

September 8, 2016

Project No. 1525113/1000/2

Mr. Steve Cunliffe
Greystone Village Inc.
1737 Woodward Drive, 2nd Floor
Ottawa, ON K2C 0P9

**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT UPDATE
RSC #2 – 175 MAIN STREET, OTTAWA, ONTARIO**

Dear Mr. Cunliffe:

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 the Oblates Property located at 175 Main Street, Ottawa, Ontario (Phase One Property). To support the filing of a Record of Site Condition (RSC) for a portion of the Phase One ESA Property, Greystone retained Golder to conduct a Phase One ESA Update of the parcel of land referred to as: Part of Lot H, Concession D, Rideau Front, Geographic Township of Nepean, designated as Parts 4, 6, 7, and 8 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, because 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).

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).
- Conducting a site reconnaissance of the RSC Property from July to August 2016 during the active remediation to assess operations at the Site and changes to the Site since 2014 that may affect the environmental condition of the Site.
- Conducting a Site reconnaissance on August 3, 2016 to assess operations at the RSC Property and changes to the Site and Site vicinity since 2014 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 western and central section of the Property located at 175 Main Street in Ottawa, Ontario. The 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 part of the landscaped lawns and driveways surrounding the main Oblates Residence (Deschâtelets) complex. The main Oblates Residence (Deschâtelets) building, which is located adjacent but off-Site, was built in 1885 and building additions/extensions were added to the main Deschâtelets building throughout the 1920s, 1940s, 1948, 1950, and 1958. The total building area is 14,511 m² (156,200 sq.ft.). The older main parts of the complex built in 1885 and the entrance way off Main Street have heritage designation. The exterior areas (which include the Site) were landscaped grassed and treed lands and access driveways. Since the Property development in 1885 until the purchase by Regional in 2014, the Property has been used by the Religious Order of the Oblates of Mary Immaculate as a convent and the operations carried out at the Property have been related to residential type activities. Remedial work on the Site began in July 2016.
- At the time of the May 2016 Phase One ESA, the Site was used as a yard (landscaped trees and grass) for the main Oblates Residence (Deschâtelets) complex located to the east / northeast. At the time of this Phase One ESA Update, the Site was fenced off and under development. No buildings or known underground services are present at the Site.
- There is a pronounced slope of the land that comprises the property downwards from west to east and from south to north. The eastern section of the Site is significantly higher in elevation than the northern part of the Property due to filling activities that reportedly occurred sometime between 1902 and 1922 to prevent flooding. In the eastern portion of the Site, filling occurred from the Rideau River's edge extending approximately 100 metres west into the Site. It is understood that the soil fill contained concrete, some asphalt, brick, ash, and potentially garbage (APEC 1).
- Ash originating from the historical coal burning was reportedly deposited on the Property but not on the Site in the past. The fill of suspect and/or unknown quality is considered a PCA for the Site (PCA #7).
- Off-Site at the Deschâtelets complex (on the Property), general convent vehicle maintenance including oil changes and minor repairs was performed in a small garage building attached to the northwest side of the Deschâtelets building (PCA #10). The garage has been in operation since the 1940s until present. A historical gasoline UST was previously located at the north part of the Property and west of the laundry/workshop building, which was used to fuel the vehicles of the convent's residents (PCA #6). Neither of these PCAs were considered APECs due to the distance from the Site and they were inferred to be down gradient to cross-gradient (in terms of groundwater flow direction) from the Site.
- Seven transformers were identified on the Property, four were pole mount transformers near the laundry/workshop building (PCA #8a, 8b, 8c, and 8d) and three were reportedly located in a transformer vault in the basement of the main building (PCA #9a, 9b, and 9c). The transformers on the Property were not considered APECs for the Site due to the distance separating them from the Site and they were inferred to be down gradient from the Site.

