WIND Mobile Campbellville Environmental Impact Assessment

Prepared for WIND Mobile

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1.0 INTRODUCTION

WIND Mobile has proposed the construction of a cellular communication tower located at 9230 Guelph Line in Campbellville (Milton), Ontario. North-South Environmental Inc. (hereafter NSE) was retained by WIND Mobile to undertake an Environmental Impact Assessment (EIA).

Prior to this report, NSE drafted a Terms of Reference (TOR), dated 20 August 2014, that described the tasks proposed for the EIA (Appendix 1). The TOR was circulated to the Town of Milton, Halton Region, and Conservation Halton for comment and refinement. Comments provided by the reviewing agencies were incorporated into the work plan for the study. A summary of comments provided by the reviewing agencies is provided in Appendix 2.

2.0 SITE SETTING

The location of the proposed cell tower is situated approximately 400 m north of highway 401, west of Guelph Line, south of the Mohawk Racetrack. The area immediately surrounding the site is predominantly composed of woodland that is bisected by an earthen lane way. There are two buildings located in close proximity of the proposed cell tower location; a Petro Canada station approximately 75 m to the east, and the Mohawk Inn and Conference Centre located approximately 125 m southeast of the proposed cell tower location. The surrounding natural features are predominantly woodland, unevaluated wetlands and a provincially significant wetland complex (Figure 1). The study area and surrounding natural heritage features form part of the Greenbelt Natural Heritage System. The study area for flora and fauna mainly includes the location of the proposed cell tower and the natural features within 200 m (Figure 1). Conservation Halton requested that surveys be completed for salamanders which were conducted outside the study area within a nearby vernal pool.

3.0 METHODS

3.1 Background Review

The following sources were references to acquire information on the study area:

- Natural Heritage Information Centre (NHIC) database – search November 18, 2014
- Atlas of the Breeding Bird of Ontario 2001-2005 (2007)
- Halton Natural Areas Inventory (2006)
- Halton Region Environmentally Sensitive Areas Consolidation Report (2005)

The following agencies were contacted to acquire information on the study area:

- Ministry of Natural Resources and Forestry (MNRF), Southern Region, Aurora District Office
- Conservation Halton
- Halton Region

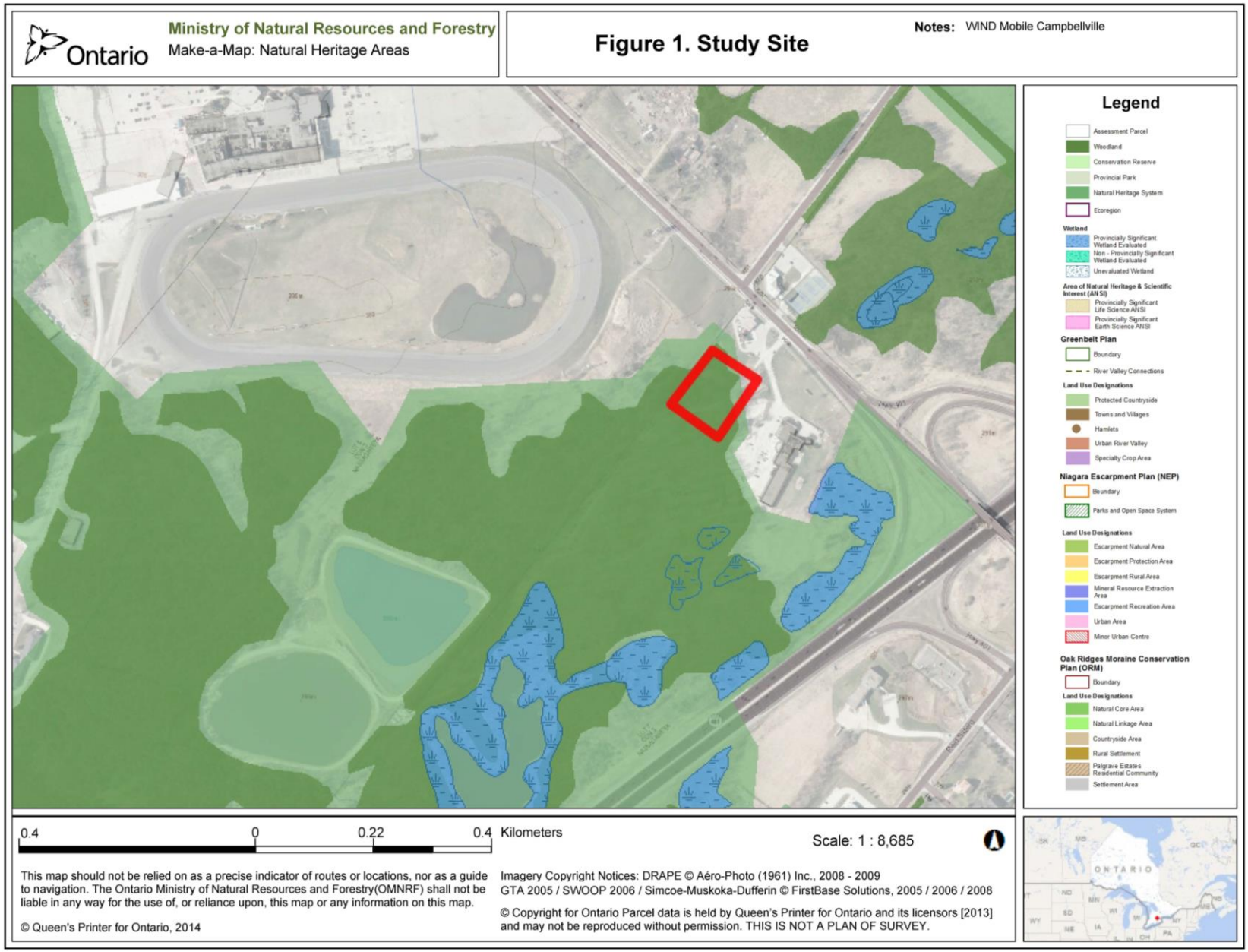

Figure 1: Location of proposed cell tower (shown in red outline)

3.2 Field Surveys

Field surveys were conducted in 2014 and 2015. Table 1 elaborates on the dates that field visits were conducted and the primary purpose of each visit.

Table 1: Field survey dates and purpose of visit

Date	Primary Purpose of Visit
June 17, 2014	Breeding bird survey 1
July 2, 2014	Breeding bird survey 2 and vegetation survey 1
August 20, 2014	Vegetation survey 2 and Ecological Land Classification
September 2, 2014	Vegetation survey 3 and Ecological Land Classification
April 2, 2015	Salamander roadside survey and trap setting
April 3, 2015	Salamander trap recovery
April 9, 2015	Salamander roadside survey and trap setting
April 10, 2015	Salamander trap recovery
April 13, 2015	Salamander roadside survey and trap setting; frog call survey
April 14, 2015	Salamander trap recovery
April 16, 2015	Salamander trap setting
April 17, 2015	Salamander trap recovery
April 20, 2015	Salamander trap setting, spring vegetation inventory 4
April 21, 2015	Salamander trap recovery

Incidental observations of flora or fauna were recorded during each site visit.

3.2.1 Ecological Land Classification

Vegetation communities were classified using standard Ecological Land Classification (ELC) methods developed by the Ontario Ministry of Natural Resources (OMNR) for southern Ontario (Lee, et al., 1998). Physical characteristics, stand description, and dominant vegetation species were recorded for each vegetation community. Remarks on natural disturbances (e.g., evidence of flooding), significant wildlife habitat, and human-made disturbances (e.g., erosion, tracks and trails) were noted if encountered. Information on soils was gathered using a Dutch auger.

3.2.2 Vegetation surveys

For the purpose of this study, the vegetation surveys were completed within the study area in the summer and fall of 2014 and in the spring of 2015. A list of all the floral species observed in each vegetation communities in the study area was compiled. The vegetation abundances for each plant species was also recorded in the corresponding vegetation layer (i.e., canopy, sub-canopy, understory, and ground layer). To provide additional information for the site context,

the vegetation communities beyond the study area were also classified and delineated on Figure 2.

Furthermore, the Floristic Quality Index (FQI) and Native Mean Coefficient of Conservatism (Native Mean C) have been calculated to provide a measure of vegetation quality. The Coefficient of Conservatism is based on numbers between 1 and 10 assigned by the Province for each native plant according to its habitat requirements (Oldham, Bakowsky, & Sutherland, 1995). Very adaptable species that can live in a wide range of conditions have been assigned low scores (i.e., 0-4), while plant species that inhabit highly specific habitats have been assigned higher scores (i.e., 6-10). The scores for all plants found at a particular site are averaged to obtain the Native Mean C and summed and multiplied by the square root of the number of species to obtain the FQI (Oldham, Bakowsky, & Sutherland, 1995). Generally, very high quality habitats with a high diversity of species requiring a narrow range of habitats have higher FQIs in comparison to habitats dominated by species with broad habitat requirements.

3.2.3 Breeding Bird Surveys

Two breeding bird surveys were completed following Forest Bird Monitoring Program protocols (Konze and McLaren 1997). . This protocol divides breeding bird surveys into two periods for the purpose of estimating abundance and collecting breeding evidence on early breeding and later breeding species, as well as providing an opportunity to increase breeding certainty. Breeding evidence was evaluated using the following guidelines (Ontario Breeding Bird Atlas 2001):

"Possible breeding" is indicated by the presence of a singing male (or breeding calls heard) in suitable habitat or the presence of a bird observed in suitable breeding habitat in its breeding season.

