Phase One Environmental Site Assessment

Millcroft Golf Club (Block E), 4274 Dundas Street

Burlington, Ontario

Prepared For:

Millcroft Greens Corporation

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DS Project No : 19-199-102
Date: 2020-01-30
Revised: 2022-03-02

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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) of a portion of the Millcroft Golf Club, designated "Block E" located at 4274 Dundas Street in the City of Burlington, Ontario, herein referred to as the "Phase One Property". The Phase One Property is a 0.61-hectare (1.52 acres) parcel of land situated within a residential neighbourhood in the City of Burlington, Ontario. The Property currently incudes a one (1) storey rectangular structure made of concrete block and bricks with vertical siding exterior walls (Building A) that is used for maintenance and storage of lawn mowers and golf carts. The building also functions as the changing and lunchroom for the superintendent and maintenance workers of the golf club.

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 a six (6) storey condominium. 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 land 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 2004, when the existing maintenance building was constructed. The current structure is used for the maintenance, storage of supplies and golf carts and lawnmowers used at Millcroft Golf Club.
- The topography on the Phase One Property and within the Phase One Study Area is generally flat with a surficial elevation of 155 metres above sea level (masl) and a slight slope to the

south-east. Based on the local topography, the shallow groundwater flow direction is inferred to be southwest towards Appleby Creek. 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 with 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. Based on a review of the MECP Well Records, the bedrock underlying the Phase One Property is anticipated to be encountered at an approximate depth of 8 metres below ground surface (mbgs);
- The following issues of potential environmental concern were identified on the Phase One Property:
    - The Property was registered as a waste generator of petroleum distillates, waste oils, lubricants, and aliphatic solvents and residues **(PCA-1)**;
    - Fill material seem to have been imported to the Property for the development of the Millcroft Golf Club around 1987 **(PCA-3)**;
    - During the site reconnaissance, one (1) hydraulic hoist, one (1) 22,000L gasoline AST, one (1) 22,000L diesel AST, one (1) ~20,000L waste oil AST, and one (1) barrel of lubricant oil was observed **(PCA-4)**;
    - During the site reconnaissance, one room used for the storage of pesticides was observed **(PCA-5)**;
    - During the site reconnaissance, one (1) transformer was observed **(PCA-6)**;
    - During the site reconnaissance, one pallet holding a bulk of batteries was observed **(PCA-7)**; and
    - During the site reconnaissance, one (1) oil/water separator was observed **(PCA-8)**
- The neighbouring properties within the Phase One Study Area appear to have been used for residential and agricultural purposes prior to 1987, at which point the surrounding properties were developed for residential and commercial purposes.

Based on a review of the information available at this time it is concluded that nine (9) PCAs were identified on the Phase One Property which are considered to be contributing to seven (7) 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	Surroundings of Building A	PCA-1 (# 27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On Site	PHC, BTEX VOCs, Metals	Soil and groundwater
APEC-2	Entire Property	PCA-3 (#30): Importation of Fill Material of Unknown Quality	On Site	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-3	Centre portion of the Property	PCA-4 (#28): Gasoline and Associated Products Storage in Fixed Tanks	On Site	PHCs, VOCs, BTEX, Metals,	Soil and ground water
APEC-4	Northeast corner of Building A	PCA-5 (#40): Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) manufacturing, Processing, Bulk Storage and large-Scale Applications	On Site	OCPs	Soil and ground water
APEC-5	Southwest portion of Building A	PCA-6 (#28): Transformer Manufacturing, Processing and Use	On Site	PCBs	Soil
APEC-6	Surroundings of Building A	PCA-8 (#N/S): Oil/water separator.	On Site	PHC, BTEX VOCs, Metals	Soil and groundwater
APEC-7	Surroundings of Building A	PCA-7 (#6): Battery Manufacturing, Recycling and Bulk Storage	On Site	PHC, BTEX VOCs, Metals	Soil and groundwater

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, PCBs, and OCPs. 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

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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	0.61 hectares (1.52 acres)	Client
Centroid UTM Coordinates	Northing: 4805779.27 Easting: 595905.26 Zone: 17T	Google Earth

1.2 Site Description

The Phase One Property is a 0.61-hectare (1.52 acres) parcel of land situated within a residential neighbourhood in the City of Burlington, Ontario. The Phase One Property is located at 4274 Dundas Street, approximately 140 m southwest of the intersection of Dundas St. and Millcroft Park Drive and was occupied by Millcroft Golf Club at the time of this investigation. A Site Location Plan is provided in Figure 1. For the purposes of this report, Dundas Street is assumed to be aligned in an east-west orientation.

The Property currently incudes a one (1) storey rectangular structure made of concrete block and bricks with vertical siding exterior walls (Building A) that is used for maintenance and storage of lawn mowers and golf carts. The building also functions as the changing and lunchroom for the superintendent and maintenance workers of the golf club. A Site Plan depicting the orientation of the buildings on-site 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 community, residential, and commercial uses. Additionally, there is a hydro corridor located at the east adjacent property which would be considered industrial use. 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 is presented in Figure 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 2004 for the development of the maintenance department (Building A) of the golf club.

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 obtained as part of this Phase One ESA. It indicated that the Property transferred from Crown ownership in 1808 and was owned by private individuals until 1969 when the Property was purchased by 229823 Investments Limited. The Site was later purchased by Monarch Construction Limited in 1973 who presumably developed the site into part of the golf course. The Property was transferred to the present owner, Millcroft Greens Corporation in 2020. The Chain of Title can be found appended under Appendix G.

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 listed at 4252 Dundas Street as Millcroft Golf Club Maintenance Dept in the 1996 directory. The adjacent properties generally appear to have been developed by the late 1980s 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 fourteen (14) records for the Phase One Property, and eight (8) records 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 identified in the ERIS report is provided in the Table below:

Table 3-2: Summary of ERIS Report Findings on Phase One Property and Phase One Study Area

Database/Date	Entry Details	PCA ID No.
Ontario Regulation 347 Waste Generator Summary (GEN)	Fourteen (14) entries were available for the Phase One Property. The Phase One Property was registered as waste generator of: - petroleum distillates, waste oils, and lubricants from 1994 to as of July 2019; - Aliphatic solvents and residues from 1999 to as of July 2019; and - Non-halogenated lean organics from 1999 to 2008.	PCA-1

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

Database/Date	Entry Details	PCA ID No.
Ontario Regulation 347 Waste Generator Summary (GEN)	Five (5) entries were available for the Phase One Study Area: - Frank J. Hayden Secondary School – Halton District School Board, located at 3040 Tim Dobbie Drive approximately 249 m west of the Phase One Property was listed as a generator of inorganic Laboratory Chemicals, waste oils and lubricants, acid waste- heavy metals, and aliphatic solvents from 2016 to as of July 2019. Waste oil/sludges, and waste crankcase oil and lubricants from 2018 to as of July 2019	PCA-2
TSSA historic Incidents (HINC)	One (1) entry was available at 4400 Millcroft Drive, Unit 9 for the strike of a natural gas pipeline.	No PCA

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 has reviewed the information obtained via the FOI request and found that all the information received pertains to a permit to take water incident and status. There were no records of any environmentally significant activities that could affect the environmental condition of the Phase One Property. The FOI response can be found appended under Appendix D.

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 22, 2019 from Ms. Gaya of TSSA, there were no records for the Phase One Property and properties located in the Study Area.

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, no watercourse is presented on the Property, but there are two (2) creeks, Sheldon Creek to the east, and a tributary to Appleby Creek to the west of the Phase One Study Area. The Phase One Property is located in between the Sheldon Creek and Appleby Creek watersheds.

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 1954, 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 Identification No.
1880 County Atlas Map	The county atlas map indicates that the Phase One Property belonged to Ja. McKerlie and appears to be undeveloped. It is inferred that the property was used for agricultural purposes at this time.	The Phase One Study Area appears to be undeveloped agricultural land.	No PCA identified.
1954	The Phase One Property appears to be part of an agricultural field. An access roadway is visible running north-south near the western edge of the Phase One Property.	A rural farmhouse is visible on the north side of Dundas. The remaining lands appear to have been used for agricultural purposes.	No PCA identified.
1962	No significant changes.	No significant chances.	No PCA identified.
1972	No significant changes.	No significant chances.	No PCA identified.
1987	Property appears to have been reworked due to the development of the golf course at the adjacent property. Possible fill material may have been used for grading purposes.	Development of the Millcroft Golf Club appears to be underway.	PCA-3: Importation of fill material of unknown quality.
1995	Property appears to be undeveloped	A hole of the golf course appears to have been completed to the south.	PCA-9: Inferred use of pesticides/herbicides on golf course.
2002	No significant changes	No significant changes.	No PCA
2005	A building has been developed in the Property. The building appears to be in the current configuration, likely used as storage and maintenance.	No significant changes.	PCA-1: storage and maintenance shed
2011	No significant changes	Multiple residential dwelling west adjacent to the Phase One Property has been developed.	No PCA
2017	No significant changes	The football field located to the north in Norton Community Park has been developed.	No PCA
2019	No significant changes	No significant changes	No PCA

3.3.2 Topography, Hydrology, Geology

The topography of the Phase One Property is generally flat, with a surface elevation of 155 metres above sea level (masl). The topography within the Phase One Study Area generally slopes to the east, towards Lake Ontario, located approximately 7 km southeast of the Phase One Property. The nearest water bodies are Sheldon Creek, located to the east, approximately 340 m from the Property, and

Appleby Creek, located approximately 330 m west from the Property. The majority of the shallow groundwater flow within the Phase One Study Area is inferred to be southwest 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 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 of 8 mbgs.

3.3.3 Fill Materials

According to observed aerial photograph fill material may have been imported around 1987 for landscaping and/or grading purposes.

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 are Sheldon Creek, located approximately 340 m to the east, and Appleby Creek, located approximately 330m to the west. 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.

3.3.5 Well Records

Water well records were also searched as part of the EcoLog ERIS database query. Two (2) records were available for the Phase One Property. One is abandoned (well ID: 7050862), and the second is used as a domestic water supply (well ID: 2803185). Based on a review of the previous reports available for the Site, there are no monitoring wells present on the Phase One Property.

Additional detail regarding the well construction, lithology encountered, and well purpose is included in the ERIS report provided under Appendix C.

3.4 Site Operating Records

The Property has mainly been used for maintenance and storage purposes. 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 has 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 under the supervision of Mr. Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}.

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 developed circa 2004.
- According to Mr. Kastrov the Property has been used as a maintenance building for golf cars and lawnmowers since the building was constructed in 2004.
- One (1) hydraulic hoist was located on the south center portion of Building A **(PCA-1).**
- There were three (3) AST on the property **(PCA-4)**:
    - One (1) 22,000 L diesel UST
    - One (1) 22,000 L gasoline UST
    - One (1) ~20,000 L waste oil UST
- There was one (1) oil/water separator installed underground at the north portion of Building **(PCA-8).**
- A bulk of batteries were store on a pallet at the entrance of the maintenance area **(PCA-7)**.
- 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 – Maintenance Department
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	One (1), one-story vertical metal siding exterior walls, with concrete block and drywall interior walls, constructed by 2004
ii.	Description of the number, age and depth of below-ground structures	The building is a slab on grade floor with no basement.
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	Three ASTs are present in the Property: - One (1) 22,000L gasoline tank, - One (1) 22,000L diesel tank, - One (1) ~20,000L waste oil tank, and - One (1) barrel of lubricant oil They gasoline, diesel and lubricant tanks were rested on a concrete slab in general good conditions. The waste oil tank was found to be in fair to poor condition and rusted. They were all located east of Building A (**PCA-4**).

iv.	Potable and non-potable water sources	The Phase One Property is serviced by municipal water services.
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.	The Phase One Property has a sewer septic system that is located north of the Property. The exact location of other services is unknown.
Features of Structures and Buildings at the Phase One Property		
i.	Entry and exit points	Present on the north east sides of the Phase One Property.
ii.	Details of existing and former heating systems, including type and fuel source	The building is heated using an HVAC system that uses natural gas as fuel source.
iii.	Details of cooling systems, including type and fuel source, if any	The building does not have a cooling system.
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	Building A is connected to a septic tank system that is located north adjacent of the building. The Property does not have connection to the municipal sanitary sewer.
ix.	Details of ground surface, including type of ground cover, such as grass, gravel, soil or pavement	The ground surroundings Site Building A is primarily gravel or fill material. The remaining ground surface was covered by grass and vegetation.
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	Surrounding Building A and the access point to the Property.

xiv. Potentially contaminating activity	• One (1) hydraulic hoist was observed on Building A, and the building is used for maintenance of golf cars and lawnmowers during the Site reconnaissance (**PCA-1**). • Three ASTs are present in the Property (**PCA-4**),: - One (1) 22,000L gasoline tank - One (1) 22,000L diesel tank, - One (1) ~20,000L waste oil tank, and - One (1) barrel of lubricant oil • One room is used as storage for pesticides during the site reconnaissance (**PCA-5**). • One (1) transformer was located on Building A, located on the salve on grade floor at the west portion of Building A (**PCA-6**). • One pallet with car batteries was observed at the entrance of the maintenance area (**PCA-7**). • One (1) oil/water separator was located on the north of Building A, installed above the slab on grade floor (**PCA-8**).
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. Based on the age of the site building, which was constructed by 2004, the potential for asbestos insulation and asbestos-containing construction materials to be present in the site building is considered to be low.

ii.	Lead containing materials	The use of lead as a base in paints and plumbing solder was phased out in the late 1970s. Based on the age of the building, 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; thus, it has low potential for presence of PCBs material. However, a transformer is located on the west portion of Building A (**PCA-6**).
iv.	Urea Formaldehyde Foam Insulation (UFFI)	Urea-Formaldehyde Foam Insulation (UFFI) was introduced in Canada during the 1970s and was banned in 1980. Based on the age of the building, there is no potential for UFFIs to be present within the building.
v.	Ozone Depleting Substances (ODS)	None observed
vi.	Herbicides and Pesticides	During the site reconnaissance, one room located northeast of Building A was allocated for pesticides storage **(PCA-9).**
vii.	Mould	None observed.
viii.	Mercury	Based on the age of the building, there is potential for mercury to be present in fluorescent lights observed in the building. Mercury with small quantity could be present inside the electrical switches or thermostats observed in the units of the building.
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 parkland, 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 occupied by Millcroft Golf Club at the time of the site reconnaissance, the building located on the Property was used for maintenance of equipment and golf carts. The orientation of the Site Building is depicted on Figure 2.
North Adjacent Property	The north adjacent Property was occupied by Norton park at the time of the site reconnaissance.
East Adjacent Property	The east adjacent Property is used as a hydro corridor. Ground surface is covered by grass at the time of the site reconnaissance.
South Adjacent Property	The south adjacent Property was occupied by Millcroft Golf Club and was used as a golf course (hole 15) at the time of the site reconnaissance (**PCA-9**).
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 approximately330 m to the west, and Sheldon Creek was observed approximately 340 m to the east of the Phase One 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, chain of title, city directories and conversations with the site representative. Based on the records reviewed, the Phase One Property appears to have been used for agricultural purposes from the late 1800s until 2004, at which point the site was developed with the current maintenance building, serving 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 be 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	# 27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	- One (1) hydraulic hoist was observed on Building A, on the building am area is used for maintenance of golf cars and lawnmowers during the Site reconnaissance. - The Phase One Property was registered as a waste generator of petroleum distillates, waste oils, lubricants, and aliphatic solvents and residues.	Yes – APEC-1
PCA-2	#58: Waste Disposal and Waste Management, including thermal treatment, landfill and transfer of waste, other than use of biosolids as soil conditioners.	Frank J. Hayden Secondary School – Halton District School Board, located at 3040 Tim Dobbie Drive approximately 249 m west of the Phase One Property was listed as a generator of inorganic laboratory chemicals, waste oils and lubricants, acid waste- heavy metals, aliphatic solvents, and waste oil/sludges, and waste crankcase oil.	No – Based on source of waste generation, effect to the Property is unlikely
PCA-3	#30: Importation of Fill Material of Unknown Quality	Fill material is inferred to have been placed for grading purposes when the Phase One Property started development around 1987 around Building A, and stockpiles of sand, topsoil and tee mix was observed during the site reconnaissance north of the Property.	Yes – APEC-2
PCA-4	#28: Gasoline and Associated Products Storage in Fixed Tanks	Three ASTs are present in the Property: - One (1) 22,000L gasoline tank, - One (1) 22,000L diesel tank, - One (1) ~20,000L waste oil tank, and - One (1) barrel of lubricant oil	Yes – APEC-3
PCA-5	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) manufacturing, Processing, Bulk Storage and large-Scale Applications	One room is used as storage for pesticides during the site reconnaissance.	Yes – APEC-4
PCA-6	#28: Transformer Manufacturing, Processing and Use	One (1) transformer was located on Building A, located on the salve on grade floor at the west portion of Building A.	Yes- APEC-5
PCA-7	#6: Battery Manufacturing, Recycling and Bulk Storage	One pallet with car batteries was observed during the site reconnaissance.	Yes – APEC-7
PCA-8	# N/S: Oil/water separator.	One (1) oil/water separator was located on the north of Building A, installed above the slab on grade floor.	Yes-APEC-6
PCA-9	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) manufacturing, Processing,	Inferred application of pesticides/herbicides on Millcroft Golf Club (located to the south of the Phase One Property).	No – based on down/transgradient hydraulic orientation relative

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Contributing to APEC (Y/N)
	Bulk Storage and large-Scale Applications		to the Phase One Property.

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	Surroundings of Building A	PCA-1 (# 27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On Site	PHC, BTEX VOCs, Metals	Soil and groundwater
APEC-2	Entire Property	PCA-3 (#30): Importation of Fill Material of Unknown Quality	On Site	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-3	Centre portion of the Property	PCA-4 (#28): Gasoline and Associated Products Storage in Fixed Tanks	On Site	PHCs, VOCs, BTEX, Metals,	Soil and ground water
APEC-4	Northeast corner of Building A	PCA-5 (#40): Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) manufacturing, Processing, Bulk Storage and large-Scale Applications	On Site	OCPs	Soil and ground water
APEC-5	Southwest portion of Building A	PCA-6 (#28): Transformer Manufacturing, Processing and Use	On Site	PCBs	Soil
APEC-6	Surroundings of Building A	PCA-8 (#N/S): Oil/water separator.	On Site	PHC, BTEX VOCs, Metals	Soil and groundwater

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-7	Surroundings of Building A	PCA-7 (#6): Battery Manufacturing, Recycling and Bulk Storage	On Site	PHC, BTEX VOCs, Metals	Soil and groundwater

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 E" 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 7.2 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-1	# 27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	The Phase One Property was registered as a waste generator of petroleum distillates, waste oils, lubricants, and aliphatic solvents and residues.	PCA is located on the Phase One Property
PCA-3	# 30: Importation of Fill Material of Unknown Quality	Fill material is inferred to have been placed for grading purposes when the Phase One Property started development around 1987 around Building A, and stockpiles of sand, topsoil and tee mix was observed during the site reconnaissance north of the Property.	PCA is located on the Phase One Property
PCA-4	#28: Gasoline and Associated Products Storage in Fixed Tanks	Three ASTs are present in the Property: - One (1) 22,000L gasoline tank, - One (1) 22,000L diesel tank, - One (1) ~20,000L waste oil tank; and - One (1) barrel of lubricant oil	PCA is located on the Phase One Property
PCA-5	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) manufacturing, Processing, Bulk Storage and large-Scale Applications	One room is used as storage for pesticides during the site reconnaissance.	PCA is located on the Phase One Property
PCA-6	#28: Transformer Manufacturing, Processing and Use	One (1) transformer was located on Building A, located on the salve on grade floor at the west portion of Building A.	PCA is located on the Phase One Property
PCA-7	#6: Battery Manufacturing, Recycling and Bulk Storage	One pallet with car batteries was observed during the site reconnaissance.	PCA is located on the Phase One Property
PCA-8	# N/S: Oil/water separator.	One (1) oil/water separator was located on the north of Building A, installed above the slab on grade floor.	PCA is located on 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, PCBs, and OCPs.

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.

The Phase One Property is serviced with municipal water and has a sewer septic system that is located north of the Property. The exact location of other services is unknown. The depth to groundwater at the Phase One Property is inferred to be approximately 1.5 mbgs; therefore the utilities on the Property could potentially act as preferential pathways for contaminant distribution.

6.4.4 Geological and Hydrogeological Information

The topography of the Phase One Property is generally flat with a surface elevation of 155 masl. The topography within the Phase One Study Area generally slopes to the east, towards Lake Ontario, located approximately 7 km southeast of the Phase One Property. The nearest water bodies are Sheldon Creek, located to the east, approximately 340 m from the Property, and Appleby Creek, located approximately 330 m west from the Property. Based on a review of borehole logs and the MECP well records, the depth to groundwater in the vicinity of the Phase One Property is approximately 1.5 mbgs. The majority of the shallow groundwater flow within the Phase One Study Area is inferred to be southwest 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 Queenstone Formation. Based on a review of MOECP 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 of 8 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. 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 E" 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 nine (9) PCAs were identified within the Phase One Study Area which are considered to be contributing to seven (7) 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 known as Block E, 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).

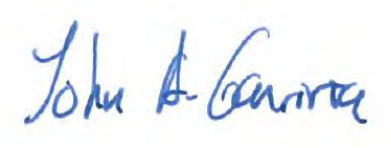
7.5 Signatures

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



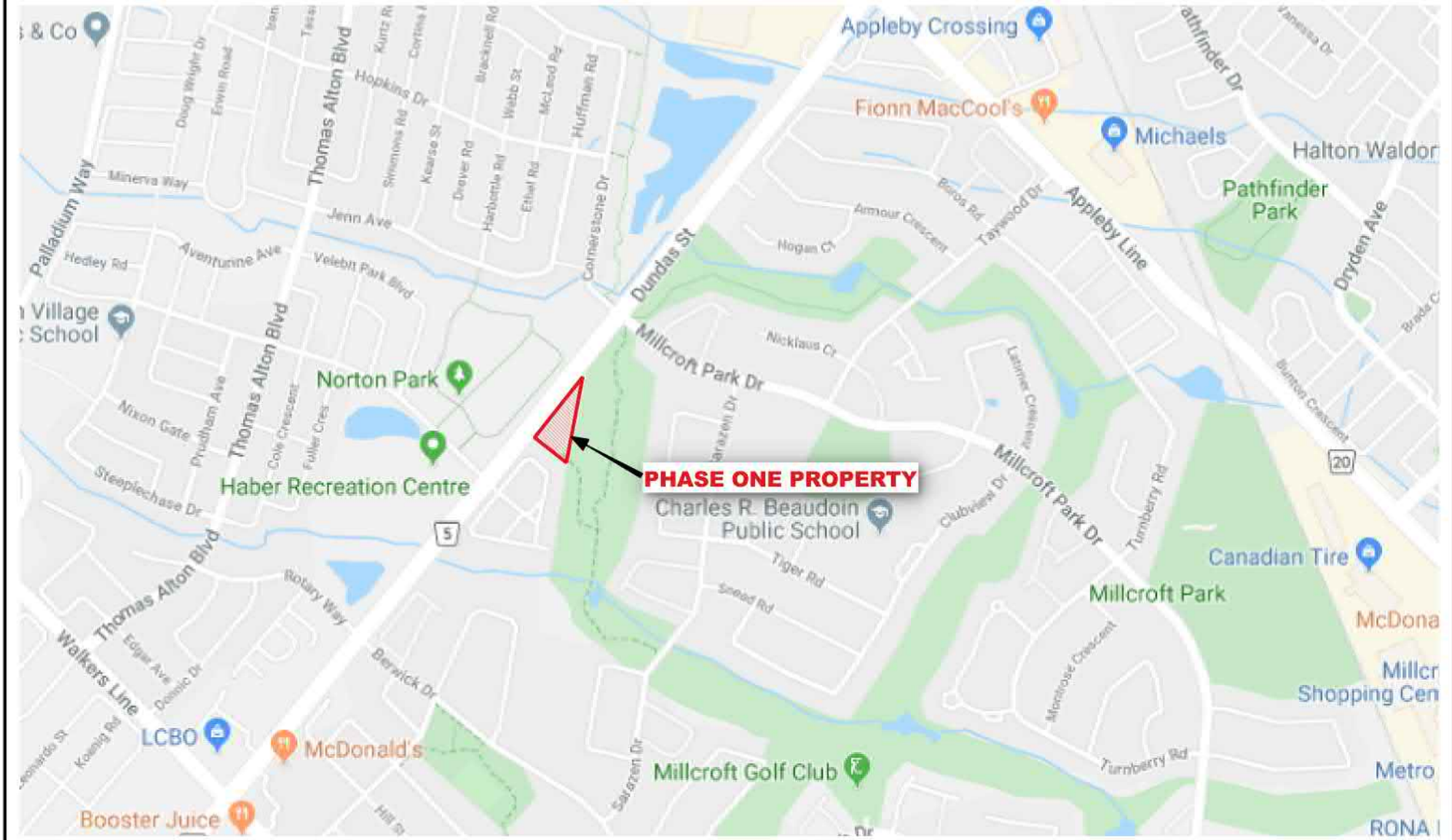
Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Manger – Environmental Services

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\102 - Area E\Figure 1- Site Location Plan.qgs



Legend

Approx Site Boundary (Area E)

0 200 400 m

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 E), 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\102 - Area E\Figure 2- Phase One Site Plan.qgs



Legend

- Approx. Site Boundary (Area E)
- ASTs

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Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

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

Title: **PHASE ONE PROPERTY SITE PLAN**

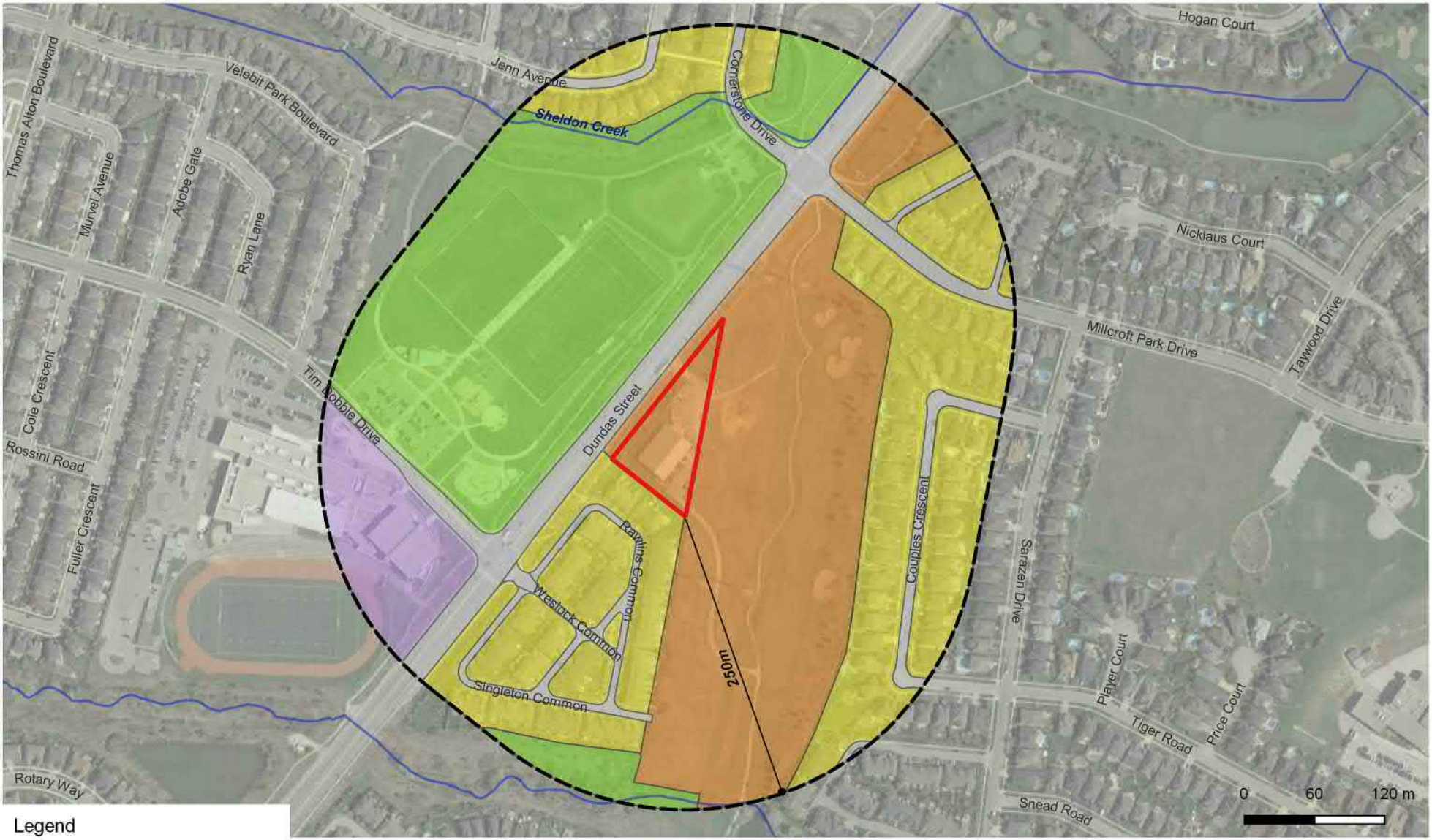
N

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.: 2

Image/Map Source: *Google Satellite Image*

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



Legend

- Approx. Site Boundary (Area E)
- 250m Buffer
- Residential
- Commercial
- Institutional
- Parkland

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Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

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

Title: **PHASE ONE STUDY AREA**

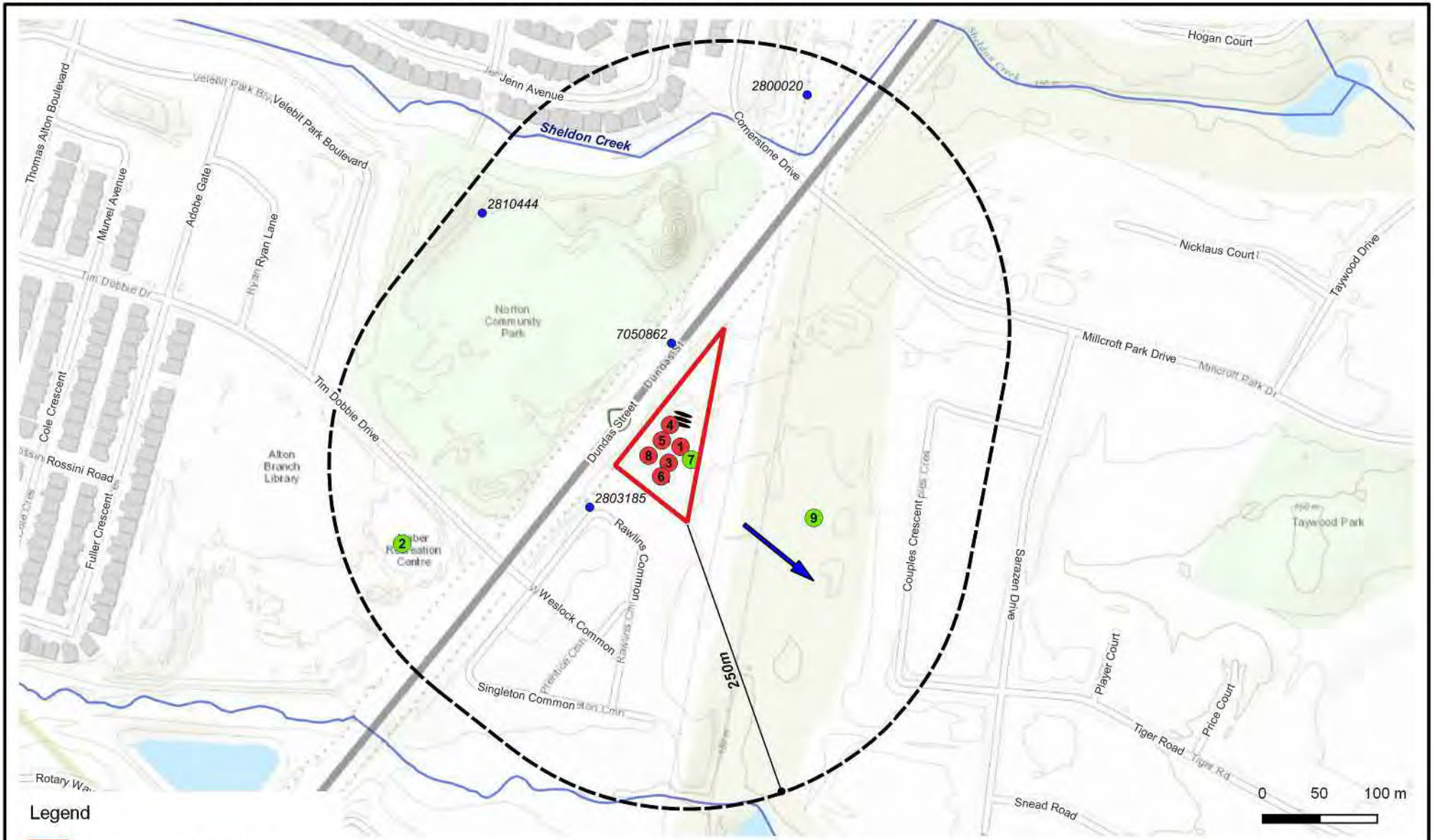
N

Client: MILLCROFT GREENS CORPORATION

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

Image/Map Source: *Google Satellite Image*

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



Legend

- Approx. Site Boundary (Area E)
- 250m Buffer
- Registered Water Well (MECP WWR)
- PCA not contributing to APEC
- PCA contributing to APEC
- Inferred Groundwater Flow Direction

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Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project: PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Millcroft Golf Course (Area E), 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\102 - Area E\Figure 5- Summary of APECs on Phase One Property.qgs



Legend

- Approx. Site Boundary (Area E)
- APEC 1, 6 & 7
- APEC 2
- APEC 3
- APEC 4
- APEC 5
- AST
- Transformer
- Barrel

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 E), 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

PLAN OF SURVEY OF PART OF LOT 8 CONCESSION 1, SOUTH OF DUNDAS STREET
(GEOGRAPHIC TOWNSHIP OF NELSON)
CITY OF BURLINGTON
REGIONAL MUNICIPALITY OF HALTON

SCALE 1:500

10m 5m 0m 10m 20m 30m 40 metres

R-PE SURVEYING LTD., O.L.S.

METRIC

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

NOTES

□	DENOTES MONUMENT SET
■	DENOTES MONUMENT FOUND
SIB	DENOTES STANDARD IRON BAR
P.I.N.	DENOTES PROPERTY IDENTIFIER NUMBER
PL1	DENOTES PLAN 20R-21883
PL2	DENOTES PLAN 20R-16675
(1128)	DENOTES DAVID HORWOOD LTD., O.L.S.
(1724)	DENOTES R. D. McCONNELL O.L.S.
(MTO)	DENOTES MINISTRY OF TRANSPORTATION OF ONTARIO
ORP	DENOTES OBSERVED REFERENCE POINT

BEARINGS ARE GRID, UTM ZONE 17, NAD83 (CSRS) (2010.0), DERIVED FROM ORP (A) AND ORP (B) ORPs ARE DERIVED FROM REAL TIME NETWORK STATION No. 20120110009 (NORTH: 4801633.53, EAST: 597944.44).

POINTS	NORTHING	EASTING
ORP A	4805755.62	595856.17
ORP B	4805879.90	595952.57

COORDINATES ARE UTM ZONE 17, NAD83 (CSRS) (2010.0), TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999702.

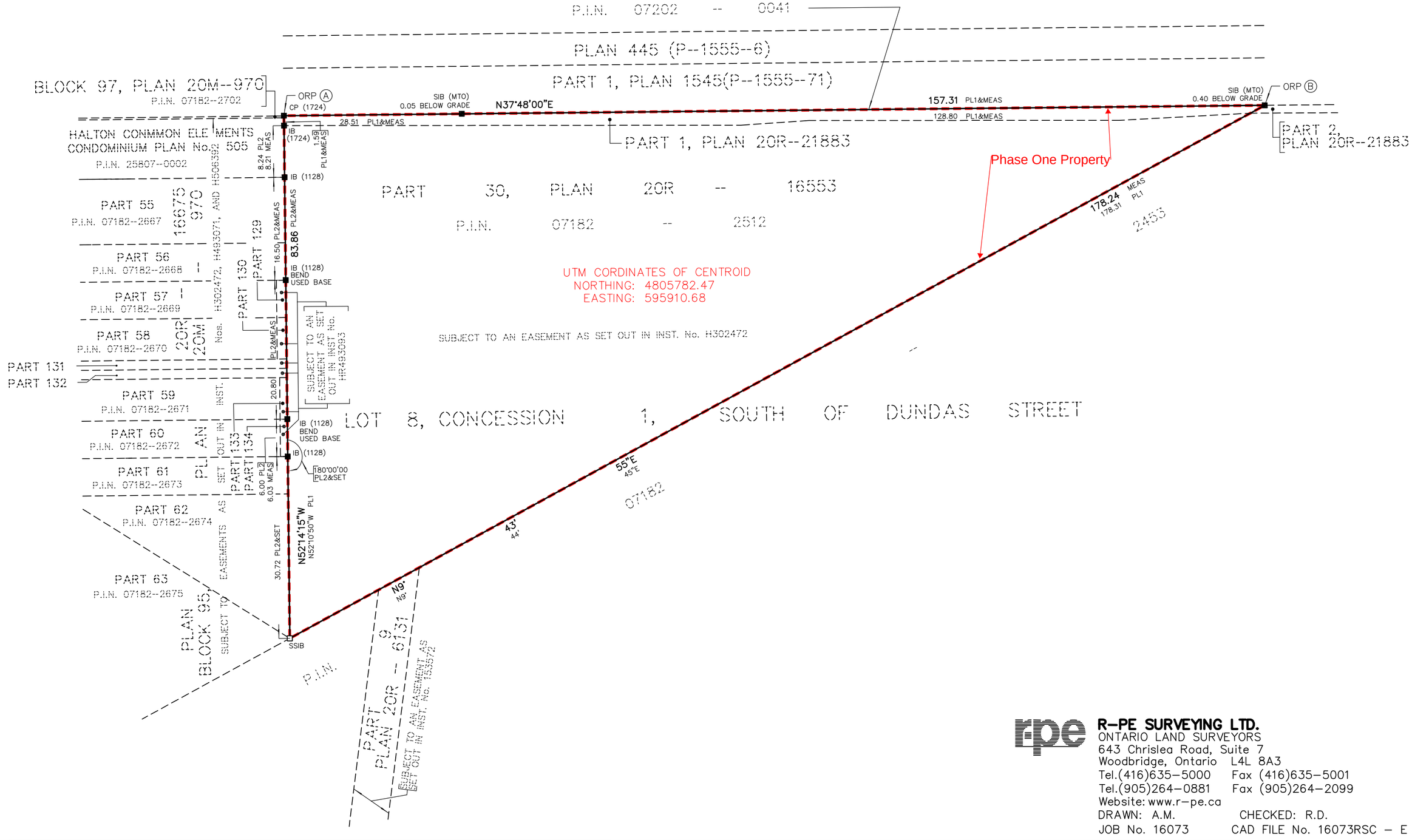
SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE _____ DAY OF _____ 2021

DATE _____ 2021

R. DENBROEDER
ONTARIO LAND SURVEYOR



R-PE SURVEYING LTD.
ONTARIO LAND SURVEYORS
643 Chrislea Road, Suite 7
Woodbridge, Ontario L4L 8A3
Tel.(416)635-5000 Fax (416)635-5001
Tel.(905)264-0881 Fax (905)264-2099
Website: www.r-pe.ca

DRAWN: A.M. CHECKED: R.D.
JOB No. 16073 CAD FILE No. 16073RSC - E

Appendix B

Summary of City Directory Search

Address	Location Relative to Phase One Property	Listing	Year(s)	Inferred Property Use
Dundas St				
4167-4385	250 m	Residential	1988-1991, 2000	Residential
4252	Phase One Property	Millcroft Golf Club Maintenance Dept	1996	Commercial

Appendix C

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Millcroft Area 3* *Millcroft Park Dr* *Burlington ON L7M*
Project No:	*19-199-102*
Report Type:	*Standard Report*
Order No:	*20191003106*
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 3* *Millcroft Park Dr Burlington ON L7M*
Project No:	*19-199-102*

Coordinates:

Latitude:	*43.39885*
Longitude:	*-79.815702*
UTM Northing:	*4,805,789.03*
UTM Easting:	*595,903.83*
UTM Zone:	*UTM Zone 17T*

Elevation:	*508 FT* *154.85 M*

Order Information:

Order No:	*20191003106*
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	0	0
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	0	0
EEM	*Environmental Effects Monitoring*	Y	0	0	0
EHS	*ERIS Historical Searches*	Y	0	0	0
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	19	19
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	0	0
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	2	2
	Total:		0	22	22

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	GEN	MILLCROFT GOLF CLUB	MAINTENANCE FACILITY 4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S/29.7	0.00	15
1	GEN	MILLCROFT GOLF CLUB	4252 DUNDAS STREET WEST MAINTENANCE FACILITY BURLINGTON ON L7R 3X4	S/29.7	0.00	15
1	GEN	MILLCROFT GOLF CLUB 26-499	MAINTENANCE FACILITY 4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S/29.7	0.00	15
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S/29.7	0.00	16
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S/29.7	0.00	16
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S/29.7	0.00	16
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S/29.7	0.00	17
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S/29.7	0.00	17
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON	S/29.7	0.00	18
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S/29.7	0.00	18
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S/29.7	0.00	18
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S/29.7	0.00	19

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S/29.7	0.00	19
1	GEN	MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S/29.7	0.00	20
2	WWIS		ON ***Well ID:*** 7050862	N/78.0	0.00	20
3	WWIS		lot 8 con 1 ON ***Well ID:*** 2803185	SW/95.7	0.00	21
4	GEN	HALTON DISTRICT SCHOOL BOARD	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W/247.5	1.05	24
4	GEN	HALTON DISTRICT SCHOOL BOARD	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W/247.5	1.05	25
4	GEN	HALTON DISTRICT SCHOOL BOARD	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W/247.5	1.05	25
4	GEN	HALTON DISTRICT SCHOOL BOARD DR.FRANK J. HAYDEN SECONDARY SCHOOL	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W/247.5	1.05	26
4	GEN	HALTON DISTRICT SCHOOL BOARD DR.FRANK J. HAYDEN SECONDARY SCHOOL	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W/247.5	1.05	26
5	HINC		REAR OF PROPERTY AT 4400 MILLCROFT PARK DRIVE, UNIT 9 BURLINGTON ON	NE/249.1	0.00	27

Executive Summary: Summary By Data Source

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Jul 31, 2019 has found that there are 19 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
MILLCROFT GOLF CLUB	MAINTENANCE FACILITY 4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF CLUB	4252 DUNDAS STREET WEST MAINTENANCE FACILITY BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF CLUB 26-499	MAINTENANCE FACILITY 4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S	29.69	1

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S	29.69	1
MILLCROFT GOLF & COUNTY CLUB	4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	S	29.69	1
HALTON DISTRICT SCHOOL BOARD DR.FRANK J. HAYDEN SECONDARY SCHOOL	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W	247.49	4
HALTON DISTRICT SCHOOL BOARD DR.FRANK J. HAYDEN SECONDARY SCHOOL	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W	247.49	4
HALTON DISTRICT SCHOOL BOARD	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W	247.49	4
HALTON DISTRICT SCHOOL BOARD	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W	247.49	4
HALTON DISTRICT SCHOOL BOARD	3040 TIM DOBBIE DRIVE BURLINGTON ON L7M0N6	W	247.49	4

HINC - TSSA Historic Incidents

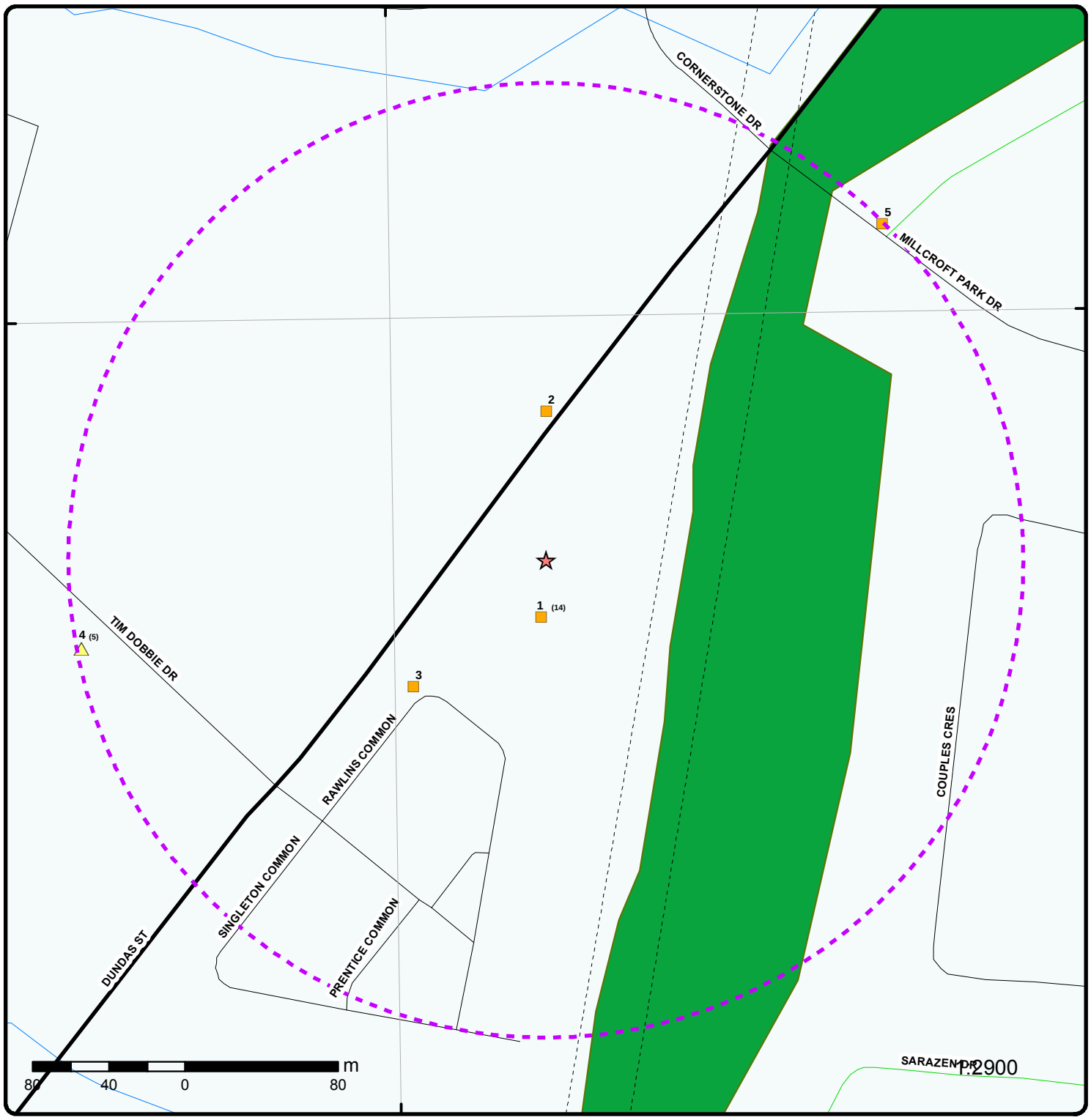
A search of the HINC database, dated 2006-June 2009* has found that there are 1 HINC site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	REAR OF PROPERTY AT 4400 MILLCROFT PARK DRIVE, UNIT 9 BURLINGTON ON	NE	249.09	5

WWIS - Water Well Information System

A search of the WWIS database, dated Feb 28, 2019 has found that there are 2 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	ON ***Well ID:*** 7050862	N	77.97	2
	lot 8 con 1 ON ***Well ID:*** 2803185	SW	95.74	3



Map : 0.25 Kilometer Radius

Order No: 20191003106

Address: Millcroft Park Dr, Burlington, ON, L7M

ENVIRONMENTAL RISK INFORMATION SERVICES

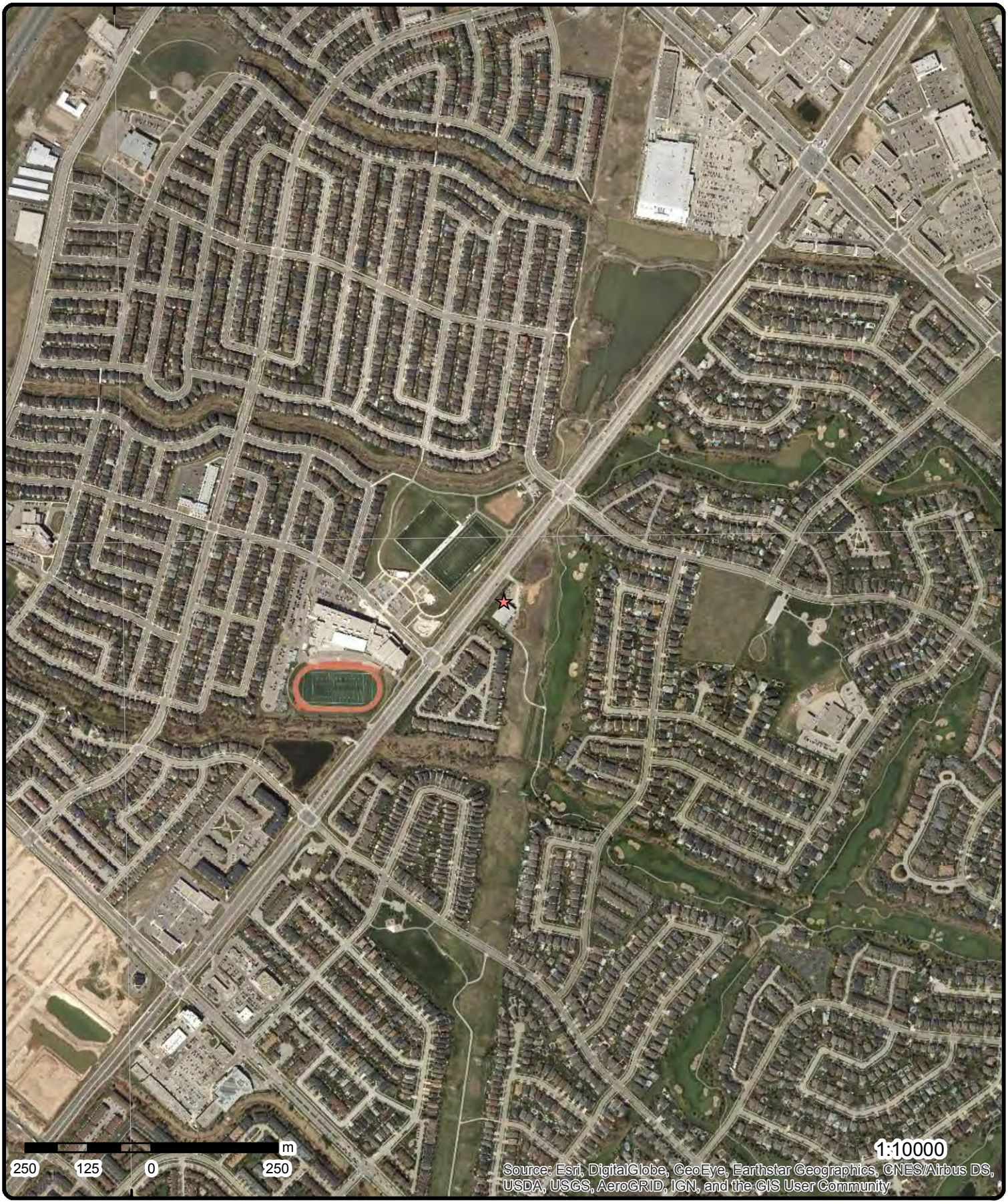
- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
- 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°49'30"W

