Phase One Environmental Site Assessment

Millcroft Golf Club (Block C)

Burlington, Ontario

Prepared For:

Millcroft Greens Corporation

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Executive Summary

DS Consultants Ltd. (DS) was retained by Millcroft Greens Corporation (the "Client") to conduct a Phase One Environmental Site Assessment (ESA) for a portion of the Millcroft Golf Club, designated "Block C" located at the 2155 Country Club Drive, in the City of Burlington, Ontario, herein referred to as the "Phase One Property". The Phase One Property is a 1.4-hectare (3.46 acres) parcel of land comprising a portion of the first hole of the golf course. The Phase One Property is located approximately 50 m east of the intersection of Berwick Drive and Country Club Drive.

The Phase One ESA has been requested for due diligence purposes in association with the proposed redevelopment of the Property. DS understands that this Phase One ESA may be used to support the filing of a Record of Site Condition (RSC) as part of the proposed redevelopment of the Phase One Property for residential purposes. It is further understood that the proposed development will consist of residential dwellings.

It is the opinion of DS that the intended future property use (residential) constitutes a more sensitive property use, as defined under O.Reg. 153/04 (as amended) than the current commercial use. Given that the proposed change in property use is to a more sensitive property use, the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) will be mandated under O.Reg. 153/04 (as amended).

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objectives of the Phase One ESA is to identify the presence or absence of potentially contaminating activities (PCAs) on the Phase One Property and/or within the Phase One Study Area, and to determine if the PCAs identified within the Phase One Study Area are likely to result in an Area of Potential Environmental Concern (APEC) on the Phase One Property. The information obtained by the Phase One ESA will be used to assess whether further investigation in the form of a Phase Two ESA is merited. It should be noted that this Phase One ESA does not include any sampling or testing and is based solely on a review of readily available data, and observations made during the Phase One Site Reconnaissance.

Based on the findings of the Phase One ESA, DS presents the following findings:

- The Phase One Property appears to have been used for agricultural purposes from the late 1800s until 1987 when the golf course was constructed. The Phase One Property has been operated as part of the golf course since
- The topography on the Phase One Property and within the Phase One Study Area is generally flat with a surficial elevation of 150 metres above sea level (masl) and a slight slope to the east. Based on the local topography, the shallow groundwater flow direction is inferred to be north-east towards Appleby Creek, which is located approximately 200 metres north-east of

the Phase One Property. Long term groundwater monitoring would be required in order to confirm the direction of groundwater flow on the Phase One Property;

- Based on a review of the OGS Earth database, the Phase One Property is situated within a south slope physiographic region. The overburden (surficial geology) in the vicinity of the Phase One Property is described as "till plains (drumlinized)", and the bedrock is described as shale, limestone, dolostone, and siltstone of the Queenston Formation. The bedrock underlying the Phase One Property is anticipated to be encountered at an approximate depth range of 3.3 to 6,2 metres below ground surface (mbgs);
- The following issues of potential environmental concern were identified on the Phase One property:
    - Fill material is inferred to have been used for landscaping purposes at the time of construction of the golf course. The environmental quality of the fill material is unknown;
    - One (1) transformer was observed in the southeast corner of the Property during the site reconnaissance; and
    - Pesticides/herbicides are inferred to have been used on the Phase One Property.
- The neighbouring properties within the Phase One Study Area appear to have been used for residential purposes since the late 1980s/early 1990s.

Based on a review of the information available at this time it is concluded that three (3) PCAs were identified on the Phase One Property which are considered to be contributing to three (3) APECs in, on, or under the Phase One Property. A summary of the PCAs identified and the associated APECs is provided in Table E-1 below. Note that the PCA numbers used below are per Table 2, Schedule D of O.Reg. 153/04.

Table E-1: Summary of APECs Identified on Phase One Property

Area of Potential Environmental Concern	Location of APECs on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Entire Property	PCA1 (#30): Importation of Fill Material of Unknown Quality	On Site	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-2	Southwest portion of the Property	PCA-4 (#55): Transformer Manufacturing, Processing and Use	On Site	PCBs	Soil

Area of Potential Environmental Concern	Location of APECs on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-3	Entire Property	PCA-5 (#40): Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Application	On Site	OCPs	Soil

The PCAs identified in Table E-1 above are considered by the Qualified Person (QP) to be contributing to Areas of Potential Environmental Concern on the Phase One Property. The Potential Contaminants of Concern (PCOCs) identified by the QP include PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, low or high pH, SAR, PAHs, OCPs, and PCBs. Based on the findings of this Phase One ESA, it is concluded that a Phase Two ESA would be required in order to investigate the aforementioned APECs and to assess the environmental soil and groundwater conditions on the Phase One Property. A Record of Site Condition cannot be filed based on the findings of the Phase One ESA.

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1.0 Introduction

DS Consultants Ltd. (DS) was retained by Millcroft Greens Corporation to complete a Phase One ESA of a portion of the Millcroft Golf Club (part of the first hole) referred to as "Block C", located at 2155 Country Club Drive, in the City of Burlington, Ontario, herein referred to as the "Phase One Property". It is DS' understanding that this Phase One ESA has been requested for due diligence purposes in association with the proposed redevelopment of the Property. DS understands that this Phase One ESA may be used to support the filing of a Record of Site Condition (RSC) as part of the proposed redevelopment of the Phase One Property for residential purposes. It is further understood that the proposed development will consist of residential dwellings.

It is the opinion of DS that the intended future property use (residential) constitutes a more sensitive property use, as defined under O.Reg. 153/04 (as amended) than the current commercial use. Given that the proposed change in property use is to a more sensitive property use, the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) will be mandated under O.Reg. 153/04 (as amended).

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objectives of the Phase One ESA is to identify the presence or absence of potentially contaminating activities (PCAs) on the Phase One Property and/or within the Phase One Study Area, and to determine if the PCAs identified within the Phase One Study Area are likely to result in an Area of Potential Environmental Concern (APEC) on the Phase One Property. The information obtained by the Phase One ESA will be used to assess whether further investigation in the form of a Phase Two ESA is merited. It should be noted that this Phase One ESA does not include any sampling or testing and is based solely on a review of readily available data, and observations made during the Phase One Site Reconnaissance.

1.1 Phase One Property Information

The information for the Phase One Property is provided in the following Table.

Table 1-1: Phase One Property Information

Criteria	Information	Source
Legal Description	PT LTS 7 TO 9, CON 1 SDS, PTS 1 TO 10 20R13519 S&E LANDS LAID OUT BY PLANS 20M780, 20M811, 20M868, 20M922, PTS 1 & 2, 20R15846, PIN 07182-2263 & PT 1, 20R16891; BURLINGTON. (NEW REFERENCE PLAN TO BE DEPOSITED FOR DESCRIPTION) S/T EASE H302472. S/T EASE 570228 LYING WITHIN THE LIMITS OF PTS 5 & 6 20R13519. S/T EASE NU39399 OVER PTS 7 &8, 20R13519. S/T EASE NU39398 TRANSFERRED BY 95199. S/T EASE H521403 LYING WITHIN THE LIMITS OF PT 5, 20R13519 & PTS 7 & 9 20R13519. T/W EASE 1499 95 OVER PT 8 20R6131. T/W EASE 153572 OVER PTS 9 & 10, 20R6131. S/T EASE IN FAV OF LTS 1, 16, 117 & 119, PL 20M922 & PT LTS 8& 9, CON 1 SDS PT 2, 20R16282 AS IN HR447696, Burlington	Land Registry Office
Property Identification Number (PIN)	0718-2700	Land Registry Office
Municipal Address	2155 Country Club Drive, Burlington, Ontario	City of Burlington, online information
Zoning	O1 (Open Space)	City of Burlington Zoning By-law 2020
Property Owner	2079610 Ontario Limited	Land Registry office, client
Property Owner Contact Information	Mr. Ed Liptay	Client
Current Site Occupants	Millcroft Golf Club	Phase One Site Reconnaissance
Site Area	1.4-hectare (3.46 acres)	Client
Centroid UTM Coordinates	Northing: 4804832.36 Easting: 596280.41 Zone: 17T	Google Earth

1.2 Site Description

The Phase One Property is a 1.4-hectare (3.46 acres) parcel of land situated within a residential neighbourhood in the City of Burlington, Ontario. The Phase One Property is located approximately 50 m east of the intersection of Berwick Drive and Country Club Drive and was occupied by Millcroft Golf Club at the time of this investigation. For the purposes of this report, Berwick Drive is assumed to be aligned in a north-south orientation, and Country Club Drive in east-west orientation.

The Phase One Property is currently operating as a portion of the first hole of the golf course. The Phase One Property includes a segment of golf cart path which is flanked by trees, six sand bunkers, and associated manicured grass characteristic of a golf course.

A Site Location Plan depicting the general location of the Phase One Property is provided in Figure 1. A plan depicting the Phase One Property boundaries and general site features is provided in Figure 2.

2.0 Scope of Investigation

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04, as amended (Phase One ESA requirements). This included:

- A review of reasonably ascertainable records and reports regarding historical and current use, regulatory information, occupancy, and activities for the Phase One Property, including:
  - Physical setting information such as aerial photographs, topographic mapping, available historical maps and drawings;
  - Company records (e.g., site plans, building plans, permit records, production and maintenance records, asbestos surveys, site utility drawings, emergency response and contingency plans, spill reporting plans and records, inventories of chemicals and their usage (e.g. WHMIS), environmental monitoring data, waste management records, inventory of underground and aboveground tanks, environmental audit reports) provided to DS;
  - Geological and hydrogeological information in published government maps and/or reports;
  - A review of information on file with Ecolog ERIS, a commercial database that provides information from numerous private, provincial, and federal environmental databases/registries;
  - Review of fire insurance plans, municipal directory documentation and available environmental reports that are pertinent to the Phase One Property;
  - Regulatory Information, including such as Permits or Certificates of Approval (pertaining to activities that may impact the condition of the property, orders, control orders, or complaints related to environmental compliance that may impact the condition of the property, and violations of environmental statutes, regulations, by-laws, and permits that may impact the condition of the property;
  - Environmental source information including published and online records from Ministry of Environment, Conservation and Parks (MECP), Environment Canada, Technical Standards and Safety Authority (TSSA), and the City of Toronto; and
  - The Ontario Ministry of Natural Resources (MNR) Natural Heritage Information Centre database and the Conservation Authority website for information specific to natural areas, such as locations of environmentally sensitive areas or species.

- Interviews with available individuals having knowledge of current and/or past site activities;
- An inspection of the Phase One Property, and the activities on the adjacent properties, including and assessment of the following:
  - The site operations, processes, and waste management currently carried out on the Phase One Property.
  - The neighbouring land uses (i.e. identification of environmentally sensitive neighbours, as well as an assessment of potential off-site sources of contamination);
  - The source of potable water for the Phase One Property and properties within the Phase One Study Area;
  - The potential presence of existing or former above-ground or underground fuel storage tanks (ASTs or USTs);
  - Possible cut and fill operations that may resulted in the importation of fill material of unknown quality;
  - The presence/absence of floor cracks, hydraulic hoists, elevators, sumps and drains;
  - Areas suspected to contain evidence of surficial and sub-surface impacts (e.g. areas of staining);
  - The potential presence of various Designated Substances and building materials including:
    - Friable and non-friable asbestos
    - Urea formaldehyde foam insulation (UFFI)
    - Chlorofluorocarbons (CFCs) in air conditioning and refrigeration equipment
    - PCB-containing materials and electrical equipment
    - Lead-based paint
    - Mould
  - The presence/absence of wells, pits and lagoons, drainage sumps and floor drains, sewage and wastewater disposal pipelines; and
  - General site conditions, including topography and drainage, standing water, right-of-ways, presence of underground utilities, evidence of stained or odorous soils, and stressed vegetation.
- Evaluation of the information and documentation of the results in the form of a Phase One ESA Report.

The objectives of the Phase One ESA are:

1. To assess the environmental condition of the Phase One Property to develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in, or under the Phase One Property;
2. To identify potentially contaminating activities within the Study Area (i.e., areas within 250 m of the Property), and to assess if Areas of Potential Environmental Concern (APECs) exist on the Phase One Property;

3. To identify the Potential Contaminants of Concern associated with the PCAs identified; and
4. To provide a basis for subsequent investigation, if required, based on the findings of the Phase One ESA.

3.0 Records Review

3.1 General

3.1.1 Phase One Study Area Determination

Based on a review of the available historical records and the observations made during the Phase One Site Reconnaissance, no heavy industrial properties or other relevant potentially contaminating activities were observed which were considered to merit expanding the Phase One Study Area. As such the Phase One Study Area was defined by a 250-metre radius around the Phase One Property boundary, in accordance with O.Reg. 153/04 (as amended).

The properties within 250 m of the Phase One Property generally consist of residential and commercial land uses. An assessment of the historical and current use of all properties within the Phase One Study Area was conducted in order to assess for the presence/absence of potentially contaminating activities. A summary of the potentially contaminating activities identified within the Phase One Study Area is provided under Section 6.2. A plan depicting the Phase One Study Area limits as well as the current land uses is presented in Figures 2 and 3.

3.1.2 First Developed Use Determination

The first developed use of the Phase One Property is considered under O.Reg. 153/04 (as amended) to be either the first use of the Phase One Property in or after 1875 that resulted in the development of a building or structure on the property, or the first potentially contaminating use or activity on the Phase One Property.

