employers to provide an assortment of Transportation Demand Management (TDM) tools and services to reduce the number of people driving alone to work in an effort to ease parking concerns, relieve traffic congestion and reduce green house gas emissions. A recently completed TravelWise Business Plan recommends that the Region establish four basic services as part of the TravelWise TMA: online ridematching, Emergency Ride Home, a new online store for the Grand River Transit Corporate Pass, and individualized marketing campaigns. The Business Plan also recommends programming fees for interested organizations and Area Municipalities, as well as an overall budget for TravelWise services.

Today, TravelWise is a Region of Waterloo employee program that supports and promotes alternatives to single occupancy vehicle travel. Employees receive discounted transit passes, access to showers and secure bike parking, as well as online ridematching services to encourage them commute more often on foot, by bike, in carpools or on the bus.

To implement the expansion of the Region's TravelWise program as a TMA, Regional staff recommend that the Region enter into the TravelWise Program Services Agreement with interested organizations and Area Municipalities for a two (2) year pilot period. This agreement would outline the services to be provided by the Region and the fees payable by third parties as consideration for these services.

The recommended two year pilot period will help to determine the feasibility of a permanent TMA in Waterloo Region. Indicators of success include the number of carpools created, the use of the Emergency Ride Home program and increases in the number of Corporate Transit Passes sold. Individualized marketing campaigns, tested with employers in Uptown Waterloo in 2010-2011, will help TravelWise track changes in travel behaviour over time.

Prior to the end of the pilot period, Regional staff will report to Council with a recommendation on whether it is feasible to incorporate TravelWise as a non-profit corporation to continue providing TDM Services, or whether TravelWise should be maintained as a more limited Regional service. If approved by Council, staff would be able to launch the TravelWise TMA on January 1, 2012.

**REPORT:**

To determine the feasibility of a TMA in Waterloo Region, a Working Group was established in January 2011 that was comprised of representatives from twenty organizations including the Cities of Cambridge, Kitchener and Waterloo, Research In Motion, Sun Life Financial, Equitable Life of Canada, Open Text and the University of Waterloo. Working Group meetings were held every six weeks to guide the development of the TravelWise business plan.

During the Working Group meetings, key stakeholders recommended that the Region would be best positioned to manage the TravelWise TMA as a two year pilot project.

<u>TravelWise demonstration program</u>

In September 2010, Sun Life Financial, Equitable Life of Canada and the City of Waterloo confirmed their participation in a TravelWise demonstration project funded in part by Transport Canada's ecoMOBILITY grant program. Each employer has since received customized employer individualized marketing services, baseline surveying, online ride matching and trip tracking services, two Regionally hosted outreach events, as well as rewards and incentives to improve employee participation. TravelWise distributed customized travel packages to over 1000 participating employees and all three partners have subsequently confirmed their intention to participate in the TravelWise TMA.

In addition to these first three participants, eight organizations and Area Municipalities have confirmed their intent to join TravelWise if approved by Council. Another six organizations are still seeking internal approval to join the initiative. The proposed list of participating organizations and Area Municipalities includes:

## Confirmed Participants

Agfa-Gevaert
City of Cambridge
City of Kitchener
City of Waterloo
Equitable Life of Canada
Hendry Coach Lines
Research In Motion
University of Waterloo
VeriForm
Region of Waterloo
Sun Life Financial
Wilfrid Laurier University

## Interested

Canada Revenue Agency
Crawford and Company
Miller Thomson LLP
Open Text
Paradigm Transportation Solutions
Sybase

Summary of proposed TravelWise Services

Participating organizations will gain access to a suite of core TDM services which include the ridematching program Carpool Zone, Emergency Ride Home services and the Corporate Transit Pass. These services are designed to encourage employees to make the transition to walking, cycling, carpooling and to taking transit more often.

*Proposed Grand River Transit (GRT) Corporate Pass*

Employees of participating TravelWise organizations would gain access to a discounted Corporate Transit Pass. GRT has developed a new online purchasing tool specifically for TravelWise members, enabling employees to purchase monthly, seasonal, or annual passes using their credit or debit card at a discounted rate. Regional staff recommend that twelve (12) month passes be discounted by 15 percent, nine (9) month passes be discounted by 11.25 percent, six (6) month passes be discounted by 7.5 percent and three (3) month passes be discounted by 5 percent. The program is designed to reward employee commitment to transit by providing larger discounts for longer term passes.

*Carpool Zone*

Carpool Zone is a state of the art online ride matching service that makes it simple to find a carpool. TravelWise organizations will get their own Carpool Zone website where employees can create a carpool profile. Searching for matches is quick and easy, and users have the option to connect with TravelWise members from across Waterloo Region and the GTA.

*Emergency Ride Home*

When employees of participating TravelWise organizations begin to carpool, use transit or commit to walking and cycling to get to work, they are eligible to take part in the Emergency Ride Home Program. This program is designed as an insurance policy for participants who do not have immediate access to a vehicle while at work and need to leave in emergency situations. Employees would be limited to a maximum of 4 Emergency Rides Home per year. They are required to make the initial payment and submit the receipt for reimbursement. Experience to date is that the use of this program is minimal.

*Data Collection*

Regional staff has integrated simple tools into the TravelWise program, which allow users to easily track their daily commute. Information such as the number of sustainable kilometres travelled and total tonnes of carbon dioxide reduced are easily accessible. As the first TravelWise employer, the Region has used this information to motivate employees to track their successes and to reward regular users of active and sustainable transportation.

*Individualized Marketing – Focusing the Message*

Individualized marketing is a proven marketing approach used to attract and identify employees who are interested in the TravelWise services available to them. As a part of the two year TravelWise launch, staff from the Region would facilitate the marketing campaign for participating organizations.

*Expanding the program*

TravelWise would also continue looking to expand the number of participating organizations and Area Municipalities and program services. For instance, the TravelWise working group identified several additional services that could be provided through TravelWise in the future. These TDM services include, but are not limited to: weekday shuttle service from the Greater Toronto Area, bike sharing, as well as cycling and walking specific maps.

