

Rogers EORN Site C8697 - Rd. 40 @ Brookwood

Site Selection/Justification Report – Wireless Communications Site

Prepared for: Township of Douro-Dummer

Martina Chait-Hartwig, Acting Clerk

(705) 652 – 8392 x 210 MartinaC@dourodummer.on.ca

Proposed: 91.5m Guyed Tower

Coordinates: 44.423811°, -78.072258°

PIN: 28198-0117 (LT) ARN: 152202000106400

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Introduction

Like all areas of the province, your community is experiencing an explosive demand for wireless services. As people rely more on wireless devices such as smartphones, tablets and laptops for business and personal use, network improvements are required to ensure high quality voice and data services are available.

This document outlines the site selection process in accordance with the requirements of Innovation, Science and Economic Development Canada's (ISED) Spectrum Management and Telecommunications Policy, CPC-2-0-03, Issue 5 (CPC) updated Jul. 15, 2014 and provides a description of the system associated with the proposed wireless communication installation on property owned by *BARR, DONNA CHRISTINE; BARR, MICHAEL GEORGE*, known municipally as:

556 5th Line Rd N Dummer, Douro-Dummer, ON KOL 2HO

PIN: 28198-0117 (LT) ARN: 152202000106400

Legal Description: E1/2 LT 8 CON 4 DUMMER; DOURO-DUMMER, The Land Titles Division for Peterborough Land Registry Office (No. 45)

The prosperity of Canadians depends on telecommunications services to do their jobs, conduct business, learn new skills and build communities. These services play an important role in the lives of all Canadians, enabling them to participate in today's digital economy and to access health care, education, government, and public safety services.

As a Tier 1 Carrier, Rogers' federal mandate is to fill coverage gaps such that all residents have access to wireless high speed broadband services.

Background and Coverage Requirement

A wireless telecommunications facility is a puzzle piece in a very complex radio network, whether that site is situated in an urban, suburban or rural setting. Customer demand and sound engineering principles direct where sites are required to be located. As people rely more on wireless devices such as smartphones, tablets and laptops for business and personal use, network improvements are required to ensure high quality voice and data services are available. For a wireless network to be reliable, an operator must provide "seamless" coverage so that gaps in the network are avoided. Gaps create dropped calls and overall poor service to customers. Rogers is committed and mandated by its license to ensure the best coverage and service to the public and private sectors.

The proposed site at *the above-noted location* will achieve the necessary engineering coverage objectives for our network. The location will also have the ability to provide much relied upon communication services in the area such as EMS Response, Police and Fire; improved wireless signal quality for area residents, those traveling along the major roads, as well as providing local subscribers with Rogers's 4G/5G wireless network coverage and capacity for products and services such as iPhones, smartphones, tablets and wireless internet through surrounding area.

Rationale for New Telecommunication Infrastructure

In identifying a potential new tower location and design, Rogers examined the surrounding area, assessed the visibility of the structure and considered possible host sitings. Rogers evaluated the best location for a new facility in compliance with protocol-established procedures, based on the following criteria:



ABBREVIATED SEARCH MAP

SITE NAME: Rd 40 @ Brookwood LOCATION CODE: C8697

RF PLANNER: Mohammad Faisal/Michelle Ma TELEPHONE #: (647) 739-3487

DATE: June 21, 2021

Proposed Search Map Centre: Lat: 44.4263 Long: -78.052939

SITE DESCRIPTION: This will be a 3 sectored LTE/5G site. It will also accommodate antennas and equipment for future technology services.

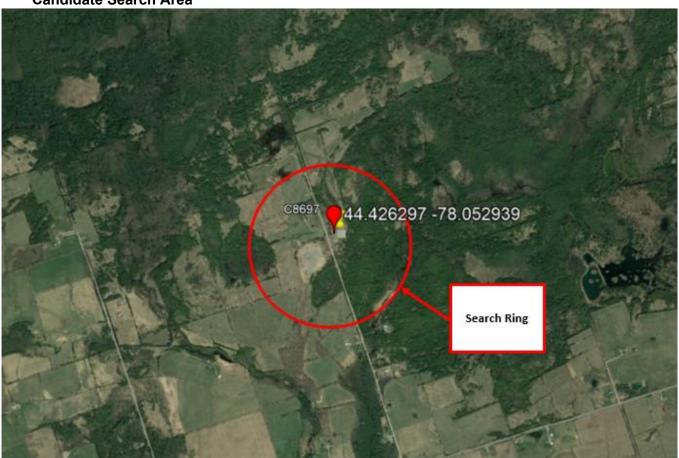
Proposed Antenna Mounting Height: 90m (See page 2 for Tower Selector Chart)

Candidates: the attached search map shows the limits of the proposed candidate.

Co-locates:

Special Comments:

Candidate Search Area



Above depicts the technical search area. A change request through EORN subsequently moved the search ring west one concession to Line Rd 5 to better align with Rogers' technical coverage requirements.