The determination of the first developed use of the Phase One Property was based on a review of available aerial photographs, historical maps, city directories, and interviews. Based on the information obtained, the first developed use of the Phase One Property was circa 1987 for commercial purposes when the golf course construction commenced.

3.1.3 Fire Insurance Plans

Fire insurance plans were prepared between 1875 and 1923 and revised in some areas until the 1970s. A search of Fire Insurance Plans (FIPs) was undertaken at the Metropolitan Toronto Reference Library and City Toronto's online services. FIPs were reviewed to confirm the building construction, occupancy, and potential fire hazardous with details regarding storage tanks, boilers, transformers, electrical room, etc. No FIPs were available for The Phase One Property and the properties located in the Study Area.

3.1.4 Chain of Title

A chain of title search was not prepared as part of this Phase One ESA. It is noted that a chain of title for the Phase One Property from the date of patent to present will be required before an RSC can be filed for the property. Information related to the historical occupants was obtained from other sources (i.e. city directories, interviews).

3.1.5 Environmental Reports

There were no previous environmental reports available to review.

3.1.6 City Directories

City Directories for the years 1998, 1991, 1996, and 2000 were reviewed at the Metropolitan Toronto Reference Library. The Phase One Property was not listed. However, Millcroft Golf Club, where the Site is located appears to be operating by 1991. The adjacent properties were generally listed for the first time in the 1991, and 1996 directories; thus, it appears that the houses have been developed by the early 1990s for residential purposes. After reviewing the directories, it was noted by DS that there are no potential environmental concerns on the Phase One Property and the Phase One Study Area.

After complete summary of the City Directory listings reviewed has been included under Appendix B.

3.2 Environmental Source Information

3.2.1 Ecolog Eris Report

EcoLog Environmental Risk Information Services Ltd. (ERIS) is an organization that maintains and searches various government and private databases for property-related environmental information.

DS contacted EcoLog Environmental Risk Information Services Ltd. (EcoLog ERIS), an environmental database and information service company, to request a search of government and private records for information pertaining to the Phase One Property and Phase One Study Area. EcoLog searched 15 Federal databases, 37 Provincial databases and 10 private databases. A summary of the databases provide by ERIS is provided in the Table below:

Table 3-1: Summary of Environmental Databases Reviewed

Federal Government Source Databases	Private Source Databases
Contaminated Sites on Federal Land; Environmental Effects Monitoring; Environmental Issues Inventory System; Federal Convictions; Fisheries & Oceans Fuel Tanks; Indian & Northern Affairs Fuel Tanks; National Analysis of Trends in Emergencies System (NATES); National Defense & Canadian Forces Fuel Tanks; National Defence & Canadian Forces Spills; National Defence & Canadian Forces Waste Disposal Sites; National Environmental Emergencies System (NEES); National PCB Inventory; National Pollutant Release Inventory; Parks Canada Fuel Storage Tanks; and Transport Canada Fuel Storage Tanks.	Anderson's Storage Tanks; Anderson's Waste Disposal Sites; Automobile Wrecking & Supplies; Canadian Mine Locations; Canadian Pulp and Paper; Chemical Register; ERIS Historical Searches; Oil and Gas Wells; Retail Fuel Storage Tanks; and Scott's Manufacturing Directory.
Provincial Government Source Databases	
Abandoned Aggregate Inventory; Abandoned Mine Information System; Aggregate Inventory; Borehole; Certificates of Approval; Certificates of Property Use; Commercial Fuel Oil Tanks; Compliance and Convictions; Drill Hole Database; Environmental Activity and Sector Registry; Environmental Compliance Approval; Environmental Registry; Fuel Storage Tank; Fuel Storage Tank – Historic; Inventory of Coal Gasification Plants and Coal Tar Sites; TSSA Historic Incidents; TSSA Incidents; TSSA Pipeline Incidents; TSSA Variances for Abandonment of Underground Storage Tanks;	Inventory of PCB Storage Sites; Landfill Inventory Management Ontario; List of TSSA Expired Facilities; Mineral Occurrences; Non-Compliance Reports; Ontario Oil and Gas Wells; Ontario Regulation 347 waste Generators Summary; Ontario Regulation 347 Waste Receivers Summary; Ontario Spills; Orders; Permit to Take Water; Pesticide Register; Private and Retail Fuel Storage Tanks; Record of Site Condition; Waste Disposal Sites – MECP 1991 Historical Approval Inventory; Waste Disposal Sites – MECP CA Inventory; Wastewater Discharger Registration Database; and Water Well Information System

The ERIS report indicated that there were no listings for the Phase One Property, and eight (8) listings for the remaining properties within the Phase One Study Area. A copy of the ERIS report has been provided under Appendix C. A summary of the pertinent details contained within the ERIS report is provided in the following table:

Table 3-2: Summary of ERIS Report Findings within Phase One Study Area

Database/Date	Entry Details	PCA ID No.
Certificates of Approval (CA)	Four (4) certificates of approval were submitted for various applications related to water and wastewater infrastructure construction between 1989 to 1999.	No PCA identified
Environmental Compliance Approval (ECA)	An application for municipal and private sewage works was submitted in May 2006 for the intersection of Dundas Street at Westlock Common.	No PCA identified
ERIS Historical Search (EHS)	An ERIS Historical Search was requested for 2156 Berwick Drive in March 2016.	No PCA identified
TSSA Historic Incidents (HINC)	One (1) entry was available for the Phase One Study Area at 2125 Dalecroft Cres. A near missed natural gas leak.	No PCA identified
Ontario Spills (SPL)	One (1) leak of natural gas was available for the Phase One Study Area at Union Gas Limited, located at 4143 Vermount Cres., approximately 241 m north-east of the Phase One Property.	No PCA identified

3.2.2 Ministry of the Environment- Freedom of Information

A request was submitted to the MECP Freedom of Information and Protection of Privacy Office (Appendix D) to determine if there were any environmental incidents or violations associated with the Phase One Property; whether any Control Orders have been issued; whether there have been any other environmental concerns associated with the property such as complaints, inspections, etc.; whether any environmental investigations have been carried out regarding the subject property; and, to determine if the Ministry's Spills Action Centre's (SAC's) files contain any reported spills that had occurred in the site vicinity. Note that the SAC's database dates back only to 1988 and many of the occurrences on file have only been reported voluntarily. In addition, the MECP was requested to search their files (all years) regarding the following parameters: air emissions, water, sewage, wastewater and pesticides.

Files pertinent to this investigation would include, though are not limited to: regulatory permits, records; material safety data sheets; underground utility drawings; inventories of chemicals, chemical usage and chemical storage areas; inventory of aboveground storage tanks and underground storage tanks; monitoring data, including that done at the request of the MECP; historical and current waste management, receiver and generator records; process, production and maintenance documents related to areas of potential environmental concern; spills/discharge records; emergency and contingency plans; environmental audit reports; site plan of facility showing areas of production and manufacturing.

A response has been received from the MECP indicating records were identified for the Phase One Property. DS is currently awaiting the results of the MECP search and will update the findings of this investigation when the results are received from the Ministry.

3.2.3 Technical Standards and Safety Authority

The Technical Standards and Safety Authority (TSSA) maintain records related to storage tanks for petroleum related products. The TSSA was contacted to review records related to the Property and Study Area. According to the response received on October 18, 2019 from Ms. Connie Hill of TSSA, no records were found on the Phase One Property, but the following properties located in the Phase One Study Area have Fuel Storage Tank records:

Table 3-3: TSSA Records

Inst Number	Context	Address	Status	PCA ID No.
10333845	FS Private Fuel Outlet - Self Serve	2155 Country Club Dr, Burlington, ON	Active	PCA-1
11640060	FS Liquid Fuel Tank	2155 Country Club Dr, Burlington, ON	Active	PCA-1
11640081	FS Liquid Fuel Tank	2155 Country Club Dr, Burlington, ON	Active	PCA-1

A copy of the correspondence with the TSSA has been appended under Appendix D.

3.2.4 Areas of Natural and Scientific Interest

The Natural Heritage Areas database published by the Ministry of Natural Resources (MNR) was reviewed in order to identify the presence/absence of areas of natural significance including provincial parks, conservation reserves, areas of natural and scientific interest, wetlands, environmentally significant areas, habitats of threatened or endangered species, and wilderness areas. The regional and municipal Official Plans were also reviewed as part of this assessment.

No areas of natural or scientific interest were identified within the Phase One Study Area.

3.2.5 Conservation Halton

According to Conservation Halton online mapping system, one water body (Appleby Creek) is present within the Phase One Study Area. Appleby Creek runs to the east, near the northeastern boundary of the Phase One Study Area, approximately 240 m northeast of the Phase One Property. The Phase One Property is located in the Appleby Creek Watershed.

3.3 Physical Setting Sources

3.3.1 Aerial Photographs and Historical Mapping

Aerial Photographs for the years 1995, 2002, 2001, and 2015 were obtained from the City of Burlington Online Mapping and Aerial Photographs for the years 1962 and 1972 were obtained from ERIS Historical Aerials services, and the photograph from 1987 was obtained from Halton Public

Works to be reviewed as part of this assessment. The County Atlas of Halton was reviewed in order to provide a more historical image from the year 1880. A summary of pertinent information obtained from the aerial photographs reviewed is presented in the Table below. The supporting documents have been appended under Appendix E.

Table 3-4: Summary of Aerial Photographs

Year	Phase One Property	Phase One Study Area	PCA ID No.
1880 County Atlas Map	The county atlas map indicates that the Phase One Property is part of a larger parcel owned by Mars & Geo McKerlie. The land is inferred to have been used for agricultural purposes.	The Phase One Study Area appears to be undeveloped and is inferred to have been part of a larger agricultural plot.	No PCA identified
1962	No significant changes	North, South, East & West: No significant changes.	No PCA identified
1972	No significant changes	No significant changes.	No PCA identified
1987	Development on the Property appears to have begun. The ground surface appears disturbed and undulating, indicative of the potential placement of fill material for landscaping purposes is associated with the construction of the golf course.	North: No significant changes South & East: Site grading and initial construction of the Millcroft Golf Club and surrounding houses is visible. West: No significant changes	PCA-2 – Importation of fill material of unknown quality.
1995	Millcroft Golf Club has been developed in the Property.	North: The lands to the north are undeveloped. East: The east adjacent lands are still undeveloped. The lands further to the east have been developed with houses. West: The lands to the west appear undeveloped. South: The golf course and flanking houses appear to have been constructed.	PCA-5 – inferred application of pesticides/herbicides on golf course.
2009	The Phase One Property generally resembles its current form. The golf cart path is not fully developed at this time.	North: The land to the north is still undeveloped, some signs of grading activity is visible to the northwest. East, West & South: Residential dwellings were developed.	PCA-5 – inferred application of pesticides/herbicides on golf course.
2011	The Phase One Property resembles its current form.	North: Residential dwellings have been developed	PCA-5 – inferred application of

Year	Phase One Property	Phase One Study Area	PCA ID No.
		South, East & West: No significant changes	pesticides/herbicides on golf course.
2019	No significant changes	No significant changes	PCA-5 – inferred application of pesticides/herbicides on golf course.

3.3.2 Topography, Hydrology, Geology

The topography of the Phase One Property is generally flat, with a surface elevation of 150 masl. The topography within the Phase One Study Area generally slopes to the east, towards Lake Ontario, located approximately 6.5 km southeast of the Phase One Property. The nearest water body is Appleby Creek, located to the north-east, approximately 200 m from the Phase One Property. The shallow groundwater flow direction within the Phase One Study Area is inferred to be north-east towards Appleby Creek.

The Site is situated within a south slope physiographic region. The surficial geology within the Phase One Study area is described as till plains (drumlinized), and the bedrock is described as shale, limestone, dolostone, and siltstone of the Queenston Formation. Based on a review of borehole logs and MECP Well Records on the vicinity of the Property, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 3.3 to 6.2 mbgs.

3.3.3 Fill Materials

According to observed aerial photographs, fill material may have been imported circa 1987 for landscaping and grading purposes as part of the Millcroft Golf Club development. The ground surface on the Phase One Property was observed to be undulating, suggesting placement of fill material. The environmental quality of the fill material is unknown (**PCA-2**)

3.3.4 Water Bodies and Areas of Natural Significance

During the site visit, standing water was not observed on the Property. The nearest body of water to the Phase One Property is Appleby Creek, located approximately 200 m to the north-east. Environmentally Significant Areas are natural areas that have been identified as significant and worthy of protection on three criteria – ecology, hydrology and geology. Municipalities has developed policies to protect natural heritage features. The Region uses Environmentally Significant Areas as a means to protect natural areas like wetlands, fish habitat, woodlands, habitat of rare species, groundwater recharge and discharge areas, and Areas of Natural and Scientific Interest.

The Property includes no Areas of Natural Significance. Additional details are provided in Section 3.2.4 above.

3.3.5 Well Records

Water well records were also searched as part of the EcoLog ERIS database query. No records were identified, and potable wells were not present within the Phase One Study Area or on the Phase One Property.

3.4 Site Operating Records

The Property includes no structures and is operated as a portion of the first hole of the Millcroft Golf Club. No operating records were available.

4.0 Interviews

4.1 Personnel Interviewed

The following persons with the knowledge of the Property were interviewed or provided the required information.

