

## 7.0 Potential Environmental Effects and Mitigation Measures

Construction, maintenance and operation activities have the potential to affect the natural and social environments within or adjacent to the ROW of the project. Construction activities, although short in duration, may have potential environmental effects. Routine maintenance activities generally have no or very minor effects.

This section describes the environmental features that occur within the study area, the potential effects of the construction and operation of the proposed TS and line upgrades on those features, and recommended mitigation measures to reduce potentially adverse incremental effects and address public concerns. The mitigation measures are consistent with the requirements of the Hydro One's *Environmental Guidelines for the Construction and Maintenance of Transmission Facilities* (Hydro One 1993).

**Tables 7-1** and **7-2** are specific to the short-term and long-term effects of construction, operational and maintenance activities associated with the proposed transmission line along South Street, Parkinson Road and Towerline Road. Similarly, **Tables 7-3** and **7-4** are specific to the short-term and long-term effects of the construction, operation and maintenance of the proposed Commerce Way TS. These tables provide a summary of the potential effects, the proposed mitigation and the residual (net) effects.

## 7.1 Biological and Natural Environment

### 7.1.1 Streams and Wetlands

#### Potential Effects

The existing transmission line spans a drainage network of small streams flowing south, and is adjacent to Cedar Creek at the Woodstock TS, which is an important tributary to the Upper Thames River within the South Thames Watershed. As determined from the City of Woodstock, the UTRCA GIS files and site visits, the list in **Section 3.2.4** shows the main streams/water present along the existing transmission line between Woodstock TS and Toyota Junction, as indicated in **Appendix G**.

In all cases, there will be no construction in or near water. No stream crossings are needed for access. There will be no need for bridges and culverts. No provincially or locally significant wetlands are crossed or affected by the proposed transmission line upgrade or the construction of the new TS.

Cedar Creek and Woodstock TS are within a Significant Valleyland, with a regulatory flood line and designated erosion hazard area (System Type 1 watercourse – warm or cold/cool watercourse), which includes Towers 225 to 228. The upgrade of the existing transmission line does not span Cedar Creek. Construction activities, such as demolition and removal of existing transmission towers and construction of access roads, will be conducted further than 50 m from these water crossings. Potential effects at this location on aquatic resources may include sedimentation of streams and water contamination due to accidental fuel spills or leaks, however this is unlikely. Localized effects on aquatic resources are insignificant and will be adequately addressed by implementation of mitigation measures.

#### Mitigation Measures

Mitigation plans will be prepared to protect the aquatic environment in consultation with UTRCA. The location of the new TS is well away from water crossing locations and thus the possibility of accidental discharge of oil into streams is very low.

The general mitigation measures that will be put in place to minimize effects on streams are:

- Implementation of sedimentation and erosion control measures;
- Retention of bank vegetation; and
- Carrying out maintenance activities such as refuelling and equipment washing, away from water courses to avoid accidental spills into waterways.

### ***7.1.2 Fish and Fish Habitat***

#### *Potential Effects*

According to NHIC (2008), in the route corridor, the fish species status varies from S4 to S5, meaning that the species are “apparently secure” (S4) to “secure” (S5). The Greenside Darter species was just recently removed from the Federal list and Provincial list of Special Concern and is now classified as Not at Risk (COSEWIC 2008, SARO 2008).

Potential effects on fish and fish habitat include loss of habitat due to soil erosion and sedimentation. Localized effects near Cedar Creek between Towers 225 to 228 will be minimal (**Appendix G2 (Tile 1/10)**).

Based on NHIC (2008), there are no aquatic species of concern within the study area. There is a species which has a conservation status of S2S3 (imperilled to vulnerable) but is not considered as a Species of Concern (SC) Provincially or Nationally.

#### *Mitigation Measures*

In consultation with UTRCA, a specific mitigation plan will be developed for locations where there is a potential for affecting fish habitats. This plan will specify the design details of mitigation measures to be implemented. The mitigation measures will be similar to those described in **Section 7.1.1** for Streams and Wetlands.

The mitigation measures that will be put in place to minimize effects on fish and fish habitat are:

- Retaining shrubby bank vegetation near watercourses;
- Implementation of sedimentation and erosion control measures;
- Adjusting timing of construction activities where possible to avoid the fish breeding period; and

- Implementing an emergency response plan to respond to any spills or environmental emergencies that may occur.