"Probable breeding" is defined as an observation of any of the following: (1) a pair in breeding season in suitable habitat, (2) permanent territory presumed through registration of territorial song on at least two days, a week or more apart, at the same place or (3) courtship or display between a male and a female or two males, including courtship feeding or copulation; visiting probable nest site; agitated behaviour or anxiety calls of an adult; brood patch on an adult female or cloacal protuberance on an adult male; nest building or excavation of a nest hole.

"Confirmed breeding" is defined as observation of any of the following: (1) a distraction display or injury feigning; (2) used nest or egg shell found (occupied or laid within the period of the study); (3) recently fledged young or downy young, including young incapable of sustained flight; (4) adults entering or leaving nest site in circumstances indicating occupied nest (e.g., adult carrying fecal sac; adult carrying food for young), or (5) nest containing eggs, or nest with young seen or heard.

3.2.4 Salamander Surveys

Salamander surveys were conducted to determine the presence/absence of Jefferson Salamanders in the area. Jefferson Salamanders are listed as Endangered under the Ontario Endangered Species Act, 2007 and Threatened under the federal Species at Risk Act,with the latest Committee of the Status of Endangered Wildlife in Canada (COSEWIC) designation listed as

Endangered. The distribution and population size of Jefferson Salamander is not well known and studies targeting this species are complex due to the occurrence of polyploid individuals that breed with Blue-spotted Salamanders. Based on recommendations from the MNRF, two types of salamander surveys were conducted: (1) minnow trapping in suitable vernal pools, and (2) roadside visual encounter surveys along a portion of the access lane within the study area and along a segment of Guelph Line. The minnow trapping surveys were conducted on 5 different occasions while the roadside visual encounter surveys were conducted on 3 different occasions (see Table 1 for specific dates). Tail tip tissue samples were taken from captured and encountered salamanders that appeared to be part of the Jefferson Salamander complex according to the MNRF's *Sampling Protocol for Determining the Presence of Jefferson Salamanders (Ambystoma jeffersonianum) in Ontario*, prepared by the Jefferson Salamander Recovery Team (June 2013). These samples were sent to the University of Guelph for genetic analysis.

3.2.5 Frog Survey

One audio call survey was conducted per Ontario Marsh Monitoring Program (Bird Studies Canada 2008) protocols to inventory calling amphibians (i.e., frogs and toads) within the vernal pools that are located within the vicinity of the study area. The start time and end time were recorded in addition to the air temperature, wind speed and level of precipitation at the beginning and end of the survey. Amphibian species, general location of calling amphibian, and amphibian call code details were recorded per the Ontario Marsh Monitoring Program.

4.0 RESULTS OF FIELD SURVEYS

4.1 Ecological Land Classification

Three vegetation communities have been delineated within the study area (Figure 2). These include a mineral cultural meadow (CUM1), a fresh-moist ash lowland deciduous forest (FOD7-2), and a dry-fresh Sugar Maple deciduous forest (FOD5-1). Descriptions of these vegetation communities are provided below.

4.1.1 Dry-fresh Sugar Maple Deciduous Forest Type (FOD5-1)

The Sugar Maple deciduous forest community is located to the south of the earthen laneway. This community is dominated by Sugar Maple (*Acer saccharum*) along with a few Shagbark Hickory (*Carya ovata*) and Green Ash in the canopy. The canopy is greater than 25 m in height and covers 35% to 60% of the community. The sub-canopy is dominated by Sugar Maple with occasional Green Ash (*Fraxinus pennsylvanica*) and a few Norway Maple (*A.platanoides*). The sub-canopy is 10 m to 25 m in height and covers greater than 60% of the community. The understory is composed of an abundance of Green Ash along with occasional European Buckthorn (*Rhamnus cathartica*), Red Raspberry (*Rubus idaeus* ssp. *melanolasius*), Choke Cherry (*Prunus virginiana*), Norway Maple and Sugar Maple. The understory is 1 m to 2 m in height and covers 35% to 60% of the community. The ground layer is composed of an abundance of Inserter Virginia Creeper and several avens (*Geum* sp.) with occasional Western Poison-ivy (*Toxicodendron radicans* ssp. *rydbergii*), Enchanter's Nightshade (*Circaea lutetiana* ssp. *canadensis*), Canada Goldenrod, Garlic Mustard (*Alliaria petiolata*), Virginia Strawberry

(*Fragaria virginiana* ssp. *virginiana*), Ostrich Fern (*Matteuccia struthiopteris*), Herb-robert (*Geranium robertianum*) and Wild Cucumber. The ground layer is 0.2 m to 0.5 m in height and covers greater than 60% of the forest floor.

4.1.2 Fresh-moist Ash Lowland Deciduous Forest Type (FOD7-2)

The Ash lowland deciduous forest is located to the north of the existing lane way. This community is dominated by Green Ash and Basswood (*Tilia americana*) with a few White Pine (*Pinus strobus*), Balsam Poplar (*Populus balsamifera*), and Sugar Maple. The canopy is greater than 25 m in height and covers 25% to 35% of the community. The sub-canopy is dominated by Green Ash along with occasional Manitoba Maple. The sub-canopy is 2 m to 10 m in height and covers 35% to 60% of the community. The understory is composed of European Buckthorn , Common Prickly Ash, Canada Goldenrod, and Red Raspberry. The understory is 35 m to 60 m in height and covers 35% to 60% of the community. The ground layer is composed of occasional Inserted Virginia Creeper, Enchanter's Nightshade (*Circeae lutetiana*), and Herb-robert. The ground layer is 0.2 m to 0.5 m in height and covers 35% to 60% of the forest floor.

4.1.3 Mineral Cultural Meadow Ecosite (CUM1)

Around the periphery of this small vegetation community, which is considered an inclusion of the Ash lowland deciduous forest community, are a few Bur Oak (*Quercus macrocarpa*) and Green Ash (*Fraxinus pennsylvanica*) which range in height from 10 m to 25 m, covering less than 10% of the community. The sub-canopy is composed of occasional Staghorn Sumac (*Rhus typhina*) with rare occurrences of Manitoba Maple (*Acer negundo*) and Prickly Ash (*Zanthoxylum americanum*). The sub-canopy is 2 m to 10 m in height and covers 10% to 25% of the community. The understory contains an abundance of Riverbank Grape (*Vitis riparia*) which is 1 m to 2 m in height and covers less than 10% of the community. The ground layer is composed of an abundance of New England Aster (*Symphyotrichum novae-angliae*), Reed Canary Grass (*Phalaris arundinacea*), and Canada Goldenrod (*Solidago canadensis*) along with occasional Inserted Virginia Creeper (*Parthenocissus vitacea*) and rare occurrences of Bittersweet Nightshade (*Solanum dulcamara*) and Wild Cucumber (*Echinocytis lobata*). The ground layer is 0.2 m to 0.5 m in height and covers greater than 60 % of the community.

Figure 2. Ecological Land Classification and Natural Heritage Features.

4.2 Flora and Floristics

A total of 65 floral species were recorded from the study area, of which 48 are native (74%) and 17 are non-native (26%). The percentage of native plants is considered average for the province, where native plants comprise approximately 73% of all plant species in Ontario (Kaiser, 1986). Appendix 3 provides a complete list of all flora recorded during the vegetation surveys along with the corresponding ELC communities for each species. In general, floral diversity is relatively low within all three vegetation communities.

Typically, an urban plant community composed of predominantly native species is found to have a Native Mean C of over 4 and a native FQI greater than 40 (NSE 2011).The FQI values calculated indicate that all three vegetation communities range from low to moderately low in quality (Table 2). The community with the lowest floristic quality is the cultural meadow. Low floristic quality, in this case, is possibly a result of past disturbances to the area which has led to a greater abundance of non-native species, which tend to thrive on disturbed soils. The FQI values for both of the deciduous forest communities are within the low end of the range of FQIs reported for remnant patches of natural habitat in Ontario's urban areas(NSE 2011).

The Native Mean C values for the cultural meadow and ash dominated deciduous forest are both lower than 4, while the deciduous forest is greater than 4. This indicates that the cultural meadow and ash dominated deciduous forest are primarily vegetated with adaptable species that are more tolerant to disturbances, such as a change in water regime, or canopy disturbance.

Table 2: Floristic quality of vegetation communities

Ecosite	Number of Native Plants	Total Plants	Native FQI	Native Mean C
CUM1	12	17	6.58	1.9
FOD5-1	28	27	21.98	4.15
FOD7-2	27	43	16.45	3.17

4.2.1 Significant Flora Species

No provincially significant flora species were documented during the four vegetation surveys or any of the other field visits. The Natural Heritage Information Center (NHIC) has records of Butternut (*Juglans cinerea*) in the area. Butternut is listed as endangered both provincially and federally. . A thorough survey of trees within the vicinity of the study area was completed including a search for Butternut. This species was not identified within the vicinity of the study area.

4.2.2 Species at Risk

Through the information request to the MNRF for records of SAR, the MNRF noted that "no records of Species at Risk recorded from your study area and the immediate vicinity" (Appendix 5). However, they did note that Butternut may be present within the study area and may require further assessment. As noted above, this species was not identified within the vicinity of the study area during field investigations.

4.3 Fauna

4.3.1 Breeding Birds

A total of 18 species of birds were recorded during breeding bird surveys or recorded as incidental observations (e.g., outside of the breeding bird window). Most of the bird species that have been recorded are common and widespread in small to large patches of forest/wetland in southern Ontario. Seven of these species have been identified as having probable breeding evidence; these include: Eastern Wood-pewee, Red-eyed Vireo, Black-capped Chickadee, American Robin, American Redstart, Baltimore Oriole, and American Goldfinch. Appendix 4 provides a complete list of fauna recorded during the breeding bird surveys along with corresponding breeding evidence.

