



FINAL REPORT

Phase One ESA Update

RSC #3 - 175 Main Street, Ottawa ON

Submitted to:

Regional Group

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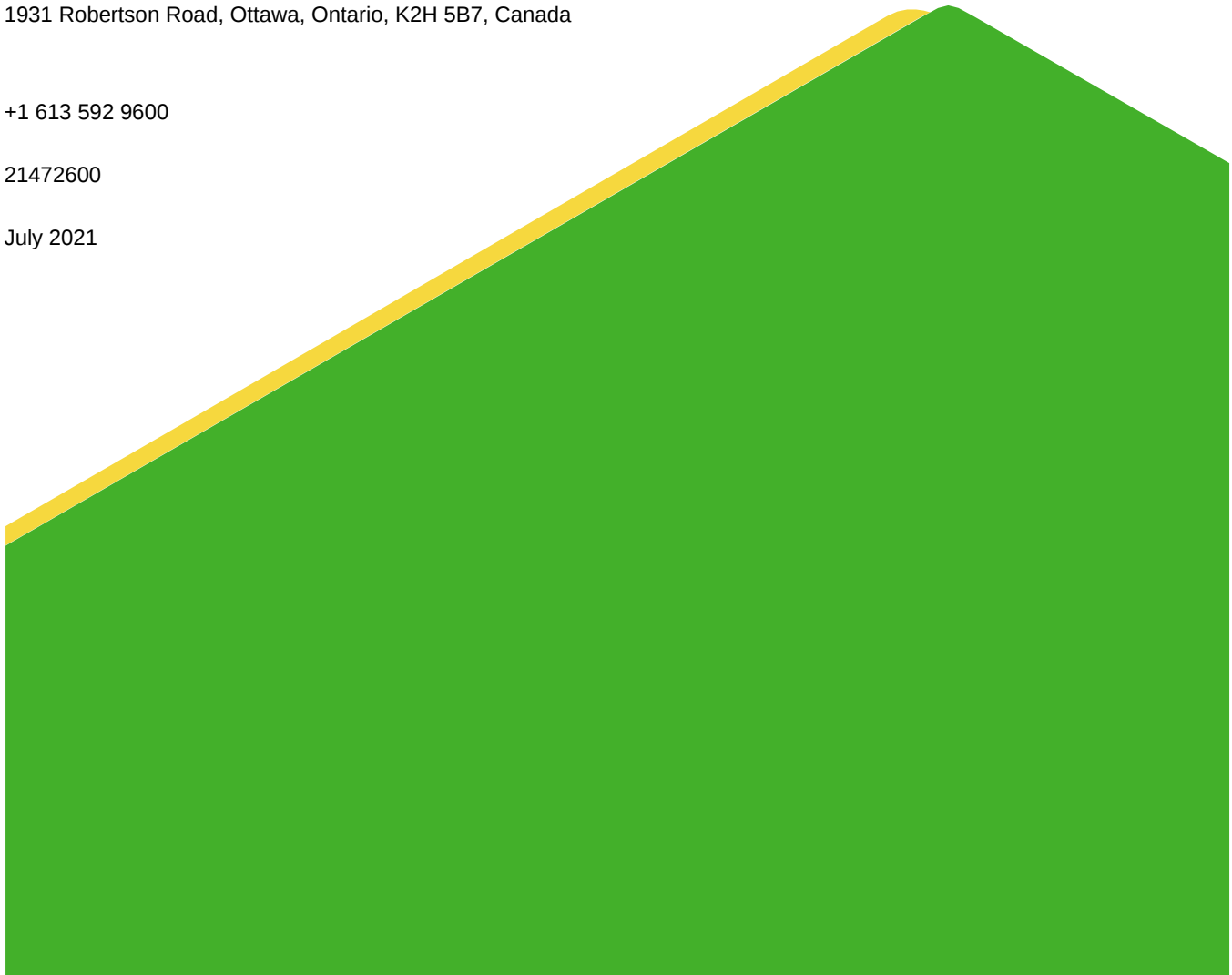
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FIGURES

Figure 1 – Site Plan

APPENDICES

APPENDIX A

Site Photographs

APPENDIX B

Regulatory Responses

Golder Associates Ltd. (Golder) was retained by Greystone Village Inc. (Greystone) to conduct a Phase One Environmental Site Assessment Update (Phase One ESA Update) on a portion of the Oblates Property located at 175 Main Street, Ottawa, Ontario ("Phase One Property") as shown on Figure 1 (attached). The Site is referred to as: Part of Lot H, Concession D, Rideau Front, Geographic Township of Nepean, designated as Parts 10 and 11 on Plan 4R-29138, City of Ottawa being part of PIN 04203-0761 (LT), known municipally as 175 Main Street (referred to as "RSC Property" or "Site").

The purpose of the work was as follows:

- Provide an update of the Phase One ESA conducted previously at the Phase One Property, as the original Site visit was conducted more than eighteen months ago.
- Update the May 2016 Phase One ESA for the RSC Property, including creation of the RSC Property Conceptual Site Model and associated Site information.