### ***7.1.3 Vegetation, Forest Resources and Wildlife***

#### *Potential Effects*

The existing transmission line route is mainly within an urban area (**Figures 3-2 and 3-4**). Construction work will also be carried out within the existing ROW and the transmission line ROW in Southside Park, a landscaped area adjacent to Cedar Creek.

Based on NHIC (2008), the plant and wildlife species of concern within the study area (Cedar Creek watershed) is:

- Eastern Hognose Snake *Heterodon platirhinos*, Threatened (THR) Provincially and Nationally.

Three other species (plants) have conservation status ranging from S1S2, S2 to S3 (critically imperilled to vulnerable), but are not considered as Species of Concern (SC) Provincially or Nationally.

As construction activities will be primarily within the existing ROW and tree removal or pruning will be minimal, no significant effects are predicted.

Hydro One will make every effort to minimize effects on wildlife habitat during the upgrading of the existing transmission line and the construction of the new TS.

#### *Mitigation Measures*

In consultation with MNR and the UTRCA, specific mitigation plans will be prepared and implemented for working within areas with sensitive species. The mitigation measures that will be put in place to minimize potential effects on vegetation and wildlife are:

- Construction work near sensitive species will be carried out in consultation with MNR and the UTRCA;

- In the event that a vulnerable, threatened or endangered species or a site that is considered significant is encountered during construction, MNR and the UTRCA will be consulted immediately;
- Soil, vegetation and landscape features will be restored or improved in consultation with the City of Woodstock and the Township of Norwich (where applicable);
- Area of access roads and tower working areas will be kept to a minimum required to minimize vegetation clearing; and
- Vegetation will not be cleared unless necessary. Each site will be examined for environmental aspects, safety, economic or public concerns and the most appropriate method for vegetation control will be determined.

## **7.2 Socio-Economic Environment**

The majority of the potential social effects are expected to be encountered during the construction phase of the project. Potential effects during the operation phase are expected only from periodic transmission line and TS maintenance activities.

### ***7.2.1 Property Owner Concerns***

#### *Potential Effects*

Construction activities will occur over approximately 14 months. Construction will be carried out concurrently by various crews performing tasks, such as building temporary access roads, preparing foundations of new towers, installing new towers, stringing conductors and conducting restoration activities.

The common potential effects from project construction activities include:

- Noise, dust and vibration from construction vehicles and equipment;
- Traffic disruptions due to diversions and lane closures;
- Disposal of construction related waste;
- Disruption to agricultural and other activities due to construction;
- Visual effects of the new structures within the existing ROW and additional easements, where required.

Mitigation Measures

A number of mitigation measures are proposed to alleviate the potential environmental effects that are described in the above section. Hydro One will consult with individual property and business owners during the design and construction stages to discuss various aspects of the project including construction of access roads, road disruption, etc. Hydro One will continue to make available information about the project and areas of concern. This information will include:

- A summary of conditions of approval and explanation of how Hydro One will comply with those conditions (if any);
- A schedule of construction including a description of construction activities and nuisance control measures to be used;
- Hydro One contact numbers; and
- EMF updates from Health Canada (when available).

Hydro one will reduce disturbances on property and business owners by:

- Maintaining regular contact with individual property and business owners during construction and maintenance work.
- Restoring temporary access roads after construction to the original condition as much as possible.

**7.2.2 Agriculture and Soils**

Potential Effects

The majority of construction will be conducted within the existing ROW, therefore potential effects to agriculture and soils will not be significant. As indicated in **Figures 3-2, 3-4 and 3-5**, only the second phase involving the replacement of approximately 1 km line between Commerce Way TS and Toyota Junction, will be undertaken within agricultural area. The first phase will be undertaken within urban area. Therefore, the potential effects of the proposed undertaking on agriculture are insignificant.

Minor losses of any existing crops are expected under the footprint of the towers and access roads. Potential effects on agricultural-related activities include:

- Disturbance to farm operations;
- Crop loss and damage to field tiles;
- Disturbance to livestock and damage to farm equipment from open gates, improper fencing, open excavations and ingestion of construction material left on the ROW.

#### Mitigation Measures

The construction and maintenance activities will be conducted in accordance with the Hydro One *Environmental Guidelines for the Construction & Maintenance of Transmission Facilities* (Hydro One 1993) and consultation with individual property owners, agencies and municipal officials. The mitigation measures that will be put in place to minimize potential effects on agriculture and soils are:

- Restoration of access roads to stable conditions; and
- Restoration of any soil compaction on arable land by tillage and/or crop treatment depending upon the wishes of the owner.