4.3.2 Amphibians

4.3.2.1 Salamanders

A total of 21 salamanders were captured. A tail sample was collected for all 21 individuals. Genetic analysis revealed that five of the individuals were Blue-spotted (*Ambystoma laterale*) while the remaining 16 were Blue-spotted dominant polyploids of the Jefferson X Blue-spotted Salamander complex (*Ambystoma jeffersonium/laterale*). More specifically, 5 individuals were Blue-spotted diploid (LL), 15 individuals were Blue-spotted dominated triploid (LLJ) (i.e., two parts Blue-spotted, one part Jefferson), and 1 individual was Blue-spotted dominated tetraploid (LLLJ) (i.e., three parts Blue-spotted, one part Jefferson).

Nineteen individuals were captured in Pond 1 (Figure 1) using minnow traps throughout the survey period, and 2 individuals were found on a crushed stone drive way (Figure 1) part way between the rear of the parking lot associated with the Mohawk Inn and Conference Centre and the earthen laneway during the completion of the roadside survey.

4.3.2.2 Frogs

One audio frog call survey was conducted at Pond #1 and Pond #4 (Figure 2 and Table 1). A full chorus of Spring Peepers (Code 3) was documented from Pond #4. Eight wood frogs were heard calling from Pond #1 (Code 2-8). Additional species of frogs observed during field studies include Northern Leopard Frogs and American Toad.

4.3.3 Reptiles

While searching for salamanders under rocks and logs, a single Dekay's Brown Snake and an Eastern Garter Snake were observed under a rock close to Pond #1 (Figure 2). Both individuals were less than 30 cm in length.

4.3.4 Fish

Minnow trapping for salamanders was conducted in Pond #4 (Figure 2 and Table 1). This pond was believed to be a vernal pool; however, upon checking the minnow traps the following morning, the nets were full of a several minnow species including: Creek Chub (*Semotilus atromaculatus*), White Sucker (*Catostomus commersoni*), Central Mudminnow (*Umbra limi*), and Brook Stickleback (*Culaea inconstans*). Upon closer examination, this pond was determined to be connected to a stream, which flows into the northwest corner of the pond.

4.4 Significant Fauna

4.4.1 Species at Risk

Eastern Wood-pewee, a provincially significant species, was noted within the study area. Eastern Wood-pewee is designated as Special Concern in Canada and Ontario. This species nests in small and large woodlands throughout southern Ontario. Although this species is still common and widespread in Ontario, it is experiencing significant declines possibly due to the loss of wintering habitat. During the breeding bird survey, three singing males were documented within the study area.

The results of the salamander survey determined that the salamanders breeding within the vernal pool were either Blue-spotted or Blue-spotted dominant polyploids of the Jefferson X Blue-spotted Salamander complex (see Section 4.3.2.1). Although Jefferson dominant polyploids are listed on the SARO, the Blue-spotted dominant polyploids of the Jefferson X Blue-spotted complex are not listed as an endangered species in Ontario or Canada. They are ranked as S4 in the province.

Through the information request to the MNRF for records of SAR, the MNRF noted that "no records of Species at Risk recorded from your study area and the immediate vicinity." However, they did note that Eastern Meadowlark may be present within the study area and may require further assessment. Eastern Meadowlark generally prefers grassy pastures, meadows and hay fields that are at least 4 hectares in size. This habitat is not found within the study area.

4.4.2 Area Sensitive Birds

Area sensitivity relates to the habitat-area requirements of a species. For woodland area sensitive birds, this habitat is typically forest interior habitat that is at least 100 m from the edge of the woodland. This habitat within the woodland is often a sheltered, secluded environment away from the influence of forest edges and open habitats.

Three area sensitive forest bird species, as determined by the Significant Wildlife Habitat Technical Guide (OMNR 2000), were documented during the breeding bird season: Ovenbird, American Redstart, and Black-and-white Warbler. These birds were all heard calling to the south and east of the proposed location of the cell tower.

4.5 Natural Heritage Information Centre

The NHIC database notes 3 species of fauna and six species of flora. A review of the potential for these species being located on the subject property is included in Table 3.

Table 3. Assessment of NHIC element occurrence records for the general area surrounding the study area. * represents a hybrid where dominance determines species status

Scientific Name	English Name	G-rank	S-rank	COSEWIC	SARO	EO Rank	Last Observed Date	Preferred Habitat	Probability of occurrence on Subject Property
Reptile									
Lampropeltis triangulum	Milksnake	G5	S3	SC	SC	H	21/06/1986	open woodlands and grasslands	Possible – Brown Snake and Eastern Garter Snake found on site which inhabit similar habitat.
Bird									
Sturnella Magna	Eastern Meadowlark	G5	S4B	THR	THR		2003	Generally prefers grassy pastures, meadows and hay fields. Nests are always on the ground and usually hidden in or under grass clumps.	No – suitable habitat not present within study area as no open habitat occurs of a suitable size
Amphibian									
Ambystoma hybrid	Jefferson x Blue-spotted Salamander* (Jefferson or Blue spotted dominant)	GNA	S2 or S4	END or no status	END or no status		1982	Inhabit deciduous and mixed deciduous forests with suitable breeding areas which generally consist of ephemeral (temporary) bodies of water that are fed by spring runoff, groundwater, or springs	Yes –Blue spotted dominant polyploid confirmed within 300 m of study area
Plant									
Platanthera macrophylla	Greater Round-leaved Orchid	G4	S2			H	1978	Colonies occur in the Canadian Shield Region, but very few farther south or east. Moist or dry woodlands. Usually found in swamps, only small numbers are found in moist forests. Var. macrophylla tends to occur in more Deciduous conditions with relatively rich soil, compared to var. orbiculata, but still in areas of little herbaceous cover but thick layers of leaf mould.	Possible – suitable habitat present
Hybanthus concolor	Eastern Green-violet	G5	S2				2004	Moist to mesic deciduous woodlands, wooded slopes, shaded terraces along streams, and damp ravines, particularly where calcareous rocky material is close to the surface of the ground.	Possible – suitable habitat within and surrounding study area
Hypercum prolificum	Shrubby St. John's-wort					H	1937	Habitats include upland prairies, upland rocky woodlands and bluffs, rocky stream banks, edges of swamps, abandoned fields, pastures, and roadside embankments	Unlikely – habitat not found within study area.
Monarda didyma	Scarlet Beebalm	G5	S3			H	1937	Moist open woodlands, woodland borders, thickets, meadows in floodplain areas, and waste areas	Possible – suitable habitat within and surrounding study area
Carex careyana	Carey's Sedge	G4G5	S2			H	1978	Habitats include hilly woodlands, the bases of wooded slopes, shaded areas along the banks of streams, rocky ravines, water run-off areas in rocky woodlands, and areas along woodland paths. This is a conservative species that is found in high quality natural areas	Possible – suitable habitat within and surrounding study area; however, habitat has not been characterized as high quality due to recent and historical disturbance therefore, less likely this species could inhabit study area

Scientific Name	English Name	G-rank	S-rank	COSEWIC	SARO	EO Rank	Last Observed Date	Preferred Habitat	Probability of occurrence on Subject Property
Sceptridium ruglosum	Rugulose Grapefern	G3	S2			H	1976	Habitats include open woodlands, young forests, clearings and fields.	Unlikely – habitat within study area is generally a closed woodland where any clearings have been recently disturbed

5.0 SIGNIFICANT FEATURES AND FUNCTIONS

5.1 Provincially Significant Wetland

The Guelph Junction Provincially Significant (PSW) is located approximately 225 m south of the proposed cell tower location. Ponds #4 and #5 are both part of this PSW complex. Pond #1, where the salamanders were captured, is an unevaluated wetland and is approximately 130 m south of the proposed location of the cell tower. The inclusion of this pond in the PSW complex has not been evaluated according to the Ontario Wetland Evaluation System Southern Manual (2014) as it is outside of the study area and outside the scope of this EIA.

5.2 Significant Woodland

The Greenbelt Technical Paper 1 (OMNR 2012) provides criteria for identifying significant woodlands within the Protected Countryside of the Greenbelt Plan area. A woodland that meets any one of the criteria is considered significant. The woodland within the study area meets the following three criteria for significant woodlands:

1. Any woodland 10 ha or greater in size;
2. Any woodland containing naturally occurring trees (i.e. not planted) and is 4 ha or greater in size;
3. Any woodland that is wholly or partially within 30 meters of a significant wetland and is 4 ha or greater in size.

5.3 Significant Wildlife Habitat

The Natural Heritage Reference Manual (2010) was developed to provide information on technical issues related to natural heritage features of the Provincial Policy Statement, including significant wildlife habitat. The Significant Wildlife Habitat Technical Guide (SWHTG) (2000) was developed to support the Natural Heritage Reference Manual (Ontario Ministry of Natural Resources, 2010) and to identify, describe, and prioritize significant wildlife habitat. Significant Wildlife Habitat has been defined in the SWHTG as "a natural heritage area for the purposes of Section 2.3 of the PPS". *Wildlife* is described as: "*all wild mammals, birds, reptiles, amphibians, fishes, invertebrates, plants, fungi, algae, bacteria and other wild organisms"* (Ontario Wildlife Working Group 1991).

The PPS specifically identifies ***wildlife habitat*** as: "*areas where plants, animals, and other organisms live, and find adequate amounts of food, water, shelter, and space needed to sustain their populations. Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species*."

