



PHASE I ENVIRONMENTAL SITE ASSESSMENT

PID 40600736, PROSPECT ROAD

**COMMUNITY OF GOODWOOD
HALIFAX REGIONAL MUNICIPALITY, NOVA SCOTIA**

JUNE 2023



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PID 40600736, PROSPECT ROAD

**COMMUNITY OF GOODWOOD
HALIFAX REGIONAL MUNICIPALITY, NOVA SCOTIA**

Report prepared for:	Screen Nova Scotia Suite 403, 1869 Upper Water Street Halifax, NS B3J 1S9
Report prepared by:	OCL Services Ltd. 41 Alben Lane Wellington, NS B2T 1A2

JUNE 2023



4266-R
4 June 2023

Screen Nova Scotia
Suite 403, 1869 Upper Water Street
Halifax, NS
B3J 1S9

RE: PID 40600736, PROSPECT ROAD, COMMUNITY OF GOODWOOD, HALIFAX REGIONAL MUNICIPALITY, NOVA SCOTIA

To whom it may concern:

As reported herein, between 4 April and 4 June 2023, **OCL Services Ltd.** conducted a Phase I Environmental Site Assessment of a Subject Property, consisting of one vacant wooded land parcel, identified as noted above; there is no civic address. As a Phase I Environmental Site Assessment, the procedure consisted of a review of historical information and a site review. No active sampling or testing was undertaken. This complies with Canadian Standards Association standard CAN/CSA Z768-01.

The Phase I Environmental Site Assessment is to be used in its entirety. Any references to survey measurements, laws and regulations or the proposed undertaking were made to assist in interpretation of data and are not to be used, in and of themselves, for any other purpose nor used as the basis of any other interpretations.

Please contact us if you require additional information or clarification.

Yours truly,

OCL SERVICES LTD.



Scott MacKnight, Ph.D., EP(CEA)
President
Encl.

1. SUMMARY

The purpose of the study was to conduct a Phase I Environmental Site Assessment of a Subject Property, consisting of one vacant wooded land parcel identified as PID 40600736 or “Lot B”, in the Community of Goodwood, Halifax Regional Municipality, Nova Scotia with frontage on the eastern side of Prospect Road (municipal name for this section of Highway 333).

Located in District 11 (Spryfield - Sambro Loop - Prospect), the Subject Property is zoned “CR-2” (Commercial Recreation 2), pursuant to the Planning District 4 (Prospect) Land Use Bylaw (as amended to 3 February 2023). The zoning is similar to the immediately adjacent property to the north, *Halifax Exhibition Centre*. While not identified in the property deed, the Development Constraints Report noted the Subject Property is encumbered by a “Letter of Access” to permit an access trail to/from Long Lake Provincial Park to the Purcell Ground Cemetery, approximately 35 m east of the Subject Property.

The Subject Property is not a Registered Heritage Property; is not located within a Heritage Conservation District or Heritage Streetscape; is not located on, or adjacent to, designated indigenous lands; and, does not lie within or adjacent to water (supply) conservation areas. Reference to the Planning District 4 Land Use By-law indicates the Subject Property is not in an Area of Elevated Archaeological Potential (Schedule F); is not located within a designated Wetlands area greater than 2000 sq m (Schedule G); and is located in an area identified a RW-2 (Rural Wind Zone) as identified by the Wind Energy Zoning map (Schedule H).

The land parcel has a minor gradient up from Prospect Road (106 m elevation) to the centre of the land parcel (111 m elevation) and then grades down and east to 107 m elevation before descending to the east wetland stream (101 m elevation). North-south gradient is also limited (108 to 109 m elevation). Surface and groundwater are assumed to flow either west to drainage ditches along Prospect Road or east to the natural drainage/wetland with flow northeast to Long Lake.

As currently constituted, the Subject Property is wooded undeveloped land. A drone survey did not indicate evidence of any former structures or commercial development (e.g., quarry, sand/gravel pit). The tree coverage is a mixture of deciduous and coniferous with extensive undergrowth. There was evidence of hurricane damage, but not excessive as the Subject Property is to the southeast of Halifax Harbour, thereby avoiding most of the wind damage from both Hurricane Juan and Hurricane Fiona. There is evidence of areas which may be designated as “wetlands”. When the development plans are finalized, it is recommended a Wetland Delineation Survey be conducted to ensure there are no issues with respect to placement of buildings or septic fields. Currently, Halifax Regional Municipality has a requirement in all land use by-laws for a 20-m surveyed setback (buffer zone) from any natural drainage or designated ecological zone.

There is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

As currently constituted, there are no structures or buildings within the Subject Property. There have and are now, no liquid fuel or chemical storage and delivery systems associated with the Subject Property. It is assumed future heating systems will be based on electric baseboard heaters and heat pumps; therefore, liquid fuel systems will not pose a future environmental liability. As any future buildings/structures will be constructed after June 2023, there will be no environmental liabilities associated with: asbestos-containing materials; “lead-based paints/finishes”; PCB containing electrical equipment and light fixtures; ozone-depleting substances (currently, heat pumps use a non-ozone depleting refrigerant gas); Urea-Formaldehyde Foam Insulation (UFFI), mould or hazardous materials/wastes.

This area of the Regional Municipality is dependent on on-site potable water supplies and on-site septic fields. Depending the final design and water demand for site buildings, the drilled wells may have to be registered, pursuant to the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations. Any future on-site septic systems will likely require engineered drawings and final approval from Nova Scotia Environment.

The Subject Property is mapped as underlain by Liscomb Formation, a Middle – Late Devonian muscovite biotite monzogranite bedrock. This type of bedrock is non-acid generating and excavation and handling are not regulated pursuant to the Sulphide Bearing Material Disposal Regulations. Reference to the Map Showing Potential for Radon in Indoor Air indicates the Subject Property is mapped in an area considered “medium risk” for radon entry; i.e., 14% of buildings tested were found to exceed the Health Canada guideline of 200 Bq/cu m. It is recommended any new structure be designed/constructed with passive mitigation components to mitigate potential radon entry. Actual concentrations in a building can only be accurately determined by measurement using the standard 90+ day sampling test.

There are no neighbouring service stations, bulk fuel facilities or dry-cleaning facilities. The nearest retail fuel facility (Needs/Tim Horton’s/Petro Canada) is located about 1 km north and sufficiently distant as to not pose an environmental risk to the Subject Property. Similarly, any fuel activities related to the *Halifax Exhibition Centre* are sufficiently distant as to not pose an environmental risk to the Subject Property. As currently constituted properties to the east, south and west (across Prospect Road) are undeveloped woodlands and do not pose environmental risks to the Subject Property.

DETERMINATION: *On the basis of current information and as currently constituted, there are no significant or limited environmental liabilities. No further Environmental Site Assessment is recommended.*

As currently constituted, the Subject Property is wooded undeveloped land. A drone survey did not indicate evidence of any former structures or commercial development (e.g., quarry, sand/gravel pit). A Wetland Delineation Survey will be required to ensure there are no issues with respect to placement of buildings or septic fields relative to the large eastern and smaller western wetlands and drainages. Currently, Halifax Regional Municipality has a requirement in all land use by-laws for a 20-m surveyed setback (buffer zone) from any natural drainage or designated ecological zone.

As currently constituted, there are no structures or buildings within the Subject Property. There have been and are now, no liquid fuel or chemical storage and delivery systems associated with the Subject Property. It is assumed future heating systems will be based on electric baseboard heaters and heat pumps; therefore, liquid fuel systems will not pose a future environmental liability. As any future buildings/structures will be constructed after June 2023, there will be no environmental liabilities associated with: asbestos-containing materials; “lead-based paints/finishes”; PCB containing electrical equipment and light fixtures; ozone-depleting substances (currently, heat pumps use a non-ozone depleting refrigerant gas); Urea-Formaldehyde Foam Insulation (UFFI), mould or hazardous materials/wastes.

This area of the Regional Municipality is dependent on on-site potable water supplies and on-site septic fields. Depending on the final design and water demand for site buildings, the drilled wells may have to be registered, pursuant to the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations. Any future on-site septic systems will require engineered drawings and final approval from Nova Scotia Environment.

The Subject Property is mapped as underlain by Liscomb Formation, a Middle – Late Devonian muscovite biotite monzogranite bedrock and therefore the area is considered “medium risk” for radon entry. It is recommended any new structure be designed/constructed to mitigate potential radon entry.

There are no neighbouring service stations, bulk fuel facilities or dry-cleaning facilities. The nearest retail fuel facility (Needs/Tim Horton’s/Petro Canada) is located about 1 km north and sufficiently distant as to not pose an environmental risk to the Subject Property. Similarly, any fuel activities related to the Halifax Exhibition Centre are sufficiently distant as to not pose an environmental risk to the Subject Property. As currently constituted properties to the east, south and west (across Prospect Road) are undeveloped woodlands and do not pose environmental risks to the Subject Property.

2. INTRODUCTION

As reported herein, between 4 April and 4 June 2023, *OCL Services Ltd.* conducted a Phase I Environmental Site Assessment of a Subject Property, consisting of one undeveloped wooded land parcel, identified as “Lot B” or PID 40600736 and fronting on Prospect Road (municipal name for Highway 333) within the Community of Goodwood, Halifax Regional Municipality, Nova Scotia (see Figures 1 and 2). The Subject Property was originally part of a larger provincially-owned land parcel, designated for development in the early 1980’s; initially as the *Atlantic Winter Fairgrounds*. In late 2015, the Province of Nova Scotia sold the Fairgrounds to *Halifax Exhibition Centre Inc. (BANC Developments)* to facilitate facility upgrades and other uses. The Subject Property was retained by the Province of Nova Scotia.

Located within District 11 (Spryfield - Sambro Loop – Prospect), the land parcel has an area of +/- 101,215 sq m or +/- 10.12 hectares (+/- 1,089,000 sq ft or +/- 25 acres) and is currently zoned “CR-2” (Commercial Recreation 2 Zone), pursuant to the Halifax Regional Municipality District 4 (Prospect) Land Use By-law (as amended to 3 February 2023). While the Subject Property has +/- 265 m (+/- 870 ft) frontage on Prospect Road, there is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

As noted in the Development Constraints Analysis¹, approximately 1.8 hectares or 18% of the land parcel area is “wetland” with a large area on the eastern side and a small area on the western side, next to Prospect Road. Pursuant to the Land Use By-law, there are requirements for set-back or buffer zones around these wetlands. Further, the “wetlands” have not been properly delineated. The Development Constraints Analysis suggested there may be other smaller wetlands, although only two areas were clearly indicated during the drone survey in early April. Delineation of the wetlands will also be required to facilitate location and design of on-site septic system/s.

- The Property Information is provided in Appendix A.
- Views of the Subject Property are provided in Appendix B (drone photographs taken 4 April 2023).
- As the Subject Property does not have a civic address, Nova Scotia Environment was unable to search Departmental records (see note in Appendix C).
- Assessor Qualifications are provided in Appendix D.

¹ GHD Consultants. 21 November 2022. Developments Constraints Analysis for Parcel 40600738, Prospect Road, Goodwood, Nova Scotia. Prepared for Screen Nova Scotia, Halifax, NS.