### **7.2.3 Air Quality and Noise**

#### Potential Effects

Effects on air quality and noise will be temporary and limited to the construction period. Dust will be generated during the operation of construction equipment and activities associated with establishing access roads, demolition of existing towers and foundations, construction of new towers and foundations. Noise will be generated due to these activities and the operation of heavy equipment. As indicated in **Table 5-2**, the closest residential receptor from the proposed Commerce Way TS is approximately 1430m, which is sufficiently distant to not be adversely affected by on-site construction noise. Similarly with dust, due to large separation distances from existing residences, dust nuisance effects during construction are not expected to affect residences.

The TS will produce a humming sound during operation; however, this will be subject to the regulatory approval under the *Environmental Protection Act (EPA)* and will meet the Provincial standards. With the implementation of mitigation measures, no significant change in noise

level is expected. There will be no atmospheric emissions from the station. The operation of the TS will not affect future commercial and industrial development of adjacent lands.

#### Mitigation Measures

Mitigation measures to minimize the potential effects on air quality and noise level will include:

- Managing all construction equipment (e.g. ensuring equipment is maintained and equipped with mufflers);
- Creating a noise barrier at the TS;
- Applying dust suppression (such as water) on roads with dry soil; and
- Locating access routes and lay down areas away from residences to the extent possible.

#### **7.2.4 Appearance of the Landscape/Aesthetics**

##### Potential Effects

Transmission line and TS construction may cause visual effects in areas that are accessible to the public. Temporary lay-down areas and access routes will be visible on the landscape during the construction period.

No significant long term visual effects are expected from the line due to the replacement of transmission towers, as the route is an existing ROW where the old lattice towers will be replaced by new steel pole towers that are narrower and taller (**Figures 6-2 and 6-3**). The new TS will be visible from Parkinson Road and Commerce Way, and from planned future Industrial Park. Because of the great distance from the proposed Commerce Way TS to the residential area (~1430m); it is unlikely that the TS will be visible from the nearby residences.

##### Mitigation Measures

Landscaping around the proposed TS along Parkinson Road and Commerce Way will minimize the visibility of the TS from local traffic. In addition, setback distance and visual screening of the proposed TS will minimize its visual effect on those using Parkinson Road and adjacent Industrial Park tenants / owners (**Figure 7-1**). Landscape plans will comply with the City of Woodstock Landscape Design Guideline (December, 1996).