Summary of the Proposed TravelWise Program Services Agreement

Regional staff worked with potential partners to develop the TravelWise Business Plan (Attachment 1) and subsequently developed the proposed terms of the TravelWise Program Services Agreement. The more salient provisions of this Agreement would be as follows:

1. The Region would provide TDM services, including the Grand River Transit Corporate Pass, administration of an Emergency Ride Home program and online ridematching, to interested organizations and Area Municipalities;

2. The term of the Agreement would be for two years commencing on January 1, 2012, and ending on December 31, 2013;

3. In consideration for the provision of TDM Services by the Region, all participating organizations and Area Municipalities would be required to:
    a) Attend quarterly TravelWise advisory working group meetings; and
    b) Contribute funding in the form of an annual service fee which will be prorated based on number of employees;

4. The Region may terminate the Agreement with any one of the participating organizations or Area Municipalities if they default in their obligations under the Agreement; and

5. The Agreement would be conditional on continuation of the Region's subscription agreement with Pathway Intelligence Inc. relating to their online ridematching service.

After the first year of the proposed pilot program, TravelWise would provide a program evaluation to Regional Council. Prior to the end of the pilot period, Regional staff would report back to Council with a recommendation on whether it is feasible to incorporate TravelWise as a non-profit corporation to continue providing TDM Services, or whether TravelWise should be maintained as a more scoped Regional service.

**Area Municipal Consultation/Coordination**

The Cities of Cambridge, Kitchener and Waterloo were consulted during the development phase of the TravelWise Business Plan and are in concurrence with the establishment of the TravelWise TMA. Staff at all three Cities have confirmed their interest in working with the TravelWise TMA. A copy of the TravelWise Business Plan was provided to the Townships of Wilmot, Wellesley, Woolwich and North Dumfries.

## CORPORATE STRATEGIC PLAN:

The TravelWise TMA is a strategic action under 3.2 Develop, promote and integrate active forms of transportation (cycling and walking). Action 3.2.2 directs staff to work with the community to develop and support a Transportation Management Association that would work with employers to encourage and support active and sustainable transportation.

The TravelWise TMA is also integrated with the following Strategic Objectives: 3.1.3 Develop and implement programs to improve access to and awareness of public transit; and 3.3 Optimize existing road capacity to safely manage traffic throughout Waterloo Region.

By providing TDM programs and services directly to employers, the proposed TMA also implements Official Plan policy 3.C.1(b) and Regional Transportation Master Plan policy 7.2.1.2, which recommends a region-wide emergency ride home program.

## FINANCIAL IMPLICATIONS:

To support the establishment and coordination of the TravelWise TMA, Transit Development recommends implementing a TravelWise program service fee that is prorated on employer size. The fees were determined in consultation with the Working Group and Area Municipalities. The fees are summarized in Attachment A and were developed with the intent of balancing the need to fund the program with encouraging participants to join. The fee schedule would be revisited after the two year pilot program.

The revenue generated by TravelWise will be used to provide services directly to participating organizations and Area Municipalities. The existing Transportation Planning budget can fund the remaining $80,164 for operation of TravelWise for a period of two years. This budget is expected to be sufficient to accommodate up to 20 employers, although take-up could be greater and will be regularly monitored.

| TravelWise TMA Budget | |
|---|---|
| TMA Coordination | $ 50,000.00 |
| Program evaluation, data management, marketing support | $ 25,000.00 |
| Employer Individualized Marketing | $ 16,708.00 |
| Carpool Zone | $ 15,000.00 |
| Emergency Ride Home (ERH) | $ 5,000.00 |
| Other Operating Expenses | $ 2,533.00 |
| **Total TMA Budget** | **$114,241.00** |

| Estimated Revenue | |
|---|---|
| TravelWise fee | $ 34,077.00 |
| **Net Budget** | **$ 80,164.00** |

The TravelWise working group has expressed interest in developing a regional trails and bikeways map at an estimated cost of $25,000. To improve TravelWise's brand recognition within Waterloo Region, ongoing individualized marketing campaigns could be expanded from 2500 households a year to 5000 households, at a cost of $17,000. Additional funding would be required to provide these services or any other expansion of TravelWise services. Regional staff would also apply for funding from the Ontario TDM grant program if this Provincial program is renewed in 2012 to support the TMA and the potential expanded services.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

Transit Services and Legal Services were consulted in the development of the TravelWise concept and Corporate Pass product and they are in concurrence with the recommended direction.

**ATTACHMENTS:**

Attachment 1 - TravelWise Business Plan

**PREPARED BY:** *John Hill*, Principal Planner, Transportation Demand Management

**APPROVED BY:** *Rob Horne*, Commissioner of Planning, Housing and Community Services

# TRAVELwise

Bus, bike, walk, rideshare!

## 2011 THREE YEAR BUSINESS PLAN

PRESENTED TO: REGION OF WATERLOO

Region of Waterloo

## CONTENTS

## INTRODUCTION

A Transportation Management Association (TMA) is a public-private partnership that provides transportation services to a particular area and provides the framework for the provision of Transportation Demand Management programs and services. The Region of Waterloo has decided to participate in a TMA to serve the businesses and commuters of Waterloo Region. The function of this business plan is to serve as a guide for the effective start up and operation of service delivery for the TravelWise TMA. The plan is also useful as a review tool to check progress, focus resources, schedule tasks, and determine the short and long term plan for TravelWise. In this way, the plan fosters program flexibility and efficient operation. This plan is intended to provide short and long term direction for TravelWise service delivery in the Region of Waterloo.

## PROGRAM FRAMEWORK

How a TMA is organized, where it is located and how it is funded has a significant impact on its potential for long-term success. A Working Group comprised of representatives from 20 organizations including the three Cities, Research In Motion, Open Text, Equitable Life of Canada, Sun Life Financial, Sustainable Waterloo the University of Waterloo and University Tech Park. Working Group meetings were held with these key stakeholders every six weeks to guide the development of the TravelWise business plan. The following recommendations were developed for Regional Council and its TMA partners based on the results of Working Group meetings, consultations and comments.