Figure 1: General area of Subject Property
(From <https://maps.halifax.ca>)

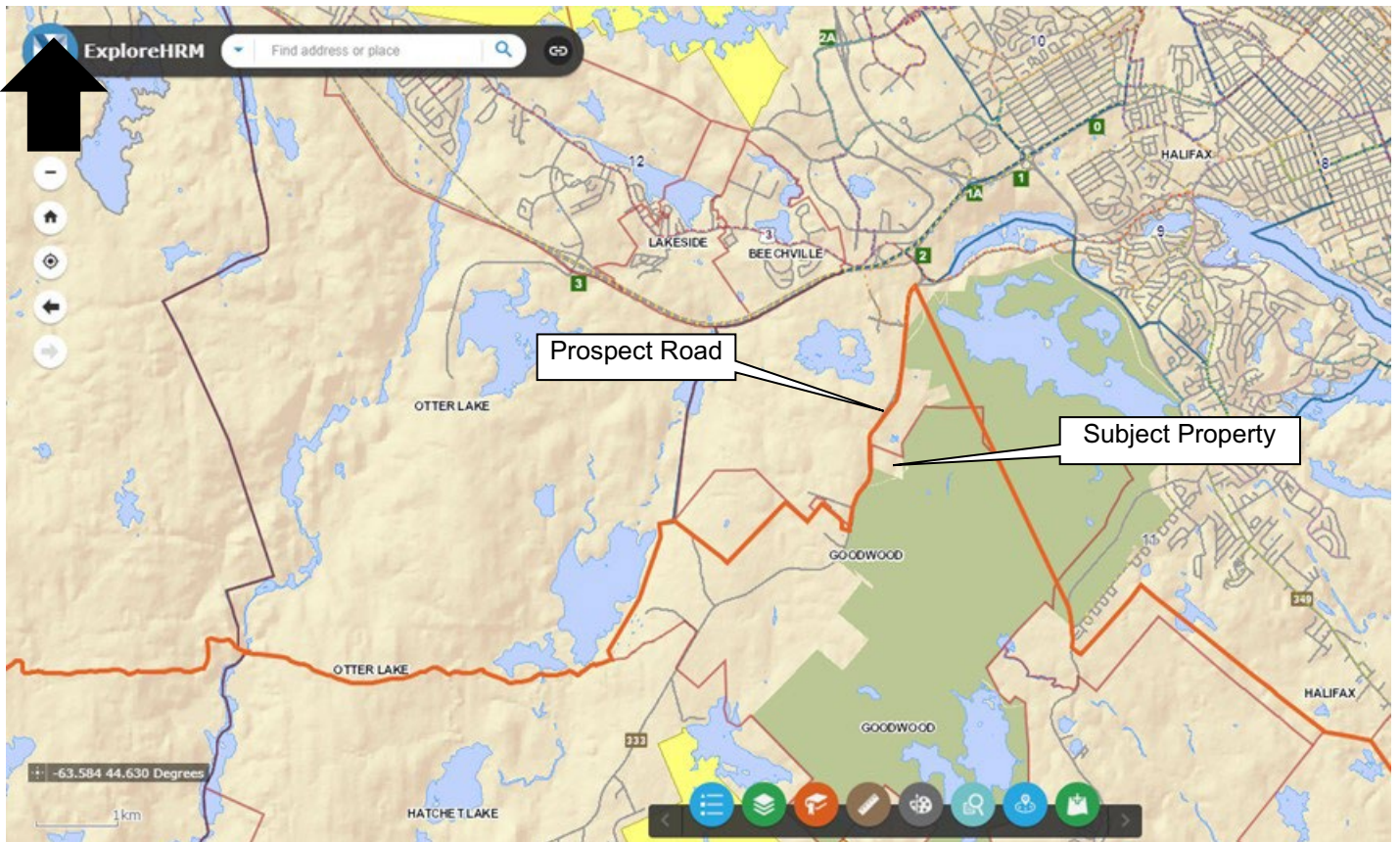


Figure 2A: October 2016 3-D aerial view of Subject Property and surrounding area (From Goggle EarthPro).

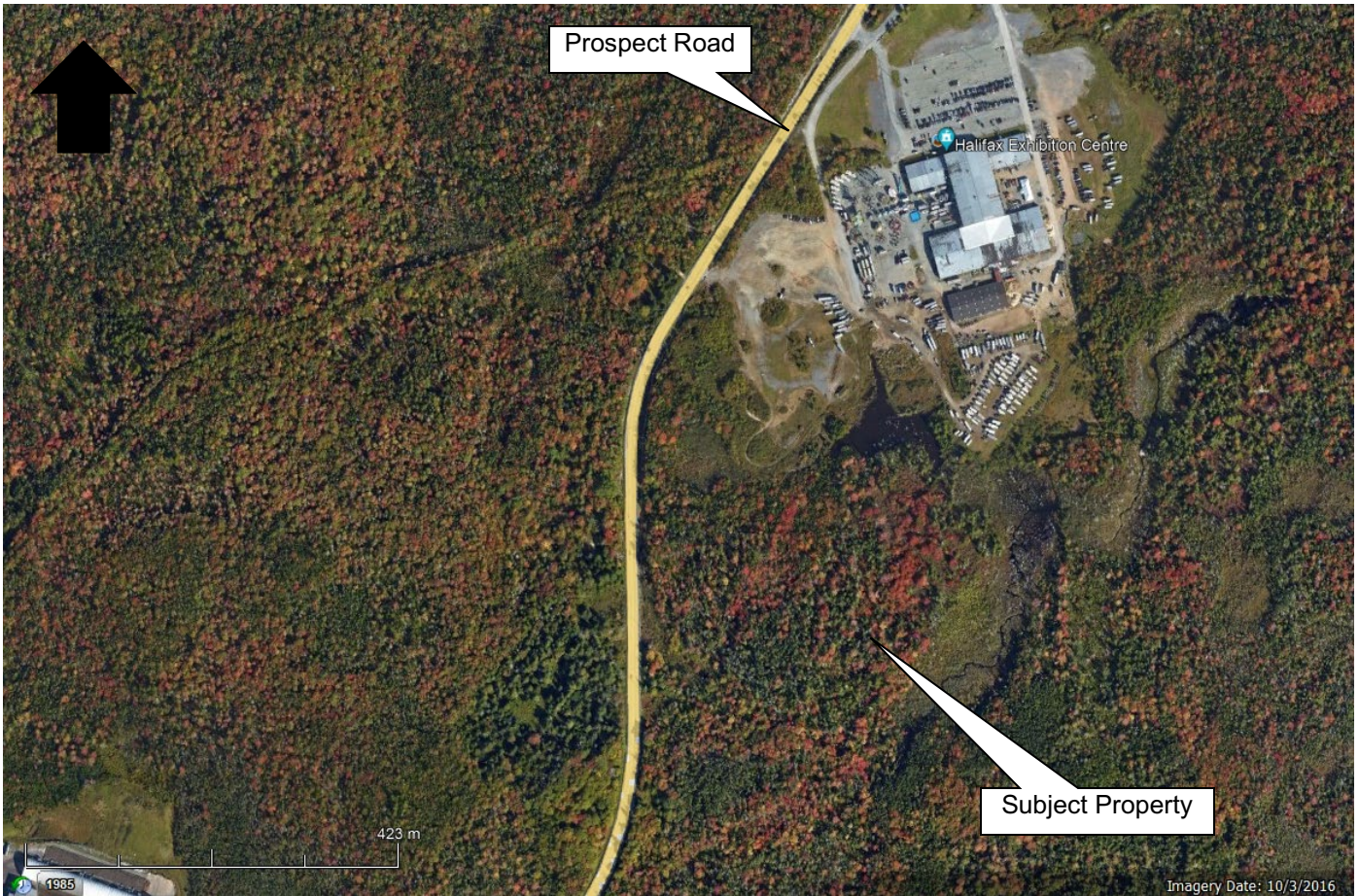
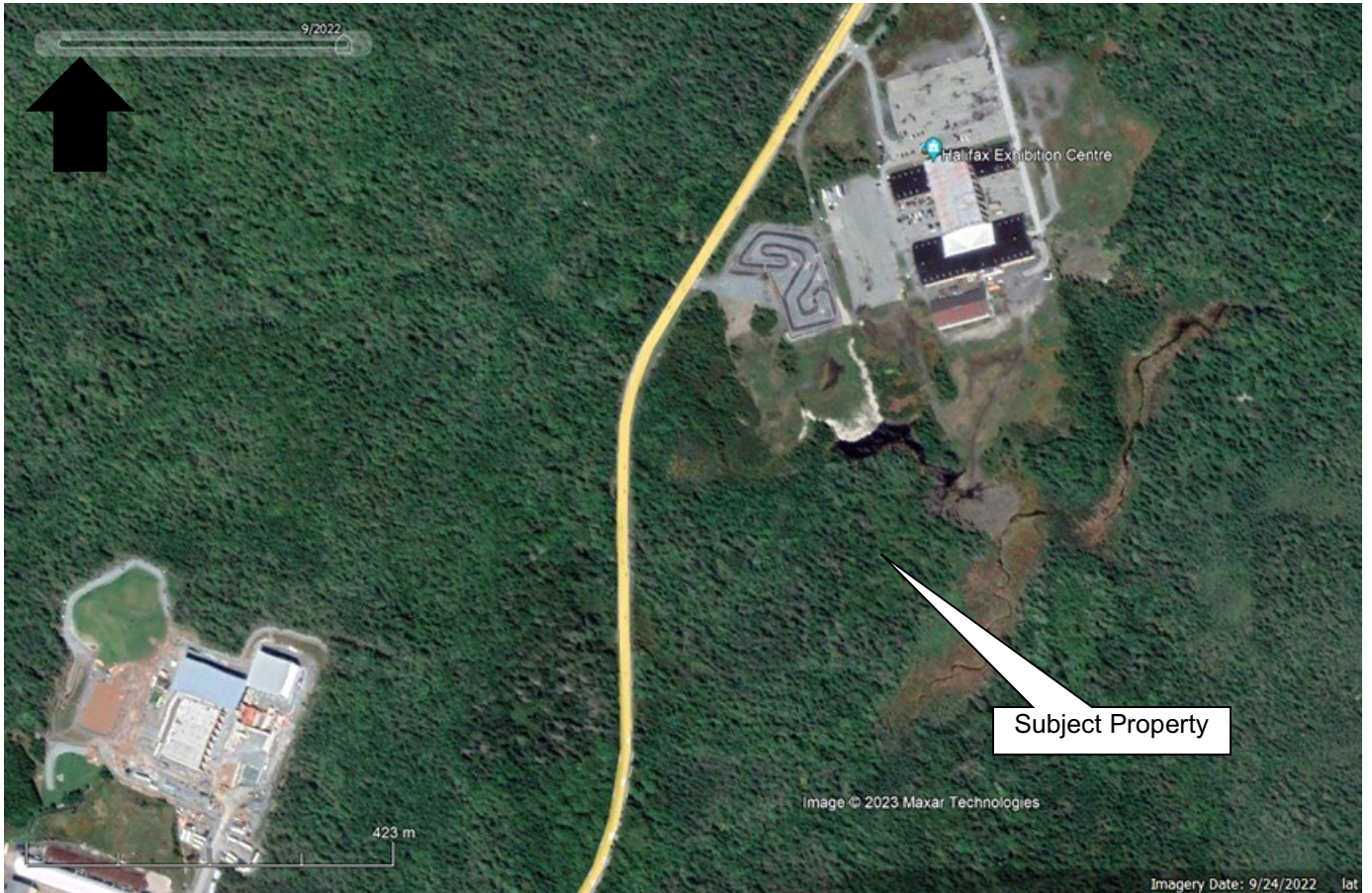


Figure 2B: 24 September 2022 aerial view of Subject Property and surrounding area (From Goggle EarthPro).