- Two diesel-containing ASTs were identified on the Property. One of the ASTs was used to fuel the backup generator (PCA #11) and the other AST was used to fuel landscape and maintenance equipment (PCA #12). The ASTs on the Property were not considered APECs due to the distance separating them from the Site and they were inferred to be down gradient from the Site.
- Four former landfills were identified within 350 metres of the Site:
 - St. Paul University Dump (PCA #13) was located 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) is present on lands to the north of the Property (PCA #4). This was not considered an APEC for the Site due to the distance between them and the inferred groundwater flow direction;
 - Former Riverside Drive Landfill is present 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) is present northeast of the Property (PCA #3) and is 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 I 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 them from the Site and they were inferred to be cross gradient from the Site.
 - Former Group I industrial site – Currie Products Ltd. – with an associated landfill (L-12) (PCA #3).
- A former retail fuel outlet was present approximately 70 metres to the northwest of the western section of the Property (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 is towards catch basins, which are connected to the municipal storm sewer system, or overland towards the Rideau River.
- Potable water on the Property is provided by the municipal drinking water system. No drinking water wells are present on the Property or on the Phase I ESA Study area.
- The Rideau River is located east of the Property and runs along the east Property boundary; however, the Site is 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 is not to be developed is located to the east.
- The subsurface conditions at the Property consist of fill, underlain by silty clay and clayey silt, overlying glacial till. The thickness of the fill is expected to be 7-8 metres at the southeast part of the Property. Based on the information obtained, the fill placed on the Property contains ash, cinders and pieces of asphalt, brick, concrete, wood and/or metal and potentially some refuse. Depth to the bedrock is expected to range between 15 and 25 metres. The depth to the water table is 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 is east towards the Rideau River located east of the Property.

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

- **APEC 1** (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.
- **PCA #1** – Former retail service outlet, approximately 70 metres northwest of the western section of the Site, assumed to be cross gradient.
- **PCA #2** – Former Riverside Drive Landfill (L-10), approximately 100 metres to the east of the Site, separated from the Site by the Rideau River.
- **PCA #3** – Former industrial site, Currie Products Ltd., and an associated landfill (L-12). Located 550 metres northeast of the Site, assumed to be cross and down gradient of the Site.
- **PCA #4** – Lees Avenue closed landfill (L-28) approximately 200 metres to the northeast of the Site.
- **PCA #5** – Former industrial site, Royal Canadian Engineers Workshop (group II site) with previously identified oil seeps near the Rideau River, approximately 300 metres northeast of the Site.
- **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 approximately 50 metres east of the Site.
- **PCA #7** – The presence of fill containing ash originating from the historical coal burning was reportedly deposited approximately 40 metres east of the Site;
- **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.
- **PCA #9** (a, b and c) – The presence of transformers in use in a Hydro Ottawa vault in the basement of the main building approximately 50 metres east of the Site.
- **PCA #10** – The presence of a private garage approximately 50 metres east of the Site where oil changes, maintenance and minor repairs are performed for the convent's vehicles.
- **PCA #11** – Diesel containing AST used to fuel the backup generator approximately 60 metres east of the Site.
- **PCA #12** – Diesel containing AST used to fuel landscaping and maintenance equipment approximately 75 metres east of the Site.
- **PCA #13** – The presence of the former St. Paul University Dump approximately 50 metres southwest of the Site.

A Phase II ESA is 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 and potentially contaminating activities (PCAs).

3.0 RECORDS REVIEW

3.1 Ministry of the Environment and Climate Change

An information request was sent to the Ontario Ministry of the Environment and Climate Change ("MOECC") on August 2, 2016 to determine if the MOECC has maintained a file with respect to the Site. Specifically, the MOECC was asked to respond in writing to the following question:

Has the MOE ever issued any approvals or orders with respect to the Site?

A written response to these questions comprises an Index Review Report. The MOECC issued a response dated August 3, 2016, stating that no active orders were outstanding for 175 Main Street, Ottawa, Ontario.

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 August 2, 2016 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 August 10, 2016 stating that they had no records pertaining to the addresses that Golder requested be searched.

3.3 Other Records

Based on the August 3, 2016 site visit, there were no changes identified to the study area since 2014. Given the lack of changes to the study area since 2014, 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. The results of an updated database search were not expected to change that conclusion.

4.0 SITE VISIT AND INTERVIEW

Mr. James Doyle (Environmental Consultant) of Golder visited the Site on August 3, 2016. 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 the temperature was approximately 32°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. Mr. Josh Kardish and Mr. David Kardish of Greystone (Site Representatives) were interviewed on August 2, 2016. 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:

- The Fathers vacated the Site on July 1, 2016;
- The Deschâtelets building was vacant at the time of the Site visit. Mr. Yvon Quesnel has continued to perform routine janitorial duties in the building up to and including August 3, 2016.
- Excavation of soil south of the Deschâtelets building towards Clegg Street, southeast of the Deschâtelets building towards the Rideau River, and southwest of the Deschâtelets building towards Main Street has taken place. Subsequent backfilling with soil and rock material has also been conducted over the same areas. A former cemetery in the southwest portion of the property was excavated and encountered some human remains. No issues of environmental concern were discovered during excavation activities that were not already identified during the May 2016 Phase I Update.
- Roadwork was ongoing along Main Street from Hawthorne Ave. to McNaughton Ave.
- No other significant changes to the Site or surrounding property use since the original March 7, 2014 Site visit were observed at the time of the August 2016 Site visit.