### *Organizational Framework*

It has been identified by Regional staff and local stakeholders that there is a desire for a TMA to provide TDM services to employers in the Waterloo region. During the Working Group meetings, it was confirmed that TravelWise TMA should be managed by the Region of Waterloo for the first two years. During that time, other service delivery models will be explored. TravelWise staff will be housed within the Region of Waterloo headquarters and will have access to a desk, phone, computer and internet, and storage space for promotional material.
An advisory board, consisting of no more than 10 board members, will provide TravelWise with program guidance. As agreed by the Working Group, the selected board members should represent a variety of stakeholders, including public and private sector members, and should have representation from a select number of active members. The advisory board will meet every quarter to discuss progress, evaluate results and provide feedback to guide the operation of TravelWise.

### *membership*

Due to the number of businesses that have expressed interest in joining the TravelWise program, it is suggested that first, the stakeholder group be granted membership and that core services be provided to all. Second, the individualized marketing process should be implemented with five employers per quarter. This will ensure the development of a strong TravelWise program, while allowing enough time for TravelWise to grow at each participating organization. . The following businesses and municipalities are listed as interested members for the inaugural year of operation:

| Potential TravelWise Members |
|---|
| Region of Waterloo |
| City of Waterloo |
| City of Kitchener |
| City of Cambridge |
| University of Waterloo |
| David Johnson Research and Technology Park |
| Research In Motion Limited |
| Open Text Corporation |
| Sun Life Financial |
| Equitable Life of Canada |
| Caden |
| Miller Thomson LLP |
| Hendry Coach Lines |
| Paradigm Transportation Solutions Inc. |
| Marsland Centre Limited |
| APCO Developments |
| Crawford & Company (Canada) Inc. |
| Dundee Real Estate Investment |
| Stantec Consulting Ltd. |

Members will be required to pay an annual membership fee. The fee will support the funding provided by the Region of Waterloo for TravelWise services, and will ensure long-term support and sustainability of the program. The membership fee breakdown is outlined in the Funding Outline portion of the business plan.

Members will be provided with a full complement of commuting solution tools and programs. The membership will include access to the ridematching program Carpool Zone, Emergency Ride Home services and an Employer Transit Pass. As the TMA develops and evolves, members will have the opportunity to request specialized services at an added cost. The additional fee-for-service will not be promoted during the first year of operation, but will not be excluded if requested. The TMA will determine if a request is applicable to the TMA goals.

***Program Brand***

Based on a review of existing branding options, the working group made a decision to use the existing TravelWise brand. The choice of the TravelWise brand was supported as it is the most identifiable with the program, and supportive of the potential to develop and grow the program. TravelWise does not currently follow specific branding guidelines, and therefore, a marketing and outreach plan should be created to guide the branding and marketing of the Travelwise brand. It will be at the discretion of staff at the Region of Waterloo and TravelWise, as well as, the advisory board to determine how the marketing and outreach plan will be created and delivered. The development and implementation of the plan has been included in the Implementation Plan Activities section of the business plan to provide direction for implementation of the TravelWise marketing plan. The marketing and outreach plan should include market research to identify who the target commuter is and what the commuter is looking for through the programs and services offered by TravelWise.

### *Program Services*

Based on discussions with the working group, the prioritization of TravelWise services were discussed and identified. The three core services offered through the employer membership fee are a Carpool Program, Emergency Ride Home program and an Employer Transit Pass. As the TMA develops, members will have the opportunity to request specialized services at an added cost. The additional fee-for-service will not be promoted during the first year of operation, but will not be excluded if requested. The TMA will determine if a request is applicable to the TMA goals.

## PROGRAM PURPOSE AND GOALS

The mission of the TMA is to bring together public and private interests to support and promote alternatives to single occupancy vehicle travel.

### *Program Specific Goals*

Goal A: Develop, implement and maintain a successful TMA with measurable results
Goal B: Establish organizational cultures that encourage sustainable commuting through strategic marketing, funding and outreach efforts
Goal C: Provide direct services to organizations and property owners for the development and implementing of successful commute programs
Goal D: Identify and communicate the needs of pedestrians, cyclists and transit users to improve Regional, Area Municipal and Provincial investment in infrastructure and services

## IMPLEMENTATION PLAN ACTIVITIES

The following plan details activities for the first year of operation, as well as looking forward to years two and three. The first year activities are detailed by Quarter, and second and third year outlooks are detailed by year. Due to the timing of the TravelWise program launch, the first year will begin with the fourth quarter of 2011 (October 1, 2011) and end on December 31st, 2012.

### *Goal A: Develop and Maintain a Successful Program With Measurable Results*

Goal A is related to the need for the TMA to develop a strong local identity, a clear organizational framework and measurable results.

**QUARTER 4 ACTIONS (October – december 2011):**

1. **Finalize Management Agreement.** To ensure that the program is functioning as intended, a management agreement will outline how the program will be managed within the Region of Waterloo, who the program manager will report to and address items pertaining to organizational framework including, but not limited to:

    a. **Finalize Staffing Allocation.** It is anticipated that staffing levels will require a full time program coordinator for the first fiscal year, with support from regional management.

    b. **Confirm Regional Funding amount.** Finalize funding agreements with the Region of Waterloo, and ensure sufficient organization funding and resources are available to allow TravelWise to achieve program goals and objectives.

2. **Finalize Membership Fees.** Focus on long-term funding sustainability by supplementing revenue sources through the development of membership fees in conjunction with the predetermined funding sources.

3. **Form TravelWise Advisory Board.** Form a TravelWise Advisory Board to achieve the organizational mission and oversee program activities. Quarter One activities include:

    a. **Finalize board membership.** The program manager in consultation with the Region of Waterloo and stakeholders will identify and invite members to participate in the TravelWise Advisory Board. The members should include a variety of stakeholders who are active members of TravelWise. The Advisory Board should consist of no more than 10 board members.

    b. **Hold initial meeting.** An initial meeting should be held to provide guidance to initiate the actions of the business plan, and to outline the TravelWise goals for the inaugural year. The advisory board should also set their quarterly meeting schedule.

c. **Draft Terms of Reference for Board Members.** The development of the Terms of Reference will provide a clear definition of the purpose and mission of TravelWise.