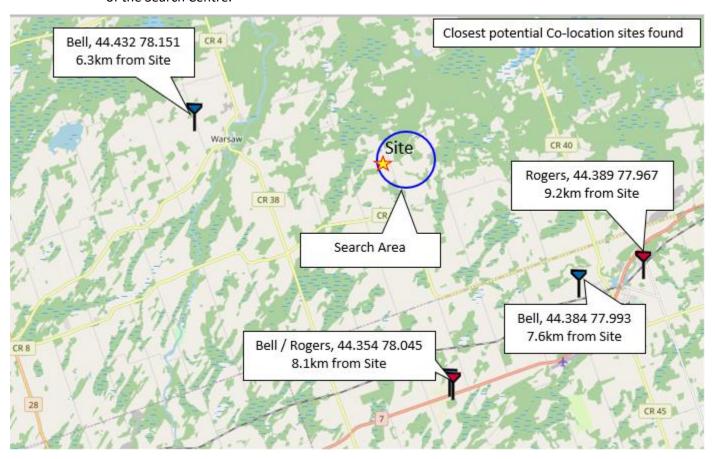
Candidate Search Process

Before building a new antenna-supporting structure the proponent is required to first consider:

- Sharing an existing antenna system, modifying or replacing a structure, if necessary.
- Locate, analyze, and attempt to use any feasible existing infrastructure such as high-rise rooftops, water towers, etc.

Co-location opportunities on existing area carrier structures

 The following local coverage map depicts the local tower inventory of all carriers within a 10km radius of the Search Centre.



There are no existing antenna structures in the area which may be utilized for co-location within two kilometers of the proposed site and a new structure must be erected to address the coverage deficiency. In particular, the closest existing tower is 6.3km away from the proposed site, too far to satisfy coverage requirements. The other closest existing towers are already Rogers facilities.

Evaluation of Other Local Existing Structures / Rooftops

After disqualifying any colocation opportunities, the proponent next evaluates existing structures that are located within the specific geographical area offering the required height and that may be available to support new equipment or to use for co-location.

Existing Structure Notes:

During the site selection process for this proposed, Rogers determined that no other existing infrastructure opportunity was available in our target area that was suitable for our network.



Consideration of municipal surplus properties

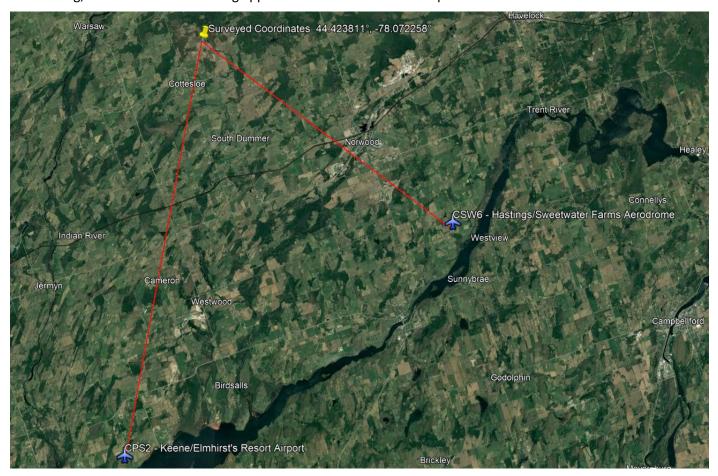
Within the Proponent search area, the Proponent sought to identify any surplus municipal properties that may have been satisfactory to meet the coverage objectives.

No suitable municipal properties were found
Suitable municipal properties were identified:

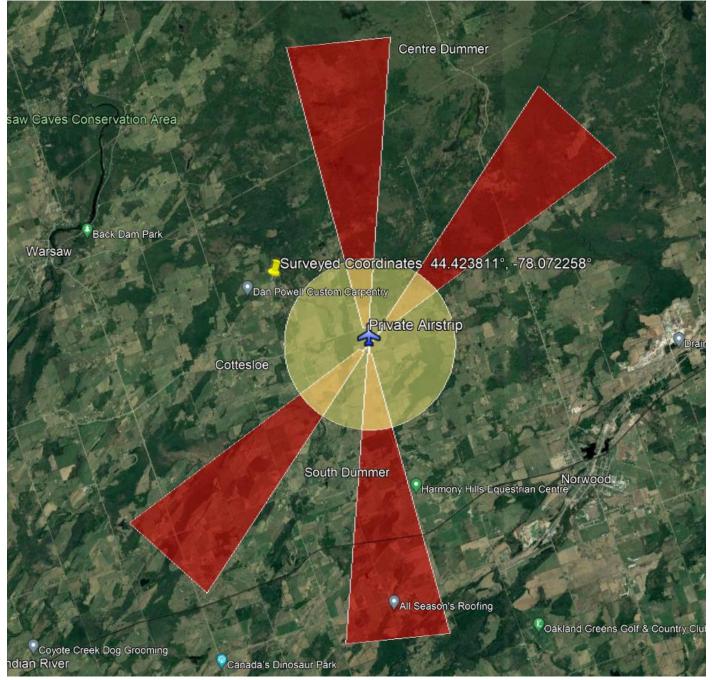
Aeronautical Issues

The proposed site is 14.4km northwest of the CSW6 - Hastings/Sweetwater Farms Aerodrome and 19.6km north from CPS2 - Keene/Elmhirst's Resort Airport. Accordingly, it is outside of any airport zoning or safety restrictions.