- No other noteworthy findings were identified based on a review of the information obtained during the Phase One ESA Update investigation.
- In addition to the August 3, 2016 site reconnaissance of the Property, Golder conducted site reconnaissance from November 2015 to August 2016 during the remediation to assess operations at the Property. From November 2015 to May 2016, the lands to the south of the Site had all debris fill remediated (PCA #14), and from July to August 2016 the Site itself had all debris fill (APEC 1) remediated. The remediation for the lands to the south is documented in the report entitled: *Phase Two Environmental Site Assessment, Oblates Property RSC #1, 175 Main Street, Ottawa, Ontario*, dated August 2016.

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. Figure 1 indicates the location of identified PCAs.

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 70 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.

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 #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 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 550m northeast of the Site, hydraulically 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 - Lees Avenue closed landfill L-28.	Located 200 m northeast of the Site, hydraulically down 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	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 300 m northeast of the Site, hydraulically down 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 300 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 approximately, 50 m east of the Site, hydraulically down gradient.	#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.	Off-Site	PHC F1-F4, BTEX.	Soil and groundwater.
PCA #7 - Fill of unknown composition and possible presence of ash.	It is understood to be in the area east of the convent where the former coal storage and boilers were located, which is approximately 50 metres northeast of the Site. PCA #7 is hydraulically cross gradient to downgradient to the Site	#9 Coal Gasification Ash originating from historical coal burning was reportedly deposited on the Property.	Off-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)
PCA #8a,8b,8c and 8d - Presence of pole mount transformers	Located approximately 50 m east of the site, hydraulically down gradient	#55 Transformer Manufacturing, Processing and Use There are four pole mounted transformers near the laundry/workshop building.	Off-Site	PHC F1-F4, BTEX, PCB.	Soil and groundwater
PCA #9a,9b, and 9c - Presence of pad mount transformers	Located approximately 50 m east of the site, hydraulically down gradient	#55 Transformer Manufacturing, Processing and Use Pad mounted transformers located in a Hydro Ottawa owned transformer room.	Off-Site	PHC F1-F4, BTEX, PCB.	Soil and groundwater
PCA #10 - Presence of a private garage.	Located approximately 50 m east of the site, hydraulically down gradient	#28 Gasoline and Associated Products Storage in Fixed Tanks A small private garage located on the Property since the 1940s to the present was used for oil changes, maintenance and minor repairs for the convent's vehicles.	Off-Site	PHC F1-F4, VOC, PAH, metals.	Soil and groundwater.
PCA #11 – Diesel containing AST associated with backup generator	Located approximately 60 m east of the site, hydraulically down gradient	#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.	Off-Site	PHC F1-F4, BTEX.	Soil and groundwater.
PCA #12 - Diesel containing AST used to fuel landscaping and maintenance equipment	Located approximately 75 m east of the site, hydraulically down gradient	#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.	Off-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 #13 - Former St. Paul dump.	Located approximately 50 m to the southwest of the Site.	#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.
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 south part of the Site, and within 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. Figure 1 indicates the location of identified APECs.

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 #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

5.4 Conceptual Site Model

A Conceptual Site Model (CSM) of the Phase One Property, which is relevant to the RSC Property is 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:

- The Site is located 175 Main Street in Ottawa.
- At the time of the May 2016 Phase One ESA, the Site was used as a yard (landscaped trees and grass) for the main Oblates Residence (Deschâtelets) complex located to the north.
- No buildings or known underground services are present at the Site.
- There is a pronounced slope of the land downwards from west to east and from south to north. The southeastern section of the Site was filled from the Rideau River's edge. It is understood that the fill was comprised of soil, concrete, some asphalt, brick, ash, and potentially garbage (APEC 1).
- Surface water runoff is towards catch basins, which are connected to the municipal storm sewer system, or overland towards the Rideau River.
- Potable water on the Site is provided by the municipal drinking water system. No drinking water wells are present on the Site.
- The Rideau River is located east of the Site and runs along the east Property boundary. The development portion of the Site does not include all or part of a water body and is not adjacent to a water body or include land that is within 30 metres of a water body.
- At the time of the Phase One ESA Update, the neighbouring properties within the Phase One Study Area south, west and north of the Site were used for residential, community and parkland purposes and the Rideau River is located to the east.
- The subsurface conditions at the Site consist of fill, underlain by silty clay and clayey silt, overlying glacial till. The thickness of the fill is expected to be between 0-2 metres at the west part of the Site to 7-8 metres at the east part of the Site. Based on the information obtained, the fill placed on the east part of the Site contains ash, cinders and pieces of asphalt, brick, concrete, wood and/or metal and potentially some refuse. The fill on the west part of the Site consists of sand fill without debris. Depth to the bedrock is expected to be between 15 and 25 metres and the depth to the water table is expected to be between 3 and 8 mbgs and to be in the upper portion of the native overburden.
- Groundwater flow is east towards the Rideau River located east of the Site.
- The following APECs for the Site have been identified:
 - **APEC 1** (PCA #14) - Presence of fill of unknown composition and quality.