3. METHODOLOGY

The study findings and conclusions are based on the laws and regulations as set out by Nova Scotia Environment and Environment Canada and in force in April to June 2023.

As a Phase I Environmental Site Assessment, the procedures consisted of a review of historical information and a site review. No active sampling or testing was undertaken. This complies with Canadian Standards Association standard CAN/CSA Z768-01².

Information was obtained from a representative of *Screen Nova Scotia*; Halifax Regional Municipality; Service Nova Scotia; and Nova Scotia Environment.

Reference was made to:

- GHD Consultants. 21 November 2022. Developments Constraints Analysis for Parcel 40600738, Prospect Road, Goodwood, Nova Scotia. Prepared for Screen Nova Scotia, Halifax, NS.
- Nova Scotia Department of Lands & Forest. Survey Division. Plan showing survey of Crown Land (Proposed site for the Atlantic Winter Fair), Beechville, County of Halifax, Province of Nova Scotia. Field Plot P-010-84.

There are no other known environmental assessments of the Subject Property.

As the Subject Property is fully wooded with a large wetland and no access roads, the Site Inspection, conducted by Scott MacKnight and Cynthia Gillis (*OCL Services Ltd.*) on 4 April 2023 consisted of use of a set of drone pictures, taken under the direction of Scott MacKnight.

On the basis of the interviews and document review, the following conditions were noted:

- The Subject Property is un-developed forested land with a large wetland and associated stream at the eastern end and a small wetland at the western end, adjacent to Prospect Road.
- As the Subject Property does not have a civic address, Nova Scotia Environment indicated a Registry search was not possible for the Subject Property.
- The Subject Property has never been used for the handling, processing, storage or transfer of petroleum or other chemical substances.
- There have not been and are no impoundments, waste transfer or holding facilities or other sources of contamination within the Subject Property.

² Canadian Standards Association, CAN/CSA Z768-01. **Guidelines for Phase I Environmental Site Assessment.**

4. PROPERTY DESCRIPTION

Please reference property information provided in Appendix A and drone aerial photographs provided in Appendix B.

4.1 Property

The Subject Property consists of one vacant wooded land parcel identified as PID 40600736 or “Lot B”, located in the Community of Goodwood, Halifax Regional Municipality, Nova Scotia with frontage on the eastern side of Prospect Road (municipal name for this section of Highway 333).

Located in District 11 (Spryfield - Sambro Loop - Prospect), the Subject Property is zoned “CR-2” (Commercial Recreation 2), pursuant to the Planning District 4 (Prospect) Land Use Bylaw (as amended to 3 February 2023). The zoning is similar to the immediately adjacent property to the north, *Halifax Exhibition Centre*. While not identified in the property deed, a Development Constraints Report noted the Subject Property is encumbered by a “Letter of Access” to permit an access trail to/from Long Lake Provincial Park to the Purcell Ground Cemetery, approximately 35 m east of the Subject Property.

The Subject Property is not a Registered Heritage Property; is not located within a Heritage Conservation District or Heritage Streetscape; is not located on, or adjacent to, designated indigenous lands; and, does not lie within or adjacent to water (supply) conservation areas. Reference to the Planning District 4 Land Use By-law indicates the Subject Property is not in an Area of Elevated Archaeological Potential (Schedule F); is not located within a designated Wetlands area greater than 2000 sq m (Schedule G); and is located in an area identified a RW-2 (Rural Wind Zone) as identified by the Wind Energy Zoning map (Schedule H).

The land parcel has a minor gradient up from Prospect Road (106 m elevation) to the centre of the land parcel (111 m elevation) and then grades down and east to 107 m elevation before descending to the east wetland stream (101 m elevation). North-south gradient is also limited (108 to 109 m elevation). Surface and groundwater are assumed to flow either west to drainage ditches along Prospect Road or east to the natural drainage/wetland with flow northeast to Long Lake.

As currently constituted, the Subject Property is wooded undeveloped land. A drone survey did not indicate evidence of any former structures or commercial development (e.g., quarry, sand/gravel pit). The tree coverage is a mixture of deciduous and coniferous with extensive undergrowth. There was evidence of hurricane damage, but not excessive as the Subject Property is to the southeast of Halifax Harbour, thereby avoiding most of the wind damage from both Hurricane Juan and Hurricane Fiona. There is evidence of areas which may be designated as “wetlands”. When the development plans are finalized, it is recommended a Wetland Delineation Survey be conducted to ensure there are no issues with respect to placement of buildings or septic fields. Currently, Halifax Regional Municipality has a requirement in all land use by-laws for a 20-m surveyed setback (buffer zone) from any natural drainage or designated ecological zone.

While the Subject Property has +/- 265 m (+/- 870 ft) frontage on Prospect Road, there is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

4.2 Building/s

The Subject Property is un-developed and there are no buildings or structures currently on-site.

4.3 Environmental Status of Subject Property

The Subject Property is mapped as underlain by Liscomb Formation, a Middle – Late Devonian muscovite biotite monzogranite bedrock. This type of bedrock is non-acid generating and excavation and handling are not regulated pursuant to the Sulphide Bearing Material Disposal Regulations. Reference to the Map Showing Potential for Radon in Indoor Air indicates the Subject Property is mapped in an area considered “medium risk” for radon entry; i.e., 14% of buildings tested were found to exceed the Health Canada guideline of 200 Bq/cu m. It is recommended any new structure be designed/constructed with passive mitigation components to mitigate potential radon entry. Actual concentrations in a building can only be accurately determined by measurement using the standard 90+ day sampling test.

5. ASSESSMENT INFORMATION

5.1 Previous structures and Remnants of Structures

The Subject Property is located within the community of Goodwood and with construction of a driveway entry will be accessed from Prospect Road (municipal name for this section of provincial Highway 333). Before 1996, communities, such as Goodwood, Hatchet Lake, Brookside, Terence Bay and Sambro, along Prospect Road formed part of the County of Halifax. In 1996, the County of Halifax was amalgamated with the Cities of Halifax and Dartmouth and the Town of Bedford to form Halifax Regional Municipality.

As currently constituted, the Subject Property is wooded undeveloped land. A drone survey did not indicate evidence of any former structures or commercial development (e.g., quarry, sand/gravel pit). The tree coverage is a mixture of deciduous and coniferous with extensive undergrowth. There was evidence of hurricane damage, but not excessive as the Subject Property is to the southeast of Halifax Harbour, thereby avoiding most of the wind damage from both Hurricane Juan and Hurricane Fiona. Figures 3 to 8 and Figure 2 illustrate the limited changes that have occurred in the general neighbourhood of the Subject Property.

There are no structures or buildings or remnants of previous structures within the Subject Property.

5.2 Fuel or Chemical Storage/Delivery Systems

There have been and are no liquid fuel or chemical storage/delivery systems within the Subject Property. There will be no liquid fuel or chemical storage/delivery systems associated with the proposed Building/s. The Subject Property has never been used for the handling, processing or transfer of petroleum or other chemical substances and such systems have not/will not pose an environmental liability to the Subject Property.

5.3 Water and Sewage

As currently constituted, this area of the Regional Municipality is dependent on on-site potable water supplies and on-site septic fields. Depending on the final design and water demand for site buildings, the drilled wells may have to be registered, pursuant to the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations³. If registered, the well/s will have to be tested four times per year for bacteria (*E. Coli* and Total coliforms) and once per two years for general water quality and a set of trace metals (particularly arsenic and uranium)⁴.

³ Water and Wastewater Facilities and Public Drinking Water Supplies Regulations, Section 110, *Environment Act*, S.N.S. 1994-95, c. 1. O.I.C. 2005-426 (September 30, 2005), N.S. Reg. 186/2005, as amended by O.I.C. 2009-161 (March 31, 2009, effective April 1, 2009), N.S. Reg. 181/2009.

⁴ Nova Scotia Environment. 1 April 2020. Guidelines for Monitoring Public Drinking Water Supplies; Part II: Registered Public Water Supplies. (<https://novascotia.ca/nse/water/publicwater.registered.supply.asp>).

A "public drinking water supply" means a water supply system, including any source, intake, treatment, storage, transmission or distribution, that is intended to provide the public with potable, piped water and that:

- i. has at least 15 service connections,
- ii. regularly serves 25 or more persons per day for at least 60 days of the year, or
- iii. serves any of the following for at least 60 days of the year:
 - A. a day care facility licensed in accordance with the Day Care Act,
 - B. a permanent food establishment licensed in accordance with the Health Protection Act,
 - C. a commercial property for the accommodation of the travelling or vacationing public comprising land used for camping or for overnight parking of recreational vehicles or containing a separate building or buildings containing at least 1 room to be used as an alternate form of accommodation in a campground,
 - D. a commercial property for the accommodation of the travelling or vacationing public containing more than 4 rental units, including cottages or cabins.

Sanitary sewage will be conveyed to an approved on-site septic system. The on-site septic systems will likely require engineered drawings and final approval from Nova Scotia Environment.

The land parcel has a minor gradient up from Prospect Road (106 m elevation) to the centre of the land parcel (111 m elevation) and then grades down and east to 107 m elevation before descending to the east wetland stream (101 m elevation). North-south gradient is also limited (108 to 109 m elevation). Surface and groundwater are assumed to flow either west to drainage ditches along Prospect Road or east to the natural drainage/wetland with flow northeast to Long Lake.

5.4 Waste Handling

Solid wastes in Halifax Regional Municipality are required to be source-separated, in accordance with the Nova Scotia Solid Waste Resource Management Regulations⁵ and the Halifax Regional Municipality Solid Waste Resource Collection and Disposal By-Law (By-Law No. S-600; amended 10 April 2021). Requirements of the By-Law include but are not limited to provision of regulation containers for the storing and collection of mixed waste, recyclable materials, and organic materials and source-separate all collectible waste generated from eligible premises at the point of generation so as to comply with the provincial disposal bans and to facilitate their recycling, composting or disposal in accordance with the Municipality's waste resource management system.

As of the 4 April 2023 drone survey/site inspection, there are no solid wastes being generated or stored within the Subject Property. Wastes produced during construction activities will require appropriate separation and disposal. Solid wastes do not pose an environmental liability to the Subject Property, as currently constituted.

⁵ Solid Waste-Resource Management Regulations, Section 102, *Environment Act* S.N.S. 1994-95, c. 10.I.C. 96-79 (effective February 6, 1996), N.S. Reg. 25/1996; Amended to O.I.C. 2019-29 (effective February 6, 2019), N.S. Reg. 26/2019.

5.5 Heating/Ventilation/Air Conditioning Systems

As of the 4 April 2023 drone survey/site inspection, there were no heating, ventilation or air conditioning systems within the Subject Property.