# Draft Environmental Study Report – Commerce Way TS and Associated Transmission Line Upgrades

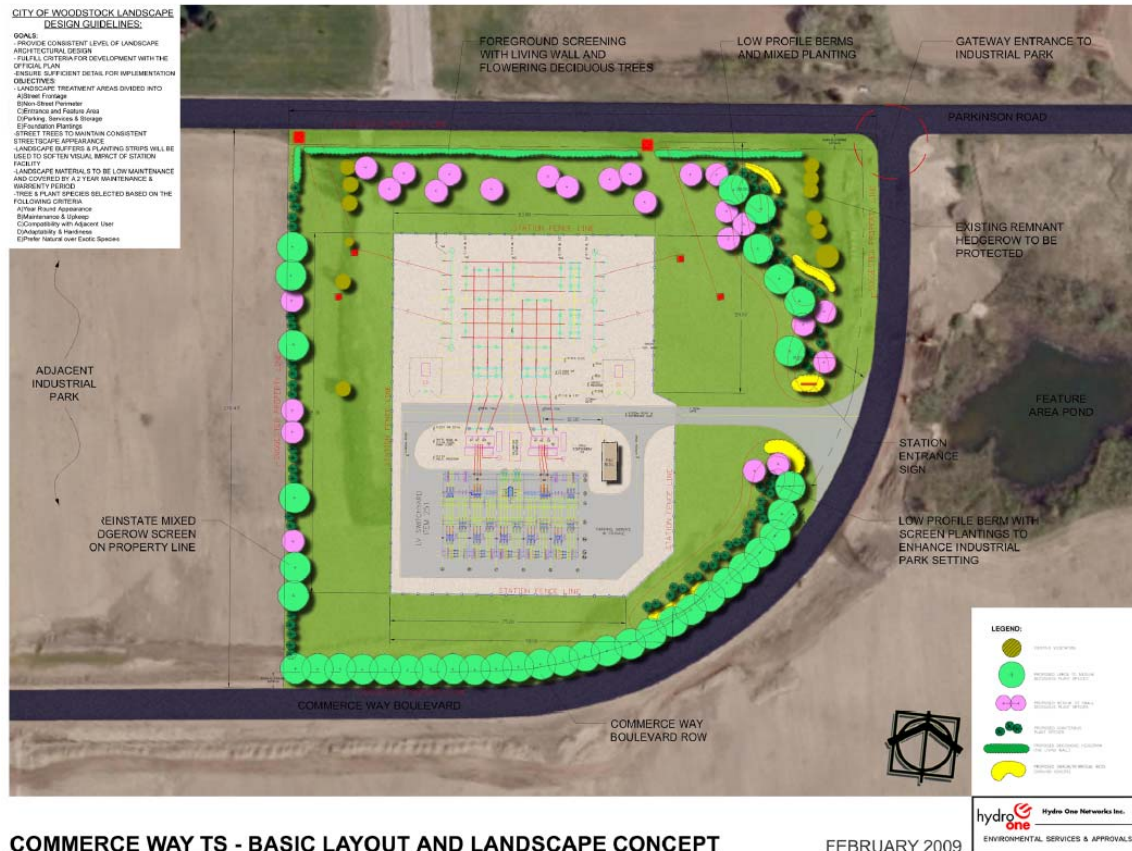


Figure 7-1: Commerce Way TS - 3-D Model of the Basic Layout and Landscape Concept

## 7.2.5 Public Safety

### Potential Effects

Any construction site poses a potential safety hazard if not properly controlled. The public could be potentially exposed to hazards in the vicinity of the construction areas.

### Mitigation Measures

To minimize the effect of construction on public safety, the location of the construction lay-down and access areas will be carefully selected. Construction areas will be signed and fenced where appropriate. The construction schedule and site locations will be provided to the local emergency services.

### **7.2.6 Heritage Resources**

#### Potential Effects

A Stage I Archaeological Assessment was commissioned by Hydro One. The assessment indicated that the study area has a high archaeological potential and a Stage 2 survey will be required prior to construction. As determined by the Stage 1 Archaeological Assessment, features which bear archaeological potential include the major concession roads. Areas of lesser concern are those away from the roadways and water sources and lands with extensive prior disturbance.

#### Mitigation Measures

Hydro One will undertake a Stage 2 Archaeological Assessment to confirm the presence or absence of significant archaeological resources. If potentially significant sites are found during field survey, they will require Stage 3 Archaeological Assessment to determine their size and significance. If site significance is found to be high following the Stage 3 work, mitigative measures (either site avoidance and preservation or excavation) will be taken up in consultation with Ministry of Culture (MOC).

### **7.2.7 Recreational Resources**

Approximately 600 m of the existing transmission line from Woodstock TS to Tower 222 is along the east boundary of Southside Park in the City of Woodstock (**Appendix G1**). The potential effects on the Park include affecting visual scenic vistas and some restrictions in use of the park facilities during the construction phase.

The transmission line upgrade and construction activities will occur east of Woodstock TS. Therefore, any potential effects to recreational resources are not considered significant. However, landscape mitigation may be implemented where necessary to offset any changes within the park setting and scenic vistas, including building fencing and warning signs around work areas (if necessary), and minimizing the effects of noise and dust during construction phase.

### **7.2.8 Planning Policies**

#### Potential Effects

Schedule “W-1” of the County of Oxford’s Official Plan pertains to the land use plan for the City of Woodstock (**Figure 3-4**). According to the City of Woodstock Land Use Plan, there are no future developments planned within the study area that would affect the project. This undertaking has a positive effect on the area as it will enable its future development and increase the electricity supply and reliability.

#### Mitigation Measures

Future development plans will continue to be monitored to ensure that there are no developments planned that would affect the Project.

### **7.2.9 Electric and Magnetic Fields (EMFs)**

Questions have been raised about the potential health effects from the exposure to electric and magnetic field (EMF) after the transmission line and Commerce Way TS are in service.