6.0 CONCLUSIONS

This Phase One ESA Update has identified no new APECs for the Site. Based on the presence of APEC 1 as described above, a Phase Two ESA is required to support the submission of a RSC for the Site. PCAs #1 through #13 were not interpreted to represent APECs for the RSC Property due to the distance from the Site and that they were either cross gradient or downgradient from the Site.

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 and August 3, 2016, 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.

Yours truly,

GOLDER ASSOCIATES LTD.



Paul Hurst, QP(ESA), P.Eng.
Senior Environmental Engineer

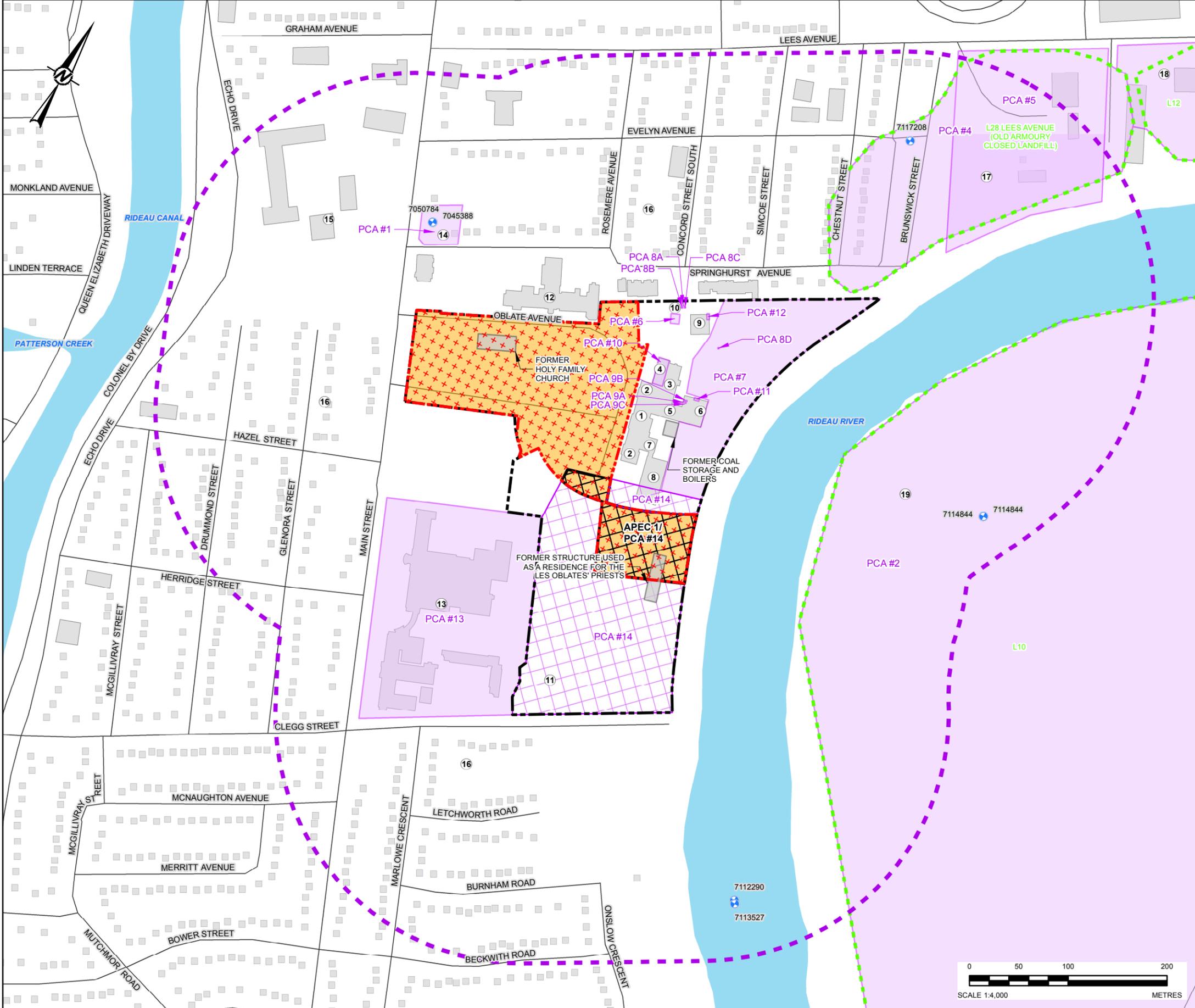


Paul Smolkin, P.Eng.
Principal

PH/JD/TR/PAS/sg/hw

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Attachments: Figure 1 – Site Plan and Areas of Potential Environmental Concern
Attachment A – Site Photographs
Attachment B – Regulatory Responses



- LEGEND**
- MOE WATER WELL LOCATION
 - PHASE ONE STUDY AREA
 - APPROXIMATE FORMER LANDFILL SITE BOUNDARY
 - PHASE TWO PROPERTY
 - PHASE ONE PROPERTY
 - RSC PROPERTY
 - APEC LOCATION