This report should be read in conjunction with the previous Golder environmental report, entitled *Phase I Environmental Site Assessment Oblates Property, 175 Main Street, Ottawa, Ontario*, dated May 2016, project reference 14-1122-0005 (1100), *Phase I Environmental Site Assessment Update, RSC #3 – 175 Main Street, Ottawa, Ontario*, dated September 2017, project reference 1525113 and *Phase II Environmental Site Assessment Oblates Property RSC #3, 175 Main Street, Ottawa, Ontario*, dated September 2017, project reference 1525113

1.0 SCOPE OF WORK

Activities carried out in association with this Phase One ESA Update consisted of the following:

- A review of the Phase One ESA report by Mr. Paul Hurst, QP(ESA), P.Eng., entitled: *Phase I Environmental Site Assessment Oblates Property, 175 Main Street, Ottawa, Ontario*, dated May 2016, project reference 14-1122-0005 (1100), prepared for Greystone Village Inc. ("May 2016 Phase One ESA").
- A review of the Phase One ESA update report by Mr. Paul Hurst, QP(ESA), P.Eng., entitled: *Phase I Environmental Site Assessment Update, RSC #3 – 175 Main Street, Ottawa, Ontario*, dated September 2017, project reference 1525113, prepared for Greystone Village Inc. (September 2017 Phase One ESA Update").
- A review of the Phase Two ESA report by Mr. Paul Hurst, QP(ESA), P.Eng., entitled: *Phase II Environmental Site Assessment Oblates Property RSC #3, 175 Main Street, Ottawa, Ontario*, dated September 2017, project reference 1525113
- Conducting an interview on June 28, 2021 and Site reconnaissance on July 5, 2021 to assess operations at the RSC Property and changes to the Site and Site vicinity since 2017 that may affect the environmental condition of the Site.
- Preparation of this letter report, which documents the findings of the above and identifies any changes to issues of potential environmental concern and areas of potential environmental concern.

2.0 PREVIOUS REPORTS

2.1 The May 2016 Phase One ESA Report

The following findings are of note based on a review of the May 2016 Phase One ESA Report:

- The Site is the eastern and northeastern section of the Phase One Property. The Phase One Property has an area of 9.4 hectares (23.1 acres) and the Site has an area of 2.9 hectares (7.0 acres). At the time of the Phase I ESA, the Site was comprised of the Oblates Residence (Deschâtelets) building and part of the surrounding lawns. The Deschâtelets building was built in 1885 and additions/extensions were added throughout the 1920s, 1940s, 1948, 1950, and 1958. The total building area was 14,511 m² (156,200 sq.ft.). The older main parts of the complex built in 1885 and the entrance way (which was off-Site) from Main Street have heritage designation. The exterior areas of the Site were largely under remediation at the time of the site visit. Since the Phase One Property development in 1885 until the purchase by 175 Main Street Regional Inc. in 2014, the Phase One Property has been used by the Religious Order of the Oblates of Mary Immaculate as a convent and the operations carried out at the Phase One Property have been related to residential type activities. Remedial work on the Site began in February 2017.
- There was a pronounced slope of the land that comprises the Site downwards from west to east. Due to filling activities that reportedly occurred sometime between 1902 and 1922 to prevent flooding, filling occurred in the eastern section of the Site (i.e., east of the Deschâtelets building), from the Rideau River's edge extending approximately 100 metres west towards the Deschâtelets building. It is understood that the soil fill contained concrete, some asphalt, brick, ash, and potentially garbage (APEC 2).
- Ash originating from the historical coal burning was reportedly deposited on the Site in the past. The fill of suspect and/or unknown quality was considered an APEC for the Site (APEC 3).
- General convent vehicle maintenance including oil changes and minor repairs were performed in a small garage building attached to the northwest side of the Deschâtelets building (APEC 6). The garage was in operation since the 1940s until 2014. A historical gasoline UST was previously located at the north part of the Site and west of the laundry/workshop building, which was used to fuel the vehicles of the convent's residents (APEC 1).
- Seven transformers were identified on the Site, four were pole mounted transformers near the laundry/workshop building (APEC 4a, 4b, 4c, and 4d) and three were reportedly located in a transformer vault in the basement of the main building (APEC 5a, 5b, and 5c).
- Two diesel-containing ASTs were identified on the Site. One of the ASTs was used to fuel the backup generator (APEC 7) and the other AST was used to fuel landscape and maintenance equipment (APEC 8).
- Four former landfills were identified within 300 metres of the Site:
 - St. Paul University Dump (PCA #4) was located approximately 75 m to the southwest of the Site. This was not considered an APEC for the Site due to the distance from the Site and the PCA was inferred to be cross gradient of the Site;
 - Lee's Avenue (Old Armoury) Landfill (L-28) was present on lands adjacent to the north of the Property (APEC 9);

- Former Riverside Drive Landfill was present approximately 100 m east of the Property, across the Rideau River (PCA #2). It was not considered an APEC for the Site due to the distance and the river separating the PCA and Site; and,
- Lees Avenue (near Hurdman Bridge) Landfill (L-12) was present approximately 300 m northeast of the Property (PCA #3) and was associated with the former industrial site Currie Products Ltd. It was not considered an APEC for the Site due to the distance from the Site and it was inferred to be down to cross gradient from the Site.
- There were two former industrial sites within the study area of the Phase One ESA:
 - Former Group II industrial site – Royal Canadian Engineers Workshop – with oil seeping noted during the classification process completed in 1988 (PCA #5). Not considered an APEC for the Site due to the distance separating it from the Site and it was inferred to be down to cross gradient from the Site;
 - Former Group I industrial site – Currie Products Ltd. – with an associated landfill (L-12) (PCA #3). Not considered an APEC for the Site due to the distance separating it from the Site and it was inferred to be cross gradient from the Site.
- A former retail fuel outlet was present approximately 200 metres to the northwest of the western section of the Site (PCA #1). It was not considered an APEC for the Site due to the distance from the Site and it was inferred to be cross gradient from the Site.
- Surface water runoff was towards catch basins, which were connected to the municipal storm sewer system, or overland towards the Rideau River.
- Potable water on the Phase One Property was provided by the municipal drinking water system. No drinking water wells were present on the Phase One Property or on the Phase One ESA Study area.
- The Rideau River is located east of the Site and runs along the east Phase One Property boundary; however, the Site itself was not within 30 metres of the River.
- At the time of the Phase I ESA, the neighbouring properties within the Phase One Study Area south, west and north of the Property were used for residential, community and parkland purposes and the Rideau River and 30 metre buffer of land that was not to be developed was located to the east.
- The subsurface conditions at the Property consisted of fill, underlain by silty clay and clayey silt, overlying sands and then glacial till. The thickness of the fill was expected to be 6-7 metres at the southeast part of the Property. Based on the information obtained, the fill placed on the Property contained ash, cinders and pieces of asphalt, brick, concrete, wood and/or metal and potentially some refuse. Depth to the bedrock was expected to range between 15 and 25 metres. The depth to the water table was expected to be between 3 and 8 metres below ground surface (mbgs) and to typically be in the upper portion of the native clay overburden.
- Groundwater flow was east towards the Rideau River.