Conscience effort was made to avoid private airstrip on property owned by Although not a registered airstrip, we have nonetheless applied TP312 Standards and Recommended Practices when siting the proposed tower. Accordingly, tower has been sited outside take-off and approach vectors of 7km long, as well as outside Circling approach radius of 2km to airstrip center.







Demonstrated above is the yellow 2km circling approach and red 7km approach flight path vectors that major airports have, demonstrating where airport zoning height restrictions apply. While this is a small, private airport and would not be subject to the standard vectors as identified in TP312; nonetheless, we have demonstrated the proposed site is outside of the airport zoning restrictions if this private airport had been a registered aerodrome.



Private Candidate Review Process

Having identified an initial, qualified candidate from the preceding exercise, secondary candidates are then evaluated. Private candidates are reviewed starting with the center of the search area and moving out in a radial pattern until a large enough commercial, industrial or agricultural property option was available that could mitigate public concern to the greatest extent possible within the technical coverage limitations.

The following picture depicts the available real estate opportunities which were assessed for candidate suitability and technical sufficiency to meet the Proponent's coverage requirements.

There are limited property options with the footprint required to support a guyed tower in this area.

Each of the private candidate sites were disqualified/qualified for the following reasons:

2. (281980255)

Barr (281980117)

3. (282000094)

4. (281980243)

5. (281980084)6. (281980086)

7. (281980118)

3. (281980090)

Passed RF, existing access, sited predominantly off arable land; avoids private airstrip; Selected candidate.

Candidate declined.

RF Disqualified. East of revised search area, within private airports circling approach vectors.

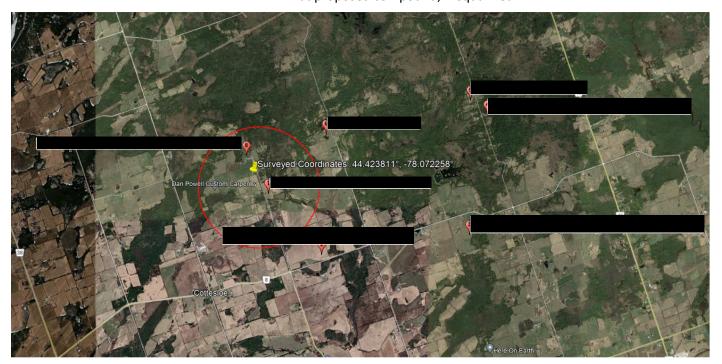
RF Disqualified. East of revised search area, within airport flight paths RF Disqualified. East of revised search area.

Candidate declined.

Inferior Access, proximity to wetland designation, lower elevation;

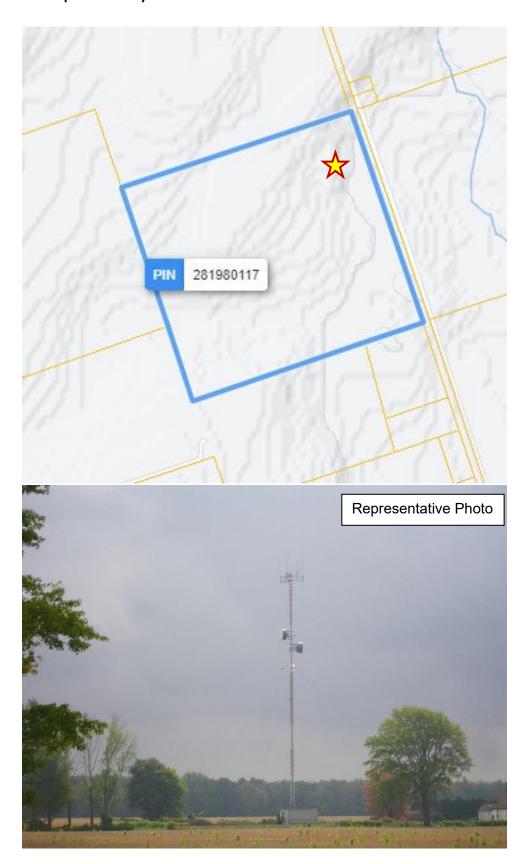
Disqualified.