 - OFF-SITE PCA RESULTING IN APEC FOR THE SITE
 - PCA LOCATION (NOT RESULTING IN APEC FOR THE SITE)
- APEC 1 / PCA #14:** FILL CONTAINING CONSTRUCTION DEBRIS, ASPHALT, CONCRETE AND POTENTIALLY SOME REFUSE
PCA #1: FORMER RETAIL FUEL OUTLET
PCA #2: FORMER RIVERSIDE DRIVE LANDFILL (L-10)
PCA #3: FORMER GROUP I INDUSTRIAL SITE CURRIE PRODUCTS LTD. AND ASSOCIATED LANDFILL (L-12)
PCA #4: LEES AVENUE CLOSED LANDFILL (L-28)
PCA #5: FORMER PRESENCE OF THE GROUP II INDUSTRIAL SITE - ROYAL CANADIAN ENGINEERS WORKSHOP
PCA #6: FORMER GASOLINE UST AND A PUMP
PCA #7: FILL OF UNKNOWN COMPOSITION AND POSSIBLE PRESENCE OF ASH REPORTEDLY SPREAD ON THE SITE ORIGINATING FROM THE HISTORICAL COAL BURNING USED AS THE FORMER CONVENT HEATING FUEL BEFORE SWITCHING
PCA #8A, 8B, 8C, 8D: POLE MOUNT TRANSFORMERS
PCA #9A, 9B, 9C: TRANSFORMERS
PCA #10: GARAGE SINCE 1940
PCA #11: DIESEL CONTAINING AST ASSOCIATED WITH BACKUP GENERATOR
PCA #12: DIESEL CONTAINING AST USED TO FUEL LANDSCAPING EQUIPMENT
PCA #13: FORMER PRESENCE OF ST. PAUL UNIVERSITY DUMP ON THE ADJACENT LANDS SOUTHWEST OF THE SITE AND PARTIALLY ON THE SOUTHWEST PART OF THE SITE