Based on the information obtained during the Phase I ESA, the following PCAs and APECs were identified at the RSC Property:

- **APEC #1** (PCA #6) – The former presence of a gasoline 100,000 L UST and a pump associated with the former presence of a private fuel station on Site.
- **APEC 2** (PCA #14) – The presence of fill containing construction debris, asphalt, concrete and potentially some refuse at the Property and specifically, within the southeast part of the Site.
- **APEC #3** (PCA #7) – The presence of fill containing ash originating from the historical coal burning was reportedly deposited across the Site.
- **APEC #4 a, b, c, and d** (PCA #8 a, b, c and d) – The presence of pole mounted transformers in use near the laundry/workshop building in the north part of the Site.
- **APEC #5 a, b, and c** (PCA #9 a, b and c) – The presence of transformers in use in a Hydro Ottawa vault in the basement of the main building in the central section of the Site.
- **APEC #6** (PCA #10) – The presence of a private garage where oil changes, maintenance and minor repairs are performed for the convent's vehicles (on Site).
- **APEC #7** (PCA #11) – Diesel containing AST used to fuel the backup generator on Site.
- **APEC #8** (PCA #12) – Diesel containing AST used to fuel landscaping and maintenance equipment on Site.
- **APEC #9** (PCA #13) – Lees Avenue closed landfill (L-28) adjacent to the northeast of the Site.

A Phase II ESA was required to be completed for the Site to investigate the potential for subsurface impacts to soil and groundwater at the Site related to the identified APECs.

2.2 The September 2017 Phase One ESA Update Report

The September 2017 Phase One ESA Update identified no new APECs for the Site. There were no significant change since the initial Phase One ESA from May 2016 was completed.

2.3 The September 2017 Phase Two ESA Report

The following findings are of note based on a review of the September 2017 Phase Two ESA Report:

A Phase Two ESA in accordance with O. Reg.153/04 (as amended) was completed at the Site to address the APECs identified in the Phase One ESA that were applicable for the Site. The Site was proposed to be redeveloped as a medium density residential development. The current and proposed Site land use was residential. Given that there was no change in the land use from less sensitive to more sensitive, there was no mandatory requirement for filing of a Record of Site Condition (RSC) pursuant to *Ontario Regulation 153/04 – Records of Site Condition – Part XV.1 of the Act*, made under the *Environmental Protection Act* for the Site from a provincial regulation (O.Reg 153/04) standpoint. However, given that APECs were identified at the Property during the Phase One ESA completed by Golder, filing of an RSC was required by the City of Ottawa as part of the Site Plan Approval and for the purpose of the City's Brownfields Redevelopment Program.

The Phase Two ESA work was completed in three stages. The first stage of the Phase Two ESA work was completed during Regional's due diligence process to acquire the Property for redevelopment in March and April 2014. The second stage Phase Two ESA was completed following the Property acquisition by Regional, and consisted of two parts: the initial investigation, completed in July and August of 2014 and a follow up investigation to comply with O. Reg. 153/04 as amended, completed in March 2015. The third stage was a final investigation completed concurrently with the remediation of RSC #2 and RSC #3, which were completed from July 2016 to August 2016, and December 2016 to August 2017, respectively.

The Phase Two ESA was completed in conjunction with the geotechnical and archaeological investigations carried out at the Site by Golder.

Based on the completed scope of work and results of the Phase Two ESA, the following summary and conclusions are provided:

- Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, coarse-textured soil, April 15, 2011 were considered applicable and were used to assess the environmental quality of soil and groundwater at the Site;
- In general, the subsurface conditions encountered at the Site consisted of topsoil, underlain by a layer of fill followed by native soils (silty/clay). The topsoil thickness was greatest in the western portion of the Site, surrounding the Deschâtelets building, where it was up to 0.6 m thick. Across the rest of the site, topsoil was typically about 0 to 0.15 metres thick, except in the northwestern section of the site where it ranged from 0.1 to 0.3 metres thick. Fill at the Site was further categorized into soil fill and debris fill, and the total fill thickness (soil fill and debris fill) ranged from approximately 1 to 6.5 metres. The total thickness of the fill increased from the west to the east, with the thickest fill encountered in the southeastern portion of the Site (up to 6.5 metres).
- The soil fill layer was present mainly in the western part of the Site, and sporadically across the eastern portion of the Site. The debris fill layer underlined the majority of the Site except for the westernmost section and a limited number of locations where soil fill was identified. In the westernmost part of the Site, the soil fill layer generally consisted of silty sand and was typically about 0 to 1.5 metres thick. The debris fill layer ranged in thickness from approximately 0 to 6.5 m (being thickest at the southeast portion of the Site) and was comprised of a mixture of silty sand and debris/refuse consisting of ash, wood, plastic, wire, paper, brick fragments, asphalt pieces, concrete, metal fragments and/or glass.
- A summary of the soil conditions at the Site based on the results of the Phase Two ESA by stratigraphic layer was as follows:
 - *Topsoil* – No soil samples were submitted from the topsoil layer. Topsoil, where present, was appropriately managed during the remediation and was either removed as debris, or sampled, delineated and stripped during the remediation. Further details are provided in Appendix G – Remediation Report.
 - *Debris Fill layer* – six (6) of the fifteen (15) soil samples analyzed for metals exceeded MOECC Table 3 Standards; nine (9) of the fifteen (15) samples analyzed for PAHs exceeded MOECC Table 3 Standards; and no (0) exceedances were noted in the six (6) samples analyzed for PHCs or the one (1) sample analysed for pH.