Table 4-1: Summary of Personnel Interviewed

Date	Name	Affiliation	Position	Method of Interview
November 25, 2019	Martin Kastrov	Millcroft Golf Club	Superintendent	In Person

4.2 Interviewee Rationale

Millcroft Golf Club is the current occupant of the Site and have been responsible for site operations since 1987. Mr. Kastrov is the superintendent of the Millcroft Golf Club and is considered to be a knowledgeable person regarding the historical site operations. The Phase One Interview was conducted by Mr. John Gaviria-Ballen, B. Eng., EIT.

4.3 Results of Interview

The following summarizes the information that was provided by the site representative, based on their knowledge of site activities.

- The Phase One Property has been owned by Millcroft Golf Club since 1987 and has been used as a golf course since.
- Pesticides have been used for lawn maintenance throughout the life of the golf course.
- No information was available for the Property if cited for violations of any provincial or federal environmental laws or regulations.
- No information for individuals with additional knowledge of the Property was available to interview.

DS compared the information obtained through the Phase One Interview with the information obtained from the historical records for the Site. The information provided by the interviewee was

corroborated by the historical records, as such DS has no concern regarding the accuracy of the information provided.

5.0 Site Reconnaissance

5.1 General Requirements

Table 5-1: Site Reconnaissance Notes

Information	Details
Date of Investigation:	November 25, 2019
Time of Investigation:	10:30 am
Weather Conditions:	Cloudy
Duration of Investigation:	1 hour
Facility Operation:	Millcroft Golf Club Course – Hole 1
Name and Qualification of Person(s) conducting the assessment	John Gaviria-Ballen, B. Eng., EIT under the supervision of Mr. Patrick Fioravanti, B. Sc., P. Geo., QP_{ESA}
Limitations	No limitations

5.2 Specific Observations at Phase One Property

The Site Reconnaissance involved a visual assessment of the Phase One Property for the purpose of identifying potential PCAs, and associated APECs. Photographs of the Phase One Property were taken at the time of the Site Reconnaissance, and have been included under Appendix F.

Table 5-2: Summary of Site Reconnaissance Observations

General		
i.	Description of structures and other improvements, including the number and age of buildings	None observed
ii.	Description of the number, age and depth of below-ground structures	None observed
iii.	Details of all tanks, above and below ground at the Phase One Property, including the material and method of construction of the tank, tank age, tank contents, tank volume, and whether in use or not	None observed
iv.	Potable and non-potable water sources	None observed
Underground Utilities and Corridors		
i.	Type and location of underground utility and service corridors, such as sewer, water, electrical or gas lines located on, in or under the Phase One Property.	Irrigation lines may be present in the surface soils.
Features of Structures and Buildings at the Phase One Property		

i.	Entry and exit points	Not applicable
ii.	Details of existing and former heating systems, including type and fuel source	None observed
iii.	Details of cooling systems, including type and fuel source, if any	None observed
iv.	Details of any drains, pits and sumps, including their current use, if any, and former use	None observed
v.	Details of any unidentified substances	None observed
vi.	Details, including locations of strains or corrosion on floors other than from water, where located near a drain, pit, sump, crack or other potential discharge location	None observed
vii.	Details, including locations, of current and former wells, including all wells described or defined in or under the *Ontario Water Resources Act* and the *Oil, Gas and Salt Resources Act*	None observed
viii.	Details of sewage works, including their location	None observed
ix.	Details of ground surface, including type of ground cover, such as grass, gravel, soil or pavement	Six (6) bunkers of sand located in the centre and southern portion of the Phase One Property. The ground surface is landscaped and undulating in the fashion typical of a golf course.
x.	Details of current or former railway lines or spurs and their locations	None observed
xi.	Areas of stained soil, vegetation or pavement	None observed
xii.	Stressed vegetation	None observed
xiii.	Areas where fill and debris materials appear to have been placed or graded	None observed
xiv.	Potentially contaminating activity	• One (1) gasoline AST was observed to the east of the Property (**PCA-1**). • One (1) transformer was observed to the southwest corner of the Property (**PCA-3**). • One transformer was observed to the east of the Property, west to Millcroft Golf Club's house (**PCA-4**) • Fill material of unknown quality is inferred to have been placed on the Phase One Property (**PCA-2**) • Application of pesticides/herbicides (**PCA-5**)
xv.	Details of any unidentified substances found at the Phase One Property	None observed
Enhanced Investigation Property		

Where subsection 13(3) applies to the Phase One Property, provide the documentation referred to in subsection 13(3)		In order to be classified as an enhanced investigation property, the Phase One Property must be used or have been used in whole or in part for any of the following uses: ◆ Any industrial use ◆ As a garage ◆ As a bulk liquid dispensing facility, including a gasoline outlet ◆ For the operation of dry cleaning equipment There is no indication in the historical records of the Phase One Property being used for any of the aforementioned uses, and as such the Phase One Property is not considered an enhanced investigation property.
Hazardous Materials		
i.	Asbestos containing materials	Asbestos and asbestos-containing materials were used as insulation and construction materials until being phased out in the late 1970s. Since there is no structure constructed on the Phase One Property, there is no potential for asbestos insulation and asbestos-containing construction materials to be present.
ii.	Lead containing materials	The use of lead as a base in paints and plumbing solder was phased out in the late 1970s. Since there is no structure constructed on the Phase One Property, there is no potential for lead solder and paint to be present in the site building.
iii.	PCB materials and equipment	Prior to the mid- to late-1970s, PCBs were used in the manufacture of electrical equipment, including fluorescent light ballasts. The Property was constructed after the 1970s.
iv.	Urea Formaldehyde Foam Insulation (UFFI)	Urea-Formaldehyde Foam Insulation (UFFI) was introduced in Canada during the 1970s and was banned in 1980. No record of UFFI was available for the subject building. Since there is no structure constructed on the Phase One Property, there is no insulation; therefore, the potential for UFFI to be present on the property is considered to be low.
v.	Ozone Depleting Substances (ODS)	None observed
vi.	Herbicides and Pesticides	During the Site Reconnaissance it was mention by the superintendent that pesticides were used in the grass to maintain the golf course (**PCA-5**).
vii.	Mould	Not applicable
viii.	Mercury	Mercury containing items were not observed at the property.
ix.	Acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, silica, vinyl chloride	These items were not observed at the property.
x.	Pits and Lagoons	None observed
xi.	Air Emissions	None observed

xii. Radioactive Materials & Radon Gas	Based on local geological formations in the area, it is unlikely the site is exposed to natural sources of radiation such as radon or uranium. Manmade sources of radioactive materials were not observed during the site inspection. A radiometric survey was not conducted during this investigation.

5.3 Written Description of Investigation

The site reconnaissance included a visual inspection of the Phase One Property to confirm current conditions and identify any current land uses or activities, which may have or may cause environmental impacts. The adjoining and neighbouring properties were observed from the Phase One Property and publicly accessible areas.

At the time of the Site Reconnaissance the land use within the Phase One Study Area was primarily residential, and commercial as described in the table below:

Table 5-3: Summary of Site Reconnaissance Observations within Phase One Study Area

Observation	Details
Phase One Property	The Phase One Property was developed as a portion of the first hole of the Millcroft Golf Club.
North Adjacent Property	The north adjacent Property was occupied by residential homes at the time of the site reconnaissance.
East Adjacent Property	The east adjacent Property was occupied by Millcroft Golf Club's house at the time of the site reconnaissance.
South Adjacent Property	The south adjacent Property was occupied by residential homes at the time of the site reconnaissance.
West Adjacent Property	The west adjacent Property was occupied by residential homes at the time of the site reconnaissance.
Water Bodies	Appleby Creek was observed to the north-east of the Property.
Areas of Natural Significance	None observed

Photographs illustrating the Phase One Property and adjacent properties are provided under Appendix F. A summary of the potentially contaminating activities observed is provided in Section 6.2. A visual depiction of the PCAs identified within the Phase One Study Area is provided under Figure 4.

6.0 Review and Evaluation of Information

6.1 Current and Past Uses

Current and past uses of the Phase One Property have been inferred based on the information provided in the aerial photographs, city directories and conversations with the site representative.

The Phase One Property appears to have been used for agricultural purposes from the late 1800s to 1987, at which point the site was developed as one of the holes of the Millcroft Golf Club.

6.2 Potentially Contaminating Activity

According to the Table 2, Schedule D, O. Reg. 153/04 as amended, potentially contaminating activities are activities that may contributing to areas of potential environmental concern on the Phase One Property. The PCAs identified on the Phase One Property and within the Phase One Study Area are summarized in the table below and are illustrated on Figure 4.

Table 6-1: Summary of PCAs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Contributing to APEC (Y/N)
PCA-1	# 28: Gasoline and associated products storage in fixed tanks	Three (3) storage tanks are registered with the TSSA as active at 2155 Country Club Dr. During the site reconnaissance it was observed one (1) gasoline AST to the east to the Property	No- PCA is more than 100 m and downgradient from the Property
PCA-2	#30: Importation of Fill Material of Unknown Quality	Fill material is inferred to have been placed for grading purposes in the past The Phase One Property started development around 1987 for what is now Millcroft Golf Club Hole 1.	Yes-APEC-1
PCA-3	#55: Transformer Manufacturing, Processing and Use	One (1) transformer was observed on the Phase One Study Area, east to the Property.	No- PCA is more than 100 m and downgradient from the Property
PCA-4	#55: Transformer Manufacturing, Processing and Use	One transformer was observed on the southwest corner of the Property.	Yes- APEC-2
PCA-5	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Pesticides are used on the grass that cover the Phase One Property	Yes- APEC-3

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

6.3 Areas of Potential Environmental Concern

The table of APECs presented in the form as approved by the Director is provided below, in accordance with clause 16(2)(a), Schedule D, O.Reg. 153/04.

Table 6-2: Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of APECs on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Entire Property	PCA-2 (#30): Importation of Fill Material of Unknown Quality	On Site	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-2	Southwest portion of the Property	PCA-4 (#55): Transformer Manufacturing, Processing and Use	On Site	PCBs	Soil
APEC-3	Entire Property	PCA-5 (#40): Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site	OCPs	Soil

The rationale used by the QP in assessing the information obtained through the course of this investigation to determine whether PCAs exist and/or are contributing to an APEC on the Phase One Property has been provided in the proceeding sections. In general the potential for a PCA to be contributing to an APEC on the Phase One Property was assessed using the likelihood of the source to contaminate the Phase One Property, the possibility of the contaminants to migrate to the Phase One Property based on the hydraulic and geologic conditions, and the inherent properties of the contaminants of concern.

The contaminants of potential concern were determined based on the professional experience of the QP, common industry standards, literature reviews, and the inherent properties of the contaminant.

This investigation was conducted based on the assumption that all information provided to DS was factual and accurate. DS is not aware of any uncertainty factors which would affect the conclusions of this investigation.

6.4 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at "Block C" of the Millcroft Golf Club in Burlington, Ontario. The Phase One Conceptual Site Model is presented in Drawings 3, 4, and 5 and visually depict the following:

- Any existing buildings and structures
- Water bodies located in whole, or in part, on the Phase One Study Area
- Areas of natural significance located in whole, or in part, on the Phase One Study Area
- Water wells at the Phase One Property or within the Phase One Study Area
- Roads, including names, within the Phase One Study Area
- Uses of properties adjacent to the Phase One Property
- Areas where any PCAs have occurred, including location of any tanks
- Areas of Potential Environmental Concern

6.4.1 Potentially Contaminating Activity Affecting the Phase One Property

All PCAs identified within the Phase One Study Area are presented on Figure 4 and discussed in Section 6.2 above. The PCAs which are considered to contribute to APECs on, in or under the Phase One Property are summarized in the table below:

Table 6-3: Summary of PCAs Contributing to APECs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-2	#30: Importation of Fill Material of Unknown Quality	Fill material is inferred to have been imported for grading purposes in the past. The Phase One Property started development around 1987 for what is now Millcroft Golf Club - Hole 1.	PCA is located in the Phase One Property
PCA-4	#55: Transformer Manufacturing, Processing and Use	One transformer was observed on the southwest corner of the Property.	PCA is located in the Phase One Property
PCA-5	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Pesticides are used on the grass that cover the Phase One Property.	PCA is located in the Phase One Property

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

6.4.2 Contaminants of Potential Concern

A summary of the contaminants of potential concern identified for each respective APEC is presented in Table 6-3 above. The following contaminants of potential concern were identified for the Phase One Property: PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, low or high pH, SAR, PAHs, OCPs and PCBs.

6.4.3 Underground Utilities and Contaminant Distribution and Transport

Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface.

Underground utilities were identified at the Phase One Property, a gas main was identified at 6.2 mbgs, across the Phase One Property. Water, electrical, and sewer services were not present.

The depth to groundwater at the Phase One Property is approximately 3 mbgs; therefore, it is possible that the utility corridors may act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

6.4.4 Geological and Hydrogeological Information

The topography of the Phase One Property is generally flat, with a surface elevation of 150 masl. The topography within the Phase One Study Area generally slopes to the east, towards Lake Ontario, located approximately 6.5 km south-east of the Phase One Property. The nearest water body is Appleby Creek, located to the north-east, approximately 200 m from the Phase One Property. The shallow groundwater flow direction within the Phase One Study Area is inferred to be north-east towards Appleby Creek.

The Site is situated within a south slope physiographic region. The surficial geology within the Phase One Study area is described as “till plains (drumlinized)”, and the bedrock is described as “shale, limestone, dolostone, and siltstone of the Queenston Formation”. Based on a review of borehole logs and MECP Well Records on the vicinity of the Property, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 3.3 to 6.2 mbgs.