As there were no air conditioning or refrigeration systems, there is no environmental liability associated with ozone depleting substances⁶.

5.6 Fire Extinguishing and Alarm Systems

Not applicable. As of the 4 April 2023 drone survey/site inspection, there is no building or structure and therefore no fire extinguishing systems or fire alarm systems.

The Subject Property is currently served by the Halifax Regional Municipality Prospect Road - Hatchet Lake fire service located at civic address 2101 Prospect Road.

5.7 Polychlorinated Biphenyls (PCB)

PCB were commonly used in electrical equipment manufactured prior to 1979. Since then, all manufacture and sale of such equipment has been prohibited. Use, handling and disposal of PCB containing equipment is regulated⁷. Provided any PCB containing equipment is still in active service, special management procedures are not required. When any PCB-containing equipment is withdrawn from service (e.g., renovations or deconstruction activities), it must be handled, stored and disposed under specified conditions. By regulatory definition, "PCB equipment", means any manufactured item that contains a PCB liquid, a PCB solid, or a PCB substance, and includes transformers and capacitors; and "PCB waste" includes a PCB liquid, a PCB solid, a PCB substance, and PCB equipment that has been taken out of service for the purpose of disposal.

The Subject Property has never been registered as a site for the handling, processing, storage or disposal of PCB-contaminated materials. There are no transformers within the Subject Property.

As any Subject Building will be constructed after June 2023, there will be no PCB-containing equipment and such materials will not pose an environmental liability to the Subject Property.

5.8 Waste Materials

As of the 4 April 2023 drone survey/site inspection, there is no evidence of wastes having been dumped on the Subject Property.

⁶ Ozone Layer Protection Regulations, Section 112, *Environment Act*, S.N.S. 1994-95, c.1 Order in Council 95-293 (April 11, 1995), N.S. Reg. 54/95.

⁷ Dangerous Goods Management Regulations, Section 84, *Environment Act*, S.N.S. 1994-95, c. 1 O.I.C. 95-295 (April 11 1995), N.S. Reg. 56/95 as amended to OPC 2016-79-79 (March 29, 2016), N.S. Reg. 57/2016.

5.9 Electrical System

Not applicable. As of the 4 April 2023 drone survey/site inspection, there were no electrical systems within the Subject Property. There are above-ground lines and poles along Prospect Road.

5.10 Disposed Materials

The Subject Property was never used as a disposal site or for the processing or handling of wastes.

5.11 Hazardous Materials (Other than Petroleum Products)

As of the 4 April 2023 drone survey/site inspection, there was no visual evidence of hazardous materials being disposed on site. The Subject Property was never registered for the transfer, processing or storage of hazardous products or hazardous wastes.

5.12 Geological Materials

Reference to provincial geologic maps⁸ indicates the Subject Property is mapped as underlain by Liscomb Formation, a Middle – Late Devonian muscovite biotite monzogranite bedrock (see Figure 9). This type of bedrock is non-acid generating and the excavation and management is not regulated, pursuant to the Sulphide Bearing Material Disposal Regulations⁹.

During the natural decay of uranium, the formation of radon gas can occur and collect in low areas, such as basements, before being dispersed throughout a building by the heating system. Reference to the Map Showing Potential for Radon in Indoor Air¹⁰ (see Figure 10) indicates the Subject Property is mapped in an area considered “medium risk” for radon entry; i.e., 14% of buildings tested were found to exceed the Health Canada guideline of 200 Bq/cu m. It is recommended any new structure be designed/constructed to minimize radon entry. Actual concentrations in a building can only be accurately determined by measurement using the standard 90+ day sampling test¹¹.

5.13 Worker Protection/Occupational Health

This is a Phase I Environmental Site Assessment and not a Safety Audit.

⁸ <https://fletcher.novascotia.ca/DNRViewer/?viewer=Geoscience>.

⁹ Sulphide Bearing Material Disposal Regulations, Section 66, *Environment Act* S.N.S. 1994-95, c. 1 O.I.C. 95-296 (April 11, 1995), N.S. Reg. 57/95.

¹⁰ <https://fletcher.novascotia.ca/DNRViewer/?viewer=Radon>.

¹¹ See additional information at: www.hc-sc.gc.ca/ewh-semt/radiation/radon/index-eng.php

5.14 Cultural/Historical Issues

The Subject Property is not a Registered Heritage Property; is not located within a Heritage Conservation District or Heritage Streetscape; is not located on, or adjacent to, designated indigenous lands; and, does not lie within or adjacent to water (supply) conservation areas.

Reference to the Planning District 4 Land Use By-law indicates the Subject Property is not in an Area of Elevated Archaeological Potential (Schedule F); is not located within a designated Wetlands area greater than 2000 sq m (Schedule G); and is located in an area identified a RW-2 (Rural Wind Zone) as identified by the Wind Energy Zoning map (Schedule H).

5.15 Water Bodies, Water Courses and Wetlands

As currently constituted, the Subject Property is wooded undeveloped land. As noted in the Development Constraints Analysis¹², approximately 1.8 hectares or 18% of the land parcel area is “wetland” with a large area on the eastern side and a small area on the western side, next to Prospect Road. This was confirmed by Nova Scotia Natural Resources mapping¹³ (see Figure 11 and drone pictures in Appendix B) indicating at least two wetland areas, not fully delineated, and one natural water course within the Subject Property.

With respect to the natural drainages/water courses, Halifax Regional Municipality has a requirement in all land use by-laws for a 20-m surveyed setback (buffer zone) from any natural drainage (water body and water course) or designated ecological zone. The buffer zone requirements may impact placement or alignment of the proposed development. The Development Constraints Analysis suggested there may be other smaller wetlands, although only two areas were clearly indicated during the drone survey in early April. Delineation of the wetlands will also be required to facilitate location and design of an on-site septic system/s.

When the development plans are finalized, it is recommended a Wetland Delineation Survey be conducted to ensure there are no issues with respect to placement of buildings or septic fields. Such surveys can only be conducted between May and November. It is possible to alter or infill a wetland by application to Nova Scotia Environment for a Wetland Alteration Permit¹⁴. The Permit allows for the “purchase” of alternative wetland or wetland repair, under the supervision of a designated wetland professional.

5.16 Municipal Ordinances

Located in District 11 (Spryfield - Sambro Loop - Prospect), the Subject Property is zoned “CR-2” (Commercial Recreation 2), pursuant to the Planning District 4 (Prospect) Land Use Bylaw (as amended to 3 February 2023). The zoning is similar to the immediately adjacent property to the

¹² GHD Consultants. 21 November 2022. Developments Constraints Analysis for Parcel 40600738, Prospect Road, Goodwood, Nova Scotia. Prepared for Screen Nova Scotia, Halifax, NS.

¹³ <https://nsgi.novascotia.ca/plv>

¹⁴ <https://novascotia.ca/nse/wetland/wetland.alteration.asp>

north, *Halifax Exhibition Centre*. While not identified in the property deed, the Development Constraints Analysis Report noted the Subject Property is encumbered by a “Letter of Access” to permit an access trail to/from Long Lake Provincial Park to the Purcell Ground Cemetery, approximately 35 m east of the Subject Property.

Reference to the Planning District 4 Land Use By-law indicates the Subject Property is not in an Area of Elevated Archaeological Potential (Schedule F); is not within a designated Wetlands greater than 2000 sq m (Schedule G); and is in an area identified a RW-2 (Rural Wind Zone) as identified by the Wind Energy Zoning map (Schedule H).

5.17 Provincial Orders

Information received from Nova Scotia Environment pursuant to an *Environmental Registry* request indicated the Registry files could not be searched as there is no civic address for the Subject Property (see Appendix C).

5.18 Asbestos-containing Materials (ACM)

By regulatory definition, ACM is any material containing greater than 1% asbestos by weight (irrespective of the type of material or type of asbestos fibre). Asbestos containing material and asbestos containing waste are regulated under the Asbestos Waste Management Regulations¹⁵. For the purposes of material removal and handling within a Building (renovation or demolition), Nova Scotia Labour has defined “asbestos containing materials”¹⁶ as any material identified by an appropriate laboratory analytical method (e.g. US EPA 600/R-93/116, US NIOSH 9000, or US NIOSH 9002) to contain at least 0.5% of any type of asbestos, and vermiculite insulation identified to contain any amount of asbestos using EPA method 600/R-04/004 if other analytical methods do not identify the presence of asbestos.

There are currently no structures within the Subject Property. As any future building/s or structures will be constructed after June 2023, “asbestos-containing materials” will not be used and will not pose an environmental liability. The Subject Property was never used for the storage, handling or transfer of asbestos-containing materials.

5.19 Parking

Not applicable. As of the 4 April 2023 drone site inspection, there was no parking and no vehicle accessibility to the Subject Property. While the Subject Property has +/- 265 m (+/- 870 ft) frontage on Prospect Road, there is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

¹⁵ Asbestos Waste Management Regulations, Section 84, *Environment Act* S.N.S. 1994-95, c. 1 O.I.C.95-292 (April 11, 1995), N.S. Reg. 53/95as amended to 2017-203 (August 8, 2017) N.S. Reg. 121/2017.

¹⁶ Asbestos In the Workplace: A Guide to Assessment & Management of Asbestos in the Workplace. Issued by Nova Scotia Dept. of Labour and Advanced Education, 21 November 2013.

5.20 Urea-Formaldehyde Foam Insulation (UFFI)

UFFI is a thermal insulation that was sold from early 1970's until 1980 when Environment Canada banned the material under the *Hazardous Products Act*.

There are currently no structures within the Subject Property. As any future building/s or structures will be constructed after June 2023, UFF insulation will not be used and will not pose an environmental liability.

5.21 Air Quality

Ambient Air. There are no major incinerators or similar stack sources of emissions in the neighbourhood. Ambient air quality in the area is generally good and reflects a rural population density.

Radon. Reference to the Map Showing Potential for Radon in Indoor Air (see Figure 10) indicates the Subject Property is mapped in an area considered "medium risk" for radon entry; i.e., 14% of buildings tested were found to exceed the Health Canada guideline of 200 Bq/cu m. It is recommended any new structure be designed/constructed to minimize radon entry. Actual concentrations in a building can only be accurately determined by measurement using the standard 90+ day sampling test.

Moulds. Fungi (moulds, mushrooms and yeasts) are ubiquitous in the environment and play a key role through their decomposition of organic materials. Fungi require three key components to establish colonies and grow: water, nutrients (primarily wood and cellulose) and growing conditions. Except for water or high humidity, such conditions readily occur in interior environments. Therefore failure to control water and humidity (e.g., water ingress, broken water pipes, condensation of excessive humidity) typically results in establishment and amplification of fungi (moulds, yeasts and mushrooms) in interior environments, thereby contributing to decay and damage to interior materials, finishings, furniture, etc., as well as posing a health hazard to occupants.

There are no buildings or structures within the Subject Property and, therefore, mould contamination does not pose an environmental liability, as currently constituted.

5.22 Traffic

Prospect Road is the municipal name for this section of Highway 333, the highway from Halifax to the Village of Prospect and thence west to Peggy's Cove and communities along the eastern side of St. Margarets Bay, ultimately linking with Highway 3/Highway 103 at Upper Tantallon. Traffic volume in this section of Prospect Road is moderate to heavy, depending on the time of day for commuter traffic proceeding to and from residential suburbs to the south and Halifax centre.