- *Soil Fill layer* – no exceedances were identified in any of the soil samples collected from the soil fill layer and submitted for laboratory analysis – six (6) soil samples analyzed for PHCs F1 to F4 and BTEX, eleven (11) samples analyzed for metals, twelve (12) samples analyzed for metals PAHs, five (5) samples analyzed for PCBs, and 2 analyzed for pH.
- *Native Silty Clay layer* – one (1) PAH exceedance was identified of the eleven (11) samples submitted from the native silty clay layer. The exceedance was present in a sample collected from the uppermost silty clay layer and may have contained some of the debris layer. The sample submitted for PAH analysis below the sample with exceedances did not contain any PAH exceedances. No other exceedances were identified in the six (6) samples submitted for PHCs, eight (8) samples submitted for metals, three (3) samples submitted for PCBs, one (1) sample submitted for VOCs, and two (2) samples analyzed for pH.
- Groundwater conditions at the Site: Groundwater sampling completed at the Site indicated that the concentrations of the PHCs F1 to F4, BTEX, PAHs and metals in each of the groundwater samples were below the applicable MOECC Table 3 Standards. This included nine (9) metals and PAH samples, sixteen (16) PHC samples, six (6) VOC samples, and four (4) PCB samples. As such, the groundwater was not contaminated in terms of the regulation. The results indicated that the groundwater has not been impacted by the debris fill.
- The results of the Phase Two ESA indicated that APECs 1, 4, 5, 6, 7, 8 and 9 do not appear to have negatively impacted the soil or groundwater conditions at the Site. APECs 2 and 3 are documented to have associated metal and PAH impacts, which are generally limited to the debris fill layer. One sample from the silty clay layer was found to have a PAH exceedance from the uppermost silty clay layer and may have contained some of the overlying debris. The sample submitted from directly beneath this sample did not contain a PAH exceedance. As such, the silty clay layer was interpreted to be unimpacted.

3.0 RECORDS REVIEW

3.1 Ministry of the Environment, Conservation and Parks

- Publicly available online map-based databases managed by the MECP were reviewed for relevant environmental approvals and registration information. The following databases were reviewed: Access Environment
- Ontario Data Catalogue
- Ontario's Large Landfill Sites Map
- Records of Site Condition

After a review of the above databases, the following records pertaining to the Site were found:

- February 27, 2017 – EASR – Water Taking – Construction Dewatering
- April 19, 2018 – EASR – Water Taking – Construction Dewatering
- November 17, 2003 – ECA – Municipal and Private Sewage Works
- June 28, 2016 – ECA – Municipal and Private Sewage Works
- August 17, 2016 – ECA – Municipal and Private Sewage Works

None of the above records indicate a potentially contaminating activity (PCA) or issue of concern for the Site.

3.2 Technical Standards and Safety Authority (TSSA), Fuels Safety Division

The TSSA maintains records related to registered underground storage tanks (USTs) for petroleum-related products. The TSSA was contacted on July 13, 2021 to establish the status of the Site and to identify outstanding instructions, incident reports, fuel oil spills or contamination records.

TSSA issued a response to Golder on July 14, 2021 stating that they had no records pertaining to the addresses that Golder requested be searched.

3.3 Other Records

Based on the July 31, 2017 and July 5, 2021, site visit, there were no changes identified to the study area since 2017. Given the lack of changes to the study area since 2017, an updated EcoLog/database review of records was not considered warranted. Other than the changes noted below, there were no other changes to commercial or industrial uses in the study area that would be considered PCAs.

4.0 SITE VISIT AND INTERVIEW

Mr. Aaron Bradshaw (Environmental Field Technician) of Golder visited the Site on July 5, 2021. The Site visit consisted of a walk-around the Site along with a cursory inspection of surrounding properties from the Site and publicly accessible areas. The weather conditions were sunny and clear, and the temperature was approximately 21°C. There were no access or photography restrictions at the time of the Site visit. Golder was unaccompanied at the time of the Site visit.

The original interviews for the Phase One Property were conducted with Mr. Yvon Quesnel (who was a Maintenance Supervisor for forty-one years at the Site) during the March 7, 2014 Site reconnaissance, and Father Normand Brule who completed a Phase I ESA interview form on February 26, 2014. Ms. Taylor Marquis of Greystone (Site Representative) was interviewed on June 28, 2021. Pursuant to the requirements of O.Reg. 153/04, the Site Representative was interviewed as the “current owner” with knowledge of current Site operations.

The following was noteworthy based on the results of the Site visit and interview:

- Contaminated soil on Site has been removed, during the 2017 site remediation.
- The east wing of the Deschâtelets building and the building formerly to the south of the Deschâtelets have been demolished and debris from the buildings have been removed from Site. At present time, the site is being used as a storage area for landscaping items (e.g. pavers, stones) for the Greystone development.
- No other significant changes to the Site or surrounding property use since the original March 7, 2014 and July 31, 2017 Site visits were observed at the time of the July 5, 2021 Site visit.
- No other noteworthy findings were identified based on a review of the information obtained during the Phase One ESA Update investigation.
- The adjacent property to the west of the Site has been sold to the Conseil des écoles catholiques du Centre-Est (CECCE).

5.0 REVIEW AND EVALUATION OF INFORMATION

5.1 Current and Past Uses of the Site

Year	Name of owner	Description of property use	Property use	Other observations from aerial photographs, fire insurance plans, etc.
Pre 1885	Crown	Vacant Land	Agricultural or Other	Interview
1885	Les Oeuvres Oblates de l'Ontario	Landscaped with grass and trees (yard for residential property to the North)	Residential	Based on the information obtained from the interview the Site was owned by Les Oeuvres Oblates de l'Ontario. Available photographs from 1902, 1926 and 1936 and aerial photographs from 1922 and 1936 show the lands to the north of the Site were developed for residential use; however, the Site itself remained as a landscaped yard area.
June 2014	175 Main Street Regional Inc.	Landscaped with grass and trees (yard for residential property to the North)	Residential	Interview, site visit, legal document
July 2015	Greystone Village Inc.	Vacant land	Residential	Site Owner provided information; legal name change document

5.2 Potentially Contaminating Activities (PCAs)

The following table summarizes the PCAs for the RSC Property.