4. **Create Program Measurement and Evaluation Plan.** The Region of Waterloo staff will work the advisory board to create and implement a Program Measurement and Evaluation Plan. This should be developed as a results oriented matrix. This will require coordinating the TravelWise results with other regional departments to measure reduction in traffic levels etc.

5. **Attend Professional Conferences.** The TravelWise Program Manager should attend conferences to advance his/her TDM education, establish network of industry peers and identify upcoming opportunities.

**QUARTER 1 ACTIONS (january – march 2012):**

1. **Update Program Measurement and Evaluation Reports.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Quarterly Board Meeting.** Present the results to date and provide an update regarding the progress of TravelWise. The progress should highlight program results, internal business developments, financial updates, and recruitment updates.

**QUARTER 2 ACTIONS (april – june 2012):**

1. **Updated Program Measurement and Evaluation Report.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Quarterly Board Meeting.** Present the results to date and provide an update regarding the progress of TravelWise. The progress should highlight program results, internal business developments, financial updates, and recruitment updates.

**QUARTER 3 ACTIONS (july – september 2012):**

1. **Update Program Measurement and Evaluation Report.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Quarterly Board Meeting.** Present the results to date and provide an update regarding the progress of TravelWise. The progress should highlight program results, internal business developments, financial updates, and recruitment updates.

**QUARTER 4 ACTIONS (october – december 2012):**

1. **Update Program Measurement and Evaluation Report.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Year-End Board Meeting.** The Year-End Board meeting will highlight the progress of the previous year. It will also include updating requirements and providing direction for the following fiscal year.

**YEAR 2 and 3 ACTIONS**

The actions for year 2 will include updating the actions and reviewing goals set out during the first year of operation. This will be based on the evaluation that will take place during the programs annual review period and preceding the development of the 2012-2013 business plan. At this time, the Advisory Board should re-visit the board membership and invite new members. It will also be a time to determine the need to hire additional staff, and a time to evaluate the potential of having an external organization host the TravelWise program. Following the first year of operation, an Annual General Meeting should also be held, and board members, and member businesses should be invited to review the success of the program, discuss best practices among members, and provide feedback to the board and TMA staff to guide the on-going development and delivery of TravelWise services.

***Goal b: Establish organizational cultures that encourage sustainable commuting through strategic marketing and outreach efforts***

Goal B is related to the creation of organizational cultures which support sustainable commuting through focused marketing and outreach efforts.

**quarter 4 (october – december 2011) actions:**

1. **Develop Marketing and Outreach Plan.** Work with the Region of Waterloo and the TravelWise Advisory Board to determine how the marketing and outreach plan will be created and developed. The plan should expand on the existing branding of TravelWise and include items such as a website, promotional materials etc. Outreach activities should be tailored to the messaging and to the audience. An outreach events calendar should be created and updated on an annual basis to ensure participation in regional events, and to strategically plan outreach events at member sites. A minimum of two events should be held at each member location throughout the year.

2. **Develop a Membership Implementation Plan.** Due to the high level of support from stakeholders, the TMA is anticipating membership to reach 19 employers prior to the launch of the TravelWise program. All members will have access to core services, but will begin the Employer Individualized Marketing (EIM) process at various times

throughout the inaugural year. EIM targets people who are willing and able to change their travel behavior. An implementation plan will provide the staff with the direction and scheduling necessary to launch the EIM process with member businesses. See Appendix A for more details on the EIM process.

**quarter 1 actions (january – march 2012):**

1. **Develop TravelWise Marketing Materials.** Based on the marketing plan, specific materials will be developed to support the program. The marketing materials should include brochures, website, business cards, posters and customized signage for commuting infrastructure.

2. **Implement Marketing Plan.** Specific actions will be identified in the marketing and outreach plan and implementation of those actions should take place in order to engage members and support the TravelWise program. This section should be detailed out further, once identified in the plan. However, immediate opportunities include:

    a. **Carpool Week Marketing and Outreach.** Create Carpool Week marketing material to promote the TravelWise services that will assist members to participate in the national event. Host events at member sites to distribute Carpool Week marketing material and to encourage employees to participate in Carpool Week activities.

    b. **Schedule Outreach Events.** A minimum of two events at each member site should take place each year. Events will be hosted on an on-going basis and may be determined by member requests for events.

**quarter 2 actions (april – june 2012):**

1. **Update Membership Implementation Plan.** Ensure that the EIM process is being implemented according to schedule.

2. **Implement Marketing and Outreach Plan** as outlined by the plan actions.

**quarter 3 actions (july – september 2012):**

1. **Update Membership Implementation Plan.** Ensure that the EIM process is being implemented according to schedule.

2. **Implement Marketing and Outreach Plan** as outlined by the plan actions.

**quarter 4 actions (october – december 2012):**

1. **Update Membership Implementation Plan.** Ensure that the EIM process is being implemented according to schedule.

2. **Implement Marketing and Outreach Plan** as outlined by the marketing plan actions.

**year 2 and 3 actions**

1. **Update Business Plan.** The Advisory Board and TravelWise staff should revisit the business plan on an annual basis to ensure that tasks are updated to reflect the previous year's accomplishments. Goals should be updated every 3 to 5 years and the mission statement should be updated every 10 years.

2. **Update Marketing and Outreach Plan.** Revisit the existing marketing plan to determine how the plan can be updated to support any program changes and to continually ensure that the plan supports the mission and goals of TravelWise. The focus of the updated plan should be on new and creative ideas.

    a. **Update Marketing Material.** Perform a review about the existing marketing material. Based on the changes to the marketing plan, changes in information and statistics, as well as general feedback regarding the marketing material, update and purchase additional marketing material.

    b. **Update the outreach calendar** to reflect the highlighted dates for regional and national events for 2013. A minimum of two events should be hosted at each member site throughout the year. Events will be hosted on an on-going basis and may be determined by member requests for events.

3. **Update Membership Implementation Plan.** Develop a plan to recruit new members.