There is no Halifax Transit service on Prospect Road. There is a MetroX service from a commuter park & ride facility at the Exhibition Park facility.

5.23 Lead

Before 1985, many oil paints, particularly enamels, trim (windows and doors) and exterior shingle and trim paints, contained elevated concentrations of lead (more than 0.1%). Beginning in the late 1970's, Environment Canada required the phasing out of lead in many consumer products, including gasoline motor fuels and paints. The Liquid Coating Materials Regulations were enacted under the Hazardous Products Act in 1976 to restrict the lead content of paints and other liquid coatings to 0.5% by weight¹⁷. The objective was to reduce health impacts due to exposure to lead-containing paint during demolition and renovation activities: 1) demolition worker exposure; 2) spread of lead containing paint dust during removal activities; and 3) appropriate disposal of demolition materials. Nova Scotia Environment currently defines "lead-containing paints" as containing concentrations of lead higher than 0.1% or 1,000 mg/kg. According to Nova Scotia Environment guidelines, lead-containing paints/substrates that have a total lead concentration less than 1,000 mg/kg may be disposed of as "construction and demolition debris" in an approved landfill. If paints contain more than 1,000 mg/kg and are leachable, the paints have to be handled as hazardous materials.

There have been no activities on the Subject Property and adjacent properties, which could have been expected to have resulted in trace metal contamination.

As of the 4 April 2023 drone site inspection, there are no structures located on the Subject Property. As any future building/s or structures will be constructed after June 2023, "lead-based paints" will not be used and will not pose an environmental liability.

5.23 Drains, Easements and Pipelines

While not identified in the property deed, the Development Constraints Report noted the Subject Property is encumbered by a "Letter of Access" to permit an access trail to/from Long Lake Provincial Park to the Purcell Ground Cemetery, approximately 35 m east of the Subject Property.

There are no drains or pipelines or service laterals into or through the Subject Property.

There is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

¹⁷ <http://www.hc-sc.gc.ca/ewh-semt/contaminants/lead-plomb>.

5.25 Neighbouring Properties (see Figure 12)

There are no neighbouring service stations, bulk fuel facilities or dry-cleaning facilities. The nearest retail fuel facility (Needs/Tim Horton's/Petro Canada) is located about 1 km north and sufficiently distant as to not pose an environmental risk to the Subject Property. Similarly, any fuel activities related to the *Halifax Exhibition Centre* are sufficiently distant as to not pose an environmental risk to the Subject Property.

Neighbours to the west:

- ❑ The Subject Property fronts on Prospect Road (provincial Highway 333). This is a provincially owned and maintained two-lane paved roadway with no sidewalk or curb/gutter in this section. There is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

Across Prospect Road:

- ❑ PID 00596726, Prospect Road or Block III (Portion of) Ragged Lake Business Park. This is a municipally-owned 443 hectare (+/- 1,095 acre) undeveloped land parcel. As currently constituted, this land parcel does not pose an environmental risk to the Subject Property.
- ❑ Properties further west are sufficiently distant as to not pose environmental risks to the Subject Property.

Neighbours to the north:

- ❑ Immediately adjacent is civic address 100 Prospect Road (PID 40600728). This +/- 44.2 hectare (+/- 109.1 acre) land parcel currently contains the *Halifax Exhibition Centre*, formerly *Atlantic Winter Fair Grounds*. Any sources of contamination are sufficiently distant to the Subject Property and this property does not pose an environmental risk to the Subject Property.
- ❑ Properties further north are at a sufficient distance and do not pose environmental risks to the Subject Property.

Neighbours to the east:

- ❑ Civic address 10 Dunbrack Street (PID 00315309). This is the provincially-owned and maintained Long Lake Provincial Park (+/- 1,887 hectares or 4,662 acres). As currently constituted, this property does not pose an environmental risk to the Subject Property.
- ❑ Properties further east are at a sufficient distance and do not pose environmental risks to the Subject Property.

Neighbours to the south:

- ❑ Civic address 10 Dunbrack Street (PID 00315309). This is the provincially-owned and maintained Long Lake Provincial Park (+/- 1,887 hectares or 4,662 acres). As currently constituted, this property does not pose an environmental risk to the Subject Property.
- ❑ Properties further south are at a sufficient distance and do not pose environmental risks to the Subject Property.

Figure 3: 14 May 1964 aerial photograph of Subject Property and area.
(National Air Photo Library, Photo 18351-237)

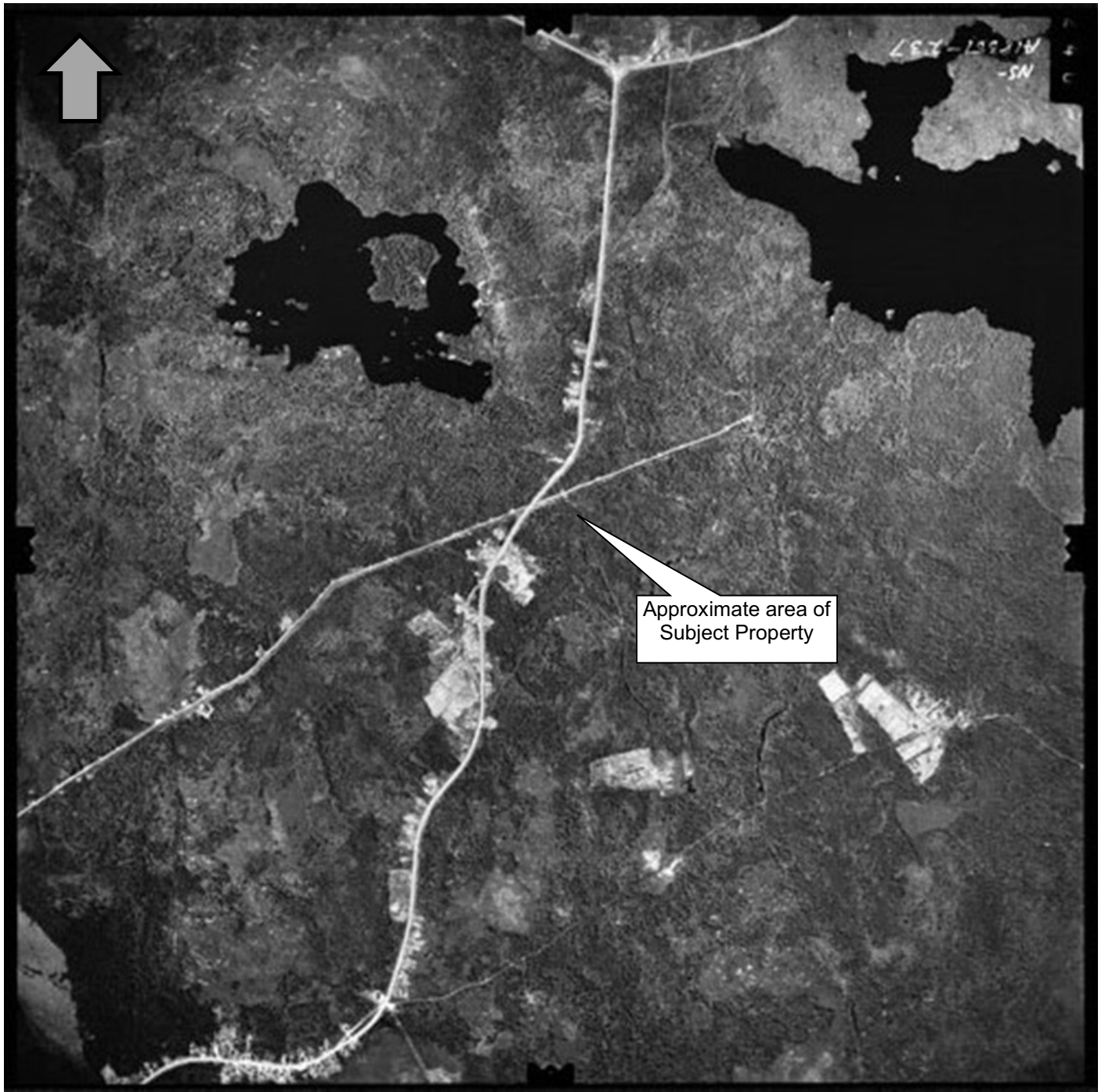


Figure 4: 3 June 1974 aerial photograph of the Subject Property and area
(National Air Photo Library, Photo 74067-057)



Figure 5: 29 October 1984 aerial photograph of Subject Property and area
(National Air Photo Library, Photo 84016-026).



Figure 6: 25 July 2002 aerial photograph of Subject Property and area
(National Air Photo Library, Photo 02319-026).



Figure 7: 12 July 2003 aerial photograph of Subject Property and adjacent area (From Google EarthPro).



Figure 8: 3 May 2015 aerial photograph of Subject Property and adjacent area (From Google Earth).



Figure 10: 2015 Map Showing Potential for Radon in Indoor Air in Nova Scotia. 14% of buildings tested within zones denoted by the brown colour have been found to have radon at concentrations greater than the Health Canada guideline of 200 Bq/cu m.
(From <https://fletcher.novascotia.ca/DNRViewer/?viewer=Radon>)