6.4.5 Uncertainty and Absence of Information

DS has relied upon information obtained from federal, provincial, municipal, and private databases, in addition to records and summaries provided by EcoLog ERIS. All information obtained was reviewed and assessed for consistency, however the conclusions drawn by DS are subject to the nature and accuracy of the records reviewed.

All reasonable inquiries were made to obtain reasonably accessible information, as mandated by O.Reg.153/04 (as amended). All responses to database requests were received prior to completion of this report, with the exception of the MECP FOI request. If the MECP FOI request produces information which may alter the conclusions of this report, an addendum will be provided to the Client. This report reflects the best judgement of DS based on the information available at the time of the investigation.

Information used in this report was evaluated based on proximity to the Phase One Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase One Property as a result of potentially contaminating activities.

The QP has determined that the uncertainty dose not affect the validity of the Phase One ESA Conceptual Site Model or the conclusions of this report.

7.0 Conclusions

7.1 Phase Two Environmental Site Assessment Requirement

DS conducted a Phase One ESA for the property referred to as "Block C" located at Millcroft Golf Club, Burlington, Ontario. The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objectives of the Phase One ESA was to identify the presence or absence of potentially contaminating activities (PCAs) on the Phase One Property and/or within the Phase One Study Area, and to determine if the PCAs identified within the Phase One Study Area are likely to result in an Area of Potential Environmental Concern (APEC) on the Phase One Property.

Based on the information obtained as part of this investigation, it is concluded that three (3) PCAs were identified within the Phase One Study Area which are considered to be contributing to three (3) APECs on, in or under the Phase One Property. Further investigation in the form of a Phase Two ESA will be required in order to meet the requirements of O.Reg.153/04 (as amended).

7.2 RSC Based on Phase One Environmental Site Assessment

Record of Site Condition cannot be filed on the basis of the Phase One ESA due to the identification of Areas of Potential Environmental Concern on the Phase One Property.

7.3 Limitations

This report was prepared for the sole use of Millcroft Greens Corporation and is intended to provide an assessment of the environmental condition on the property referred to as "Block C" located at Millcroft Golf Club, Burlington, Ontario. The information presented in this report is based on information collected during the completion of the Phase One Environmental Site Assessment by DS Consultants Ltd. The material in this report reflects DS' judgment in light of the information available at the time of report preparation. This report may not be relied upon by any other person or entity without the written authorization of DS Consultants Ltd. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this documents or findings, conclusions and recommendations represented herein, is at the sole risk of said users.

The information and conclusions presented in this report are professional opinions in accordance with generally accepted engineering and scientific practices based on a cursory historical search, visual observations and limited information provided by persons knowledgeable about past and current activities on this site. The work completed as per the scope of work is considered sufficient in detail to form a reasonable basis for the findings presented in this report. As such, DS Consultants Ltd. cannot be held responsible for environmental conditions at the site that was not apparent from the available information.

7.4 Qualifications of the Assessors

John Gaviria-Ballen, B. Eng., EIT

Mr. Gaviria-Ballen is an environmental technician with DS Consultants Ltd. John holds a bachelor's degree in Environmental Engineering from Carleton University. John has experience in conducting Phase One and Two Environmental Site Assessments.

Mr. Drew Doak, B.Sc.E., P.Eng., QP_{ESA}

Mr. Doak is an Environmental Project Manager with DS Consultants Limited. Drew holds a Bachelor of Science in Engineering from Queen's University, and is a practicing member of the Professional Engineers of Ontario (PEO). Drew has five years of environmental consulting experience and has conducted and/or managed a multitude of projects in his professional experience. Drew has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings, and been involved in numerous remediation projects, and supported many risk assessments and Records of Site Conditions with the Ministry of Environment, Conservation and Parks. He has also conducted a variety of Hydrogeological investigations within the GTA. Drew is considered a Qualified Person to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended).

Mr. Patrick (Rick) Fioravanti, B.Sc., P.Geo., QP_{ESA}

Mr. Fioravanti an Environmental Project Manager with DS Consultants Limited. Patrick holds a Honours Bachelor of Science with distinction in Toxicology from the University of Guelph, and is a practicing member of the Association of Professional Geoscientists of Ontario (APGO). Patrick has over seven years of environmental consulting experience and has conducted and/or managed over 100 projects in his professional experience. Patrick has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings, and been involved in numerous remediation projects, supported many risk assessments, and successfully filed Records of Site Condition with the Ministry of Environment, Conservation and Parks. He has conducted work across southern and eastern Ontario, and Quebec in his professional experience. Patrick is considered a Qualified Person to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended).

7.5 Signatures

DS Consultants Ltd. conducted this Phase One Environmental Site Assessment and confirms the findings and conclusions contained within this report.

Yours truly,

DS Consultants Ltd.

Prepared by:



John Gaviria-Ballen, B. Eng., EIT
Environmental Technician

Reviewed by:



Drew Doak, B.Sc.E., P.Eng., QP_{ESA}
Environmental Project Manager



Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Manger – Environmental Services

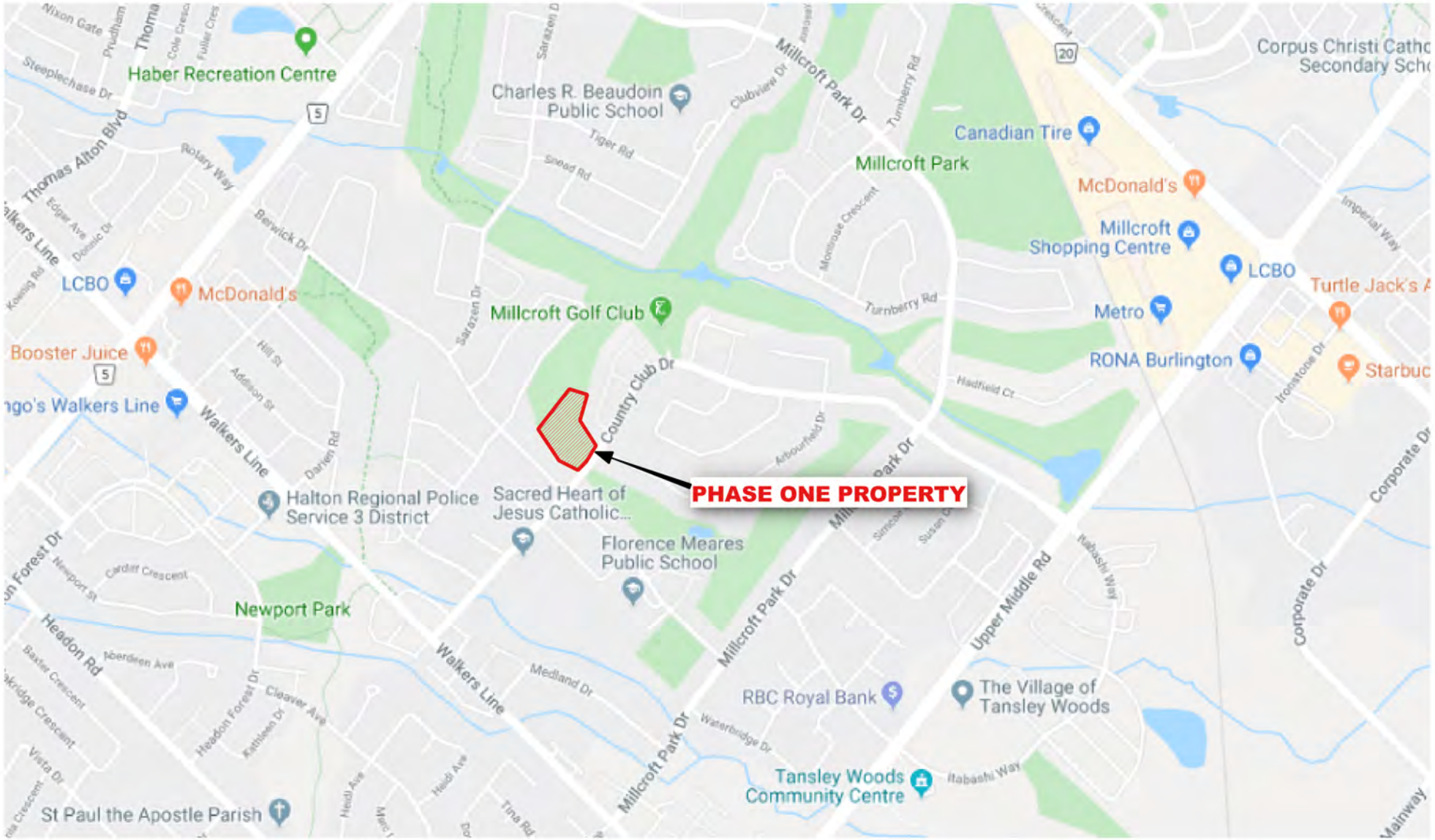


8.0 References

- Ontario Regulation 153/04 Records of Site Condition — Part Xv.1 of The Act
- Natural Resources Canada Toporama http://atlas.gc.ca/toporama/en/index.html
- Environment Canada, National Pollutant Release Inventory
- Ontario Ministry of the Environment Hazardous Waste Information Network https://www.hwin.ca/hwin/
- Ontario Ministry of the Environment, Certificate of Approval search
- Ontario Ministry of the Environment, Brownfields Environmental Site Registry https://www.ontario.ca/page/ministry-environment-and-climate-change
- Ontario Ministry of the Environment, Inventory of Coal Gasification Plan Waste Sites in Ontario, 1987
- Ontario Ministry of the Environment, Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario, 1998
- Ontario Ministry of the Environment, Inventory of PCB Storage Sites, 1994-2004
- Waste Disposal Site Inventory, 1991
- Ministry of Environment, Conservation and Parks-Freedom of Information
- Technical Standards and Safety Authority – Fuel Safety Division inquiry
- Ontario Geological Survey, 2013. Quaternary Geology of Ontario. Ontario Geological Survey, scale 1:100,000.
- Ontario Ministry of Northern Development and Ontario Geological Survey, 1991. Bedrock Geology of Ontario, Southern Sheet; Ontario Geological Survey, Map 2544, scale 1:1,000,000.
- Ontario Ministry of Natural Resources. Quaternary Geology of Toronto and Surrounding Area. Scale 1:100,000. Map number 2204.
- Historical Maps, aerial photos and Ontario Base Map
- City Directories from 2001 back to 1900
- City of Toronto online-services
- Environmental Risk Information Services (Ecolog ERIS Report)

Figures

C:\0Sharon\19-199-100 -102 Milcroft Golf Course\1-QGIS\Phase One\101 - Area C\Figure 1- Site Location Plan.qgs



Legend

Approx Site Boundary (Area C)

0 200 400 m

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www.dsconsultants.ca

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Millcroft Golf Course (Area C), Burlington, ON

Title: **SITE LOCATION PLAN**

N

Client: MILLCROFT GREENS CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	D.D	S.Y	February 2020
Rev: 0	Scale: As Shown	Project No.: 19-199-100	Figure No.: 1

Image/Map Source: *Google Street Map*

C:\0Sharon\19-199-100 -102 Milcroft Golf Course\1-QGIS\Phase One\101 - Area C\Figure 2- Phase One Site Plan.qgs



Legend

Approx. Site Boundary (Area C)

0 30 60 m

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Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Millcroft Golf Course (Area C), Burlington, ON