For those concerned about potential EMF effects from existing or future facilities, the Health Canada website should be reviewed as it provides important information on the matter:

[http://www.hc-sc.gc.ca/iyh-vsv/environ/magnet\\_e.html](http://www.hc-sc.gc.ca/iyh-vsv/environ/magnet_e.html)

It is Health Canada’s conclusion that for exposures found in Canadian homes there is no risk of health effects. For example, Health Canada has stated:

- “typical exposures present no health effects”
- “At present, there are no Canadian government guidelines for exposures to EMF at extremely low frequencies. Health Canada does not consider guidelines necessary because the scientific evidence is not strong enough to conclude that typical exposures cause health problems”.

**Appendix H** is the Health Canada’s Fact Sheet, addressing the issues related to EMFs.

Health Canada and the Federal Provincial Territorial Radiation Protection Committee (FPTRPC) have also examined this issue and have produced several documents on subject. Quotes from recent documents indicate: "the Federal Provincial Territorial Radiation Protection Committee (FPTRPC) concludes that adverse health effects from exposure to power-frequency EMFs, at levels normally encountered in homes, schools and offices, have not been established."<sup>1</sup> And "it is the opinion of the Federal-Provincial-Territorial Radiation Protection Committee that there is insufficient scientific evidence showing exposure to EMFs from power lines can cause adverse health effects such as cancer. Therefore, a warning to the public to avoid living near or spending time in proximity to power lines is not required."<sup>2</sup>

It is acknowledged that research findings are both controversial and contradictory. However, a mechanism or explanation of possible health effect has not been established. This position is supported by several extensive reviews of over 30 years of research by several respected international organizations. Although a web search can identify individual studies, independent national and international bodies that have conducted reviews of the entire body of research, are consistent with and the basis for the Health Canada's and the FPTRPC positions. Hydro One relies on the recommendations of national and international bodies and not the work or claims of individuals.

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<sup>1</sup> The Canadian Federal-Provincial-Territorial Radiation Protection Committee, "Position Statement for the General Public on the Health Effects of Power-Frequency (60 Hz) Electric and Magnetic Fields," January 20, 2005 <http://www.bccdc.org/downloads/pdf/rps/reports/ELF%20position%20statement%20E-050120.pdf>.

<sup>2</sup> Response Statement to Public Concerns Regarding Electric and Magnetic Fields (EMFs) from Electrical Power Transmission and Distribution Lines " - Canadian Federal-Provincial-Territorial Radiation Protection Committee, November 2008. [http://www.bccdc.org/downloads/pdf/rps/reports/FPTRPC%20Response%20statement%20power%20line%20EMF%20\(final\)%20%2008Nov08.pdf](http://www.bccdc.org/downloads/pdf/rps/reports/FPTRPC%20Response%20statement%20power%20line%20EMF%20(final)%20%2008Nov08.pdf)

Draft Environmental Study Report –  
Commerce Way TS and Associated Transmission Line Upgrades

Table 7-1: Mitigation Measures for Undertaking the Proposed Upgrade of the Existing Transmission Line (Short Term Effects)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effects</b>
<b>Biological and Natural Environment</b>			
Streams and Wetlands	<ul style="list-style-type: none"> <li>• Sedimentation of streams and other water bodies.</li> <li>• Contamination due to accidental spills.</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of sedimentation and erosion control plans in consultation with UTRCA.</li> <li>• Retention of bank vegetation.</li> <li>• Carrying out maintenance activities such as refueling and equipment washing away from water courses to avoid accidental spills into waterways.</li> <li>• Filing of permit applications with UTRCA for water crossings.</li> </ul>	No significant residual effects are predicted.
Fish and Fish Habitat	Loss of habitat and effects on breeding habits due to soil erosion and sedimentation.	<ul style="list-style-type: none"> <li>• Preparation of specific mitigation plans developed in consultation with UTRCA.</li> <li>• Retaining shrubby bank vegetation near water courses.</li> <li>• Implementation of sedimentation and erosion control plans.</li> <li>• Adjusting timing of construction activities where possible to avoid fish breeding period.</li> <li>• An emergency response plan will be developed to respond to spills or environmental emergencies.</li> </ul>	No significant residual effects are predicted on aquatic life.