43°24'N



43°24'N

Aerial (2017)

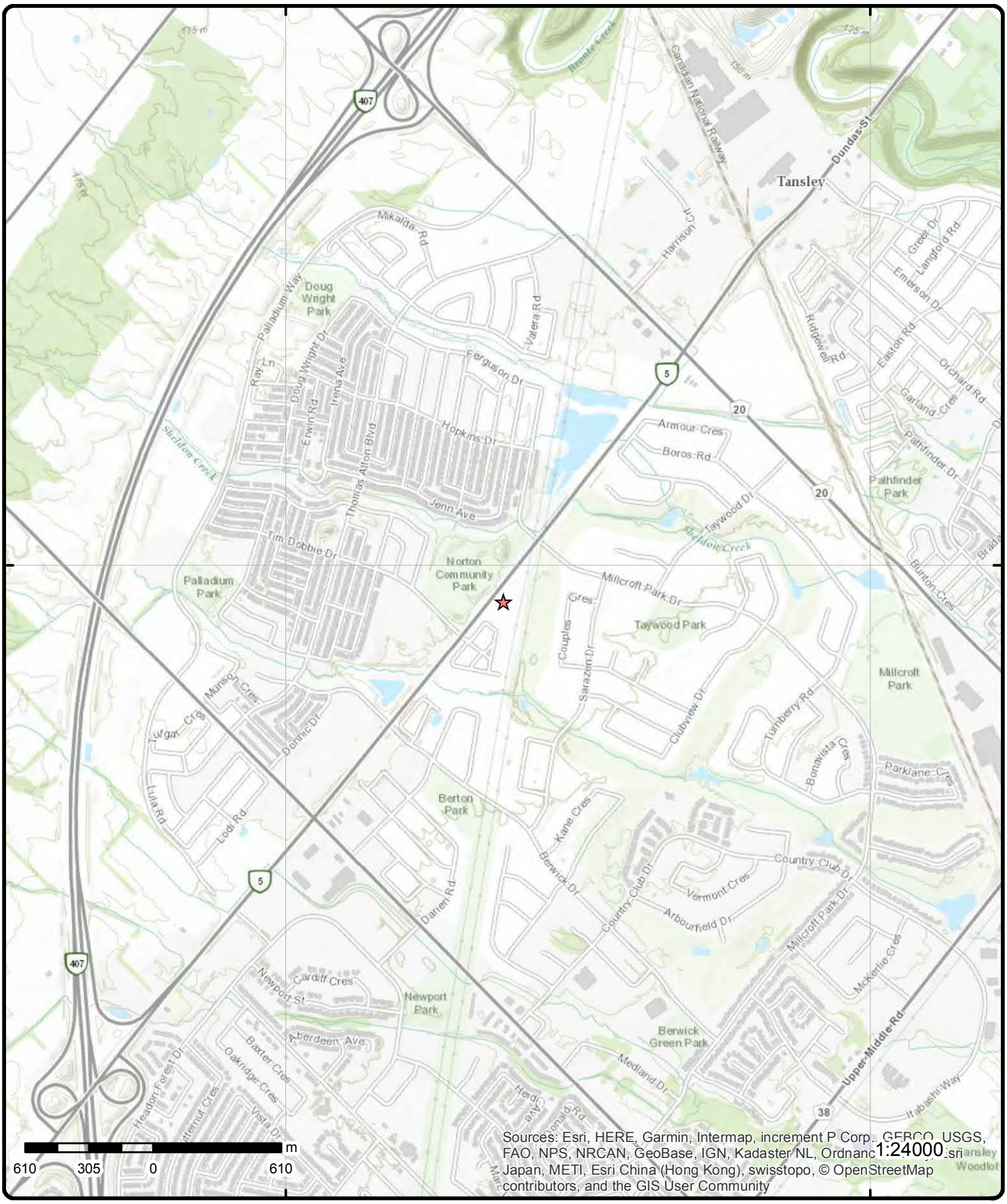
Address: Millcroft Park Dr, Burlington, ON, L7M

Source: ESRI World Imagery

Order No: 20191003106

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

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Topographic Map

Address: Millcroft Park Dr, Burlington, ON, L7M

Source: ESRI World Topographic Map

Order No: 20191003106

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 14	S/29.7	154.8 / 0.00	MILLCROFT GOLF CLUB MAINTENANCE FACILITY 4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	GEN

Generator No: ON1403000
Status:
Approval Years: 90
Contam. Facility:
MHSW Facility:
SIC Code: 9651
SIC Description: GOLF COURSES

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	2 of 14	S/29.7	154.8 / 0.00	MILLCROFT GOLF CLUB 4252 DUNDAS STREET WEST MAINTENANCE FACILITY BURLINGTON ON L7R 3X4	GEN

Generator No: ON1403000
Status:
Approval Years: 92,93,97,98
Contam. Facility:
MHSW Facility:
SIC Code: 9651
SIC Description: GOLF COURSES

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	3 of 14	S/29.7	154.8 / 0.00	MILLCROFT GOLF CLUB 26-499 MAINTENANCE FACILITY 4252 DUNDAS STREET WEST BURLINGTON ON L7R 3X4	GEN

Generator No: ON1403000
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 9651

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

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

SIC Description: GOLF COURSES

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

1 | ***4 of 14*** | ***S/29.7*** | ***154.8 / 0.00*** | ***MILLCROFT GOLF & COUNTY CLUB***
4252 DUNDAS STREET WEST
BURLINGTON ON L7M 4A8 | ***GEN***

Generator No: ON1403000
Status:
Approval Years: 99,00,01,03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 9651
SIC Description: GOLF COURSES

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 282
Waste Class Desc: NON-HALOGENATED LEAN ORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

1 | ***5 of 14*** | ***S/29.7*** | ***154.8 / 0.00*** | ***MILLCROFT GOLF & COUNTY CLUB***
4252 DUNDAS STREET WEST
BURLINGTON ON L7R 3X4 | ***GEN***

Generator No: ON1403000
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

1 | ***6 of 14*** | ***S/29.7*** | ***154.8 / 0.00*** | ***MILLCROFT GOLF & COUNTY CLUB***
4252 DUNDAS STREET WEST | ***GEN***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				BURLINGTON ON L7R 3X4	

Generator No: ON1403000
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

1	***7 of 14***	***S/29.7***	***154.8 / 0.00***	***MILLCROFT GOLF & COUNTY CLUB*** ***4252 DUNDAS STREET WEST*** ***BURLINGTON ON L7R 3X4***	***GEN***

Generator No: ON1403000
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

1	***8 of 14***	***S/29.7***	***154.8 / 0.00***	***MILLCROFT GOLF & COUNTY CLUB*** ***4252 DUNDAS STREET WEST*** ***BURLINGTON ON L7R 3X4***	***GEN***

Generator No: ON1403000
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: Golf Courses and Country Clubs

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

---

1 | **9 of 14** | **S/29.7** | **154.8 / 0.00** | **MILLCROFT GOLF & COUNTY CLUB**
4252 DUNDAS STREET WEST
BURLINGTON ON | **GEN**

Generator No: ON1403000
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

---

1 | **10 of 14** | **S/29.7** | **154.8 / 0.00** | **MILLCROFT GOLF & COUNTY CLUB**
4252 DUNDAS STREET WEST
BURLINGTON ON L7M 4A8 | **GEN**

Generator No: ON1403000
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

---

1 | **11 of 14** | **S/29.7** | **154.8 / 0.00** | **MILLCROFT GOLF & COUNTY CLUB**
4252 DUNDAS STREET WEST
BURLINGTON ON L7M 4A8 | **GEN**

Generator No: ON1403000
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 713910

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

SIC Description: GOLF COURSES AND COUNTRY CLUBS

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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1 | ***12 of 14*** | ***S/29.7*** | ***154.8 / 0.00*** | ***MILLCROFT GOLF & COUNTY CLUB***
4252 DUNDAS STREET WEST
BURLINGTON ON L7M 4A8 | ***GEN***

Generator No: ON1403000
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 713910
SIC Description: GOLF COURSES AND COUNTRY CLUBS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

1 | ***13 of 14*** | ***S/29.7*** | ***154.8 / 0.00*** | ***MILLCROFT GOLF & COUNTY CLUB***
4252 DUNDAS STREET WEST
BURLINGTON ON L7M 4A8 | ***GEN***

Generator No: ON1403000
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213 L
Waste Class Desc: Petroleum distillates

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	14 of 14	S/29.7	154.8 / 0.00	MILLCROFT GOLF & COUNTY CLUB 4252 DUNDAS STREET WEST BURLINGTON ON L7M 4A8	GEN

Generator No: ON1403000
Status: Registered
Approval Years: As of Jul 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213 L
Waste Class Desc: Petroleum distillates

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	N/78.0	154.8 / 0.00	ON	WWIS

Well ID: 7050862
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z72478
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 9/10/2007
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 6607
Form Version: 3
Owner:
Street Name:
County: HALTON
Municipality: BURLINGTON CITY
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 23050862
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 7/27/2007
Remarks:
Elevrc Desc:

Elevation: 155.629104
Elevrc:
Zone: 17
East83: 595904
North83: 4805867
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 44006414
Layer: 1
Plug From: 0
Plug To: 1.5
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 44006413
Layer: 2
Plug From: 1.5
Plug To: 16.6
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: B
Method Construction: Other Method
Other Method Construction:

Pipe Information

Pipe ID: 29050862
Casing No: 0
Comment:
Alt Name:

Hole Diameter

Hole ID: 46004927
Diameter: 12.5
Depth From: 0
Depth To: 16.6
Hole Depth UOM: m
Hole Diameter UOM: cm

---

3 | ***1 of 1*** | ***SW/95.7*** | ***154.8 / 0.00*** | ***lot 8 con 1 ON*** | ***WWIS***

Well ID: 2803185
Construction Date:
Primary Water Use: Domestic
Sec. Water Use: 0
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:

Data Entry Status:
Data Src: 1
Date Received: 9/22/1969
Selected Flag: Yes
Abandonment Rec:
Contractor: 3637
Form Version: 1
Owner:
Street Name:
County: HALTON

Elevation (m):		***Municipality:***	BURLINGTON CITY
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	008
Well Depth:		***Concession:***	01
Overburden/Bedrock:		***Concession Name:***	DS S
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10149727	***Elevation:***	155.762374
DP2BR:	29	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	595834.5
Code OB Desc:	Bedrock	***North83:***	4805723
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	4
Date Completed:	8/9/1969	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931431036
Layer:	3
Color:	7
General Color:	RED
Mat1:	17
Most Common Material:	SHALE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	29
Formation End Depth:	30
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931431035
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Other Materials:	SILT
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	29
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931431034
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	1
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	6
Method Construction:	Boring
Other Method Construction:	

Pipe Information

Pipe ID:	10698297
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930254675
Layer:	1
Material:	3
Open Hole or Material:	CONCRETE
Depth From:	
Depth To:	30
Casing Diameter:	30
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	992803185
Pump Set At:	
Static Level:	8
Final Level After Pumping:	30
Recommended Pump Depth:	26
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	1
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID: 934718132
Test Type: Recovery
Test Duration: 45
Test Level: 27
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934450019
Test Type: Recovery
Test Duration: 30
Test Level: 28
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934969101
Test Type: Recovery
Test Duration: 60
Test Level: 26
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934166073
Test Type: Recovery
Test Duration: 15
Test Level: 29
Test Level UOM: ft

Water Details

Water ID: 933605521
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 25
Water Found Depth UOM: ft

---

4 ***1 of 5*** ***W/247.5*** ***155.9 / 1.05*** ***HALTON DISTRICT SCHOOL BOARD***
3040 TIM DOBBIE DRIVE
BURLINGTON ON L7M0N6 ***GEN***

Generator No: ON6167524
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 611116
SIC Description: 611116

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 263

Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

---

4 ***2 of 5*** ***W/247.5*** ***155.9 / 1.05*** ***HALTON DISTRICT SCHOOL BOARD***
3040 TIM DOBBIE DRIVE
BURLINGTON ON L7M0N6 ***GEN***

Generator No: ON6167524
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 611116
SIC Description: 611116

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

---

4 ***3 of 5*** ***W/247.5*** ***155.9 / 1.05*** ***HALTON DISTRICT SCHOOL BOARD***
3040 TIM DOBBIE DRIVE
BURLINGTON ON L7M0N6 ***GEN***

Generator No: ON6167524
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 611116
SIC Description: 611116

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

---

4 **4 of 5** **W/247.5** **155.9 / 1.05** **HALTON DISTRICT SCHOOL BOARD DR.FRANK J. HAYDEN SECONDARY SCHOOL**
3040 TIM DOBBIE DRIVE
BURLINGTON ON L7M0N6 **GEN**

Generator No: ON6167524
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 112 C
Waste Class Desc: Acid solutions - containing heavy metals

Waste Class: 148 C
Waste Class Desc: Misc. wastes and inorganic chemicals

Waste Class: 148 R
Waste Class Desc: Misc. wastes and inorganic chemicals

Waste Class: 212 I
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 263 I
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

---

4 **5 of 5** **W/247.5** **155.9 / 1.05** **HALTON DISTRICT SCHOOL BOARD DR.FRANK J. HAYDEN SECONDARY SCHOOL**
3040 TIM DOBBIE DRIVE
BURLINGTON ON L7M0N6 **GEN**

Generator No: ON6167524
Status: Registered
Approval Years: As of Jul 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

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

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

Waste Class: 148 R
Waste Class Desc: Misc. wastes and inorganic chemicals

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

Waste Class: 263 I
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 112 C
Waste Class Desc: Acid solutions - containing heavy metals

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 212 I
Waste Class Desc: Aliphatic solvents and residues

Waste Class: 148 C
Waste Class Desc: Misc. wastes and inorganic chemicals

5	1 of 1	NE/249.1	154.8 / 0.00	REAR OF PROPERTY AT 4400 MILLCROFT PARK DRIVE, UNIT 9 BURLINGTON ON	HINC

External File Num: FS INC 0609-02667
Fuel Occurrence Type: Pipeline Strike
Date of Occurrence: 9/12/2006
Fuel Type Involved: Natural Gas
Status Desc: Completed - Causal Analysis(End)
Job Type Desc: Incident/Near-Miss Occurrence (FS)
Oper. Type Involved: Construction Site (pipeline strike)
Service Interruptions: Yes
Property Damage: No
Fuel Life Cycle Stage: Transmission, Distribution and Transportation
Root Cause: Root Cause: Equipment/Material/Component:No Procedures:Yes Maintenance:No Design:No Training:Yes Management:Yes Human Factors:Yes

Reported Details:
Fuel Category: Gaseous Fuel
Occurrence Type: Incident
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: 25 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	MONARCH CONSTRUCTION LIMITED	PT.LOTS 6&7/C-1,DUNDAS ST.,SWM	BURLINGTON ON	
CA	BURLINGTON CITY - WALKER'S LINE	MILLCROFT PARK DRIVE	BURLINGTON CITY ON	
CA	BURLINGTON CITY - WALKER'S LINE	MILLCROFT PARK DRIVE	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	The Regional Municipality of Halton	Dundas Street at Westlock Common	Burlington ON	
CA	Millcroft Phase Phase 2E-2b	Part Lots 6 & 7, Concession 1 SDS	Burlington ON	
CA	Millcroft Phase Phase 2E-2b	Part Lots 6 & 7, Concession 1 SDS	Burlington ON	
CA		Part of Lot 9, Concession 1	Burlington ON	
CA		Part of Lot 9, Concession 1	Burlington ON	
CA	Itabashi Way	Part of Lot 9, Concession 2	Burlington ON	
CA	Monarch Corporation	Part of Lots 8 and 9, Concession 1, South of Dundas Street	Burlington ON	
CA	The Corporation of the City of Burlington	Plains Rd W Lots 9 to 13, Concession 1	Burlington ON	
CA	The Regional Municipality of Halton	Dundas Street	Burlington ON	
CA	Hanson Brick Ltd./Briques Hanson Ltee	Concession 1, Former Township of Nelson	Burlington ON	

EBR	Greenflow Environmental Services Inc.	Lot 7, Plan M-192 CITY OF BURLINGTON	ON	
EBR	Greenflow Environmental Services Inc.	Lot 7, Plan M-192 City of Burlington CITY OF BURLINGTON	ON	
ECA	Marble Creek Developments Inc.	Part of Lot 8, Concession 1	Burlington ON	L7L 0A2
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
NCPL	Hanson Brick Ltd.	Concession 1, Former Township of Nelson	Burlington ON	
SPL	FARM	NORTH SIDE OF HWY #5 WEST OF GUELPH LINE. EAGLES FIELD DRIVE.	BURLINGTON CITY ON	
WWIS			Burlington ON	

Unplottable Report

Site: ***MONARCH CONSTRUCTION LIMITED***
PT.LOTS 6&7/C-1,DUNDAS ST.,SWM BURLINGTON ON

Database: ***CA***

Certificate #: 3-1207-98-
Application Year: 98
Issue Date: 8/27/1998
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***BURLINGTON CITY - WALKER'S LINE***
MILLCROFT PARK DRIVE BURLINGTON CITY ON

Database: ***CA***

Certificate #: 3-1523-91-
Application Year: 91
Issue Date: 10/4/1991
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***BURLINGTON CITY - WALKER'S LINE***
MILLCROFT PARK DRIVE BURLINGTON CITY ON

Database: ***CA***

Certificate #: 7-1218-91-
Application Year: 91
Issue Date: 10/4/1991
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 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 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 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: ***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: ***The Regional Municipality of Halton***
Dundas Street at Westlock Common Burlington ON

Database: ***CA***

Certificate #: 3329-6PUHSR
Application Year: 2006
Issue Date: 5/19/2006
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: ***Millcroft Phase Phase 2E-2b***
Part Lots 6 & 7, Concession 1 SDS Burlington ON

Database: ***CA***

Certificate #: 5005-4FWMY9
Application Year: 00
Issue Date: 1/26/00
Approval Type: Municipal & Private water
Status: Approved
Application Type: New Certificate of Approval
Client Name: Monarch Construction Limited
Client Address: 3584 Jockvale Road
Client City: NEPEAN
Client Postal Code: K2C 3H2
Project Description: Install watermains on Nicklaus Court and Millcroft Park Drive
Contaminants:
Emission Control:

Site: ***Millcroft Phase Phase 2E-2b***
Part Lots 6 & 7, Concession 1 SDS Burlington ON

Database: ***CA***

Certificate #: 5305-4FWLPL
Application Year: 00
Issue Date: 1/26/00
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: Monarch Construction Limited
Client Address: 3584 Jockvale Road
Client City: NEPEAN
Client Postal Code: K2C 3H2
Project Description: Install sanitary & storm sewers on Nicklaus Court and Taywood Drive
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: ***Database:***
Part of Lot 9, Concession 1 Burlington ON ***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: ***Itabashi Way*** ***Database:***
Part of Lot 9, Concession 2 Burlington ON ***CA***

Certificate #: 5250-4RXKN4
Application Year: 00
Issue Date: 12/21/00
Approval Type: Municipal & Private water
Status: Approved
Application Type: New Certificate of Approval
Client Name: Oakwood Retirement Communities Inc.
Client Address: 460 Frederick Street
Client City: Kitchener
Client Postal Code: N2H 2P5
Project Description: Watermain to be constructed on Itabashi Way in the City of Burlington.
Contaminants:
Emission Control:

Site: ***Monarch Corporation*** ***Database:***
Part of Lots 8 and 9, Concession 1, South of Dundas Street Burlington ON ***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: ***The Corporation of the City of Burlington*** ***Database:***
Plains Rd W Lots 9 to 13, Concession 1 Burlington ON ***CA***

Certificate #: 1895-7H4N9P
Application Year: 2008
Issue Date: 8/8/2008
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: ***The Regional Municipality of Halton***
Dundas Street Burlington ON

Database: ***CA***

Certificate #: 3064-5NDRHZ
Application Year: 2003
Issue Date: 6/11/2003
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: ***Hanson Brick Ltd./Briques Hanson Ltee***
Concession 1, Former Township of Nelson Burlington ON

Database: ***CA***

Certificate #: 5414-8ETKBD
Application Year: 2011
Issue Date: 4/1/2011
Approval Type: Air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Greenflow Environmental Services Inc.***
Lot 7, Plan M-192 CITY OF BURLINGTON ON

Database: ***EBR***

EBR Registry No: IA8E0344
Ministry Ref No: A680198
Notice Type: Instrument Decision
Notice Stage: 800475738
Notice Date: February 21, 2000
Proposal Date: March 16, 1998
Year: 1998
Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:
Instrument Type: (EPA s. 27) - Approval for a waste disposal site.
Off Instrument Name:
Posted By:
Company Name: Greenflow Environmental Services Inc.
Site Address:
Location Other:
Proponent Name:
Proponent Address: Unit 2 and 3, 4151 Morris Drive,, Burlington Ontario, L7L 5L5
Comment Period:
URL:

Site Location Details:

Lot 7, Plan M-192 CITY OF BURLINGTON

Site: ***Greenflow Environmental Services Inc.***
Lot 7, Plan M-192 City of Burlington CITY OF BURLINGTON ON

Database: ***EBR***

EBR Registry No:	IA7E1718	***Decision Posted:***	
Ministry Ref No:	B680198	***Exception Posted:***	
Notice Type:	Instrument Decision	***Section:***	
Notice Stage:	800475712	***Act 1:***	
Notice Date:	February 18, 2000	***Act 2:***	
Proposal Date:	November 24, 1997	***Site Location Map:***	
Year:	1997		
Instrument Type:	(EPA s. 27) - Approval for a waste disposal site.		
Off Instrument Name:			
Posted By:			
Company Name:	Greenflow Environmental Services Inc.		
Site Address:			
Location Other:			
Proponent Name:			
Proponent Address:	4151 Morris Drive, Unit 4, Burlington Ontario, L7L 5L5		
Comment Period:			
URL:			

Site Location Details:

Lot 7, Plan M-192 City of Burlington CITY OF BURLINGTON

Site: ***Marble Creek Developments Inc.***
Part of Lot 8, Concession 1 Burlington ON L7L 0A2

Database: ***ECA***

Approval No:	3261-9CKQZY	***MOE District:***	
Approval Date:	2013-10-30	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Part of Lot 8, Concession 1		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/9709-9CHSHJ-14.pdf		

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:			

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

Database: ***ECA***

Approval No:	5614-575JL6	***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 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: ***Hanson Brick Ltd.***
Concession 1, Former Township of Nelson Burlington ON

Database: ***NCPL***

Year: 2010
Site Name:
Facility Owner:
Discharge Type: Industrial Sewage
Sector: Miscellaneous Industrial
District Area: Halton-Peel
Type of Concern: CofA/Permit Non-Compliance
Contaminant: OIL & GREASE
Status Report:

Details

Incident Date: 11/30/2010
Exceedance Start Date: 11/1/2010
Exceedance End Date: 11/30/2010
Limit/Unit/Freq: 10 mg/L / /mon
Quantity Min/Max: 14/14
Facility Action: Other
Ministry Action: Assessment Complete - Incident Resolved

Details

Incident Date: 9/30/2010
Exceedance Start Date: 9/1/2010
Exceedance End Date: 9/30/2010
Limit/Unit/Freq: 10 mg/L / /mon
Quantity Min/Max: 10.1/10.1
Facility Action: Other
Ministry Action: Assessment Complete - Incident Resolved

Details

Incident Date: 5/31/2010
Exceedance Start Date: 5/1/2010
Exceedance End Date: 5/31/2010
Limit/Unit/Freq: 10 mg/L / /mon
Quantity Min/Max: 11/11
Facility Action: Other
Ministry Action: Assessment Complete - Incident Resolved

Site: ***FARM***
NORTH SIDE OF HWY #5 WEST OF GUELPH LINE. EAGLES FIELD DRIVE. BURLINGTON CITY ON

Database: ***SPL***

Ref No:	107387	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	11/15/1994	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNDERGROUND TANK LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	

Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	14101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	R.M.,CITY WORKS
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/15/1994	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	NEGLIGENCE (APPARENT)	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	FISHER FARMS: FUEL OIL TODITCH DURING EXCAVATION OF OLD TANK.		
Contaminant Qty:			

Site:

Burlington ON

Database:
WWIS

Well ID:	7180048	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	4/26/2012
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	7501
Casing Material:		***Form Version:***	7
Audit No:	Z136056	***Owner:***	
Tag:	A109107	***Street Name:***	DUNDAS ST
Construction Method:		***County:***	
Elevation (m):		***Municipality:***	
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1003714835	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	9
Date Completed:	4/25/2012	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1004291029
Layer:	1
Plug From:	0
Plug To:	30
Plug Depth UOM:	ft

Pipe Information

Pipe ID: 1004291022
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004291026
Layer:
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1004291027
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Hole Diameter

Hole ID: 1004291024
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

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

Monika Orwin

From: Public Information Services <publicinformationservices@tssa.org>
Sent: Tuesday, October 22, 2019 8:11 AM
To: John.gaviriaballen
Subject: RE: Fuel Tank Records Review

NO RECORD FOUND (FUEL STORAGE TANKS ONLY)

Hello. Thank you for your request for confirmation of public information.

We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

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,

Gaya

From: John.gaviriaballen <John.gaviriaballen@dsconsultants.ca>
Sent: October 21, 2019 4:48 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Fuel Tank Records Review

To whom may concern,

I want to check if the following location have records:
4274 Dundas St.
3040 Tim Dobbie Dr.
3035 Tim Dobbie Dr.

Burlington, ON
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

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

71.00

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
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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

Ontario

December 17, 2019

John Gaviria-Ballen
DS Consultants Ltd.
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

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 2155 Country Club Dr, Burlington.

After a thorough search of the Ministry's Halton Peel District Office, Investigations and Enforcement Branch, Environmental Assessment and Permissions Branch, Environmental Monitoring and Reporting Branch, Sector Compliance Branch and Safe Drinking Water Branch, records were located in response to your request. It is my preliminary decision to provide partial access to the information as the identity of complainants will be removed to protect privacy (Section 21(1)(f) of the Act).

In accordance with Section 57 of the *Freedom of Information and Protection of Privacy Act*, the estimated fee is:

• Search Time 1 hour @ $30/hour	$30.00
• CD	10.00
• Preparation Time approx. 0.10 hour @ $30/hour	$3.00
• Delivery	3.00
• **Total**	**$ 46.00**
• Deposit Received	-$30.00
• **Balance Due**	**$16.00**

Due to the volume, the records will be provided to you electronically on a CD. The Ministry has relied on Order PO-3621 by the Office of the Information and Privacy Commission (IPC) in order to calculate the estimated fees. Order PO-3621 states that the Ministry may charge a preparation fee of $30.00 per hour for every 1,200 pages of scanned records. The breakdown of the approximate preparation fee is as follows: an estimated 0.10 hours to convert approximately 120 pages to electronic format. Please note, that upon completion of the Ministry's review, additional preparation charges may be applied to account for any severances made to the records in accordance with the exemptions under the Act. These severances will be charged at a rate of $30.00 per hour, calculated at a rate of two minutes per page.

In order to receive a copy of the records please forward this amount to our office. You may pay by money order or cheque (made payable to the "Minister of Finance (FOI)") or by credit card. Credit card forms are available on the Ministry's website http://www.ontario.ca/environment-and-energy/freedom-information-request-form. Please do not mail cash.

If payment has not been received within 45 days this file will be closed. When remitting payment, please quote our file number or attach a copy of this letter.

The District Office has advised that there may be records in the Records Centre, Mississauga. To retrieve these files there is a charge of $60.00 with no guarantee that any records will be located responsive to your request. If you would like us to retrieve these files, $60.00 in addition to the above amount is required.

Please note, a request for records must usually be answered within 30 calendar days, however Section 27 allows for time extensions under certain circumstances. If you choose to have the search conducted at the Environmental Assessment and Permissions Branch and/or the files retrieved from the Records Centre, the time for answering your request will be extended for an additional 30 days.

You may request a review of my decision by contacting the Information and Privacy Commissioner/Ontario, 2 Bloor Street East, Suite 1400, Toronto, ON M4W 1A8 (800-387-0073 or 416-326-3333). Please note that there is a $25.00 fee and you only have 30 days from receipt of this letter to request a review.

If you have any questions regarding this matter, please contact Dany Briollais at 416-314-4075.

Yours truly,

DB

Dalia Bouganim
Manager, Access and Privacy

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 et de l'Action en matière de changement climatique

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

May 28, 2021

John Gaviria-Ballen
DS Consultants Ltd.
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

This letter is further to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 2155 Country Club Drive, Burlington. After a detailed review of the records, it appears that disclosure affects the interests of third parties.

In accordance with Section 28(1)(a) of the Act, notice has been provided to the third parties in relation to the records that they supplied to the Ministry. As a result, the Ministry's reply will not be made before June 25, 2021.

If you have any questions regarding this, please contact Katie Tudor at 416-400-2069 or katie.tudor@ontario.ca.

Yours truly,

for

Noel Kent
Manager, Access and Privacy

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

August 17, 2021

John Gaviria-Ballen
DS Consultants Ltd.
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

This letter is further to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 2155 Country Club Dr, Burlington.

Attached is a copy of the records.

If you have any questions regarding this matter, please contact Katie Tudor at 416-400-2069 or katie.tudor@ontario.ca.

Yours truly,

for

Noel Kent
Manager, Access and Privacy

Attachment

Ontario

Ministry of the Environment

INCIDENT REPORT

Reference Number:	7522-6Y5LGP	**File Storage Number:**	1-3DFGY
Module:	Incident Reporting	**Module Type:**	Pro-Active
Cross Reference:	(doc link)	**Task Link:**	4618-6Y5LPC
Originating Document:		**Created by:**	Melissa Koyama
Incident Report Reference Number:		7522-6Y5LGP	
Date Created:	2007/02/05	**Date Completed:**	2007/11/15
Bring Forward Date:		**Bring Forward Reason:**	
Status:	Closed		
Program	Water - Ground & Surface	**Activity:**	SCB Inspection

Is this an **air emission** (measured or modelled) or **wastewater** (sewage) **discharge exceedance** that will become part of the Environmental Compliance Report?

(legislation, certificate of approval, order, or guideline)

○ Yes ● No ○ To be determined ***Click here for Guidance***

Caller or PO Information

Reported By:			
First Name Melissa	**Last Name** Koyama		
Contact Mailing Address			
Municipality:			
Halton Hills			

Reported By:	

MOE Information

Date & Time Reported to MOE:	2007/02/05 10:41		
Office Receiving Incident Report:	Vehicle Emissions Enforcement Unit		
Incident Info Received By:	Melissa Koyama		
MOE Response:	No Further Response (PR-PIR Table A)	**Site Region:**	Central
Date & Time of MOE Arrival at Scene:			
Master Incident Report Number:			
SAC Action Class:			
Non-Standard Procedure:	No		
ERP Call-out Initiated:			

Client(s)

Client Details

2079610 Ontario Limited, Business/Facility Name: Millcroft Golf Club
Mailing Address: 2155 Country Club Dr, Halton Hills, Ontario, Canada, L7M 4A8
Physical Address: Concession: , Plan: , 2155 Country Club Dr, Halton Hills, Town, Regional Municipality of Halton, Ontario, Canada, L7M 4A8
Telephone: (905)332-5111
Client #: 7166-6Y5LJF, Client Type: Corporation

Site(s)

Site Details
Millcroft Golf Club Address: Concession: , Plan: , 2155 Country Club Dr, Halton Hills, Town, Regional Municipality of Halton, L7M 4A8 District Office: Halton-Peel Site #: 5845-6Y5LME

Incident Information

Incident Summary:	Sector Compliance Branch Pro-Active Inspection Completed *cannot be longer than 60 characters*
Incident Description:	On Thursday October 12, 2006, Provincial Officers KOYAMA #892 and MITCHELL #1193 attended Millcroft Golf and Country Club at 2155 Country Club Drive, Burlington, ON, L7M 4A8, to conduct an inspection and ensure compliance with environmental legislation. We met briefly with the General Manager, Ed Liptay and discussed the details of the inspection. The course was 18 holes with several ponds on site. The water used for irrigation was from the largest pond on site. There were 3 pumps, 2 main pumps and 1 jockey. We attended the pump house and spoke with Brian Alford about the pumps and watering time. It was determined that the company did use over 50 000 litres of water in one day. Brian Alford estimated using approximately 250 000 gallons of water in one day based on the pump capacity and total duration of watering time (11 hours at most). The calcualtions were based on the maximum amount used in a one day period. They did not have a Permit to Take Water as required by Ontario Regulation 387/04. This was explained to the General Manager at the time of inspection. A letter was sent to the company directing them to apply for a Permit to Take Water accordingly. Compliance Status Thursday October 12, 2006 - Conducted Inspection Tuesady October 24, 2006 - Mailed out letter and Inspection Report to company Tuesday January 2, 2007 - Received phone message from Superintendant - Martin, requesting an extension. Friday January 5, 2007 - Left message for Superintendant. He phoned back. Agreed to extension for submitting application for Permit to Take Water until March 1, 2007. An engineer had to be called to assist with application. Tuesday January 9, 2007 - Faxed amended letter to Superintendant and mailed amended letter to company. January 25, 2007 - Spoke with consultant from Phillips Engineering - advised that they would probably need an extension from the March 1 deadline. Will phone back when a timeline is known. March 6, 2007 - E-mailed Kenneth DePodesta - th econsultant from Phillips Engineering regarding the March 1 deadline. Had not received any request for an extension prior. Received e-mail back from consultant stating that they are working on a technical review and would require 8 weeks to complete. E-mailed back and agreed to an extension until May 7, 2007. Mailed out new letter with amended deadline to company. Faxed new letter to consultant. May 2/07 - Spoke with Kenneth DePodesta, consultant for Millcroft. He requested another extension due to additional data required to complete the application. Discussed with S/V WARD. Agreed to extension until August 1, 2007. Faxed and mailed out letter to consultant and to owner. Aug. 3/07 - E-mailed consultant, Ken DePodesta about August 1 deadline. Phoned and left message for owner, Ed Liptay RE: Aug. 1 deadline. Received e-mail from Ken DePodesta stating that they require an additional extension due to the draught. They were unable to obtain proper flow measurements. Aug. 7/07 - Received phone message from owner, Ed liptay stating he would contact his consultant to find out about delays. Agreed to final extension until Oct.1 Sept. 27/07 – Received an e-mail from consultant. Ken DePodesta stating that he was meeting with Mr. Liptay the following day to sign off on the application and obtain the cheque necessary. The application would be mailed immediately after (Friday) Sept. 28/07 – Received an e-mail with a letter attached indicating that the application would be sent in by Mr. Liptay with the cheque and the Ministry would receive it the first week of October. Oct. 9/07 – Received an e-mail from consultant, Ken DePodesta advising that Approvals had requested that Mr. Liptay make contact with Central Region regarding the adequacy of one of the technical attachments. I e-mailed back and provided a contact person – after discussing with Approvals.

	Nov. 9/07 - Confirmed in IDS that the application was submitted and is now assigned to Central Region to review.

Attachments, Links & Comments:	

Date & Time of Incident	**Incident Date Confirmation?** Actual 2006/10/12		
Source Type:		**Sector Type:**	
Nearest Watercourse:		**Watershed Category Code:**	
Environmental Impact:			
Nature of Impact:			
Incident Cause:		**Incident Reason:**	
Damaged Party:	No		

Contaminants Table

Contaminant Name	Code	UN#	Limit	Quantity	[units]	[freq]

Controller of Material:		**Owner of Material:**	
Estimated Clean Up Cost:		**Who Cleaned Up:**	
% Clean Up:	%	**Agencies Involved:**	

Voluntary / Mandatory Abatement

Is there Voluntary Abatement Activity?	● Yes ○ No ○ To be determined

Voluntary / Mandatory Compliance Items

Type	Parent RefNo	Work Summary (may be truncated)	Date	AttainList
VA	7522-6Y5LGP	Demonstrate compliance with the r...	2007/11/01	2007/11/09

Offence(s)

Suspected Violation(s)/Offence(s):	
Act - Regulation - Section, **Description** **{General Offence}**	

Provincial Officer:

Name:	Melissa Koyama
Badge No:	892
Work Unit:	
District/Area Office:	Vehicle Emissions Enforcement Unit
Date:	2007/11/09
Signature:	

Supervisor:

Name:	Robert Ward
Work Unit:	SWAT Unit Three
District/Area Office:	Sector Compliance Branch
Date:	2007/11/15
Signature:	

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

TECHNICAL REVIEW

Reference Number:	6416-9VSJBL	**File Storage Number:**	
Module:	Technical Support	**Program Area:**	Surface Water
Cross Reference:	8065-9VSJ5G	**Task Link:**	6025-9VSJGH
Originating Document:	Technical Support 8065-9VSJ5G	**Created by:**	Zhiping Yang
Date Created:	2015/04/21	**Date Completed:**	
Bring Forward Date:		**Bring Forward Reason:**	
Program	Technical Support	**Activity:**	Technical Support

Client(s)

Client Details
2079610 Ontario Ltd., Business/Facility Name: Millcroft Golf Club Mailing Address: 2155 Country Club Dr, Burlington, Ontario, Canada, L7M 4A8 Physical Address: 2155 Country Club Dr, Burlington, City, Regional Municipality of Halton, Ontario, Canada, L7M 4A8 Telephone: (905)332-5111, Extension: 24, FAX: (905)332-5624, email: jennifero@bellnet.ca Client #: 7166-6Y5LJF, Client Type: Corporation, NAICS: 71391

Site(s)

Site Details
Millcroft Golf Club Address: 2155 Country Club Dr, Burlington, City, Regional Municipality of Halton, L7M 4A8 District Office: Halton-Peel GeoReference: Map Datum: NAD83, Zone: 17, Accuracy Estimate: 1-10 metres eg. Good Quality GPS, Method: Map, UTM Easting: 597491, UTM Northing: 4804676, , Site #: 5845-6Y5LME

Review Details

Project Description:	Review Burnbside Report "Permit to Take Water Implementation Report" March 2015.		
Project Name:	2079610 Ontario Ltd. o/a Millcroft Golf Club, Permit to Tale Water Work Plan		
Keywords:	Permits		
Project Type:	TS Internal		
Received Date:	2015/03/30		
Due Date:	2015/05/31		
Review Type:	Monitoring/Reporting - PTTWs	**Review Status:**	In Progress

Request Details
Review Burnside Report " Permit to Take Water Implementation Report, March 2015. (WMD No. 43193)

Technical Reviewer Details

Attachments:



Review Files: Note.docx



Note.docx

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

eMail

Email Sent to Signing Officer

Zhiping Yang
Sent: October 26, 2015 09:41 AM

Send To:	Helen Zhang
Other Email Addresses:	
Subject:	taks completed

Technical Support

Review Type - **Monitoring/Reporting - PTTWs**

Reference Number
6416-9VSJBL

2079610 Ontario Ltd.
2155 Country Club Dr
Burlington, Ontario
L7M 4A8

Millcroft Golf Club
2155 Country Club Dr
Burlington, Regional Municipality of Halton
L7M 4A8

Attachments:	

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

TECHNICAL SUPPORT PROJECT

Reference Number:	8065-9VSJ5G	**File Storage Number:**	
Module:	Technical Support	**Project Type:**	TS Internal
Cross Reference:			
Originating Document:		**Created by:**	Zhiping Yang
Date Created:	2015/04/21	**Date Completed:**	
Status:	Active		

Client(s)

Client Details
2079610 Ontario Ltd., Business/Facility Name: Millcroft Golf Club Mailing Address: 2155 Country Club Dr, Burlington, Ontario, Canada, L7M 4A8 Physical Address: 2155 Country Club Dr, Burlington, City, Regional Municipality of Halton, Ontario, Canada, L7M 4A8 Telephone: (905)332-5111, Extension: 24, FAX: (905)332-5624, email: jennifero@bellnet.ca Client #: 7166-6Y5LJF, Client Type: Corporation, NAICS: 71391

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Project Name:	2079610 Ontario Ltd. o/a Millcroft Golf Club, Permit to Tale Water Work Plan		
Project Type:	TS Internal		
Due Date:	2015/05/31		

I Called Steve on April 40, 2015 after I reviewed the consultant report "Permit to Take Water Implementation Report, 2079610 Ontario Ltd. o/a Millcroft Golf Club. I have provided the following comments to the consultant:

1) I have generally no concern to divert maximum 50% of the stream flow (Appleby Creek) into the pond for the golf course irrigation, after making the pond offline. Considering that the golf course it currently taking 100% streamflow into the pond, I believe that the proposed plan will significantly improve the flow conditions downstream.
2) Please provide the construction plan to the CVC for their comments. I am available for any further discussion with CVC if required.
3) After consultation with the CVC, please send application to the CVC for a construction permit for the construction (making the pond offline).
4) Please provide a timetable for the proposed construction; ideally, all construction should be completed before the existing permit expires.

Inspection Summary Log (Internal)

Thursday October 12, 2006 - Conducted Inspection

Tuesady October 24, 2006 - Mailed out letter and Inspection Report to company

Tuesday January 2, 2007 - Received phone message from Superintendant - Martin, requesting an extension.

Friday January 5, 2007 - Left message for Superintendant. He phoned back. Agreed to extension for submitting application for Permit to Take Water until March 1, 2007. An engineer had to be called to assist with application.

Tuesday January 9, 2007 - Faxed amended letter to Superintendant and mailed amended letter to company.

January 25, 2007 - Spoke with consultant from Phillips Engineering - advised that they would probably need an extension from the March 1 deadline. Will phone back when a timeline is known.

Feb. 5 /07 - Incident Report created. Ref # 7522-6Y5LGP

March 6, 2007 - E-mailed Kenneth DePodesta - th econsultant from Phillips Engineering regarding the March 1 deadline. Had not received any request for an extension prior. Received e-mail back from consultant stating that they are working on a technical review and would require 8 weeks to complete. E-mailed back and agreed to an extension until May 7, 2007. Mailed out new letter with amended deadline to company. Faxed new letter to consultant.

May 2/07 - Spoke with Kenneth DePodesta, consultant for Millcroft. He requested another extension due to additional data required to complete the application. Discussed with S/V WARD. Agreed to extension until August 1, 2007. Faxed and mailed out letter to consultant and to owner.

Aug. 3/07 - E-mailed consultant, Ken DePodesta about August 1 deadline. Phoned and left message for owner, Ed Liptay RE: Aug. 1 deadline. Received e-mail from Ken DePodesta stating that they require an additional extension due to the draught. They were unable to obtain proper flow measurements.

Aug. 7/07 - Received phone message from owner, Ed Liptay stating he would contact his consultant to find out about delays. Agreed to final extension until Oct.1

Sept. 27/07 – Received an e-mail from consultant, Ken DePodesta stating that he was meeting with Mr. Liptay the following day to sign off on the application and obtain the cheque necessary. The application would be mailed immediately after (Friday)

Sept. 28/07 – Received an e-mail with a letter attached indicating that the application would be sent in by Mr. Liptay with the cheque and the Ministry would receive it the first week of October.

Oct. 9/07 – Received an e-mail from consultant, Ken DePodesta advising that Approvals had requested that Mr. Liptay make contact with Central Region regarding the adequacy of one of the technical attachments. I e-mailed back and provided a contact person – after discussing with Approvals.

Nov. 9/07 – Confirmed in IDS that the application was submitted and assigned to Central Region to review. No further action required. File CLOSED.

Inspection Report Summary (Included in Final Report)

On Thursday October 12, 2006, Provincial Officers KOYAMA #892 and MITCHELL #1193 attended Millcroft Golf and Country Club at 2155 Country Club Drive, Burlington, ON, L7M 4A8, to conduct an inspection and ensure compliance with environmental legislation. We met briefly with the General Manager, Ed Liptay and discussed the details of the inspection. The course was 18 holes with several ponds on site. The water used for irrigation was from the largest pond on site. There were 3 pumps, 2 main pumps and 1 jockey. We attended the pump house and spoke with Brian Alford about the pumps and watering time. It was determined that the company did use over 50 000 litres of water in one day. Brian Alford estimated using approximately 250 000 gallons of water in one day based on the pump capacity and total duration of watering time (11 hours at most). The calcualtions were based on the maximum amount used in a one day period. They did not have a Permit to Take Water as required by

JOB #545

	DATE	TIME	TO/FROM	MODE	MIN/SEC	PGS	STATUS
001	8/07	12:34	919053351414	EC--S	00' 21"	002	OK

FAX COVER SHEET

Ministry of the Environment
Sector Compliance Branch
305 Milner Avenue, Suite #1000
Scarborough, Ontario M1B 3V4

Fax Number: (416) 314-4464

DATE: _August 7, 2007_____

TO: _Ken DePodesta_____

_____

FAX #: _(905) 335-1414_____

# of pages including this cover sheet: _2_____

FROM: _Melissa Koyama_____

PHONE: _(416) 212-6693_____

Final extension for Millcroft Golf Club - Permit to Take Water Application.

If you do not receive the number of pages specified, or if you have any trouble reading the copy, Please call the above number of the person(s) for assistance.

Ministry of the Environment
Sector Compliance Branch
305 Milner Ave, Suite 1000
Scarborough Ontario
M1B 3V4

Ministère de l'Environnement
Direction de la mise en conformité des secteurs
305, avenue Milner, bureau 1000
Scarborough (Ontario)
M1B 3V4

Ontario

August 7, 2007.

Millcroft Golf Club
2155 Country Club Drive,
Burlington, ON
L7M 4A8

Dear Mr. Ed Liptay,

RE: Regulation 387/04 Inspection

I would like to thank you for the opportunity to meet with you on October 12, 2006. The purpose of the inspection was to determine whether your company's operation was subject to the requirements of Ontario Regulation 387/04 Water Taking and Transfer under Section 34 of the Ontario Water Resources Act. During the inspection, it was determined that the water taking exceeds 50,000 litres per day, and therefore is subject to the requirements of O. Regulation 387/04.

I have requested that you make application for a Permit to Take Water. The original deadline of December 29, 2006 was extended until March 1, 2007. Further extensions of May 7 and August 1, 2007 were also granted. Since the August 1 deadline was not met and as a result of our recent phone conversation, a final extension will be given until October 1, 2007 to complete the application and submit it accordingly. By October 1, 2007 please submit your completed application to the following:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

Also, by October 1, 2007, please confirm to me in writing the status of compliance with the above requested item. I have enclosed several internet links to relevant guidance documents and web-based resources to assist you in completing the permit to take water application. If after reviewing these documents you have any questions, please contact me for assistance at: Tel: 416 212-6693, Toll free: 1-866-482-9967; Fax: 416-314-4464 or by Email: melissa.koyama@ene.gov.on.ca

Yours truly,

Melissa Koyama
Provincial Officer
Badge # 892

Web Based Reference Material

Ministry of the Environment Web Site
http://www.ene.gov.on.ca

Ontario Regulation Water 387/04: Taking and Water Transfer
http://www.e-laws.gov.on.ca/DBLaws/Regs/English/040387_e.htm

Listed below are guidance documents that are available for download free of charge from the Ministry's web site.

Pub.#	Publication Title
Permits To Take Water	
5299e	Green Facts: Permit to Take Water http://www.ene.gov.on.ca/programs/5299e.pdf
5301e	Green Facts: New classification system for Permit to Take Water (PTTW) applications http://www.ene.gov.on.ca/programs/5301e.pdf
5303e	Green Facts: New water conservation requirements for permits to take water http://www.ene.gov.on.ca/programs/5303e.pdf
5160e	Technical Bulletin: Permit To Take Water (PTTW) - Phase 1 Monitoring and Reporting http://www.ene.gov.on.ca/programs/5160e.pdf
5156e	Green Facts: Permit To Take Water (PTTW) Administration Fees http://www.ene.gov.on.ca/programs/5156e.pdf
5046e02	Application for Permit to Take Water (July, 2005) http://www.ene.gov.on.ca/envision/gp/5046e02.pdf
5046e	Guide to Permit to Take Water Application Form (February, 2006) http://www.ene.gov.on.ca/envision/gp/5046e.pdf
4932e	Permit To Take Water (PTTW) Manual (April 2005) http://www.ene.gov.on.ca/envision/gp/4932e.pdf

FAX COVER SHEET

Ministry of the Environment
Sector Compliance Branch
305 Milner Avenue, Suite #1000
Scarborough, Ontario M1B 3V4

Fax Number: (416) 314-4464

DATE: _May 3, 2007_____

TO: _Ken DePodesta_____

_Phillips Engineering_____

FAX #: _(905) 335-1414_____

# of pages including this cover sheet: _2__

FROM: _Melissa Koyama_____

PHONE: _(416) 212-6693_____

New extension letter for Millcroft Golf Club.
Deadline of August 1, 2007.