Title: **PHASE ONE PROPERTY SITE PLAN**

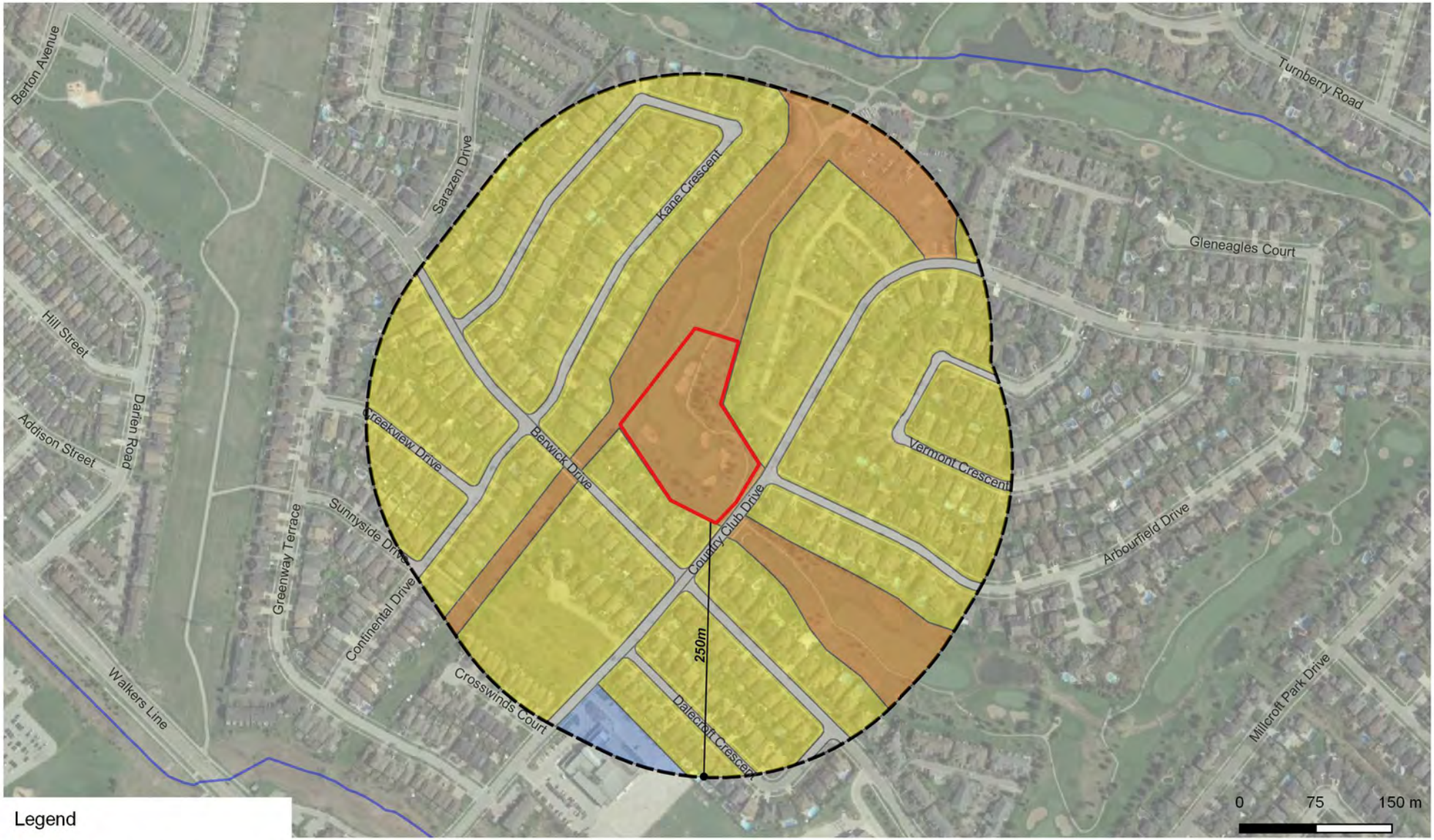
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Client: MILLCROFT GREENS CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	D.D	S.Y	February 2020
Rev: 0	Scale: As Shown	Project No.: 19-199-100	Figure No.: 2

Image/Map Source: *Google Satellite Image*

C:\0Sharon\19-199-100 -102 Milcroft Golf Course\1-QGIS\Phase One\101 - Area C\Figure 3- Phase One Study Area.qgs



Legend

- Approx. Site Boundary (Area C)
- 250m Buffer
- Community
- Residential
- Roads
- Commercial

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Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Millcroft Golf Course (Area C), Burlington, ON

Title: **PHASE ONE STUDY AREA**

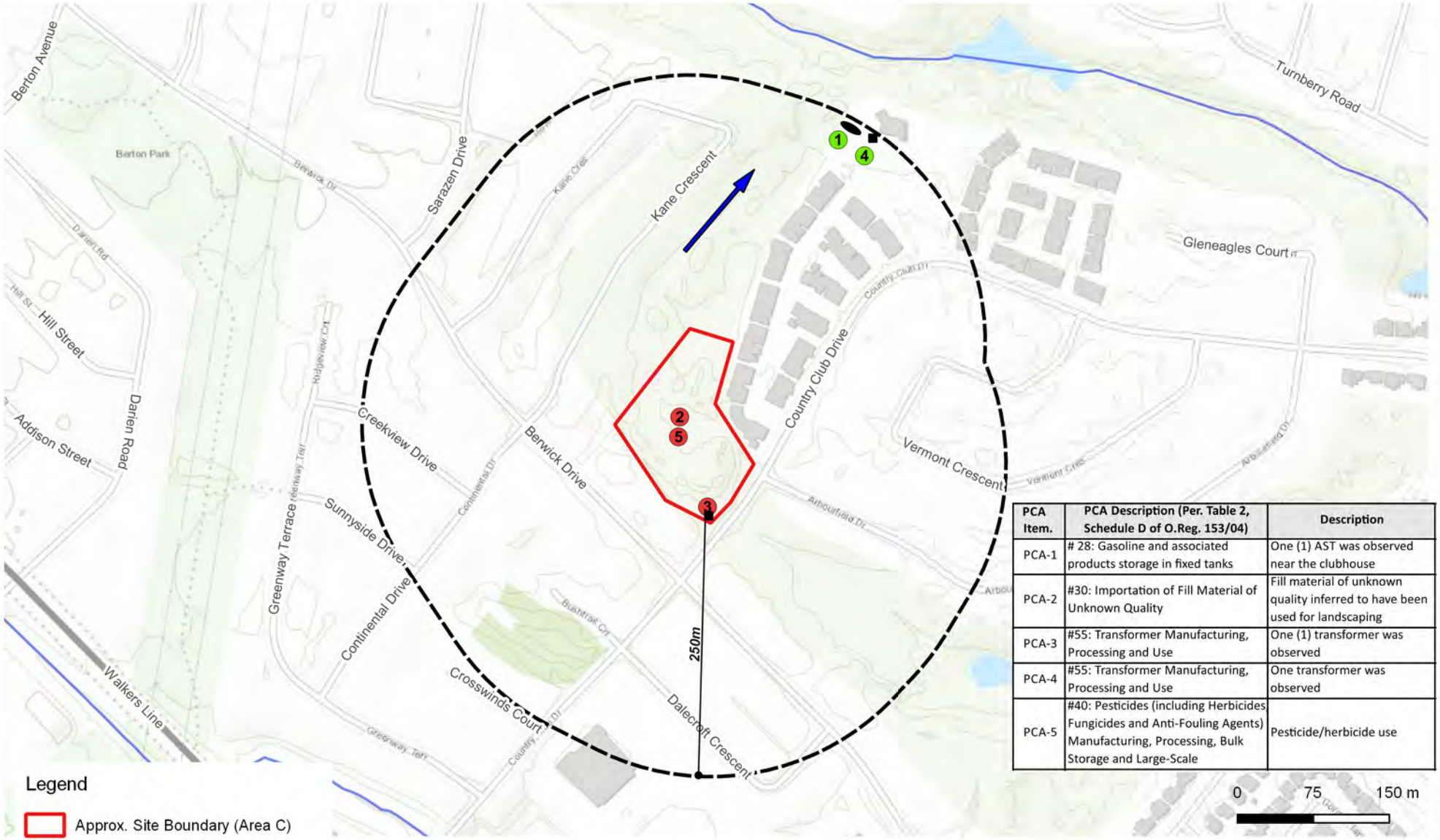
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Client: MILLCROFT GREENS CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	D.D	S.Y	February 2020
Rev: 0	Scale: As Shown	Project No.: 19-199-100	Figure No.: 3

Image/Map Source: *Google Satellite Image*

C:\0Sharon\19-199-100 -102 Milcroft Golf Course\1-QGIS\Phase One\101 - Area C\Figure 4- PCA within Phase One Study Area.qgs



PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description
PCA-1	# 28: Gasoline and associated products storage in fixed tanks	One (1) AST was observed near the clubhouse
PCA-2	#30: Importation of Fill Material of Unknown Quality	Fill material of unknown quality inferred to have been used for landscaping
PCA-3	#55: Transformer Manufacturing, Processing and Use	One (1) transformer was observed
PCA-4	#55: Transformer Manufacturing, Processing and Use	One transformer was observed
PCA-5	#40: Pesticides (including Herbicides Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale	Pesticide/herbicide use

Legend

- Approx. Site Boundary (Area C)
- 250m Buffer
- Inferred Groundwater Flow Direction
- PCA not contributing to APEC
- PCA contributing to APEC
- AST
- Transformer

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Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Millcroft Golf Course (Area C), Burlington, ON

Title: **PCA WITHIN PHASE ONE STUDY AREA**

N

Client: MILLCROFT GREENS CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	D.D	S.Y	February 2020
Rev: 0	Scale: As Shown	Project No.: 19-199-100	Figure No.: 4

Image/Map Source: *Google Satellite Image*

C:\0Sharon\19-199-100 -102 Milcroft Golf Course\1-QGIS\Phase One\101 - Area C\Figure 5- Summary of APECs on Phase One Property.qgs



Area of Potential Environmental Concern	Potentially Contaminating Activity
APEC-1	PCA1 (#30): Importation of fill material of unknown quality
APEC-2	PCA-4 (#55): Transformer
APEC-3	PCA-5 (#40): Pesticides/herbicide use

Legend

- Approx. Site Boundary (Area C)
- APEC 1 & 3
- APEC 2
- Transformer

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Millcroft Golf Course (Area C), Burlington, ON

Title: **SUMMARY OF APECs ON PHASE ONE PROPERTY**

N

Client: MILLCROFT GREENS CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	D.D	S.Y	February 2020
Rev: 0	Scale: As Shown	Project No.: 19-199-100	Figure No.: 5

Image/Map Source: *Google Satellite Image*

Appendix A

No survey has been provided at this time.

6221 Highway 7, Unit 16, Vaughan, Ontario, L4H 0K8
www.dsconsultants.ca
Tel: 905-264-9393
Email: office@dsconsultants.ca

Appendix B

Summary of City Directory Search

Address	Location Relative to Phase One Property	Listing	Year(s)	Inferred Property Use
Berwick Drive				
2108-2150	60-150 m east	Residential	1996-2000	Residential

Appendix C

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Millcroft Area 2* *Millcroft Park Dr* *Burlington ON L7M*
Project No:	*19-199-101*
Report Type:	*Standard Report*
Order No:	*20191003108*
Requested by:	*Ds Consultants Ltd.*
Date Completed:	*October 8, 2019*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

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Executive Summary

Property Information:

Project Property:	*Millcroft Area 2* *Millcroft Park Dr Burlington ON L7M*
Project No:	*19-199-101*

Coordinates:

Latitude:	*43.389978*
Longitude:	*-79.811118*
UTM Northing:	*4,804,808.95*
UTM Easting:	*596,289.15*
UTM Zone:	*UTM Zone 17T*

Elevation:	*482 FT* *146.85 M*

Order Information:

Order No:	*20191003108*
Date Requested:	*October 3, 2019*
Requested by:	*Ds Consultants Ltd.*
Report Type:	*Standard Report*

Historical/Products:

Aerial Photographs	*Aerials - National Collection - .tiff files*
ERIS Xplorer	*ERIS Xplorer*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	***Abandoned Aggregate Inventory***	*Y*	*0*	*0*	*0*
AGR	***Aggregate Inventory***	*Y*	*0*	*0*	*0*
AMIS	***Abandoned Mine Information System***	*Y*	*0*	*0*	*0*
ANDR	***Anderson's Waste Disposal Sites***	*Y*	*0*	*0*	*0*
AST	***Aboveground Storage Tanks***	*Y*	*0*	*0*	*0*
AUWR	***Automobile Wrecking & Supplies***	*Y*	*0*	*0*	*0*
BORE	***Borehole***	*Y*	*0*	*0*	*0*
CA	***Certificates of Approval***	*Y*	*0*	*4*	*4*
CDRY	***Dry Cleaning Facilities***	*Y*	*0*	*0*	*0*
CFOT	***Commercial Fuel Oil Tanks***	*Y*	*0*	*0*	*0*
CHEM	***Chemical Register***	*Y*	*0*	*0*	*0*
CNG	***Compressed Natural Gas Stations***	*Y*	*0*	*0*	*0*
COAL	***Inventory of Coal Gasification Plants and Coal Tar Sites***	*Y*	*0*	*0*	*0*
CONV	***Compliance and Convictions***	*Y*	*0*	*0*	*0*
CPU	***Certificates of Property Use***	*Y*	*0*	*0*	*0*
DRL	***Drill Hole Database***	*Y*	*0*	*0*	*0*
EASR	***Environmental Activity and Sector Registry***	*Y*	*0*	*0*	*0*
EBR	***Environmental Registry***	*Y*	*0*	*0*	*0*
ECA	***Environmental Compliance Approval***	*Y*	*0*	*1*	*1*
EEM	***Environmental Effects Monitoring***	*Y*	*0*	*0*	*0*
EHS	***ERIS Historical Searches***	*Y*	*0*	*1*	*1*
EIIS	***Environmental Issues Inventory System***	*Y*	*0*	*0*	*0*
EMHE	***Emergency Management Historical Event***	*Y*	*0*	*0*	*0*
EPAR	***Environmental Penalty Annual Report***	*Y*	*0*	*0*	*0*
EXP	***List of TSSA Expired Facilities***	*Y*	*0*	*0*	*0*
FCON	***Federal Convictions***	*Y*	*0*	*0*	*0*
FCS	***Contaminated Sites on Federal Land***	*Y*	*0*	*0*	*0*
FOFT	***Fisheries & Oceans Fuel Tanks***	*Y*	*0*	*0*	*0*
FST	***Fuel Storage Tank***	*Y*	*0*	*0*	*0*
FSTH	***Fuel Storage Tank - Historic***	*Y*	*0*	*0*	*0*
GEN	***Ontario Regulation 347 Waste Generators Summary***	*Y*	*0*	*0*	*0*
GHG	***Greenhouse Gas Emissions from Large Facilities***	*Y*	*0*	*0*	*0*
HINC	***TSSA Historic Incidents***	*Y*	*0*	*1*	*1*
IAFT	***Indian & Northern Affairs Fuel Tanks***	*Y*	*0*	*0*	*0*
INC	***TSSA Incidents***	*Y*	*0*	*0*	*0*
LIMO	***Landfill Inventory Management Ontario***	*Y*	*0*	*0*	*0*