Wildlife habitat is considered *significant* where it is: "*ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an*

identifiable geographic area or Natural Heritage System. Criteria for determining significance may be recommended by the Province, but municipal approaches that achieve the same objective may also be used" (MMAH 2005).

The SWHTG provides criteria that recommend the following four principal criteria be considered:

1. Seasonal concentrations of animals;
2. Animal movement corridors;
3. Rare vegetation communities or specialized habitats; and
4. Habitats of species of conservation concern.

The Ontario Ministry of Natural Resources has recently published the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (OMNR 2015) which provides criteria for the evaluation of Significant Wildlife Habitat (SWH). The following types of SHW have been identified:

Amphibian Breeding Habitat (Woodland)
The vernal pool within the woodland supports Blue-spotted salamanders which qualifies as SWH – Amphibian Breeding Habitat (Woodland). The habitat is the wetland area plus a 230 m radius of woodland area.

Reptile Hibernaculum
Reptile hibernaculum SWH is identified where there are congregations of a minimum of five individuals of a single snake species or one or more individuals of two or more snake species near potential hibernacula. Two snake species were located under a rock adjacent to Pond #1: Dekay's Brown Snake and Eastern Garter Snake. Because these snakes were located in early April, it is expected that they would not have dispersed far from the hibernacula as they would have recently emerged at that time of year. There are rock piles north of the earthen laneway and large rocks on the slope adjacent to Pond # 3. These could potentially serve as hibernacula.

Special Concern and Rare Wildlife Species
Eastern Wood-pewee, listed as Special Concern, was recorded in the woodland on the subject property (Figure 2). Due to the presence of a Special Concern species the woodland is considered SWH for Special Concern and Rare Wildlife Species. The habitat is specifically the woodland which provides breeding habitat for this species (i.e., areas shown as FOD5-1 and FOD7-2 on Figure 2, and beyond).

6.0 CHARACTERIZATION OF STUDY AREA

The study area contains woodland communities that are average quality and provide good quality wildlife habitat. Wildlife is abundant in the woodland, particularly south and west of the study area where interior forest habitat is located. The large size of the woodland supports area-sensitive bird species. The woodland also provides foraging and overwintering habitat for an abundance of amphibians, including salamanders and frogs.

There are signs of past and recent disturbance including:

- evidence of historical farming based on rock piles located along the northern perimeter of the fence line, in the west corner of the study area;
- previous (>5 years) tree removal resulting in the creation of the cultural meadow and previous addition of fill in the cultural meadow community
- the woodland north of the laneway contains more successional species including Green Ash indicating this community likely regenerated in a cleared area approximately 60-80 years ago;
- the woodland south of the laneway contains more shade tolerant trees species with larger diameters, a higher abundance of native flora, and appears to be an older community, likely 80-100 years; and
- There is a higher level of disturbance in the area where a sewer main appears to be located south of Pond #1.

Recent activity from logging in the Sugar Maple deciduous forest community has resulted in larger gaps in the canopy. Following discussions with the consulting forester, we were informed that trees damaged from the 2013 ice storm as well as ash trees were being removed from the woodland.

7.0 APPLICABLE LEGISLATION, REGULATIONS AND POLICIES

7.1 Federal

Communication towers are federally regulated. Under Section 7.4 of Industry Canada's Client Procedures Circulars, CPC-2-0-03 - Radiocommunication and Broadcasting Antenna Systems, "proponents are responsible to ensure that antenna systems are installed and operated in a manner that respects the local environment and that complies with other statutory requirements, such as those under the Canadian Environmental Protection Act, 1999, the Migratory Birds Convention Act, 1994, and the Species at Risk Act, as applicable."

7.1.1 Canadian Environmental Assessment Act (2012)

The Canadian Environmental Assessment Act sets forth the legislative framework for the federal practice of environmental assessment in most of Canada. The purposes of the Act are to 1) ensure that federally regulated or funded projects are carefully reviewed before federal authorities take action so that projects do not cause significant adverse effects, 2) ensure that there is an opportunity for public participation in the environmental assessment process, and 3) encourage federal authorities to take actions that promote sustainable development. Generally, a proposal for a communication tower is not required to complete an Environmental Assessment if the communication tower is not within 30 metres of a waterbody or wetland, and not likely to release a pollutant into a waterbody or wetland.

7.1.2 Canadian Environmental Protection Act (1999)

The Canadian Environmental Protection Act is intended to prevent pollution and protect the environment and human health. It sets out processes to assess the risks to the environment and

human health posed by substances in commerce, imposes timeframes for managing toxic substances, and provides tools to manage toxic substances, other pollution and wastes.

7.1.3 Migratory Birds Convention Act (1994)

The Migratory Birds Convention Act provides for the protection of migratory birds through the Migratory Birds Regulations and the Migratory Birds Sanctuary Regulations by regulating potentially harmful human activities. Activities that are considered harmful would result in the disturbance, destruction or taking of a nest and/or egg. This would include the removal of a tree that contains an active nest.

7.1.4 Species at Risk Act (2002)

The purpose of the Species at Risk Act (SARA) is to "prevent wildlife species in Canada from disappearing, to provide for the recovery of wildlife species that are extirpated (no longer exist in the wild in Canada), endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened" (Environment Canada 2013). The SARA applies to activities on federally owned lands.

7.2 Provincial

Generally, provincial, municipal and Conservation Authority regulations, policies and legislation are inapplicable to the extent that it impacts the federal jurisdiction and implementation of telecommunication infrastructure. Industry Canada's jurisdiction covers not only the regulation of the operation of communication towers, but also the power to determine the location of the towers. This authority is an essential and indivisible part of radiocommunication and broadcasting antenna systems, as such, lies within the protected core of the federal government's authority. However, it is incumbent on the proponent of the communication tower to work with the provincial, municipal and Conservation Authority agencies to site the communication tower in an area that has the least impact while not impairing the performance of the communication tower.

7.2.1 Provincial Policy Statement (2014)

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest, such as Natural Heritage policies for long term protection for natural features. The Natural Heritage policies identify natural features in which development is prohibited. The policies also indicate where development is permitted both within and adjacent to specified features, as long as there are no negative impacts to the features or their ecological functions. Policy 2.1.2 (Ministry of Municipal Affairs and Housing, 2014) states the following:

> The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

Policy 2.1.8 (Ministry of Municipal Affairs and Housing, 2014) states the following:

> Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5. and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

Best efforts to avoid impacts to natural heritage features and ecological functions should be considered in the design and construction of the cell tower. Where impacts are unavoidable appropriate mitigation will be recommended.

7.2.2 Greenbelt Plan (2005)

The study area is located within the Protected Countryside of the Greenbelt Plan area. Section 3.2.4 of the Plan notes that "development or site alteration is not permitted in key hydrologic features and key natural heritage features within the Natural Heritage System, including any associated vegetation protection zone, with the exception of …c) infrastructure, aggregate, recreational, shoreline and existing uses, as described by and subject to the general policies of section 4 of [the Greenbelt] Plan". Cell towers are considered infrastructure according to the Greenbelt Plan definitions.

Best efforts to avoid impacts to features and ecological functions within the Natural Heritage System of the Greenbelt Plan area should be considered in the design and construction of the cell tower. Where impacts are unavoidable appropriate mitigation will be recommended.

7.3 Regional

7.3.1 Halton Regional Official Plan (2009)

Policy 70.1 of the Halton Regional Official Plan notes that "lands falling within the Protected Countryside of the Greenbelt Plan, as shown on Map 1, the location and construction of infrastructure and expansions, extensions, operations, and maintenance of infrastructure are subject to the relevant policies of the Greenbelt Plan."

Policy 139.3.7(3) of the Regional Official Plan permits the development of utilities (which includes communication or telecommunication facilities) within Key Features, subject to the applicable policies of this Plan.

Where site alteration (i.e., grading and filling) is proposed, Policy 139.3.7(4) requires the proponent to carry out an EIA which will identify a vegetation protection zone of sufficient width to protect the key features. This vegetation protection zone is required to be maintained as natural self-sustaining vegetation.

7.4 Municipal

7.4.1 Milton Official Plan (2008)

Section 2.6.3.44 of the Town of Milton Official Plan states that telecommunication services are permitted in any land use designation. Section 2.6.3.45 of the Town's Official Plan states that "all telecommunication facilities such as satellite dishes and cellular antennas should be designed

and located to minimize their visual impact on residential and environmental areas, as well as views of the Niagara Escarpment".

7.5 Conservation Authority

7.5.1 Conservation Halton - Ontario Regulation 162/06 (2006)

The Conservation Authorities Act gives Conservation Halton (CH) the authority to administer Ontario Regulation 162/06, Development, Interference with Wetlands and Alteration to Shorelines and Watercourses.

The Province of Ontario passed the Conservation Authorities Act, which allows CH to pass regulations to control flooding, the conservation of land and pollution. More specifically the regulation is in place to control flooding, prevent property damage, erosion, pollution and loss of life.

Generally, a permit is required for all development within the areas regulated by CH. This includes lands adjacent or close to the shoreline of Lake Ontario, wetlands, karst, watercourses, flood plains, meander belts and valleylands.

CH provided comments on the draft TOR? in a letter dated March 2, 2015 (Appendix 2.). Through their review of the proposed location of the cell tower it was determined that the cell tower location is outside the area regulated under Ontario Regulation 162/06.