Inferior access, close proximity to wetland designation, swampy land at proposed compound; Disqualified.

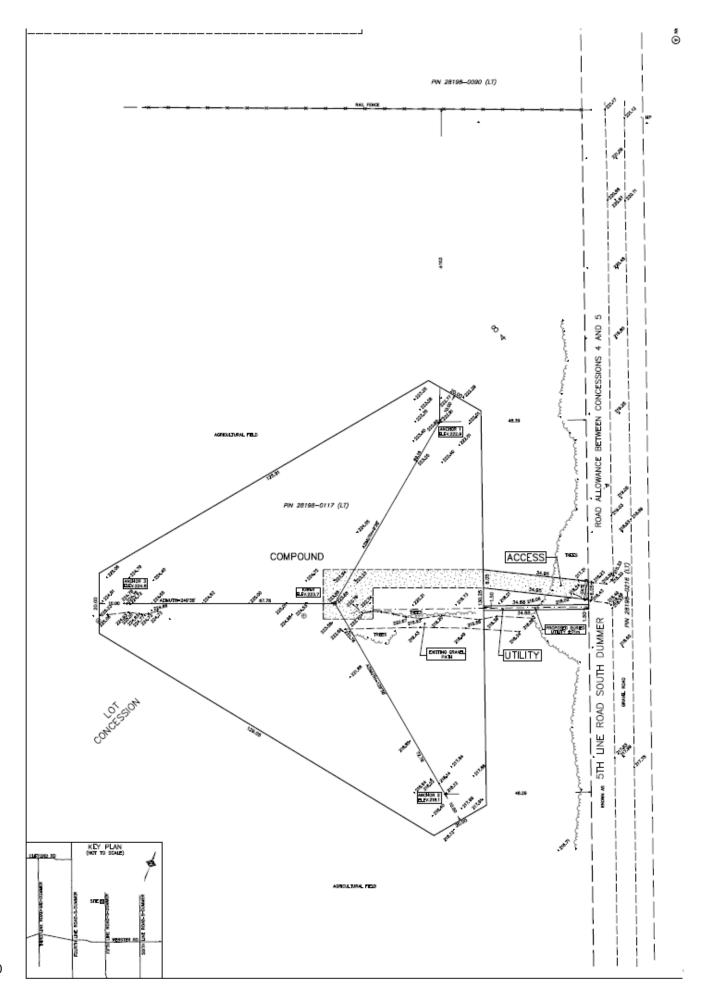




Proposed Facility Location and Site Sketch

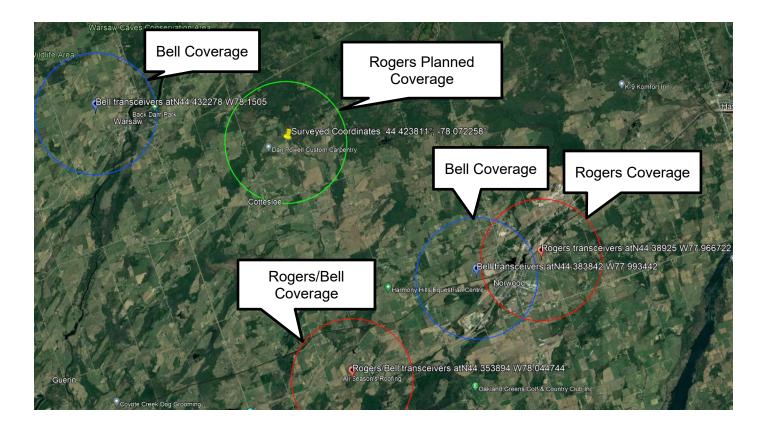






Coverage Map

The coverage map below depicts the general "4G/5G Good Coverage Radius" for the selected candidate, together with other local neighbouring carrier facilities.



As evidenced on above map, any existing towers are too far away to satisfy coverage requirements and a new tower must be erected to address the coverage deficiency.