Database	Name	Searched	Project Property	Within 0.25 km	Total
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	1	1
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	0	0
	Total:	0	8	8	

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	CA	MONARCH CONSTRUCTION LTD. EASEMENT/PH.II	ARBOURFIELD DR/COUNTRY CLUB DR BURLINGTON CITY ON	ESE/80.4	-0.60	13
1	CA	MONARCH CONSTRUCTION LTD. MILLCROFT PH.2	COUNTRY CLUB DR/ARBOURFIELD DR BURLINGTON CITY ON	ESE/80.4	-0.60	13
2	ECA	The Regional Municipality of Halton	Dundas Street at Westlock Common Burlington ON L6M 3L1	E/82.9	-0.19	13
3	EHS		2156 Berwick Dr Burlington ON L7M 5B9	W/148.3	1.00	14
4	CA	637414 ONTARIO INC.	DALECROFT CRES/COUNTRY CLUB DR BURLINGTON CITY ON	SSW/207.6	-1.54	14
4	CA	637414 ONTARIO INC.	DALECROFT CRES/COUNTRY CLUB DR BURLINGTON CITY ON	SSW/207.6	-1.54	14
5	SPL	Union Gas Limited	4134 Vermont Cres, Burlington Burlington ON	ENE/241.2	-1.00	14
6	HINC		2125 DALECROFT CRESCENT BURLINGTON ON L7M 4B3	S/246.1	-2.00	15

Executive Summary: Summary By Data Source

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 4 CA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
MONARCH CONSTRUCTION LTD. EASEMENT/PH.II	ARBOURFIELD DR/COUNTRY CLUB DR BURLINGTON CITY ON	ESE	80.38	1
MONARCH CONSTRUCTION LTD. MILLCROFT PH.2	COUNTRY CLUB DR/ARBOURFIELD DR BURLINGTON CITY ON	ESE	80.38	1
637414 ONTARIO INC.	DALECROFT CRES/COUNTRY CLUB DR BURLINGTON CITY ON	SSW	207.62	4
637414 ONTARIO INC.	DALECROFT CRES/COUNTRY CLUB DR BURLINGTON CITY ON	SSW	207.62	4

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Aug 31, 2019 has found that there are 1 ECA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
The Regional Municipality of Halton	Dundas Street at Westlock Common Burlington ON L6M 3L1	E	82.88	2

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jul 31, 2019 has found that there are 1 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	2156 Berwick Dr Burlington ON L7M 5B9	W	148.35	3

HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 1 HINC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	2125 DALECROFT CRESCENT BURLINGTON ON L7M 4B3	S	246.06	6

SPL - Ontario Spills

A search of the SPL database, dated 1988-Feb 2019 has found that there are 1 SPL site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Union Gas Limited	4134 Vermont Cres, Burlington Burlington ON	ENE	241.17	5



Map : 0.25 Kilometer Radius

Order No: 20191003108

Address: Millcroft Park Dr, Burlington, ON, L7M

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
- Industrial and Resource - Regions
- Main Line
- Sidetrack
- Transit Line
- Abandoned Line
- National Park
- Provincial or Territorial Park
- Other Park
- Golf Course or Driving Range
- Park or Sports Field
- Other Recreation Area

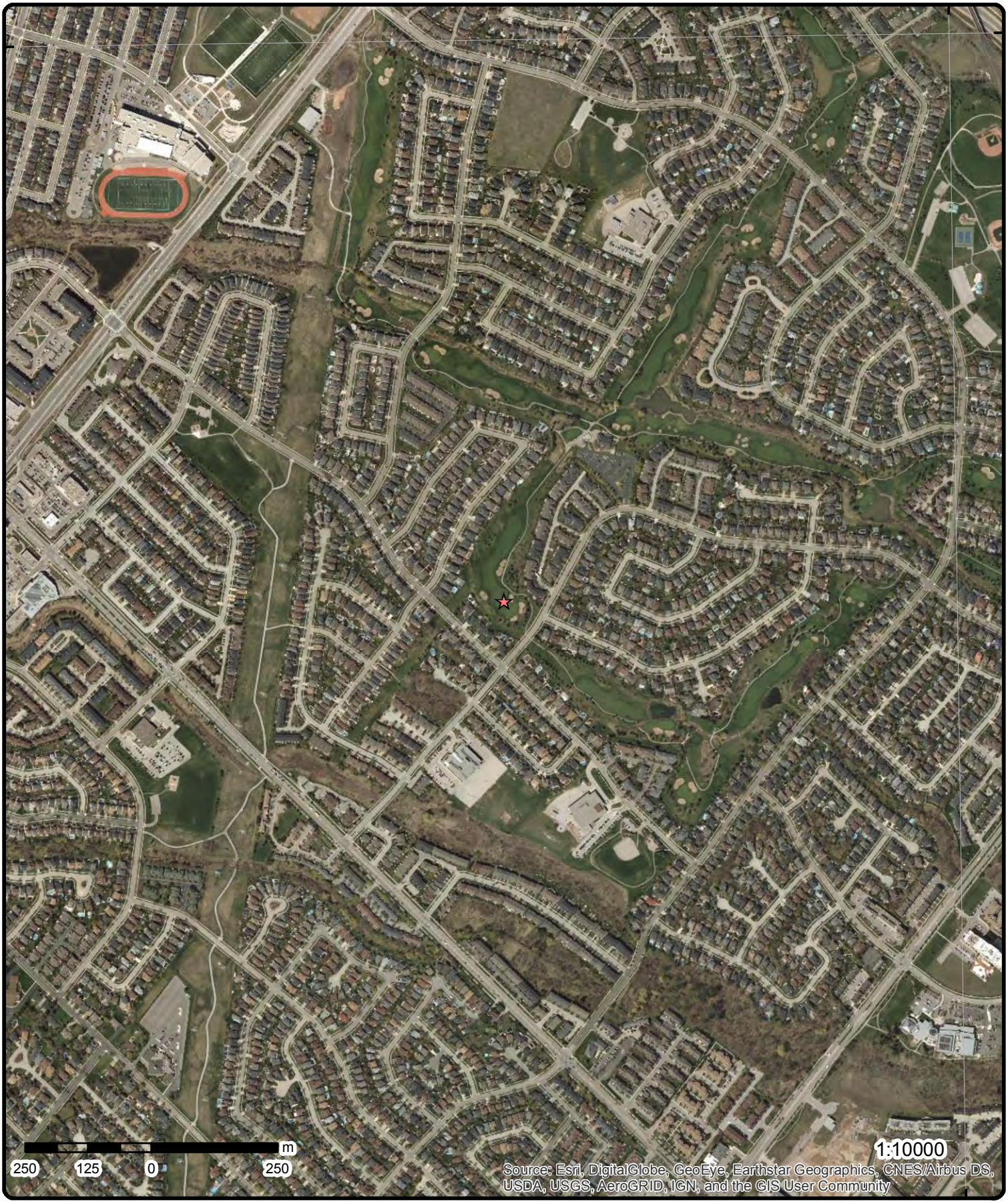
Source: © 2015 DMTI Spatial Inc.

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79°48'W

43°24'N

43°24'N



Aerial (2017)

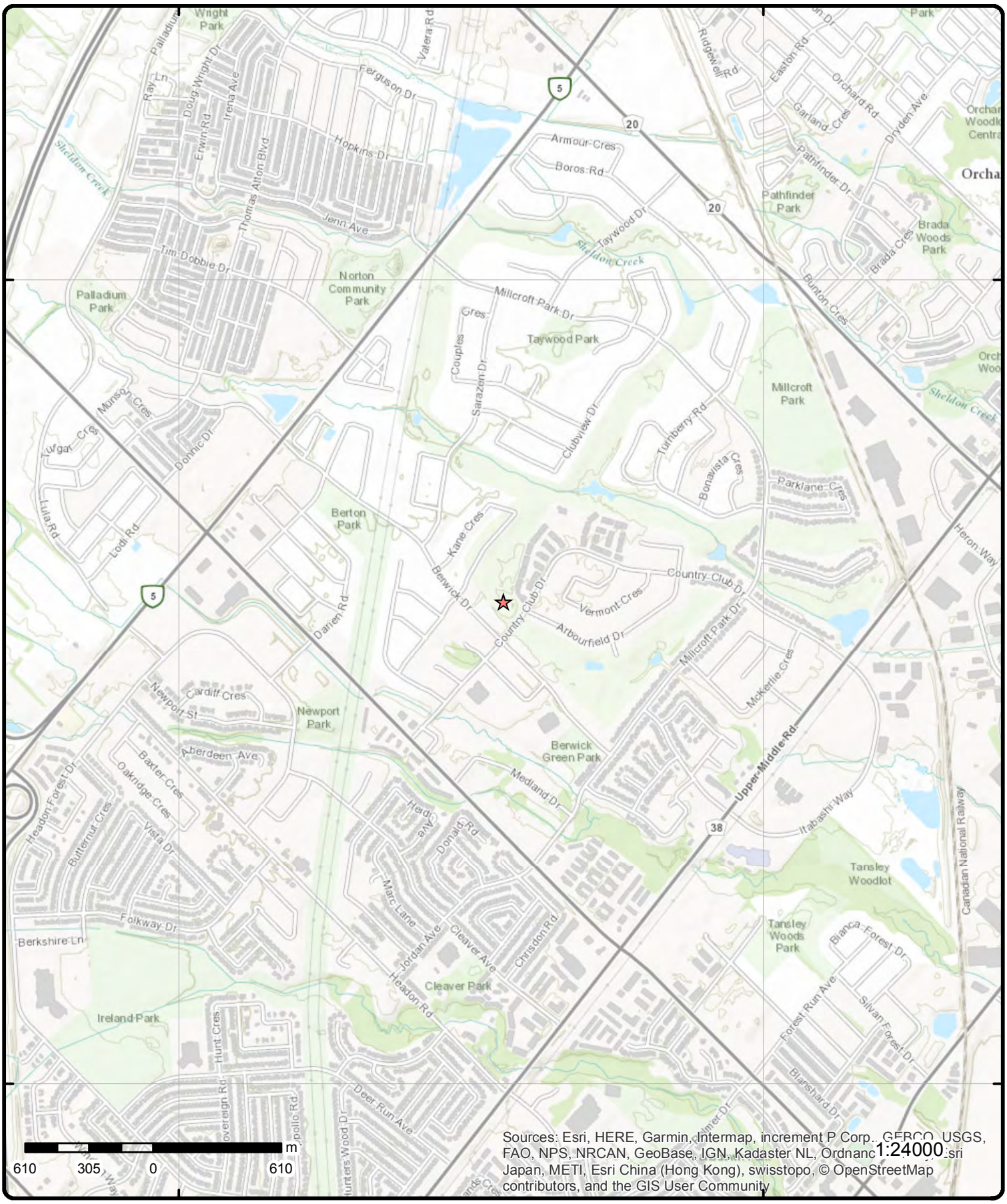
Address: Millcroft Park Dr, Burlington, ON, L7M

Source: ESRI World Imagery

Order No: 20191003108

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

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Topographic Map

Order No: 20191003108

Address: Millcroft Park Dr, Burlington, ON, L7M

Source: ESRI World Topographic Map

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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 2	ESE/80.4	146.2 / -0.60	MONARCH CONSTRUCTION LTD. EASEMENT/PH.II ARBOURFIELD DR/COUNTRY CLUB DR BURLINGTON CITY ON	CA

Certificate #: 3-2300-89-
Application Year: 89
Issue Date: 11/21/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	2 of 2	ESE/80.4	146.2 / -0.60	MONARCH CONSTRUCTION LTD. MILLCROFT PH.2 COUNTRY CLUB DR/ARBOURFIELD DR BURLINGTON CITY ON	CA

Certificate #: 7-1831-89-
Application Year: 89
Issue Date: 11/22/1989
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	E/82.9	146.7 / -0.19	The Regional Municipality of Halton Dundas Street at Westlock Common Burlington ON L6M 3L1	ECA

Approval No: 3329-6PUHSR
Approval Date: 2006-05-19
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Halton
MOE District: Halton-Peel
City:
Longitude: -79.8101
Latitude: 43.389900000000004
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: Dundas Street at Westlock Common
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6407-6PTHAU-14.pdf

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	1 of 1	W/148.3	147.8 / 1.00	2156 Berwick Dr Burlington ON L7M 5B9	EHS

Order No: 20160307178
Status: C
Report Type: No Charge
Report Date: 09-MAR-16
Date Received: 07-MAR-16
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -79.812922
Y: 43.389749

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
4	1 of 2	SSW/207.6	145.3 / -1.54	637414 ONTARIO INC. DALECROFT CRES/COUNTRY CLUB DR BURLINGTON CITY ON	CA

Certificate #: 3-0045-99-
Application Year: 99
Issue Date: 2/3/1999
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
4	2 of 2	SSW/207.6	145.3 / -1.54	637414 ONTARIO INC. DALECROFT CRES/COUNTRY CLUB DR BURLINGTON CITY ON	CA

Certificate #: 7-0022-99-
Application Year: 99
Issue Date: 2/3/1999
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	1 of 1	ENE/241.2	145.8 / -1.00	Union Gas Limited 4134 Vermont Cres, Burlington Burlington ON	SPL

Ref No: 0480-B6RMTV
Site No: NA
Incident Dt: 2018/11/22
Year:
Incident Cause:
Incident Event: Leak/Break