Potentially Contaminating Activity (PCA)	Location of PCA in Relation to the Site	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
PCA #1 – Former retail fuel outlet	Located approximately 200 m to the northwest of the Site, hydraulically cross gradient	#28 Gasoline and associated products storage in fixed tanks. Former retail fuel outlet	Off-Site	PHC F1-F4, BTEX.	Soil and groundwater.
PCA #2 - Former Riverside Drive Landfill (L-10)	Located approximately 100 m to the east of the Site, separated from the Site by the Rideau River	#58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners. Former Riverside Drive landfill	Off-Site	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.
PCA #3 - Former industrial site, Currie Products Ltd., and an associated landfill (L-12)	Located 300m northeast of the Site, hydraulically cross and down gradient	#58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners. Former industrial site, Currie Products Ltd., activities unknown	Off-Site	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.
PCA #4 - Former St. Paul dump.	Located approximately 75 m to the southwest of the Site, hydraulically cross gradient	#58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners. The former St. Paul University dump was reportedly located on the lands southwest of the Site and potentially may have extended onto the southwest part of the Property.	Off-Site potentially extending on to the Property	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.

Potentially Contaminating Activity (PCA)	Location of PCA in Relation to the Site	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
PCA #5 - Former industrial site – Royal Canadian Engineers Workshop	Located approximately 80 m northeast of the Site, hydraulically cross gradient.	#58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners. Group II former industrial site (Royal Canadian Engineers Workshops) was located approximately 80 m northeast of the Site. Oily seepage was noted on this property during the classification (Intera report completed in 1988) which led to a designation of group II.	Off-Site	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.
PCA #6 - Former presence of a gasoline UST and a pump associated with the former presence of a private fuel station.	Located on Site.	#28 Gasoline and associated products storage in fixed tanks. A historical gasoline UST was previously located west of the laundry/workshop building, which was used to fuel the vehicles of the convent's residents. The former UST was reported to be made of fibreglass and had a capacity of 100,000 L. The UST was reportedly decommissioned in the 1980s. No reports or data are available to confirm whether or not the UST was removed or whether or not soil and/or groundwater sampling and analysis were completed following the tank removal.	On-Site	PHC F1-F4, BTEX.	Soil and groundwater.
PCA #7 - Fill of unknown composition and possible presence of ash.	Located on Site.	#9 Coal Gasification Ash originating from historical coal burning was reportedly deposited on the Property.	On-Site	PAH, metals.	Soil and groundwater.

Potentially Contaminating Activity (PCA)	Location of PCA in Relation to the Site	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
		It is understood to be in the area east of the convent where the former coal storage and boilers were located.			
PCA #8a,8b,8c and 8d - Presence of pole mount transformers	Located on Site.	#55 Transformer Manufacturing, Processing and Use There were four pole mounted transformers near the laundry/workshop building, removed as part of the remediation/development of the Site.	On-Site	PHC F1-F4, BTEX, PCB.	Soil and groundwater
PCA #9a,9b, and 9c - Presence of pad mount transformers	Located on Site.	#55 Transformer Manufacturing, Processing and Use Pad mounted transformers located in a Hydro Ottawa owned transformer room.	On-Site	PHC F1-F4, BTEX, PCB.	Soil and groundwater
PCA #10 - Presence of a private garage.	Located on Site.	#28 Gasoline and Associated Products Storage in Fixed Tanks A small private garage located on the Site since the 1940s to the present was used for oil changes, maintenance and minor repairs for the convent's vehicles.	On-Site	PHC F1-F4, VOC, PAH, metals.	Soil and groundwater.
PCA #11 – Diesel containing AST associated with backup generator	Located on Site.	#28 Gasoline and Associated Products Storage in Fixed Tanks An AST is located at the northeast corner of the former coal storage room and is used to fuel the back-up generator located in the same area.	On-Site	PHC F1-F4, BTEX.	Soil and groundwater.

Potentially Contaminating Activity (PCA)	Location of PCA in Relation to the Site	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
PCA #12 - Diesel containing AST used to fuel landscaping and maintenance equipment	Located on Site.	#28 Gasoline and Associated Products Storage in Fixed Tanks An AST is located in the northeast part of the laundry/woodshop building and is used to fuel landscaping and maintenance equipment.	On-Site	PHC F1-F4, BTEX.	Soil and groundwater.
PCA# 13 - Lees Avenue closed landfill L-28.	Located adjacent to the northeast Site, hydraulically cross to up gradient.	#58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners. The former landfill L-28 (Old Armoury) is located on adjacent lands to the northeast of the Site, at the northwest bank of the Rideau River, bounded by Lees Avenue to the north, Chestnut Avenue to the west, and the property line between 170 and 180 Lees Avenue to the east. There is the possibility that the southwest part of the closed landfill may have extended onto the northeast corner of the Site. It is reported that the refuse at the landfill was comprised mainly of cinder and ash with some brick, glass and metal fragments and is likely 1 to 2 metres deep. The landfill was closed in the late 1930s.	Off-Site potentially extending on to northeast section of the Site	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.

Potentially Contaminating Activity (PCA)	Location of PCA in Relation to the Site	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
PCA #14 - Presence of fill of unknown composition and quality	Across the southeastern section of the Site.	#30 Importation of Fill Material of Unknown Quality. Fill containing construction debris, asphalt, concrete, brick and potentially some refuse was reportedly placed in the southeast part of the Site along the west bank of the Rideau River to prevent flooding.	On-Site	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.

5.3 Areas of Potential Environmental Concern

The following table summarizes the APECs for the RSC Property.