***Goal C: Provide direct services to organizations and property owners for the development and implementing of successful commuteR programs***

Goal C is related to the provision of specific/strategic TDM services to TMA members.
Due to the on-going and specific nature of Goal C, the services offered by TravelWise will be provided through an on-demand and timely basis. The specific nature of the goals will be related to the timing of when a member joins TravelWise, or chooses to request additional services (within reason, scope and budget of TravelWise services). This goal does require the development of Member Specific Core Services, and the employee survey and site assessment guideline during the fourth quarter of the 2011 fiscal year.

**quarter 4 (october – december 2011) aCTIONS:**

1. **Develop Member Specific Core Services.** Outline the specific list of services that will be offered to members. This should include the program specific services such as

Carpool Zone, Emergency Ride Home and Employer Transit Pass. It should also include the mandatory services which include the EIM survey process, site assessment, and follow-up survey.

2. **EIM Survey Process.** Begin the EIM process with the first round of employers selected by the TravelWise staff. The EIM process has already been applied to employers through a previous Federal government grant, and will be a continued practice for new employers joining the TravelWise program. Due to the large number of initial members, the EIM process will be implemented with five employers per quarter until all members have completed the process. The EIM survey is a mandatory requirement to join as a member of TravelWise.

3. **Develop a Site Assessment Guideline.** To support the EIM process and to have the best understanding of the commuting environment that exists at member sites, site assessments should be performed to collect site specific information, such as parking availability, alternative modes available to the site, quality of the alternative commuting facilities, etc.. Perform a best practices review of other TMA site assessments to use as a guide of the development of the site assessment guideline.

4. **Finalize Emergency Ride Home.** The Emergency Ride Home program will be finalized by UrbanTrans during Quarter 4.

**quarter 1 (january – march 2012) actions:**

1. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

2. **EIM Survey Process.** Implement the EIM process with five new members.

**quarter 2 (april – june 2012) actions:**

1. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

2. **EIM Survey Process.** Implement the EIM process with five new members.

**quarter 3 (july – september 2012) actions:**

1. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

2. **EIM Survey Process.** Implement the EIM process with five new members.

**quarter 4 (october – december 2012) actions:**

1. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

2. **EIM Survey Process.** Implement the EIM process with five new members.

***Goal d: Identify and communicate the needs of pedestrians, cyclists and transit users to improve Regional, Area Municipal and Provincial investment in infrastructure and services***

Goal D related to the identification and communication to all of the government levels of the transportation needs of pedestrian, cyclists and transit users to best identify where improvements should be made.
The stakeholder group and the Region of Waterloo have agreed to focus on Goal D in the second year of operations. Due to the high level of interest in TravelWise the first year of the program will be dedicated to Goals A through C.
A more detailed quarterly breakdown of Goal D will be established prior to the 2012-2013 fiscal year.

## ONE YEAR BUSINESS PLAN

The following outlines the necessary level of staffing and direct costs related to business plan activates. Timing of the activities and FTE's may change based on a significant increase in the number of members or request for additional services. The FTE's reflect the anticipated in-kind support from regional staff in other departments.

| Action Items | FTE | Direct Expenses |
|---|---|---|
| **Goal A** | | |
| Finalize Organizational Framework | 0.1 | |
| Advisory Board Activities | 0.2 | $500.00 |
| Create Program Measurement and Evaluation Plan | 0.05 | |
| Attend ACT Canada Conference | 0.01 | $3,000.00 |
| **Goal B** | | |
| Develop Marketing and Outreach Plan | 0.05 | $15,000.00 |
| Develop Membership Implementation Plan | 0.1 | |
| Implement Marketing and Outreach Plan | 1 | $30,000.00 |
| **Goal C** | | |
| Core Service Development | 0.1 | $20,000.00 |
| EIM Survey Implementation | 1 | |
| Site Assessment | 0.05 | |
| | | |
| Estimated FTE for Year 1 (2011-2012) | 2.66 | |
| Direct Expenses | | $68,500.00 |

## FUNDING OVERVIEW

The following outlines the funding structure for TravelWise. The funding will be compromised of a variety of sources, to ensure long-term sustainability and to adequately cover the operation costs of TravelWise. It will also cover the hard costs of the program. The Region of Waterloo will provide the majority of the funding for the first two years, and have allocated 2.5 full time staff, $40,000.00 for programming and in-kind contributions such as, office space, telecommunications, printing and internet. In addition to the regional funding, members will be required to pay an annual membership fee. Membership fees will be applied based on the size

of the employer and is outlined below in the Membership Fee Breakdown table. The funding sources will address the first year of operation, although additional fees may be charged when additional services are requested by members. Additional funding sources will be explored, such as the MOST grant and EcoMobility grants.

| Membership Fee Breakdown | | |
|---|---|---|
| **Number of Employees** | **Membership Fee** | **Category** |
| 0-100 | $400.00 | 1 |
| 101-250 | $875.00 | 2 |
| 251-500 | $1,500.00 | 3 |
| 501-1000 | $2,750.00 | 4 |
| 1001-3000 | $4,500.00 | 5 |
| 3001-6250 | $6,250.00 | 6 |
| 6251+ | $1/employee to a maximim of $10,000.00 | 7 |

| Potential Membership Fee Funding | | | |
|---|---|---|---|
| **Employer** | **Number of Employees** | **Membership Fee Category** | **Membership Fee** |
| Sustainable Waterloo | 8 | 1 | $400.00 |
| SunLife Insurance | 3331 | 6 | $6,250.00 |
| Research in Motion | 9752 | 7 | $9,752.00 |
| University of Waterloo | 3200 | 6 | $6,250.00 |
| Region of Waterloo | 3000 | 5 | Funder |
| Equitable | 450 | 3 | $1,500.00 |
| City of Waterloo | 800 | 4 | $2,750.00 |
| Paradigm Transport | 8 | 1 | $400.00 |
| APCO Developments | 1000 | 4 | $2,750.00 |
| Crawford and Company | 200 | 2 | $875.00 |
| Open Text | 700 | 3 | $2,750.00 |
| Hendry Coach Lines | 20 | 1 | $400.00 |
| **Maximum Membership Fee Funding $34,077.00** | | | |

| TravelWise Funding Breakdown | |
|---|---|
| **Funding Source** | **Funding Amount** |
| Region of Waterloo | $40,000.00 |
| Membership Fees | $34,077.00 |
| **Maximum Funding Available** | **$74,077.00** |

## EVALUATION AND MONITORING PLAN

To ensure that the program is efficiently delivering services and that the TMA is successful, it is important to continue ongoing evaluation and monitoring. Survey results can be used to measure mode split shifts, average distance traveled to work, potential effects of the program on non-commute travel, and commuter awareness of the program. It should be noted that incremental change in mode split is significant, and evaluations should be considerate and realistic of successful change in mode split. Survey instruments should also be used to measure the effectiveness of existing strategies and guide development of new programs.