Discharger Report:
Material Group:
Health/Env Conseq: 2 - Minor Environment
Client Type: Corporation
Sector Type: Miscellaneous Communal
Agency Involved:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	4134 Vermont Cres, Burlington
Contaminant Limit 1:		**Site District Office:**	Halton-Peel
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	1075	**Site Region:**	Central
Environment Impact:		**Site Municipality:**	Burlington
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	4804891
MOE Response:	No	**Easting:**	596531
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2018/11/22	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Incident Reason:	Operator/Human Error	**Source Type:**	Pipeline/Components
Site Name:	residential customer<UNOFFICIAL>		
Site County/District:	Regional Municipality of Halton		
Site Geo Ref Meth:			
Incident Summary:	TSSA-FSB: 1/2 inch pl IP gas service dmgd; not made safe.		
Contaminant Qty:	0 other - see incident description		

---

6 | ***1 of 1*** | ***S/246.1*** | ***144.8 / -2.00*** | ***2125 DALECROFT CRESCENT BURLINGTON ON L7M 4B3*** | ***HINC***

External File Num:	FS INC 0806-03173
Fuel Occurrence Type:	CO Release
Date of Occurrence:	6/23/2008
Fuel Type Involved:	Natural Gas
Status Desc:	Completed - Causal Analysis(End)
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	Private Dwelling
Service Interruptions:	No
Property Damage:	No
Fuel Life Cycle Stage:	Utilization
Root Cause:	Root Cause: Equipment/Material/Component:Yes Procedures:Yes Maintenance:Yes Design:Yes Training:No Management:Yes Human Factors:Ye
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Near-miss
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	Halton
Approx. Quant. Rel:	
Nearby body of water:	
Enter Drainage Syst.:	
Approx. Quant. Unit:	
Environmental Impact:	

Unplottable Summary

Total: 27 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA		Part of Lot 9, Concession 1	Burlington ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT PH.2F/BERWICK DR.	BURLINGTON CITY ON	
CA		Part of Lot 9, Concession 1	Burlington ON	
CA	Monarch Corporation	Part of Lots 8 and 9, Concession 1, South of Dundas Street	Burlington ON	
CA	MONARCH CONSTRUCTION LIMITED PH.1 PART2	BERWICK DR. MILLCROFT COMM.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD.	MILLCROFT, PH. 1 PART 1	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD.	MILLCROFT PHASE I PART 1 SUBD.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT PH.2F/BERWICK DR.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT PH.2C/CHASEWOOD CT.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT PH.2C/CHASEWOOD CT.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT PARK DR.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT PARK DR.	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT P.2E/MILLCROFT PK.DR	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LIMITED	MILLCROFT P.2E/MILLCROFT PK.DR	BURLINGTON CITY ON	
CA	637414 ONTARIO INC.	MILLBROOK VIL.SBD/CTRY.CLUB DR	BURLINGTON CITY ON	
CA	637414 ONTARIO INC.	MILLBROOK VIL.SBD/CTRY.CLUB DR	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD.-BLOCK 105	INTERNAL ST./BERWICK DRIVE	BURLINGTON CITY ON	

CA	MONARCH CONSTRUCTION LTD.-BLOCK 105	INTERNAL ST./BERWICK DRIVE	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD.-BLOCK #244	COUNTRY CLUB DRIVE	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD.-BLK. #244	COUNTRY CLUB DRIVE	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD. MILLCROFT PH.2	COUNTRY CLUB DR/PT. LT.8&9/C.1	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD MILLCROFT COMM.	BERWICK DR. PHASE I PART II	BURLINGTON CITY ON	
CA	MONARCH CONSTRUCTION LTD MILLCROFT COMM.	BERWICK DR. PHASE I PART 2	BURLINGTON CITY ON	
CA	DiCarlo Homes	Part pf Lot 10, Conc.1 S.D.S.	Burlington ON	
CA	Monarch Construction Limited		Burlington ON	
ECA	Lloyd Ripani	Part of Lot 9, Concession 1	Burlington ON	L9A 4B2
ECA	Lloyd Ripani	Part of Lot 9, Concession 1	Burlington ON	L9A 4B2

Unplottable Report

Site:
Part of Lot 9, Concession 1 Burlington ON

Database: ***CA***

Certificate #:	5614-575JL6
Application Year:	02
Issue Date:	2/13/02
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Lloyd Ripani
Client Address:	32 East 14th Street
Client City:	Hamilton
Client Postal Code:	L9A 4B2
Project Description:	Construction of Storm and Sanitary Sewers
Contaminants:	
Emission Control:	

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT PH.2F/BERWICK DR. BURLINGTON CITY ON

Database: ***CA***

Certificate #:	3-0629-99-
Application Year:	99
Issue Date:	6/18/1999
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site:
Part of Lot 9, Concession 1 Burlington ON

Database: ***CA***

Certificate #:	2785-575JFV
Application Year:	02
Issue Date:	2/13/02
Approval Type:	Municipal & Private water
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Lloyd Ripani
Client Address:	32 East 14th Street
Client City:	Hamilton
Client Postal Code:	L9A 4B2
Project Description:	Construction of Watermains
Contaminants:	
Emission Control:	

Site: ***Monarch Corporation***
Part of Lots 8 and 9, Concession 1, South of Dundas Street Burlington ON

Database: ***CA***

Certificate #:	4817-6EPKWF
Application Year:	2005

Issue Date: 7/28/2005
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED PH.1 PART2***
BERWICK DR. MILLCROFT COMM. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1190-87-
Application Year: 87
Issue Date: 7/16/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD.***
MILLCROFT, PH. 1 PART 1 BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-0840-86-
Application Year: 86
Issue Date: 7/22/1986
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD.***
MILLCROFT PHASE I PART 1 SUBD. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1049-86-
Application Year: 86
Issue Date: 7/22/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT PH.2F/BERWICK DR. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-0423-99-
Application Year: 99
Issue Date: 6/18/1999
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT PH.2C/CHASEWOOD CT. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-1205-97-
Application Year: 97
Issue Date: 11/25/1997
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT PH.2C/CHASEWOOD CT. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1653-97-
Application Year: 97
Issue Date: 11/25/1997
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT PARK DR. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-0496-88-
Application Year: 88
Issue Date: 4/26/1988
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:

Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT PARK DR. BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-0559-88-
Application Year: 88
Issue Date: 4/26/1988
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT P.2E/MILLCROFT PK.DR BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1642-97-
Application Year: 97
Issue Date: 11/21/1997
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LIMITED***
MILLCROFT P.2E/MILLCROFT PK.DR BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-1196-97-
Application Year: 97
Issue Date: 11/21/1997
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***637414 ONTARIO INC.***
MILLBROOK VIL.SBD/CTRY.CLUB DR BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-1206-95-966
Application Year: 95
Issue Date: 1/9/96
Approval Type: Municipal water
Status: Received in 1995, Issued in 1996
Application Type:

Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***637414 ONTARIO INC.***
MILLBROOK VIL.SBD/CTRY.CLUB DR BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1705-95-966
Application Year: 95
Issue Date: 1/9/96
Approval Type: Municipal sewage
Status: Received in 1995, Issued in 1996
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD.-BLOCK 105***
INTERNAL ST./BERWICK DRIVE BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-1807-90-
Application Year: 90
Issue Date: 1/2/1991
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD.-BLOCK 105***
INTERNAL ST./BERWICK DRIVE BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-2216-90-
Application Year: 90
Issue Date: 1/2/1991
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD.-BLOCK #244***
COUNTRY CLUB DRIVE BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1796-91-

Application Year: 91
Issue Date: 11/26/1991
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD.-BLK. #244***
COUNTRY CLUB DRIVE BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-1426-91-
Application Year: 91
Issue Date: 11/14/1991
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD. MILLCROFT PH.2***
COUNTRY CLUB DR/PT. LT.8&9/C.1 BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-2213-89-
Application Year: 89
Issue Date: 11/10/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD MILLCROFT COMM.***
BERWICK DR. PHASE I PART II BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-0985-87-
Application Year: 87
Issue Date: 6/19/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MONARCH CONSTRUCTION LTD MILLCROFT COMM. BERWICK DR. PHASE I PART 2 BURLINGTON CITY ON***

Database: ***CA***

Certificate #: 7-0823-87-
Application Year: 87
Issue Date: 6/19/1987
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***DiCarlo Homes Part pf Lot 10, Conc.1 S.D.S. Burlington ON***

Database: ***CA***

Certificate #: 1406-4PJKHA
Application Year: 00
Issue Date: 9/27/00
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: Dicarlo Custom Homes Ltd.
Client Address: 10 Ferview Court
Client City: Stoney Creek
Client Postal Code: L8G 3L2
Project Description: Construction of Sanitary sewers on Walker Line north of Millcroft Park Drive, DiCarlo Custom Homes, City of Burlington.
Contaminants:
Emission Control:

Site: ***Monarch Construction Limited Burlington ON***

Database: ***CA***

Certificate #: 8574-5TGKSQ
Application Year: 2003
Issue Date: 12/19/2003
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Lloyd Ripani Part of Lot 9, Concession 1 Burlington ON L9A 4B2***

Database: ***ECA***

Approval No: 5614-575JL6
Approval Date: 2002-02-13
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: Part of Lot 9, Concession 1

Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/9424-55BJSR-14.pdf

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Site: ***Lloyd Ripani***
Part of Lot 9, Concession 1 Burlington ON L9A 4B2

Database:
ECA

Approval No:	2785-575JFV	***MOE District:***	
Approval Date:	2002-02-13	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-Municipal and Private Water Works		
Project Type:	Municipal and Private Water Works		
Address:	Part of Lot 9, Concession 1		
Full Address:			
Full PDF Link:			

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Sep 2018

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jul 31, 2019

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2017

Commercial Fuel Oil Tanks: Provincial CFOT

List of commercial underground fuel oil tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Note: the Fuels Safety Division does not register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of commercial fuel tanks in the province. The TSSA updates information in its system on an ongoing basis; this listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Chemical Register: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jul 31, 2019

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 - Jun 2019

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Jul 2019

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Aug 31, 2019

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Oct 2018

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-Aug 31, 2019

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Aug 31, 2019

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-Aug 31, 2019

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Jul 31, 2019

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2018

List of TSSA Expired Facilities: Provincial EXP

List of facilities and tanks - for which there was once a registration - no longer registered with the Fuels Safety Program of the Technical Standards and Safety Authority (TSSA). Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. Tanks which have been removed from the ground are included in the expired facilities inventory held by the TSSA. Notes: the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990, or furnace oil tanks prior to May 1, 2002; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

Government Publication Date: Jun 2000-May 2019

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Notes: the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990, or furnace oil tanks prior to May 1, 2002; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel storage tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Jul 31, 2019

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2017

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

TSSA Incidents: Provincial INC

List of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC) and made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Jan 2019

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2017

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2019

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Aug 31, 2019

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Jun 2019

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Aug 31, 2019

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988-Mar 2019

TSSA Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills) made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of pipeline incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Aug 31, 2019

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-2016

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Jul 2019

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jul 31, 2019

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Feb 2019

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2017

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2018

TSSA Variances for Abandonment of Underground Storage Tanks: Provincial VAR

List of variances granted for abandoned tanks. Under the Technical Standards and Safety Authority (TSSA) Liquid Fuels Handling Code and Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of tank variances in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-Aug 31, 2019

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Feb 28, 2019

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix D

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075
Téléc.: (416) 314-4285

Ontario

October 29, 2019

John Gaviria_Ballen
DS Consultants
6221 Highway 7 Unit 16
Vaughan, ON L4H OK8

Dear John Gaviria_Ballen:

RE: ***Freedom of Information and Protection of Privacy Act* Request**
Our File # A-2019-07400, Your Reference 19-199-100

The Ministry is in receipt of your request made pursuant to the *Freedom of Information and Protection of Privacy Act* and has received your payment in the amount of $5.00 (non-refundable application fee), along with your $30.00 deposit.

The search is being conducted on the following: 2155 Country Club Dr, Burlington. If there is any discrepancy please contact us immediately.

You may expect a reply or additional communication as your request is processed. For your information, the Ministry charges for search, copying and preparation time.

If you have any questions regarding this matter, please contact Dany Briollais at dany.briollais@ontario.ca.

Yours truly,

Janet Dadufalza
Manager, Access and Privacy

Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, October 18, 2019 10:10 AM
To: john.gaviriaballen@dsconsultants.ca
Subject: RE: Fuel Storage Tanks Records review

No Records Found

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database 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 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.

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: publicinformationservices@tssa.org
www.tssa.org

From: john.gaviriaballen@dsconsultants.ca <john.gaviriaballen@dsconsultants.ca>
Sent: October 17, 2019 9:44 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Storage Tanks Records review

Hello,

I am looking for records on the following locations:

2147, 2149, and 2151 Bushtrail Crt.

4158, 4156,4154, 4152, 4150, 4148 and 4146 Arbourfield Dr.

Thanks,

John Gaviria-Ballen, EIT

Environmental Technician

DS Consultants Ltd

6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Tel: (905) 264-9393

Cell: (613) 618-8815

www.dsconsultants.ca

This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, October 18, 2019 10:09 AM
To: john.gaviriaballen@dsconsultants.ca
Subject: RE: Fuel Storage Tanks Records review

No Records Found

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database 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 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.