If you do not receive the number of pages specified, or if you have any trouble reading the copy, Please call the above number of the person(s) for assistance.

Ministry of the Environment
Sector Compliance Branch
305 Milner Ave, Suite 1000
Scarborough Ontario
M1B 3V4

Ministère de l'Environnement
Direction de la mise en conformité des secteurs
305, avenue Milner, bureau 1000
Scarborough (Ontario)
M1B 3V4

Ontario

May 3, 2007.

Millcroft Golf Club
2155 Country Club Drive,
Burlington, ON
L7M 4A8

Dear Mr. Ed Liptay,

RE: Regulation 387/04 Inspection

I would like to thank you for the opportunity to meet with you on October 12, 2006. The purpose of the inspection was to determine whether your company's operation was subject to the requirements of Ontario Regulation 387/04 Water Taking and Transfer under Section 34 of the Ontario Water Resources Act. During the inspection, it was determined that the water taking exceeds 50,000 litres per day, and therefore is subject to the requirements of O. Regulation 387/04.

I have requested that you make application for a Permit to Take Water. I recently spoke with your consultant, Kenneth DePodesta from Phillips Engineering and understand that you are in the process of completing the permit but require a further extension in order to compile additional data on the flow monitoring currently taking place. The original deadline of December 29, 2006 was extended until March 1, 2007 and then again to May 7, 2007. I will grant a further extension until August 1, 2007. By August 1, 2007 please submit your completed application to the following:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

Also, by August 1, 2007, please confirm to me in writing the status of compliance with the above requested item. I have enclosed several internet links to relevant guidance documents and web-based resources to assist you in completing the permit to take water application. If after reviewing these documents you have any questions, please contact me for assistance at: Tel: 416 212-6693, Toll free: 1-866-482-9967; Fax: 416-314-4464 or by Email: melissa.koyama@ene.gov.on.ca

Yours truly,

Melissa Koyama
Provincial Officer
Badge # 892

JOB #462

	DATE	TIME	TO/FROM	MODE	MIN/SEC	PGS	STATUS
001	3/06	14:12	919053351414	EC--S	00'34"	003	OK

FAX COVER SHEET

Ministry of the Environment
Sector Compliance Branch
305 Milner Avenue, Suite #1000
Scarborough, Ontario M1B 3V4

Fax Number: (416) 314-4464

DATE: _March 6, 2007._____

TO: _Mr. Kenneth DePodesta_____

_____

FAX #: _(905) 335-1414_____

# of pages including this cover sheet: ___3_____

FROM: _Melissa Koyama_____

PHONE: _(416) 212-6693_____

If you do not receive the number of pages specified, or if you have any trouble reading the copy, Please call the above number of the person(s) for assistance.

FAX COVER SHEET

Ministry of the Environment
Sector Compliance Branch
305 Milner Avenue, Suite #1000
Scarborough, Ontario M1B 3V4

Fax Number: (416) 314-4464

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TO: _Mr. Kenneth DePodesta_____

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FAX #: _(905) 335-1414_____

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FROM: _Melissa Koyama_____

PHONE: _(416) 212-6693_____

If you do not receive the number of pages specified, or if you have any trouble reading the copy, Please call the above number of the person(s) for assistance.

Ministry of the Environment
Sector Compliance Branch
305 Milner Ave, Suite 1000
Scarborough Ontario
M1B 3V4

Ministère de l'Environnement
Direction de la mise en conformité des secteurs
305, avenue Milner, bureau 1000
Scarborough (Ontario)
M1B 3V4

Ontario

March 6, 2007

Millcroft Golf Club
2155 Country Club Drive,
Burlington, ON
L7M 4A8

Dear Mr. Ed Liptay,

RE: Regulation 387/04 Inspection

I would like to thank you for the opportunity to meet with you on October 12, 2006. The purpose of the inspection was to determine whether your company's operation was subject to the requirements of Ontario Regulation 387/04 Water Taking and Transfer under Section 34 of the Ontario Water Resources Act. During the inspection, it was determined that the water taking exceeds 50,000 litres per day, and therefore is subject to the requirements of O. Regulation 387/04.

I am requesting that you make application for a Permit to Take Water. I recently contacted your consultant, Kenneth DePodesta from Phillips Engineering and understand that you are in the process of completing the permit but require a further extension. The original deadline of December 29, 2006 was extended until March 1, 2007. I will grant a further extension until May 7, 2007. By May 7, 2007 please submit your completed application to the following:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

Also, by May 7, 2007, please confirm to me in writing the status of compliance with the above requested item. I have enclosed several internet links to relevant guidance documents and web-based resources to assist you in completing the permit to take water application. If after reviewing these documents you have any questions, please contact me for assistance at: Tel: 416 212-6693, Toll free: 1-866-482-9967; Fax: 416-314-4464 or by Email: melissa.koyama@ene.gov.on.ca

Yours truly,

Melissa Koyama
Provincial Officer
Badge # 892

Web Based Reference Material

Ministry of the Environment Web Site
http://www.ene.gov.on.ca

Ontario Regulation Water 387/04: Taking and Water Transfer
http://www.e-laws.gov.on.ca/DBLaws/Regs/English/040387_e.htm

Listed below are guidance documents that are available for download free of charge from the Ministry's web site.

Water Publications	
Pub.#	**Publication Title**
Permits To Take Water	
5299e	Green Facts: Permit to Take Water http://www.ene.gov.on.ca/programs/5299e.pdf
5301e	Green Facts: New classification system for Permit to Take Water (PTTW) applications http://www.ene.gov.on.ca/programs/5301e.pdf
5303e	Green Facts: New water conservation requirements for permits to take water http://www.ene.gov.on.ca/programs/5303e.pdf
5160e	Technical Bulletin: Permit To Take Water (PTTW) - Phase 1 Monitoring and Reporting http://www.ene.gov.on.ca/programs/5160e.pdf
5156e	Green Facts: Permit To Take Water (PTTW) Administration Fees http://www.ene.gov.on.ca/programs/5156e.pdf
5046e02	Application for Permit to Take Water (July, 2005) http://www.ene.gov.on.ca/envision/gp/5046e02.pdf
5046e	Guide to Permit to Take Water Application Form (February, 2006) http://www.ene.gov.on.ca/envision/gp/5046e.pdf
4932e	Permit To Take Water (PTTW) Manual (April 2005) http://www.ene.gov.on.ca/envision/gp/4932e.pdf

JOB #421

	DATE	TIME	TO/FROM	MODE	MIN SEC	PGS	STATUS
001	1/09	13:13	919053324928	EC-S	00'32"	003	OK

FAX COVER SHEET

Ministry of the Environment
Sector Compliance Branch
305 Milner Avenue, Suite #1000
Scarborough, Ontario M1B 3V4

Fax Number: (416) 314-4464

DATE: _January 5, 2007._____

TO: _Millcroft Golf and Country Club____

Attention: Martin (Superintendant)

FAX #: _(905) 332-4928_____

# of pages including this cover sheet: __3___

FROM: _Melissa Koyama, Ministry of the Environment_

PHONE: _(416)212-6693_____

I will also be mailing a copy of this letter to Ed Liptay.

If you do not receive the number of pages specified, or if you have any trouble reading the copy, Please call the above number of the person(s) for assistance.

Ministry of the Environment
Sector Compliance Branch
305 Milner Ave, Suite 1000
Scarborough Ontario
M1B 3V4

Ministère de l'Environnement
Direction de la mise en conformité des secteurs
305, avenue Milner, bureau 1000
Scarborough (Ontario)
M1B 3V4

Ontario

January 5, 2007.

Millcroft Golf Club
2155 Country Club Drive,
Burlington, ON
L7M 4A8

Dear Mr. Ed Liptay,

RE: Regulation 387/04 Inspection

I would like to thank you for the opportunity to meet with you on October 12, 2006. The purpose of the inspection was to determine whether your company's operation was subject to the requirements of Ontario Regulation 387/04 Water Taking and Transfer under Section 34 of the Ontario Water Resources Act. During the inspection, it was determined that the water taking exceeds 50,000 litres per day, and therefore is subject to the requirements of O. Regulation 387/04.

I am requesting that you make application for a Permit to Take Water. I recently spoke with your Superintendant and understand that you are in the process of completing the permit but require an engineer to assist you with it. The original deadline of December 29, 2006 will be extended until March 1, 2007. By March 1, 2007 please submit your completed application to the following:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

Also, by March 1, 2007, please confirm to me in writing the status of compliance with the above requested item. I have enclosed several internet links to relevant guidance documents and web-based resources to assist you in completing the permit to take water application. If after reviewing these documents you have any questions, please contact me for assistance at: Tel: 416 212-6693, Toll free: 1-866-482-9967; Fax: 416-314-4464 or by Email: melissa.koyama@ene.gov.on.ca

Yours truly,

Melissa Koyama
Provincial Officer
Badge # 892

Web Based Reference Material

Ministry of the Environment Web Site
http://www.ene.gov.on.ca

Ontario Regulation Water 387/04: Taking and Water Transfer
http://www.e-laws.gov.on.ca/DBLaws/Regs/English/040387_e.htm

Listed below are guidance documents that are available for download free of charge from the Ministry's web site.

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Permits To Take Water	
5299e	Green Facts: Permit to Take Water http://www.ene.gov.on.ca/programs/5299e.pdf
5301e	Green Facts: New classification system for Permit to Take Water (PTTW) applications http://www.ene.gov.on.ca/programs/5301e.pdf
5303e	Green Facts: New water conservation requirements for permits to take water http://www.ene.gov.on.ca/programs/5303e.pdf
5160e	Technical Bulletin: Permit To Take Water (PTTW) - Phase 1 Monitoring and Reporting http://www.ene.gov.on.ca/programs/5160e.pdf
5156e	Green Facts: Permit To Take Water (PTTW) Administration Fees http://www.ene.gov.on.ca/programs/5156e.pdf
5046e02	Application for Permit to Take Water (July, 2005) http://www.ene.gov.on.ca/envision/gp/5046e02.pdf
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4932e	Permit To Take Water (PTTW) Manual (April 2005) http://www.ene.gov.on.ca/envision/gp/4932e.pdf

Ministry of the Environment
Sector Compliance Branch
305 Milner Ave, Suite 1000
Scarborough Ontario
M1B 3V4

Minis. . de l'Environnement
Direction de la mise en conformité des secteurs
305, avenue Milner, bureau 1000
Scarborough (Ontario)
M1B 3V4

Ontario

October 24, 2006

Millcroft Golf Club
2155 Country Club Drive,
Burlington, ON
L7M 4A8

Dear Mr. Ed Liptay,

RE: Regulation 387/04 Inspection

I would like to thank you for the opportunity to meet with you on October 12, 2006. The purpose of the inspection was to determine whether your company's operation was subject to the requirements of Ontario Regulation 387/04 Water Taking and Transfer under Section 34 of the Ontario Water Resources Act. During the inspection, it was determined that the water taking exceeds 50,000 litres per day, and therefore is subject to the requirements of O. Regulation 387/04.

I am requesting that you make application for a Permit to Take Water. By December 29, 2006 please submit your completed application to the following:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

Also, by December 29, 2006, please confirm to me in writing the status of compliance with the above requested item. I have enclosed several internet links to relevant guidance documents and web-based resources to assist you in completing the permit to take water application. If after reviewing these documents you have any questions, please contact me for assistance at: Tel: 416 212-6693, Toll free: 1-866-482-9967; Fax: 416-314-4464 or by Email: melissa.koyama@ene.gov.on.ca

Yours truly,

Melissa Koyama
Provincial Officer
Badge # 892

Web Based Reference Material

Ministry of the Environment Web Site
http://www.ene.gov.on.ca

Ontario Regulation Water 387/04: Taking and Water Transfer
http://www.e-laws.gov.on.ca/DBLaws/Regs/English/040387_e.htm

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Pub.#	**Publication Title**
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5299e	Green Facts: Permit to Take Water http://www.ene.gov.on.ca/programs/5299e.pdf
5301e	Green Facts: New classification system for Permit to Take Water (PTTW) applications http://www.ene.gov.on.ca/programs/5301e.pdf
5303e	Green Facts: New water conservation requirements for permits to take water http://www.ene.gov.on.ca/programs/5303e.pdf
5160e	Technical Bulletin: Permit To Take Water (PTTW) - Phase 1 Monitoring and Reporting http://www.ene.gov.on.ca/programs/5160e.pdf
5156e	Green Facts: Permit To Take Water (PTTW) Administration Fees http://www.ene.gov.on.ca/programs/5156e.pdf
5046e02	Application for Permit to Take Water (July, 2005) http://www.ene.gov.on.ca/envision/gp/5046e02.pdf
5046e	Guide to Permit to Take Water Application Form (February, 2006) http://www.ene.gov.on.ca/envision/gp/5046e.pdf
4932e	Permit To Take Water (PTTW) Manual (April 2005) http://www.ene.gov.on.ca/envision/gp/4932e.pdf



Ontario

Ontario Ministry of the Environment

Sector Compliance Branch

INSPECTION REPORT

2155 Country Club Drive

Halton Hills, ON, L7M 4A8

District Office: Halton-Peel

Inspection Completion Date: Oct 12, 2006

Company Information

Company Identification

Company Name	Business Identification Number	IDS Client Number	
2079610 Ontario Limited			
Business Name	**Proof of Client Name Attached**	**Client Type**	
	No		
SIC	**Business Activity Description**		
Main Phone Number	**Main Fax Number**	**Email Address**	
Driver's Date of Birth	**Driver's Licence Number**	**Province of**	**Gender**
		ON	

Company Address

Street Address, Unit Identifier		District Office	
2155 Country Club Drive		Halton-Peel	
Municipality (Type)	**County/District**	**Province**	**Postal Code**
Halton Hills (Town)	Regional Municipality of Halton	ON	L7M 4A8

Company Mailing Address

Same As Company Yes

Inspection Information

Inspection Report 1-3DFGY

File Status Closed-Pending Outcome of Compliance Tool

Date File Closed

Pass/Fail

Inspection Report Summary

On Thursday October 12, 2006, Provincial Officers KOYAMA #892 and MITCHELL #1193 attended Millcroft Golf and Country Club at 2155 Country Club Drive, Burlington, ON, L7M 4A8, to conduct an inspection and ensure compliance with environmental legislation. We met briefly with the General Manager, Ed Liptay and discussed the details of the inspection. The course was 18 holes with several ponds on site. The water used for irrigation was from the largest pond on site. There were 3 pumps, 2 main pumps and 1 jockey. We attended the pump house and spoke with Brian Alford about the pumps and watering time. It was determined that the company did use over 50 000 litres of water in one day. Brian Alford estimated using approximately 250 000 gallons of water in one day based on the pump capacity and total duration of watering time (11 hours at most). The calcualtions were based on the maximum amount used in a one day period. They did not have a Permit to Take Water as required by Ontario Regulation 387/04. This was explained to the General Manager at the time of inspection. A letter was sent to the company directing them to apply for a Permit to Take Water accordingly.

Site Information

Site Identification

Site Name

District Office
Halton-Peel

IDS Site Number

NEPDA Site
No

Contact

Contact Phone

Site Address

Street Address, Unit Identifier
2155 Country Club Drive

Municipality (Type)	County/District	Province	Postal Code
Halton Hills (Town)	Regional Municipality of Halton	ON	L7M 4A8

Adjacent Land Use

Site Mailing Address

Same As Site Address: Yes

Inspection Team

Inspection Role	Officer Name	Officer Badge Number
Primary Officer	Melissa Koyama	892
Secondary Officer	Kristy Mitchell	
Assisting Officer	Janine Meagher	1175
Supervisor	Robert Ward	867

Instruments Issued

ID	Type	Amend	Status	Issuing Officer	Badge #
None	Letter	No	Served	KOYAMAME	892

Other Parties	No Other Parties Named
Officer Comments:	No Comments Recorded.
Date Issued:	Oct 24, 2006

Field Inspection Questions

Provincial Officer Melissa Koyama (892) reasonably believes that the contraventions set out in the Field Inspection Questions section of this Inspection Report have occurred, or are occurring, at 2155 Country Club Drive, Halton Hills, ON, L7M 4A8. The nature of the contraventions are briefly described in the Field Inspection Question findings.

Checklist Name: **OWRA - General Questions**

Question:	Did a person take more than 50,000L of water in a day, by means of an inlet or inlets from a surface source of supply, where the inlet or inlets is or are installed in the source of supply or is or are enlarged after March 29, 1961; without a permit?		
Question Type:	Legislative	Non-Compliance:	Yes
Non-Comp. Type:	PTTW - No permit	Act/Reg:	OWRA|Act|34(3)(b)
Act/Reg Wording:	*34(3)(b) Despite any general or special Act or any regulation or order made thereunder and subject to subsection (5), no person shall take more than a total of 50,000 litres of water in a day,* *(b) by means of an inlet or inlets from a surface source of supply, where the inlet or inlets is or are installed in the source of supply or is or are enlarged after the 29th day of March, 1961;* *without a permit issued by a Director.*		
Comments/Findings:	The company does take in excess of 50 000 litres of water in one day from the largest pond on site which is fed by surface runoff and stormwater.		

Checklist Name: **OWRA Reg 387/04 - PTTW**

Question:	If the quantity of the water taking is based on estimates or calculations, describe how the calculations or estimates were derived for each source?		
Question Type:	Other	Non-Compliance:	No
Non-Comp. Type:	No Type Specified.	Act/Reg:	No Act Specified.
Act/Reg Wording:	*No Regulation Specified.*		
Comments/Findings:	The calculations were based on the pump capacity 750-900 Gallons per minute and the total duration of watering time which was 11 hours at maximum.		

Checklist Name: **HEALTH & ENVIRONMENTAL IMPACT - PTTW**

Question:	Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate?		
Question Type:	Other	Non-Compliance:	No
Non-Comp. Type:	No Type Specified.	Act/Reg:	No Act Specified.
Act/Reg Wording:	*No Regulation Specified.*		
Comments/Findings:	No issues of non compliance identified.		

Field Inspection Questions

Checklist Name: **HEALTH & ENVIRONMENTAL IMPACT - PTTW**

Question:	Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material?		
Question Type:	Other	Non-Compliance:	No
Non-Comp. Type:	No Type Specified.	Act/Reg:	No Act Specified.
Act/Reg Wording:	*No Regulation Specified.*		
Comments/Findings:	No issues of non compliance identified.		

Question:	Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment?		
Question Type:	Other	Non-Compliance:	No
Non-Comp. Type:	No Type Specified.	Act/Reg:	No Act Specified.
Act/Reg Wording:	*No Regulation Specified.*		
Comments/Findings:	No issues of non compliance identified.		

Question:	Was there any indication of a potential for a human health impact or environmental impairment during the inspection and/or the review of relevant material?		
Question Type:	Other	Non-Compliance:	No
Non-Comp. Type:	No Type Specified.	Act/Reg:	No Act Specified.
Act/Reg Wording:	*No Regulation Specified.*		
Comments/Findings:	No issues of non compliance identified.		

Checklist Name: **OWRA - General Questions**

Question:	Did a person take more than a total of 50,000 litres of water in a day, by means of a structure or works constructed after the 29th day of March, 1961 for the diversion or storage of water; without a permit issued by a Director?		
Question Type:	Legislative	Non-Compliance:	No
Non-Comp. Type:	PTTW - No permit	Act/Reg:	OWRA|Act|34(3)(c)
Act/Reg Wording:	*34(3)(c) Despite any general or special Act or any regulation or order made thereunder and subject to subsection (5), no person shall take more than a total of 50,000 litres of water in a day,* *(c) by means of a structure or works constructed after the 29th day of March, 1961 for the diversion or storage of water;* *without a permit issued by a Director.*		
Comments/Findings:	No issues of non compliance identified.		

Field Inspection Questions

Checklist Name: **OWRA - General Questions**

Question:	Did a person take more than a total of 50,000 litres of water in a day, by any combination of the means referred to in clauses (a), (b) and (c), without a permit issued by a Director?		
Question Type:	Legislative	Non-Compliance:	No
Non-Comp. Type:	PTTW - No permit	Act/Reg:	OWRA|Act|34(3)(d)
Act/Reg Wording:	*34(3)(d) Despite any general or special Act or any regulation or order made thereunder and subject to subsection (5), no person shall take more than a total of 50,000 litres of water in a day,* *(d) by any combination of the means referred to in clauses (a), (b) and (c),* *without a permit issued by a Director.*		
Comments/Findings:	No issues of non compliance identified.		

This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements.

Sign-Off

Primary Officer **MELISSA KOYAMA** **Badge Number** **892**

Date Oct 24, 2006

Signature

Approvals - (416) 3 8001

Koyama, Melissa (ENE)

From: Ken DePodesta [kdepodesta@philipseng.com]
Sent: October 9, 2007 8:56 AM
To: Koyama, Melissa (ENE)
Cc: Ryan Moore
Subject: RE: Millcroft Golf Course PTTW

Melissa

Millcroft Golf Club (Ed Liptay) has received a response to the application submission for a PTTW from the MOE Approvals Branch The response requests that contact be made with the Central Region office re the adequacy of one of the technical attachments to the application and for us to obtain written confirmation from the Central Region office in this regard by Oct 18, 2007. We are prepared to send the Central Region staff person a copy of the application package at his/her request.

Who should be contacted at Central Region for this confirmation? Please advise me.

Thanks in advance.

Ken

Carly Dulberg
(416) 326-3323
Central Region
PTTW Coordinator

From: Koyama, Melissa (ENE) [mailto:Melissa.Koyama@ontario.ca]
Sent: Thursday, September 27, 2007 12:00 PM
To: kdepodesta@philipseng.com
Subject: RE: Millcroft Golf Course PTTW

Ken,

Thanks for the e-mail. The mailing address for the application is:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

I also requested that you confirm with me in writing that the application has been submitted. My office address is: 305 Milner Ave., Suite 1000, Scarborough, ON, M1B 3V4. Thanks again.

Melissa Koyama

-----Original Message-----
From: Ken DePodesta [mailto:kdepodesta@philipseng.com]
Sent: September 27, 2007 10:08 AM
To: Koyama, Melissa (ENE)
Subject: FW: Millcroft Golf Course PTTW

Melissa

Please forward the mailing address for the application submission.

Ken

From: Ken DePodesta [mailto:kdepodesta@philipseng.com]
Sent: Thursday, September 27, 2007 7:06 AM

2007/10/09

To: 'Koyama, Melissa (ENE)
Subject: Millcroft Golf Course PTTW

Melissa

Mr. Liptay is meeting with us tomorrow morning to review the application for PTTW. I expect that Mr. Liptay will sign the application at that meeting and will prepare the $3000 cheque to accompany the application. The application package will be sent by regular mail to you from Burlington tomorrow (Friday) so your office should receive it on Monday...I trust that is satisfactory. Please advise.

Ken

Kenneth R. DePodesta, B. Eng., P. Eng.
Principal
905-335-2353 x1227



****
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Thank you.
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Thank you.
****

4766

#

PHILIPS
ENGINEERING

3215 North Service Road, Box 220, Burlington, Ontario L7R 3Y2

E-Mailed: melissa.koyama@ontario.ca

September 28, 2007
Our File: 107009-12

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough, ON M1B 3V4

ATTENTION: Ms. Melissa Koyama

Dear Melissa:

RE: Millcroft Golf Course
Application for PTTW

As per your e-mail request of Thursday, September 27, 2007, please accept this letter as formal notification to the Ministry of the Environment that Millcroft Golf Course will be making the application for the PTTW directly to the Director, Environmental Assessment and Approvals Branch.

Mr. Ed Liptay of Millcroft Golf Course met with the undersigned on Friday, September 28, 2007 and was advised to sign the application and append a $3,000 cheque made payable to the Ministry of the Environment and to send the compiled package by regular mail to the above-noted address.

We trust that these directions have been followed and that the package will have been received by the Director in the early part of the first week of October, 2007.

Yours very truly,

PHILIPS ENGINEERING LTD.

Per: Kenneth R. DePodesta, P. Eng.
Consulting Engineer

KRD/kf

c.c. E. Liptay – Millcroft Golf Course

G:\Work\107009\Corr\Let\07-09-28 MOE.doc

Koyama, Melissa (ENE)

From: Koyama, Melissa (ENE)
Sent: September 27, 2007 3:00 PM
To: 'kdepodesta@philipseng.com'
Subject: RE: Millcroft Golf Course PTTW

Ken,

Thanks for the e-mail. The mailing address for the application is:

Ontario Ministry of the Environment
Attention: Permit to Take Water
Director, Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario M4V 1L5

I also requested that you confirm with me in writing that the application has been submitted. My office address is:
305 Milner Ave., Suite 1000, Scarborough, ON, M1B 3V4. Thanks again.

Melissa Koyama

-----Original Message-----
From: Ken DePodesta [mailto:kdepodesta@philipseng.com]
Sent: September 27, 2007 10:08 AM
To: Koyama, Melissa (ENE)
Subject: FW: Millcroft Golf Course PTTW

Melissa

Please forward the mailing address for the application submission.

Ken

From: Ken DePodesta [mailto:kdepodesta@philipseng.com]
Sent: Thursday, September 27, 2007 7:06 AM
To: 'Koyama, Melissa (ENE)'
Subject: Millcroft Golf Course PTTW

Melissa

Mr. Liptay is meeting with us tomorrow morning to review the application for PTTW. I expect that Mr. Liptay will sign the application at that meeting and will prepare the $3000 cheque to accompany the application. The application package will be sent by regular mail to you from Burlington tomorrow (Friday) so your office should receive it on Monday…I trust that is satisfactory. Please advise.

Ken

Kenneth R. DePodesta, B. Eng., P. Eng.
Principal
905-335-2353 x1227



Koyama, Melissa (ENE)

From: Koyama, Melissa (ENE)
Sent: August 7, 2007 12:35 PM
To: 'kdepodesta@philipseng.com'
Subject: RE: Millcroft Golf Club

Ken,

contacted Mr. Liptay and left a message with him. I am awaiting his response. I wanted to discuss with him the number of extensions that have been previously granted and confirm that this would be the final extension. I will grant a new deadline of October 1, 2007 for the submission of the application of the permit to take water. I will fax a letter to this effect to yourself and to Mr. Liptay pending our anticipated phone conversation. If you have any questions or concerns about this matter, please do not hesitate to contact me at (416) 212-6693. Thanks.

Melissa Koyama
Provincial Officer #892
Ministry of the Environment
Sector Compliance Branch

-----Original Message-----
From: Ken DePodesta [mailto:kdepodesta@philipseng.com]
Sent: August 7, 2007 11:13 AM
To: Koyama, Melissa (ENE)
Subject: FW: Millcroft Golf Club

Melissa

I trust that the approach below is acceptable to the MOE. I did receive a phone call from Mr. Liptay and have advised him of the e-mail note to you.

I do need your response of acknowledgement so I can advise Mr. Liptay that the MOE is in agreement with our proposed approach.

ken

From: Ken DePodesta [mailto:kdepodesta@philipseng.com]
Sent: Friday, August 03, 2007 8:30 AM
To: 'Koyama, Melissa (ENE)'
Subject: RE: Millcroft Golf Club

Melissa

Sorry for not getting back to you in advance of the August 1 date but it slipped by...and I do owe Mr. Liptay a call on this same issue as well.

Bottom line is that the flow measurements that we felt we needed to make to rationalize the taking proposal have been delayed because of the extended drought that we're facing now. With all due respect, we have no other option but to request a further extension until the end of September to allow us to mnake the technical case that MOE would expect for this PTTW application.

We are still committed to completing the work and making the application for a PTTW for the 2008 season. I'm expecting some additional runoff events in August and (for sure) in September that we can use.

I trust that you understand our predicament.

If you will be speaking with Mr. Liptay, you can advise him of our ongoing status as well.

Ken

From: Koyama, Melissa (ENE) [mailto:Melissa.Koyama@ontario.ca]
Sent: Friday, August 03, 2007 8:10 AM
To: Kenneth R. DePodesta
Subject: Millcroft Golf Club

Ken,

I am writing in regards to the Regulation 387/04 inspection that was conducted at Millcroft Golf Club on October 12, 2006. The deadline for the permit to take water application was August 1. I have not heard from you or the company. Please get back to me with the status of the application and confirm that it has been submitted accordingly. I will be contacting Mr. Ed Liptay to discuss this as well. Thanks.

Melissa Koyama
Provincial Officer #892
Ministry of the Environment
Sector Compliance Branch

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Mon Aug. 7/07
Received phone message from Mr. Ed LIPTAY of Millcroft Golf Club. He stated he was unsure of permit status but would speak w/ his consultant and get back to me

130

131

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Fri. Aug 3/07.
E-Mailed Ken DePodesta - Phillips Engineering - consultant for Millcroft.
Deadline to submit permit was August 1.
Have not heard from consultant or company, Left a voice message for Mr. Ed LIPTAY General Manager of golf club.
Received e-mail back from Ken DePodesta stating that they had been

delayed getting flow measurements b/c of the drought and needed until end of Sept. for calculations to submit application.

Melissa Koyama
Provincial Officer #832
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Thursday May 3, 2007
Temp- + 16°
Sunny.
0730 On Duty.
305 Milner.
In office -
spoke w/ SV WATER
Advised re: extension for
PTTW sites - Millcroft and
Stansted. He approved
extensions AAO.
Faxed copy of extension

letter to consultant -
Ken DeRocchesta - for
Millcroft and mailed letter
to owner at Millcroft. AAO.

[redacted]

Wed May 9, 2007

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

1410 Received phone call from Ken DeFodesta from Phillips Engineering - consultant for Hillcroft Golf Club. He advised that they could not meet the May 7th deadline for the Permit to take water application - they are conducting flow monitoring of the pond and downstream of the pond and require further data

to meet the technical requirements of the application Agreed to an extension until August 1, 2007. will send letter to owner - Ed Liptay of new deadline and fax one to ten Defodesta (905) 335-1414. ATC.

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Koyama, Melissa (ENE)

From: Kenneth R. DePodesta [kdepodesta@philipseng.com]
Sent: March 6, 2007 2:08 PM
To: Koyama, Melissa (ENE)
Subject: RE: Millcroft Golf Course

Melissa

Understood.

My fax # is 905 335 1414.

Thanks Ken

-----Original Message-----
From: Koyama, Melissa (ENE) [mailto:Melissa.Koyama@ontario.ca]
Sent: March 6, 2007 2:01 PM
To: kdepodesta@philipseng.com
Subject: RE: Millcroft Golf Course

Ken,

Thanks for getting back to me. If you require 8 weeks to complete the necessary work then I will extend the deadline until May 7th 2007. If there are any further delays, please contact me prior to this deadline to discuss further. I will send a copy of my original letter with the amended deadline to Mr. Ed Liptay at Millcroft. I will also send a copy to you if you can provide me with a fax number or address. Thank you for your cooperation in this matter. If you have any questions or concerns, please do not hesitate to contact me further.

Melissa Koyama
Provincial Officer #892
Ministry of the Environment
Sector Compliance Branch

-----Original Message-----
From: Kenneth R. DePodesta [mailto:kdepodesta@philipseng.com]
Sent: March 6, 2007 1:41 PM
To: Koyama, Melissa (ENE)
Subject: RE: Millcroft Golf Course

Melissa

Yes, we have been retained by the Club for this work. We are preparing a technical report which will take some time to complete. We would expect to have the report to you within 8 weeks.

Trusting this is satisfactory.

Ken

-----Original Message-----
From: Koyama, Melissa (ENE) [mailto:Melissa.Koyama@ontario.ca]
Sent: March 6, 2007 12:21 PM
To: kdepodesta@philipseng.com
Subject: RE: Millcroft Golf Course

Ken,

The deadline for Millcroft Golf Course was March 1, 2007 and I have not heard from anyone yet. I wanted to enquire if you are still the consultant for the company and if so, what is the status of the application? Please get back to me and let me know as soon as possible.
Thanks.

Melissa Koyama
Provincial Officer #892
Ministry of the Environment
Sector Compliance Branch

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

March 6/07

Sent an e-mail to Kenneth R. DePodesta at Phillips Engineering RE: Millcroft Golf Course - deadline of March 1. Awaiting reply for further follow up.
Received e-mail back from Kenneth at Phillips stated they are working on technical review and require 8 weeks to complete it.
E-mailed back and agreed to an extension until May 7, 2007. MMO.

Thur JAN. 25/07.

Received phone call from Phillips Engineering - consultant for Millcroft - PTTW. Wanted to know about March 1 deadline - possibly will need another extension. Unsure of timeline - will contact me and advise when he has a better idea. AAO.

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Koyama, Melissa (ENE)

From: Kenneth R. DePodesta [kdepodesta@philipseng.com]
Sent: January 25, 2007 11:49 AM
To: Koyama, Melissa (ENE)
Subject: Millcroft Golf Course Regulation 387/04 Inspection

Melissa

Thank you for the opportunity to speak with you again this morning regarding the January 5, 2007 correspondence that you addressed to Mr. Ed Liptay at the Millcroft Golf Club.

You did clarify in our conversation that the specified March 1, 2007 date for submission of the completed PTTW application was not set based on current legislation but rather was set by you as a reasonable, deferred date from the original December 29, 2006 target. Our Firm is just in the process of being retained by Millcroft Golf Club to carry out the technical analyses and prepare the documentation to satisfy your request. In view of the scope of work for this application as we see it at this time, we will likely not be in a position to make the formal submission by March 1, 2007 however, we will commit to providing you with an achievable target date for submission in 2007 by March 1 as we agreed.

Since Mr. Liptay doesn't appear to have an e-mail address, I would appreciate receiving a response from you noting your agreement (or your suggested modification if necessary) so I could print it and fax it to him for his information.

Thanks in advance.

Ken

Kenneth R. DePodesta, B. Eng., P. Eng.
Principal
905-335-2353 x1227

****
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error please notify us immediately by return email and delete or destroy all copies of this message.
Thank you.
****

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel. 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Thur Jan. 25 /07.

Received phone call from Phillips Engineering - consultant for MILLCROFT - PTTW. wanted to know about March 1 deadline - possibly will need another extension. Unsure of timeline - will contact me and advise when he has a better idea. AAO.

81

[redacted]

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314 4464
E-mail: Melissa.Koyama@ene.gov.on.ca

TUE JAN. 9/07.

Also - faxed new deadline letter to Millcroft. Spoke to Superintendant - Martin on Friday. He started that company required an extension b/c an engineer was required to assist w/ app. Golf course would be Category 2 or 3. Agreed to extension until March 1, 2007.

faxed letter and mailed letter to company as well. MAO.

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
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Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

[redacted]

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

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305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Fri. Jan. 5/07

Contacted Millcroft

[redacted]

Golf Club - left message for Superintendant Martin re: PTTW App

[redacted]

[redacted]

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

[redacted]

Tue. Jan. 2 /07.

Received phone message from Martin - Superintendant from Millcroft - requesting

[redacted]

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 212-6693
Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

extension for PTTW.
was due Dec. 29th.
(905) 332-4924.
Will phone back.

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel. 416 212-6693
Fax. 416 314-4464
E-mail. Melissa.Koyama@ene.gov.on.ca

Thursday Oct. 12, 2006.

1135	10-8
1209	10-7 Millcroft Golf Club 2155 Country Club Drive, Burlington, L7M 4A8. GPS - 17 596530 E 4805101 N. Met w/ - Ed LIPTAY General Manager

141

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
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E-mail: Melissa.Koyama@ene.gov.on.ca

#'d Company.
Employees - 10
Business since - 1989 -
Company took it over
this year.
1 Pond on site - other
ponds - only use big one
to water - only source.
Pump house - 1 or 2
pumps - not sure.
Will call another employee
to find out.
No wells on site.
Does not store water on
site.

2 main pumps - capacity -
750 - 900 gallons/per minute
total - both pumps:
200 000 gallons/
Duration - 11 hours at
most.
Have a water meter -
only shows running total.
Pond - surface water.
Ontario Limited
2079610 - Legal name
Jan./2006.
Explained PTTW to
General Manager
Martin CASTALE.

Melissa Koyama
Provincial Officer #892
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
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Fax: 416 314-4464
E-mail: Melissa.Koyama@ene.gov.on.ca

Greens Superintendant
Brian - In charge of
watering
Explained required PTTW.
Over 50 000 litres. AAO
Attended pump house - met
w/ - Brian ALFORD.
100 horse power.
250 000 gallons/one day.
2 main pumps + 1 jockey
20 horse power.
Pumps -
Peabody Fpway, Fresno,
California - serial # 144
91-20441 / 91-20440/

91-20442 - middle one -
jockey
Gallons Per Minute - 400
Do not run pumps at
capacity.
Pond - surface runoff -
stormwater - outflow to
Lake Ontario.
Have a flow meter but not
accurate - sometimes
push water back out.
Explained PTTW. AAO
1246 10-8
Updating notes
1435 10-19

145

Kristy Mitchell
Provincial Officer #1193
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel 416 314 4498
Fax 416 314 4564
E-mail Kristy.Mitchell@ontario.ca

2006/10/12

12:03 Millcroft Golf Club
MK - Primary, 2155
Country Club Drive, ~~Oakville~~
Burlington, L7M 4R8
Zone 17 596530 E
4805101 N
GC is built w/in a subdivision.
Golf course runs throughout
the development, backing in
to many of the private
residences.
General
Spoke w/ Mgr Ed Liptay
Water from a large pond ~~from a large~~.
There is a fountain
in the middle. There is
a large stone - pump house.

Employees are mainly subcontracted (at the clubhouse). Direct employees are ~ 10. GC has been in place since 1989.
Jan 2006 Company official name is 2079610 Ontario Ltd (Numbered company)
This company recently took over ownership of the GC this past year.

Pond is the only source of water taking. Ed is uncertain of pump capacity and/or ucl/day taken.

Believe there is already a PTTW. Martin Kastroun. Grounds Personnel.
No water stored on-site.
No wells.
MK explained PTTW requirements
Ed called Martin to determine volume info. He will be able to provide info on irrigation
No PTTWs.
# of pumps - 2 mains. and a jockey pump = (total) 750, 900 / gallons/min max volume per day.

45

Kristy Mitchell
Provincial Officer # 1193
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
Tel: 416 314 5936
Fax: 416 314 2161
E-mail: Kristy.Mitchell@ontario.ca

on the busiest, driest day of the year.
200,000 gallons / day.
No. of hours per day.
11 hours.
Dimensions of pond -
There is a wtr meter on-site - can pull the daily flow - a running meter. (can subtract on a daily basis)
MK advised of PTTW requirements.
Pond is mainly fed by[46] stormwater run-off (SW)

Martin is the Greens Superintendent
Met w/ Brian : watering tech - has worked at site for approx. 6 yrs.
12:30 Brian Afford.
Pond appears to be connected to City's SW
capacity for pump
100 Hrs per
max 500 gallons / min
250,000 gallons in one day
1 Jockey pump 20 H and 2 40s

47

Kristy Mitchell
Provincial Officer # 1193
Inspector
Sector Compliance Branch

Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
Scarborough ON M1B 3V4
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Fax: 416 314 4461
Email: KristyMitchell@ontario.ca

Pump is never run at full tilt. Pressure will drop if they attempt to draw to much water.
Meter on the side shows GPM and gallons.
Data Industrial Model 2100.
Flow Monitor.
Private contractor.
Company comes in and services.
Not an accurate measure.
Rumor when pump water-out. Sometimes will empty out the system.
Outflow to Lake Ontario.
Tuck creek or small wetland

~~Secret~~ runs through the GC and the pond is part of this creek. So creek is fed by both the creek and SW run-off.
Length of season is November.
Problems will water levels. Creeks can dry up as well. And is it that deep intake is on the bottom - depth unknown.

49

Kristy Mitchell
Provincial Officer #1193
Inspector
Sector Compliance Branch

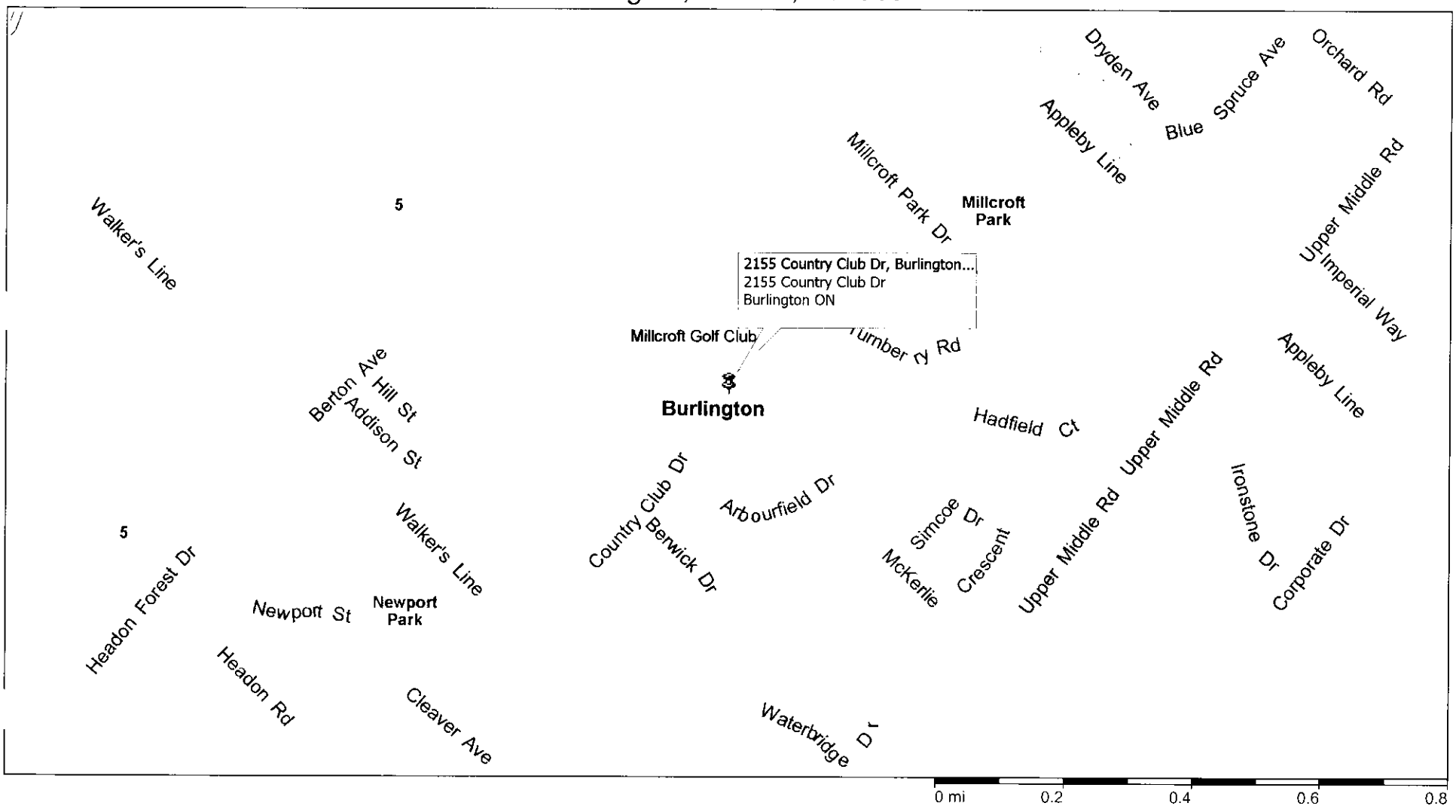
Ontario

Ministry of the Environment
305 Milner Avenue, Suite 1000
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Tel 416 314-4198
Fax 416 314-4564
E-mail Kristy.Mitchell@ontario.ca

Burlington, Ontario, Canada

Millcroft Golf Club

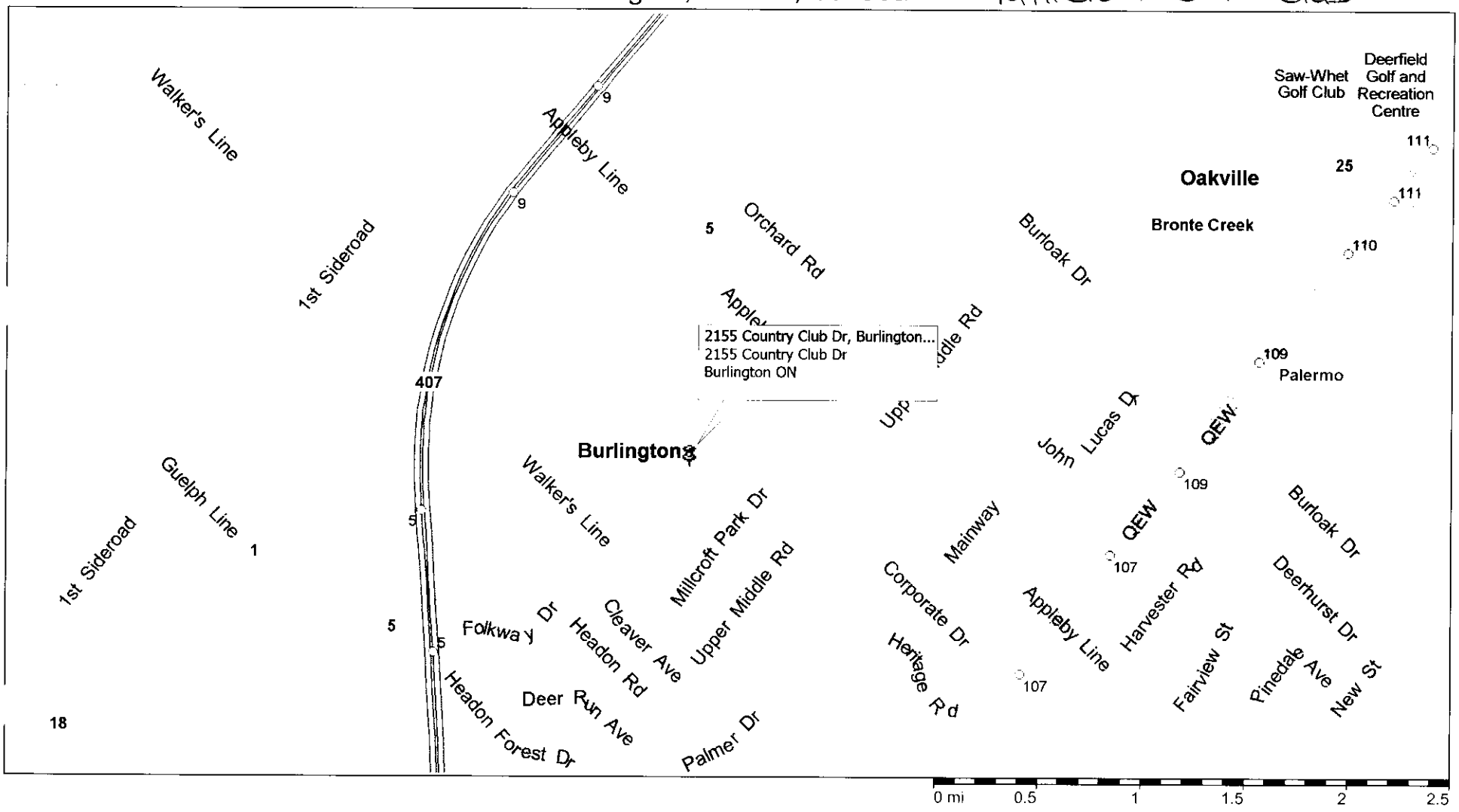
000064



Burlington

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Burlington, Ontario, Canada Millcroft Golf Club



Burlington

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Ministry of the Environment, Conservation and Parks
Central Region
Technical Support Section
Water Resources
8th Floor
5775 Yonge St
Toronto ON M2M 4J1
Fax: (416) 325-6347
Tel: (416) 326-3997

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Direction régionale du Centre
Normes de qualité de l'eau
Unité d'eau potable
8e étage
5775 rue Yonge
Toronto ON M2M 4J1
Télécopieur: (416) 325-6347
Tél:(416) 326-3997

Ontario

March 18, 2019

2079610 Ontario Ltd. operating as Millcroft Golf Club
2155 Country Club Dr
Burlington, Ontario, L7M 4A8
Canada

Attn: Ed Liptay

Dear Mr. Liptay,

RE: Permit to Take Water for Golf Course Irrigation
2155 Country Club Drive
Burlington, Regional Municipality of Halton

Reference Number 4440-B8EQJ6

Please find attached **Permit to Take Water No. 7030-B9ZS6X** issued to **2079610 Ontario Ltd.** which authorizes the withdrawal of water in accordance with the application for this Permit to Take Water, dated December 6, 2018, signed by Ed Liptay.

This Permit is valid until **April 30, 2021** and shall be kept available on site for inspection by Ontario Ministry of the Environment, Conservation and Parks staff.

Please note, Ontario Regulation 387/04 "Water Taking" requires all water takers to report daily water taking amounts to the Water Taking Reporting System (WTRS) electronic database: https://www.lrcsde.lrc.gov.on.ca/wtrs/. Daily water taking must be reported on a calendar year basis. If no water is taken, then a "no taking" report must be entered. Please consult the Regulation and Section 4 of this Permit for monitoring requirements.