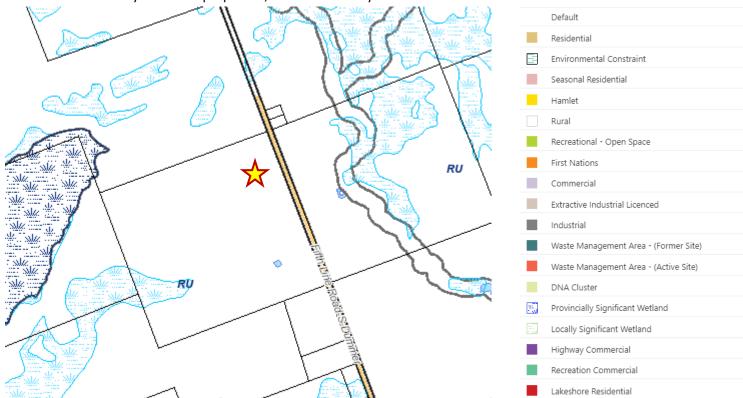


Residential Use Setback Map



Compliance with Zoning Intent

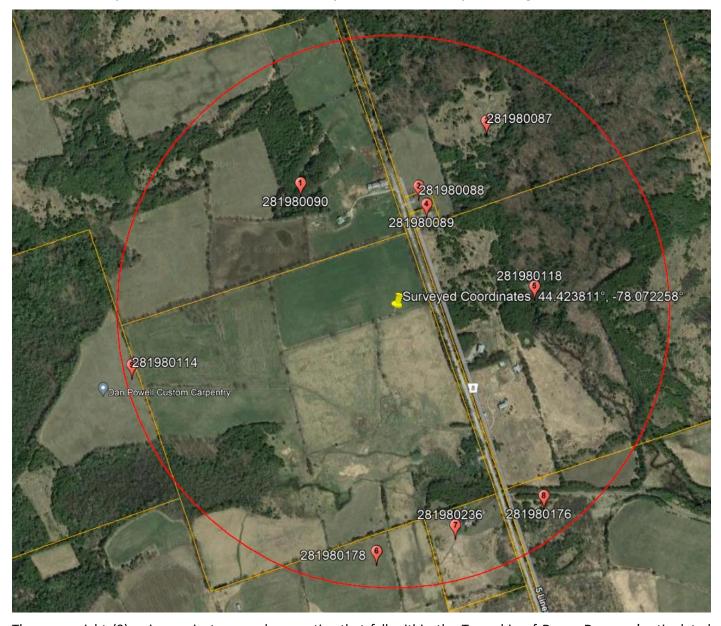
Although federal undertakings are exempt from the application of zoning bylaws, sitings consider the intent of locating on non-residential properties with optimal setbacks from residential use. This siting is located on RU zoned land and abutted on all sides by RU zoned properties, with PSW nearby.



The site candidate fully complies in all respects with good siting design tenets and guidelines, and in particular, all optimum design criteria of the CPC.



Local Properties in Notification Radius (Exempt from Public Participation Programme)



There are eight (9) unique private-owned properties that fall within the Township of Douro-Dummer's stipulated notification radius of six times tower height (91.5m \times 6 + tower width adjustment = 620m). The facility is not within 6x tower height from a neighbouring municipality.

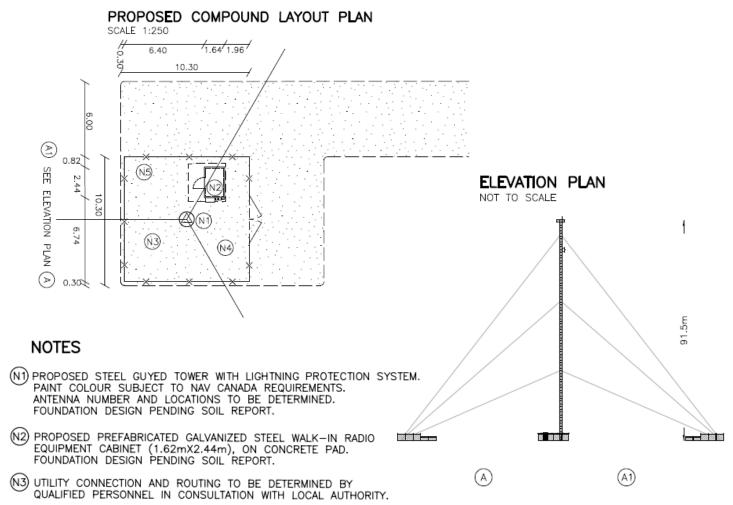
In accordance with Section 4.0 Exemptions in the Township of Douro-Dummer's Protocol for Radio and Telecommunications Facilities, as this project is to be funded through Eastern Ontario Regional Network (EORN), this proposed tower is exempt from the Public Participation Programme. Instead, notification of the project and of its exemption shall be provided to Council via a report from the Clerk.



Description of Proposed Tower:

Specifics:

91.5m Guyed Tower enclosed in approximately a 15m x 15m (fenced) secured Compound. This site will be built to accommodate antennas and equipment for future technology services and provide for colocation with other carriers.



- REMOVE EXISTING TOPSOIL. PROOF ROLL SUBGRADE AND PLACE 300 mm GRANULAR A ACROSS COMPOUND AREA. FINISHED GRAVEL SURFACE TO BE MIN. 150 mm ABOVE EXISTING GRADE AND SLOPED AWAY FROM SHELTER AT MIN. 1% ON ALL SIDES TO PROVIDE ADEQUATE DRAINAGE.
- (NS) PROPOSED 1.8 m HIGH CHAIN LINK SECURITY FENCE TOPPED WITH BARBED WIRE SURROUNDING COMPOUND.