Area of Potential Environmental Concern (APEC)	Location of area of potential environmental concern on phase one property	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
APEC 1 (PCA #6) - Former presence of a gasoline UST and a pump associated with the former presence of a private fuel station.	Located on Site.	#28 Gasoline and associated products storage in fixed tanks.	On-Site	PHC F1-F4, BTEX.	Soil and groundwater.
APEC 2 (PCA #14) - Presence of fill of unknown composition and quality	Across the southeastern section of the Site.	#30 Importation of Fill Material of Unknown Quality.	On-Site.	PHCs, BTEX, PAHs, metals, As, Sb, Se, Hg, Cr (VI)	Soil and groundwater
APEC 3 (PCA #7) - Fill of unknown composition and possible presence of ash.	Across the eastern section of the Site.	#9 Coal Gasification	On-Site	PAH, metals.	Soil and groundwater.

Area of Potential Environmental Concern (APEC)	Location of area of potential environmental concern on phase one property	Potentially Contaminating Activity (PCA) and Description of the Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (groundwater, soil and/or sediment)
APEC 4a, 4b, 4c, and 4d (PCA #8a,8b,8c and 8d) - Presence of pole mount transformers	Located on Site.	#55 Transformer Manufacturing, Processing and Use	On-Site	PHC F1-F4, BTEX, PCB.	Soil and groundwater
APEC 5a, 5b, and 5c (PCA #9a,9b, and 9c) - Presence of pad mount transformers	Located on Site.	#55 Transformer Manufacturing, Processing and Use	On-Site	PHC F1-F4, BTEX, PCB.	Soil and groundwater
APEC 6 (PCA #10) - Presence of a private garage.	Located on Site.	#28 Gasoline and Associated Products Storage in Fixed Tanks A small private garage located on the Site since the 1940s to the present was used for oil changes, maintenance and minor repairs for the convent's vehicles.	On-Site	PHC F1-F4, VOC, PAH, metals.	Soil and groundwater.
APEC 7 (PCA #11) – Diesel containing AST associated with backup generator	Located on Site.	#28 Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHC F1-F4, BTEX.	Soil and groundwater.
APEC 8 (PCA #12) - Diesel containing AST used to fuel landscaping and maintenance equipment	Located on Site.	#28 Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHC F1-F4, BTEX.	Soil and groundwater.
APEC 9 (PCA#13) - Lees Avenue closed landfill L-28.	Located adjacent to the northeast Site, hydraulically cross to up down gradient.	#58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.	Off-Site potentially extending on to northeast section of the Site	PHC F1-F4, BTEX, PAH, metals.	Soil and groundwater.

5.4 Conceptual Site Model

A Conceptual Site Model (CSM) of the Phase One Property, which was relevant to the RSC Property was presented in a series of Figures 1 to 8 in the May 2016 Phase One ESA.

The following updates the Phase One ESA Conceptual Site Model (CSM) for the RSC Property:

- Services to the Deschâtelets building include, gas, water, sewer, and hydro.
- Potable water on the Site is provided by the municipal drinking water system. No drinking water wells are present on the Site.
- At the time of this Phase One ESA Update, the neighbouring properties within the Phase One Study Area south, west and north of the Site were used for residential (including the construction of residential dwellings on the southern section of the property), community and parkland purposes and the Rideau River is located to the east.
- No new PCAs or APECs (compared to the 2016 Phase One ESA) were identified.
- The results of the Phase Two ESA indicate that APECs 1, 4, 5, 6, 7, 8 and 9 do not appear to have negatively impacted the soil or groundwater conditions at the Site. APECs 2 and 3 are documented to have associated metal and PAH impacts, which are generally limited to the debris fill layer. Based on a review of the Phase Two ESA and subsequent Record of Site Condition which was filed, these APECs were remediated.

6.0 CONCLUSIONS

This Phase One ESA Update has identified no new PCAs or APECs for the Site. A remediation for APECs 2 and 3 was completed and a subsequent RSC was filed for the Site. No further action is recommended based on the previous work conducted and the results of this Phase One ESA Update.

7.0 LIMITATIONS AND USE OF REPORT

This report was prepared for the exclusive use of 175 Main Street Regional Inc. / Greystone Village Inc. This report is intended to provide an assessment of the potential environmental conditions of the Site located at 175 Main Street, Ottawa, Ontario. The Report summarizes Golder's review of available data in accordance with the principal components of CSA Z768-01 *Phase I Environmental Site Assessment*, as well as Ontario Regulation 153/04 *Records of Site Condition*, as amended. The Report is based on data and information collected at the time of this assessment, and must be considered in its entirety. It is based solely on the conditions on the Site encountered at the time of the Site visit on March 7, 2014, July 31, 2017 and July 5, 2021, as reported herein. Except as otherwise may be requested, Golder disclaims any obligation to update this Report for events taking place, or with respect to information that becomes available to Golder after the time during which Golder conducted the work. No soil, water, liquid, gas, product or chemical sampling and analytical testing other than that described herein at or in the vicinity of the Site was conducted as part of this Work.

In evaluating the property, Golder has relied in good faith on information provided by other individuals, companies or government agencies noted in the Report. Golder has assumed that the information provided is factual and accurate and Golder has not independently verified the accuracy or completeness of such information. Golder accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this Report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted. Golder makes no other

representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to periodic amendment. In addition, regulatory statutes are subject to interpretation and these interpretations may change over time.

The scope and the period of Golder's assessment are described in this Report, and are subject to restrictions, assumptions and limitations.

Golder did not perform a complete assessment of all possible conditions or circumstances that may exist at the Site. Conditions may therefore exist which were not detected given the nature of the inquiry Golder was retained to undertake with respect to the Site. Accordingly, additional environmental studies and actions may be required. In addition, it is recognized that the passage of time affects the information provided in the Report. Golder's opinions are based upon information that existed at the time of the writing of the Report. It is understood that the services provided for in the scope of work allowed Golder to form no more than an opinion of the actual conditions at the Site at the time the Site was visited, and cannot be used to assess the effect of any subsequent changes in any laws, regulations, the environmental quality of the Site or its surroundings. Asbestos and mould surveys were not performed. If a service is not expressly indicated, do not assume it has been provided.