1. MAIN OBLATES RESIDENCE (DESCHATELETS) BUILDING, BUILT IN 1885, 5 STOREYS, USED FOR PRIEST RESIDENCE
2. NORTH AND SOUTH WINGS EXTENSIONS BUILT IN 1920, 4 STOREYS, USED FOR PRIEST RESIDENCE
3. CONVENT/OFFICES BUILT IN 1940, 4 STOREYS
4. GARAGE BUILT IN 1940 AND USED FOR GENERAL SMALL MAINTENANCE AND OIL CHANGE OF OBLATES RESIDENTS' VEHICLES
5. OLD CONVENT- OLD CHAPEL, DINING ROOM, KITCHEN, AND RESIDENCES BUILT IN 1950
6. BOILER ROOM, FORMER COAL STORAGE (CURRENTLY USED FOR STORAGE OF DRUMS WITH USED OIL, LAWN MOWERS AND TOOLS STORAGE), A BACKUP GENERATOR AND ASSOCIATED DIESEL ABOVEGROUND STORAGE TANK (AST)
7. LIBRARY/OFFICES BUILT IN 1950
8. ARCHIVES AND GYM BUILDING BUILT IN 1958 (2 STOREYS)
9. LAUNDRY, WOODSHOP AND LAWN MOWER STORAGE BUILT IN 1948. DIESEL AST IS LOCATED IN THIS BUILDING.
10. LOCATION OF THE FORMER GASOLINE UNDERGROUND STORAGE TANK AND A PUMP ASSOCIATED WITH THE FORMER PRIVATE FUEL STATION
11. FORMER CEMETERY, REMOVED IN 1975/76
12. CONVENT DE SACRE COEUR
13. ST. PAUL UNIVERSITY
14. FORMER RETAIL FUEL OUTLET
15. IMMACULATA HIGH SCHOOL
16. RESIDENTIAL HOUSES
17. FORMER INDUSTRIAL SITE, GROUP II- ROYAL CANADIAN ENGINEERS WORKSHOPS
18. INTERA FORMER INDUSTRIAL SITE, GROUP I- CURRIE PRODUCTS LTD.
19. FORMER RIVERSIDE DRIVE LANDFILL L-10

NOTES
 THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1525113-1000-2

REFERENCE
 LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011
 DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT
 GREYSTONE VILLAGE INC.

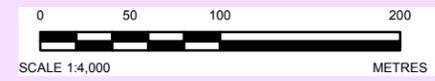
PROJECT
 REG. 153/04 PHASE II ENVIRONMENTAL SITE ASSESSMENT, RSC #2 OBLATES PROPERTY, 175 MAIN STREET, OTTAWA, ON

TITLE
 SITE PLAN AND AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

CONSULTANT	YYYY-MM-DD	2016-07-06
PREPARED	BR	
DESIGN	PH	
REVIEW	PH	
APPROVED	PAS	

Path: N:\Active\Spatial_M\The_Regional_Group\RegionalGroup\Chatterbox\Projects\1525113\PH_1000_Aud\PHIESA\Reg153_04_PHIESA\Phase2\1525113-1000-2-RSC-0001A.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM 28mm



ATTACHMENT A

Site Photographs



Photo 1 – View of the central-western portion of the Property, and further west (St. Paul's University)



Photo 2 – View of the central-eastern portion of Property, facing southeast. Excavated and filled areas are visible. Further east lies the Rideau River (beyond tree line).

CLIENT

Greystone Village Inc.

PROJECT

**Phase One Environmental Site Assessment
Updated**

CONSULTANT



YYYY-MM-DD 2016-08-03

TAKEN BY JTD

CHECKED BY PH

TITLE

Photographic Record

PROJECT No. 1525113/1000/1

FIGURE

A1



Photo 3 – View of the central-eastern portion of Property, facing northeast.



Photo 4 – View of the excavated former burial ground, located in the southwestern portion of Property, facing northwest.

CLIENT

Greystone Village Inc.

CONSULTANT



YYYY-MM-DD 2016-08-03

TAKEN BY JTD

CHECKED BY PH

PROJECT

**Phase One Environmental Site Assessment
Updated**

TITLE

Photographic Record

PROJECT No. 1525113/1000/1

FIGURE

A2



Photo 5 – View of southern portion of the Property and Clegg Street, facing east.



Photo 6 – View of the recreational land south of the Property, facing southwest.

CLIENT

Greystone Village Inc.

PROJECT

Phase One Environmental Site Assessment Updated

CONSULTANT



YYYY-MM-DD 2016-08-03

TAKEN BY JTD

CHECKED BY PH

TITLE

Photographic Record

PROJECT No. 1525113/1000/1

FIGURE

A3



Photo 7 – View of western portion of Site, towards Main Street, facing west.



Photo 8 – View of the northeastern portion of Property, just east of the Deschâtelets building, facing north.

CLIENT

Greystone Village Inc.

CONSULTANT



YYYY-MM-DD 2016-08-03

TAKEN BY JTD

CHECKED BY PH

PROJECT

**Phase One Environmental Site Assessment
Updated**

TITLE

Photographic Record

PROJECT No. 1525113/1000/1

FIGURE

A4



Photo 9 – View of the northern portion of the Site, and residential lands north of Site, facing north.



Photo 10 – View of the north façade of the Deschâtelets building, facing south.

CLIENT

Greystone Village Inc.