If you have questions about reporting requirements, please call the WTRS Help Desk at 416-235-6322 (toll free: 1-877-344-2011) or by email, WTRSHelpdesk@ontario.ca. It is preferred that you submit your data directly and electronically to the WTRS. Where this is impracticable, please use the Water Taking Submission Form (included as Appendix C of the *Technical Bulletin: Permit To Take Water (PTTW) - Monitoring and Reporting of Water Takings*), which can be downloaded from the above web site, and fax your completed forms to

416-235-6549 or mail them to: Water User Reporting Section, 125 Resources Rd. Toronto, ON M9P 3V6.

Take notice that in issuing this Permit to Take Water, terms and conditions pertaining to the taking of water and to the results of the taking have been imposed on **2079610 Ontario Ltd.** The terms and conditions have been designed to allow for the development of water resources, while providing reasonable protection to existing water uses and users.

One of the purposes of the issuance of a Permit is to ensure that the permitted taking(s) will not cause negative impacts to the environment or other water supplies which were in use prior to the date of this Permit. If the taking of water should result in any negative impacts, the Permit Holder, **2079610 Ontario Ltd.**, will be required to restore the water supplies of those affected in a manner acceptable to the Ontario Ministry of the Environment, Conservation and Parks or to reduce the rate and amount of taking until any negative impacts are eliminated.

Any change of address or ownership of the property for which this Permit is issued must be reported immediately to the Director. The issuance of this Permit to Take Water does not relieve you from compliance with the legislative requirements of this Ministry or any other agencies.

It is the responsibility of **2079610 Ontario Ltd.** to ensure that any person taking water under the authority of this Permit is familiar with and complies with the terms and conditions.

Yours truly,

Sonya Kleywegt
Supervisor (Acting)
Central Region

File Storage Number: SI-HP-BU-C1-220
ZY
E-copy: Stephen Kajan (skajan@rjburnside.com)

Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

PERMIT TO TAKE WATER
Surface Water
NUMBER 7030-B9ZS6X

Pursuant to Section 34.1 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

2079610 Ontario Ltd. operating as Millcroft Golf Club
2155 Country Club Dr
Burlington, Ontario, L7M 4A8
Canada

For the water taking from: Mill Pond

Located at: Lot 7, Concession 1 South of Dundas Street, Geographic Township of Nelson Burlington, Regional Municipality of Halton

For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:

DEFINITIONS

(a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34.1, OWRA.

(b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.

(c) "Ministry" means Ontario Ministry of the Environment, Conservation and Parks.

(d) "District Office" means the Halton-Peel District Office.

(e) "Permit" means this Permit to Take Water No. 7030-B9ZS6X including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA.

(f) "Permit Holder" means 2079610 Ontario Ltd. operating as Millcroft Golf Club.

(g) "OWRA " means the *Ontario Water Resources Act,* R.S.O. 1990, c. O. 40, as amended.

You are hereby notified that this Permit is issued subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. Compliance with Permit

1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated December 6, 2018 and signed by Ed Liptay, and all Schedules included in this Permit.

1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.

1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.

1.4 This Permit is not transferable to another person.

1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.

1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.

1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change. A change in ownership in the property shall cause this Permit to be cancelled.

2. General Conditions and Interpretation

2.1 Inspections

The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the OWRA, the *Environmental Protection Act* , R.S.O. 1990, the *Pesticides Act* , R.S.O. 1990, or the *Safe Drinking Water Act,* S. O. 2002.

2.2 Other Approvals

The issuance of, and compliance with this Permit, does not:

(a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act* , and

the *Environmental Protection Act* , and any regulations made thereunder; or

(b) limit in any way any authority of the Ministry, a Director, or a Provincial Officer, including the authority to require certain steps be taken or to require the Permit Holder to furnish any further information related to this Permit.

2.3 Information

The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:

(a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or

(b) acceptance by the Ministry of the information's completeness or accuracy.

2.4 Rights of Action

The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

2.5 Severability

The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.

2.6 Conflicts

Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.

3. Water Takings Authorized by This Permit

3.1 **Expiry**

This Permit expires on **April 30, 2021**. No water shall be taken under authority of this Permit after the expiry date.

3.2 Amounts of Taking Permitted

The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

Table A

	Source Name / Description:	Source: Type:	Taking Specific Purpose:	Taking Major Category:	Max. Taken per Minute (litres):	Max. Num. of Hrs Taken per Day:	Max. Taken per Day (litres):	Max. Num. of Days Taken per Year:	Zone/ Easting/ Northing:
1	Mill Pond	Pond Online	Golf Course Irrigation	Commercial	2,917	24	1,112,300	214	17 597491 4804676
						Total Taking:	1,112,300		

4. Monitoring

4.1 The Permit Holder shall, on each day water is taken under the authorization of this Permit, record the date, the volume of water taken on that date and the rate at which it was taken. The daily volume of water taken shall be measured by a flow meter. The Permit Holder shall keep all records required by this condition current and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The Permit Holder, unless otherwise required by the Director, shall submit, on or before March 31st in every year, the daily water taking data collected and recorded for the previous year to the ministry's Water Taking Reporting System.

4.2 The Permit Holder shall continue the implementation of the existing monitoring program. The required monitoring program includes: a) stream flow and water level measurements (four times a year) at Appleby Creek upstream of the Mill Pond (Stations SS1 and SS2); and b) continuous water level measurements at the Mill Pond and Appleby Creek upstream of the pond (Stations SS3 and SS2). In addition, the Permit Holder shall establish and maintain a stage-discharge rating curve at the existing flow stations (SS1 and SS2) to estimate the upstream flow into the Mill Pond, and shall measure or estimate the Mill Pond outflow using a well-calibrated weir equation.

4.3 The Permit Holder shall complete the work of the proposed Appleby Creek diversion/bypass structure as described in Item 2 of the Schedule A of the Permit. In addition, prior to December 31, 2019, the Permit Holder shall provide an implementation progress report to the Director for review. The report shall be prepared by a qualified person.

4.4 Any request for an amendment or renewal of this Permit must be accompanied by a report prepared by a qualified person, illustrating how the work requested has been conducted in compliance with the Permit conditions.The report should also include all the monitoring results and water taking records as requested in Conditions 4.1 and 4.2 above.

5. Impacts of the Water Taking

5.1 Notification

The Permit Holder shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

5.2 For Surface-Water Takings

The taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

6. Director May Amend Permit

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water Resources Act* , Section 100 (4).

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.

2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.

3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, you may by written notice served upon me, the Environmental Review Tribunal and the Environmental Commissioner, ***Environmental Bill of Rights****, R.S.O. 1993, Chapter 28, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 101 of the Ontario Water Resources Act, as amended provides that the Notice requiring a hearing shall state:*

1. The portions of the Permit or each term or condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

In addition to these legal requirements, the Notice should also include:

a. The name of the appellant;
b. The address of the appellant;
c. The Permit to Take Water number;
d. The date of the Permit to Take Water;
e. The name of the Director;
f. The municipality within which the works are located;

This notice must be served upon:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto ON
M5G 1E5
Fax: (416) 326-5370
Email:
ERTTribunalsecretary@ontario.ca

AND

The Environmental Commissioner
1075 Bay Street
6th Floor, Suite 605
Toronto, Ontario M5S 2W5

AND

The Director, Section 34.1,
Ministry of the Environment,
Conservation and Parks
8th Floor
5775 Yonge St
Toronto ON M2M 4J1
Fax: (416) 325-6347

Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:

by Telephone at	by Fax at	by e-mail at
(416) 212-6349	(416) 326-5370	www.ert.gov.on.ca
Toll Free 1(866) 448-2248	Toll Free 1(844) 213-3474	

This instrument is subject to Section 38 of the ***Environmental Bill of Rights*** *that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek to appeal for 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry, you can determine when the leave to appeal period ends.*

Dated at Toronto this 19th day of March, 2019.



Sonya Kleywegt
Director, Section 34.1
Ontario Water Resources Act , R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 7030-B9ZS6X, dated March 19, 2019.

1. Application for Permit to Take Water, dated December 6, 2018, signed by Ed Liptay.

2. R.J. Burnside & Associates Limited, report " Permit to Take Water Renewal, 2079610 Ontario Ltd o/a Millcroft Golf Club, 2155 Country Club Drive, Burlington ON", dated May 2016, and signed by Stephen Kajan of R.J. Burnside & Associates Limited.

3. R.J. Burnside & Associates Limited, report " Permit to Take Water Renewal Report, 2079610 Ontario Ltd (o/a Millcroft Golf Club), 2155 Country Club Drive, Burlington ON", dated December 2018, and signed by Stephen Kajan of R.J. Burnside & Associates Limited.

0 Comments Not Reviewed

0 Comments Reviewed

0 Comments Submitted

Instrument Proposal Notice:

Proponent: 2079610 Ontario Ltd. (Millcroft Golf Club)
2155 Country Club Drive
Burlington Ontario
Canada L7M 4A8
Instrument Type: Permit to Take Water - OWRA s. 34

EBR Registry Number: 013-4545
Ministry Reference Number:
4440-B8EQJ6
Ministry:
Ministry of the Environment, Conservation and Parks
Date Proposal loaded to the Registry:
January 30, 2019

Keyword(s): Compliance | Water

The comment period for this proposal is now over.

Description of Instrument:

This proposal is to renew Permit to Take Water No. 0463-ABSQSD for commercial purposes. Water will be taken from Mill Pond related to golf course irrigation activities in the City of Burlington, Regional Municipality of Halton, Ontario. Details of Water Taking are as follows:

Permit Type - Renewal (Category 3)

Purpose of Water Taking: Commercial - Golf Course Irrigation

- Source of Water: Pond - Online
- Maximum Rate (Litres Per Minute): 2,917
- Maximum Number of Hours of Taking per Day: 24
- Maximum Volume (Litres) Per Day: 1,112,300
- Maximum Number of Days of Taking in a Year: 214
- Earliest Calendar date of taking (mm/dd): 04/01
- Latest Calendar date of taking (mm/dd): 10/31
- Period of Water Taking: 2 Years

More information on: Permits to Take Water

Public Consultation:

This proposal was posted for a 30 day public review and comment period starting January 30, 2019. Comments were to be received by March 01, 2019.

All comments received during the comment period are being considered as part of the decision-making process by the Ministry.

Please Note: All comments and submissions received have become part of the public record.

Contact:

Central Region
Permit To Take Water Coordinator
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
Central Region Office
5775 Yonge Street
Floor 8
Toronto ON
M2M 4J1
Phone: (416) 326-3323
Toll Free Phone: (800) 810-8048

Location(s) Related to this Instrument:

Millcroft Golf Club
Address: Lot: 7; Concession: 1 South of Dundas Street; 2155 Country Club Drive; Geographic Township: NELSON; Burlington; City; Regional Municipality of Halton
District Office: Halton-Peel
GeoReference: Map Datum: NAD83; Zone: 17; Accuracy Estimate: 1-10 metres eg. Good Quality GPS; Method: Map; UTM Easting: 597491; UTM Northing: 4804676;
LIO GeoReference: Zone: ; UTM Easting: ; UTM Northing: ; Latitude: 43.3957; Longitude: -79.8038;
Site #: 5845-6Y5LME

CITY OF BURLINGTON
NELSON

Additional Information:

The following government offices have additional information regarding this Proposal. To arrange a viewing of these documents please call the Ministry Contact or the Office listed below.

Central Region Office
5775 Yonge Street
Floor 8
Toronto ON
M2M 4J1
Phone: (416) 326-6700
Toll Free Phone: (800) 810-8048

Remarks Pad

Remark content :

Default operator who can see this remark:

- EBRO ADMINISTRATOR
- CORPORATE ADMINISTRATOR
- ADMINISTRATOR
- USER

Other operators who can see this remark:

☐ USER

Instrument Proposal Notice:

Proponent: 2079610 Ontario Ltd. (Millcroft Golf Club)
2155 Country Club Drive
Burlington Ontario
Canada L7M 4A8

Instrument Type: Permit to Take Water - OWRA s. 34

EBR Registry Number: 013-4545
Ministry Reference Number: 4440-B8EQJ6
Ministry:
Ministry of the Environment, Conservation and Parks

Keyword(s): Compliance | Water

Description of Instrument:

This proposal is to renew Permit to Take Water No. 0463-ABSQSD for commercial purposes. Water will be taken from Mill Pond related to golf course irrigation activities, in the City of Burlington, Regional Municipality of Halton, Ontario. Details of Water Taking are as follows:

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Maximum Volume (Litres) Per Day: 1,112,300.00
Maximum Number of Days of Taking in a Year: 214
Earliest Calendar date of taking (mm/dd): 04/01
Latest Calendar date of taking (mm/dd): 10/31
Period of Water Taking: 2 Years

Public Consultation:

This proposal was posted for a 30 day public review and comment period starting $Date Not Available$. Comments were to be received by $Date Not Available$.

All comments received during the comment period are being considered as part of the decision-making process by the Ministry.

Please Note: All comments and submissions received have become part of the public record.

Contact:

Central Region
Permit To Take Water Coordinator
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
Central Region Office
5775 Yonge Street
Floor 8
Toronto ON
M2M 4J1
Phone: (416) 326-3323
Toll Free Phone: (800) 810-8048

Location(s) Related to this Instrument:

Millcroft Golf Club
Address: Lot: 7, Concession: 1 South of Dundas Street, 2155 Country Club Drive, Geographic Township: NELSON, Burlington, City, Regional Municipality of Halton
District Office: Halton-Peel
GeoReference: Map Datum: NAD83, Zone: 17, Accuracy Estimate: 1-10 metres eg. Good Quality GPS, Method: Map, UTM Easting: 597491, UTM Northing: 4804676, ,
LIO GeoReference: Zone: , UTM Easting: , UTM Northing: , Latitude: 43.3957, Longitude: -79.8038
Site #: 5845-6Y5LME

CITY OF BURLINGTON
NELSON

Additional Information:

The following government offices have additional information regarding this Proposal. To arrange a viewing of these documents please call the Ministry

Contact or the Office listed below.

Central Region Office
5775 Yonge Street
Floor 8
Toronto ON
M2M 4J1
Phone: (416) 326-6700
Toll Free Phone: (800) 810-8048

Ontario

Ministry of the Environment

Permit to Take Water
Missing Information Checklist

4440-B8EQJ6

REFERENCE NO:	Information Provided	Information Requested
Applicant has applied using Aold@ form		
1. Permit Administration		
Applicant has correctly indicated ANew Permit@, AAmendment to Permit@ or APermit Renewal@	✓	
If 'Amendment to Permit' or 'Renewal of Permit' Applicant has provided previous Permit number(s) and attached a copy of the previous Permit	✓	
2. Classification and Fee		
Applicant has indicated proper category (1, 2, or 3) as per screening requirements	✓	Return Application
Applicant has provided the appropriate fee that corresponds with the application category. If the applicant indicated 'No fee required' he/she has listed one of the following reasons: administrative amendment (name change/address change), amendment required by S. 34 Director, revocation of existing permit, irrigation/frost protection for agricultural purposes, aquaculture	✓	
Fee submitted by either Certified Cheque, Money Order, Visa, Master Card, Amex	✓	
3. Applicant Information		
Applicant has indicated 'Name', ANAICS Code= and 'Applicant Type'	✓	
Applicant included appropriate 'Proof of Legal Name' (Master Business Licence, Articles of Incorporation /Corporate Profile Sheet, Business Registration Documents, Extra-Provincial Licence, Birth Certificate, etc.)	✓	
4. Applicant Physical Address		
Physical address provided (i.e. civic address, lot/concession, part/plan) Cannot be indicated as a PO Box or RR# only	✓	
5. Applicant Mailing Address		
Applicant has provided complete mailing address or indicated that it is the 'Same as Applicant Physical Address'	✓	
6. Project Technical Contact Information		
A name and contact information, including a telephone number, is provided or 'Same as Applicant Name' is indicated	✓	
7. Source(s) Information		
Total number of sources indicated in 'S. 7' equals the total number of sources listed in 'S. 9: Table A'	✓	
Source location information is provided for each source (S.7 is copied for each source)	✓	
Physical address provided for each source (cannot be indicated as a PO Box or RR# only)	✓	
If the Applicant is not the owner of the land where the water taking will occur, they must attach the owner's name, address, and consent to access the water taking location	N/A	
Applicant has indicated 'Yes' or 'No' to question 'Is water containerized? If 'Yes', Applicant has indicated 'size of containers'	N/A	
Estimated start of taking provided	✓	
If Applicant has indicated 'Yes' to 'Is activity subject to the Environmental Assessment Act', and Approval or a 'Notice of Completion' must be attached	N/A	
The following information was provided for each watercourse identified as a source: Watercourse Name	N/A	
>Y= or >N= answer to >Does the watercourse stop at any-time during the year?=		
The following information was received for each well identified as a source: Well Name/Identifier	N/A	
Type of Well		
The following information was provided for each **lake** identified as a source: Lake Name	N/A	

Continued...

Section 7 continued...

The following information was provided for each **pond/reservoir** identified as a source:		
Name/Identifier	✓	
Pond Size: Average Length	✓	
Pond Size: Average Width	✓	
Pond Size: Average Depth	✓	
Pond Size: Maximum Depth	✓	
Pond Type (diagram selected)	✓	
Source of Pond Water	✓	
8. Water Taking Volumes		
All fields are complete (units in litres) for all sources listed in 'Table A':	✓	
9. Attachments		
1:10,000 or 1:50,000 OBM map provided, and the Applicant has attempted to identify relevant surrounding features (wells, watercourses, roads), and the number of sources (water taking locations) identified on the map match the total number of sources listed in 'S. 8: Table A'	✓	
Applicant has described how water taking needs were identified	✓	
Applicant has attached a description of the proposed water taking	✓	
Applicant has attached a completed 'Sch.1 - Implementation of Water Conservation' (except where the water taking is for the purpose of pumping tests, instream uses and/or site dewatering)	✓	
For 'Category 2' applications, the Applicant has attached a completed 'Schedule 2 - Qualified Person Certification for Category 2 Groundwater Takings' or a completed 'Schedule 3 - Qualified Person Certification for Category 2 Surface Water Takings'	N/A	
For 'Category 3' applications, the Applicant has attached a complete 'Scientific Study'	✓	**return application**
10. Statement/Signature of Applicant (Applicant)		
Application signed and dated	✓	
Letter granting signing authority is required if the person signing the application form is not an Officer or Director of the company	N/A	
11. EBR		
EBR Posting of Proposal – Yes/No		

COMMENTS:

Gabriella — SCREENER

Jan 17, 2019 — DATE

C5OWDFR DISPLAY MCCR - COMPANIES BRANCH COMPUTER DATE/TIME
ONBIS 19/01/14 / 14:41:18
BUSINESS NAMES - CORPORATIONS
(CURRENT NAMES)

Corp. No.
2079610 2079610 ONTARIO LTD. As At Date : 2019-01-14

Type options, press Enter.
5=Display Full Business Name

?	Registration Date	Business Name	Expiry Date	Business ID Number
_	2018-05-15	MILLCROFT GOLF CLUB	2023-05-14	280546110

F3=Exit F7=Fund. F10=Addl Info F15=Exit App. F17=Bus. Name Hist.

BURNSIDE

Permit to Take Water Renewal Report

2079610 Ontario Ltd.
(o/a Millcroft Golf Club)
2155 Country Club Drive
Burlington ON L7M 4A8

RECEIVED
JAN 11 2019
MINISTRY OF THE ENVIRONMENT & CLIMATE CHANGE
CLIENT SERVICES & PERMISSIONS BRANCH
ENVIRONMENTAL ASSESSMENT & PERMISSIONS BRANCH

R.J. Burnside & Associates Limited
1465 Pickering Parkway Suite 200
Pickering ON L1V 7G7 CANADA

December 2018
PGD020649.2018

Distribution List

No. of Hard Copies	PDF	Email	Organization Name
1	Yes	Yes	Permit to Take Water Director, Ministry of the Environment, Conservation and Parks
1	Yes	Yes	Mr. Ed Liptay, Millcroft Golf Club

Record of Revisions

Revision	Date	Description
-	January 9, 2018	Initial Submission to Ministry of the Environment, Conservation and Parks

R.J. Burnside & Associates Limited

Report Prepared By:



Jarrett Muir, B.Eng.
Engineering Assistant
JM:cl

Report Reviewed By:



Stephen Kajan, P.Eng.
Water Resources Engineer
SK:cl

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Disclaimer

Other than by the addressee, copying or distribution of this document, in whole or in part, is not permitted without the express written consent of R.J. Burnside & Associates Limited.

In the preparation of the various instruments of service contained herein, R.J. Burnside & Associates Limited was required to use and rely upon various sources of information (including but not limited to: reports, data, drawings, observations) produced by parties other than R.J. Burnside & Associates Limited. For its part R.J. Burnside & Associates Limited has proceeded based on the belief that the third party/parties in question produced this documentation using accepted industry standards and best practices and that all information was therefore accurate, correct and free of errors at the time of consultation. As such, the comments, recommendations and materials presented in this instrument of service reflect our best judgment in light of the information available at the time of preparation. R.J. Burnside & Associates Limited, its employees, affiliates and subcontractors accept no liability for inaccuracies or errors in the instruments of service provided to the client, arising from deficiencies in the aforementioned third party materials and documents.

R.J. Burnside & Associates Limited makes no warranties, either express or implied, of merchantability and fitness of the documents and other instruments of service for any purpose other than that specified by the contract.

1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) has been retained by 2079610 Ontario Ltd., operating as Millcroft Golf Club (Millcroft), to prepare and secure a renewal of their existing Permit to Take Water (PTTW) No. 0463-ABSQSD from the Ministry of the Environment, Conservation and Parks (MECP). This permit was issued in July 2016 and expires on December 31, 2018. The PTTW allows for the taking of water from the stormwater management pond – identified as the Mill Pond – for the purposes of golf course irrigation.

Development of a water taking strategy for the golf course was initiated in 2008 under the conditions of then PTTW No. 3132-7GSRM7, which required the golf club to complete an assessment of the existing water sources and develop a long-term water taking strategy for irrigation purposes that met current MECP and Conservation Halton (CH) regulations. Upon expiration of this permit in 2011, Burnside prepared and submitted a PTTW renewal application on behalf of the golf club that summarized the results of the existing water sources assessment, which concluded that the existing stormwater management pond (Mill Pond), remained the most viable option for irrigation supply. As such, PTTW No. 5565-8JFJSP was issued for the continued use of the Mill Pond with an expiration of March 2014.

A site meeting was held at the golf club on March 6, 2014 with MECP and CH staff, at which time it was determined that modifications to the Mill Pond would be required to allow for a passage of a percentage of flow from Appleby Creek to the downstream reach – bypassing the pond. Subsequently, a 2-year work plan was provided and approved and PTTW No. 4745-9HBK8B was issued, with an expiration of May 2016. However, due to a number of design modifications and CH comments, the bypass channel was not constructed under the duration of the PTTW. Subsequently, the existing PTTW No. 0463-ABSQSD was issued in July 2016 as an interim extension to provide additional time to complete the project.

This report has been prepared in support of a Category 3 PTTW renewal application (as required by Condition 4.4) for an additional short-term extension for the continued use of the Mill Pond as an irrigation source. Due to the large number of comments, additional studies and design modifications required by CH, the golf course has not been in a position to begin construction of the proposed bypass/diversion under the duration of the existing PTTW. The PTTW Application Form, Certificate of Incorporation and the MECP Application Fee information are attached in Appendix A. The existing PTTW No. 0463-ABSQSD is attached in Appendix B.

2.0 Background

Background data for the site was obtained from reports entitled *2012 Bronte Creek, Urban Creeks and Supplemental* (2013) and *2014 Fisheries Sampling* (2015), prepared by Conservation Halton, *Physiography of Southern Ontario* (Chapman and Putnam, 2984) and from available mapping and records obtained from the MOECC, Ministry of Natural Resources (MNR), and the Ontario Geological Survey (OGS).

Millcroft is an 18-hole public golf course located at 2155 Country Club Drive between Appleby Line and Walkers Line in Burlington, Ontario. The legal description of the property is parts of Lots 6, 7, 8, and 9, Concession 1S, City of Burlington, Region of Halton. The golf course was constructed in 1986 and encompasses approximately 62 hectares (153 acres) of area, traversing narrow corridors surrounded by residential development. Two creeks flow through the golf course property, the Sheldon Creek and the East Branch of the Appleby Creek, both of which originate atop the Niagara Escarpment, flowing south towards Lake Ontario. The general location of the property is shown on Figure 1.

2.1 Geologic Setting

The site is located in the physiographic region known as the South Slope. The South Slope is divided by the Peel Plain into a northern portion draping the base of the Escarpment and the southern portion compromising the Trafalgar Moraine and the adjacent Halton Till Plain. Specifically, the site lies within the southwest portion of the Halton Till Plain.

2.2 Hydrologic Setting

The golf club is located within the Appleby Creek watershed which encompasses approximately 14.67 km^2 of drainage area with the headwaters originating above the Niagara Escarpment. The Appleby Creek flows south from atop Mount Nemo, the most predominate geological feature in the area, towards Lake Ontario. South of Highway 407, urban development has significantly altered catchment areas, increasing storm runoff and reducing riparian cover. Upstream of the Highway 407 crossing, the land use is predominately agricultural with relatively good forest and riparian cover. Field observations conducted at the site indicate that this system is intermittent, with flow stopping completely at times during the summer months. The golf club is located within 7 km of the outlet of the East Appleby Creek with Lake Ontario.

Updated information was obtained from Conservation Halton to establish the resident fisheries community structure based on the existing fish collection records from 2014. Table 1 presents the list of resident species inventoried and reported within the area immediately surrounding the golf course in the Appleby Creek watershed dating back to 1994 (including 2014).

Table 1: Fish Species Identified in the Appleby Creek Watershed

Resident Species	
Green Sunfish	White Sucker
Fathead Minnow	Longnose Dace
Creek Chub	Pumpkinseed
Brook Stickleback	Goldfish
Various Minnows	Blacknose Dace
Sunfish	Common Carp
Largemouth Bass	Round Goby
Redside Dace	

A review of the collection records by CH for 2014 in the immediate vicinity of the golf course within the Appleby Creek watershed indicated the presence of Creek Chub, Blacknose Dace, White Sucker and Largemouth Bass. Collection records also indicated the presence of the invasive species of Round Goby and Common Carp in Appleby Creek, which is suspected to be the result of maintenance work completed at a stormwater management pond located at Dundas Street and Appleby Line. The endangered Redside Dace was also noted to be present in nearby Fourteen Mile Creek (CH, 2015). Aside from the Redside Dace, the resident fish species listed in Table 1 are all representative of the warm water tolerate species thermal classification. In-stream temperature data was also collected from monitoring stations on Appleby Creek (established by CH) and indicate temperature ranges within the warm water classification regime.

3.0 Water Taking Operations

Millcroft currently utilizes the stormwater management pond, identified as the Mill Pond, as their primary source of irrigation water. Water is pumped at a maximum rate of 2,917 L/min (642 Igpm) directly from the pond for a maximum of 24 hours per day up to a daily maximum volume of 1,112,300 L, with 214 days of allotted water taking per year, as specified in Table A of the existing permit. The golf club typically draws water from the Mill Pond at rates of approximately 2,270 L/min (500 Igpm) to ensure compliance to pumping rates specified in the permit. However, irrigation practices at the golf club are based on longer, more infrequent deep water cycles to promote healthier, more drought resistant turfgrass. As a result, daily irrigation volumes can reach up to the permitted daily maximum of 1,112,300 L.

The Mill Pond is an online pond located in the southeastern corner of the property along Upper Middle Road. Dimensional characteristics of the pond include a width of approximately 100 m, a length of approximately 150 m, and an approximate storage volume of 67.5 million litres (14.85 MIgal). The pond is fed by storm drainage from the surrounding residential development and the East Branch of Appleby Creek – classified

as a second order watercourse – which flows through three additional stormwater management ponds located upstream of the Mill Pond. The East Appleby Creek flows openly into the Mill Pond via an engineered channel. Pond outflow and pond water levels are controlled by a concrete dam structure located at the southern tip of the pond. The upstream drainage area of the Mill Pond is estimated to be 43.81 ha, including areas captured as part of the storm water drainage network and the Appleby Creek drainage area. The location of water taking at the Mill Pond is shown on Figure 2.

The irrigation distribution network is primarily a single row automatic system that irrigates all greens, tees, fairways and designated portions of rough. The irrigation pumps are operated through a central controller that can be adjusted daily to irrigate the golf course efficiently. Generally, water taking at the golf course occurs at night to limit evaporation and during hours when the facilities are not in use.

4.0 Irrigation Demands

Irrigation demands were originally assessed as part of the water balance study in task two of the work plan and are summarized below. Water demands vary from day to day, month to month and year to year depending on climatic conditions. The average irrigation demands of the golf course are based on the following assumptions:

- The irrigation season generally extends from April 1 to October 31 of each year (potentially 214 days), with July and August representing peak demand periods.
- The total irrigated area is estimated to be approximately 12.8 hectares (31.6 acres) based on records provided by the property manager and aerial mapping. The breakdown of the area and maximum irrigation requirement is shown in Table 2 below.
- The daily turf requirement varies monthly, and can range from 3.629 mm/day, on average, which translates to an average turf requirement of 25.4 mm/week (1.0 inches/week) during average irrigation periods. This value is representative of an average irrigation requirement for turfgrass, and results in a total average daily volume for the golf course of approximately 464,500 L (102,166 Igal). Typical daily turf irrigation requirements are summarized below in Table 3.

Table 2: Irrigation Areas

	Area (m^2)	Average Irrigation Requirement mm/week (in/week)
Green	13,000	25.4 (1.0)
Tees	10,000	25.4 (1.0)
Fairways	75,000	25.4 (1.0))
Rough	30,000	25.4 (1.0)
Total	128,000	25.4 (1.0)

Table 3: Average Daily Turf Irrigation Requirements

	Avg.	Apr,	May	Jun,	July	Aug.	Sept.	Oct.	Nov.
mm/day	*1.565*	0.181	0.907	1.814	3.629	3.629	1.814	0.363	0.181
Igal/day	*44,059*	5,108	25,542	51,083	102,166	102,166	51,083	10,217	5,108
L/day	*200,238*	23,000	116,100	232,200	464,500	464,500	232,200	46,400	23,000

Peak irrigation demands can vary up to a maximum of 5.443 mm/day which translates to a maximum turf requirement of 38.1 mm/week (1.5 in).

5.0 Irrigation Water Taking

Monitoring Condition 4.1 of the existing permit requires the golf club to maintain records of all water takings from the Mill Pond, including the date, times, rates of pumping and the total amount of water pumped per day. It is noted that water taking from the Mill Pond is measured using a calibrated flow meter.

Water taking records from 2016 to 2018 were obtained from the golf course and the details are summarized in the table below. A complete copy of the water taking records is provided in Appendix C.

Table 4: Mill Pond Water Taking Summary, 2016-2018

Year	Source	Maximum (L/day)	Average (L/day)	Annual Total (L)	Total Days Taken
2016*	Mill Pond	958,674	381,160	22,107,304	58
2017	Mill Pond	855,159	398,350	31,868,004	80
2018	Mill Pond	1,008,411	474,241	46,001,361	97
Overall	**Mill Pond**	**1,008,411**	**417,917**	**33,325,556**	**78**

*Note that water taking up to July 26, 2018 was conducted under the previous PTTW.

A review of the water taking records suggests that the maximum permitted rates and total volumes specified in Table A of the PTTW were not exceeded over the duration of the permit. In addition, the total days of water taking per year of 214 days was not exceeded in either 2016, 2017 or 2018.

A comparison of the theoretical water demands calculated in Section 4 of this report and actual water use indicates that average daily turf requirement of 464,500 L is slightly higher than the actual average daily water use from 2016 to 2018 of 417,917 L. The maximum daily use ranged from 855,159 L to 1,008,411 L over the same period. The discrepancy between the average and peak values can be attributed to irrigation practices that include deeper, more infrequent watering cycles to promote healthier, more drought resistant turfgrass. These practices are evident in the attached water taking records, which indicate several days of water taking in the range of 700,000 to 1,000,000 L/day, followed by periods of smaller water takings that are more representative of the daily averages.

6.0 Regional Precipitation Review

Annual precipitation data was obtained from an Environment Canada gage station at Hamilton RBG for the years 1971 to 2018 to compare long-term averages with the 2016 to 2018 annual precipitation data, which are summarized in the graphs presented in Appendix D. The results are also summarized on a monthly basis for the irrigation season (April to September) in the table below.

Table 5: Irrigation Season Precipitation, 2016-2018 vs. 1971-2018 Average

Year	Apr.	May	June	July	Aug.	Sept.	Total
2016	70.7	38.3	31.6	30.6	95.8	60.3	327.3
2017	142.3	173.7	100.9	77.2	55.2	37.4	586.7
2018	109.0	57.0	86.3	51.7	49.8	52.5	406.3
1971-2018 Ave.	78.3	76.8	74.2	75.9	70.2	75.1	450.6

A review of the 2016 data suggests that this year had an exceptionally dry irrigation season, receiving 123.3 mm less precipitation than the historical average. In particular, May, June and July received a total of only 44% of their average rainfall amounts. Conversely, the 2017 data suggests an exceptionally wet irrigation season as the area received 136.1 mm more than the historical average. This was accredited to a wet spring, when April, May and June received a total of 182% of their total average. Lastly, 2018 precipitation data suggests an average to moderately dry irrigation season as the area received only 44.3 mm less than average. The seasonally dry months of July, August and September, however, received only 70% of their total average.

A comparison of seasonal precipitation totals to annual irrigation totals indicates an inversely proportional relationship. During 2017 – which was noted to be wetter than normal, irrigation totals were low. Comparatively, during 2018, which was slightly drier than normal, irrigation totals were high.

7.0 Appleby Creek Monitoring Program

Surface water monitoring at the site has been ongoing since 2011 to assess the flow within the Appleby Creek and Mill Pond system as required by Monitoring Condition 4.2 of the existing PTTW. Monitoring is conducted at the following stations:

- SS1 – Appleby Creek upstream of the golf course at Dundas Road
- SS2 – Appleby Creek upstream of the Mill Pond
- SS3 – Mill Pond overflow

Automatic water level recorders (AWLRs) were installed at SS2 and SS3 to continuously measure water levels. The continuous water level data is used in conjunction with a stream stage-discharge ratings curve developed at SS2 and a weir equation at SS3 to

estimate flow data into and out of the Mill Pond. The exact locations of the monitoring sites are shown on Figure 2.

7.1 Streamflow Measurements Summary

To date, a total of 35 manual streamflow measurements have been conducted at the SS2 cross-section, 12 of which in 2016 to 2018. As a reliable ratings curve had been developed at SS1, measurements were reduced to once annually to continue validating the stage-discharge relationship. When applicable, measurements are taken downstream of the overflow weir of the Mill Pond as a manual check of the weir flow calculations. The following table summarizes all streamflow monitoring data collected.

Table 6: Stream Flow Monitoring 2011 - 2018

Date	SS2		Downstream of Weir
	Stage (m)	Discharge (L/min)	Discharge (L/min)
September 14, 2011	0.165	-	-
November 1, 2011	0.255	480	-
January 17, 2012	0.35	6,540	-
March 6, 2012	0.25	2,580	-
April 12, 2012	0.08	120	-
May 10, 2012	0.22	900	-
May 22, 2012	0.18	60	-
June 4, 2012	0.27	2,160	-
June 26, 2012	0.21	-	-
August 8, 2012	0.17	120	-
November 5, 2012	0.28	3,780	-
April 23, 2013	0.27	1,620	-
June 13, 2013	0.27	1,560	-
July 19, 2013	0.18	-	-
September 13, 2013	0.24	360	-
May 27, 2014	0.17	434	324
July 3, 2014	0.26	1,266	-
July 31, 2014	0.27	2,914	1,100
August 22, 2014	0.12	379	-
September 19, 2014	0.13	470	-
October 8, 2014	0.29	4,272	6,564
June 25, 2015	0.11	257	-
July 23, 2015	0.19	133	-
April 28, 2016	0.19	147	-
July 26, 2016	0.11	575	0
August 24, 2016	0.06	55	-
September 29, 2016	0.11	216	1,576
April 12, 2017	0.18	1,968	1,320
May 31, 2017	0.15	1,755	-
July 19, 2017	0.08	570	-
October 26, 2017	0.11	702	355
April 24, 2018	0.29	2,471	1,360

Date	SS2		Downstream of Weir
	Stage (m)	Discharge (L/min)	Discharge (L/min)
June 28, 2018	0.26	2,506	-
August 30, 2018	0.05	175	-
October 31, 2018	0.36	5,870	11,110

A review of the streamflow measurement data indicates that, with the exception of the October 8, 2014, September 29, 2016 and October 31, 2018 measurement, flow downstream of the weir was less than the measured flow upstream of the Mill Pond at SS2.

7.2 Ratings Curve Summary

Stage-discharge ratings curves have been developed for both SS1 and SS2 locations and were initially presented in the 2013 PTTW renewal report prepared by Burnside. The SS2 ratings curve was updated in 2016, and 2017 to 2018 streamflow measurements have been used to validate the accuracy of the relationship as required by Monitoring Condition 4.2 of the PTTW. The table below summarizes the ratings curves developed for SS1 and SS2. Graphical representations of the ratings curves are attached in Appendix E.

Table 7: SS1 and SS2 Ratings Curves

Monitoring Location	Power Equation	Variance
SS1	$y = 8.09x^{4.36}$	0.7660
SS2	$y = 14.117x^{4.569}$	0.8522

7.3 Water Level Summary

Continuous water level monitoring has continued over the duration of the existing PTTW at the surveyed staff gauge installed in SS2 as well as the Mill Pond. The AWLRs are programmed to record at 30-minute intervals and are typically removed in the fall following the end of the irrigation season and re-installed in the spring prior to irrigating to avoid damage caused by ice and freezing conditions over the winter. The water level data has been processed and plotted on water level hydrographs (Appendix F). Precipitation data obtained from a nearby Environment Canada climate station in Hamilton was plotted for comparison in addition to Mill Pond water use data.

7.3.1 SS2 Water Levels – Upstream of Mill Pond

A review of the hydrographs prepared for the SS2 station suggests a direct correlation to precipitation events. Water levels at the station respond rapidly to precipitation events, with influxes of up to approximately 0.90 m on the staff gauge from 2016 to 2018, and decline during extended periods without precipitation. Generally, seasonal water level

fluctuations varied by less than 0.25 m from 2016 to 2018. These findings are noted to be consistent with previous monitoring results.

7.3.2 SS3 Water Levels – Mill Pond

A review of the hydrographs prepared for the SS3 station indicates that water levels were generally at or above the elevation of the weir for the duration of the PTTW, with the exceptions of July 2018, August and September 2017, and June to August 2016. These periods represent prolonged durations in which the water level was consistently below the top of the weir, and are the result of a combination of drought conditions and golf course pumping. Mill Pond water levels are also observed to respond to moderate precipitation events (>20 mm/day), especially when water levels are below the elevation of the weir. As the pond is designed for stormwater control, a response to precipitation is expected. These findings are also noted to be consistent with historical observations.

It is noted that during the periods when water levels in Mill Pond were below the weir level, there was still flow into the pond from the upstream reach of Appleby Creek. It is during there periods in which water should be diverted around the pond to maintain baseflow to the downstream reaches of the creek system. In 2016, the drawdown in the Mill Pond was the largest since 2012. It is noted that during this period in 2016, irrigation water supplies were supplemented with municipal water.

8.0 Appleby Creek Flow Assessment

A detailed assessment of the flow regime in this reach of Appleby Creek was completed as part of the 2016 PTTW renewal report prepared by Burnside and satisfied Item No. 2 of the approved work plan. The assessment concluded that the reduction in the Mean Annual Flow (MAF) from the upstream SS2 location (3,708 L/min) to the downstream SS3 location (2,478 L/min) was evidence that the online pond and the weir overflow structure are negatively influencing flows within Appleby Creek. Similarly, the 60% summer exceedance flow is significantly influenced by the duration in which flow is stopped at the overflow. The flow assessment has been updated with the additional monitoring data collected under the duration of the existing PTTW, and is discussed in the following subsections.

8.1 SS2 Flow – Upstream of Mill Pond

The continuous water level data collected at SS2 was used in conjunction with the established ratings curve (Table 7) to generate streamflow data from September 2011 to November 2018, except in years when the logger was temporarily removed for winter. The following tables summarize the monthly average, minimum, and maximum flows (Table 8) and flow duration values (Table 8) estimated at SS2 based on the average daily flows calculated.

Table 8: SS2 of Appleby Creek– Monthly Average, Minimum and Maximum Flows (m^3/s) September 2011 – November 2018

m^3/s	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
Min.	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000
Max.	4.417	1.368	0.809	1.830	2.046	0.823	0.843	6.638	0.124	1.900	0.705	0.688	6.638
Ave.	0.218	0.077	0.095	0.098	0.048	0.024	0.017	0.050	0.010	0.043	0.033	0.062	0.052

Table 9: Monthly and Annual Flow Duration Values Appleby Creek at SS2

	Exceedances (Percent)									
Month	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**95**
Jan.	0.343	0.184	0.106	0.066	0.053	0.029	0.017	0.009	0.005	0.003
Feb.	0.121	0.061	0.049	0.039	0.032	0.027	0.020	0.009	0.003	0.001
Mar.	0.213	0.132	0.087	0.064	0.050	0.038	0.033	0.024	0.013	0.002
Apr.	0.208	0.093	0.057	0.040	0.026	0.022	0.017	0.012	0.006	0.004
May	0.063	0.031	0.021	0.015	0.012	0.008	0.004	0.002	0.001	0.001
June	0.044	0.022	0.013	0.010	0.007	0.003	0.002	0.001	0.000	0.000
July	0.025	0.012	0.009	0.008	0.006	0.004	0.003	0.001	0.000	0.000
Aug.	0.037	0.016	0.010	0.007	0.004	0.003	0.001	0.001	0.000	0.000
Sept.	0.028	0.013	0.009	0.007	0.004	0.002	0.001	0.000	0.000	0.000
Oct.	0.102	0.039	0.017	0.012	0.007	0.004	0.003	0.001	0.000	0.000
Nov.	0.064	0.043	0.034	0.026	0.017	0.012	0.007	0.004	0.003	0.003
Dec.	0.127	0.079	0.064	0.052	0.032	0.024	0.017	0.006	0.003	0.002
Annual	0.090	0.043	0.025	0.016	0.010	0.007	0.003	0.002	0.000	0.000

Based on the 2011 to 2018 data collected, the Mean Summer Flow (MSF) from June to September was estimated to be 1,508 L/min. This is noted to be less than MSF calculated as part of the previous assessment of 2,108 L/min (2012 to 2015 data). It is likely that the severe drought conditions observed across southern Ontario in the summer of 2016 (discussed earlier in Section 6.0) has reduced the MSF value considerably in this span (2011 to 2018). Similarly, the updated 60% summer exceedance flow (June to September) was calculated to be 396 L/min, and is within 10% of the previous estimate of 424 L/min.

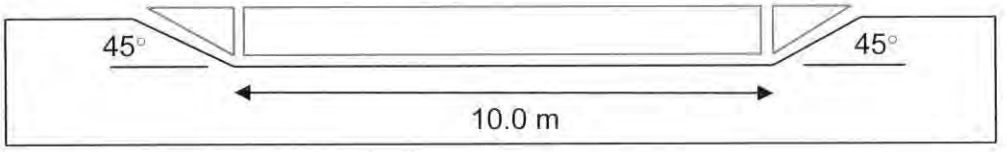
Although the predicted flow indicates that the creek flows do not stop at any point, it is likely that the ratings curve over estimates flow at extremely low and extremely high levels. Actual flow measured in the creek below 0.17 m on the staff gauge indicates flow stops completely at times (or is below the measurement tolerances of the equipment used to measure flow). It is likely that at times, the creek system becomes stagnant (zero flow) although not drying up completely.

8.2 SS3 Flow – Mill Pond

The overflow weir installed at the outlet of the Mill Pond is considered to be a trapezoidal broad crested weir, consisting of an effective width of approximately 10 m. As shown

below, the weir can be divided into two sections, a rectangular weir and a "v" shape weir, and using the following equations, the flows can be calculated as:

Figure 3: Mill Pond Broad Crest Weir



Rectangular Broad Crest Weir: $Q = 0.886LH^{1.5}$

where, Q = flow
L = effective length
H = head above crest

"V" Notch Weir: $Q = Ctan(\Theta/2)H^{2.5}$

where, Q = flow
C = weir coefficient, determined to be 1.4
Θ = notch angle
H = head above crest

Based on the water level data collected at SS3 in conjunction with the above noted equations, the flow over the weir can be estimated. It should be noted that weir flows were calculated only for the period after the end cutting was repaired (December 2011). Additionally, over the winter of 2013 additional shoring was added to the weir and the edges repaired again, which resulted in a shift in the height of the water levels of the pond. Flows from this period have been adjusted accordingly. The following table summarizes the updated calculated flows over the weir at the Mill Pond.

Table 10: SS3 Calculated Mill Pond Weir – Monthly Average, Minimum and Maximum Flows (m^3/s) September 2011 – November 2018

m^3/s	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
Min.	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	**0.000**
Max.	0.477	1.476	0.252	0.530	0.575	1.263	0.479	1.467	0.139	0.271	0.088	0.182	**1.476**
Ave.	0.064	0.110	0.062	0.048	0.039	0.025	0.020	0.029	0.019	0.032	0.017	0.036	**0.033**

Based on the 2011 to 2018 data collected, the summer low flow observed at SS3 is observed to be zero (no flow passing over the weir). The updated MAF is estimated to be 1,992 L/min, and is again lower than the previous value of 2,478 L/min. Similarly, the updated 60% summer exceedance over the weir was estimated to be 192 L/min (previously 234 L/min). As previously concluded, there is a reduction in both the MAF and 60% summer exceedance flow at SS3 in comparison to the upstream SS2.

A direct comparison between weir flow calculations based on the levels at SS3 and measured flow downstream of the weir indicates a good comparison, as summarized below in Table 11.

Table 11: Measured flow downstream of Weir versus Calculated Weir flows at SS3

Date	Time of Measurement	Measured Discharge (L/min)	Calculated Discharge (L/min)
May 27, 2014	8 a.m.	324	699
July 31, 2014	12 p.m.	1,100	1,180
August 22, 2014	12 p.m.	-	311
September 19, 2014	9 a.m.	-	378
October 8, 2014	9 a.m.	6,564	6,480
June 25, 2015	3 p.m.	-	36
July 26, 2016	12 p.m.	0	0
September 29, 2016	12 p.m.	1,576	1,650
April 12, 2017	3 p.m.	1,360	1,482
October 26, 2017	12 p.m.	355	240
April 24, 2018	1 p.m.	1,360	1,640
October 31, 2018	2 p.m.	11,110	n/a*

*Value outside operational maximum of weir calculation.

9.0 Work Plan Update

Item 2 of Schedule A of the PTTW (Report by Burnside, 2016) describes the Work Plan that was originally submitted in March 2014 to Mr. Zhiping Yang, Surface Water Specialist and subsequently approved. The Work Plan is summarized as the following:

1. Surface water monitoring of the Appleby Creek system at Stations SS1, SS2 and SS3 as required by Monitoring Condition 4.2.

2. Completion of a water balance assessment and flow model utilizing the findings of the monitoring program to assess the minimum flow requirements.

3. Detailed design of the Appleby Creek diversion/bypass structure and modifications utilizing the findings of the water balance assessment.

4. Approval from relevant agencies and construction of the diversion/bypass.

Monitoring Condition 4.3 of the existing PTTW required the submission of an Implementation Report to the MECP by December 31, 2017. This report was prepared and submitted by Burnside to Mr. Karoly Tajnay, Director, Section 34.1 OWRA at Central Region, dated December 19, 2017. A copy of this report is attached in Appendix G for reference.

As discussed in the Implementation Report, the golf club has completed Items 1 through 3 of the Work Plan summarized above, with the only remaining task being agency approvals and construction. Since the submission of the Implementation Report, the golf course has retained Burnside to continue working through the comments provided by CH while simultaneously investigating the feasibility of other potential long-term water sources (primarily municipal supplies). The resulting additional studies and design modifications were submitted in December 2018, and are awaiting review and approval by CH. Modifications to the creek channel diversion were made, and is it noted that for design purposes, 424 L/min was used as the proposed threshold flow, above which 50% of the excess flow will be diverted to the Mill Pond.

As such, it is requested that an interim 2-year PTTW be issued by the MECP for the continued use of Mill Pond as previously permitted, until the design is approvals and construction of the diversion/bypass can completed.

10.0 Water Conservation Measures

Water conservation is one of the most important tools that a golf course has to ensure that the available water supply will be sufficient for its daily, weekly, monthly and yearly irrigation demands and to provide for healthy turfgrass. Water conservation has been occurring at the golf club for many years and moving forward water conservation measures at Millcroft will include the following:

- Irrigate only those areas that require it, specifically tees, greens, fairways and some rough areas. The longer grasses of the out-of-play areas are more tolerant of dry periods and do not require irrigation.

- The golf course has increased the number of unmaintained and out of play areas to reduce overall irrigation and maintenance activities.

- Irrigation will take place at night when the losses due to evapotranspiration are at a minimum and the water can be retained in the soil structure before the plants absorb the water.

- Not all areas will require the same amount of water. The fairways, tees and greens will use different grass types and will be cut to different heights. Sprinkler heads will be set individually to provide the optimum amount of water to each area depending on the grass type and length.

- Localized hand watering of "hot-spot" areas will take place, which will avoid over-water in many areas.

- Turfgrass will be aerated regularly to prevent the formation of thatch. Thatch is a thick mat of grass roots that grows so densely that the passage of water to the bottom of the root system is reduced. Thatch means that an increased amount of water must be applied to an area to be able to water it effectively.

- The irrigation practices will adjust to the local weather conditions such as solar radiation or precipitation. For instance if it starts raining while irrigating, the irrigation system will be shut down to conserve water.

- Lower fertility rates and plant growth regulators will be utilized to slow down plant growth, which in turn requires less watering. The use of soil surfactants on greens and tees ensures more efficient water distribution and improves the moisture content of soils.