A report of program results should be developed annually and distributed to funders, advisory board members, and Regional and Municipal councils. Program successes should be

highlighted in marketing materials and used to attract new members and secure new funding sources.

Having a thorough understanding of program results will also assist the TMA in the development of case studies and presentations that highlight it services and accomplishments. Sharing lessons learned and program results with other organizations within the TDM industry at local, national, and international conferences will increase the importance of the TMA and allow it to become a leader within the industry.

## APPENDIX A – IMPLEMENTATION ACTIVITES, BY QUARTER

The following plan details activities for the first year of operation, as well as, looking forward to year two and three. The first year activities are detailed by Quarter, and second and third year outlooks are detailed by year. Due to the timing of the TravelWise program launch, the first year will begin with the fourth quarter of 2011 (October 1, 2011) and end on December 31st, 2012.

***QUARTER 4 ACTIONS (October – December 2011):***

1. **Finalize Management Agreement.** To ensure that the program is functioning as intended, a management agreement will outline how the program will be managed within the Region of Waterloo, who the program manager will report to and address items pertaining to organizational framework including, but not limited to:

    a. **Finalize Staffing Allocation.** It is anticipated that staffing levels will require a full time program coordinator for the first fiscal year, with support from regional management.

    b. **Confirm Regional Funding amount.** Finalize funding agreements with the Region of Waterloo, and ensure sufficient organization funding and resources are available to allow TravelWise to achieve program goals and objectives.

2. **Finalize Membership Fees.** Focus on long-term funding sustainability by supplementing revenue sources through the development of membership fees in conjunction with the predetermined funding sources.

3. **Form TravelWise Advisory Board.** Form a TravelWise Advisory Board to achieve the organizational mission and oversee program activities. Quarter One activities include:

    a. **Finalize board membership.** The program manager in consultation with the Region of Waterloo and stakeholders will identify and invite members to participate in the TravelWise Advisory Board. The members should include a variety of stakeholders who are active members of TravelWise. The Advisory Board should consist of no more than 10 board members.

    b. **Hold initial meeting.** An initial meeting should be held to provide guidance to initiate the actions of the business plan, and to outline the TravelWise goals for the inaugural year. The advisory board should also set their quarterly meeting schedule.

    c. **Draft Terms of Reference for Board Members.** The development of the Terms of Reference will provide a clear definition of the purpose and mission of TravelWise.

4. **Create Program Measurement and Evaluation Plan.** The Region of Waterloo staff will work the advisory board to create and implement a Program Measurement and Evaluation Plan. This should be developed as a results oriented matrix. This will require coordinating the TravelWise results with other regional departments to measure reduction in traffic levels etc.

5. **Attend ACT Canada Conference.** The TravelWise Program Manager should attend the ACT Canada conference to advance his/her TDM education, establish network of industry peers and identify upcoming opportunities.

6. **Develop Marketing and Outreach Plan.** Work with the Region of Waterloo and the TravelWise Advisory Board to determine how the marketing and outreach plan will be created and developed. The plan should expand on the existing branding of TravelWise and include items such as a website, promotional materials etc. Outreach activities should be tailored to the messaging and to the audience. An outreach events calendar should be created and updated on an annual basis to ensure participation in regional events, and to strategically plan outreach events at member sites. A minimum of two events should be held at each member location throughout the year.

7. **Develop a Membership Implementation Plan.** Due to the high level of support from stakeholders, the TMA is anticipating membership to reach 19 employers prior to the launch of the TravelWise program. All members will have access to core services, but will begin the Employer Individualized Marketing (EIM) process at various times throughout the inaugural year. EIM targets people who are willing and able to change their travel behavior. An implementation plan will provide the staff with the direction and scheduling necessary to launch the EIM process with member businesses. See Appendix A for more details on the EIM process.

8. **Develop Member Specific Core Services.** Outline the specific list of services that will be offered to members. This should include the program specific services such as Carpool Zone, Emergency Ride Home and Employer Transit Pass. It should also include the mandatory services which include the EIM survey process, site assessment, and follow-up survey.

9. **EIM Survey Process.** Begin the EIM process with the first round of employers selected by the TravelWise staff. The EIM survey is a mandatory requirement to join as a member of TravelWise. The EIM process has already been applied to employers through a previous Federal government grant, and will be a continued practice for new employers joining the TravelWise program. Due to the large number of initial members, the EIM process will be implemented with five employers per quarter until all members have completed the process.

10. **Develop a Site Assessment Guideline.** To support the EIM process and to have the best understanding of the commuting environment that exists at member sites, site

assessments should be performed to collect site specific information, such as parking availability, alternative modes available to the site, quality of the alternative commuting facilities, etc.. Perform a best practices review of other TMA site assessments to use as a guide of the development of the site assessment guideline.

11. **Finalize Emergency Ride Home.** The Emergency Ride Home program will be finalized by UrbanTrans during Quarter 4.

***QUARTER 1 ACTIONS (January – March 2012):***

1. **Update Program Measurement and Evaluation Reports.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Quarterly Board Meeting.** Present the results to date and provide an update regarding the progress of TravelWise. The progress should highlight program results, internal business developments, financial updates, and recruitment updates.

3. **Develop TravelWise Marketing Materials.** Based on the marketing plan, specific materials will be developed to support the program. The marketing materials should include brochures, website, business cards, posters and customized signage for commuting infrastructure.