Protocol

The Township of Douro/Dummer does have a locally enacted protocol entitled the *Township of Douro-Dummer Protocol for Radio and Telecommunications Facilities* which adapts ISED Canada's default protocol CPC-2-0-03 Issue 6 (July 2022) "*Radiocommunication and Broadcasting Antenna Systems*" to address issues in the local environment. Accordingly, the Proponent is required to follow the terms of this protocol addressing general and specific requirements, which uses Industry Canada's default public consultation as a starting point but includes additional requirements. One of the key concerns of this process is that such installations are deployed in a manner that considers the surroundings in exercising the mandate to deploy necessary infrastructure.

CPC Protocol i6: https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08777.html

The policy outlines the land use consultation process relevant to evaluating federally mandated wireless communication installations. In accordance with this Protocol, proponents must provide a notification package to the local public (including nearby residences, community gathering areas, public institutions, schools, etc.), neighbouring land-use authorities, businesses, and property owners, etc. located within a radius of 6-times tower height from the outermost limit of the tower structure. In accordance with Section 4.0 Exemptions in the Township of Douro-Dummer's Protocol for Radio and Telecommunications Facilities, as this project is to be funded through Eastern Ontario Regional Network (EORN), this proposed tower is exempt from the Public Participation Programme.

Other Municipal Considerations

As we are regulated under federal policy, provincial legislation such as the <u>Ontario Building Code</u> and the <u>Planning</u> <u>Act</u> including zoning by-laws and site plan control do not apply to these facilities.

Additional Public Consultation Obligations

Pursuant to local policy, Public Participation Programme for this site is not required.



Compliance with Environmental Obligations

Canadian Impact Assessment Act

We note that pending updates to the ISED (formerly Industry Canada) CPC 2-0-03 protocol have not yet been formalized, and such updates will recognize that, among other changes, the CEAA(2012) was repealed in 2019 and superseded by the Impact Assessment Act (S.C. 2019, c. 28, s. 1).

ISED requires that the installation and modification of antenna systems be done in a manner that complies with appropriate environmental legislation. This includes the Canadian Impact Assessment Act, 2019 (CIAA 2019), where the antenna system is incidental to a physical activity or project designated under CIAA 2019 or is located on federal lands.

In addition, notices under ISED's default public consultation process require written confirmation of the project's status under CIAA 2019 (e.g., whether it is incidental to a designated project or, if not, whether it is on federal lands).

• Rogers Communications Inc. attests that the radio antenna system as proposed for this site is not located within federal lands or forms part of or incidental to projects that are designated by the *Regulations Designating Physical Activities* or otherwise designated by the Minister of the Environment as requiring an environmental assessment. In accordance with the Canadian Impact Assessment Act, 2019, this installation is excluded from assessment. For additional detailed information, please consult the Canadian Impact Assessment Act. https://laws.justice.gc.ca/eng/acts/I-2.75/index.html

Species at Risk and Migratory Birds Convention Act

In addition to CIAA requirements, proponents are responsible to ensure that antenna systems are installed and operated in a manner that respects the local environment and that comply with other statutory requirements, such as those under the ... Migratory Birds Convention Act, 1994, and the Species at Risk Act, as applicable.

ISED CPC-2-0-03 Section 4.2 requires that

"...the steps the proponent took to ensure compliance with the general requirements of this document including the *Impact Assessment Act* (CIAA), Safety Code 6, etc." be addressed by the proponent in Public Reply Comments relating to this matter.

Steps taken to address concerns

As part of EORN's Cell Gap Project objectives, the planning of telecommunication towers is based on coverage requirements and are sited by EORN in areas that respect environmental concerns. Natural areas are environmental and heritage features that form Natural Heritage Systems. It is in EORN's best interest to support sustainable tower proliferation and address the environmental concerns across eastern Ontario.

The Ministry of Natural Resources and Forestry (MNRF), The Natural Heritage Information Centre (NHIC), manages a list of over 17,000 records associated to Natural Heritage Areas in Ontario. EORN and Rogers tower site locations are overlayed with national heritage areas in Ontario and presented in a table and map format.



A study is prepared for each tower location's surrounding natural areas contained within the 1km x 1km grid from Natural Heritage Information Centre (NHIC) data which includes:

- Ontario's rare species
- plant communities
- wildlife concentration areas
- natural heritage areas

The data in this table means that sometime in the last 50 years - someone reported seeing the species within the grid.

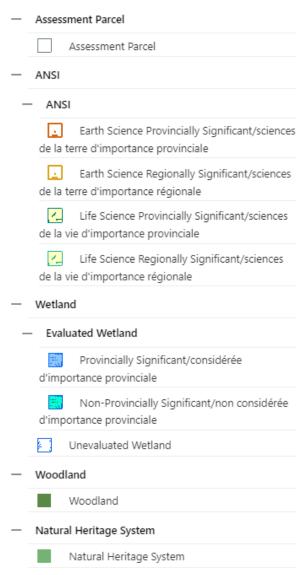
As the tower is sited abridging maps 17QK3222, 17QK3223, 17QK3322, 17QK3323, proponent has considered a 2km x 2km area, including all species within all 4 grids.