- Regular monitoring of all water takings will increase awareness and assist in monitoring the success of water conservation efforts.

The overall water conservation strategy at the golf course is to water for plant sustainability and health and the golf club is proactive in reviewing procedures and looking for ways to improve on irrigation efficiency.

11.0 Conclusions

Based on the information provided in this report, Burnside offers the following conclusions:

- Monitoring conducted at the golf course in 2016 to 2018 was completed in accordance with the requirements of the PTTW and ongoing Work Plan.

- Water taking at the site was in compliance with the maximum rates and total volumes indicated in Table A of the PTTW.

- An update the flow assessment for this reach of Appleby Creek suggests that the 60% summer exceedance flow has reduced slightly from 424 to 396 L/min with the most current data. This value is within 10% of the previous estimate and for design purposes, 424 L/min will be applied as the water taking threshold flow.

- Approvals for the bypass channel are not yet completed.

- The only remaining task of the work plan is to obtain agency approvals and construction. It is anticipated that construction will be completed within 2 years of obtaining approval.

12.0 Recommendations

Millcroft should be issued a short term, 2-year PTTW from the MECP to allow for additional time to secure the remaining approvals from CH and to complete the construction of the bypass channel. Until such time, interim Mill Pond water takings should continue at the same rates and volumes as specified in the existing PTTW as summarized in the schedule below.

Table 12: Proposed Water Taking Schedule

Source	Maximum L/min	Maximum L/day	Maximum hrs/day	Maximum days/year
Mill Pond	2,917	1,112,300	24	214

The existing water level and flow monitoring program will remain in place until construction of the bypass is completed.

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Figures

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Appendix A

Application for Permit to Take Water
Articles of Incorporation

Ontario Ministry of the Environment and Climate Change

Application for Permit to Take Water

4440-B8EQ16/$3000.00/19/01/14/GK

General Information and Instructions

General:

Information requested in this form is collected under the authority of the *Ontario Water Resources Act*, R.S.O. 1990 (OWRA) and the *Environmental Bill of Rights*, C. 28, Statutes of Ontario, 1993, (EBR) and will be used to evaluate applications for a Permit to Take Water as required by Section 34 (OWRA).

Instructions:

1. Applicants are responsible for ensuring that they complete the most recent application form. When completing this form, please refer to the "Guide to Permit to Take Water Application Form" (referred to as the Guide). Application forms and supporting documentation are available from your local Regional or District Office of the Ministry of the Environment and Climate Change, and on the Permit to Take Water program page at https://www.ontario.ca/page/permits-take-water.
2. Questions regarding completion and submission of this application should be directed to local Regional Office of the Ministry of the Environment and Climate Change. Contact information for these offices is available in the Guide or on the Ministry of the Environment and Climate Change website at http://www.infogo.gov.on.ca/infogo/#orgProfile/-181/en.
3. This form must be completed with respect to all the requirements of the Guide for it to be considered an application for approval. **Incomplete applications will be returned to the applicant.**
4. A complete application consists of:

   (1) a completed, signed application form

   (2) all required supporting information identified in this form and the Guide, and

   (3) a certified cheque or money order, in Canadian funds, made payable to the **Ontario Minister of Finance** for the application fee when required. Payment may also be made by Visa or MasterCard.

   The Ministry may require additional information during the technical review of any application initially accepted as complete.
5. The original application, along with supporting information and the application fee should be sent to:

   Ministry of the Environment and Climate Change,
   Attention: Permit to Take Water Director
   Director, Environmental Approvals Access and Service Integration Branch,
   135 St. Clair Avenue West
   1st Floor
   Toronto, Ontario M4V 1P5
6. Information contained in this application form is not considered confidential and will be made available to the public upon request. Information submitted as supporting information may be claimed as confidential but will be subject to the *Freedom of Information and Protection of Privacy Act* (FOIPPA) and the EBR. If you do not claim confidentiality at the time of submitting the information, the Ministry of the Environment and Climate Change may make the information available to the public without further notice to you. If you are identifying confidential material, please indicate why you believe the information is confidential.

RECEIVED
JAN 11 2019
MINISTRY OF THE ENVIRONMENT & CLIMATE CHANGE
CLIENT SERVICES & PERMISSIONS BRANCH
ENVIRONMENTAL ASSESSMENT & PERMISSIONS BRANCH

Conservation Halton

One

905.336.1158
Fax: 905.336.7014
2596 Britannia Road West
Burlington, Ontario L7P 0G3
conservationhalton.ca

Protecting the Natural Environment from Lake to Escarpment

February 1, 2019

BY MAIL AND EMAIL

Ed Liptay c/o Millcroft Golf Club
2155 Country Club Drive
Burlington, ON
L7M 4A8

Dear Mr. Liptay:

Re: Proposed modifications to an existing online pond associated with Appleby Creek
2155 Country Club Drive
City of Burlington
CH File: A/15/B/49

Proposal

The applicant is proposing the modifications to an existing online pond associated with Appleby Creek.

Ontario Regulation 162/06

Conservation Halton regulates hazardous lands associated with watercourses, valleylands, hazardous lands, wetlands and shorelines, as well as the lands adjacent to those hazards. Please be advised that development, including grading, filling, or the construction of structures, within Conservation Halton's regulated area, requires permission pursuant to Ontario Regulation 162/06. Please visit www.conservationhalton.ca for a copy of Ontario Regulation 162/06 and the related policy document *Policies and Guidelines for the Administration of Ontario Regulation 162/06* (August 11, 2011).

Staff have reviewed the following documents regarding the above noted proposal:

- Letter from R.J. Burnside RE: Modifications to the existing online Associated with Appleby Creek, dated December 11, 2018, stamped received December 12, 2018;
- *Realignment of Appleby Creek – Hydraulic Analysis*, prepared by R.J. Burnside, dated June 28, 2018, stamped received December 12, 2018;
- *Functional Channel Design and Instream Flow Needs Appleby Creek, Millcroft Golf Club – Photo Inventory & Cross-section Locations and Enhanced Erosion Protection Check*, prepared by AquaLogic, stamped received December 12, 2018;
- *HEC-RAS Model*, prepared by R.J. Burnside;
- *Set of 8 drawings – Millcroft Golf Club*, prepared by R.J. Burnside, marked DWG No, G1, PP1, PP2, CH1, CH2, ESC1, R1 and D1, dated December 10, 2018, stamped received December 12, 2018;
- *2017 Annual Permit to Take Water Monitoring Summary – 20179610 Ontario Ltd. o/a Millcroft Golf Club*, prepared by R.J. Burnside, dated December 19, 2017, stamped received December 12, 2018.

Comments on Submission

Staff will require that the following comments be addressed with regards to the above noted drawing set and technical reports. I have also attached Conservation Halton's Re-Submission Declaration Form for Permit Applications. This form is to be completed and submitted with each resubmission in order to be accepted and circulated:

General Comments

Comments 1 to 5 – Addressed.

Technical Documents

Functional Channel Design and Instream Flow Needs Appleby Creek Report

6. Comment Not Addressed - The flow regime, detailing the minimum volume and timing of water flow has not been provided. Demonstrate that the flow regime is dictating the bypass volume to ensure that the bypass is not a fish barrier at any time of year. Please confirm if the new watercourse will allow fish passage and sustain appropriate temperatures for all species present including largemouth bass and pumpkinseed. Conservation Halton staff reiterate our request that best efforts be made to re-establish the natural regime.

7. Comment Partially Addressed - Staff support the removal of the online pond; however, note that all efforts to provide a net environmental benefit be explored given that the pond will divert flows. Please confirm that the proposed design will not be a barrier to fish.

8. Addressed.

9. Comment Partially Addressed – At the pre-construction meeting consultants are to provide direction to the contractor regarding biasing the low point of the thalweg moderately off centre at bend points.

Comments 10 to 44 – Addressed.

Drawing No. R1

45. Comment Partially Addressed – please revise and relocate replacement trees closer to the pond and watercourse.

46. Addressed.

47. Comment Not Addressed - Staff note that all disturbed areas within Conservation Halton's regulated areas should be stabilized upon completion of work with native, non-rare plant species. Sod is not appropriate for regulated areas. Please provide the botanical names and quantitites of all species in Ontario Seed Company Seed Mix #8215, as indicated on Drawing No. R1. Erosion control blankets may be required until seeding is well established.

Drawing No. G1

48. Staff are concerned that the creation of the bypass channel results in one of the current stormwater outlet to the pond discharging to the watercourse directly. Conservation Halton does not permit discharge of untreated stormwater. The existing pond is providing stormwater

management control as approved for the development. Every effort should be made and options explored to provide a measure of stormwater control for the development prior to discharge to the channel.

New Comments

49. Conservation Halton staff are concerned that the channel may become blocked over time and that the difference in invert elevations and overflow weir (0.09m) are insufficient to ensure the proposed by-pass conditions will occur. The consultant should provide reassurances that the proposed works will operate as designed.

50. Please provide a stage discharge curve for the channel and pond flow splitter which demonstrates a 50/50 split is achievable with the proposed design.

51. Please provide a multi-year post-construction monitoring program to i) demonstrate that the bypass flow is providing sufficient flow, consistent with the in-stream flow needs assessment and ii) ensure the new channel is functioning as intended. Include photographic evidence of the performance of geomorphic and habitat features, quantitative and repeatable monitoring parameters, success of all restoration plantings and "as-constructed" drawings or the plan should include commitments to fix or adjust the channel in the monitoring plan if it is not functioning as designed.

In Summary

Staff has reviewed the material provided in support of the proposed works for pond modifications at Millcroft Golf Club. At this time, staff require the above comments regarding the submitted technical reports/briefs and drawing set be addressed and resubmitted to Conservation Halton for review and comments. Once these comments have been addressed, please provide four copies of the updated reports/briefs, with associated drawings, and any technical documents for staff's review. Conservation Halton's Re-Submission Declaration Form for Permit Applications is attached and is to be completed and submitted with each resubmission in order to be accepted and circulated.

We trust the above is of assistance. If you have any further questions, please contact the undersigned at Extension 2278.

Yours truly,

Ben Davis
Regulations Officer

Encl. 1

BD/

Cc: Stephen Kajan, c/o R,J. Burnside – skajan@rjburnside.com (Email)
Cc: Jacek Strakowski – Conservation Halton (Email) ext. 2253

Conservation Halton

Re-submission Declaration Form For Permit Applications Submitted Under Ontario Regulation 162/06

Conservation Halton File # A/15/B/49 Re-submission #2

This form must be completed in full and attached as a cover sheet to any technical studies, engineering drawings, or other technical information which have been re-submitted to support your permit application. Incomplete or unsigned forms, re-submissions submitted without this form, or re-submissions which differ from the signed declaration form **will not be accepted**.

To avoid piecemeal re-submissions we request that **all** items required for re-submission be forwarded to Conservation Halton in **one** package. Incomplete submissions will **not be circulated for review** until all of the required items have been received.

Re-submission Requirements	Submitted (✓) Please check.
• Resubmission declaration form, signed by the applicant or authorized agent (cover sheet)	
• Response letter which addresses *all* of the comments provided in Conservation Halton's letter in response to the last submission. Please provide responses based on the numbering system in which they were written by staff.	
• Four full sets of all revised plans/drawings (unless otherwise stated in Conservation Halton's most recent letter).	
• Revised reports/studies (as indicated in Conservation Halton's letter, if required). Reports and drawings are to be provided in hard copy and all drawings folded.	
• Additional information required by staff as indicated in Conservation Halton's letter in response to the last submission (if required).	
• Re-submission fee of _____ (applicable after first re-submission)	
• Any additional or new information (if applicable).	

DECLARATION

I hereby declare that:

a) the particulars provided on this re-submission form are true and correct;
b) the re-submission is complete and all requirements, as specified in Conservation Halton's letter of response to the last submission, have been complied with; and
c) the lead consultant has reviewed and coordinated the submission to ensure that all re-submission materials are consistent.

Signature of Applicant and/or authorized Agent: _____

Contact information

Address: _____

Telephone Number: _____

Email: _____

For Office Use Only
Date Received:
Signature:

Ministry of the Environment, Conservation and Parks
Operations Division
1st Floor
135 St Clair Ave W
Toronto ON M4V 1P5
Fax: (416) 314-8452
Telephone: (416) 314-1081

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Division des Opérations
1er étage
135 av St Clair O
Toronto ON M4V 1P5
Télécopieur : (416) 314-8452
Téléphone : (416) 314-1081

Ontario

January 14, 2019

Ministry of the Environment
5775 Yonge Street, 8th Floor
North York, Ontario M2M 4J1

JAN 17 2019

Ed Liptay
2079610 Ontario Ltd. operating as Millcroft Golf Club
2155 Country Club Drive
Burlington, Ontario
L7M 4A8

Dear Ed Liptay:

Re: Application for Approval of Permit To Take Water
Renew PTTW No. 0463-ABSQSD
Burlington City, Regional Municipality of Halton
Reference Number 4440-B8EQJ6

We acknowledge receipt of your application for a Permit to Take Water for a New Permit and the fee in the amount of $3000.00, received on January 11, 2019, for the taking of water from a source located at:

Site Location: Millcroft Golf Club
2155 Country Club Drive
Lot 7, Concession 1 South of Dundas Street
Burlington City, Regional Municipality of Halton

The Ministry's reference number for your application is 4440-B8EQJ6. Please quote this number in any correspondence or enquiries regarding this application.

The Region handling your application is Central Region. If you have any questions regarding your Permit to Take Water application please contact the Permit to Take Water Coordinator at (416)326-3323. Should any further information be required, they will contact you or your identified Project Technical Information Contact. Information regarding Permits to Take Water is also available at www.ene.gov.on.ca.

Sincerely,

Gabriela Sadowska M.Sc. (Env. Eng.)

000109

Application Assessment Officer
Environmental Assessment and Approvals Branch

c: Stephan Kajan, P. Eng., R. J. Burnside & Associates Limited, via email skajan@rjburnside.com

6. Project Technical Information Contact

Same as Applicant ? ☐ Yes ☑ No (If no, complete below)

Name	Company
Stephen Kajan, P.Eng	R.J. Burnside & Associates Limited

Address Information

Same as Applicant Mailing Address ? ☐ Yes ☑ No (If no, please provide technical information contact mailing address below)

Civic Address - Street information (street number/name/type/direction/unit/suite/emergency 911 location number and street/ P.O.Box/Rural Route Number)

Unit Number	Street Number	Street Name	PO Box	Rural Route
200	1465	Pickering Parkway		

City/Town	County/District	
Pickering	Durham	
Province/State	**Country**	**Postal Code/Zip Code**
Ontario	Canada	L1V 7G7

Telephone Number (including area code)	Fax Number (including area code)
289-545-1062 direct NT ext.	905-420-5247

Email Address
skajan@rjburnside.com

7. Source Information

Note: Source Information must be provided separately for each source. Please complete and submit multiple copies of this Source Information section if your application includes more than one source.

Number of Water Taking Sources Included in this Application (do not include domestic uses that do not require a permit)

Total Number of Wells	Total Number of Lake Intakes	Total Number of Ponds	Total Number of Watercourse Intakes
0	0	1	0

Pond/Reservoir 1

Pond Name / Identifier
Mill Pond

Was the pond constructed (man made)? ☑ Yes ☐ No

If yes, please provide date of construction (yyyy/mm/dd)
1986/01/01

Pond Size

Average Length	Average Width	Average Depth of Water	Maximum Depth of Water	Approximate Volume of Pond
150 m	100 m	3 m	5 m	67,500,000 L

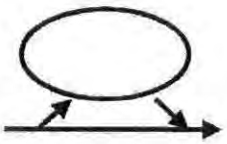
Pond Type

Select the diagram that most accurately resembles your pond:

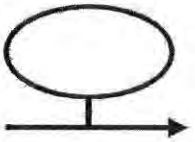
☑ online



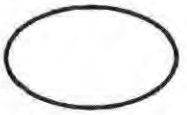
☐ by-pass



☐ connected



☐ dugout



Source of pond water (select all that apply)

☑ Seepage / springs / groundwater

☑ Surface water runoff (including tile drains, does not include watercourse or open channel)

☐ Pumped water (if water is pumped into a pond, complete section information for source from which water is pumped - i.e., well, lake or watercourse)

☑ Flowing water (watercourse, open drains, ditches, etc.)

If "flowing water",

1. Does water flow into the pond (inflow)? ☑ Yes ☐ No

   If yes, is there a structure to regulate the inflow? ☐ Yes ☑ No

2. Does water flow out of the pond (outflow)? ☑ Yes ☐ No

   If yes, is there a structure to regulate the inflow? ☑ Yes ☐ No

   If yes, describe
   trapezoidal broad-crested weir

Source Location Information

Civic Address - Street information (street number/name/type/direction/unit/suite/emergency 911 location number and street)

Unit Number	Street Number	Street Name	PO Box
	2155	Country Club Drive	

Lot	Concession	Part	Reference Plan
7	1S		

City/Town	County/District	Original Geographic Township
Burlington	Halton	Nelson

Province	Postal Code
Ontario	L7M 4A8

Geographic (GPS) Coordinates (to be provided in Datum NAD83)

Method of Collection	Accuracy Estimate
GPS	1 - 10 metres

UTM Zone	Easting	Northing
17	597491	4804676

Is the Applicant the owner of the site where water taking will occur? ☑ Yes ☐ No

Is the site where water taking will occur located in an area of development control as defined by the *Niagara Escarpment Planning & Development Act*?

☐ Yes ☑ No

Is the site where water taking will occur located on the Oak Ridges Moraine Conservation Area as defined by the Oak Ridges Moraine Conservation Plan (a regulation made under the *Oak Ridges Moraine Conservation Act*)?

☐ Yes ☑ No

Are you aware of any complaints or impacts resulting from water takings at the site? ☐ Yes ☑ No

Will water from the site be packaged in a container (bottled water, tanks)? ☐ Yes ☑ No

Are wells located within 500 m of the site where water taking will occur? ☑ Yes ☐ No

Is municipal water available to all dwellings within 500m of the site where water taking will occur?

☑ Yes ☐ No ☐ Unknown

Estimated start date of water taking (yyyy/mm/dd)
2019/01/01

Water taking to extend for a period of: 2 ☐ days ☐ weeks ☐ months ☑ years ☐ indefinite

Is activity subject to the *Environmental Assessment Act*? ☐ Yes ☑ No

List any public consultation/notification that has occurred related to the proposed water taking (i.e., public hearings, notification of First Nations, etc.)

8. Public Consultation / Environmental Bill of Rights (EBR) Requirements

Is this application for water taking to extend for a period of less than one year? ☐ Yes ☑ No

► If no, this application may be subject to posting and/or public consultation requirements under the Environmental Bill of Rights. For more information, please refer to the Guide.

Is this application for agricultural use or aquaculture? ☐ Yes ☑ No

► If no, this application may be subject to posting and/or public consultation requirements under the Environmental Bill of Rights. For more information, please refer to the Guide.

9. Water Taking Volumes

Purpose options for Water Taking

Purpose Category	Specific Purpose
Agriculture	irrigation of (includes frost protection): field and pasture crops; fruit orchard; market garden/flowers; nursery; sod farm; tender fruits; tobacco, other (must specify)
Commercial	aquaculture, bottled water, golf course irrigation, mall/business; snowmaking, other (must specify)
Construction	Dredging, road building, other (must specify)
Dewatering	pits and quarries; construction; other (must specify)
Industrial	aggregate washing, brewing/soft drinks, cooling water, food processing, manufacturing; pipeline testing; power generation; other (must specify)
Institutional	school, hospital, other (must specify)
Recreation	aesthetic, fish pond, other (must specify)
Remediation	groundwater; other (must specify)
Water Supply	campground, communal, municipal, other (must specify)
Miscellaneous	dam/reservoir, heat pump, pumping test, other (must specify)

Water Source Information – Table A (Units in Litres)

Source Name	Purpose Category (select from "purpose category" column in table above)	Specific Purpose (select from "specific purpose" column in table above)	Maximum rate per minute	Maximum number of hours of taking a day	Maximum volume per day	Typical volume per day	Maximum number of days of taking in a year	Earliest calendar date of taking (mm/dd)	Latest calendar date of taking (mm/dd)
Mill Pond	Commercial	golf course irrigation	2917	24	1,112,300.00	250,000.00	214	04/01	10/31

10. Attachments

The following must be attached for all applications (Category 1, 2 and 3) to be complete:

☑ Map Requirements

On a 1:10 000 OBM (Ontario Base Map) (1:50 000 only acceptable in locations where 1:10 000 is not obtainable), mark and label:

- All existing and proposed water taking locations with sources corresponding with source name (refer to page 6 of the current application form).
- All of the following features within 500m of each source: existing wells (indicate use of existing well, springs, watercourses, wetlands, water bodies, property lines, locations and name of property owners, nearest road intersections, dwellings.

Browse... Remove

☑ Describe in detail how, where and when all water is obtained, stored, transferred, used and returned to the environment (if applicable). Details must include the source of all water takings (and corresponding source name if applicable), purpose of the water taking, period of water taking, and maximum quantity requested (see Guide for further instruction).

Note: If your application is subject to posting on the Environmental Bill of Rights (EBR) Registry, this description will be used to create the Proposal Notice. The ministry may change the wording as required, to meet the EBR posting requirements.

Browse... Remove

☑ Describe how water taking needs (rates, amounts and time periods) were determined. Provide all relevant information and calculations to demonstrate the water takings requested are warranted.

Browse... Remove

11. Statement/Signature of Applicant

I, the undersigned, hereby declare that to the best of my knowledge:

- The information contained herein and the information submitted in support of this application is complete and accurate in every way and I am aware of the penalties against providing false information.
- The Project Technical Information Contact identified in Section 6 if this form is authorized to act on my behalf for the purpose of obtaining this approval.

Print Name	Signature	Date (yyyy/mm/dd)
ED LIPTAY	Ed Liptay	2018/12/06

Schedule for Water Conservation Measures

Schedule 1 – Implementation of Water Conservation in accordance with Best Management Practices and Standards for the Relevant Sector

Section 1: General Information

Information on this Schedule is collected under the authority of the *Ontario Water Resources Act*, R.S.O. 1990 (OWRA), and the new *Environmental Bill of Rights*, C. 28. Statutes of Ontario, 1993, and will be used to evaluate applications for a Permit to Take Water as required by Section 34 (OWRA).

Instructions:

1. This Schedule forms part of the Permit to Take Water application form and is subject to all provisions and instructions where applicable.
2. All questions of Section 2 of this Schedule must be answered for this Schedule to be considered complete.

Purpose:

The purpose of this Schedule is to allow persons applying for a permit required by the Ministry to document in the application all water conservation measures and practices that are currently being undertaken or that is anticipated to be undertaken for the duration of the permit.

Persons applying for a permit are encouraged to take all reasonable and practical measures to conserve water and to be up to date with sector-specific best management practices and standards for water conservation (i.e. whether you are currently implementing or anticipate implementing water conservation best water management standards and practices relevant to your sector).

Various sector associations publish information on best practices that may be useful in determining practices and standards for water conservation. Examples of these sector-specifc assocations include the following:

- **Municipal Sector** – Ontario Water Works Association
- **Agricultural Sector** – Ontario Ministry of Agriculture (Fact Sheets and Guides on Best Management Practices containing information on efficient irrigation systems, staggering irrigation schedules and preparing Environmental Farm Plans)
- **Other Sectors** – For information on up-to-date best management practices and measures for water conservation, contact your relevant sector association.

Please note that this schedule may not be directly applicable to certain takings, such as pumping tests, instream uses, site dewatering and certain industrial processes. In these cases, consideration must be given to the fate of the water or system design requirements.

Section 2: Water Conservation Best Management Practices and Standards

Use this section of the Schedule to indicate what conservation measures and practices you are currently implementing or anticipate implementing. Where relevant, additional information can be attached as an appendix to this Schedule.

State your goals for reducing the use, loss or waste of water or for increasing the efficiency of water use (e.g., litres per day per unit of production or litres per day per capita for the residential sector).

Check off which of the following water conservation best management measures and practices that you have implemented or will implement for the duration of the permit:

Water conservation best management measures and practices	Implemented	To be Implemented
Water Use Audit	☐	☐
Universal metering of all users (municipalities)	☐	☐
Water Efficient Fixtures/Equipment/Technology	☑	☐
Develop and Implement an Overall Water Conservation and Efficiency Program	☑	☐
Leak Detection/Loss Prevention/Control Program	☐	☐
Public/Employee Information/Education/Outreach	☐	☐
Landscaping techniques/Site and Urban Design Principles	☐	☐
Water Efficient production processes/practices (e.g. re-use of water)	☑	☐
Economic Incentives/Cost-Share/Full Costing recovery/tax credits/rebate programs	☐	☐

Other (please specify) ► See Report

Of the measures and practices checked off above, provide specific details of the best management practices applied or to be applied including equipment (e.g. pump specification), processes, such as water used for industrial production and/or irrigation system(s), current and proposed technology, approach, processes and procedures:
See Report

For the above measures and practices, list information relevant for your sector and/or other sources of information used in determining water conservation and efficiency management practices and measures:
See Report

List dates of when the best management measures and practices were or will be applied for the duration of the permit:
See Report

Identify any approval or certification that you have received for implementing water conservation and efficiency best management practices, e.g. Environmental Farm Plan, Audubon Cooperative Sanctuary Program for Golf Courses:
See Report

Request ID: 007348441
Demande n°:
Transaction ID: 027233069
Transaction n°:
Category ID: CT
Catégorie:

Province of Ontario
Province de l'Ontario
Ministry of Consumer and Business Services
Ministère des Services aux consommateurs et aux entreprises
Companies and Personal Property Security Branch
Direction des compagnies et des sûretés mobilières

Date Report Produced: 2005/08/18
Document produit le:
Time Report Produced: 14:56:55
Imprimé à:

Certificate of Incorporation
Certificat de constitution

This is to certify that

Ceci certifie que

2079610 ONTARIO LTD.

Ontario Corporation No.

Numéro matricule de la personne morale en Ontario

002079610

is a corporation incorporated, under the laws of the Province of Ontario.

est une société constituée aux termes des lois de la province de l'Ontario.

These articles of incorporation are effective on

Les présents statuts constitutifs entrent en vigueur le

AUGUST 18 AOÛT, 2005

Director/Directrice
Business Corporations Act/Loi sur les sociétés par actions

Request ID / Demande*

7348441

Ontario Corporation Number
Numéro de la compagnie en Ontario

2079610

FORM 1

FORMULE NUMÉRO 1

BUSINESS CORPORATIONS ACT / LOI SUR LES COMPAGNIES

ARTICLES OF INCORPORATION
STATUTS CONSTITUTIFS

1. The name of the corporation is:
Dénomination sociale de la compagnie:

2079610 ONTARIO LTD.

2. The address of the registered office is:
Adresse du siège social:

5216 WALKERS LINE

(Street & Number, or R.R. Number & if Multi-office Building give Room No.)
(Rue et numéro, ou numéro de la R.R. et, s'il s'agit édifice à bureau, numéro du bureau)

MILTON
CANADA
(Name of Municipality or Post Office)
(Nom de la municipalité ou du bureau de poste)

ONTARIO
L4T 2X6
(Postal Code/Code postal)

3. Number (or minimum and maximum number) of directors is:
Nombre (ou nombres minimal et maximal) d'administrateurs:

Minimum 1
Maximum 10

4. The first director(s) is/are:
Premier(s) administrateur(s):

First name, initials and surname
Prénom, initiales et nom de famille

Resident Canadian State Yes or No
Résident Canadien Oui/Non

Address for service, giving Street & No. or R.R. No., Municipality and Postal Code
Domicile élu, y compris la rue et le numéro, le numéro de la R.R., ou le nom de la municipalité et le code postal

* EDWARD MICHARL LIPTAY

5216 WALKERS LINE
R.R. #2
MILTON ONTARIO
CANADA L4T 2X6

YES

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix B

Permit to Take Water No. 0463-ABSQSD

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

PERMIT TO TAKE WATER
Surface Water
NUMBER 0463-ABSQSD

Pursuant to Section 34.1 of the Ontario Water Resources Act, R.S.O. 1990 this Permit To Take Water is hereby issued to:

2079610 Ontario Ltd. operating as Millcroft Golf Club
2155 Country Club Dr
Burlington, Ontario, L7M 4A8
Canada

For the water taking from: Mill Pond

Located at: Lot 7, Concession 1 South of Dundas Street, Geographic Township of Nelson Burlington, Regional Municipality of Halton

For the purposes of this Permit, and the terms and conditions specified below, the following definitions apply:

DEFINITIONS

(a) "Director" means any person appointed in writing as a Director pursuant to section 5 of the OWRA for the purposes of section 34.1, OWRA.

(b) "Provincial Officer" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the OWRA.

(c) "Ministry" means Ontario Ministry of the Environment and Climate Change.

(d) "District Office" means the Halton-Peel District Office.

(e) "Permit" means this Permit to Take Water No. 0463-ABSQSD including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA.

(f) "Permit Holder" means 2079610 Ontario Ltd. operating as Millcroft Golf Club.

(g) "OWRA " means the *Ontario Water Resources Act,* R.S.O. 1990, c. O. 40, as amended.

You are hereby notified that this Permit is issued subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. Compliance with Permit

1.1 Except where modified by this Permit, the water taking shall be in accordance with the application for this Permit To Take Water, dated May 2, 2016 and signed by Ed Liptay, and all Schedules included in this Permit.

1.2 The Permit Holder shall ensure that any person authorized by the Permit Holder to take water under this Permit is provided with a copy of this Permit and shall take all reasonable measures to ensure that any such person complies with the conditions of this Permit.

1.3 Any person authorized by the Permit Holder to take water under this Permit shall comply with the conditions of this Permit.

1.4 This Permit is not transferable to another person.

1.5 This Permit provides the Permit Holder with permission to take water in accordance with the conditions of this Permit, up to the date of the expiry of this Permit. This Permit does not constitute a legal right, vested or otherwise, to a water allocation, and the issuance of this Permit does not guarantee that, upon its expiry, it will be renewed.

1.6 The Permit Holder shall keep this Permit available at all times at or near the site of the taking, and shall produce this Permit immediately for inspection by a Provincial Officer upon his or her request.

1.7 The Permit Holder shall report any changes of address to the Director within thirty days of any such change. The Permit Holder shall report any change of ownership of the property for which this Permit is issued within thirty days of any such change. A change in ownership in the property shall cause this Permit to be cancelled.

2. General Conditions and Interpretation

2.1 Inspections

The Permit Holder must forthwith, upon presentation of credentials, permit a Provincial Officer to carry out any and all inspections authorized by the OWRA, the *Environmental Protection Act* , R.S.O. 1990, the *Pesticides Act* , R.S.O. 1990, or the *Safe Drinking Water Act,* S. O. 2002.

2.2 Other Approvals

The issuance of, and compliance with this Permit, does not:

(a) relieve the Permit Holder or any other person from any obligation to comply with any other applicable legal requirements, including the provisions of the *Ontario Water Resources Act* , and the *Environmental Protection Act* , and any regulations made thereunder; or

(b) limit in any way any authority of the Ministry, a Director, or a Provincial Officer, including the authority to require certain steps be taken or to require the Permit Holder to furnish any further information related to this Permit.

2.3 Information

The receipt of any information by the Ministry, the failure of the Ministry to take any action or require any person to take any action in relation to the information, or the failure of a Provincial Officer to prosecute any person in relation to the information, shall not be construed as:

(a) an approval, waiver or justification by the Ministry of any act or omission of any person that contravenes this Permit or other legal requirement; or

(b) acceptance by the Ministry of the information's completeness or accuracy.

2.4 Rights of Action

The issuance of, and compliance with this Permit shall not be construed as precluding or limiting any legal claims or rights of action that any person, including the Crown in right of Ontario or any agency thereof, has or may have against the Permit Holder, its officers, employees, agents, and contractors.

2.5 Severability

The requirements of this Permit are severable. If any requirements of this Permit, or the application of any requirements of this Permit to any circumstance, is held invalid or unenforceable, the application of such requirements to other circumstances and the remainder of this Permit shall not be affected thereby.

2.6 Conflicts

Where there is a conflict between a provision of any submitted document referred to in this Permit, including its Schedules, and the conditions of this Permit, the conditions in this Permit shall take precedence.

3. Water Takings Authorized by This Permit

3.1 **Expiry**

This Permit expires on **December 31, 2018**. No water shall be taken under authority of this Permit after the expiry date.

3.2 Amounts of Taking Permitted

The Permit Holder shall only take water from the source, during the periods and at the rates and amounts of taking specified in Table A. Water takings are authorized only for the purposes specified in Table A.

Table A

	Source Name / Description:	Source: Type:	Taking Specific Purpose:	Taking Major Category:	Max. Taken per Minute (litres):	Max. Num. of Hrs Taken per Day:	Max. Taken per Day (litres):	Max. Num. of Days Taken per Year:	Zone/ Easting/ Northing:
1	Mill Pond	Pond Online	Golf Course Irrigation	Commercial	2,917	24	1,112,300	214	17 597491 4804676
						Total Taking:	1,112,300		

4. Monitoring

4.1 The Permit Holder shall, on each day water is taken under the authorization of this Permit, record the date, the volume of water taken on that date and the rate at which it was taken. The daily volume of water taken shall be measured by a flow meter. The Permit Holder shall keep all records required by this condition current and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The Permit Holder, unless otherwise required by the Director, shall submit, on or before March 31st in every year, the daily water taking data collected and recorded for the previous year to the ministry's Water Taking Reporting System.

4.2 The Permit Holder shall continue the implementation of the existing monitoring program. The required monitoring program includes: a) stream flow and water level measurements at Appleby Creek upstream of the Mill Pond (Stations SS1 and SS2); and b) continuous water level measurements at the Mill Pond and Appleby Creek upstream of the pond (Stations SS3 and SS2). In addition, the Permit Holder shall establish and maintain a stage-discharge rating curve at the existing flow stations (SS1 and SS2) to estimate the upstream flow into the Mill Pond, and shall measure or estimate the Mill Pond outflow using a well-calibrated weir equation.

4.3 The Permit Holder shall complete the proposed diversion/bypass structure to the online pond as described in Item 2 of the Schedule A of the Permit. In addition, prior to December 31, 2017, the Permit Holder shall provide an implementation report prepared by a qualified person for review.

4.4 Any request for an amendment or renewal of this Permit must be accompanied by a report prepared by a qualified person, illustrating how the work requested has been conducted in compliance with the Permit conditions.The report should also include all the monitoring results and water taking records as requested in Conditions 4.1 and 4.2 above.

5. Impacts of the Water Taking

5.1 Notification

The Permit Holder shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Permit and shall report any action which has been taken or is proposed with regard to such complaint. The Permit Holder shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.

5.2 For Surface-Water Takings

The taking of water (including the taking of water into storage and the subsequent or simultaneous withdrawal from storage) shall be carried out in such a manner that streamflow is not stopped and is not reduced to a rate that will cause interference with downstream uses of water or with the natural functions of the stream.

6. Director May Amend Permit

The Director may amend this Permit by letter requiring the Permit Holder to suspend or reduce the taking to an amount or threshold specified by the Director in the letter. The suspension or reduction in taking shall be effective immediately and may be revoked at any time upon notification by the Director. This condition does not affect your right to appeal the suspension or reduction in taking to the Environmental Review Tribunal under the *Ontario Water Resources Act* , Section 100 (4).

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is included to ensure that the conditions in this Permit are complied with and can be enforced.

2. Condition 2 is included to clarify the legal interpretation of aspects of this Permit.

3. Conditions 3 through 6 are included to protect the quality of the natural environment so as to safeguard the ecosystem and human health and foster efficient use and conservation of waters. These conditions allow for the beneficial use of waters while ensuring the fair sharing, conservation and sustainable use of the waters of Ontario. The conditions also specify the water takings that are authorized by this Permit and the scope of this Permit.

*In accordance with Section 100 of the Ontario Water Resources Act, R.S.O. 1990, you may by written notice served upon me, the Environmental Review Tribunal and the Environmental Commissioner, **Environmental Bill of Rights**, R.S.O. 1993, Chapter 28, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 101 of the Ontario Water Resources Act, as amended provides that the Notice requiring a hearing shall state:*

1. The portions of the Permit or each term or condition in the Permit in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

In addition to these legal requirements, the Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Permit to Take Water number;
6. The date of the Permit to Take Water;
7. The name of the Director;
8. The municipality within which the works are located;

This notice must be served upon:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto ON
M5G 1E5
Fax: (416) 326-5370
Email:
ERTTribunalsecretary@ontario.ca

AND

The Environmental Commissioner
1075 Bay Street
6th Floor, Suite 605
Toronto, Ontario M5S 2W5

AND

The Director, Section 34.1,
Ministry of the Environment and Climate Change
8th Floor
5775 Yonge St
Toronto ON M2M 4J1
Fax: (416) 325-6347

Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal:

by Telephone at	by Fax at	by e-mail at
(416) 212-6349	(416) 326-5370	www.ert.gov.on.ca
Toll Free 1(866) 448-2248	Toll Free 1(844) 213-3474	

*This instrument is subject to Section 38 of the **Environmental Bill of Rights** that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek to appeal for 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry, you can determine when the leave to appeal period ends.*

Dated at Toronto this 27th day of July, 2016.

Karoly Tajnay

Director, Section 34.1
Ontario Water Resources Act , R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 0463-ABSQSD, dated July 27, 2016.

1. Application for Permit to Take Water, dated May 2, 2016, signed by Ed Liptay.

2. R.J. Burnside & Associates Limited, report " Permit to Take Water Renewal, 2079610 Ontario Ltd o/a Millcroft Golf Club, 2155 Country Club Drive, Burlington ON", dated May 2016, and signed by Stephen Kajan of R.J. Burnside & Associates Limited.

3. R.J. Burnside & Associates Limited, letter document "Re: 2079610 Ontario Ltd o/a Millcroft Golf Club PTTW Renewal Application, MOE Reference No. 3165-9F8GG5, File NO.: PGD020649.000", dated March 19, 2014, revised on March 20, 2014, and signed by Stephen Kajan of R.J. Burnside & Associates Limited.

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix C

Water Taking Records

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
1-Jan-16	-	-
2-Jan-16	-	-
3-Jan-16	-	-
4-Jan-16	-	-
5-Jan-16	-	-
6-Jan-16	-	-
7-Jan-16	-	-
8-Jan-16	-	-
9-Jan-16	-	-
10-Jan-16	-	-
11-Jan-16	-	-
12-Jan-16	-	-
13-Jan-16	-	-
14-Jan-16	-	-
15-Jan-16	-	-
16-Jan-16	-	-
17-Jan-16	-	-
18-Jan-16	-	-
19-Jan-16	-	-
20-Jan-16	-	-
21-Jan-16	-	-
22-Jan-16	-	-
23-Jan-16	-	-
24-Jan-16	-	-
25-Jan-16	-	-
26-Jan-16	-	-
27-Jan-16	-	-
28-Jan-16	-	-
29-Jan-16	-	-
30-Jan-16	-	-
31-Jan-16	-	-
1-Feb-16	-	-
2-Feb-16	-	-
3-Feb-16	-	-
4-Feb-16	-	-
5-Feb-16	-	-
6-Feb-16	-	-
7-Feb-16	-	-
8-Feb-16	-	-
9-Feb-16	-	-
10-Feb-16	-	-
11-Feb-16	-	-
12-Feb-16	-	-
13-Feb-16	-	-
14-Feb-16	-	-
15-Feb-16	-	-
16-Feb-16	-	-
17-Feb-16	-	-
18-Feb-16	-	-
19-Feb-16	-	-
20-Feb-16	-	-
21-Feb-16	-	-
22-Feb-16	-	-
23-Feb-16	-	-

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
24-Feb-16	-	-
25-Feb-16	-	-
26-Feb-16	-	-
27-Feb-16	-	-
28-Feb-16	-	-
29-Feb-16	-	-
1-Mar-16	-	-
2-Mar-16	-	-
3-Mar-16	-	-
4-Mar-16	-	-
5-Mar-16	-	-
6-Mar-16	-	-
7-Mar-16	-	-
8-Mar-16	-	-
9-Mar-16	-	-
10-Mar-16	-	-
11-Mar-16	-	-
12-Mar-16	-	-
13-Mar-16	-	-
14-Mar-16	-	-
15-Mar-16	-	-
16-Mar-16	-	-
17-Mar-16	-	-
18-Mar-16	-	-
19-Mar-16	-	-
20-Mar-16	-	-
21-Mar-16	-	-
22-Mar-16	-	-
23-Mar-16	-	-
24-Mar-16	-	-
25-Mar-16	-	-
26-Mar-16	-	-
27-Mar-16	-	-
28-Mar-16	-	-
29-Mar-16	-	-
30-Mar-16	-	-
31-Mar-16	-	-
1-Apr-16	-	-
2-Apr-16	-	-
3-Apr-16	-	-
4-Apr-16	-	-
5-Apr-16	-	-
6-Apr-16	-	-
7-Apr-16	-	-
8-Apr-16	-	-
9-Apr-16	-	-
10-Apr-16	-	-
11-Apr-16	-	-
12-Apr-16	-	-
13-Apr-16	-	-
14-Apr-16	-	-
15-Apr-16	-	-
16-Apr-16	-	-
17-Apr-16	-	-

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
18-Apr-16	-	-
19-Apr-16	-	-
20-Apr-16	-	-
21-Apr-16	-	-
22-Apr-16	-	-
23-Apr-16	-	-
24-Apr-16	-	-
25-Apr-16	-	-
26-Apr-16	-	-
27-Apr-16	-	-
28-Apr-16	-	-
29-Apr-16	-	-
30-Apr-16	-	-
1-May-16	-	-
2-May-16	-	-
3-May-16	-	-
4-May-16	-	-
5-May-16	-	-
6-May-16	-	-
7-May-16	-	-
8-May-16	-	-
9-May-16	-	-
10-May-16	-	-
11-May-16	-	-
12-May-16	-	-
13-May-16	-	-
14-May-16	-	-
15-May-16	-	-
16-May-16	-	-
17-May-16	-	-
18-May-16	-	-
19-May-16	-	-
20-May-16	-	-
21-May-16	-	-
22-May-16	-	-
23-May-16	-	-
24-May-16	-	-
25-May-16	-	-
26-May-16	-	-
27-May-16	-	-
28-May-16	-	-
29-May-16	-	-
30-May-16	-	-
31-May-16	-	-
1-Jun-16	-	-
2-Jun-16	-	-
3-Jun-16	-	-
4-Jun-16	-	-
5-Jun-16	-	-
6-Jun-16	-	-
7-Jun-16	-	-
8-Jun-16	-	-
9-Jun-16	-	-
10-Jun-16	-	-

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
11-Jun-16	-	-
12-Jun-16	-	-
13-Jun-16	-	-
14-Jun-16	-	-
15-Jun-16	-	-
16-Jun-16	-	-
17-Jun-16	-	-
18-Jun-16	-	-
19-Jun-16	-	-
20-Jun-16	-	-
21-Jun-16	-	-
22-Jun-16	-	-
23-Jun-16	-	-
24-Jun-16	-	-
25-Jun-16	-	-
26-Jun-16	-	-
27-Jun-16	-	-
28-Jun-16	-	-
29-Jun-16	-	-
30-Jun-16	-	-
1-Jul-16	-	-
2-Jul-16	-	-
3-Jul-16	-	-
4-Jul-16	-	-
5-Jul-16	-	-
6-Jul-16	-	-
7-Jul-16	-	-
8-Jul-16	-	-
9-Jul-16	-	-
10-Jul-16	-	-
11-Jul-16	-	-
12-Jul-16	-	-
13-Jul-16	-	-
14-Jul-16	-	-
15-Jul-16	-	-
16-Jul-16	-	-
17-Jul-16	-	-
18-Jul-16	-	-
19-Jul-16	-	-
20-Jul-16	-	-
21-Jul-16	-	-
22-Jul-16	-	-
23-Jul-16	-	-
24-Jul-16	-	-
25-Jul-16	-	-
26-Jul-16	-	-
27-Jul-16	121,168	458,671
28-Jul-16	253,255	958,674
29-Jul-16	172,698	653,733
30-Jul-16	211,333	799,982
31-Jul-16	208,744	790,182
1-Aug-16	69,785	264,165
2-Aug-16	223,417	845,725
3-Aug-16	216,315	818,841

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
4-Aug-16	221,045	836,746
5-Aug-16	211,562	800,849
6-Aug-16	206,415	781,366
7-Aug-16	219,141	829,539
8-Aug-16	188,372	713,066
9-Aug-16	223,811	847,217
10-Aug-16	211,868	802,008
11-Aug-16	183,976	696,425
12-Aug-16	46,369	175,526
13-Aug-16	22,865	86,553
14-Aug-16	20,837	78,877
15-Aug-16	30,815	116,647
16-Aug-16	0	0
17-Aug-16	0	0
18-Aug-16	0	0
19-Aug-16	0	0
20-Aug-16	0	0
21-Aug-16	0	0
22-Aug-16	0	0
23-Aug-16	0	0
24-Aug-16	33,109	125,331
25-Aug-16	155,299	587,871
26-Aug-16	3,895	14,744
27-Aug-16	173,293	655,985
28-Aug-16	66,416	251,412
29-Aug-16	35,478	134,299
30-Aug-16	56,467	213,751
31-Aug-16	0	0
1-Sep-16	29,210	110,572
2-Sep-16	185,924	703,799
3-Sep-16	143,515	543,263
4-Sep-16	96,714	366,102
5-Sep-16	102,949	389,704
6-Sep-16	165,644	627,031
7-Sep-16	17,734	67,130
8-Sep-16	74,077	280,412
9-Sep-16	30,535	115,588
10-Sep-16	31,927	120,857
11-Sep-16	52,206	197,621
12-Sep-16	107,556	407,144
13-Sep-16	85,122	322,222
14-Sep-16	0	0
15-Sep-16	0	0
16-Sep-16	0	0
17-Sep-16	0	0
18-Sep-16	0	0
19-Sep-16	140,533	531,975
20-Sep-16	131,161	496,498
21-Sep-16	36,335	137,543
22-Sep-16	112,508	425,889
23-Sep-16	92,233	349,140
24-Sep-16	85,778	324,705
25-Sep-16	36,172	136,926
26-Sep-16	32,794	124,139

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
27-Sep-16	21,602	81,772
28-Sep-16	15,916	60,249
29-Sep-16	13,401	50,728
30-Sep-16	28,662	108,497
1-Oct-16	0	0
2-Oct-16	0	0
3-Oct-16	49,146	186,038
4-Oct-16	0	0
5-Oct-16	0	0
6-Oct-16	0	0
7-Oct-16	0	0
8-Oct-16	0	0
9-Oct-16	0	0
10-Oct-16	0	0
11-Oct-16	0	0
12-Oct-16	0	0
13-Oct-16	0	0
14-Oct-16	0	0
15-Oct-16	0	0
16-Oct-16	0	0
17-Oct-16	0	0
18-Oct-16	0	0
19-Oct-16	0	0
20-Oct-16	0	0
21-Oct-16	0	0
22-Oct-16	0	0
23-Oct-16	0	0
24-Oct-16	0	0
25-Oct-16	15,265	57,784
26-Oct-16	47,128	178,399
27-Oct-16	42,341	160,278
28-Oct-16	12,124	45,894
29-Oct-16	0	0
30-Oct-16	0	0
31-Oct-16	0	0
1-Nov-16	0	0
2-Nov-16	0	0
3-Nov-16	0	0
4-Nov-16	0	0
5-Nov-16	0	0
6-Nov-16	0	0
7-Nov-16	16,172	61,218
8-Nov-16	0	0
9-Nov-16	0	0
10-Nov-16	0	0
11-Nov-16	0	0
12-Nov-16	0	0
13-Nov-16	0	0
14-Nov-16	0	0
15-Nov-16	0	0
16-Nov-16	0	0
17-Nov-16	0	0
18-Nov-16	0	0
19-Nov-16	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
20-Nov-16	0	0
21-Nov-16	0	0
22-Nov-16	0	0
23-Nov-16	0	0
24-Nov-16	0	0
25-Nov-16	0	0
26-Nov-16	0	0
27-Nov-16	0	0
28-Nov-16	0	0
29-Nov-16	0	0
30-Nov-16	0	0
1-Dec-16	0	0
2-Dec-16	0	0
3-Dec-16	0	0
4-Dec-16	0	0
5-Dec-16	0	0
6-Dec-16	0	0
7-Dec-16	0	0
8-Dec-16	0	0
9-Dec-16	0	0
10-Dec-16	0	0
11-Dec-16	0	0
12-Dec-16	0	0
13-Dec-16	0	0
14-Dec-16	0	0
15-Dec-16	0	0
16-Dec-16	0	0
17-Dec-16	0	0
18-Dec-16	0	0
19-Dec-16	0	0
20-Dec-16	0	0
21-Dec-16	0	0
22-Dec-16	0	0
23-Dec-16	0	0
24-Dec-16	0	0
25-Dec-16	0	0
26-Dec-16	0	0
27-Dec-16	0	0
28-Dec-16	0	0
29-Dec-16	0	0
30-Dec-16	0	0
	0	

Annual Summary	Mill Pond	
	US Gallons	Litres
Annual Total	5,840,132	22,107,304
Max. Daily	253,255	958,674
Ave. Daily	100,692	381,160
Total Days Taken	58	
Days Exceeded	0	