8.0 EVALUATION OF PROPOSED CELL TOWER LOCATION

8.1 Description of Proposed Development

The proposed WIND Mobile installation is a 50 m tall steel tripole tower and a 2.6 m x 2.6 m concrete foundation with outdoor equipment enclosed in a 10 m x 10 m fenced compound (Figure 3). The access driveway to the compound will be 6.24 m in width, and approximately 34 m in length, connecting to the existing earthen laneway (Figure 3). A culvert will be installed at the base of the slope of the earthen laneway to permit movement of any overland runoff under the proposed access driveway.

8.2 Location Proposed Development

The proposed location of the tower, compound and associated infrastructure is within the cultural meadow community, an inclusion in the ash lowland deciduous forest community (Figure 2). This clearing is approximately 34 m from the edge of the earthen laneway.

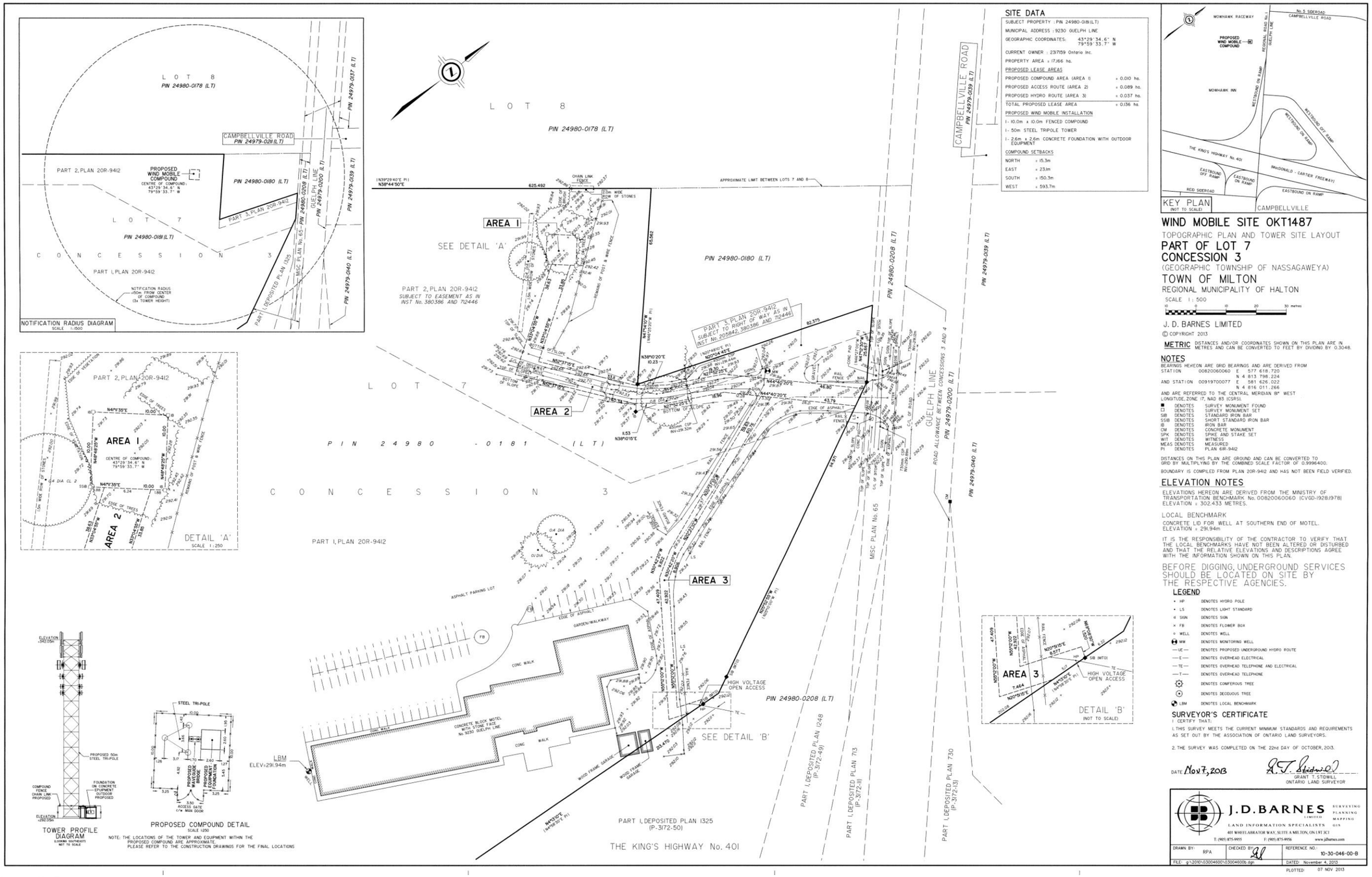

Figure 3. Proposed cell tower concept plan.

9.0 IMPACT ASSESSMENT

The impact assessment of the proposed communication tower has reviewed direct and indirect impacts to the natural heritage features and associated ecological functions. Impacts resulting from construction and long term impacts are also considered in the analysis.

9.1 Impacts during Construction

9.1.1 Vegetation Removal

The construction of the access driveway will require the removal of trees between the earthen laneway and the cell tower compound. Tree species overlapping and within 5 m of the proposed driveway include Bur Oak, Manitoba Maple, American Basswood, Green Ash, Norway Maple, and White Pine (Table 4). There are approximately 6 trees that will require removal based on their location within the development footprint and construction area. There will also likely be limb pruning required.

Table 4. Inventory of trees within 5 meters of access driveway. (EAB = Emerald Ash Borer)

Tree #	Species	Common Name	DBH (cm)	notes	Retain (Y/N)
131	*Quercus macrocarpa*	Bur Oak	31	a lot of *Vitis riparia* vines	Y
132	*Acer negundo*	Manitoba Maple	12		N
133	*Tilia americana*	American Basswood	29	average of 5 stems	N
134	*Fraxinus pennsylvanica*	Green Ash	11		N
135	*Fraxinus pennsylvanica*	Green Ash	25	EAB – bark flaking	N
136	*Fraxinus pennsylvanica*	Green Ash	13	EAB - d-holes	Y
137	*Quercus macrocarpa*	Bur Oak	47	30% crown dieback and epicormic shoots	N
138	*Tilia americana*	American Basswood	17.8	average of 5 stems	N
139	*Acer platanoides*	Norway Maple	26		Y
140	*Fraxinus pennsylvanica*	Green Ash	15	EAB – bark flaking	Y
141	*Acer negundo*	Manitoba Maple	14	broken stem	Y
142	*Pinus strobus*	White Pine	55		Y

Recommended Mitigation

Any removal of vegetation should avoid impacts to birds during the breeding bird season, generally from May to August. Should any vegetation removal be required during this time, a qualified biologist should determine if there are any nests in the vegetation to be disturbed. If a nest is located, the vegetation will not be removed until the young have fledged the nest.

Any limb pruning should be completed or supervised by a qualified arborist.

Figure 4.Tree inventory with cell tower compound and access laneway.

9.1.2 Addition of Fill

Addition of fill will be required to construct the foundation of the cell tower, compound area and access driveway. This may impact the movement of overland flow of water following precipitation events.

Recommended Mitigation

A culvert should be installed under the driveway close to the earthen laneway to ensure overland flow of water can move unimpeded.

9.2 Post-Construction Impacts

9.2.1 Wildlife Habitat

There will be a reduction in wildlife habitat as a result of the removal of vegetation. However, the cell tower has been proposed in a location that would result in the least amount of impact to wildlife habitat. The cell tower is proposed in a previously disturbed clearing (cultural meadow) with vegetation removal restricted to the access driveway (6.24m wide and 34m long).

Furthermore, the location of the clearing and access driveway has been selected as they are close to a corner of the woodland. This will avoid impacts to the ecological functions associated with the woodland (e.g. interior woodland habitat for area sensitive species).

Recommended Mitigation

Install temporary tree protection fencing during construction in order to ensure impacts to vegetation are restricted to the footprint of the cell tower compound and access driveway.

10.0 CONFORMITYWITH APPLICABLE LEGISLATION, REGULATIONS AND POLICIES

10.1 Federal

An Environmental Assessment is not required as the location of the proposed cell tower is beyond 30 m from a wetland or waterbody.

The cell tower is not likely to emit any toxic substances; as such the Canadian Environmental Protection Act would not apply.

The destruction of nests and/or eggs can be avoided thereby ensuring conformity with the Migratory Birds Convention Act.

The location of the proposed cell tower is not on federal land; as such the Species at Risk Act does not apply. Furthermore, there are no federally listed species recorded from within the study area.

10.2 Provincial, Municipal and Conservation Authority

Generally, provincial, municipal and Conservation Authority regulations, policies and legislation do not apply to telecommunication infrastructure, which falls under federal jurisdiction. However, best efforts to avoid impacts to natural heritage features and ecological functions should be considered when siting the cell tower, and have consideration for the design and construction of the cell tower.

A vegetation protection zone has not been proposed as the proposed development of the cell tower and access driveway are within the natural heritage feature. However, the cell tower has been proposed in a location that would result in the least amount of vegetation removal and impact to wildlife. Where direct impacts are unavoidable (e.g., vegetation removal) mitigation has been proposed.

11.0 CONCLUSIONS AND RECOMMENDATIONS

WIND Mobile is proposing the construction of a cell tower at 9230 Guelph Line in Campbellville. The subject property currently contains buildings, parking area, woodland and wetlands forming part of a PSW. The natural heritage features and ecological functions within and beyond the study area have been assessed, including vegetation and wildlife, (i.e., birds and amphibians) and significant features (e.g. significant woodland) and functions (e.g., significant wildlife habitat). Policies at the federal, provincial, regional, and municipal level and regulations pertaining to the Conservation Authority have been reviewed. The proposed construction and operation of the communication tower conforms to relevant federal legislation, regulations and policies. Best efforts have been made to site the cell tower location in order to avoid adverse impacts to natural heritage features and ecological functions. Where impacts are expected, mitigation has been proposed.