Table 7-1: Mitigation Measures for Undertaking the Proposed Upgrade of the Existing Transmission Line (Short Term Effects)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effects</b>
Vegetation, Forest Resources and Wildlife	<p>Vegetation removal in some sections of the ROW may be required to maintain a conductor clearance, compatibility and safe operation.</p> <p>Potential effects of ROW clearing in natural areas may include soil erosion, stream bank erosion, changes in vegetation cover and disturbance to wildlife habitat.</p>	<ul style="list-style-type: none"> <li>• Specific mitigation plans will be prepared for working within areas with vegetation and sensitive species in consultation with UTRCA.</li> <li>• In the event that a sensitive or endangered species is encountered during construction, MNR and the UTRCA will be consulted immediately.</li> <li>• Disturbed soil, vegetation and landscape features will be restored in consultation with the respective municipalities (where applicable).</li> <li>• Size of access routes and tower sites will be kept to a minimum required to minimise vegetation clearing.</li> <li>• All compatible vegetation will normally be retained.</li> </ul>	No significant residual effects are predicted on vegetation and wildlife habitat.
<b>Socio-Economic Environment</b>			
Agriculture and Soils	<ul style="list-style-type: none"> <li>• Effects on agriculture may only happen during the second phase construction (approximately 1 km line upgrade from Commerce Way</li> </ul>	<ul style="list-style-type: none"> <li>• Individual property owners will be consulted prior to construction.</li> <li>• Where possible, construction areas will be selected to minimize damage or loss of crop areas.</li> <li>• Restoration of access roads, drainage courses and areas with soil compaction.</li> </ul>	No significant residual effects are predicted on agriculture and soils.

Draft Environmental Study Report –  
Commerce Way TS and Associated Transmission Line Upgrades

Table 7-1: Mitigation Measures for Undertaking the Proposed Upgrade of the Existing Transmission Line (Short Term Effects)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effects</b>
	<p>TS and Toyota Junction) within the Norwich Township.</p> <ul style="list-style-type: none"> <li>• Disturbance to farm operations from Commerce Way TS to Toyota Junction.</li> <li>• Crop loss and damage to field tiles.</li> <li>• Damage to farm equipment and effects on livestock from open gates, improper fencing, open excavations and ingestion of construction material left on the ROW.</li> </ul>	<ul style="list-style-type: none"> <li>• Compensation will be provided for crop loss, damage to farm equipment and injury of livestock</li> <li>• Width of access roads and tower sites work areas will be kept to a minimum</li> <li>• Existing tower locations will be utilized to the extent possible.</li> <li>• Minimising tile crossings and protection of tile drainage.</li> <li>• Construction of farm gates and maintaining integrity of fence enclosures.</li> <li>• Regular clean-up of construction material and debris.</li> <li>• Temporary fencing of excavations.</li> <li>• Erosion control measures.</li> </ul>	
Air Quality and Noise	Effects on air quality and noise will be temporary and limited to the construction period.	<ul style="list-style-type: none"> <li>• Conducting all work in accordance with MOE regulations.</li> <li>• Managing all construction equipment (e.g. ensuring equipment is maintained and equipped with mufflers).</li> <li>• Creating a noise barrier at the TS.</li> </ul>	No significant residual effects are predicted on air and noise quality.

Draft Environmental Study Report –  
Commerce Way TS and Associated Transmission Line Upgrades

Table 7-1: Mitigation Measures for Undertaking the Proposed Upgrade of the Existing Transmission Line (Short Term Effects)

Criteria	Potential Effects	Proposed Mitigation	Residual (Net) Effects
		<ul style="list-style-type: none"> <li>• Applying dust suppression (such as water) on roads with dry soil.</li> <li>• Locating access routes and lay down areas away from residences to the extent possible.</li> </ul>	
Public Safety	<ul style="list-style-type: none"> <li>• Public could be potentially exposed to hazards in the vicinity of the construction areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Construction areas will be signed and fenced where necessary.</li> <li>• The location of the construction lay-down and access areas will be carefully selected.</li> <li>• The construction schedule will be provided to the local emergency services.</li> </ul>	No residual effects are predicted.
Heritage Resources	The study area has a high archaeological potential and there is a potential that damage and/or destruction of undiscovered prehistoric and historic archaeological resources may occur.	<ul style="list-style-type: none"> <li>• A Stage 2 Archaeological Assessment will be undertaken to confirm the presence or absence of significant archaeological resources.</li> <li>• If potentially significant sites are found during field survey, they will require Stage 3 Archaeological Assessment to determine their size and significance.</li> <li>• If site significance is found to be high following the Stage 3 work, mitigative measures (either site avoidance and preservation or excavation) will be taken up in consultation with Ministry of Culture (MOC).</li> </ul>	No residual effects are predicted.