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
1-Jan-17	0	0
2-Jan-17	0	0
3-Jan-17	0	0
4-Jan-17	0	0
5-Jan-17	0	0
6-Jan-17	0	0
7-Jan-17	0	0
8-Jan-17	0	0
9-Jan-17	0	0
10-Jan-17	0	0
11-Jan-17	0	0
12-Jan-17	0	0
13-Jan-17	0	0
14-Jan-17	0	0
15-Jan-17	0	0
16-Jan-17	0	0
17-Jan-17	0	0
18-Jan-17	0	0
19-Jan-17	0	0
20-Jan-17	0	0
21-Jan-17	0	0
22-Jan-17	0	0
23-Jan-17	0	0
24-Jan-17	0	0
25-Jan-17	0	0
26-Jan-17	0	0
27-Jan-17	0	0
28-Jan-17	0	0
29-Jan-17	0	0
30-Jan-17	0	0
31-Jan-17	0	0
1-Feb-17	0	0
2-Feb-17	0	0
3-Feb-17	0	0
4-Feb-17	0	0
5-Feb-17	0	0
6-Feb-17	0	0
7-Feb-17	0	0
8-Feb-17	0	0
9-Feb-17	0	0
10-Feb-17	0	0
11-Feb-17	0	0
12-Feb-17	0	0
13-Feb-17	0	0
14-Feb-17	0	0
15-Feb-17	0	0
16-Feb-17	0	0
17-Feb-17	0	0
18-Feb-17	0	0
19-Feb-17	0	0
20-Feb-17	0	0
21-Feb-17	0	0
22-Feb-17	0	0
23-Feb-17	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
24-Feb-17	0	0
25-Feb-17	0	0
26-Feb-17	0	0
27-Feb-17	0	0
28-Feb-17	0	0
1-Mar-17	0	0
2-Mar-17	0	0
3-Mar-17	0	0
4-Mar-17	0	0
5-Mar-17	0	0
6-Mar-17	0	0
7-Mar-17	0	0
8-Mar-17	0	0
9-Mar-17	0	0
10-Mar-17	0	0
11-Mar-17	0	0
12-Mar-17	0	0
13-Mar-17	0	0
14-Mar-17	0	0
15-Mar-17	0	0
16-Mar-17	0	0
17-Mar-17	0	0
18-Mar-17	0	0
19-Mar-17	0	0
20-Mar-17	0	0
21-Mar-17	0	0
22-Mar-17	0	0
23-Mar-17	0	0
24-Mar-17	0	0
25-Mar-17	0	0
26-Mar-17	0	0
27-Mar-17	0	0
28-Mar-17	0	0
29-Mar-17	0	0
30-Mar-17	0	0
31-Mar-17	0	0
1-Apr-17	0	0
2-Apr-17	0	0
3-Apr-17	0	0
4-Apr-17	0	0
5-Apr-17	0	0
6-Apr-17	0	0
7-Apr-17	0	0
8-Apr-17	0	0
9-Apr-17	0	0
10-Apr-17	0	0
11-Apr-17	0	0
12-Apr-17	0	0
13-Apr-17	0	0
14-Apr-17	0	0
15-Apr-17	0	0
16-Apr-17	0	0
17-Apr-17	0	0
18-Apr-17	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
19-Apr-17	0	0
20-Apr-17	0	0
21-Apr-17	0	0
22-Apr-17	0	0
23-Apr-17	0	0
24-Apr-17	0	0
25-Apr-17	0	0
26-Apr-17	0	0
27-Apr-17	0	0
28-Apr-17	0	0
29-Apr-17	0	0
30-Apr-17	0	0
1-May-17	0	0
2-May-17	0	0
3-May-17	0	0
4-May-17	0	0
5-May-17	0	0
6-May-17	0	0
7-May-17	0	0
8-May-17	0	0
9-May-17	0	0
10-May-17	30,498	115,447
11-May-17	0	0
12-May-17	0	0
13-May-17	0	0
14-May-17	0	0
15-May-17	0	0
16-May-17	0	0
17-May-17	0	0
18-May-17	0	0
19-May-17	0	0
20-May-17	0	0
21-May-17	0	0
22-May-17	0	0
23-May-17	0	0
24-May-17	0	0
25-May-17	0	0
26-May-17	0	0
27-May-17	0	0
28-May-17	0	0
29-May-17	13,835	52,371
30-May-17	26,515	100,370
31-May-17	0	0
1-Jun-17	6,868	25,998
2-Jun-17	0	0
3-Jun-17	0	0
4-Jun-17	0	0
5-Jun-17	21,995	83,260
6-Jun-17	0	0
7-Jun-17	0	0
8-Jun-17	0	0
9-Jun-17	0	0
10-Jun-17	80,848	306,043
11-Jun-17	12,918	48,900

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
12-Jun-17	137,377	520,029
13-Jun-17	112,754	426,820
14-Jun-17	178,662	676,309
15-Jun-17	189,066	715,693
16-Jun-17	118,148	447,239
17-Jun-17	67,024	253,713
18-Jun-17	169,132	640,234
19-Jun-17	204,537	774,257
20-Jun-17	203,362	769,809
21-Jun-17	209,237	792,048
22-Jun-17	9,547	36,139
23-Jun-17	26,908	101,858
24-Jun-17	19,364	73,301
25-Jun-17	0	0
26-Jun-17	0	0
27-Jun-17	0	0
28-Jun-17	104,011	393,724
29-Jun-17	17,971	68,028
30-Jun-17	0	0
1-Jul-17	0	0
2-Jul-17	0	0
3-Jul-17	0	0
4-Jul-17	2,460	9,312
5-Jul-17	166,233	629,260
6-Jul-17	115,139	435,849
7-Jul-17	91,482	346,297
8-Jul-17	203,726	771,187
9-Jul-17	225,909	855,159
10-Jul-17	180,167	682,006
11-Jul-17	218,411	826,776
12-Jul-17	0	0
13-Jul-17	0	0
14-Jul-17	0	0
15-Jul-17	0	0
16-Jul-17	0	0
17-Jul-17	131,112	496,313
18-Jul-17	114,032	431,658
19-Jul-17	137,066	518,851
20-Jul-17	0	0
21-Jul-17	115,742	438,131
22-Jul-17	0	0
23-Jul-17	0	0
24-Jul-17	0	0
25-Jul-17	0	0
26-Jul-17	0	0
27-Jul-17	53,983	204,348
28-Jul-17	29,834	112,934
29-Jul-17	50,687	191,871
30-Jul-17	37,686	142,657
31-Jul-17	128,911	487,981
1-Aug-17	21,347	80,807
2-Aug-17	92,684	350,847
3-Aug-17	41,492	157,064
4-Aug-17	48,787	184,679

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
5-Aug-17	0	0
6-Aug-17	0	0
7-Aug-17	185,706	702,974
8-Aug-17	148,946	563,822
9-Aug-17	204,724	774,965
10-Aug-17	0	0
11-Aug-17	0	0
12-Aug-17	0	0
13-Aug-17	0	0
14-Aug-17	131,564	498,024
15-Aug-17	90,724	343,428
16-Aug-17	94,081	356,135
17-Aug-17	0	0
18-Aug-17	132,197	500,420
19-Aug-17	35,684	135,079
20-Aug-17	16,131	61,062
21-Aug-17	74,707	282,797
22-Aug-17	97,176	367,851
23-Aug-17	23,617	89,400
24-Aug-17	118,536	448,708
25-Aug-17	123,786	468,581
26-Aug-17	214,362	811,448
27-Aug-17	211,584	800,933
28-Aug-17	151,333	572,858
29-Aug-17	202,009	764,687
30-Aug-17	176,009	666,267
31-Aug-17	159,985	605,609
1-Sep-17	206,968	783,459
2-Sep-17	0	0
3-Sep-17	0	0
4-Sep-17	0	0
5-Sep-17	0	0
6-Sep-17	0	0
7-Sep-17	0	0
8-Sep-17	0	0
9-Sep-17	0	0
10-Sep-17	0	0
11-Sep-17	0	0
12-Sep-17	0	0
13-Sep-17	175,582	664,650
14-Sep-17	131,751	498,732
15-Sep-17	0	0
16-Sep-17	0	0
17-Sep-17	0	0
18-Sep-17	0	0
19-Sep-17	0	0
20-Sep-17	0	0
21-Sep-17	0	0
22-Sep-17	40,391	152,897
23-Sep-17	158,162	598,708
24-Sep-17	109,022	412,693
25-Sep-17	143,769	544,225
26-Sep-17	106,710	403,941
27-Sep-17	196,347	743,254

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
28-Sep-17	66,787	252,816
29-Sep-17	132,629	502,055
30-Sep-17	66,539	251,878
1-Oct-17	0	0
2-Oct-17	0	0
3-Oct-17	0	0
4-Oct-17	0	0
5-Oct-17	0	0
6-Oct-17	59,256	224,308
7-Oct-17	0	0
8-Oct-17	0	0
9-Oct-17	0	0
10-Oct-17	48,694	184,327
11-Oct-17	0	0
12-Oct-17	0	0
13-Oct-17	0	0
14-Oct-17	0	0
15-Oct-17	0	0
16-Oct-17	0	0
17-Oct-17	12,108	45,834
18-Oct-17	0	0
19-Oct-17	0	0
20-Oct-17	0	0
21-Oct-17	0	0
22-Oct-17	0	0
23-Oct-17	0	0
24-Oct-17	0	0
25-Oct-17	0	0
26-Oct-17	0	0
27-Oct-17	0	0
28-Oct-17	0	0
29-Oct-17	0	0
30-Oct-17	0	0
31-Oct-17	0	0
1-Nov-17	3,192	12,083
2-Nov-17	401	1,518
3-Nov-17	0	0
4-Nov-17	0	0
5-Nov-17	0	0
6-Nov-17	0	0
7-Nov-17	0	0
8-Nov-17	0	0
9-Nov-17	0	0
10-Nov-17	0	0
11-Nov-17	0	0
12-Nov-17	0	0
13-Nov-17	0	0
14-Nov-17	0	0
15-Nov-17	0	0
16-Nov-17	0	0
17-Nov-17	0	0
18-Nov-17	0	0
19-Nov-17	0	0
20-Nov-17	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
21-Nov-17	0	0
22-Nov-17	0	0
23-Nov-17	0	0
24-Nov-17	0	0
25-Nov-17	0	0
26-Nov-17	0	0
27-Nov-17	0	0
28-Nov-17	0	0
29-Nov-17	0	0
30-Nov-17	0	0
1-Dec-17	0	0
2-Dec-17	0	0
3-Dec-17	0	0
4-Dec-17	0	0
5-Dec-17	0	0
6-Dec-17	0	0
7-Dec-17	0	0
8-Dec-17	0	0
9-Dec-17	0	0
10-Dec-17	0	0
11-Dec-17	0	0
12-Dec-17	0	0
13-Dec-17	0	0
14-Dec-17	0	0
15-Dec-17	0	0
16-Dec-17	0	0
17-Dec-17	0	0
18-Dec-17	0	0
19-Dec-17	0	0
20-Dec-17	0	0
21-Dec-17	0	0
22-Dec-17	0	0
23-Dec-17	0	0
24-Dec-17	0	0
25-Dec-17	0	0
26-Dec-17	0	0
27-Dec-17	0	0
28-Dec-17	0	0
29-Dec-17	0	0
30-Dec-17	0	0
31-Dec-17	0	0

Annual Summary	Mill Pond	
	US Gallons	Litres
Annual Total	8,418,636	31,868,004
Max. Daily	225,909	855,159
Ave. Daily	105,233	398,350
Total Days Taken	80	
Days Exceeded	0	

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
1-Jan-18	0	0
2-Jan-18	0	0
3-Jan-18	0	0
4-Jan-18	0	0
5-Jan-18	0	0
6-Jan-18	0	0
7-Jan-18	0	0
8-Jan-18	0	0
9-Jan-18	0	0
10-Jan-18	0	0
11-Jan-18	0	0
12-Jan-18	0	0
13-Jan-18	0	0
14-Jan-18	0	0
15-Jan-18	0	0
16-Jan-18	0	0
17-Jan-18	0	0
18-Jan-18	0	0
19-Jan-18	0	0
20-Jan-18	0	0
21-Jan-18	0	0
22-Jan-18	0	0
23-Jan-18	0	0
24-Jan-18	0	0
25-Jan-18	0	0
26-Jan-18	0	0
27-Jan-18	0	0
28-Jan-18	0	0
29-Jan-18	0	0
30-Jan-18	0	0
31-Jan-18	0	0
1-Feb-18	0	0
2-Feb-18	0	0
3-Feb-18	0	0
4-Feb-18	0	0
5-Feb-18	0	0
6-Feb-18	0	0
7-Feb-18	0	0
8-Feb-18	0	0
9-Feb-18	0	0
10-Feb-18	0	0
11-Feb-18	0	0
12-Feb-18	0	0
13-Feb-18	0	0
14-Feb-18	0	0
15-Feb-18	0	0
16-Feb-18	0	0
17-Feb-18	0	0
18-Feb-18	0	0
19-Feb-18	0	0
20-Feb-18	0	0
21-Feb-18	0	0
22-Feb-18	0	0
23-Feb-18	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
24-Feb-18	0	0
25-Feb-18	0	0
26-Feb-18	0	0
27-Feb-18	0	0
28-Feb-18	0	0
1-Mar-18	0	0
2-Mar-18	0	0
3-Mar-18	0	0
4-Mar-18	0	0
5-Mar-18	0	0
6-Mar-18	0	0
7-Mar-18	0	0
8-Mar-18	0	0
9-Mar-18	0	0
10-Mar-18	0	0
11-Mar-18	0	0
12-Mar-18	0	0
13-Mar-18	0	0
14-Mar-18	0	0
15-Mar-18	0	0
16-Mar-18	0	0
17-Mar-18	0	0
18-Mar-18	0	0
19-Mar-18	0	0
20-Mar-18	0	0
21-Mar-18	0	0
22-Mar-18	0	0
23-Mar-18	0	0
24-Mar-18	0	0
25-Mar-18	0	0
26-Mar-18	0	0
27-Mar-18	0	0
28-Mar-18	0	0
29-Mar-18	0	0
30-Mar-18	0	0
31-Mar-18	0	0
1-Apr-18	0	0
2-Apr-18	0	0
3-Apr-18	0	0
4-Apr-18	0	0
5-Apr-18	0	0
6-Apr-18	0	0
7-Apr-18	0	0
8-Apr-18	0	0
9-Apr-18	0	0
10-Apr-18	0	0
11-Apr-18	0	0
12-Apr-18	0	0
13-Apr-18	0	0
14-Apr-18	0	0
15-Apr-18	0	0
16-Apr-18	0	0
17-Apr-18	0	0
18-Apr-18	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
19-Apr-18	0	0
20-Apr-18	0	0
21-Apr-18	0	0
22-Apr-18	0	0
23-Apr-18	0	0
24-Apr-18	0	0
25-Apr-18	0	0
26-Apr-18	0	0
27-Apr-18	0	0
28-Apr-18	0	0
29-Apr-18	0	0
30-Apr-18	0	0
1-May-18	0	0
2-May-18	0	0
3-May-18	0	0
4-May-18	0	0
5-May-18	0	0
6-May-18	0	0
7-May-18	0	0
8-May-18	0	0
9-May-18	0	0
10-May-18	0	0
11-May-18	0	0
12-May-18	0	0
13-May-18	0	0
14-May-18	0	0
15-May-18	0	0
16-May-18	0	0
17-May-18	0	0
18-May-18	0	0
19-May-18	0	0
20-May-18	0	0
21-May-18	0	0
22-May-18	0	0
23-May-18	31,591	119,585
24-May-18	16,339	61,850
25-May-18	29,687	112,378
26-May-18	24,914	94,310
27-May-18	113,658	430,242
28-May-18	202,026	764,752
29-May-18	212,751	805,350
30-May-18	114,342	432,832
31-May-18	179,284	678,664
1-Jun-18	105,521	399,440
2-Jun-18	121,102	458,421
3-Jun-18	148,433	561,880
4-Jun-18	194,361	735,736
5-Jun-18	126,245	477,889
6-Jun-18	137,376	520,025
7-Jun-18	221,971	840,252
8-Jun-18	112,246	424,897
9-Jun-18	222,569	842,515
10-Jun-18	189,807	718,498
11-Jun-18	207,809	786,643

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
12-Jun-18	196,544	744,000
13-Jun-18	217,361	822,801
14-Jun-18	181,177	685,830
15-Jun-18	96,358	364,755
16-Jun-18	101,468	384,098
17-Jun-18	1,482	5,610
18-Jun-18	755	2,858
19-Jun-18	1,767	6,689
20-Jun-18	1,114	4,217
21-Jun-18	4,791	18,136
22-Jun-18	2,167	8,203
23-Jun-18	1,375	5,205
24-Jun-18	2,312	8,752
25-Jun-18	1,822	6,897
26-Jun-18	51,915	196,520
27-Jun-18	4,576	17,322
28-Jun-18	4,246	16,073
29-Jun-18	9,129	34,557
30-Jun-18	36,805	139,322
1-Jul-18	224,553	850,026
2-Jul-18	225,575	853,894
3-Jul-18	236,634	895,757
4-Jul-18	203,159	769,040
5-Jul-18	226,174	856,162
6-Jul-18	211,168	799,358
7-Jul-18	218,810	828,286
8-Jul-18	229,483	868,688
9-Jul-18	222,166	840,990
10-Jul-18	244,107	924,046
11-Jul-18	128,492	486,395
12-Jul-18	246,616	933,543
13-Jul-18	125,827	476,307
14-Jul-18	78,083	295,576
15-Jul-18	20,887	79,066
16-Jul-18	222,681	842,939
17-Jul-18	240,813	911,576
18-Jul-18	266,394	1,008,411
19-Jul-18	248,947	942,367
20-Jul-18	188,474	713,452
21-Jul-18	187,087	708,201
22-Jul-18	75,869	287,195
23-Jul-18	99,872	378,057
24-Jul-18	119,724	453,205
25-Jul-18	22,408	84,824
26-Jul-18	0	0
27-Jul-18	0	0
28-Jul-18	0	0
29-Jul-18	0	0
30-Jul-18	0	0
31-Jul-18	0	0
1-Aug-18	103,734	392,676
2-Aug-18	207,678	786,147
3-Aug-18	206,678	782,361
4-Aug-18	211,122	799,184

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
5-Aug-18	208,641	789,792
6-Aug-18	174,755	661,520
7-Aug-18	225,011	851,759
8-Aug-18	73,173	276,990
9-Aug-18	0	0
10-Aug-18	0	0
11-Aug-18	0	0
12-Aug-18	0	0
13-Aug-18	0	0
14-Aug-18	0	0
15-Aug-18	0	0
16-Aug-18	216,377	819,076
17-Aug-18	0	0
18-Aug-18	0	0
19-Aug-18	0	0
20-Aug-18	0	0
21-Aug-18	0	0
22-Aug-18	0	0
23-Aug-18	0	0
24-Aug-18	0	0
25-Aug-18	0	0
26-Aug-18	0	0
27-Aug-18	0	0
28-Aug-18	0	0
29-Aug-18	0	0
30-Aug-18	0	0
31-Aug-18	0	0
1-Sep-18	44,868	169,844
2-Sep-18	86,436	327,196
3-Sep-18	168,042	636,108
4-Sep-18	176,345	667,538
5-Sep-18	166,471	630,161
6-Sep-18	202,558	766,765
7-Sep-18	170,985	647,249
8-Sep-18	153,544	581,227
9-Sep-18	0	0
10-Sep-18	75,202	284,671
11-Sep-18	0	0
12-Sep-18	0	0
13-Sep-18	0	0
14-Sep-18	0	0
15-Sep-18	0	0
16-Sep-18	211,202	799,487
17-Sep-18	83,361	315,556
18-Sep-18	92,103	348,648
19-Sep-18	137,189	519,317
20-Sep-18	148,454	561,960
21-Sep-18	169,898	643,134
22-Sep-18	110,652	418,863
23-Sep-18	1,305	4,940
24-Sep-18	19,079	72,222
25-Sep-18	101,557	384,435
26-Sep-18	0	0
27-Sep-18	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
28-Sep-18	0	0
29-Sep-18	0	0
30-Sep-18	0	0
1-Oct-18	0	0
2-Oct-18	0	0
3-Oct-18	0	0
4-Oct-18	0	0
5-Oct-18	0	0
6-Oct-18	0	0
7-Oct-18	0	0
8-Oct-18	0	0
9-Oct-18	0	0
10-Oct-18	0	0
11-Oct-18	0	0
12-Oct-18	0	0
13-Oct-18	0	0
14-Oct-18	0	0
15-Oct-18	0	0
16-Oct-18	0	0
17-Oct-18	0	0
18-Oct-18	0	0
19-Oct-18	0	0
20-Oct-18	0	0
21-Oct-18	0	0
22-Oct-18	7,351	27,827
23-Oct-18	4,607	17,439
24-Oct-18	0	0
25-Oct-18	9,103	34,459
26-Oct-18	0	0
27-Oct-18	0	0
28-Oct-18	0	0
29-Oct-18	0	0
30-Oct-18	0	0
31-Oct-18	0	0
1-Nov-18	0	0
2-Nov-18	0	0
3-Nov-18	0	0
4-Nov-18	27,356	103,554
5-Nov-18	14,238	53,897
6-Nov-18	0	0
7-Nov-18	0	0
8-Nov-18	0	0
9-Nov-18	0	0
10-Nov-18	0	0
11-Nov-18	0	0
12-Nov-18	0	0
13-Nov-18	0	0
14-Nov-18	0	0
15-Nov-18	0	0
16-Nov-18	0	0
17-Nov-18	0	0
18-Nov-18	0	0
19-Nov-18	0	0
20-Nov-18	0	0

2079610 Ontario Ltd. (o/a Millcroft Golf Club)
PTTW No. 0463-ABSQSD
Summary of Water Taking Records

PTTW Sources	Pumping Rate (L/min)	Max Day (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallons	Litres
21-Nov-18	0	0
22-Nov-18	0	0
23-Nov-18	0	0
24-Nov-18	0	0
25-Nov-18	0	0
26-Nov-18	0	0
27-Nov-18	0	0
28-Nov-18	0	0
29-Nov-18	0	0
30-Nov-18	0	0
1-Dec-18	0	0
2-Dec-18	0	0
3-Dec-18	0	0
4-Dec-18	0	0
5-Dec-18	0	0
6-Dec-18	0	0
7-Dec-18	0	0
8-Dec-18	0	0
9-Dec-18	0	0
10-Dec-18	0	0
11-Dec-18	0	0
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14-Dec-18	0	0
15-Dec-18	0	0
16-Dec-18	0	0
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18-Dec-18	0	0
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20-Dec-18	0	0
21-Dec-18	0	0
22-Dec-18	0	0
23-Dec-18	0	0
24-Dec-18	0	0
25-Dec-18	0	0
26-Dec-18	0	0
27-Dec-18	0	0
28-Dec-18	0	0
29-Dec-18	0	0
30-Dec-18	0	0
31-Dec-18	0	0

Annual Summary	Mill Pond	
	US Gallons	Litres
Annual Total	12,152,274	46,001,361
Max. Daily	266,394	1,008,411
Ave. Daily	125,281	474,241
Total Days Taken	97	
Days Exceeded	0	

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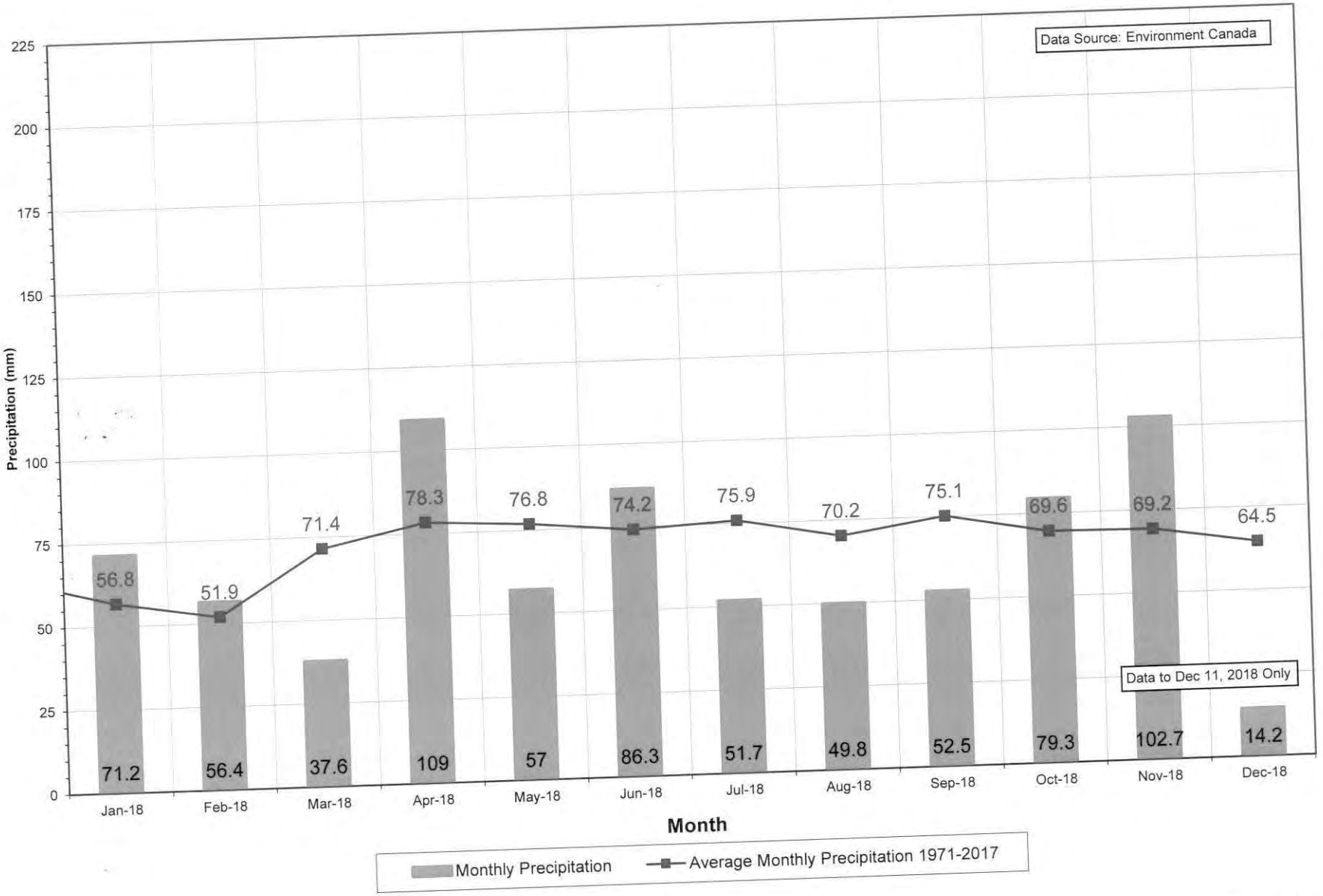
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Appendix D

Precipitation Data

Millcroft Golf Club
PTTW Monitoring

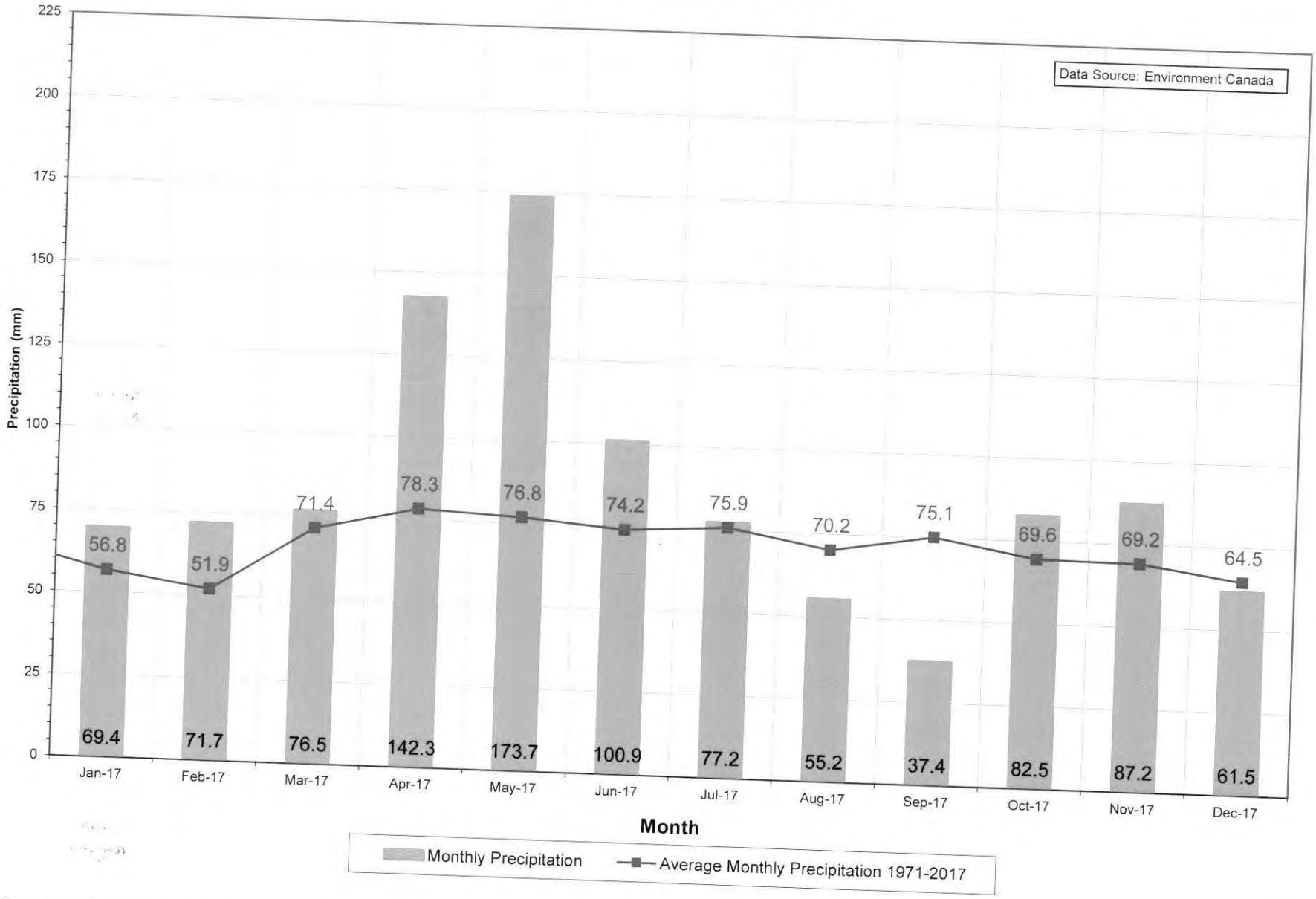
2018 Actual versus Average Monthly Precipitation 1971-2018
Weather Station - Hamilton RBG



R.J. Burnside & Associates Limited
File: 020649_PGD Hamilton RGB precip summary
Date: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring

2017 Actual versus Average Monthly Precipitation 1971-2018
Weather Station - Hamilton RBG

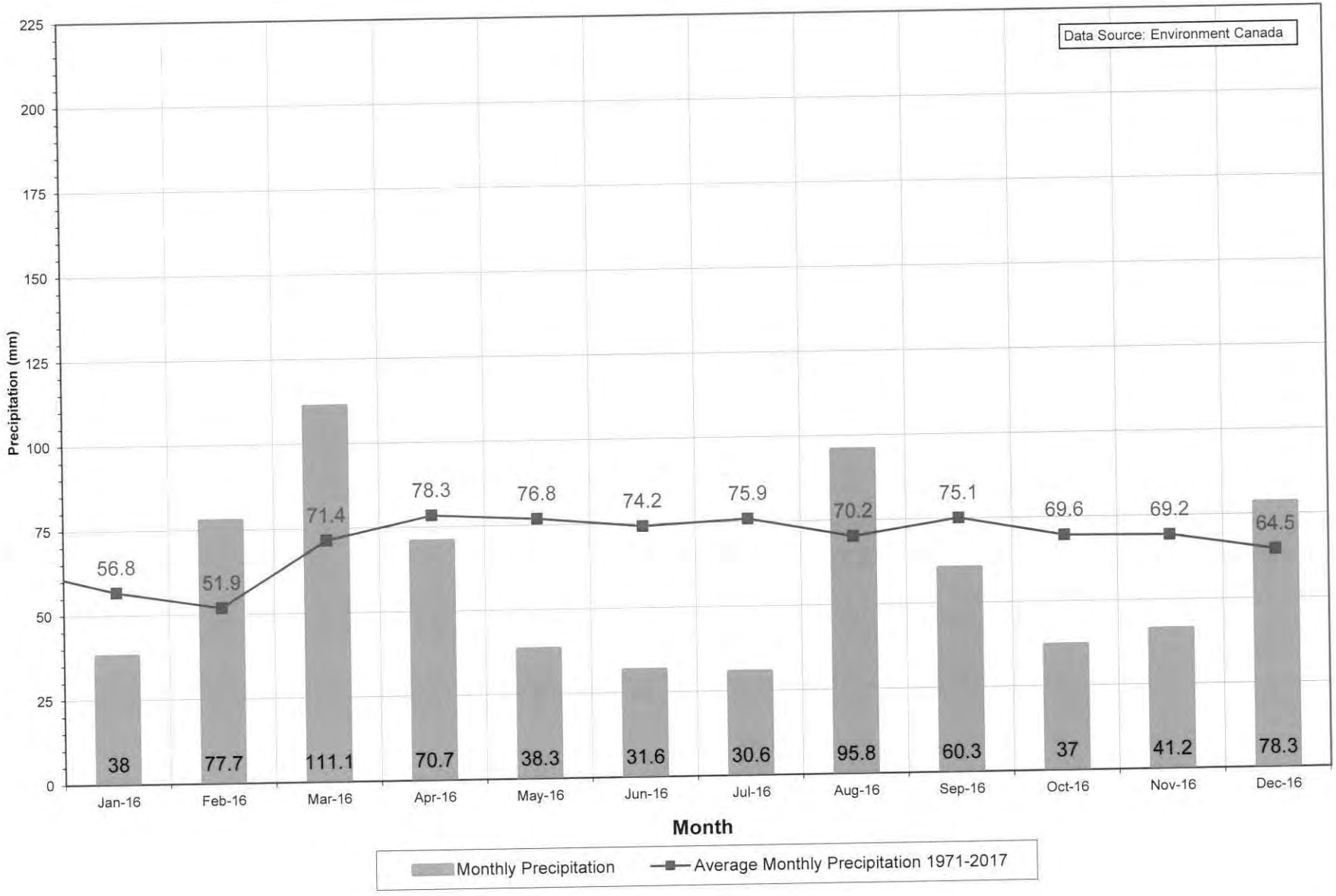


R.J. Burnside & Associates Limited
File: 020649_PGD Hamilton RGB precip summary
Date: JJM, 12/12/2018

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Millcroft Golf Club
PTTW Monitoring

2016 Actual versus Average Monthly Precipitation 1971-2018
Weather Station - Hamilton RBG



R.J. Burnside & Associates Limited
File: 020649_PGD Hamilton RGB precip summary
Date: JJM, 12/12/2018

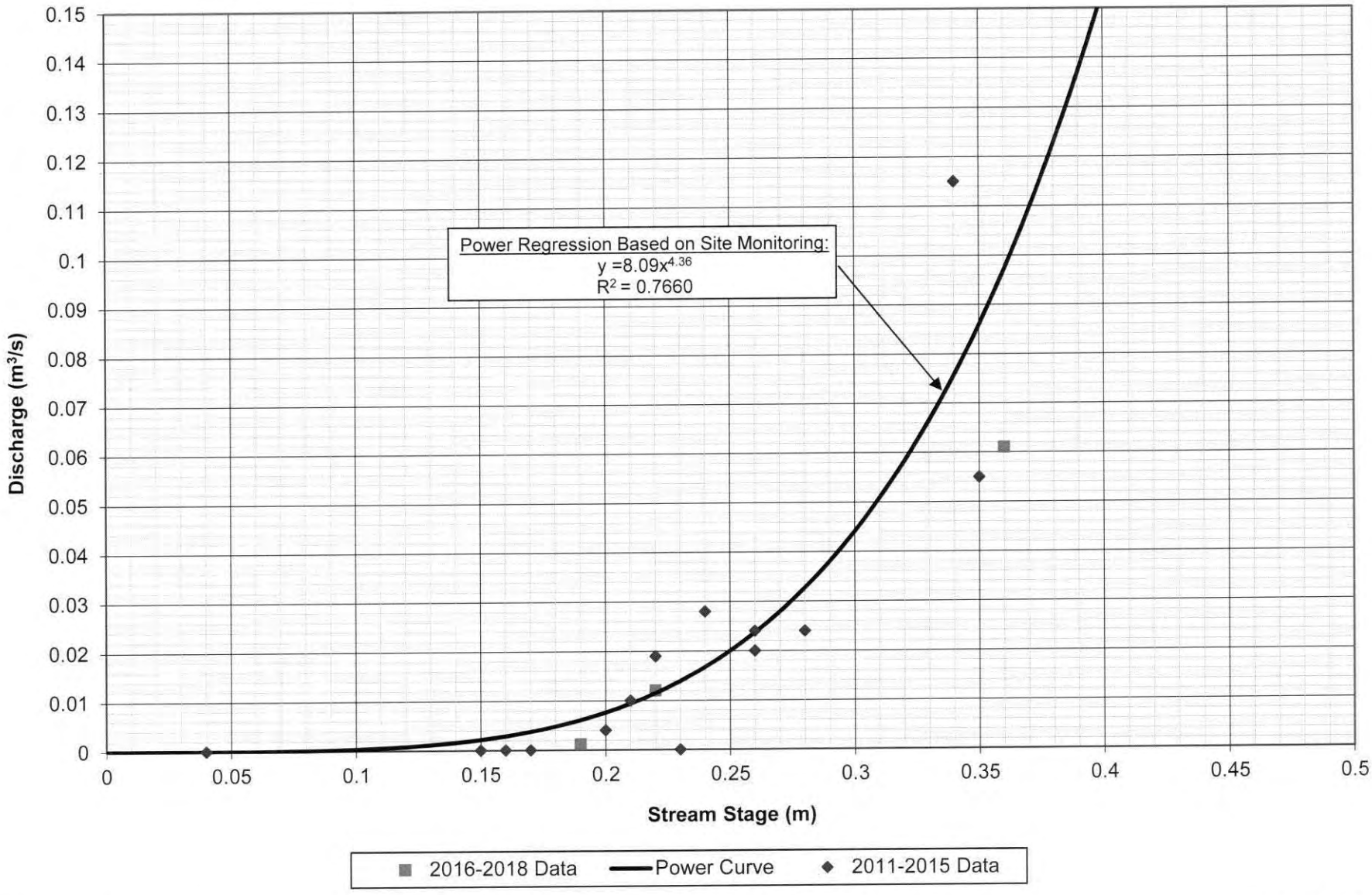
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Appendix E

Ratings Curve

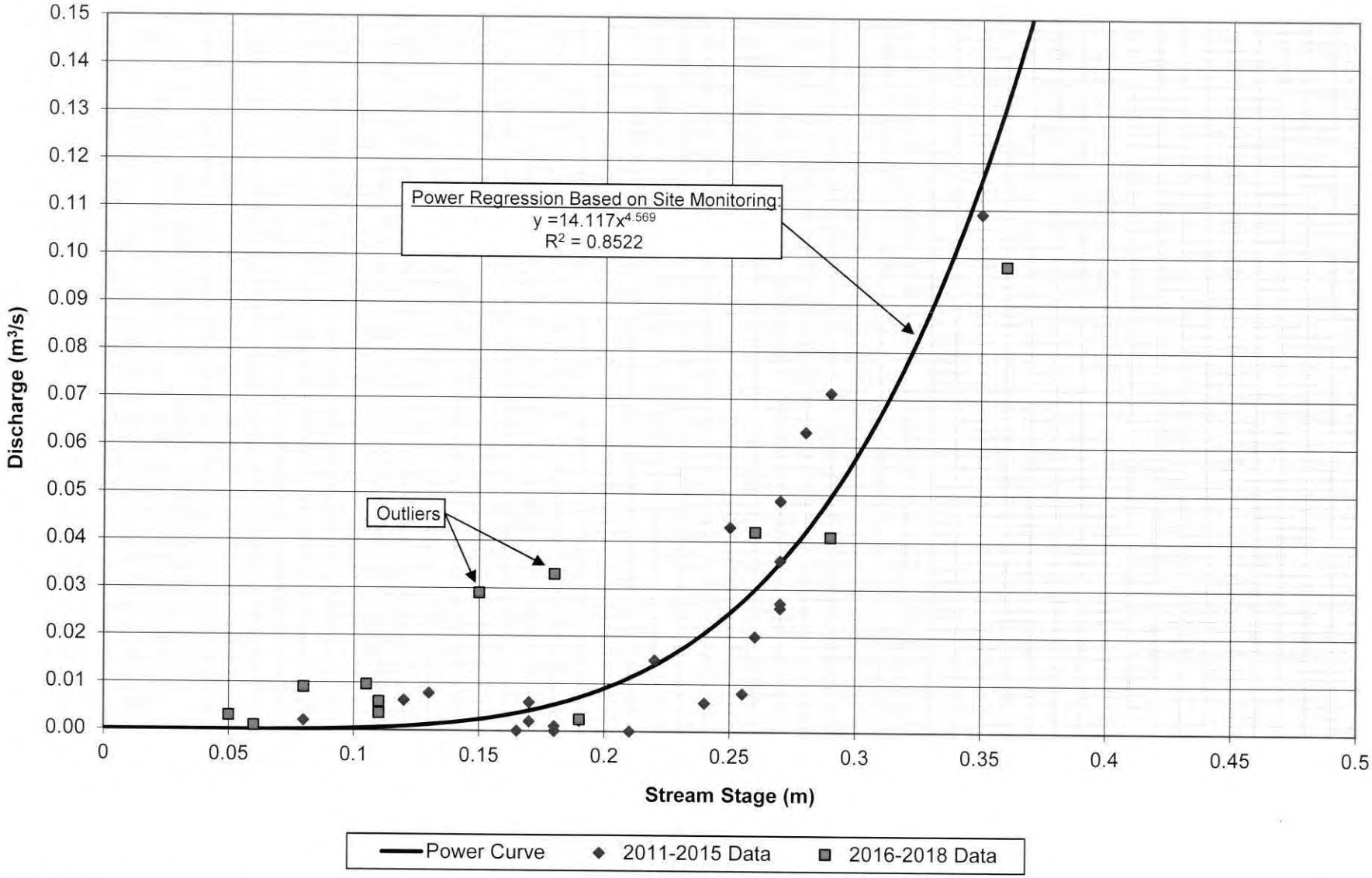
Millcroft Golf Club
PTTW Monitoring - Appleby Creek
SS1 Stage Discharge Ratings Curve



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft SS1 and SS2 Stage Discharge Curves
Prepared By: JJM, 11/7/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
PTTW Monitoring - Appleby Creek
SS2 Stage Discharge Ratings Curve



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R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft SS1 and SS2 Stage Discharge Curves
Prepared By: JJM, 11/7/2018

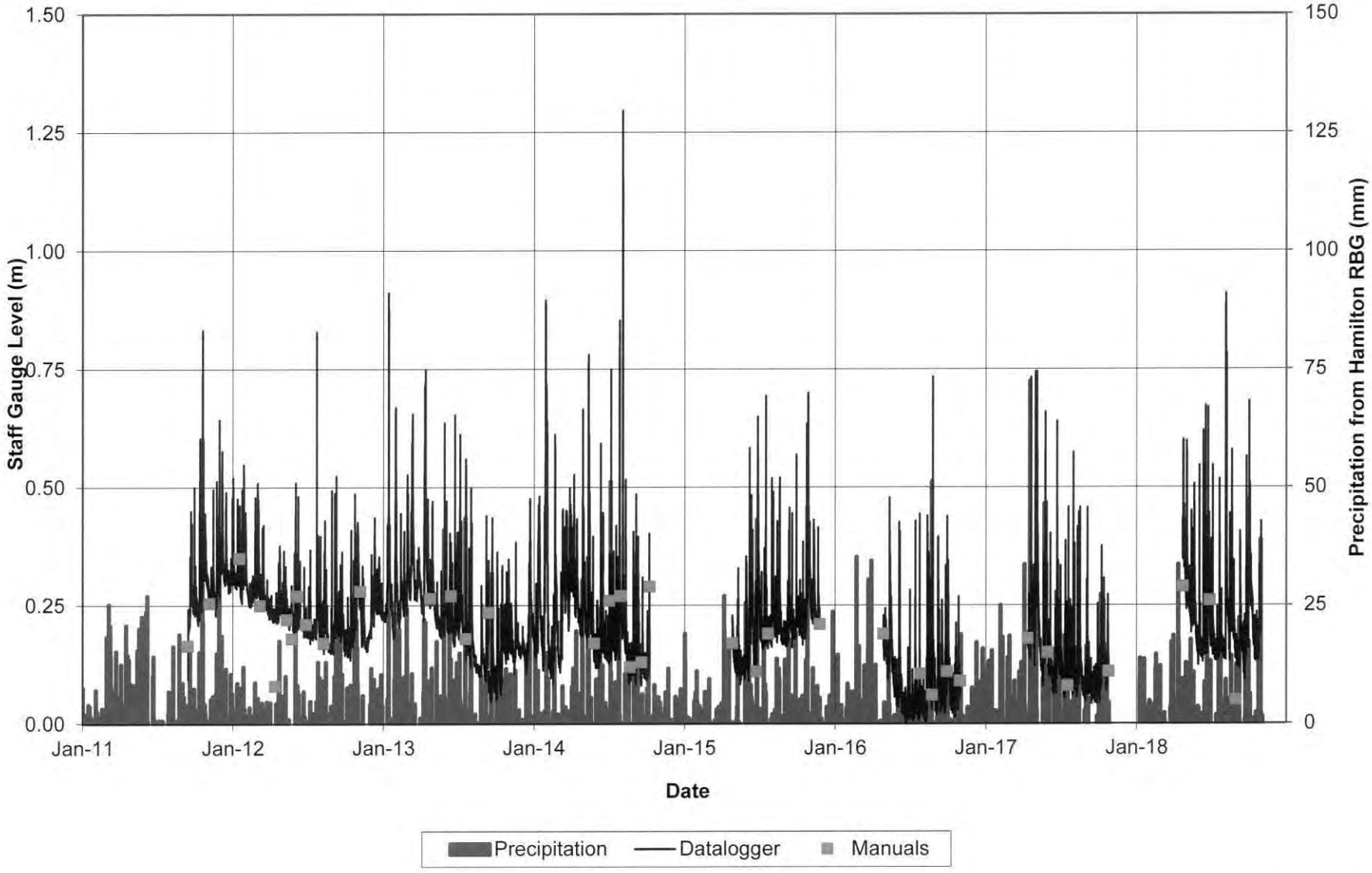
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Appendix F

Hydrographs

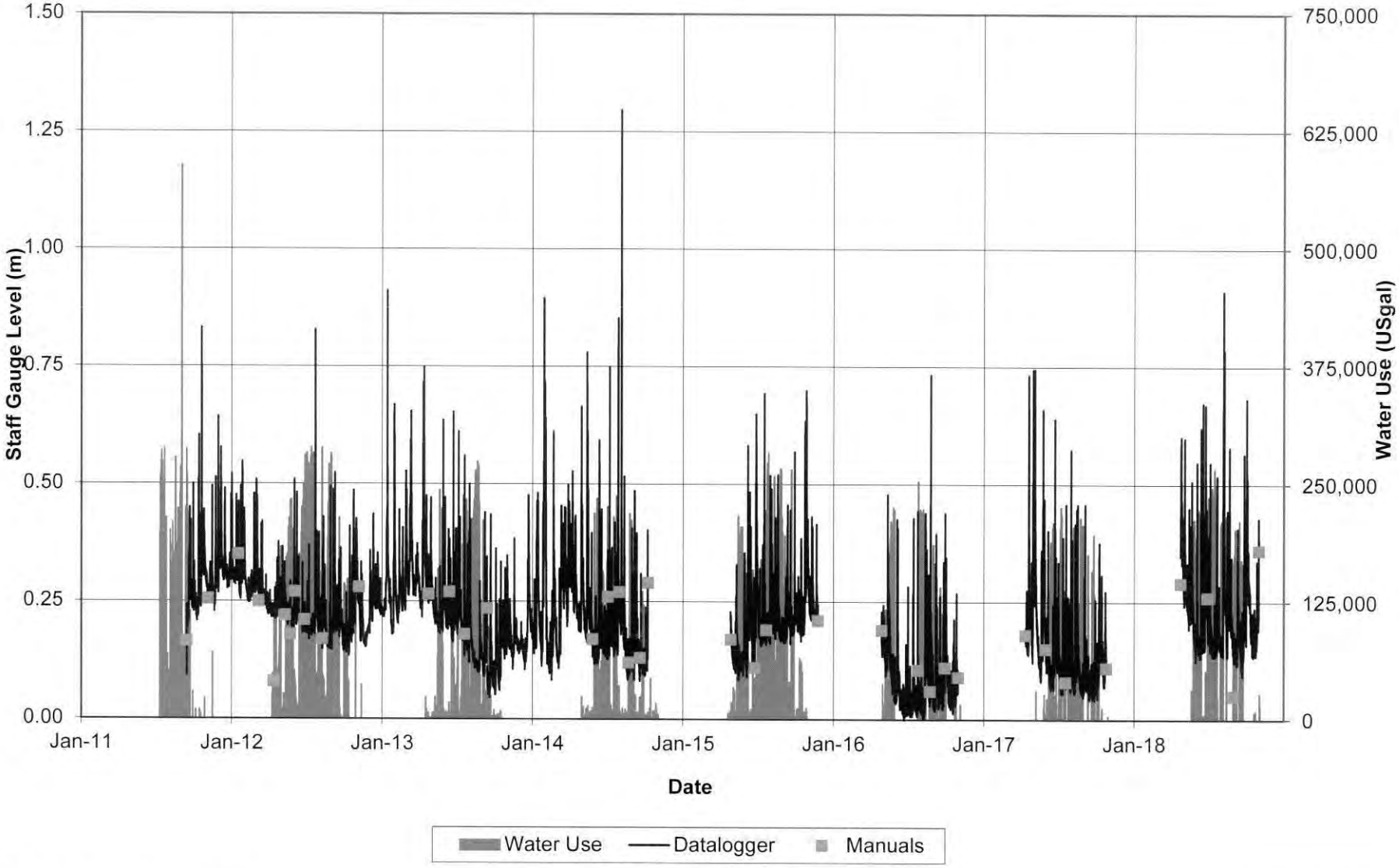
Millcroft Golf Club
SS2: Upstream of Pond
2011-2018 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS2: Upstream of Pond
2011-2018 Hydrograph with Water Use