11.1 Recommendations

The impact assessment has considered direct and indirect impacts resulting from the construction and operation of the communication tower. The following mitigation measures have been proposed:

1) removal of vegetation should avoid impacts to birds during the breeding bird season, generally from May to August. Should any vegetation removal be required during this time, a qualified biologist should determine if there are any nests in the vegetation to be disturbed or in the immediate area that may result in nest abandonment prior to removal. If a nest is located, the vegetation will not be removed until the young have fledged the nest.
2) Any limb pruning should be completed or supervised by a qualified arborist.
3) A culvert should be installed under the driveway close to the earthen laneway to ensure overland flow of water can move unimpeded.
4) Install temporary tree protection fencing during construction in order to ensure impacts to vegetation are restricted to the footprint of the cell tower compound and access driveway.

12.0 WORKS CITED

Kaiser, J. (1986). *Exotic species of plants that are potential weeds of natural areas.* Jordan Harbour, Ontario: In Proceedings of the Annual Meeting of the Ontario Chapter, Canadian Land Reclamation Association.

Lee, H., Bakowsky, W., Riley, J., Bowles, J., Puddishter, M., Uhlig, P., & McMurray, S. (1998). *Ecological Land Classification for Southern Ontario: First approximation and its application. SCSS Field Guide FG-02.* Ontario Ministry of Natural Resources, Southerncentral Science Section, Science Development and Transfer Branch.

Ministry of Municipal Affairs and Housing. (2014). *2014 Provincial Policy Statement, Under the Planning Act.* Toronto, Ontario: Ministry of Municipal Affairs and Housing, Provincial Planning Policy Branch.

Ministry of Natural Resources. (2010). *Natural heritage Reference Manual, second edition.* Toronto: Queen's Printer for Ontario.

Oldham, M., Bakowsky, W., & Sutherland, D. (1995). *Floristic Quality Assessment System For Southern Ontario.* Peterborough, Ontario: Natural Heritage Information Center, Ontario Ministry of Natural Resources.

Ontario Ministry of Natural Resources. (2010). *Natural Heritage Reference Manual. Second Edition.* Toronto, Ontario: Ontario Government, Ministry of Natural Resources.

Town of Milton. (2008). *The Official PLan of the Town of Milton.* Milton: Town of Milton.

APPENDIX 1: TERMS OF REFERENCE

North-South Environmental Inc.
Specialists in Sustainable Landscape Planning

20 August, 2014

Robert Stribbell
Regional Municipality of Halton
Legislative and Planning Services
1151 Bronte Road,
Oakville, ON
L6M 3L1

Dear Robert,

Re: Terms of Reference for EIA for Proposed WIND Mobile Cell tower, Campbellville

We have been retained by WIND Mobile to complete a Scoped EIA for a proposed cellular communication tower on Guelph Line, Campbellville, in response to your comments to the Town of Milton (May 5, 2014). In your recommendation you note that the preparation of a Terms of Reference (TOR) for the EIA should be prepared in consultation with the Region and Conservation Halton, and with reference to the Region's guidelines for the preparation of an EIA. As our firm worked with the Region to prepare those guidelines, we are quite familiar with them.

We were retained by WIND Mobile for this project on 16th of June. Given the need to initiate field studies immediately to meet the standard protocols for breeding birds, we have completed those studies in advance of this TOR. Now that the critical deadlines for fieldwork have been met, we are preparing the draft terms of reference for approval by the Region. We note that the timing of our retainer precluded undertaking amphibian breeding studies. We indicated this to WIND Mobile at the outset and suggested that we investigate the potential for breeding amphibians through an assessment of habitat, to see if breeding studies would be relevant on this site. This is included in the tasks noted in the proposed Scoped Terms of Reference.

Please review the proposed Scoped TOR and indicate if it is sufficient to satisfy the Region's and Conservation Halton's requirements. We would be grateful if you would identify any particular issues you would like addressed, so we can include them in our analysis.

Please contact me if you have any questions. I look forward to your response.

Yours very truly,

Mirek Sharp,
Principal, North-South Environmental Inc.

35 Crawford Crescent, Suite U5, P.O. Box 518, Campbellville, ON, Canada L0P 1B0
Ph: 905.854.1112 Fx: 905.854.0001 www.nsenvironmental.com

Proposed Scoped Terms of Reference

We suggest that the following tasks be undertaken in fulfillment of a Scoped EIA for this project.

1. Obtain digital aerial photography to enable mapping of natural heritage features.
2. Consult with the Region and Conservation Halton to discuss scoping, and to request data on the subject property.
3. Prepare a draft scoped Terms of Reference for review by the client, and subsequent submission and approval by the Region and Conservation Halton.
4. Review standard databases (Conservation Halton and Natural Heritage Information Centre) for species occurrences on or adjacent to the site.
5. Review relevant literature (e.g., Halton Natural Areas Inventory, Halton ESA reports, ANSI report) to characterize the site.
6. Undertake the following fieldwork (see Notes below for comments on extent of surveys):
    a. breeding bird studies (in accordance with CWS breeding bird protocols)
    b. amphibian breeding habitat assessment
    c. two-season (early/late summer) floral inventory
    d. vegetation mapping using the provincial Ecological Land Classification (ELC) standard
    e. faunal inventory (mammals, reptiles, amphibians and insects) based on observation of signs (tracks, scat, direct observation etc.), i.e., we are not proposing any trapping or species-specific surveys
    f. determination of the limits of woodlands and possibly wetlands on the site; this includes field verification with the review agencies, location with hand-held GPS and mapping.
7. Species at Risk (SAR) screening through consultation with MNR and with field verification for appropriate habitat, if needed.
8. Summarize the ecological characteristics of the site and identify any significant features on or adjacent to the proposed cell tower location and access lane.
9. Provide mapping illustrating the ELC units and woodland boundary in relation to the proposed tower
10. Analysis of proposed cell tower (during construction and long term) with respect to potential impact of the tower (if any) on natural heritage features.
11. Provide recommendations on the location and construction of the tower to minimize impacts;
12. Recommend mitigation and/or compensation measure to reduce or compensate for any impacts identified;
13. Summarize conformity with the relevant policies of the Greenbelt Plan, PPS and Conservation Authority.
14. Provide a report for submission in support the application to the review agencies.

Notes:

1. Area for breeding bird survey extended within natural habitat (woodland) 200 m west of the proposed cell tower along the laneway. Areas to the north and south are occupied by the Mohawk Raceway and Casino, and the Chop House Restaurant respectively. A gas

station and Guelph Line are situated to the east. The breeding bird survey was limited in these developed areas.

2. Floral inventory was undertaken within a 50 m radius of the proposed tower site.

3. Wetlands are several hundred metres from the proposed cell tower and we do not feel they warrant accurate surveying, but we suggest that their approximate location and limit be confirmed with agencies in the field. Woodland boundary delineation is proposed just in the vicinity of the proposed cell tower site.

We note that the Region's comments mention archeological issues and Municipal Wellhead Protection Zoning. We do not undertake work in regard to these issues and they would not be included within the scope of work for an EIA.

APPENDIX 2: AGENCY COMMENTS ON TERMS OF REFERENCE

From: Stribbell, Robert [mailto:Robert.Stribbell@halton.ca]
Sent: January-16-15 1:58 PM
To: Mirek Sharp
Cc: Clark, Richard
Subject: RE: WIND mobile TOR

Good Afternoon Mirek,

Sustainable Planning has review the Terms of Reference and offer the following:

1. Prior to finalization of the EIA Terms of Reference, Town and CH staff must confirm that the scope of work outlined is appropriate.

2. Item 6.f), re. floral inventories: please verify that floral inventories were completed for all areas potentially impacted by the proposed development, including any natural areas potentially impacted by construction/access.

3. Item 6.f), re. hand-held GPS: where location of features is required to inform setbacks, staff request that a GPS with sub-metre accuracy be utilized.

4. Item 13, re. policy conformity, please consider conformity with applicable Local and Regional OP policies as well.

Sustainable Planning staff will be satisfied with the proposed scope of work in the EIA Terms of Reference once the above comments are addressed.

If you require anything further please let me know.

Thanks,

Rob Stribbell

Planner, Community Planning
Legislative and Planning Services Department
Region of Halton
Ph: (905) 825-6000 ext. 7287
Toll Free: 1-866-442-5866
Fax: (905) 825-8822

– –

From: Mirek Sharp [mailto:msharp@nsenvironmental.com]
Sent: Monday, January 12, 2015 10:56 AM
To: Stribbell, Robert
Cc: Clark, Richard; Sal Spitale
Subject: WIND mobile TOR

Robert,

Many thanks for the return call.

As requested, I have attached the draft TOR for the proposed WIND mobile cell tower in Campbellville. I also copied Richard as requested.

As I noted to you on the phone, we have been engaged in this project since last spring and provided the draft TOR back in August of 2014 for comment. The client is anxious to move forward with it and we have completed all the fieldwork and have the report half-written. Getting the TOR approved is a required step and we would like to move it forward as quickly as possible, given the time that has passed since it was first submitted. If CH need to be involved in the review of the TOR (and/or subsequent report), please let us know if there is anything we need to do to facilitate that.

I have copied Sal Spitale in our office as he is working on the file. Please include him in any replies.

Again, thank you for replying and I trust we can move the EIA report forward quickly.