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Commerce Way TS and Associated Transmission Line Upgrades

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Table 7-1: Mitigation Measures for Undertaking the Proposed Upgrade of the Existing Transmission Line (Short Term Effects)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effects</b>
Recreational Resources	Visual effects on scenic vistas and some restrictions in use of the park facilities during the construction phase.	<ul style="list-style-type: none"> <li>• Fencing and warning signs around work areas, where necessary.</li> <li>• Minimizing impact of noise and dust during construction phase through use of appropriate equipment and/or methods.</li> <li>• Minimizing extent of traffic diversions and scheduling major construction and maintenance activities during off-hours or off-season, wherever possible, in consultation with the City of Woodstock.</li> <li>• Minimizing visual effects on scenic vistas with landscape mitigation.</li> </ul>	No residual effects are predicted.
Railway Line Control	Short interruption might be necessary.	<ul style="list-style-type: none"> <li>• A plan to string the line across the railway will be developed in consultation with CNR/CP officials.</li> <li>• Efforts will be made to keep any delays to a minimum.</li> </ul>	No long term residual effects are predicted.
Planning Policies	Effects on any planned developments	<ul style="list-style-type: none"> <li>• Future development plans will continue to be monitored to ensure that there are no development planned that would affect the Project.</li> <li>• Positive effect due to the increased supply of electricity in the area and the increased reliability.</li> </ul>	No residual effects are predicted.

Table 7-2: Mitigation Measures for Undertaking the Proposed Upgrade of Existing Transmission Line (Long Term)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effects</b>
Appearance of the Landscape/Aesthetics	Visual effects	No significant long term visual effects are expected due to the replacement of transmission towers as the route is an existing ROW where the old towers will be replaced by new narrower and taller towers.	The new installed towers will be taller, with a narrower base.
Electric and Magnetic Fields	Exposure to EMF.	Health Canada has concluded that typical exposures present no health risks.	No health effects are predicted.

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Commerce Way TS and Associated Transmission Line Upgrades

Table 7-3: Mitigation Measures for Undertaking the Proposed Transformer Station (Short Term)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effects</b>
Terrestrial and Aquatic Environment	The TS will be located well away from aquatic resources and wildlife habitat. No significant short term or long term effects are expected on this account.	Mitigation measures for minimizing any potential effects will be similar to that described for the transmission line.	No significant residual effects predicted.
Socio-economic Environment	<ul style="list-style-type: none"> <li>• Potential effects on agriculture, air and noise quality, heritage resources, appearance and public safety will be similar to those identified for the transmission line.</li> <li>• No recreation resources are located near the TS and thus no effects are predicted.</li> <li>• Development of the TS is not likely to have any effect on aggregate resources available in this area.</li> </ul>	Mitigation measures for minimizing any potential effects on agriculture, heritage resources, public safety, appearance and air/noise quality will be similar to those defined for the transmission line.	No significant residual effects predicted.
Traffic Controls	Delivery of equipment and materials to the site can cause a short term disruption of traffic on Parkinson Road.	A traffic plan will be developed in consultation with affected municipal officials. Efforts will be made to keep delays to a minimum.	No long term residual effects are predicted.

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Commerce Way TS and Associated Transmission Line Upgrades

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Table 7-4: Mitigation Measures for Undertaking the Proposed Transformer Station (Long Term)

<b>Criteria</b>	<b>Potential Effects</b>	<b>Proposed Mitigation</b>	<b>Residual (Net) Effect</b>
Aesthetic Effects	The proposed station will be fully visible from Parkinson Road and Commerce Way.	Setback distance and visual screening of the TS to minimize its visual impact from Parkinson Road, Commerce Way and adjacent Industrial Park tenants / owners.	No significant long term effects are predicted.
Electric and Magnetic Fields	Increased exposures from the TS are not expected in the local area.	EMF levels and exposures to the public will be within Health Canada provisions.	No anticipated health effects.
Drainage	A potential release of transformer oil can occur from a spill or major equipment failure. Run-off of potentially contaminated rainwater and snowmelt from the site.	A storm drainage and spill containment system will be installed. This is subject to MOE approval. Site will be operated according to regulatory requirements.	No residual effects are predicted.