This study demonstrates that:

- The proposed site is not within 120m from ANSI designations
- The proposed site is not within 120m from PSW designations
- Within the greater local environment of 4km², Eastern Meadowlark and Bobolink are noted as threatened species. These species are reported frequently through out Eastern Ontario on the SAR table, but are not provided suitable habitat within an open field.
- Within the greater local environment of 4km², a *Wood thrush* is noted as special concern for which the tower does not demonstrate suitable habitat. Being in an open field, the tower has been sited outside typical nesting areas.
- Within the greater local environment of 4km², a *Red-Headed Woodpecker* is noted as special concern for which the tower does not demonstrate suitable habitat. Being in an open field, the tower has been sited outside typical nesting areas within the trees.
- Within the greater local environment of 4km², a *Snapping Turtle* is noted as special concern for which the tower does not demonstrate suitable habitat. Being in an open field, the tower has been sited outside typical nesting areas within swampland.
- Within the greater local environment of 4km², Restricted Species is listed as threatened. Restricted species have been considered data sensitive as to protect from various factors, including but not limited to; overharvest, illegal pet trade, or in case of rare flowers, being trampled by photographers. In the case of rare plant life, the local environment being that of farmed land and/or pasture, precludes the area as a viable habitat. Nonetheless, proponent recognizes these natural heritage concerns and commits to advising construction teams that they need to look for nesting animals prior to the start of ground clearing.
- Within the greater local environment of 4km², Dummer Swamp is noted as a significant natural area.
 Proponent notes a 660m setback from PSW and 261m setback from Unevaluated wetland, siting any wetland area outside of the MNRF's established PSW boundaries plus 120 metres of contiguous land (immediately adjacent Other Areas) around each wetland or wetland complex.
- As it relates to migratory bird strikes, the available evidence recognizes the minimal impact from structures lower than 100m in height.







While the environmental impact is insufficient to preclude the installation of a tower at this location, the Proponent nonetheless recognizes these natural heritage concerns and takes additional steps in advising construction teams that they need to conduct a habitat search, looking for nesting animals and protected plants prior to the start of ground clearing. Archeological sampling at construction dig points will also take place prior to construction. Appropriate remedies are deployed which may include delaying construction until nesting season ends, at which point any impact is eliminated.



Environmental Reporting By Tower Location

Tower Information		n	Maps	Environmental Parameters			
Tower Name	Tower Type	Site Type		ANSI (120 m)	PSW (120 m)	Species at Risk	Federal lands
C8697 — Rd. 40 @ Brook wood	Guyed	New	17QK3323 17QK3323 17QK3322 17QK3322			See table below	N N

OGF ID	Element Type	Common Name	Scientific Name	S Rank	SARO Statu s	COSEWI C Status	ATLAS NAD83 IDENT	COMMENTS
1065055	NATURAL AREA	Dummer Swamp					17QK3222	
1065055	SPECIES	Eastern Meadowlark	Sturnella magna		THR	THR	17QK3222	
1065055	SPECIES	Snapping Turtle	Chelydra serpentina		SC	SC	17QK3222	
1065065	SPECIES	Red-headed Woodpecker	Melanerpes erythrocephal us		SC	END	17QK3322	
1065065	SPECIES	Eastern Meadowlark	Sturnella magna		THR	THR	17QK3322	
1065065	SPECIES	Bobolink	Dolichonyx oryzivorus		THR	THR	17QK3322	
1065065	SPECIES	Wood Thrush	Hylocichla mustelina		SC	THR	17QK3322	
1065065	RESTRICT ED SPECIES	Restricted Species	Restricted Species				17QK3322	
1065065	RESTRICT ED SPECIES	RESTRICTED SPECIES	RESTRICTED SPECIES		THR	THR	17QK3322	
1065056	NATURAL AREA	Dummer Swamp					17QK3223	
1065056	SPECIES	Snapping Turtle	Chelydra serpentina		SC	SC	17QK3223	
1065066	SPECIES	Eastern Meadowlark	Sturnella magna		THR	THR	17QK3323	
1065066	SPECIES	Bobolink	Dolichonyx oryzivorus		THR	THR	17QK3323	



Federal Requirement: Attestations

In addition to the requirements for consultation with municipal authorities and the public, Rogers must also fulfill other important obligations including the following:

Canadian Impact Assessment Act

ISED requires that the installation and modification of antenna systems be done in a manner that complies with appropriate environmental legislation. This includes the Impact Assessment Act, 2019 (IAA 2019), where the antenna system is incidental to a physical activity or project designated under CIAA 2019 or is located on federal lands.