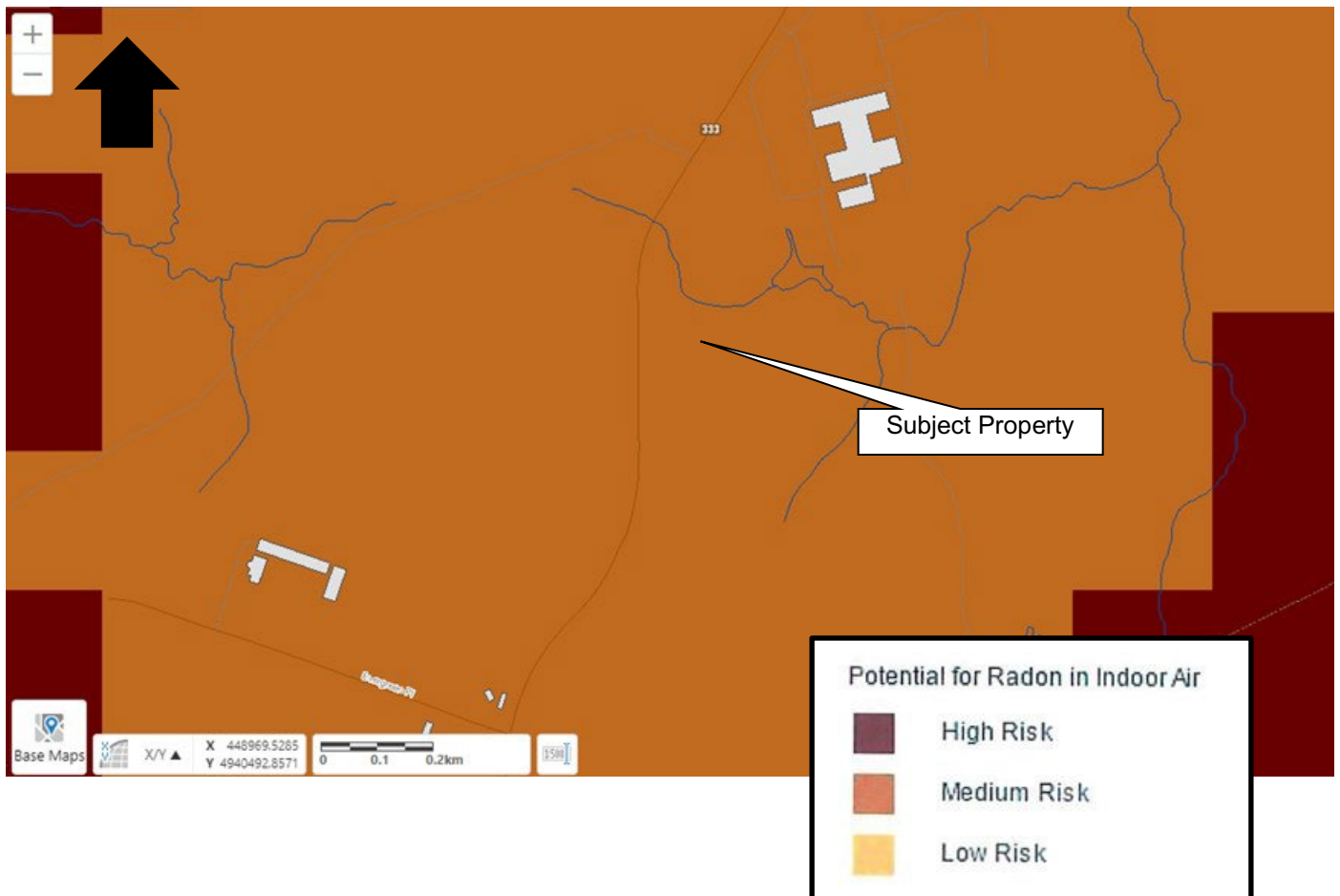


Figure 11: Nova Scotia Department of Natural Resources
Habitat Protection Map
(From: <https://nsgi.novascotia.ca/plv>).

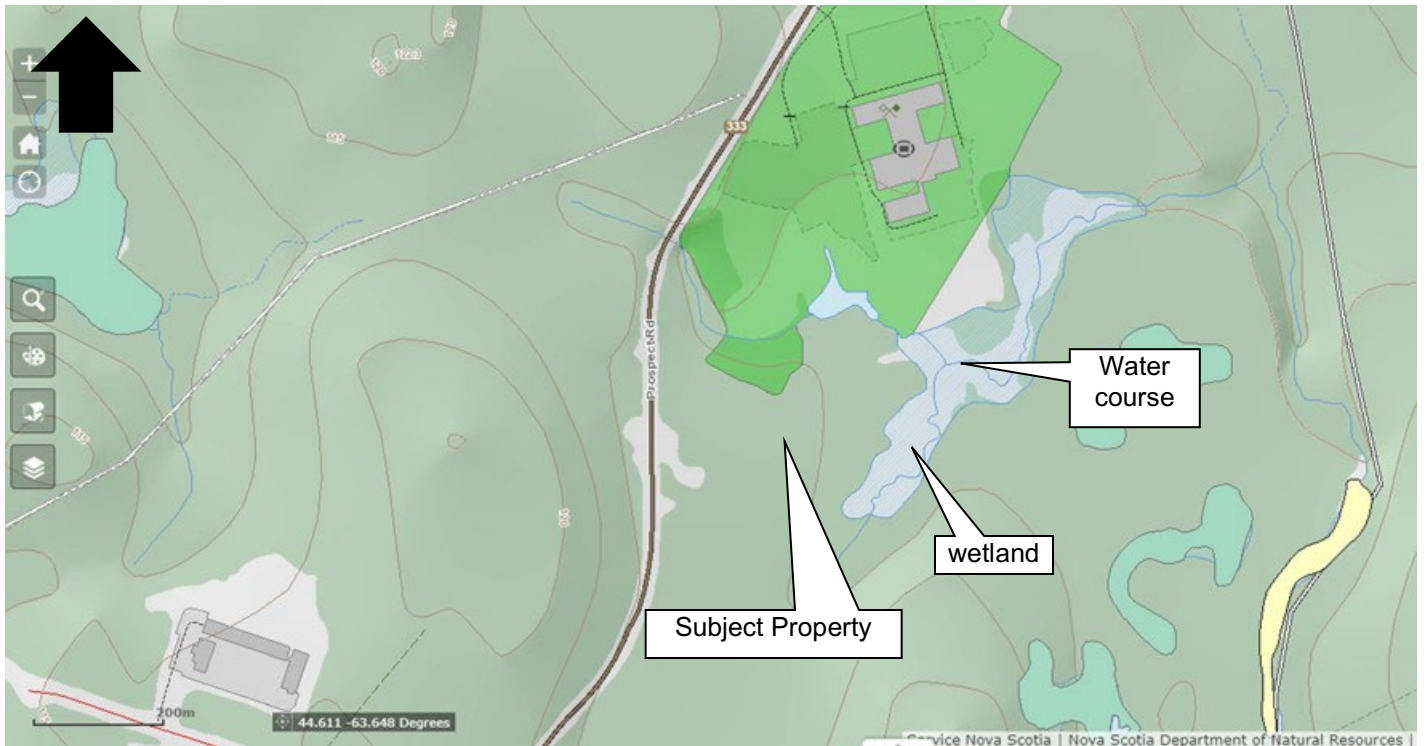
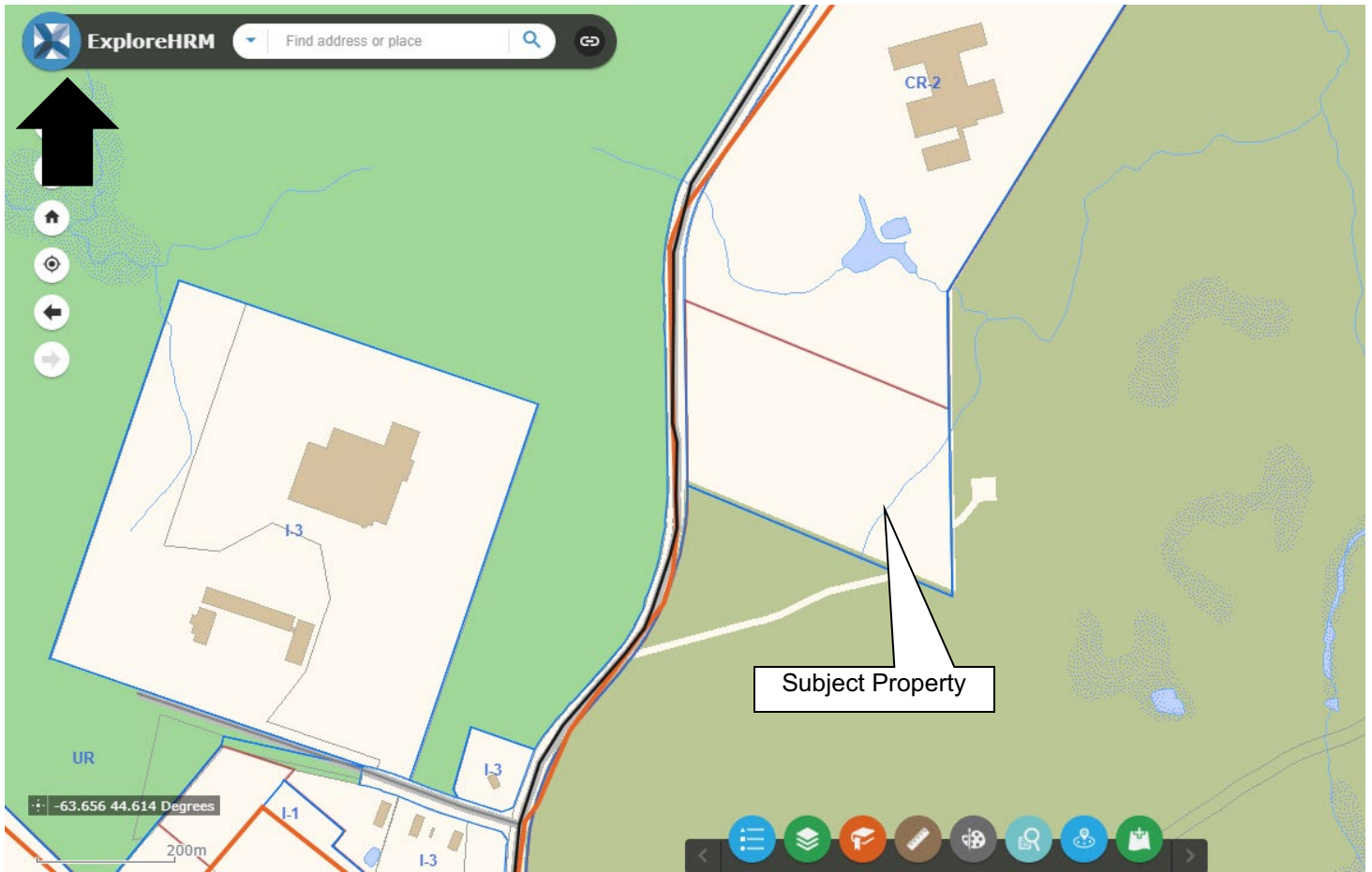


Figure 12: Neighbouring properties
(From <https://maps.halifax.ca>)



6. DETERMINATION

The Subject Property consists of one vacant wooded land parcel identified as PID 40600736 or “Lot B”, in the Community of Goodwood, Halifax Regional Municipality, Nova Scotia with frontage on the eastern side of Prospect Road (municipal name for this section of Highway 333).

Located in District 11 (Spryfield - Sambro Loop - Prospect), the Subject Property is zoned “CR-2” (Commercial Recreation 2), pursuant to the Planning District 4 (Prospect) Land Use Bylaw (as amended to 3 February 2023). The zoning is similar to the immediately adjacent property to the north, *Halifax Exhibition Centre*. While not identified in the property deed, the Development Constraints Report noted the Subject Property is encumbered by a “Letter of Access” to permit an access trail to/from Long Lake Provincial Park to the Purcell Ground Cemetery, approximately 35 m east of the Subject Property.

The Subject Property is not a Registered Heritage Property; is not located within a Heritage Conservation District or Heritage Streetscape; is not located on, or adjacent to, designated indigenous lands; and, does not lie within or adjacent to water (supply) conservation areas. Reference to the Planning District 4 Land Use By-law indicates the Subject Property is not in an Area of Elevated Archaeological Potential (Schedule F); is not located within a designated Wetlands area greater than 2000 sq m (Schedule G); and is located in an area identified a RW-2 (Rural Wind Zone) as identified by the Wind Energy Zoning map (Schedule H).

The land parcel has a minor gradient up from Prospect Road (106 m elevation) to the centre of the land parcel (111 m elevation) and then grades down and east to 107 m elevation before descending to the east wetland stream (101 m elevation). North-south gradient is also limited (108 to 109 m elevation). Surface and groundwater are assumed to flow either west to drainage ditches along Prospect Road or east to the natural drainage/wetland with flow northeast to Long Lake.