PROJECT

**Phase One Environmental Site Assessment
Updated**

CONSULTANT



YYYY-MM-DD 2016-08-03

TAKEN BY JTD

CHECKED BY PH

TITLE

Photographic Record

PROJECT No. 1525113/1000/1

FIGURE

A5



Photo 11 – View of the northeastern facades of the Deschâtelets building. The sunken garage leads to the boiler room/ backup diesel generator AST.



Photo 12 – View of the former laundry building, facing northeast.

CLIENT

Greystone Village Inc.

PROJECT

**Phase One Environmental Site Assessment
Updated**

CONSULTANT



YYYY-MM-DD 2016-08-03

TAKEN BY JTD

CHECKED BY PH

TITLE

Photographic Record

PROJECT No. 1525113/1000/1

FIGURE

A6

ATTACHMENT B

Regulatory Responses

Ministry of the Environment
and Climate Change
Ottawa District Office
2430 Don Reid Drive, Suite 103
Ottawa Ontario
K1H 1E1
613-521-3450 or 1-800-860-2195
Fax: 613-521-5437

Ministère de l'Environnement et de
l'Action en matière de changement climatique
Bureau du district d'Ottawa
2430, promenade Don Reid, Unité 103
Ottawa (Ontario)
K1H 1E1
613-521-3450 ou 1-800-860-2195
Télééc. : 613-521-5437



OTT File No: 72

**INDEX REVIEW REPORT
COMMERCIAL/INDUSTRIAL/AGRICULTURAL**

Attention: James Doyle Golder Associates	Your File: Date Received: August 2, 2016
---	---

Thank you for your inquiry requesting a search of records from the Ministry of the Environment and Climate Change (ministry). The ministry encourages you to use the available on-line resources to access publically-available information which may assist with your inquiry.

PROPERTY OWNER AND LOCATION

Location: Municipality: **Ottawa**
Address: **175 Main Street**
 Lot Concession Township

INDEX OF NAMES FOR ORDERS

We have searched the *Ottawa* District Index Record of Active Orders under the Environmental Protection Act (EPA), Ontario Water Resources Act (OWRA) and the Pesticides Act (PA) issued to: and the following information has been found:

No Active Orders are outstanding

Please Note: For information related to any ministry Orders issued to the property in question, please request this information from the property owner. If you would like further information regarding a specific Order issued, please contact the Ottawa District Office.

Date of Search: August 3, 2016

RECORD OF SITE CONDITION

For information on **Records of Site Condition** filed on the Environmental Site Registry since October 1, 2004, please use the following links:

For records of site condition filed between October 1, 2004 and June 30, 2011

<https://www.lrcsde.lrc.gov.on.ca/besrWebPublic/generalSearch>, and for records of site condition filed since July 1, 2011 <https://www.ontario.ca/environment-and-energy/records-site-condition>

**INDEX REVIEW REPORT
COMMERCIAL/INDUSTRIAL/AGRICULTURAL**

INDEX OF NAMES FOR APPROVALS ISSUED SINCE 1999

A search of the Index Record of names of all persons to whom approvals have been issued, maintained by the Director, Approvals Branch and the Regional Director, *Eastern Region*, and the District Manager, *Ottawa District*, under Section 19 EPA and Section 13 OWRA and the following information has been provided :

<u>Type</u>	<u>Number</u>	<u>Issued To</u>	<u>Issue Date</u>
Section 9 EPA (Air)			
Section 39 EPA (Waste Management)			
Section 52 OWRA (Water)			
Section 53 OWRA (Municipal/Private/ Industrial Sewage)	2447-AB4PHT 4082-AAZQ6P	Greystone Village Inc. Greystone Village Inc.	June 28, 2016 June 24, 2016
Other			

The **ministry's Access Environment** is an on-line, map-based search tool designed to allow the public, quick and easy access to the ministry approvals and registration information from December 1999 onward. Access Environment currently displays Environmental Compliance Approvals (ECA), Renewable Energy Approvals (REA) and registrations on the Environmental Activity and Sector Registry (EASR). ECAs include all Certificates of Approval (CofAs) previously issued under the Environmental Protection Act (EPA) and approvals previously issued under s.53 of the Ontario Water Resources Act (OWRA). You can access this information from the ministry website or at the following link:

www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action?search=basic&lang=en

Copies of **ECAs issued before January 1, 2000** can be obtained by submitting a Request for a Copy of an Environmental Compliance Approval

Please Note:

- 1) The information provided above is based solely on the address(es) and name(s) of the present and past owners provided by you.
- 2) The Index Record of Names to whom approvals have been issued, maintained by the Regional Director and District Manager, has been searched back to 1999.
- 3) A search of our records does **NOT** indicate whether there are:
 - other uses for which an approval may have been required, nor
 - other uses on the property or in the vicinity that may affect the suitability of the property, for the use proposed to be made of it.If a comprehensive knowledge of the property and the nearby lands and their environmental condition is required, you must examine them and other relevant records yourself, with the aid of a qualified person, if needed.