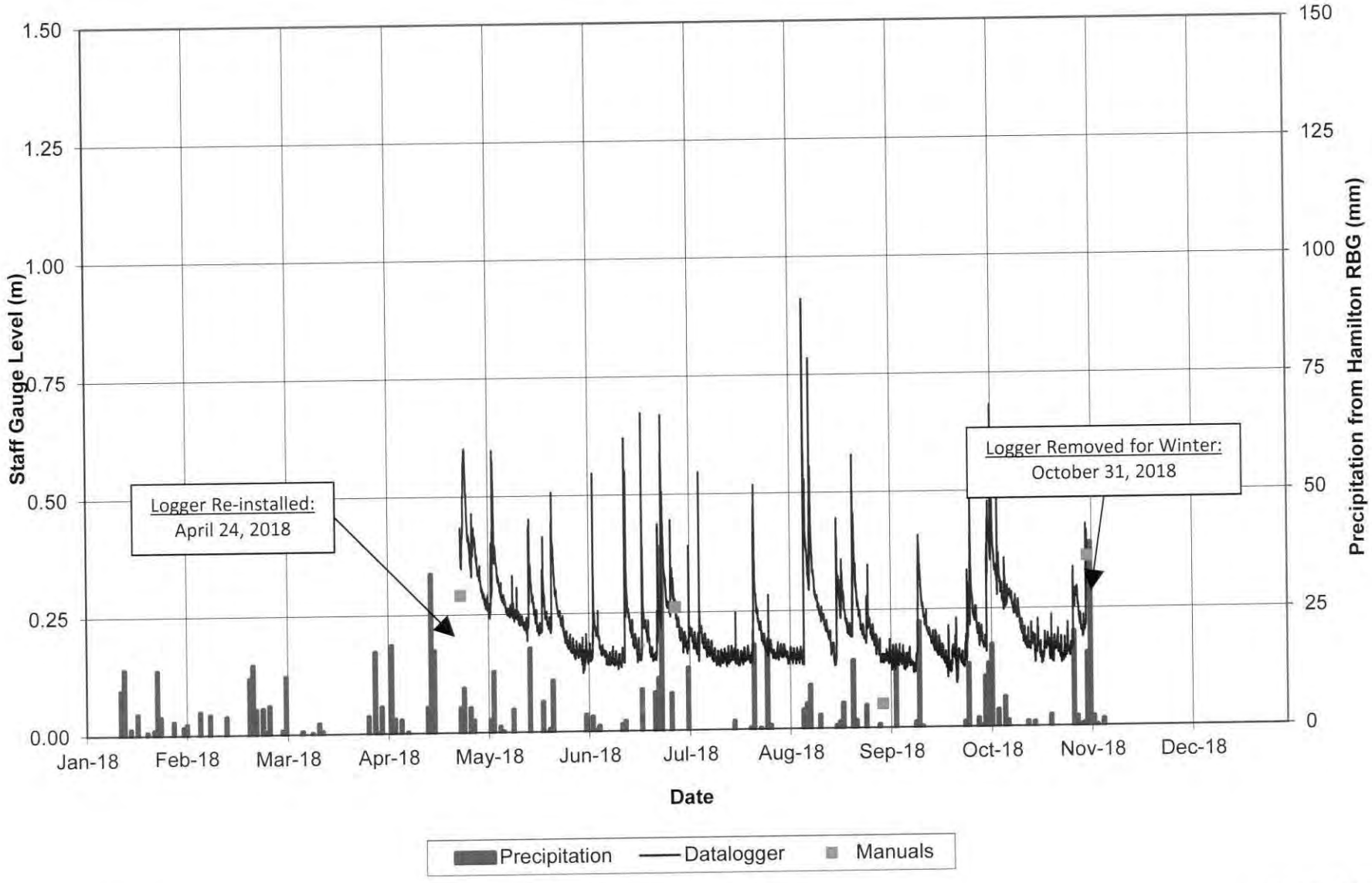


000160

R.J. Burnside & Associates Limited
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Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

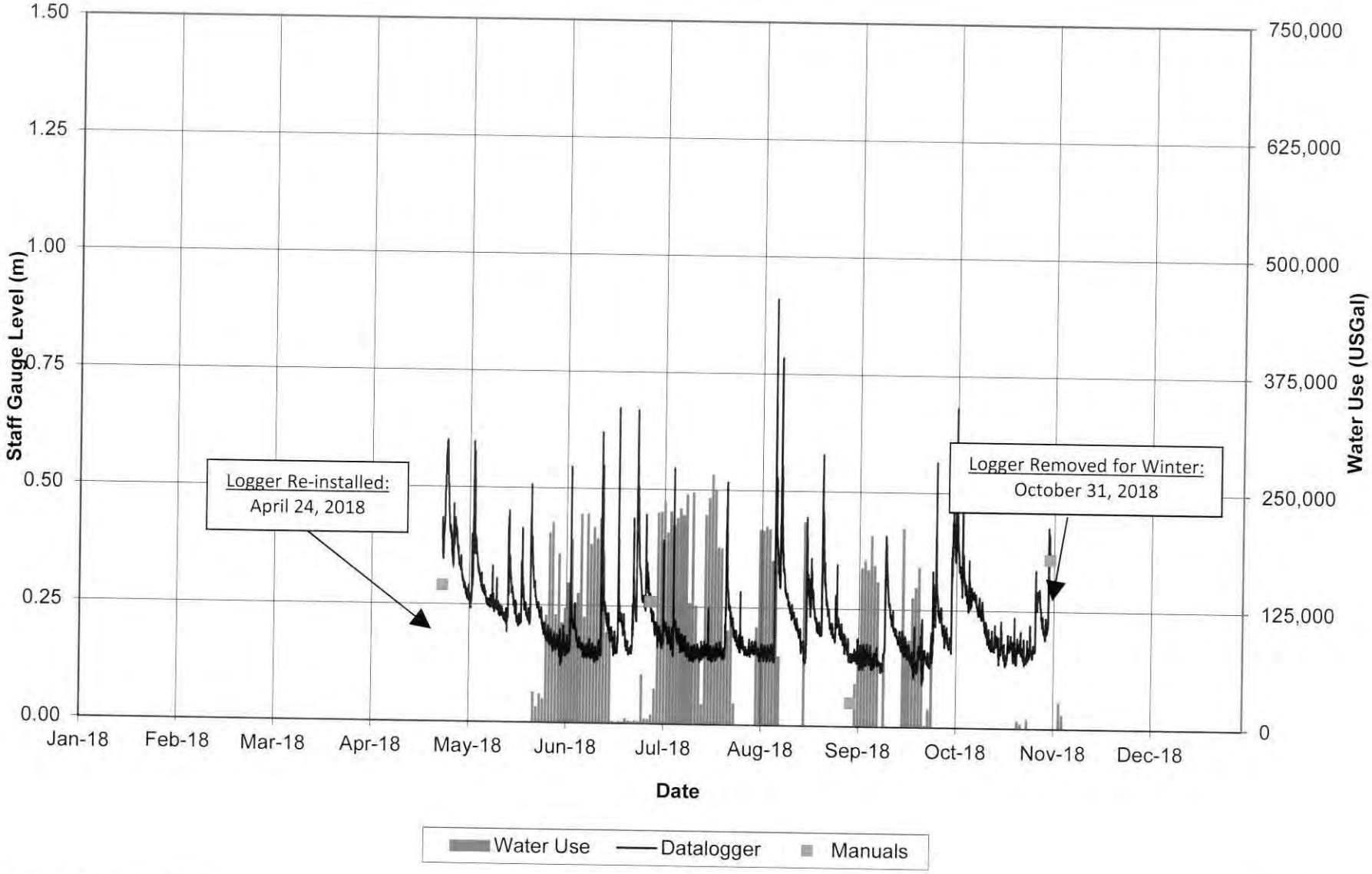
Millcroft Golf Club
SS2: Upstream of Pond
2018 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

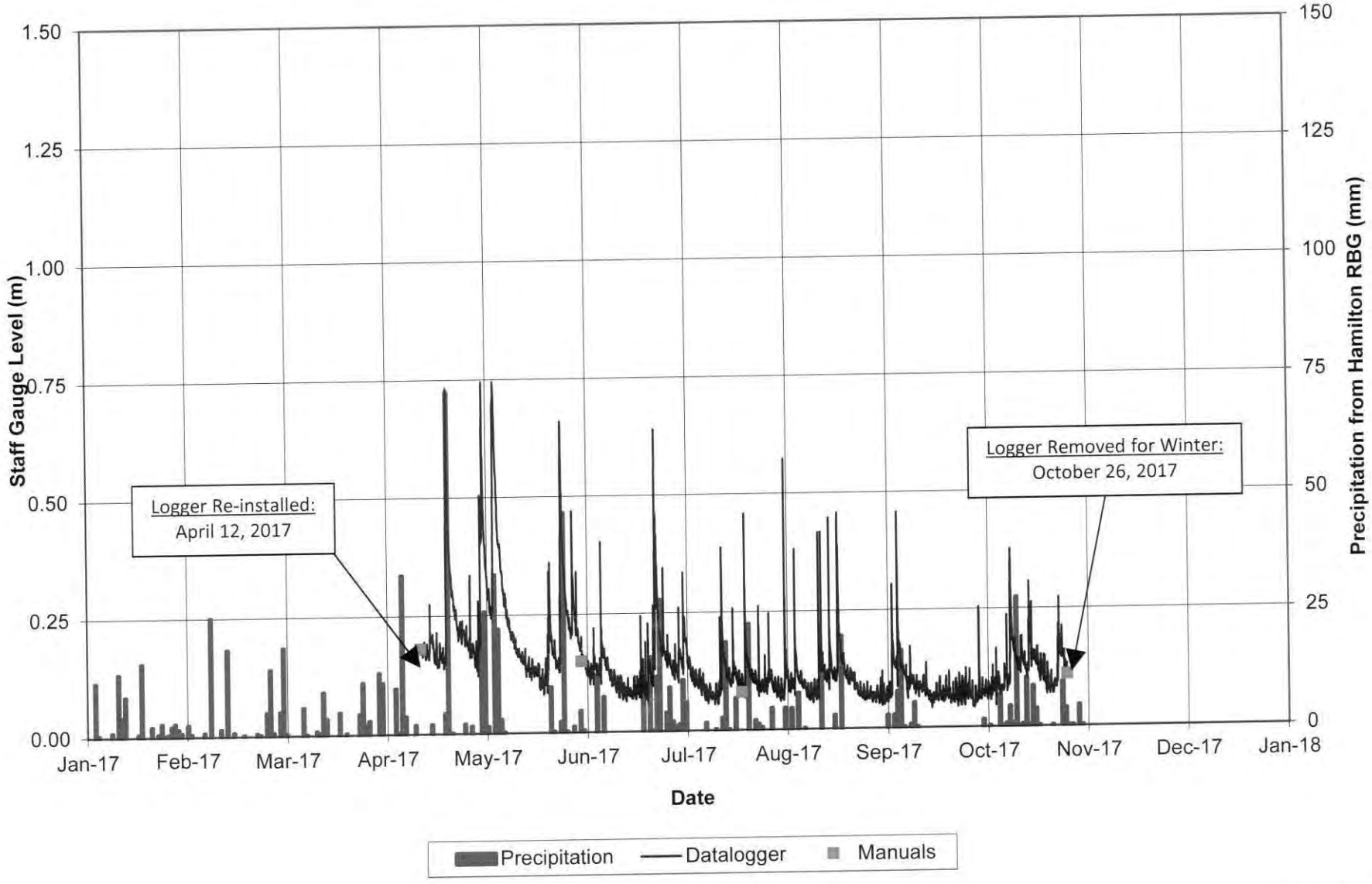
Millcroft Golf Club
SS2: Upstream of Pond
2018 Hydrograph with Water Use



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

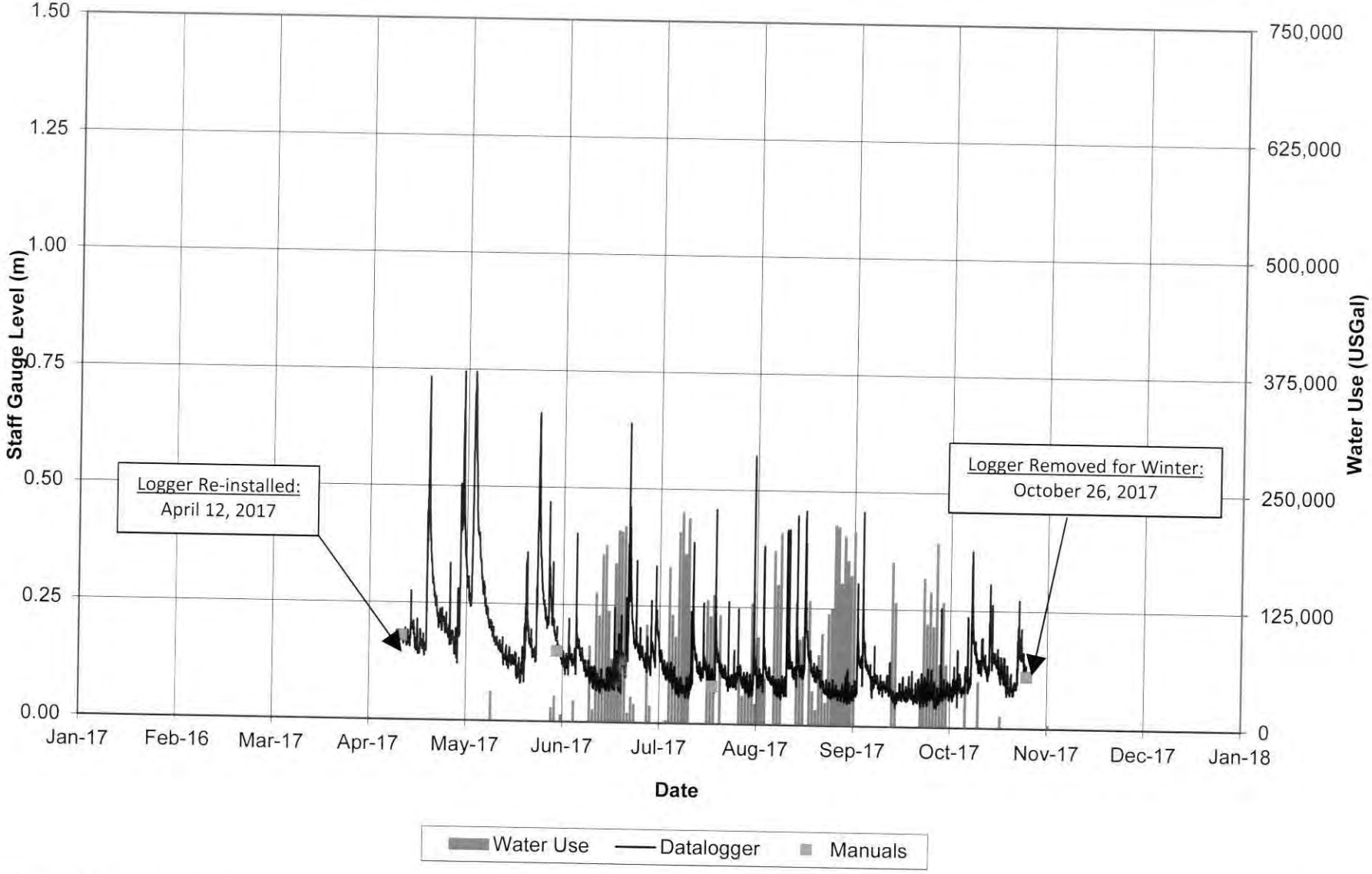
Millcroft Golf Club
SS2: Upstream of Pond
2017 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

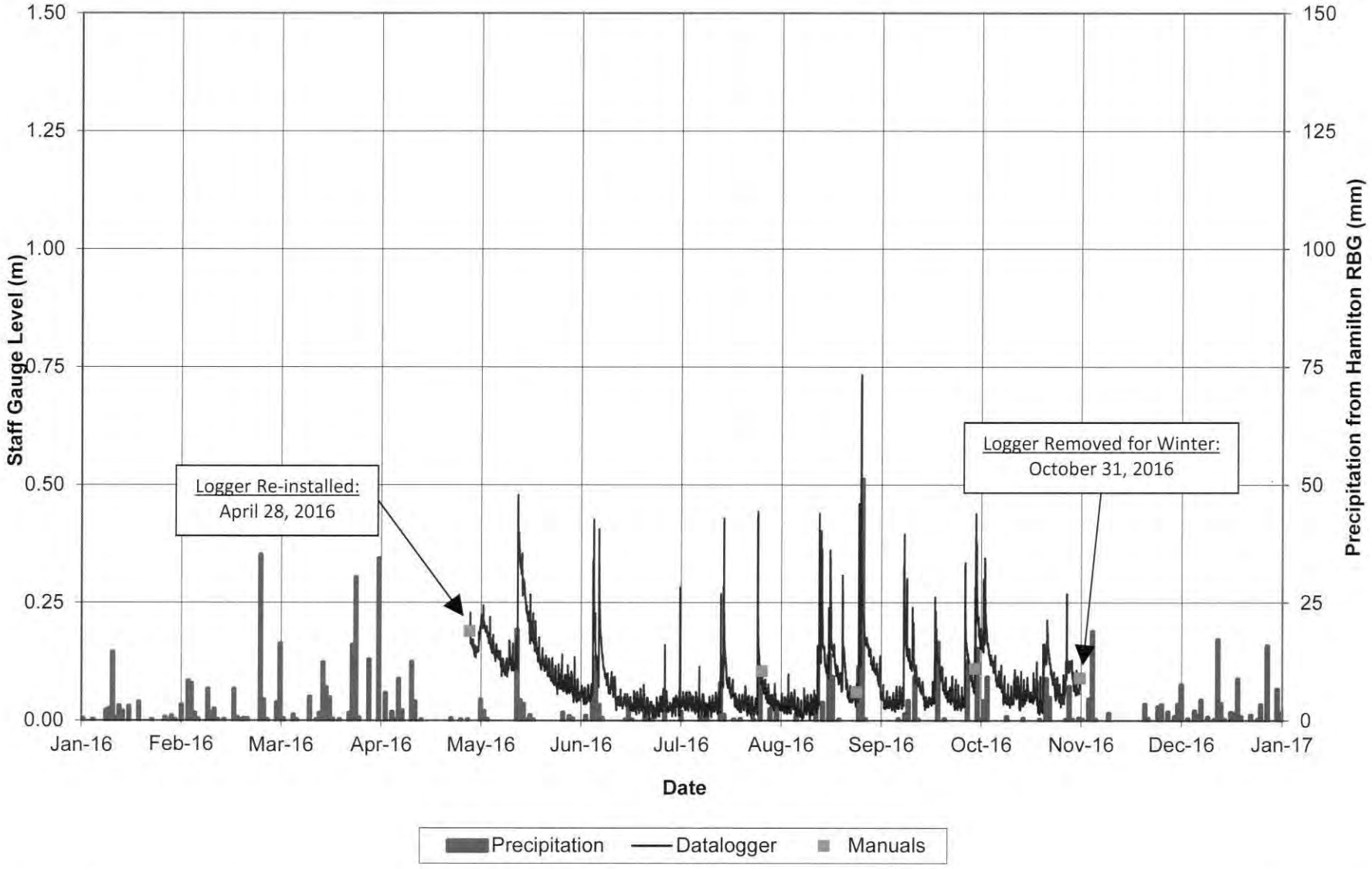
Millcroft Golf Club
SS2: Upstream of Pond
2017 Hydrograph with Water Use



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

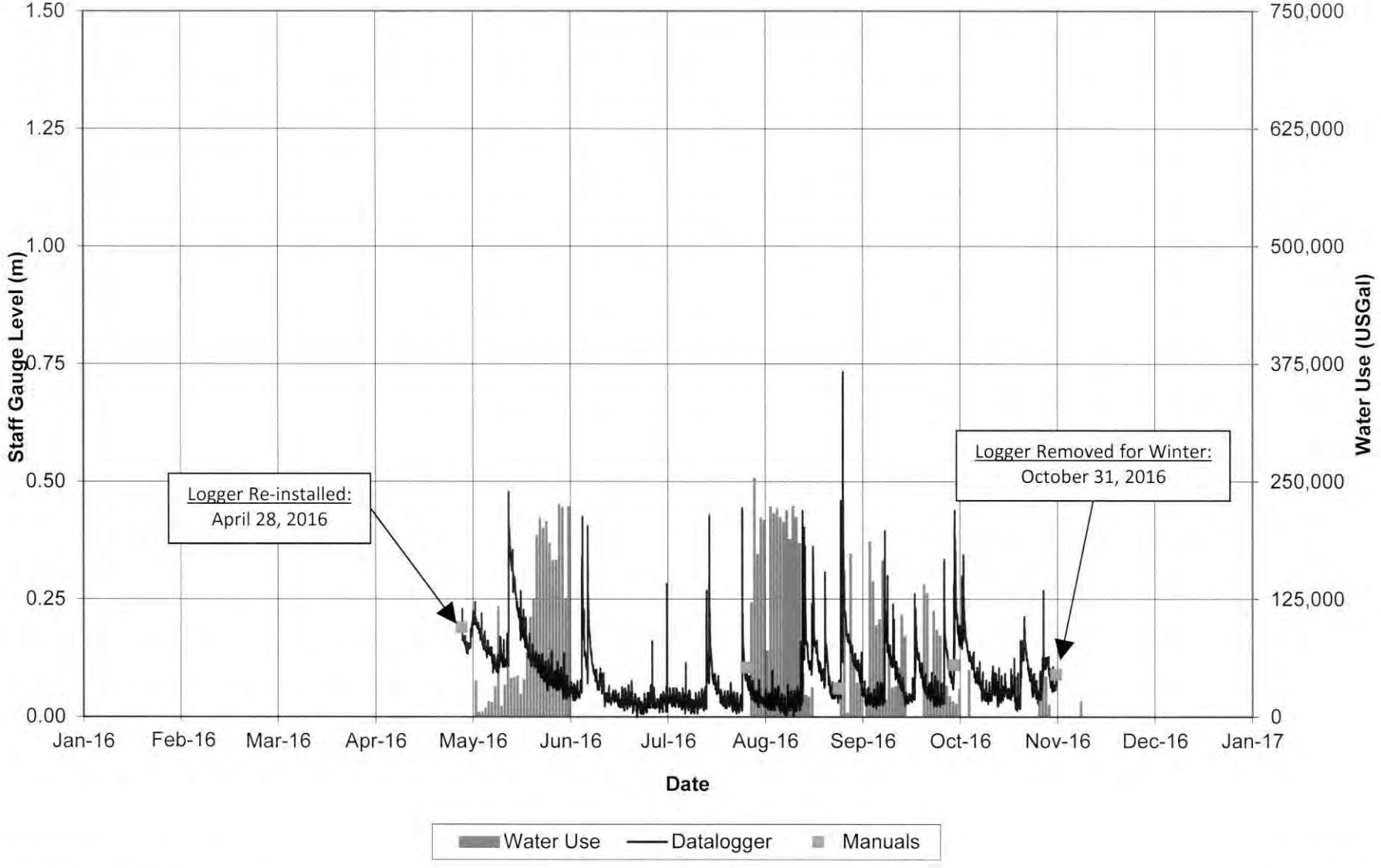
Millcroft Golf Club
SS2: Upstream of Pond
2016 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

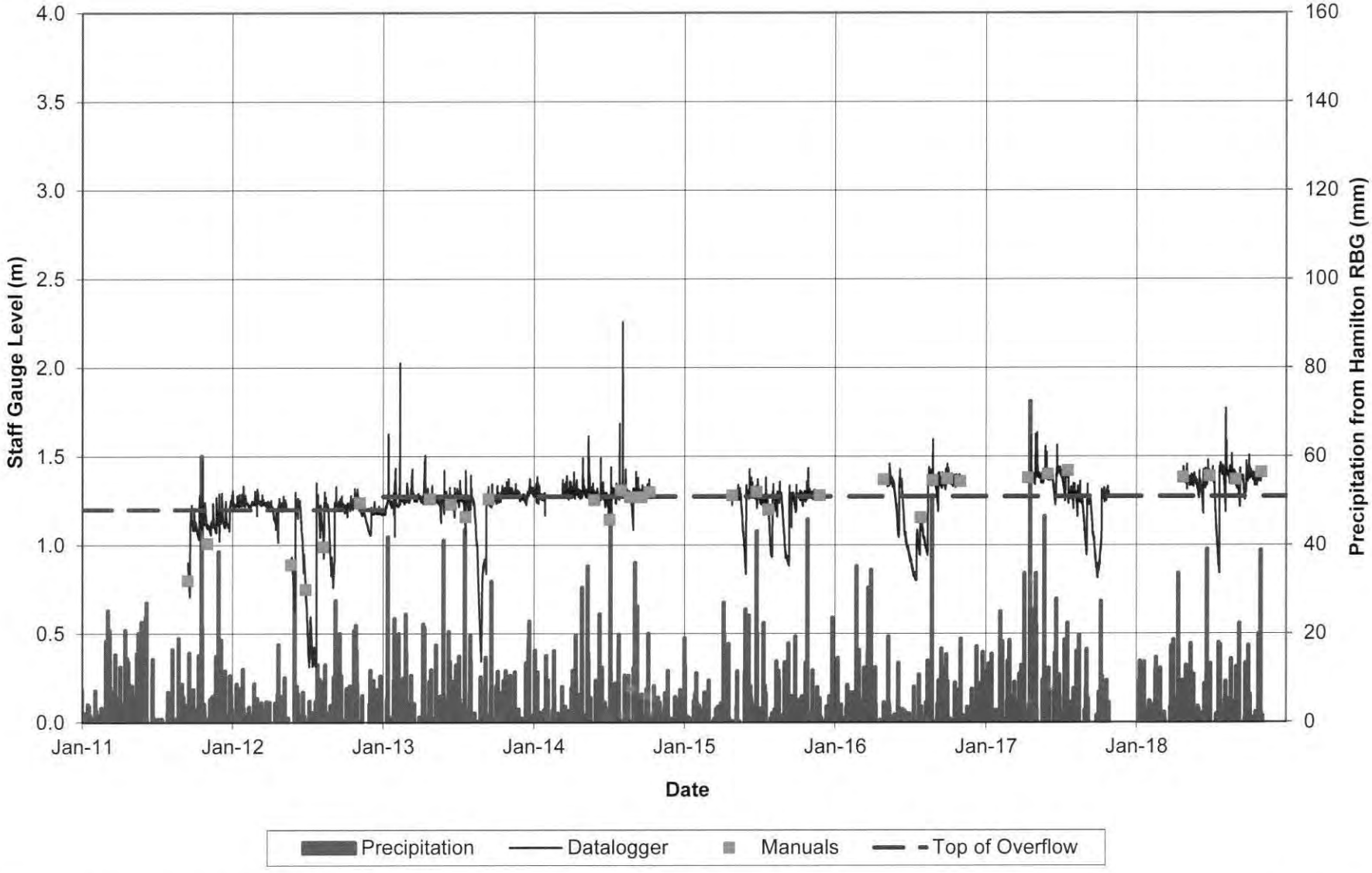
Millcroft Golf Club
SS2: Upstream of Pond
2016 Hydrograph with Water Use



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph REVISED
Prepared By: JJM, 12/12/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS3: Main Irrigation Pond
2011-2018 Hydrograph with Precipitation

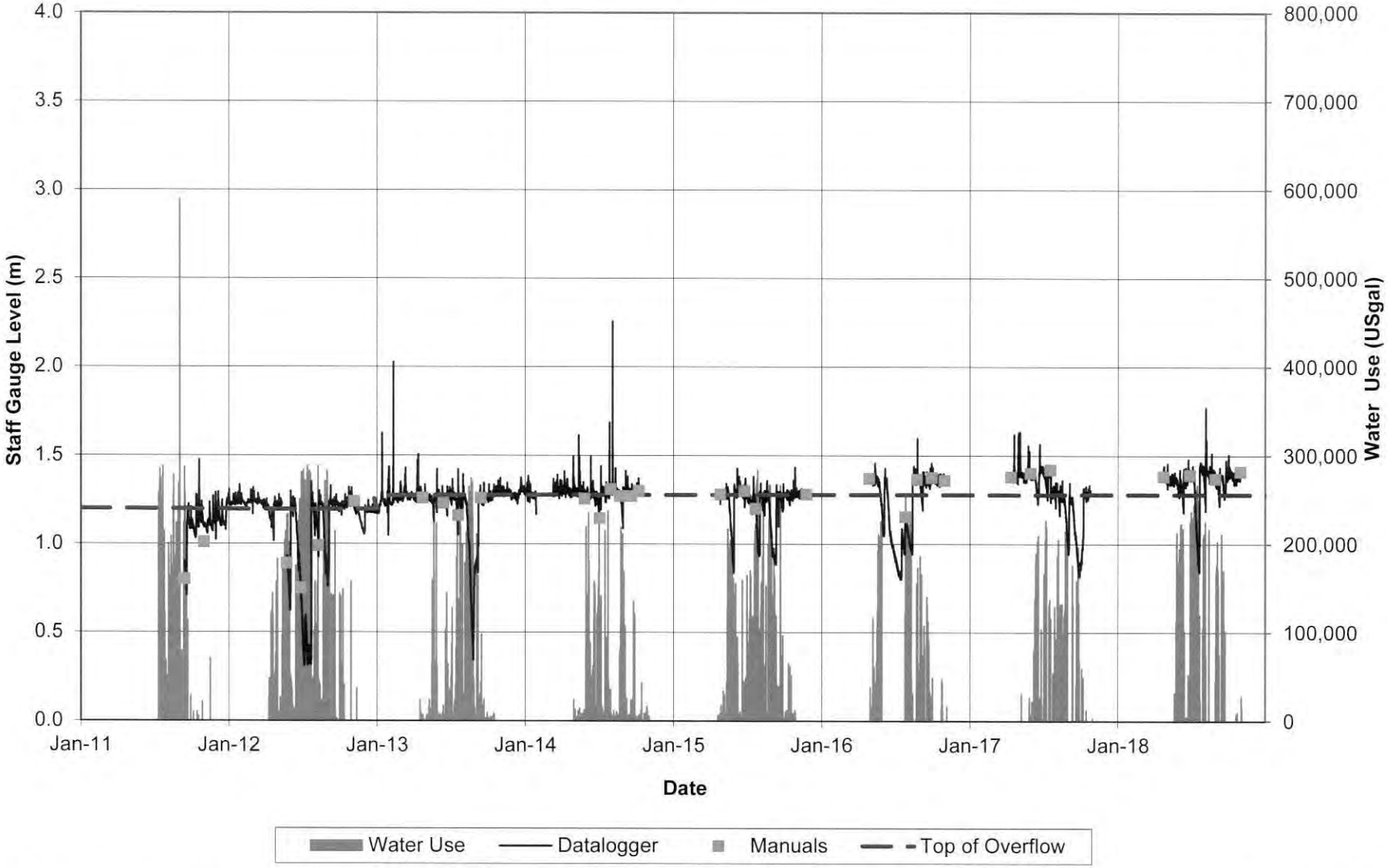


R.J. Burnside & Associates Limited
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Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

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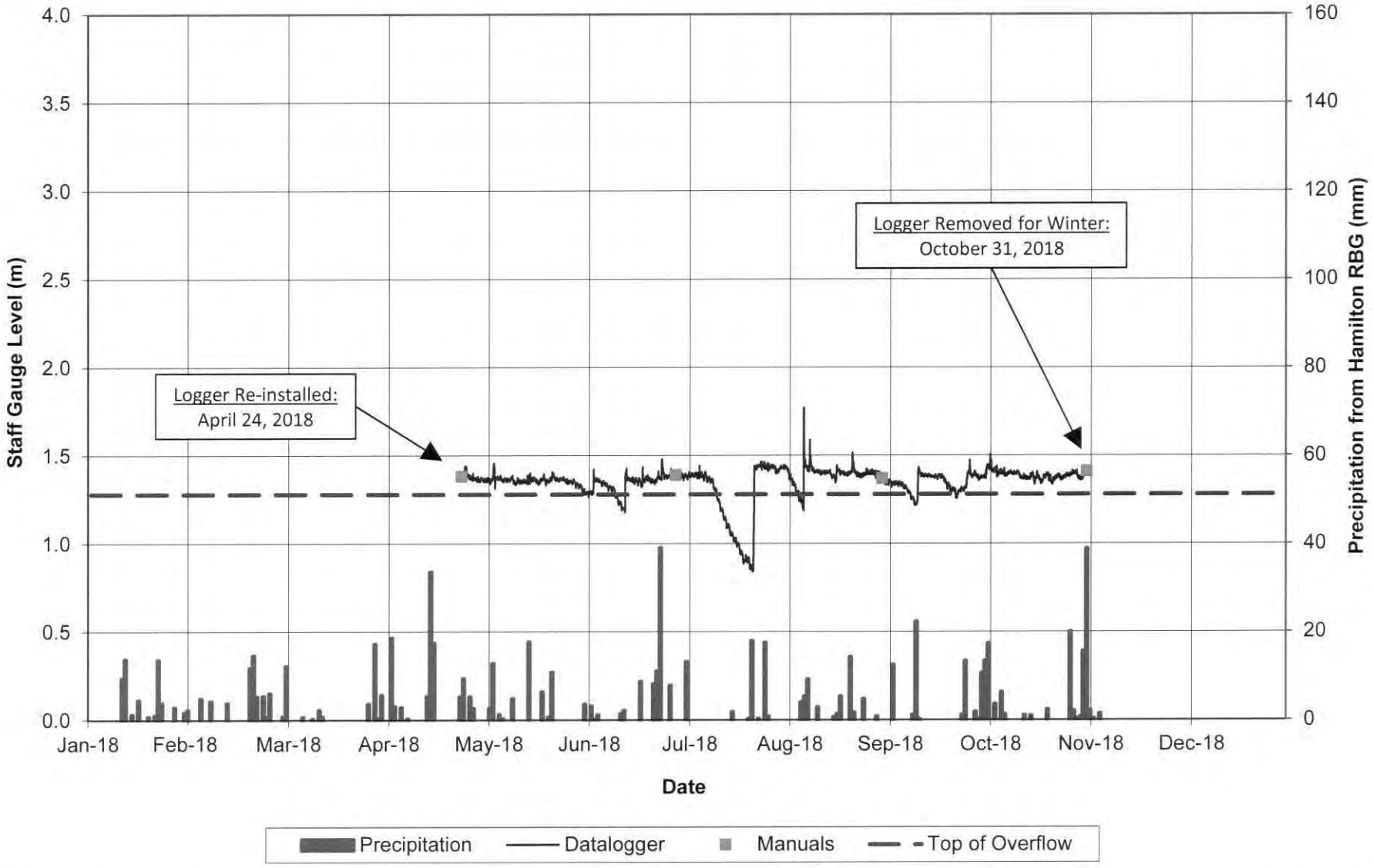
Millcroft Golf Club
SS3: Main Irrigation Pond
2011-2018 Hydrograph with Water Use



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph
Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

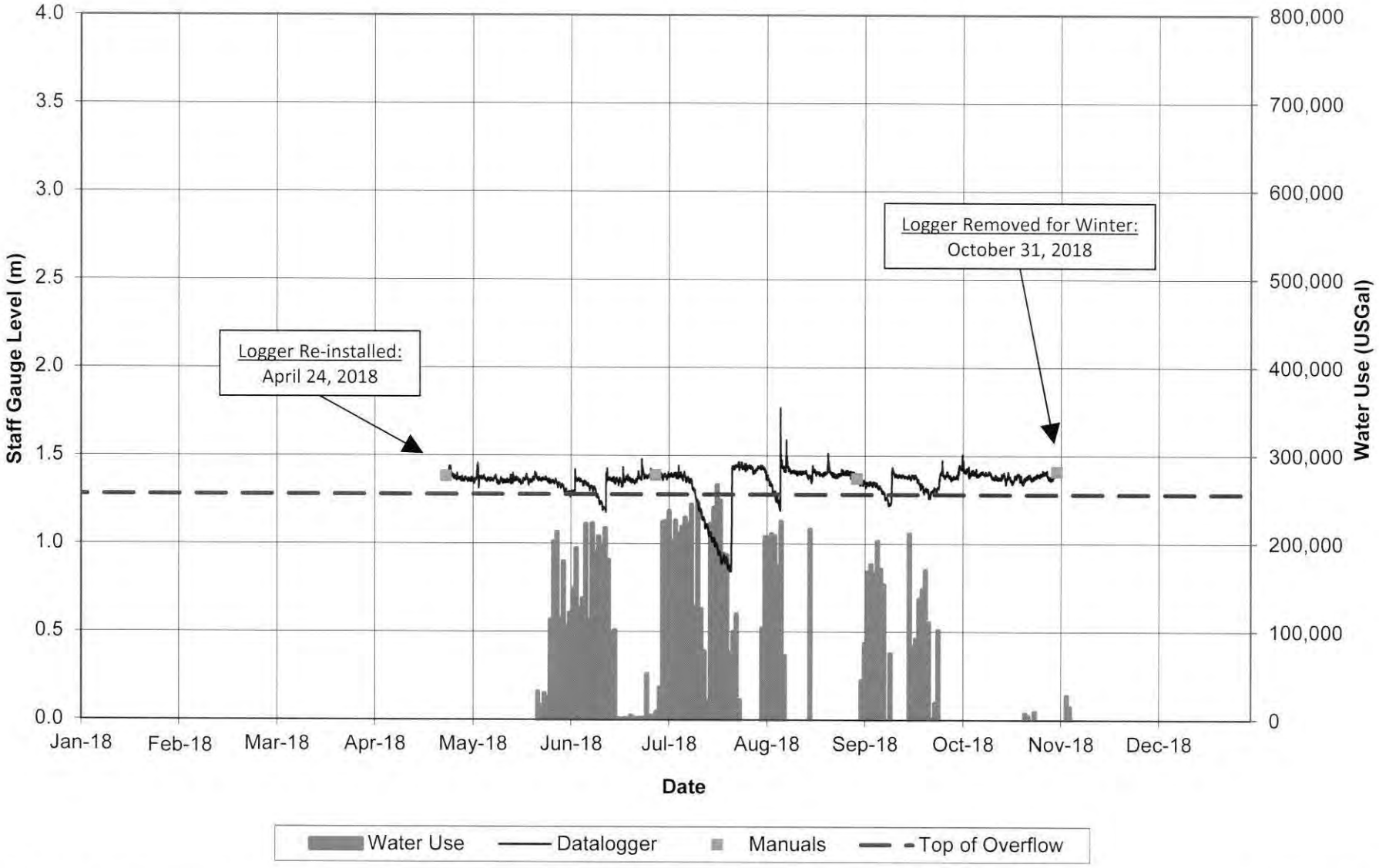
Millcroft Golf Club
SS3: Main Irrigation Pond
2018 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
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Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS3: Main Irrigation Pond
2018 Hydrograph with Water Use

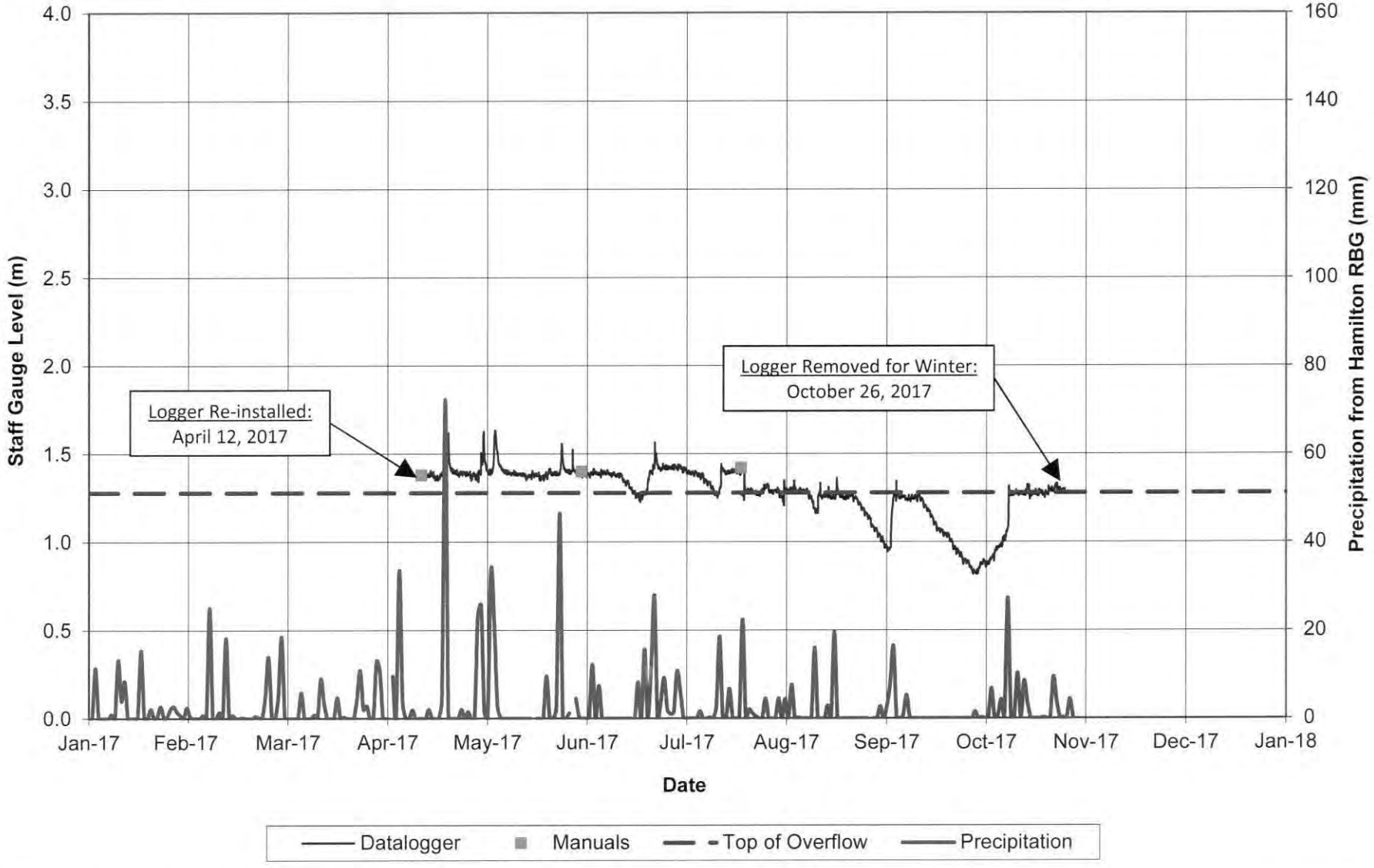


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R.J. Burnside & Associates Limited
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Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

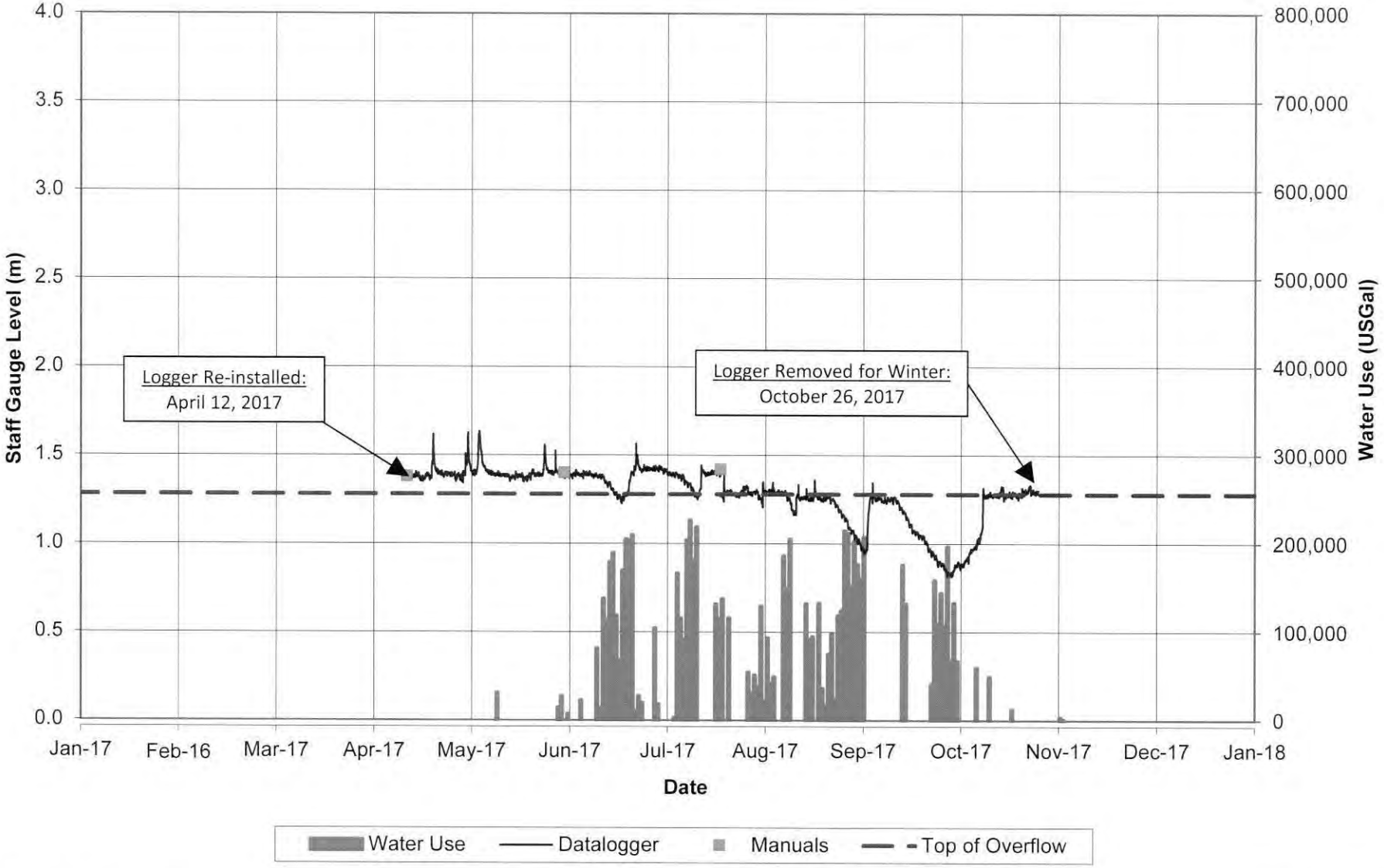
Millcroft Golf Club
SS3: Main Irrigation Pond
2017 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
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Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

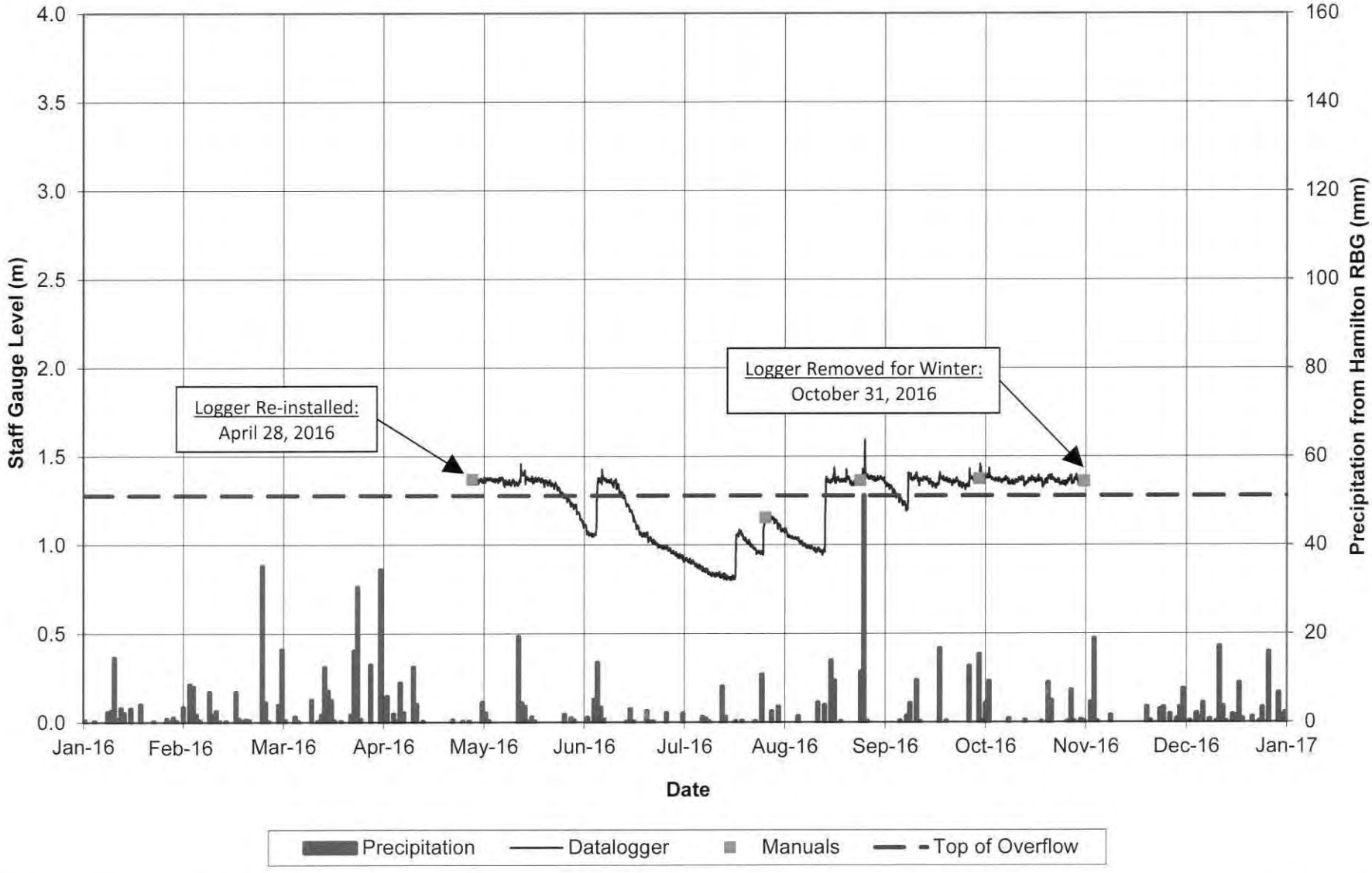
Millcroft Golf Club
SS3: Main Irrigation Pond
2017 Hydrograph with Water Use



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph
Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

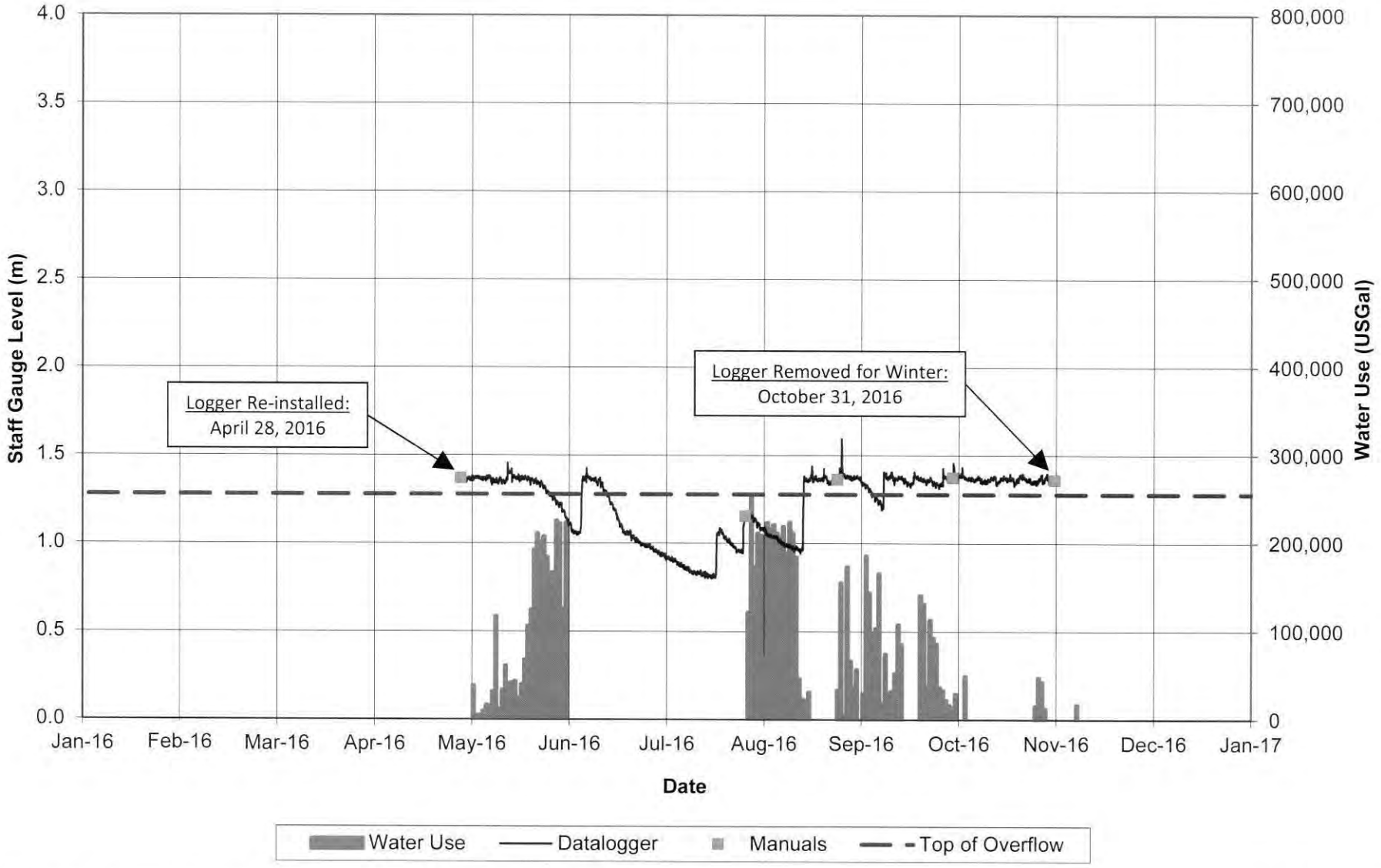
Millcroft Golf Club
SS3: Main Irrigation Pond
2016 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph
Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS3: Main Irrigation Pond
2016 Hydrograph with Water Use



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R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph
Prepared By: JJM, 12/5/2018

Millcroft Golf Club
PTTW Monitoring
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Appendix G

2017 Implementation Report

R.J. Burnside & Associates Limited 1465 Pickering Parkway Suite 200 Pickering ON L1V 7G7 CANADA
telephone (905) 420-5777 **fax** (905) 420-5247 **web** www.rjburnside.com

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December 19, 2017

Via: Courier

Karoly Tajnay
Director, Section 34.1 OWRA
Ministry of the Environment and Climate Change
Central Region
8th Floor – 5775 Yonge Street
Toronto ON M2M 4J1

Dear Ms. Tajnay:

Re: PTTW No. 0463-ABSQSD (2079610 Ontario Ltd. o/a Millcroft Golf Club)
Implementation Report (Monitoring Condition 4.3)
Project No.: PGD020649.2017

In July 2016, 2079610 Ontario Ltd. (o/a the Millcroft Golf Club) was issued Permit to Take Water (PTTW) No. 0463-ABSQSD from the Ministry of the Environment and Climate Change (MOECC) for taking from an on-site stormwater management pond known as Mill Pond (Source 1), for the purpose of golf course irrigation. The permit allows the golf club to pump water from the pond at a maximum rate of 2,917 L/min for 24 hours/day up to a daily maximum volume of 1,112,300 L with 214 days of allotted water taking per year, and is set to expire on December 31, 2018.