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: publicinformationservices@tssa.org
www.tssa.org

From: john.gaviriaballen@dsconsultants.ca <john.gaviriaballen@dsconsultants.ca>
Sent: October 17, 2019 9:40 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Storage Tanks Records review

Hello,

I will like to see if there is any records on the following addresses:

2142, 2144,2146,2148,2150 Berwick Dr

2137, 2139,2141,2143, 2145 Bushtrail Crt.

Burlington, Ontario.

Thanks,

John Gaviria-Ballen, EIT

Environmental Technician

DS Consultants Ltd

6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Tel: (905) 264-9393

Cell: (613) 618-8815

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Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, October 18, 2019 10:07 AM
To: john.gaviriaballen@dsconsultants.ca
Subject: RE: Fuel Storage Tanks Records review

No Records Found

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database 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 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.

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

From: john.gaviriaballen@dsconsultants.ca <john.gaviriaballen@dsconsultants.ca>
Sent: October 17, 2019 9:34 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Storage Tanks Records review

Hello,

I will like to know if there are any USTs or ASTs at the following addresses:

2137,2139,2141,2143,2145,2147,2136, 2138, 2140 Berwick Dr., Burlington, Ontario

Thanks,

John Gaviria-Ballen, EIT

Environmental Technician

DS Consultants Ltd

6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Tel: (905) 264-9393

Cell: (613) 618-8815

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Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, October 18, 2019 10:15 AM
To: john.gaviriaballen@dsconsultants.ca
Subject: RE: Fuel Storage Tanks Records

No Records Found

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database 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 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.

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

From: john.gaviriaballen@dsconsultants.ca <john.gaviriaballen@dsconsultants.ca>
Sent: October 17, 2019 9:58 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Storage Tanks Records

Hello,

I am looking for records in the following locations:

4151, 4153,4155, 4157, 4159, 4161 Arbourfield Dr.

4165, 4163, 4159 and 4157 Vermont Crescent

Burlington, Ontario

Thank you for your help,

John Gaviria-Ballen, EIT

Environmental Technician

DS Consultants Ltd

6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Tel: (905) 264-9393

Cell: (613) 618-8815

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Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, October 18, 2019 10:14 AM
To: john.gaviriaballen@dsconsultants.ca
Subject: RE: Fuel Storage Tanks Records

No Records Found

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database 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 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.

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Kind regards,

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

From: john.gaviriaballen@dsconsultants.ca <john.gaviriaballen@dsconsultants.ca>
Sent: October 17, 2019 9:50 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Storage Tanks Records

Hello,

I am looking for records on the following addresses:

4144, 4142, 4140, 4138, 4139, 4141, 4143, 4145, 4147, and 4149 Arbourfield Dr.

Thanks,

John Gaviria-Ballen, EIT

Environmental Technician

DS Consultants Ltd

6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Tel: (905) 264-9393

Cell: (613) 618-8815

www.dsconsultants.ca

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Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, October 18, 2019 10:14 AM
To: john.gaviriaballen@dsconsultants.ca
Subject: RE: Fuel Storage Tanks Records

Records Found

Thank you for your request for confirmation of public information.

- We confirm that there are **fuel storage tanks records** in our database at the subject address(es).

Inst Number	Segment1	Address	City	Status
10333845	FS PRIVATE FUEL OUTLET - SELF SERVE	2155 COUNTRY CLUB DR	BURLINGTON	Active
11640060	FS LIQUID FUEL TANK	2155 COUNTRY CLUB DR	BURLINGTON	Active
11640081	FS LIQUID FUEL TANK	2155 COUNTRY CLUB DR	BURLINGTON	Active

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 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.

The *Technical Standards and Safety Act* and associated regulations do not require the registration of private fuel outlets. Nor does it require that any documentation on these facilities be submitted to or reviewed or approved by TSSA. As a result, TSSA has limited information on these facilities. TSSA cautions that any information provided may be inaccurate, incomplete or out of date.

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: publicinformationservices@tssa.org
www.tssa.org

From: john.gaviriaballen@dsconsultants.ca <john.gaviriaballen@dsconsultants.ca>
Sent: October 17, 2019 9:53 PM

To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Storage Tanks Records

Hello,

I will like to check if there is records on the following addresses:

2175, 2165, 2155, 2145, 2141, 2174, 2172, 2170, 2169, 2166 Country Club Drive, Burlington, Ontario

Thanks,

Hello,

John Gaviria-Ballen, EIT

Environmental Technician

DS Consultants Ltd

6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

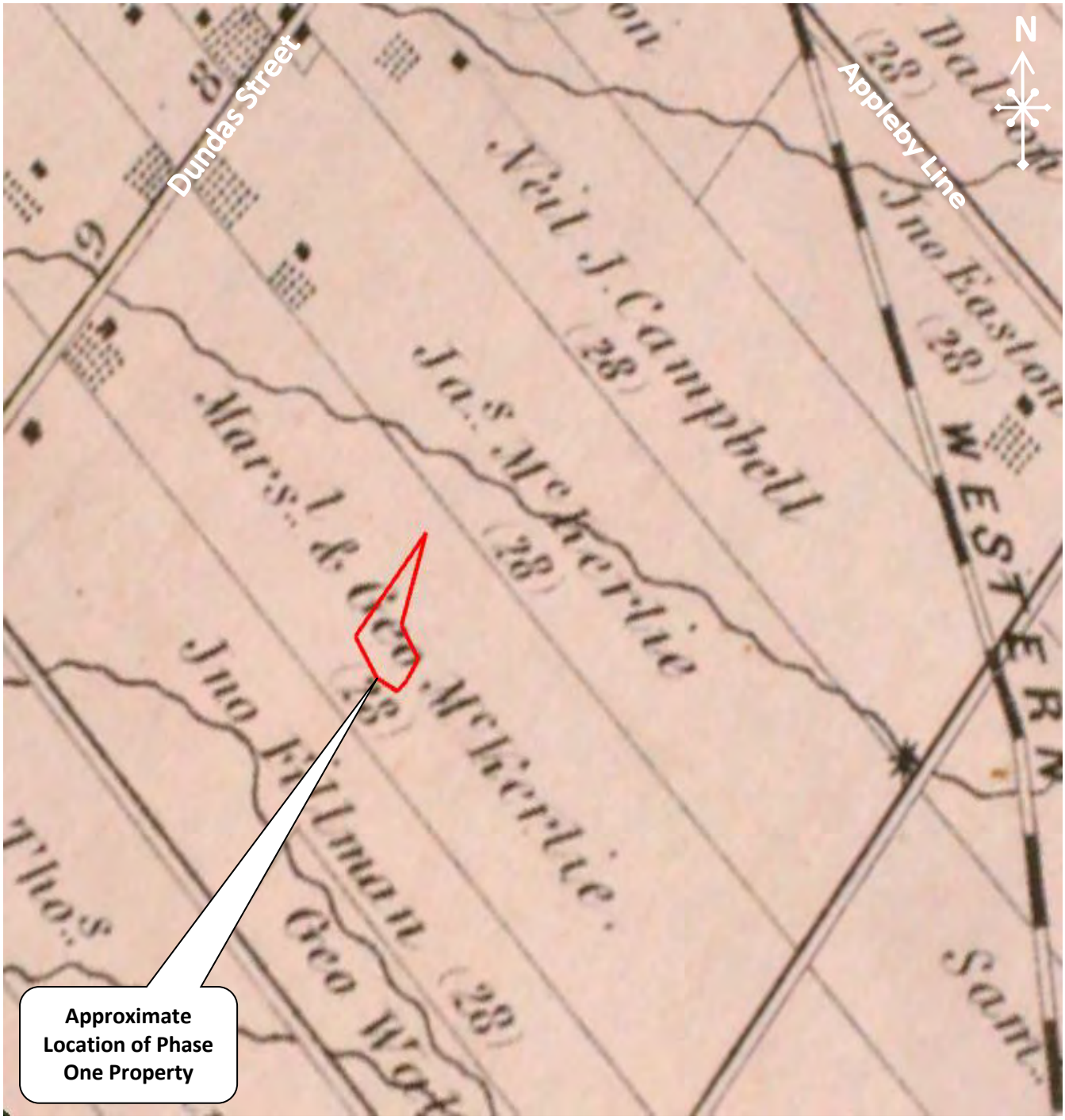
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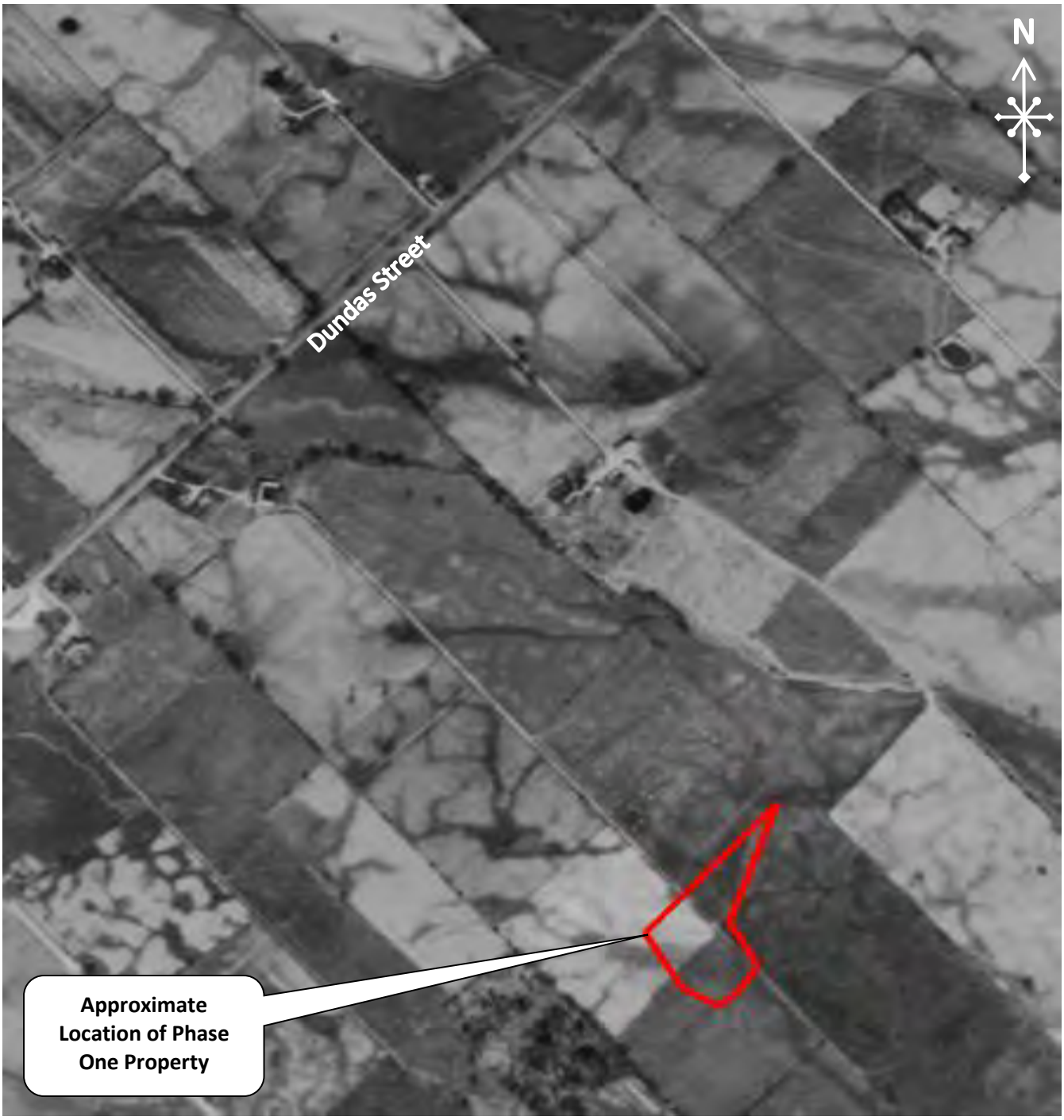
Appendix E



© County Atlas Project

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

HALTON COUNTY ATLAS: 1880		
Scale: NTS	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For:Argo (Millcroft) Limited	Drawing No. **D-1**



© NAPL

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 1962

Scale: ~1:7700	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-2**



© NAPL

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 1972

Scale: ~1:7700	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-3**



© Halton Public Works

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 1987

Scale: ~1:3700	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-4**



© City of Burlington database

6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 1995

Scale: ~1:4300	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-5**



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6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2002

Scale: ~1:2900	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-6**



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6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2009

Scale: ~1:6400	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-7**



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6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2015

Scale: ~1:7600	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-8**



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6221 Highway 7
Vaughan, ON L4H 0K8
T: 905-264-9393 F: 905-264-2685

AERIAL PHOTOGRAPH: 2019

Scale: ~1:7900	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 2), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-101	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-9**

Appendix F



Picture 1: View of the north end of the Phase One Property, facing north.



Picture 2: View of the east end of the Phase One Property, facing east.



Picture 3: View of west end of the Phase One Property, facing east.



Picture 4: View of the east end of the Phase One Property, facing west.



Picture 5: View of the south end of the Phase One Property, facing north.



Picture 6: View of the south end of the Phase One Property, facing south.



Picture 7: View of Appleby Creek, present east of the Phase One Property, facing north.



Picture 8: View of one (1) gasoline AST east to the Phase One Property, facing south.



Picture 9: View of one (1) transformer located east to the Phase One Property.



Picture 10: View of ONE (1) transformer located on the southwest corner of the Phase Phase One Property, facing north.