Any use which a third party makes of this Report, or any reliance on or decisions to be made based on it, are the sole responsibility of the third parties. Golder disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

Should you have any questions concerning this report, or the limitations set out herein, please do not hesitate to contact our office.

8.0 CLOSURE

We trust the above meets with your current requirements. Should you have any comments, questions, or require additional information, please do not hesitate to contact this office.

Golder Associates Ltd.



Gopesh Sharma, BSc, GIT
Environmental Consultant



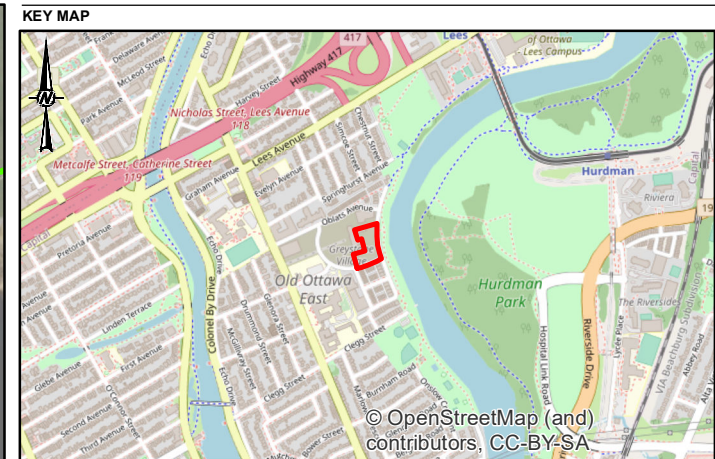
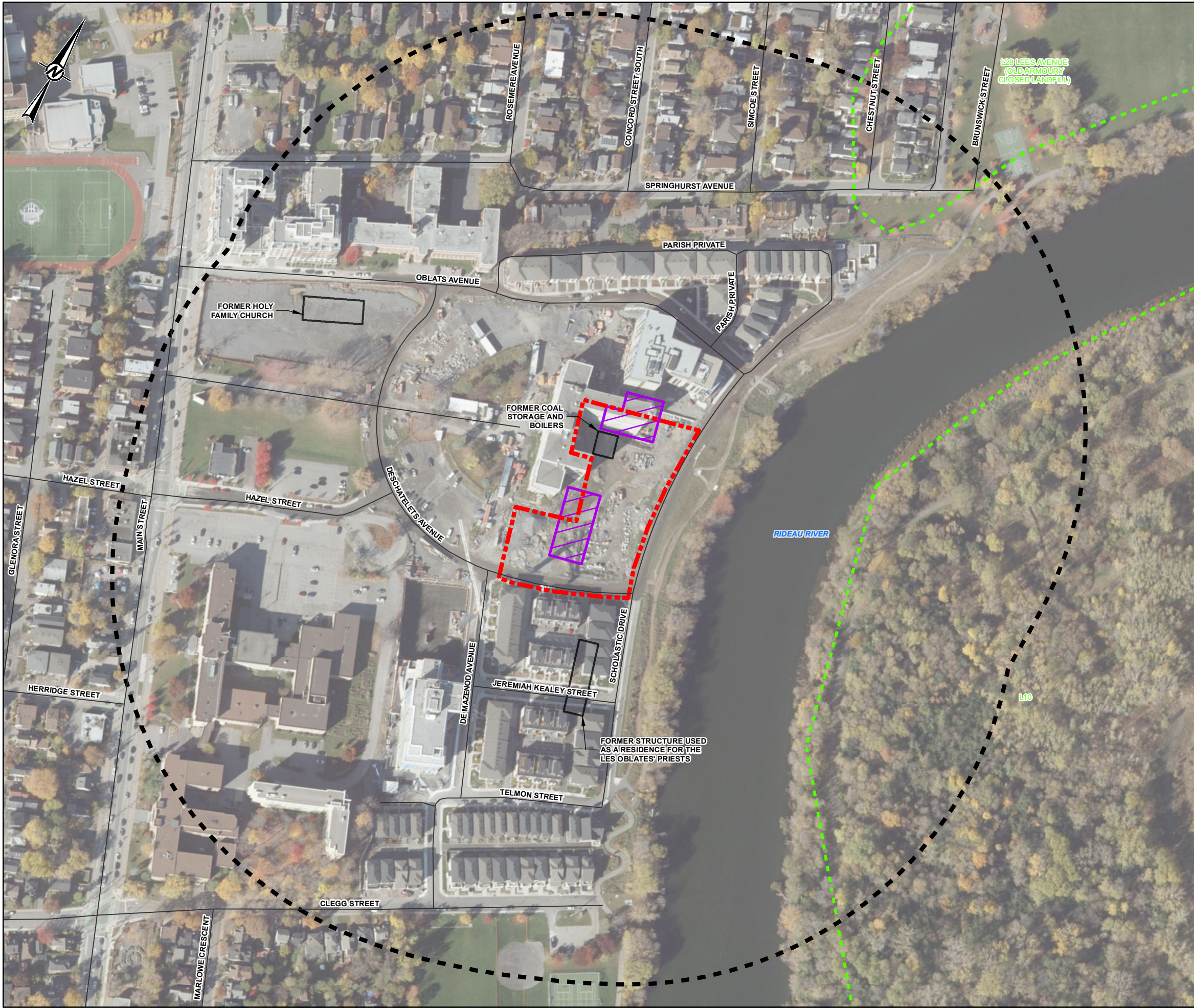
Paul Hurst, PEng, QP_{ESA}
Associate

TL/PH/PAS/ha

[https://golderassociates.sharepoint.com/sites/148268/project/files/6 deliverables/21471600-r-reva-phase i esa update 175 main st rsc.docx](https://golderassociates.sharepoint.com/sites/148268/project/files/6%20deliverables/21471600-r-reva-phase%20i%20esa%20update%20175%20main%20st%20rsc.docx)

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Figures

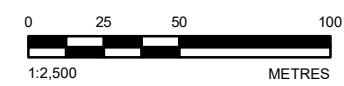


SCALE 1:25,000

- LEGEND**
- ROAD
 - APPROXIMATE FORMER LANDFILL SITE BOUNDARY
 - DEMOLISHED
 - PHASE ONE SITE
 - PHASE ONE STUDY AREA

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2020
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28



CLIENT
GREYSTONE VILLAGE INC.