4. **Implement Marketing Plan.** Specific actions will be identified in the marketing and outreach plan and implementation of those actions should take place in order to engage members and support the TravelWise program. This section should be detailed out further, once identified in the plan. However, immediate opportunities include:

    a. **Carpool Week Marketing and Outreach.** Create Carpool Week marketing material to promote the TravelWise services that will assist members to participate in the national event. Host events at member sites to distribute Carpool Week marketing material and to encourage employees to participate in Carpool Week activities.

    b. **Schedule Outreach Events.** A minimum of two events at each member site should take place each year. Events will be hosted on an on-going basis and may be determined by member requests for events.

5. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

6. **EIM Survey Process.** Implement the EIM process with five new members.

***QUARTER 2 ACTIONS (April – June 2012):***

1. **Updated Program Measurement and Evaluation Report.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Quarterly Board Meeting.** Present the results to date and provide an update regarding the progress of TravelWise. The progress should highlight program results, internal business developments, financial updates, and recruitment updates.

3. **Update Membership Implementation Plan.** Ensure that the EIM process is being implemented according to schedule.

4. **Implement Marketing and Outreach Plan** as outlined by the plan actions.

5. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

6. **EIM Survey Process.** Implement the EIM process with five new members.

***QUARTER 3 ACTIONS (July – September 2012):***

1. **Update Program Measurement and Evaluation Report.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Quarterly Board Meeting.** Present the results to date and provide an update regarding the progress of TravelWise. The progress should highlight program results, internal business developments, financial updates, and recruitment updates.

3. **Update Membership Implementation Plan.** Ensure that the EIM process is being implemented according to schedule.

4. **Implement Marketing and Outreach Plan** as outlined by the plan actions.

5. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

6. **EIM Survey Process.** Implement the EIM process with five new members.

***QUARTER 4 ACTIONS (October – December 2012):***

1. **Update Program Measurement and Evaluation Report.** Complete required reporting as identified by the Region of Waterloo and the TravelWise Advisory Board. Reporting may include Carpool Zone and website statistics, employee program results to employer members and other items identified in the Program Measurement and Evaluation Plan.

2. **Host Year-End Board Meeting.** The Year-End Board meeting will highlight the progress of the previous year. It will also include updating requirements and providing direction for the following fiscal year.

3. **Update Membership Implementation Plan.** Ensure that the EIM process is being implemented according to schedule.

4. **Implement Marketing and Outreach Plan** as outlined by the marketing plan actions.

5. **Core Service Provision.** Continue to deliver mandatory and program specific services to TravelWise members.

6. **EIM Survey Process.** Implement the EIM process with five new members.

***YEAR 2 and 3 ACTIONS***

The actions for year 2 will include updating the actions and reviewing goals set out during the first year of operation. This will be based on the evaluations that will take place on an on-going basis during the year. At this time, the Advisory Board should re-visit the board membership and invite new members. It will also be a time to determine the need to hire additional staff, and a time to evaluate the potential of having an external organization host the TravelWise program. Following the first year of operation, an Annual General Meeting should also be held, and invite additional stakeholders to review the success of the program, discuss best practices among members, and provide feedback to the board and TMA staff to guide the on-going development and delivery of TravelWise services.

1. **Update Business Plan.** The Advisory Board and TravelWise staff should revisit the business plan on an annual basis to ensure that tasks are updated to reflect the previous year's accomplishments. Goals should be updated every 3 to 5 years and the mission statement should be updated every 10 years.

2. **Update Marketing and Outreach Plan.** Revisit the existing marketing plan to determine how the plan can be updated to support any program changes and to continually ensure that the plan supports the mission and goals of TravelWise. The focus of the updated plan should be on new and creative ideas.

    a. **Update Marketing Material.** Perform a review about the existing marketing material. Based on the changes to the marketing plan, changes in information

and statistics, as well as general feedback regarding the marketing material, update and purchase additional marketing material.

b. **Update the outreach calendar** to reflect the highlighted dates for regional and national events for 2013. A minimum of two events should be hosted at each member site throughout the year. Events will be hosted on an on-going basis and may be determined by member requests for events.

3. **Update Membership Implementation Plan.** Develop a plan to recruit new members.

PLANNING, HOUSING AND COMMUNITY SERVICES

Transportation Planning

Region of Waterloo

Date: November 8, 2011

# MEMORANDUM

To: Chair Jim Wideman and Members of the Planning and Works Committee

From: Geoffrey Keyworth, Senior Transportation Planning Engineer

Subject: **HIGHWAY 7 / 85 REHABILITATION (REGIONAL ROAD 15 TO KRUG STREET) PUBLIC INFORMATION CENTRE**

File No: D09-30(A)

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The Ontario Ministry of Transportation (MTO) is undertaking a Class Environmental Assessment study and detail design for pavement resurfacing and bridge rehabilitations on Highway 7 and Highway 85, between Regional Road 15 (i.e. King Street near Farmer's Market Road) and Krug Street. The project includes highway resurfacing, rehabilitation of 15 bridges to extend their lifespan, drainage and illumination improvements, and the installation of overhead signs and traffic counting stations. This work is to take place in 2013 and 2014.

Although MTO is phasing the project to ensure that mainline highway capacity will be retained as much as possible, the construction work will require that some lanes and on / off ramps be closed, some for extended periods of time. Regional staff will be working with the Area Municipalities and MTO staff to minimize the impact of the closures on Regional and local roads. MTO will host a Public Information Centre (PIC) on November 21, 2011 at the Waterloo Inn (475 King Street North) regarding this project. A copy of the Notice of PIC is attached for your reference.

MTO has retained McCormick Rankin Corporation (MRC) for engineering consulting services. Regional staff has met and are continuing to work with MTO and MRC staff to review the proposed work.