• Rogers Communications Inc. attests that the radio antenna system as proposed for this site is not located within federal lands or forms part of or incidental to projects that are designated by the Regulations Designating Physical Activities or otherwise designated by the Minister of the Environment as requiring an environmental assessment. In accordance with the Canadian Impact Assessment Act, 2019, this installation is excluded from assessment. For additional detailed information, please consult the Canadian Environmental Assessment Act https://laws.justice.gc.ca/eng/acts/l-2.75/index.html

Transport Canada's Aeronautical Obstruction Marking Requirements

Aerodrome safety is under the exclusive jurisdiction of NAV Canada and Transport Canada. An important obligation of Rogers' installations is to comply with Transport Canada / NAV CANADA aeronautical safety requirements. Transport Canada will assess the proposal with respect to potential hazards to air navigation and notify Rogers of any painting and/or lighting requirements for the antenna system.

• Rogers Communications Inc. attests that the radio antenna system described in this notification package will comply with Transport Canada / NAV Canada aeronautical safety requirements.

For additional detailed information, please consult Transport Canada.

https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/canadian-aviation-regulations-sor-96-433

Engineering Practices:

• <u>Rogers Communications Inc. attests</u> that the radio antenna system as proposed for this site will be constructed in compliance with the National Building Code and The Canadian Standard Association and comply with good engineering practices including structural adequacy.

Health Canada's Safety Code 6 Compliance

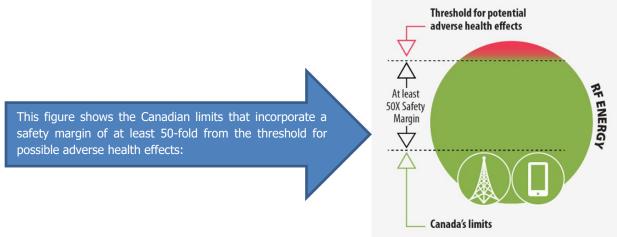
Health Canada is responsible for research and investigation to determine and promulgate the health protection limits for Exposure to the RF electromagnetic energy. Accordingly, Health Canada has developed a guideline entitled "Limits of Human Exposure to Radiofrequency Electromagnetic Field in the Frequency Range from 3kHz to 300 GHz – Safety Code 6".

The exposure limits specified in Safety Code 6 were established from the results of hundreds of studies over the past several decades where the effects of RF energy on biological organisms were examined. Radiocommunication, including technical aspects related to broadcasting, is under responsibility of the Ministry of Industry (Innovation, Science and Economic Development Canada), which has the power to



establish standards, rules, policies and procedures. ISED, under this authority, has adopted Safety Code 6 for the protection of the general public. As such, ISED requires that all proponents and operators ensure that their installations and apparatus comply with the Safety Code 6 at all times.

• <u>Rogers Communications Inc. attests</u> that the radio antenna system described in this notification package will at all times comply with Health Canada's Safety Code 6 limits, as may be amended from time to time, for the protection of the general public including any combined effects of additional carrier co-locations and nearby installations within the local radio environment.



More information in the area of RF exposure and health is available on the Health Canada's website under Health Canada's Radiofrequency Exposure Guidelines.

https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/safety-code-6-health-canada-radiofrequency-exposure-guidelines-environmental-workplace-health-health-canada.html

https://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11467.html

Proponent Contact Information

Rogers Communications Inc.

c/o Simpson-McKay Inc.

12317 Funaro Crescent, Tecumseh ON N9K1B2

Attn: Jeff McKay, Site Acquisition Specialist

(519) 566-9267 j_mckay@rogers.com



Conclusion

Reliable wireless communication services are a key enabler of economic and social development across Canada. They facilitate the growth of local economies by providing easy access to information, and connectivity for residents and business alike.

The infrastructure proposed is suitable for the development over the long term and protects public health and safety.

In response to this growing demand for wireless services, Rogers has worked to find the most suitable location for a new telecommunications structure in our efforts to provide improved wireless services to residents, businesses and the traveling public.

In addition to meeting consumer needs, technological upgrades are also critical to ensuring the accessibility of emergency services such as fire, police and ambulance. Wireless communications products and services used daily by police, EMS, firefighters and other first responders, are an integral part of Canada's safety infrastructure.

Rogers feels that the proposed site is well situated to provide improved wireless voice and data services in the targeted area and designed to have minimal impact on surrounding land uses and meets the intent of the governing protocol.

Rogers looks forward to working with the Township to provide improved wireless services to the community.

Should you have any further questions or comments, please feel free to contact me via email at <u>i mckay@rogers.com</u>, or via phone at (519) 566-9267.

Yours truly,

Jeff McKay FCSI MBA
Site Acquisition Specialist

Contractor: Rogers Communications Inc.

Cell: (519) 566-9267

eMail: j_mckay@rogers.com