PROJECT
REG. 153/04 PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
RSC #3, OBLATES PROPERTY, 175 MAIN ST., OTTAWA, ON

TITLE
SITE PLAN

CONSULTANT	YYYY-MM-DD	2021-07-15
DESIGNED	---	
PREPARED	JEM	
REVIEWED	GS	
APPROVED	PH	

PROJECT NO. 21471600 CONTROL 0001 REV. 0 FIGURE 1

APPENDIX A

Site Photographs



Photo 1 – Area being used for storage of construction and landscaping materials such as: bricks, patios stones, gravel and mulch.



Photo 2 – View of residential building to the north of Site.

CLIENT

Greystone Village Inc.

CONSULTANT



YYYY-MM-DD 2021-07-14

TAKEN BY ALB

CHECKED BY GS

PROJECT

Phase One ESA Update RSC #3 – 175 Main Street, Ottawa, Ontario

TITLE

Photographic Record

PROJECT NO: 221471600

FIGURE

A1



Photo 3 – View of Former Oblates residence to the west of site.



Photo 4 – View of Scholastic Drive (Paved residential street), followed by MUP and the Rideau River to the east of site.

CLIENT

Greystone Village Inc.

CONSULTANT



YYYY-MM-DD 2021-07-14

TAKEN BY ALB

CHECKED BY GS

PROJECT

Phase One ESA Update RSC #3 – 175 Main Street, Ottawa, Ontario

TITLE

Photographic Record

PROJECT NO. 21471600

FIGURE

A2



Photo 5 – View of Deschatelets Ave (Paved residential street), followed by condo buildings and houses to the south of site.

CLIENT

Greystone Village Inc.

CONSULTANT



YYYY-MM-DD 2021-07-14

TAKEN BY ALB

CHECKED BY GS

PROJECT

Phase One ESA Update RSC #3 – 175 Main Street, Ottawa, Ontario

TITLE

Photographic Record

PROJECT No. 221471600

FIGURE

A3

APPENDIX B

Regulatory Responses

From: Public Information Services <publicinformationservices@tssa.org>
Sent: 14-Jul-21 7:58 AM
To: Sharma, Gopesh
Subject: RE: Phase I ESA 175 Main St.

EXTERNAL EMAIL

Please refrain from sending documents to head office and only submit your requests electronically via email along with credit card payment. We are all working remotely and mailing in applications with cheques will lengthen the overall processing time.

NO RECORD FOUND

Hello Gopesh,

Thank you for your request for confirmation of public information.

- We confirm that there are no records in our database of fuel storage tanks at the subject address(es).

For a further search in our archives please complete our release of public information form found at <https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?mid=392> and email the completed form to publicinformationservices@tssa.org along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard).

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,



Connie Hill | Public Information Agent

Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3383 | Fax: +1-416-231-6183 | E-Mail: chill@tssa.org
www.tssa.org



From: Sharma, Gopesh <Gopesh_Sharma@golder.com>
Sent: July 13, 2021 2:08 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Phase I ESA 175 Main St.

[CAUTION]: This email originated outside the organisation.
Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

Hello,

We are preparing a Phase I ESA for 175 Main St., in Ottawa, Ontario.

Can you please check your records to determine if any bulk fuel underground storage tanks (USTs) were registered on or near the site. Could you also please check your records for the properties located adjacent to the site at the following addresses:

Site:

175 Main Street

Other:

140, 196 223, 249 Main Street

15 Oblates Avenue

102, 130, 140, 152 Springhurst Avenue

Thanks,

Gopesh Sharma

Environmental Consultant



Golder Associates Ltd.

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Work Safe, Home Safe

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From: Public Information Services <publicinformationservices@tssa.org>
Sent: July-27-17 12:55 PM
To: Lyon, Tony
Subject: RE: Phase I ESA 175 Main St.

Hello Tony,

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please submit your request in writing to Public Information Services via e-mail (publicinformationservices@tssa.org) or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Thank you and have a great day,
Sherees



Sherees Thompson | Public Information Agent

Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3363 | Fax: +1-416-231-6183 | E-Mail: sthompson@tssa.org
www.tssa.org



From: Lyon, Tony [mailto:Anthony_Lyon@golder.com]
Sent: Thursday, July 20, 2017 11:29 AM
To: Public Information Services
Subject: Phase I ESA 175 Main St.

Hi,

We are preparing a Phase I ESA for 175 Main St., in Ottawa, Ontario.

Can you please check your records to determine if any bulk fuel underground storage tanks (USTs) were registered on or near the site. Could you also please check your records for the properties located adjacent to the site at the following addresses:

Site:
175 Main Street

Other:
140, 196 223, 249 Main Street
15 Oblates Avenue

102, 130, 140, 152 Springhurst Avenue

Thanks very much,
Tony

Tony (Anthony) Lyon (P. Eng) | Environmental Engineer | **Golder Associates Ltd.**

1931 Robertson Road, Ottawa, Ontario, Canada, K2H 5B7

T: +1 (613) 592 9600 | **D:** +1 (613) 592-9600 x4330 | **F:** +1 (613) 592 9601 | **C:** +1 (613) 296-9746 | **E:**

Anthony_Lyon@golder.com | www.golder.com

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