For further information, please contact the Project Manager, Scott Howard, at 519-873-4588, scott.howard@ontario.ca

# NOTICE OF PUBLIC INFORMATION CENTRE
# DETAIL DESIGN AND CLASS ENVIRONMENTAL ASSESSMENT

**PROJECT A (G.W.P. 168-89-00)**
**HIGHWAY 85 RESURFACING - FROM LANCASTER STREET TO REGIONAL ROAD 15 (KING STREET)**

**PROJECT B (G.W.P. 3110-09-00)**
**HIGHWAY 7/85 RESURFACING - FROM KRUG STREET TO LANCASTER STREET**

## THE STUDY

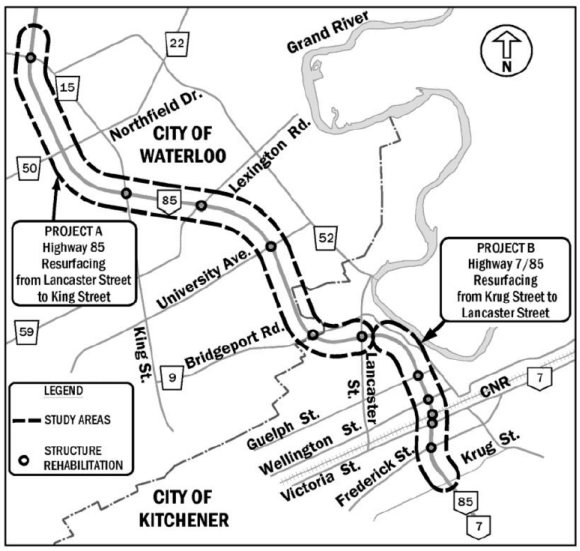
The Ministry of Transportation (MTO) is undertaking a Detail Design and Class Environmental Assessment Study for pavement resurfacing and bridge rehabilitations on Highway 85 and Highway 7 / 85 in the Region of Waterloo (see key plan). The purpose of the study is to review and develop strategies for the work within the study limits. The study has been divided into two projects:

**Project A:** Resurfacing of Highway 85 from 0.1 km south of Lancaster Street northerly to 0.4 km north of Waterloo Regional Road 15 (King Street), which includes:

- Rehabilitation of 8 bridges and 2 culverts;
- Drainage improvements;
- Illumination improvements; and
- Overhead signs and traffic counting loops / stations.

**Project B:** Resurfacing of Highway 7 / 85 from Krug Street northerly to 0.1 km south of Lancaster Street, which includes:

- Rehabilitation of 7 bridges and 1 culvert; and
- Traffic counting loops / stations.




## THE PROCESS

These projects are being undertaken as a Group "B" project under the *Class Environmental Assessment (Class EA) for Provincial Transportation Facilities* (2000), with the opportunity for public input throughout the study. Upon completion of the study, a Transportation Environmental Study Report (TESR) will be prepared and filed for a 30-day public review period. Newspaper notices will be published at that time to explain the review process and identify the locations where the TESR is available for viewing.

NOTE: If the screening process indicates that one or both of these projects will not result in any significant adverse environmental effects, then one or both of these projects may be "stepped down" to a Group "C" project and formal documentation will not be required. A notice will be issued and a review period provided if this decision is considered.

## PUBLIC INFORMATION CENTRE

A Public Information Centre (PIC) has been arranged to provide the public and interest groups an opportunity to review and comment on the proposed resurfacing and rehabilitation strategies, as well as the anticipated environmental impacts and proposed mitigation measures. The PIC will be held as a drop-in style, open house format and will include two brief, informal presentations. Representatives of the project team will be in attendance to answer questions and receive comments. The PIC will be held as follows:

| | |
|---|---|
| **Date:** | **Monday, November 21, 2011** |
| **Location:** | **Waterloo Inn Conference Hotel**<br>**Strauss Salon A**<br>**475 King Street North**<br>**Waterloo, ON N2J 2Z5** |
| **Time:** | **Open House Format: 4:00 p.m. to 8:00 p.m.**<br>**Informal Presentations: 5:00 p.m. and 7:00 p.m.** |

## COMMENTS

If you wish to obtain additional information or provide comments, or if you would like to be added to the study's mailing list, please contact: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If you have any accessibility requirements in order to participate in this project please contact one of the project team members listed above.

Comments and information are being collected to assist the MTO in meeting the requirements of the Ontario *Environmental Assessment Act*. Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act* and the *Access to Information Act*. With the exception of personal information, all comments will become part of the public record.

Ontario

| COUNCIL ENQUIRIES AND REQUESTS FOR INFORMATION | | | | |
|---|---|---|---|---|
| PLANNING AND WORKS COMMITTEE | | | | |
| **Meeting date** | **Requestor** | **Request** | **Assigned Department** | **Anticipated Response Date** |
| 24-May-11 | P&W | Staff report on emerging technology and current technology being used for traffic signal control | Transportation and Environmental Services | Fall - 2011 |
| 16-Aug-11 | P&W | One year review of Report E-11-085 re: Parking on Bleams Road | Transportation and Environmental Services | 1-Aug-2012 |
| 18-Oct-11 | P&W | Staff report on the possibility of natural gas fuel source for future bus purchases | T&ES Transit Services (GRT) | |
| 18-Oct-11 | P&W | Staff report on the cost recovery ratios on Region recyclables | T&ES Waste Management | |
| 18-Oct-11 | P&W | Staff report on options for recognition of Nyle Ludolph, the 'Father of the blue box' | Transportation and Environmental Services | |
| 18-Oct-11 | C. Millar | Staff review the aesthetics of the bridge repairs to the Main Street, Cambridge | Transportation and Environmental Services | |
| 18-Oct-11 | P&W | Staff report on alternative financing options for Lloyd Brown Water Fees | Transportation and Environmental Services / Finance | 8-Nov-2011 |
| 18-Oct-11 | P&W | Staff report on traffic safety on Fairway Road - City of Kitchener Request | Transportation and Environmental Services | 6-Dec-2011 |
| 26-Oct-11 | Council | Staff report on Homer Watson Boulevard / Block Line Roundabout | Transportation and Environmental Services | 8-Nov-2011 |
| 26-Oct-11 | Council | Staff report prior to the removal of or change to the oversize signs installed near the Homer Watson Boulevard / Block Line Roundabout | Transportation and Environmental Services | Apr-2012 |