As currently constituted, the Subject Property is wooded undeveloped land. A drone survey did not indicate evidence of any former structures or commercial development (e.g., quarry, sand/gravel pit). The tree coverage is a mixture of deciduous and coniferous with extensive undergrowth. There was evidence of hurricane damage, but not excessive as the Subject Property is to the southeast of Halifax Harbour, thereby avoiding most of the wind damage from both Hurricane Juan and Hurricane Fiona. There is evidence of areas which may be designated as “wetlands”. When the development plans are finalized, it is recommended a Wetland Delineation Survey be conducted to ensure there are no issues with respect to placement of buildings or septic fields. Currently, Halifax Regional Municipality has a requirement in all land use by-laws for a 20-m surveyed setback (buffer zone) from any natural drainage or designated ecological zone.

There is currently no designated driveway entrance to the Subject Property. As Prospect Road is the municipal name for provincial Highway 333, the location and format of any entrance will have to be approved by Nova Scotia Public Works and Infrastructure Renewal.

As currently constituted, there are no structures or buildings within the Subject Property. There have and are now, no liquid fuel or chemical storage and delivery systems associated with the Subject Property. It is assumed future heating systems will be based on electric baseboard heaters and heat pumps; therefore, liquid fuel systems will not pose a future environmental liability. As any future buildings/structures will be constructed after June 2023, there will be no environmental liabilities associated with: asbestos-containing materials; “lead-based paints/finishes”; PCB containing electrical equipment and light fixtures; ozone-depleting substances (currently, heat pumps use a non-ozone depleting refrigerant gas); Urea-Formaldehyde Foam Insulation (UFFI), mould or hazardous materials/wastes.

This area of the Regional Municipality is dependent on on-site potable water supplies and on-site septic fields. Depending the final design and water demand for site buildings, the drilled wells may have to be registered, pursuant to the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations. Any future on-site septic systems will likely require engineered drawings and final approval from Nova Scotia Environment.

The Subject Property is mapped as underlain by Liscomb Formation, a Middle – Late Devonian muscovite biotite monzogranite bedrock. This type of bedrock is non-acid generating and excavation and handling are not regulated pursuant to the Sulphide Bearing Material Disposal Regulations. Reference to the Map Showing Potential for Radon in Indoor Air indicates the Subject Property is mapped in an area considered “medium risk” for radon entry; i.e., 14% of buildings tested were found to exceed the Health Canada guideline of 200 Bq/cu m. It is recommended any new structure be designed/constructed with passive mitigation components to mitigate potential radon entry. Actual concentrations in a building can only be accurately determined by measurement using the standard 90+ day sampling test.

There are no neighbouring service stations, bulk fuel facilities or dry-cleaning facilities. The nearest retail fuel facility (Needs/Tim Horton’s/Petro Canada) is located about 1 km north and sufficiently distant as to not pose an environmental risk to the Subject Property. Similarly, any fuel activities related to the *Halifax Exhibition Centre* are sufficiently distant as to not pose an environmental risk to the Subject Property. As currently constituted properties to the east, south and west (across Prospect Road) are undeveloped woodlands and do not pose environmental risks to the Subject Property.

DETERMINATION: *On the basis of current information and as currently constituted, there are no significant or limited environmental liabilities. No further Environmental Site Assessment is recommended.*

As currently constituted, the Subject Property is wooded undeveloped land. A drone survey did not indicate evidence of any former structures or commercial development (e.g., quarry, sand/gravel pit). A Wetland Delineation Survey will be required to ensure there are no issues with respect to placement of buildings or septic fields relative to the large eastern and smaller western wetlands and drainages. Currently, Halifax Regional Municipality has a requirement in all land use by-laws for a 20-m surveyed setback (buffer zone) from any natural drainage or designated ecological zone.

As currently constituted, there are no structures or buildings within the Subject Property. There have been and are now, no liquid fuel or chemical storage and delivery systems associated with the Subject Property. It is assumed future heating systems will be based on electric baseboard heaters and heat pumps; therefore, liquid fuel systems will not pose a future environmental liability. As any future buildings/structures will be constructed after June 2023, there will be no environmental liabilities associated with: asbestos-containing materials; “lead-based paints/finishes”; PCB containing electrical equipment and light fixtures; ozone-depleting substances (currently, heat pumps use a non-ozone depleting refrigerant gas); Urea-Formaldehyde Foam Insulation (UFFI), mould or hazardous materials/wastes.

This area of the Regional Municipality is dependent on on-site potable water supplies and on-site septic fields. Depending on the final design and water demand for site buildings, the drilled wells may have to be registered, pursuant to the Water and Wastewater Facilities and Public Drinking Water Supplies Regulations. Any future on-site septic systems will require engineered drawings and final approval from Nova Scotia Environment.

The Subject Property is mapped as underlain by Liscomb Formation, a Middle – Late Devonian muscovite biotite monzogranite bedrock and therefore the area is considered “medium risk” for radon entry. It is recommended any new structure be designed/constructed to mitigate potential radon entry.

There are no neighbouring service stations, bulk fuel facilities or dry-cleaning facilities. The nearest retail fuel facility (Needs/Tim Horton’s/Petro Canada) is located about 1 km north and sufficiently distant as to not pose an environmental risk to the Subject Property. Similarly, any fuel activities related to the Halifax Exhibition Centre are sufficiently distant as to not pose an environmental risk to the Subject Property. As currently constituted properties to the east, south and west (across Prospect Road) are undeveloped woodlands and do not pose environmental risks to the Subject Property.

7. QUALIFICATIONS OF SITE ASSESSOR

The environmental site assessment was conducted by Ms. Cynthia Gillis of *OCL Services Ltd.* Ms. Gillis is an Environmental Professional (Certified Environmental Auditor) and has over 40 years experience in the assessment and evaluation of contaminants in the environment including all phases of environmental site assessments; operational audits; environmental management; waste management and environmental training. She has undertaken projects for private and government clients throughout Canada.

Her resume and relevant corporate information are provided in Appendix D.

8. CONTINGENT AND LIMITING CONDITIONS

1. This report is prepared at the request of the Client to assist in the identification and management of environmental liabilities related to ownership, purchase or sale of lands, building and operations, where the liabilities are defined under municipal, provincial and federal legislation. This Report must be used in its entirety, as parts taken out of context may prove misleading. No person or institution other than the Client indicated in this report to rely upon this Assessment without first obtaining written authorization from the Client indicated in this report. There may be qualifications, assumptions or limiting conditions in addition to those set out below relevant to that person/entity or the intended use. The report has been prepared on the assumption that no other person/entity will rely on it for any other purpose than as a Phase I Environmental Site Assessment (CSA/CAN Z768-01) and that all liability to all such persons/entities is denied.
2. While expert in environmental assessment matters, the authors are not qualified and do not purport to give legal advice. It has been assumed that:
 - Should a legal description be furnished it is assumed accurate and up to date;
 - Title to the property is valid as provided;
 - There are no encroachments, encumbrances, restrictions, liens, legal or special assessments, leases or covenants that would in any way affect the site assessment, except as expressly noted herein;

Because these assumptions have been made, no investigation, legal or otherwise, has been undertaken which would verify these assumptions except as expressly noted herein.

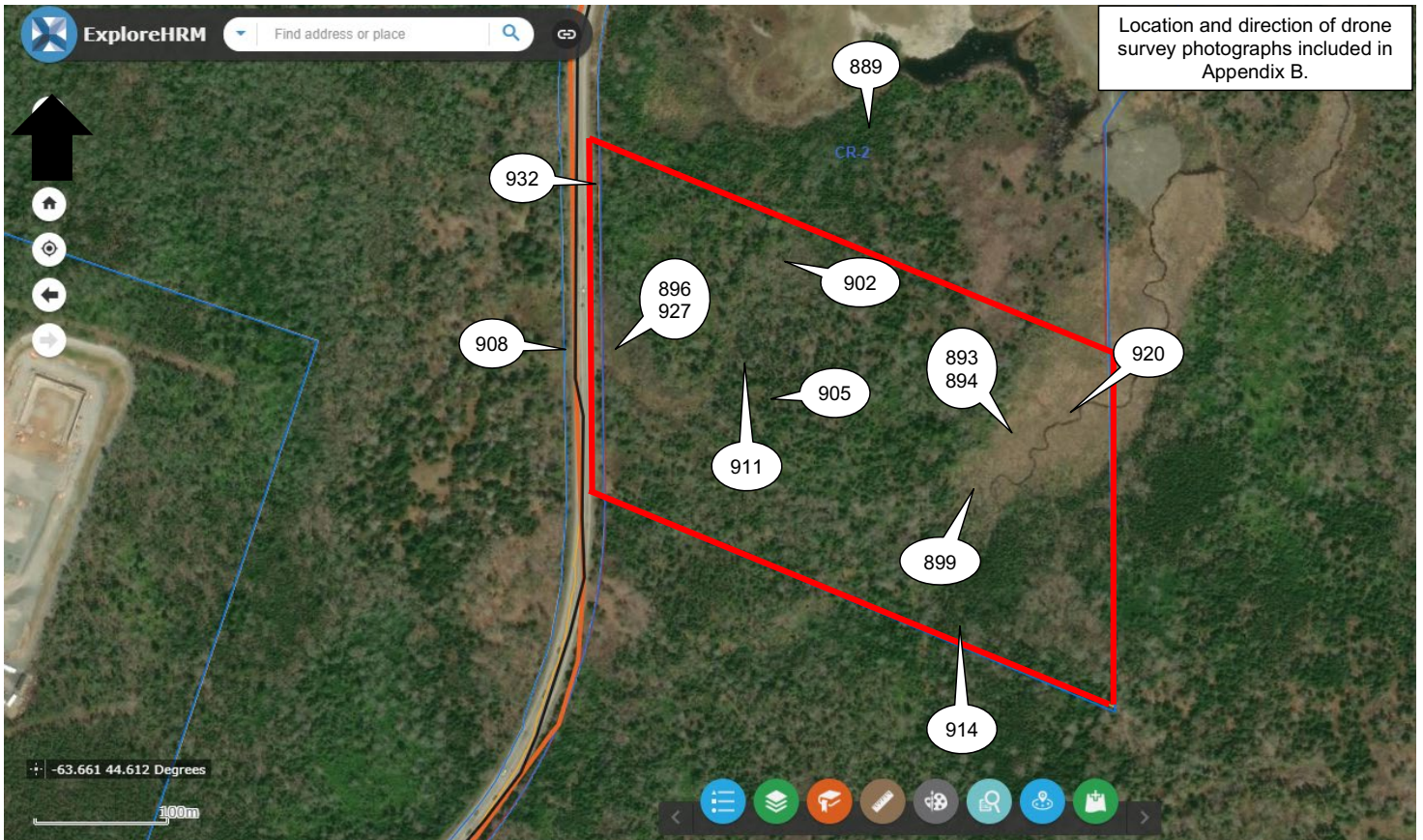
3. The authors are not qualified surveyors. Sketches, drawings, diagrams, photographs, etc. are presented in this report for the sole purpose of illustration and are not to be relied upon in themselves.
4. The authors are not qualified to give engineering advice and no soil tests have been done to evaluate geotechnical or hydrogeological properties or characteristics.
5. Information presented in this report is based on information provided by others and visual observations as identified herein. This type of limited investigation is designed to provide information to support an overall assessment of the current environmental conditions of the subject Properties. Sampling and analysis of building materials, wastes, soils, surface water, air (ambient, fugitive and emissions), groundwater and other materials were not carried out as part of this investigation.