Regards,

Mirek

Thank you

From: angela.janzen@milton.ca
To: Sal Spitale; lchishimba@hrca.on.ca; Lesley Matich (lmatich@hrca.on.ca)
Cc: Robert.Stribbell@halton.ca; Mirek Sharp
Subject: RE: WIND Mobile Terms of Reference for an Environmental Impact Assessment
Date: January 28, 2015 2:51:56 PM
Attachments: image001.png

Hi Sal.

Thanks for including the Town in the review of the Terms of Reference for the EIA work to be done on the Mohawk Inn property (for the proposed telecommunication tower). We appreciate the opportunity to comment.

The scoped Terms of Reference on the Town's end seems fine for the most part, however, Items 9, 10, and 11 should include the " access lane" along with the tower. If the applicant is using the somewhat cleared area for the tower compound, the bigger impact to the wooded area will most likely be in relation to the establishment of the access lane.
I originally questioned the location of the property in relation to the Wellhead Protection Area, however, the Region has confirmed that the updated mapping shows the property outside of the Wellhead Protection Area.

Thanks.

Angela

Angela Janzen, BES, MCIP RPP
Development Review Planner
Planning & Development Department
Town of MIlton
150 Mary St., Milton ON L9T 6Z5
Tel: 905-878-7252 x2310
Fax: 905-876-5024
Email: angela.janzen@milton.ca

From: Sal Spitale [mailto:sspitale@nsenvironmental.com]
Sent: Wednesday, January 21, 2015 10:50 AM
To: Angela Janzen; lchishimba@hrca.on.ca; Lesley Matich (lmatich@hrca.on.ca)
Cc: Robert.Stribbell@halton.ca; Mirek Sharp
Subject: WIND Mobile Terms of Reference for an Environmental Impact Assessment

Good Morning,

We have previously submitted a draft Terms of Reference (dated August 20, 2014) for an Environmental Impact Assessment (EIA) to Robert Stribbell at the Region of Halton for

review. The Sustainable Planning staff with the Region have reviewed the draft TOR and have asked we distribute the TOR to the Town of Milton and Conservation Halton for comment. We ask that CH and the Town provide us with comments as soon as possible given that we submitted the TOR in August and completed field work in 2014 in support of the EIA; as such we are eager to finalize the EIA for submission. We look forward to your comments.

With thanks,
Sal

Sal Spitale, MES
Ecologist, ISA Certified Arborist ON-1811A

Conservation Halton

905.336.1158
Fax: 905.336.7014
2596 Britannia Road West
Burlington, Ontario L7P 0G3
conservationhalton.ca

Protecting the Natural Environment from Lake to Escarpment

March 2, 2015

Angela Janzen
Planning and Development Department
150 Mary Street
Milton, ON
L9T 6Z5

BY MAIL AND E-MAIL

Dear Ms. Janzen:

Re: Review of EIA Terms of Reference for Minor Site Plan Application (SPT-20/11)
9230 Guelph Line
Town of Milton
Joel Swagerman: WIND Mobile (Applicant)

The subject property is traversed by two tributaries of Bronte Creek and contains a portion of the flooding and erosion hazards associated with these watercourses, as well as lands within 15 metres of these hazards. The subject property also contains portions of Provincially Significant Wetland (PSW). Conservation Halton regulates a distance of 120m from the limit of a PSW. As such, a portion of the property is regulated by Conservation Halton, pursuant to *Ontario Regulation 162/06.* As noted in our letter dated March 11, 2014 staff can confirm that the proposed works appear to be located outside of the flooding hazard associated with Bronte Creek, and more than 120 metres from the limit of the PSW. Therefore, the location of the tower, as proposed in the 2nd submission, is outside of Conservation Halton regulated area. Please note that further recommendations and suggestions were raised in our March 11, 2014 letter.

As per Region of Halton comments to the Town of Milton, the applicant was required to complete a scoped Environmental Impact Assessment for the works proposed at 9230 Guelph Line. The Terms of Reference for the EIA was to be prepared in consultation with the Region and Conservation Halton, with reference to the Region's guidelines for the preparation of an EIA. Conservation Halton provides peer review advice to the Region of Halton and local municipalities on issues related to the Provincial Policy Statement (PPS). The following comments relate strictly to Conservation Halton's review of the following documents, as submitted in support of development of the WIND Mobile Cell Tower:

- Letter from North-South Environmental to Region of Halton RE: Terms of Reference for EIA for Proposed WIND Mobile Cell Tower, Campbellville, dated August 20, 2014.

- Site Plan Application SPT-20/11, Proposed Telecommunications Tower, Town of Milton, dated January 30, 2014, and

- Wireless Telecommunications Tower Site, 9230 Guelph Line, Milton, prepared by WIND Mobile, dated December 20, 2013

Staff raise the following comments with respect to the reviewed documents as noted above:

Endangered and Threatened Species

1. Staff note that Conservation Halton has numerous records of Jefferson Salamander in the general area, and based on aerial photography, it appears that there is a high likelihood that the subject property would be regulated habitat under the Endangered Species Act. Specific surveys will likely be required as part of the Environmental Impact Assessment. Staff recommend contact Aurora McAllister (905-713-6010, Aurora.McAllister@ontario.ca) at the Ministry of Natural Resources and Forestry – Aurora District [cc'd on this letter] regarding requirements under the Endangered Species Act as soon as possible.

2. According to the proposed Terms of Reference, some field work has already been carried out, including floral inventory within a 50m radius of the proposed cell tower site. Please clarify what was included in the foral inventory. Specifically, staff inquires if tree species have been inventoried. Conservation Halton has records of Butternut in the area and would like to ensure that sufficient work has been done to ascertain whether or not this species occurs in the area of impact.

In light of the above, staff **defers** further comment until the above noted clarification(s) have been submitted, and addressed, to the satisfaction of Conservation Halton staff.

We trust the above is of assistance. If you have any further questions, please contact the undersigned at extension 2301.

Yours truly,

Cassandra Connolly
Environmental Planning Technician
CC/

Cc: Angela Janzen, Town of Milton (By Email)
Robert Stribbell, Region of Halton (By Email)
Aurora McAllister, MNRF, Aurora.McAllister@ontario.ca (By Email)

APPENDIX 3: FLORA

Appendix 1. Flora. * denotes a non-native species.

			Rarity Status						Vegetation Community		
	Scientific Name	Common Name	S Rank	G Rank	COSEWIC	MNR	Halton 2005	CC	CUM1	FOD5-1	FOD7-2
	Dryopteridaceae										
	Matteuccia struthiopteris (L.) Tod. var. pensylvanica (Willd.) C.V. Morton	Ostrich Fern	S5	G5			X	5		x	
	Pinaceae										
	Pinus strobus L.	White Pine	S5	G5			X	4			x
	Aristolochiaceae										
	Asarum canadense L.	Wild Ginger	S5	G5			X	6		x	
	Ranunculaceae										
	Thalictrum dioicum L.	Early Meadow-rue	S5	G5			X	5		x	
	Actaea pachypoda Elliott	White Baneberry	S5	G5			X	6		x	
	Berberidaceae										
	Podophyllum peltatum L.	May Apple	S5	G5			X	5		x	
	Caulophyllum thalictroides (L.) Michx.	Blue Cohosh	S5	G4G5			R	6		x	
	Papaveraceae										
	Sanguinaria canadensis L.	Bloodroot	S5	G5			X	5		x	
	Ulmaceae										
	Ulmus americana L.	American Elm	S5	G5?			X	3		x	
	Juglandaceae										
	Carya ovata (Miller) K. Koch	Shagbark Hickory	S5	G5			U	6		x	
	Carya cordiformis (Wangenh.) K. Koch	Bitternut Hickory	S5	G5			X	6			x
	Fagaceae										
	Quercus macrocarpa Michx.	Bur Oak	S5	G5			X	5	x		x
	Betulaceae										
	Betula papyrifera Marshall	White Birch	S5	G5			X	2			x
	Polygonaceae										
*	Rumex crispus L.	Curly Dock	SNA	GNR			X				x

			Rarity Status						Vegetation Community		
Scientific Name		Common Name	S Rank	G Rank	COSEWIC	MNR	Halton 2005	CC	CUM1	FOD5-1	FOD7-2
	Guttiferae										
*	Hypericum perforatum L.	Common St. John's-wort	SNA	GNR			X				x
	Tiliaceae										
	Tilia americana L.	American Basswood	S5	G5			X	4		x	x
	Cucurbitaceae										
	Echinocystis lobata (Michx.) Torr. & A. Gray	Wild Cucumber	S5	G5			X	3	x	x	
	Salicaceae										
	Populus tremuloides Michx.	Trembling Aspen	S5	G5			X	2			x
	Populus balsamifera L. ssp. balsamifera	Balsam Poplar	S5	G5			X	4			x
	Brassicaceae										
*	Alliaria petiolata (M. Bieb.) Cavara & Grande	Garlic Mustard	SNA	GNR			X			x	x
	Grossulariaceae										
?	Ribes sp.	Gooseberry	S?	GNR							x
	Rosaceae										
?	Geum sp.	Geum	S?	GNR						x	x
	Rubus idaeus L. ssp. melanolasius (Dieck) Focke	Red Raspberry	S5	G5T5			X	0		x	x
	Prunus virginiana L.	Choke Cherry	S5	G5			X	2		x	x
	Fragaria virginiana Miller ssp. virginiana	Virginia Strawberry	SU	G5			X	2		x	x
	Fabaceae										
*	Lotus corniculatus L.	Birds-foot Trefoil	SNA	GNR			X				x
	Onagraceae										
	Circaea lutetiana L. ssp. canadensis (L.) Aschers. & Magnusson	Enchanter's Nightshade	S5	G5			X	3		x	x
*	Epilobium hirsutum L.	Great-hairy Willow-herb	SNA	GNR			X		x		
	Cornaceae										
	Cornus stolonifera Michx.	Red-osier Dogwood	S5	G5			X	2			x
	Cornus alternifolia L. f.	Alternate-leaf Dogwood	S5	G5			X	6		x	
	Celastraceae										