No Approvals have been issued.

Date of Search: August 3, 2016

**INDEX REVIEW REPORT
COMMERCIAL/INDUSTRIAL/AGRICULTURAL**

Additional site information related to the **location of landfill sites** in the province can be found at the following link:

<http://www.ontario.ca/environment-and-energy/small-landfill-sites>

<http://www.ontario.ca/environment-and-energy/map-large-landfill-sites>

The **ministry's Hazardous Waste Information Network (HWIN)** can also be accessed to search for information on generators, carriers, and receivers of subject waste in the province at the following link: www.hwin.ca

The **ministry's Environmental Compliance Reports** provide information about contaminant discharges to water and emissions to air that exceed limits found in legislation, environmental approvals, orders and/or policies/guidelines and can be accessed at the following link: <http://www.ontario.ca/environment-and-energy/environmental-compliance-reports>

Information on **Environmental Penalties**, which are monetary penalties that can be imposed by the ministry for some industrial spills, can be assessed at the following link: <https://www.ontario.ca/search/search-results?query=environmental%20penalties>

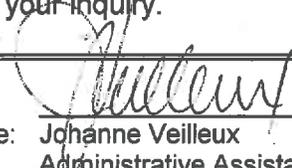
Additional ministry information can be accessed through the **Government of Ontario's Open Data Catalogue**: <http://www.ontario.ca/government/open-data-ontario>

The ministry also encourages you to consider best practices and standards of care used within the legal community and through your associations as a guide to obtaining information related to specific property for any legal purpose.

We trust this information will help meet your requirements quickly and effectively.

Please advise your colleagues that responses to requests for searches always take some time. As a result the Ministry of the Environment and Climate Change may not be able to meet deadlines imposed by other parties on real estate and other transactions.

Thank you for your inquiry.

Signature:	
Contact Name:	Johanne Veilleux
Title:	Administrative Assistant
Address:	Ministry of the Environment and Climate Change 2430 Don Reid Drive, Unit 103 Ottawa, ON K1H 1E1
Phone:	(613) 521-3450 Ext 221
Date:	August 3, 2016
	E&OE

Please Note: If you would like to receive an email with all the environmental links above, please contact me at johanne.veilleux@ontario.ca and I will be pleased to send them to you.

Hurst, Paul

From: Ruchi Chohan <rchohan@tssa.org> on behalf of Public Information Services <publicinformationsservices@tssa.org>
Sent: Wednesday, August 10, 2016 7:47 AM
To: Hurst, Paul
Subject: RE: Phase I ESA 175 Main Street

Good morning Paul,

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 (publicinformationsservices@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!

Ruchi



Ruchi Chohan | Public Information Agent

Facilities and Business Services

345 Carlingview Drive

Toronto, Ontario M9W 6N9

Tel: +1-416-734-3417 | Fax: +1-416-231-4903 | E-Mail: rchohan@tssa.org

www.tssa.org



From: Hurst, Paul [mailto:Paul_Hurst@golder.com]

Sent: Tuesday, August 02, 2016 1:39 PM

To: Public Information Services <publicinformationservices@tssa.org>

Subject: Phase I ESA 175 Main Street

Hello,

We are in the process of preparing a Phase I Environmental Site Assessment for 175 Main Street, in Ottawa, Ontario.

Could you please review your records to determine if any bulk fuel underground storage tanks (USTs) were registered on or near the proposed alignment. Could you please check your records for the properties located adjacent to the Right of Way at the following addresses in Ottawa, Ontario:

Site:

175 Main Street, Ottawa, Ontario

Additional addresses:

223, 249, 140, 196 Main Street

15 Oblates Avenue

130, 140, 152, 102 Springhurts Avenue.

Thanks in advance

Paul Hurst

Paul Hurst (M.Sc., P.Eng.) | Senior Environmental Engineer | **Golder Associates Ltd.**

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

T: +1 (613) 592 9600 | **D:** +1 (613) 592-9600 x4292 | **F:** +1 (613) 592 9601 | **C:** +1 (613) 880-4598 | **E:** Paul_Hurst@golder.com | www.golder.com

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