6. Achieving the objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice, we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions.
7. It should be noted that current environmental legislation, permits, guidelines and regulations are subject to change, and such changes, when put into effect, could alter the conclusions and recommendations noted throughout this report.
8. The conclusions and recommendations noted throughout this report reflect existing site conditions with respect to the current environmental condition of the subject site at the time of this assessment. Compliance of past owners with applicable environmental regulations was not within the scope of this ESA.
9. This report has been prepared in accordance with accepted practices for a Phase I ESA (CSA/CAN Standard Z768-01). No other warranties, either expressed or implied, are made as to the professional services provided under the terms of the ESA and included in this report.

APPENDIX A:
PROPERTY INFORMATION

APPENDIX B:

**DRONE PHOTOGRAPHS
(4 APRIL 2023)**



D-889: View of Subject Property from adjacent civic address 200 Prospect Road.



D-893: View east-southeast of wetland and stream at eastern end of Subject Property.



D-894: View down of wetland and stream at eastern end of Subject Property.



D-896: View down of wetland at western end of Subject Property.

Prospect Road



D-927: View down from higher elevation of west wetland and Prospect Road.

Prospect Road



D-899: View north-northeast of eastern wetland and stream.



D-902: View northwest along northern property line towards Prospect Road and Ragged Lake.



D-905: View west across centre-west of Subject Property towards Prospect Road.



D-908: View northeast from Prospect Road across Subject Property.



D-911: View north and northeast across Subject Property from centre of Subject Property.



D-914: View north across centre and eastern part of Subject Property.



D-920: View southeast across eastern wetland and Subject Property.



D-932: View east from Prospect Road along the northern boundary of the Subject Property.



APPENDIX C:
NOVA SCOTIA ENVIRONMENT
INFORMATION



Environmental Registry Application
Environment Act, Section 10

Please do a search of the Environmental Registry for information relating to the following:

1. Provide us with the information on the property to be searched

Civic Number, Street & Town/City : _____
 Subdivision Name: _____ PID #: _____
 County: _____
 (or company): _____

SEARCH
LIMITATION

If the civic address has changed, please provide old address:
 Old Civic Number & Street: _____

Note: We cannot search solely on PID #s

2. Additional information which may help

If you are seeking information on Petroleum Storage Tanks or an On-Site Sewage System please provide the following:

Year installed: _____
 Owner/builder at the time system was installed: _____
 Installer's Name: _____

Please indicate any specific information you may be looking for: _____

3. Your Contact Information

Name (please print): _____
 Company (if applicable): _____
 Mailing Address: _____
 Postal Code: _____
 Phone Number: _____ Fax Number: _____

4. Return the form and fees to

Attention: Environmental Registry Coordinator
 NS Environment, Information Access & Privacy Section
 5151 Terminal Road, 5th Floor
 PO Box 442
 Halifax, NS B3J 2P8

Please enclose a **\$23.87** application fee for each civic address to be searched. Please make cheque/money order payable to the *Minister of Finance*.

Date Received

For Office Use Only
 Application # RD

Fee Received

APPENDIX D:
QUALIFICATIONS OF ASSESSOR

CYNTHIA GILLIS, EP(EMSLA-emeritus), EP(CEA)

EDUCATION/QUALIFICATION

- ❑ Phase I Environmental Site Assessment, Assoc. Environmental Site Assessors of Canada Inc., Halifax, NS (May 2017).
- ❑ Phase II Environmental Site Assessment, Assoc. Environmental Site Assessors of Canada Inc., Halifax, NS (October 2017).
- ❑ Atlantic Risk Based Corrective Action (RBCA) Training Program
- ❑ Nova Scotia Safety Certificate (APENS)
- ❑ 40-hour Contaminated Site Health and Safety Training (HAZWOPER) and renewals, WTI.
- ❑ 40-hour Certified ISO 14000 Lead Auditor Training
- ❑ ISO 14000 EMS Internal Auditor Training, QMI
- ❑ Mastering Environmental Health and Safety, Auditing Skills and Techniques (40-hour course), Arthur D. Little.
- ❑ Environmental Assessment of Contaminated Sites. Technical University of Nova Scotia, Halifax, NS
- ❑ 40-hour Certified ISO 9000 Lead Auditor Training, Technical University of Nova Scotia, Halifax, NS
- ❑ Diploma, Environmental Management, Technical University of Nova Scotia (1995)
- ❑ Environmental Professional (Certified Environmental Auditor) 1997 to 2022.
- ❑ Environmental Professional (Certified Environmental Management System Lead Auditor) (1997 to 2022)
- ❑ Certified Chemical Technologist (University College of Cape Breton, Sydney, NS).

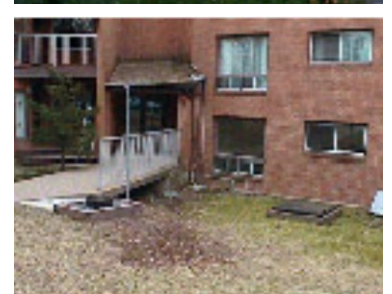
RELATED EXPERIENCE:

- ❑ Conduct approximately 100 Phase I Environmental Site Assessments, annually.
- ❑ Conduct 12-15 Phase II or Phase III Environmental Site Assessments, annually.
- ❑ Environmental Compliance Audit for Department of Fisheries and Oceans (4 sites in Newfoundland and Labrador and 4 sites in Nova Scotia).
- ❑ Enhanced Phase I Environmental Site Assessment, CFB Greenwood, N.S.
- ❑ Environmental Assessment of DWP, HMCS Ville De Quebec/Hlfx Class Generic DWP
- ❑ Hazardous Materials Evaluation and Management; Mercury Survey CFB Gagetown
- ❑ CEEA Assessment for HMCS Nipigon, HMCS Terra Nova, HMCS Gatineau
- ❑ Risk Analyses of HazMat, HMC Halifax Class Ships
- ❑ Quantitative Risk Assessment of Pier 26 & Qualitative Risk Assessment Pier 27 St. John's Newfoundland
- ❑ EMS Gap Analyses and SDS Gap Analyses, 9 Wing Gander, Newfoundland
- ❑ StoraEnso: Audits - EMS; Energy Management, Effluent Management, Training Management, Solid Waste; HazMat; Transportation of Dangerous Goods; Stewardship and Resources Audits
- ❑ Environmental assessment and supervision of Docking Work Periods for HMCS St. John's, HMCS Toronto, HMCS Montreal, HMCS Athabaskan
- ❑ Assessment, development of specifications and terms of reference and PCB remediation of contaminated lagoon, CFS Debert
- ❑ Hazardous Materials/Waste Audit/Inventory, 9 Wing Gander
- ❑ Solid Waste Audit/Inventory, 9 Wing Gander
- ❑ CFNOS & QHM EMS Audit Review/Assist, MARLANT, CFB Halifax
- ❑ Implementation of EMS, Environmental Management System for STORA ENSO
- ❑ Quantitative Risk Assessment and Completion of Additional Site investigations at Site 50, Site 55, Site 57, Site 61 and Site 63 CFB Shearwater - Osborne Head/Hartlen Point;
- ❑ Detailed Site Investigation and Risk Assessment FDS — 9 Wing Gander, Newfoundland;
- ❑ CEEA Environmental Assessment, Two Rivers Link Project, Tracadie-Sheila, New Brunswick

PHASE I ENVIRONMENTAL SITE ASSESSMENT



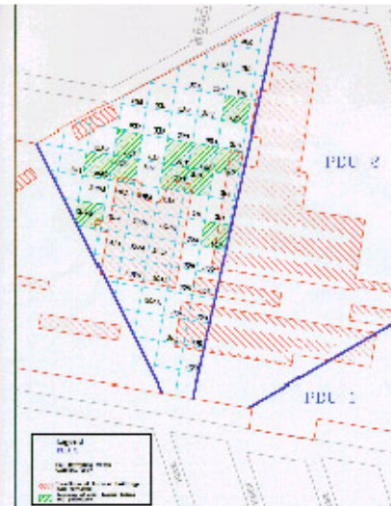
Since its founding in 1982, the **OCL Group** has been retained by private and government clients to evaluate environmental liabilities and risk associated with the buying and selling of property or development of “empty land”. OCL staff have conducted several thousand Phase I Environmental Site Assessments, following the CSA Z768 standard. Our staff are fully certified by the Association of Professional Environmental Auditing, as well as having certificates of training in such aspects as Asbestos-Containing Materials and *HAZWOPER*. The firm has an extensive “errors and omissions” insurance policy, including environmental liability. Our reports are accepted by a wide variety of financial institutions, such as BMO, RBC, ScotiaBank, CIBC, TD Canada Trust, CMHC and numerous mortgage specialists. Examples of properties evaluated include: “Waste to Energy” (industrial) facilities, apartment buildings (4 to 150 unit), historic buildings being converted to condominiums, office buildings (1 story multi-tenant format to 20 stories), “empty land” (former industrial or commercial lands and “empty land” (truly undeveloped land). OCL staff also have extensive experience in conducting the other Phases of Environmental Site Assessment and therefore can provide accurate determination of the need to proceed to intrusive sampling or site remediation. We also have provided training to numerous organizations on the topic, including a seminar to the Nova Scotia Real Estate Association.



PHASE II AND III ENVIRONMENTAL SITE ASSESSMENTS



Many environmental liabilities associated with property ownership or purchase are due to chemical contamination. As environmental chemists, **OCL Group**, has been retained since the early 1980's, by private and government clients to evaluate property environmental liabilities. Using Phase I determinations as a base, OCL staff have conducted a broad range of Phase II and Phase III (intrusive investigation) Environmental Site Assessments. The procedures follow those described in CSA Standard CSA/CAN Z769-00. The assessments have included evaluation of soil, surface waters, groundwater and indoor air quality. Types of properties have ranged from scrap yards to commercial buildings and from residential properties to industrial sites. Our chemical expertise and familiarity with environmental regulations in several provinces can greatly assist the Client in evaluating the risk to human health and the environment and thus in selecting the best mode for remediation.



PHASE 4, 5 AND 6 ENVIRONMENTAL SITE ASSESSMENTS (REMEDIAL ACTION PLAN, IMPLEMENTATION OF REMEDIATION AND CLOSURE SURVEY)



Having identified and delineated contaminated zones within a property, **OCL Group** has been retained by a variety of property developers to prepare Remedial Action Plans (Phase 4 ESA), obtain regulatory approval for the Plans, implement the plans (Phase 5 ESA) and evaluate the remediation as part of a Closure Survey and Record of Site Condition or Certificate of Clearance (Phase 6 ESA).

A key component of the Remedial Action Plan may be the evaluation of risk associated with property contamination. This activity includes the use of both RBCA-Atlantic PIRI and trace metal exposure risk models. We have successfully worked with Clients and regulatory agencies to facilitate the establishment of risk-based corrective actions and the re-development of inner-city properties. We have also worked closely with Clients under the concept of a Brownfield development, wherein we ensure all environmental constraints are met while still meeting goals of economics and development.

Major examples include: CN Rail Car Shops (280 acre property) in Moncton, NB.; 5 acre site on McLean St., Halifax, NS, 5 acre site in Dartmouth, NS