			Rarity Status						Vegetation Community		
Scientific Name		Common Name	S Rank	G Rank	COSEWIC	MNR	Halton 2005	CC	CUM1	FOD5-1	FOD7-2
	Euonymus obovata Nutt.	Running Strawberry-bush	S5	G5			X	6		x	x
	Rhamnaceae										
*	Rhamnus cathartica L.	European Buckthorn	SNA	GNR			X			x	x
	Vitaceae										
	Parthenocissus vitacea (Knerr) Hitchc.	Inserted Virginia Creeper	S5	G5			X		x	x	x
	Vitis riparia Michx.	Riverbank Grape	S5	G5			X	0	x	x	x
	Aceraceae										
	Acer negundo L.	Manitoba Maple	S5	G5			X	0	x		x
	Acer saccharum Marshall ssp. saccharum	Sugar Maple	S5	G5T5			X	4		x	x
*	Acer platanoides L.	Norway Maple	SE5	GNR			X			x	
	Anacardiaceae										
	Toxicodendron radicans (L.) Kuntze ssp. rydbergii (Small ex Rydberg) A. Love & D. Love	Western Poison-ivy	S5	G5			X	0		x	x
	Rhus typhina L.	Staghorn Sumac	S5	G5			X	1	x		
	Rutaceae										
	Zanthoxylum americanum Miller	Prickly Ash	S5	G5			X	3	x		x
	Geraniaceae										
	Geranium maculatum L.	Wild Crane's-bill	S5	G5			U	6			x
*	Geranium robertianum L.	Herb-robert	SNA	G5			X			x	x
	Balsaminaceae										
	Impatiens capensis Meerb.	Spotted Jewel-weed	S5	G5			X	4			x
	Apiaceae										
*	Daucus carota L.	Wild Carrot	SNA	GNR			X				x
	Solanaceae										
*	Solanum dulcamara L.	Climbing Nightshade	SNA	GNR			X		x		x
	Verbenaceae										
	Verbena urticifolia L.	White Vervain	S5	G5			X	4			x
	Lamiaceae										

			Rarity Status						Vegetation Community		
Scientific Name		Common Name	S Rank	G Rank	COSEWIC	MNR	Halton 2005	CC	CUM1	FOD5-1	FOD7-2
*	Prunella vulgaris L. ssp. vulgaris	Heal-all	SNA	G5TU							x
	Oleaceae										
	Fraxinus pennsylvanica Marshall	Green Ash	S5	G5			X	3	x	x	x
	Scrophulariaceae										
*	Verbascum thapsus L.	Great Mullein	SNA	GNR			X				x
	Caprifoliaceae										
*	Lonicera tatarica L.	Tartarian Honeysuckle	SNA	GNR			X				x
	Asteraceae										
?	Solidago sp.	Goldenrod	S?	GNR					x		x
	Euthamia graminifolia (L.) Nutt.	Flat-top Fragrant-golden-rod	S5	G5			X	2	x		
	Solidago canadensis	Canada Goldenrod	S5	G5					x	x	x
	Solidago flexicaulis L.	Broad-leaved Goldenrod	S5	G5				6		x	
	Symphyotrichum lateriflorum	Starved Aster	S4?	G5T4T5							x
	Symphyotrichum novae-angliae (L.) Nesom	New England Aster	S5	G5			X	2	x		
*	Cirsium arvense (L.) Scop.	Canada Thistle	SNA	GNR			X		x	x	x
*	Sonchus arvensis L. ssp. arvensis	Field Sow-thistle	SNA	GNRTNR			X		x		
*	Tussilago farfara L.	Colt's Foot	SNA	GNR			X			x	x
*	Arctium minus (Hill) Bernh.	Common Burdock	SNA	GNA			X				x
	Araceae										
	Arisaema triphyllum (L.) Schott	Jack-in-the-pulpit	S5	G5			X	5		x	
	Poaceae										
	Phalaris arundinacea L.	Reed Canary Grass	S5	G5			X	0	x		
	Liliaceae										
	Trillium grandiflorum (Michx.) Salisb.	White Trillium	S5	G5			X	5		x	x
	Allium tricoccum Aiton	Wild Leek	S5	G5			X	7		x	
	Erythronium americanum Ker Gawl.	Yellow Trout Lily	S5	G5			X	5		x	x

APPENDIX 4: FAUNA

Appendix 2. Fauna. * denotes an area sensitive species.

	Scientific Name	Common Name	G Rank	S Rank	COSEWIC	MNR	Halton NAI	Breeding Evidence
	Bird							
	Aix sponsa	Wood Duck	G5	S5				O
	Ardea herodias	Great Blue Heron	G5	S5				PO
	Colaptes auratus	Northern Flicker	G5	S4B				PO
	Contopus virens	Eastern Wood-pewee	G5	S4B	SC			PR
	Sayornis phoebe	Eastern Phoebe	G5	S5B				PO
	Vireo gilvus	Warbling Vireo	G5	S5B				PO
	Vireo olivaceus	Red-eyed Vireo	G5	S5B				PR
	Cyanocitta cristata	Blue Jay	G5	S5				PO
	Poecile atricapillus	Black-capped Chickadee	G5	S5				PR
	Troglodytes aedon	House Wren	G5	S5B				PO
	Turdus migratorius	American Robin	G5	S5B				PR
*	Mniotilta varia	Black-and-white Warbler	G5	S5B			HU	PO
*	Setophaga ruticilla	American Redstart	G5	S5B				PR
*	Seiurus aurocapillus	Ovenbird	G5	S4B				PO
	Melospiza melodia	Song Sparrow	G5	S5B				PO
	Passerina cyanea	Indigo Bunting	G5	S4B				PO
	Icterus galbula	Baltimore Oriole	G5	S4B				PR
	Carduelis tristis	American Goldfinch	G5	S5B				PR

	Scientific Name	Common Name	G Rank	S Rank	COSEWIC	MNR	Halton NAI	Breeding Evidence
	Amphibian							
	Ambystoma jeffersonianum-laterale	Jefferson/blue-spotted salamander complex	GNA	S4				
	Bufo americanus	American Toad	G5	S5				
	Pseudacris crucifer	Spring Peeper	G5	S5				
	Lithobates pipiens	Northern Leopard Frog	G5	S5	NAR	NAR		
	Lithobates sylvaticus	Wood Frog	G5	S5				
	Reptile							
	Storeria dekayi	Dekay's Brownsnake	G5	S5	NAR	NAR		
	Thamnophis sirtalis sirtalis	Eastern Garter Snake	G5T5	S5				
	Fish							
	Semotilus atromaculatus	Creek Chub	G5	S5				
	Catostomus commersoni	White Sucker	G5	S5				
	Umbra limi	Central Mudminnow	G5	S5			HU	
	Culaea inconstans	Brook Stickleback	G5	S5			HR	

APPENDIX 5: MNRF SPECIES AT RISK RESPONSE LETTER

Southern Region
Aurora District Office
50 Bloomington Road West
Aurora, ON L4G 0L8

Ontario

Ministry of Natural Resources and Forestry

Ministere des Richesses Naturelles et des Forêts

November 19, 2014

Natalie Dunn
Ecologist
North-South Environmental Inc.
35 Crawford Crescent P.O. Box 518, Suite U5
Campbellville, Ontario, L0P 1B0
Phone: 905-854-1112
Fax: 905-854-0001
Email: ndunn@nsenvironmental.com

Re: 9230 Guelph Line, Installation of Telecommunication Tower
Milton, ON

Dear Ms. Dunn,

In your email dated November 18, 2014 you requested information on natural heritage features and element occurrences occurring on or adjacent to the above mentioned location. There are no records of Species at Risk recorded from your study area and the immediate vicinity. However, the species listed below have the potential to occur in your study area and may require further assessment or field studies to determine presence.

Butternut	END	Eastern Meadowlark	THR

These species may receive protection under the *Endangered Species Act 2007* and thus, an approval from MNRF may be required if the work you are proposing could cause harm to these species or their habitat. If the Species at Risk in Ontario List is amended, additional species may be listed and protected under the *ESA 2007* or the status and protection levels of currently listed species may change.

There are no natural heritage features recorded for your area.

Absence of information provided by MNRF for a given geographic area, or lack of current information for a given area or element, does not categorically mean the absence of sensitive species or features. Many areas in Ontario have never been surveyed and new plant and animal species records are still being discovered for many localities. For these reasons, the MNRF cannot provide a definitive statement on the presence, absence or condition of biological elements in any part of Ontario.

This species at risk information is highly sensitive and is not intended for any person or project unrelated to this undertaking. Please do not include any specific information in reports that will be available for public record. As you complete your fieldwork in these areas, please report all information related to any species at risk to our office. This will assist with updating our database and facilitate early consultation regarding your project.

If you have any questions or comments, please do not hesitate to contact me at 905-713-7344 or ESA.Aurora@ontario.ca (Attention: Brittany Ferguson).

Sincerely,

Brittany Ferguson
Fish and Wildlife Technical Specialist
Ontario Ministry of Natural Resources and Forestry, Aurora District