Monitoring Condition 4.3 requires the submission of an Implementation Report to the MOECC, as summarized below:

4.3: *The Permit Holder shall complete the proposed diversion/bypass structure to the online pond as described in Item 2 of Schedule A of the Permit. In addition, prior to December 31, 2017, the Permit Holder shall provide an implementation report prepared by a qualified person for review.*

Burnside has been retained by the golf club to prepare and submit the aforementioned Implementation Report to the MOECC. The following report summarizes the approved Work Plan and provides an update on its implementation and progress to date.

Work Plan Summary

Item 2 of Schedule A of the PTTW (PTTW Renewal Report by Burnside, May 2016) describes the Work Plan that was originally submitted in March 2014 to Zhiping Yang, MOECC Surface Water Specialist and approved. The Work Plan is summarized as the following tasks:

1. Surface water monitoring of the Appleby Creek system at Stations SS1, SS2 and SS3 as required by Monitoring Condition 4.2.

2. Completion of a water balance assessment and flow model utilizing the findings of the monitoring program to assess minimum flow requirements in Appleby Creek.

3. Detailed design of the Appleby Creek diversion/bypass structure and modifications utilizing the findings of the water balance assessment.

4. Approval from relevant agencies and construction of the diversion/bypass.

Work Plan Items Completed

Phase 1: Surface Water Monitoring Summary

As required by the Work Plan and PTTW Monitoring Condition 4.2, surface water monitoring has been ongoing at the site since 2011 and has continued in 2017. The monitoring program consists of streamflow measurements at Stations SS1 (Appleby Creek upstream), SS2 (Appleby Creek upstream of Mill Pond) and SS3 (Mill Pond weir). Continuous water level measurements are obtained in Mill Pond and upstream of Mill Pond. Outflows from Mill Pond are estimated by a combination of streamflow measurements and by a well-calibrated weir equation. To continuously verify the ratings curve and outflow estimations, surface water monitoring is proposed to continue until construction. A copy of the most recent Annual Monitoring Report (2017) is included for reference. As such, the first task of the Work Plan may be considered satisfied.

Phase 2: Water Balance Assessment

A water balance and flow assessment was completed as part of the May 2016 Burnside PTTW Renewal Report submitted to the MOECC upon expiry of their previous PTTW. The results of the assessment indicated that the Mill Pond, in its current form, negatively influences flows in the downstream reaches and at times completely stops flow downstream of the weir. As such, the report recommended a 50% bypass of the total flows above a minimum low-flow threshold entering Mill Pond given the impacts of urbanization and channelization within this section of Appleby Creek. This assessment satisfied the second item of the Work Plan.

Phase 3: Detailed Design

Detailed design drawings of the diversion/bypass structure and proposed modifications to Mill Pond have been completed. The proposed diversion consists of a rounded river stone flow splitting structure that will direct 50% of the flow above the minimum flow requirement (based on the summer low flow) from the creek into Mill Pond, while the minimum flow plus the other 50% of the excess flows is diverted around Mill Pond via approximately 150 m of open naturalized channel. The channel features proposed shallow steps to achieve a stream gradient of 1.7% and a berm to separate the channel from the pond, tying back into Appleby Creek at the existing weir location. Engineering Drawings CH1, CH2, D1, ESC1, G1, PP1 and R1 have been included for reference.

Work Plan Items Remaining

Phase 4: Approvals and Construction

The only remaining task of the Work Plan to be completed is agency approval and construction. On June 29, 2016, Burnside submitted an application to Conservation Halton for a permit to

allow the altering of a watercourse by constructing a bypass channel. In correspondence dated October 21, 2016, Conservation Halton (CH) submitted comments back to Millcroft Golf Club that were to be addressed before a permit could be issued. A copy of this letter is attached for reference.

As per the Conservation Halton letter dated October 21, 2016, a total of 48 comments are required to be addressed and the application resubmitted for secondary review. Since that time, Millcroft Golf Club and Burnside have been working to address the comments and prepare a revised application package to be submitted. Due to the number of design revisions required, it is not anticipated that the golf club will be in a position to begin construction of the proposed bypass/diversion and Mill Pond modifications within the timeframe of the existing PTTW, which is noted to expire on December 31, 2018. As such, the golf club is reviewing additional supplemental water sources, specifically municipally supplied water. Currently there is a 300 mm diameter service along Country Club Drive that could be utilized for use by the golf course. Information obtained from the golf course suggests that there is a current municipal connection to the irrigation pumphouse, however the size and adequacy of the service is not known. Millcroft is currently in the process of assessing the feasibility of relying long term on municipal water supplies and the cost of the modifications required to implement that strategy. The work plan has been revised to re-examine municipal supply as a long-term strategy for the golf course.

Simultaneously we are still working through the comments provided by CH, which includes an assessment of the hydraulic stormwater modelling, which requires updating the CH model. This requires a significant level of effort and time.

This letter satisfies Monitoring Condition 4.3 of the PTTW. Should you have any questions or concerns regarding the information provided above, please do not hesitate to contact the undersigned.

Yours truly,

R.J. Burnside & Associates Limited

Stephen Kajan, P.Eng.
Water Resources Engineer
SK:cl

Vito Cirone, M.A., EP
Senior Vice President, Private Clients

Enclosure(s)

cc: M. Ed Liptay, Millcroft Golf Club (enc.) (Via: Mail)

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BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Conservation Halton Letter

Conservation Halton

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Burlington, Ontario L7P 0G3
conservationhalton.ca

Protecting the Natural Environment From Lake to Escarpment

October 21, 2016

BY MAIL AND EMAIL

Ed Liptay c/o Millcroft Golf Club
2155 Country Club Drive
Burlington, ON
L7M 4A8

Dear Mr. Liptay:

Re: Proposed modifications to an existing online pond associated with Appleby Creek
2155 Country Club Drive
City of Burlington
CH File: PA/15/B/49

Proposal

The applicant is proposing the modifications to an existing online pond associated with Appleby Creek.

Ontario Regulation 162/06

Conservation Halton regulates hazardous lands associated with watercourses, valleylands, hazardous lands, wetlands and shorelines, as well as the lands adjacent to those hazards. Please be advised that development, including grading, filling, or the construction of structures, within Conservation Halton's regulated area, requires permission pursuant to Ontario Regulation 162/06. Please visit www.conservationhalton.ca for a copy of Ontario Regulation 162/06 and the related policy document *Policies and Guidelines for the Administration of Ontario Regulation 162/06* (August 11, 2011).

Staff have reviewed the following documents regarding the above noted proposal:

- Letter from R.J. Burnside RE: Modifications to the existing online Associated with Appleby Creek, dated June 29, 2016;
- Conservation Halton Letter and Permit Checklist RE: Proposed Modifications to the Existing Online Pond Associated with Appleby Creek, dated November 6, 2016;
- *Functional Channel Design and Instream Flow Needs Appleby Creek*, prepared by Aqualogic, dated May 31, 2016, stamped received July 4, 2016;
- *East Branch of the Appleby Creek – General Plan,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. G1, stamped received July 4, 2016;
- *East Branch of the Appleby Creek – Plan/Profile,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. PP1, stamped received July 4, 2016;
- *East Branch of the Appleby Creek – Erosion and Sediment Control Plan,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. ESC1, stamped received July 4, 2016;
- *East Branch of the Appleby Creek – Details,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. D1, stamped received July 4, 2016;

- *East Branch of the Appleby Creek – Downstream Tie in Details,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. CH1, stamped received July 4, 2016;
- *East Branch of the Appleby Creek – 50:50 Flow Split Design,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. CH2, stamped received July 4, 2016;
- *East Branch of the Appleby Creek – Removals and Restoration Plan,* prepared by R.J. Burnside, dated June 10, 2016, marked DWG. No. R1, stamped received July 4, 2016.

Comments on Submission

Staff will require that the following comments be addressed with regards to the above noted drawing set and technical reports. In the next submission the required permit fee of $8000, as per category CS(3c) on the 2016 Conservation Halton fee schedule is required. The resubmission will not be circulated for review until the outstanding permit fee has been received. I have also attached Conservation Halton's Re-Submission Declaration Form for Permit Applications. This form is to be completed and submitted with each resubmission in order to be accepted and circulated:

General Comments

1. Please confirm the minimum design flow to be conveyed by the proposed channel and provide justifications on why it is acceptable. Staff found inconsistencies within the proposed values presented in the reports provided and indicated on the drawings as summarized in the Table below.

Description / Location	Flow rate (from the source)	Source	Flow rate, m3/sec (to compare)
The minimum summer low-flow observed at staff gage located upstream of the pond inlet (SS2)	51 L/min	PTTW renewal application, prepared by Burnside, dated May 2016 (PTTW) ,pg. 12	0.00085
Base flow, May 2014	434 L/min	PTTW, pg. 12	0.0072
Base flow, September 2014	470 L/min	PTTW, pg. 12	0.0078
Mean May to September daily flow	**17.7 L/s**	Functional Channel Design report, prepared by AquaLogis, dated May 2016 (FCD), pg. 12	**0.0177**
Mean summer monthly average, September 2011 – November 2015	0.0341 m^3/sec	PTTW ,Table 7, pg. 11	0.0341
The peak of summer mean daily flow	13.8 L/s	FCD, pg.12	0.0138
60% exceedance flow for the summer	424 L/min or 7.07 L/sec	PTTW on Pg. 13 text	0.00707
60% exceedance flow for the summer	0.0106 m^3/sec	PTTW on Pg. 12, Table 8	0.0106
Bypass flow	6 L/min	Dwg. CH2	0.0001

Please note that the proposed spilt should ensure conveyance of at least 0.0177 m^3/sec (the mean daily flow from May to September) prior to any flows being directed into the pond. Please confirm and adjust the design accordingly.

2. A delineation of the flooding hazard is required as part of the project. Please note that Conservation Halton can provide a HEC-2 model prepared as part of the Appleby Creek

Floodline Mapping Update Study, prepared by Environmental Water Resources Group Ltd., dated July 1997. The model can be obtained through a Data Licensing Agreement. The model should be converted to HEC-RAS, geo-referenced and modified to present the proposed conditions. Staff are in support of using peak flows identified in Figure 3-6 of the Floodline Study for the hydraulic modelling.

The following should be provided as part of the study:

- Paper and digital copies of all relevant hydraulic model input and output files, complete with documentation clarifying the purpose of and/or changes made to each plan, flow, and geometry file; and
- Signed and sealed, appropriately scaled metric plans showing an orthophoto base for the entirety of the existing and proposed floodplain area of the location of interest, overlain by:

    a. existing conditions topographic information (contours preferred),
    b. existing hydraulic cross sections labeled with respect to cross section ID and the existing regulatory flood elevation,
    c. existing regulatory and 100-year storm floodplain, and
    d. proposed grading plans showing the limit of the proposed regulatory and 100 year floodplain as well as 7.5 m associated allowances from the limit of the floodplain.

Floodplain modeling should be performed based on detailed current topographical information, including detailed topographic survey of crossing structures and the bankfull channel. The regulatory floodplain is established as the greatest water level associated with either the Regional Strom event or 1:100 year design storm. The Regional Storm and 100-year storm floodplains and hydraulic cross-sections must be mapped based on a current topographical survey and a scaled copy of the drawing is to be provided for Conservation Halton review and approval. Staff require that a digital copy of a geo-referenced HEC-RAS model also be provided as part of the assessment.

3. Staff require additional discussion as part of the channel design to confirm the toe erosion rate in order to ensure that all erosion hazards will continue to be contained in the golf course lands. It appears that Enhanced Bank Protection is proposed for a section of the new channel (Sec. 0+000 to 0+900). The proposed design should be confirmed by appropriate analysis. Please discuss and confirm.

4. Staff note that as part of the previous application to Ministry of Environment and Climate Change (MOECC), some monitoring was required to demonstrate how much water-taking was occurring and the effect(s) on receiving watercourses. Please provide this monitoring.

5. As per the Conservation Halton permit checklist, please provide photographs of the watercourse, banks, adjacent vegetation, and/or representative vegetation communities at the site during ice-free conditions.

Technical Documents

Functional Channel Design and Instream Flow Needs Appleby Creek Report

6. Ecology staff defer to CH Engineering staff and/or MOECC regarding the appropriateness of a 50:50 split of flows to the watercourse and irrigation pond. Per the AquaLogic report, the exact flow split criteria had "not been finalized with MOECC". It is recommended that an assessment be completed for the receiving watercourses to confirm the provision of volume and timing of water flow required for proper functioning of the aquatic ecosystem. We note that the in-stream flow needs assessment should have established the requirements of the watercourse, rather than the MOECC dictating a volume, per our November 2015 letter. We suggest that the long-term

data collected from the system should drive the flow split criteria. This concept is also discussed in comment #12 below.

7. Regarding the description of the existing aquatic requirements and creek characteristics, please provide more information about the habitat features within the existing watercourse. In addition, the channel morphology is described, based on reference surveys (p. 4), as riffles with pools and some longer runs, as well as backwater pools behind debris jams – have these features been measured? Staff need to be sure the design for the new 150 m downstream is appropriate based on up- and downstream conditions.

8. The 'Cross-Section Design' section (p. 5) describes the modelling of the sections to reflect limited lateral meandering with "high radius of curvature or no radius as defined by relatively straight layout". Staff assume that the model was parameterized this way to reflect the very constrained channel block within which the watercourse will be located (straight section, followed by pronounced ~ 90° bend. Please provide more information.

9. The 'Cross-Section Design' section (p. 5) also notes that the thalweg can be biased during construction – if any advice is forthcoming on the location of the thalweg, we recommend that the construction drawings be updated to reflect this information.

10. Please provide a map showing the locations for each of the six 'existing conditions' analyzed in the GEO-X v.5.1 Geomorphic Cross-section Analysis Model at the end of the report.

11. The enhanced bank protection proposed on drawing D1 is not described in the Functional Channel Design & Instream Flow Needs report. Please provide additional rationale for each of the "50-150 mm diameter 300 mm deep" and "150-300 mm diameter 400 mm deep" riverstone sections. Regarding the proposed stone sizing in the riffles, we note that existing substrate in this reach predominantly ranges between silt/clay and gravel. We disagree that the latter range of stone sizing is appropriate for fish and benthic habitat enhancement (as described on p. 6).

12. Given one of the purposes of the existing pond is stormwater management, staff are uncertain about the benefits of the pond as overwintering habitat for fish. Have data on water and/or sediment quality within the pond been collected? If the water and/or sediments in the pond are toxic to aquatic life according to the CCME (either Canadian Water or Sediment Quality Guidelines for the Protection of Aquatic Life, http://ceqg-rcqe.ccme.ca), it may be prudent to instead exclude fish from accessing the pond.

13. Staff appreciate the discussion around the Instream Flow Needs Analysis on page 9. We agree that the bypass should re-establish the natural flow regime that occurred prior to golf course development in 1987. We understood that this analysis would provide the parameters of this regime.

14. The Biologic Instream Flow Needs section identifies summer season and peak of summer mean low flows as the conveyance targets for the proposed bypass channel. Staff request additional information regarding the five year flow monitoring done by Burnside – which five years were captured? Do these years represent typical flow conditions for Appleby Creek? We also note that while the additional provision of flows under the proposed bypass arrangement is preferred to the present condition, it is optimal that receiving areas receive freshet flows, as well as guaranteed low flows described on page 12. How will freshet flows be conveyed by this system? We note that although a stream channel may contain the same surface area of spawning gravels, between spawning periods, it is the annual flow regime that will determine the overall habitat availability for all life stages (Conservation Ontario, 2005).

15. Staff are concerned that the report does not specifically confirm the minimum required low flow rate for the design purposes. Please update the report to clarify the minimum flow for the bypass channel.

16. It is understood that 0.6 % gradient is in the lower end of typical range conditions for dynamically stable channel pattern. However staff noted that the overall gradient of the channel might be lower than 0.6% (0.5% according to the design drawings, a drop of 0.8 over 149 m length). Staff are concerned if the proposed pool – riffle topology is appropriate / necessary for this channel. Please confirm.

17. Staff note that the proposed rock sizing for riffle sections is twice the size observed in nearby unaltered reaches (D50=100 mm vs. 50 mm). Please explain why.

18. According to Enhanced Bank Protection details provided on Dwg. D1, the channel will be hardened substantially. For example, on the west bank of the riffle, installation of 150-300 mm riverstones is proposed, whereas the maximum recommended size of stone in the report is D50=100 mm. Please justify the necessity for the proposed hardening.

19. Please provide details on the proposed riffle – pool sequences and compare with the existing channel upstream or downstream. Does the proposed design replicate the natural conditions? What is the desired ratio and was it achieved?

20. Please confirm gradients upstream and downstream of the section of the new channel for comparison.

21. Staff noted that run sections were observed in Section 2, however no run sections are proposed as part of the channel design. Please comment or revise accordingly.

22. Please confirm the capacity of the stormwater pond as a result of the proposed modifications.

23. Please confirm the amount of soil generated / required by providing detailed grading plan showing net amount of soil generated / required as part of the project.

Proposed Modifications to the Existing Online Associated with Appleby Creek (Letter from R.J. Burnside)

24. Staff appreciate the discussion regarding irrigation needs and request additional information regarding the cultural practices to maintain healthy turf (irrigating for plant health).

25. Regarding the existing storm outlet, please provide the calculations that generated the proposed 150-300 mm diameter stone sizing for "potential erosion issues" at the outlet. In addition, please confirm whether the erosion has actually occurred or is in risk of possibly occurring in the future.

Drawings Set

Drawing No. CH2

26. The Plan View invert elevation does not match the Profile View and must be updated to ensure all minimum flows are directed into the bypass channel.

27. Please update 50:50 Flow Split Structure Profile View – Section B-B to indicate the depth for both sections of the flow split.

28. Please provide details on how the proposed 750 m diameter keystone will be secured in place. It is understood that excavation will be required to place the stone and key it in for 450 mm into the channel bed. What measures will be implemented to prevent loss of flow through the voids as a result of excavation?

29. Please provide additional grading details along the existing channel. At a minimum, existing grades at the tie-in-point (Sec. B-B) should be provided.

30. Please update Existing Tributary Pond Inlet Location (May 2016) view to indicate the location of the proposed flow splitter similarly as it was done for the downstream tie-in (Bypass Tie In Rendering on Drawing No. CH1).

31. It appears on this drawing that the tie in will occur approximately 5 m upstream of the first riffle (Sec. 0149). According to Drawing No. PP1, the tie in is at Sec. 0+148.81 (at the riffle). Please clarify. Please revise both Drawings No. (PP1 and CH2) to ensure consistency in the design details.

Drawing No. CH1

32. Provide cross-section through the proposed concrete armour blocks to confirm the grading and installation details.

33. It appears that the HWM in the pond is at 98.15 m, whereas the top of the berm is at 98.25 m. Staff typically request 0.3 m freeboard above the HWM to limit the potential for interactions / overflows over the berm as opposed to the emergency spillway. Staff recommend considerations be given to elevating the top of the berm as long as it has no negative impacts on flooding hazards.

Drawing No. D1

34. Please provide a few cross-sections illustrating changes in the grades under both existing and proposed conditions and encompassing the channel, the berm, and the pond (i.e. depicting changes in the location of the berm around the pond in relation to the proposed channel). Staff are not able to confirm extent of the changes in the pond footprint.

35. Staff are not able to confirm the sizing of the stones for the Enhanced Bank Protection. Please provide related calculations to confirm the required sizing.

36. Please provide gradation of the stone sizing in a separate table to confirm that the calculated D50 size will be achieved and to confirm how the voids will be filled-in.

37. The proposed enhanced bank protection section details are misleading as Drawing No. D1 shows four different cross-sections, yet Drawing No. PP1 only proposes enhanced bank protection for an 8 m long section of the watercourse (station 0+051 to 0+059). On the sections where additional large stone is indicated (150-300 mm), is the smaller riverstone (50-150 mm) still indicated for the low-flow channel? Please provide more detail on these drawings.

Drawing No. PP1

38. Sec. 0+148.81 indicates top of riffle to tie into existing channel bed at elevation of 98.4 m, where according to Drawing No. CH2, the tie in is at elevation 98.3 m. Please revise Drawing No. PP1 accordingly.

39. Sec. 0+000 indicates the tie into the existing channel bed at crossing face, approx., elevation 97.5 m, whereas Drawing No. G1 indicates elevation at the bottom of slab of the existing double cell culvert under Upper Middle Road as 99.37 m. Please extend the Profile View to include details of the existing culvert and to ensure that the information is consistent.

Drawing No. ESC1

40. Stockpile locations should be identified on a drawing and protected by silt fence, especially where located in an area regulated by Conservation Halton.

41. Staff appreciate the note on Drawing No. D1 regarding the fish and aquatic wildlife screen. Staff recommend this note also be added to Drawing No. ESC1.

42. A permit from the Ministry of Natural Resources and Forestry (MNRF) would be required for the relocation of fish. The process of obtaining this permit can take up to 6 weeks to complete so it is recommended that the agent/proponent commence the process as early as possible. Please note that Conservation Halton can provide this service for fish removal on this project if requested. Please contact Andrea Dunn at adunn@hrca.on.ca or at extension 2309. Ms. Dunn can provide you with the details on fees and the application process.

43. Staff appreciate the provision of details regarding work area isolation via dam-and-pump methods. For dewatering inside the isolated work area (i.e. between the coffer dams) it is recommended that any discharge areas be located a minimum of 30 m from the creek, in a well vegetated area with the dewatering outlet angled downstream (as opposed to perpendicular to the creek flow).

44. Staff request that these details be confirmed at an on-site pre-construction meeting with the proponent, the agent and the contractor within 48 hours of the start of permitted works.

Drawing No. R1

45. Staff have completed an estimation of the proposed planting densities for the watercourse realignment. Densities appear to be less than typically required as outlined in the Conservation Halton Landscape Guidelines (10 per 100m2 for channel realignments). Please provide the calculations for the total plantable area for the channel and the total number of trees and shrubs proposed for planting, to expedite the review process and ensure more accurate density calculations for comparison. Staff typically recommend a minimum of 100 mm of topsoil in watercourse realignments and request that the topsoil thickness be augmented in this watercourse realignment. For more information, see the 'Realigned Watercourse Standards' section of the Conservation Halton Landscaping and Tree Preservation Guidelines (http://www.conservationhalton.ca/policies-and-guidelines).

46. In addition to the density of plantings described above, we note that there are 6 trees to be removed and thus 18 trees are proposed. Staff note that these 18 trees may be counted in the density as described above.

47. Staff note that all disturbed areas within Conservation Halton's regulated areas should be stabilized upon completion of work with native, non-rare plant species. Sod is not appropriate for regulated areas. Please provide the botanical names and quantitites of all species in Ontario Seed Company Seed Mix #8215, as indicated on Drawing No. R1. Erosion control blankets may be required until seeding is well established.

Drawing No. G1

48. Staff are concerned that the creation of the bypass channel results in one of the current stormwater outlet to the pond discharging to the watercourse directly. Please provide more information on the drainage area and quality of stormwater conveyed at this location. Conservation Halton generally does not permit discharge of untreated stormwater.

In Summary

Staff has reviewed the material provided in support of the proposed works for pond modifications at Millcroft Golf Club. At this time, staff require the above comments regarding the submitted technical reports/briefs and drawing set be addressed and resubmitted to Conservation Halton for review and comments. Once these comments have been addressed, please provide four copies of the updated reports/briefs, with associated drawings, and any technical documents for staff's review. Conservation Halton's Re-Submission Declaration Form for Permit Applications is attached and is to be completed and submitted with each resubmission in order to be accepted and circulated.

We trust the above is of assistance. If you have any further questions, please contact the undersigned at Extension 2278.

Yours truly,

Ben Davis
Regulations Officer

Encl. 1

BD/

Cc: Stephen Kajan, c/o R.J. Burnside – skajan@rjburnside.com (Email)

Conservation Halton

Re-submission Declaration Form For Permit Applications Submitted Under Ontario Regulation 162/06

Conservation Halton File # PA/15/B/49 Re-submission #1

This form must be completed in full and attached as a cover sheet to any technical studies, engineering drawings, or other technical information which have been re-submitted to support your permit application. Incomplete or unsigned forms, re-submissions submitted without this form, or re-submissions which differ from the signed declaration form **will not be accepted**.

To avoid piecemeal re-submissions we request that **all** items required for re-submission be forwarded to Conservation Halton in **one** package. Incomplete submissions will **not be circulated for review** until all of the required items have been received.

Re-submission Requirements	Submitted (✓) Please check.
• Resubmission declaration form, signed by the applicant or authorized agent (cover sheet)	
• Response letter which addresses *all* of the comments provided in Conservation Halton's letter in response to the last submission. Please provide responses based on the numbering system in which they were written by staff.	
• Four full sets of all revised plans/drawings (unless otherwise stated in Conservation Halton's most recent letter).	
• Revised reports/studies (as indicated in Conservation Halton's letter, if required). Reports and drawings are to be provided in hard copy and all drawings folded.	
• Additional information required by staff as indicated in Conservation Halton's letter in response to the last submission (if required).	
• Re-submission fee of _____ (applicable after first re-submission)	
• Any additional or new information (if applicable).	

DECLARATION

I hereby declare that:

a) the particulars provided on this re-submission form are true and correct;
b) the re-submission is complete and **all** requirements, as specified in Conservation Halton's letter of response to the last submission, have been complied with; and
c) the lead consultant has reviewed and coordinated the submission to ensure that all re-submission materials are consistent.

Signature of Applicant and/or authorized Agent: _____

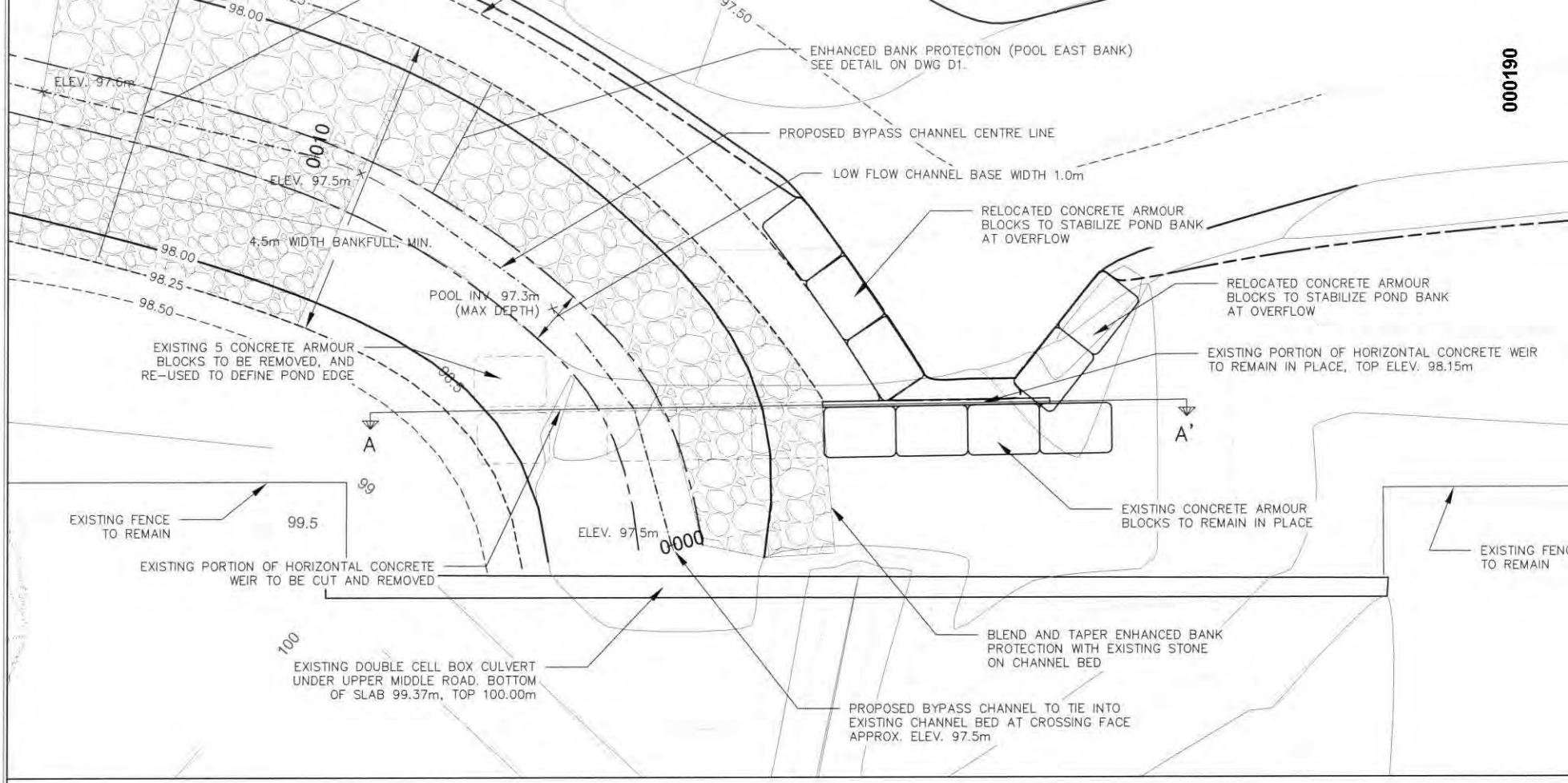
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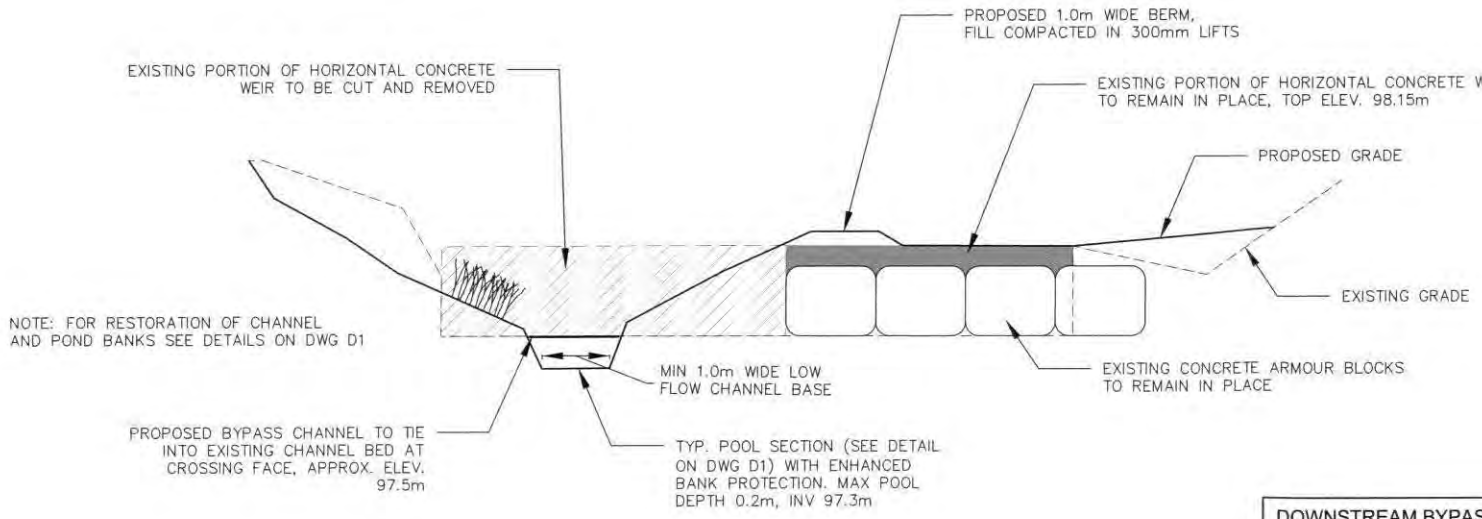
Address: _____

Telephone Number: _____

Email: _____

For Office Use Only
Date Received:
Signature:





DOWNSTREAM BYPASS TIE IN
PROFILE VIEW - SECTION A-A'
SCALE: NTS

000190

PROPOSED 750mmø KEYSTONE, ROUNDED BOULDER, GRANITE OR DOLOMITIC LIMESTONE (NO SEDIMENTARY LAYERS) KEYED IN 450mm INTO CHANNEL BED

B

B'

DIVERSION CHANNEL WIDTH OF 1.95m, INVERT OF RIFFLE TO MATCH EXISTING INVERT OF CREEK, APPROX. 98.4m

PROPOSED 2.5m LENGTH RIFFLE, SEE DETAIL.

BYPASS CHANNEL WIDTH OF 1.95m, TIE INTO EXISTING CHANNEL, INVERT APPROX. 98.4m

PROPOSED 500mmø ROUNDED BOULDER, GRANITE OR DOLOMITIC LIMESTONE (NO SEDIMENTARY LAYERS) KEYED IN 200mm INTO CHANNEL BED

EXISTING IRRIGATION MAINLINE PIPE, 150mmø PVC

PROPOSED 600mmø CSP CULVERT. APPROX. 11m @ 1%, INV. 98.3m

100

TOP OF RIFFLE TO TIE INTO EXISTING CHANNEL BED, APPROX. 98.4m

0+149

PROPOSED 600mmø 22.5° ELBOW

99.5

PROPOSED DIVIDING BARRIER TO BE FILLED WITH 100–200mmø ROUNDED STONE (TAPERED UP SLOPE), DRESSED WITH TAMPED IN PLACE TOPSOIL AND SEEDED, SEE DETAIL

99

PROPOSED RIFFLE SECTION, SEE TYP. DETAIL ON DWG D1

98.50

98.50

99.00

99.00

98.50

PROPOSED EROSION PROTECTION, 2m X 4m X 300mm DEPTH, 150mmø RIVERSTONE UNDERLAIN WITH TERRIFIX 270R GEOTEXTILE

98.25

98.00

HWL 98.15

97.50



EXISTING TRIBUTARY POND INLET LOCATION (MAY 2016)

50:50 FLOW SPLIT STRUCTURE
PLAN VIEW
SCALE: 1:50

000191

NOTES:
1) SEED MIX UND
WITH NURSE CRO

EXISTIN
BE MA
VEGETA
PRESER

EXISTING CREEK
BED PROFILE
IN

PROPOSED S
CHANNEL TO CONVEY


#6 100mmø SILVER MAPLE
(ACER SACCHARINUM)
TO BE REMOVED
PROPOSED 3 X 1.5–1.8m (HEIGHT)
EASTERN WHITE CEDAR (THUJA OCCIDENTALIS)
B/B, 4 m MIN SPACING
#1 150mmø SILVER MAPLE
(ACER SACCHARINUM)
TO BE REMOVED
#2 100mmø SILVER MAPLE
(ACER SACCHARINUM)
TO BE REMOVED
#3 100mmø SILVER MAPLE
(ACER SACCHARINUM)
TO BE REMOVED
#4 100mmø SILVER MAPLE
(ACER SACCHARINUM)
TO BE REMOVED
#5 100mmø SILVER MAPLE
(ACER SACCHARINUM)
TO BE REMOVED
PROPOSED 3 X 1.5–1.8m (HEIGHT)
TAMARACK (LARIX LARICINA)
B/B, 4 m MIN SPACING
071820251
071820252
071820253
000192
TREE #
1
2
3
4
5
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EASTERN
TA
W
B
RESTORAT
AREAS TO
BANK SEE
DISTURBE
OWNER

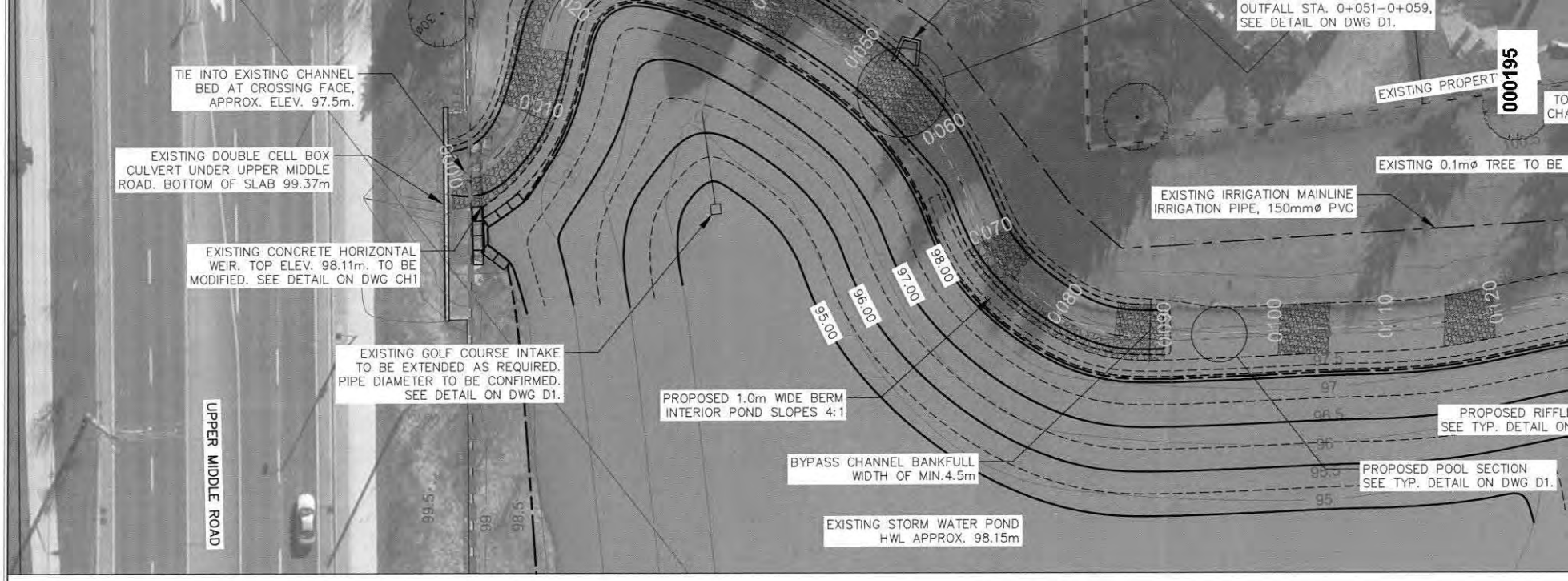


000193

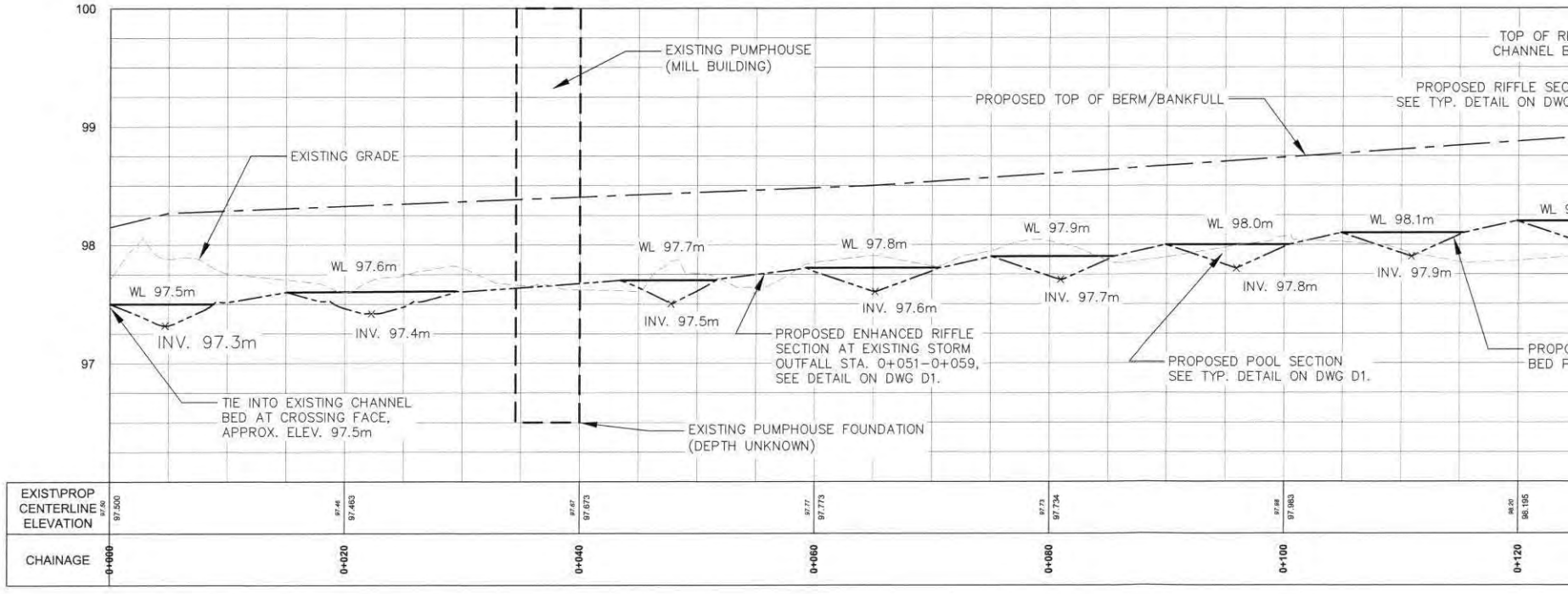
SEDIMENT AND EROSION CONTROL

- STONE WILL BE PLACED IN THE WET . THE WORKS SHALL BE U WITH PROPER ISOLATION PROVIDED BY COFFERDAMS.
- ALL SEDIMENT AND EROSION CONTROL FACILITIES AND WOR CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE TO ANY GRADING OPERATIONS COMMENCING. TYPICAL WOR FENCES, SEDIMENT BASINS, INTERCEPTOR SWALES, AND RO
- ALL TEMPORARY SOIL OR DIRT STOCKPILES ARE TO BE PROV NECESSARY SEDIMENT AND EROSION CONTROL FEATURES, I IF ANTICIPATED TO BE STORED MORE THAN ONE MONTH. STO BE LOCATED IN AREAS OF CONCENTRATED FLOW AND MINIMU OF BANK.
- ALL SEDIMENTATION CONTROLS TO BE INSPECTED DAILY AND REPAIRED/REPLACED AS NECESSARY.
- ALL SEDIMENTATION CONTROL TO REMAIN IN PLACE UNTIL SU RE-VEGETATIVE MEASURES HAVE GERMINATED AND TAKEN H
- ALL TEMPORARY WORK AND SEDIMENT CONTROLS SHALL BE SITE AT THE COMPLETION OF THE WORK AND AFTER RE-VEGE HAVE GERMINATED AND TAKEN HOLD.
- PROVIDE SILT FENCE BARRIERS WHERE REQUIRED AND DIRE IN FIELD.
- SEDIMENT FENCING TO BE INSTALLED AROUND THE PERIMETE STOCKPILES (CUT OR IMPORTED MATERIAL).
- SILT FENCE MUST BE INSPECTED IMMEDIATELY AFTER EVERY OR FOLLOWING LARGE SNOW MELT OR AS DIRECTED BY SITE
- SEDIMENT CONTROL FEATURES ARE TO BE INSPECTED PRIOR SIGNIFICANT RAINFALL OR SNOW MELT EVENTS.
- SEDIMENT MUST BE REMOVED FROM SILT FENCE OR ROCK CH ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
- ALL SILT FENCES MUST BE REMOVED ONLY WHEN THE ENTIRE OR AS DIRECTED BY THE SITE ENGINEER.


000194
071820251
TOP OF RIFFLE TO TIE INTO EXISTING CHANNEL BED, APPROX ELEV. 98.4m
PROPOSED POOL SECTION SEE TYP. DETAIL ON DWG D1
071820252
PROPOSED RIFFLE SECTION SEE TYP. DETAIL ON DWG D1
EXISTING GOLF COURSE IRRIGATION MAINLINE IRRIGATION PIPE, 150mmø PVC
PROPOSED 150m BYPASS CHANNEL TO SEPARATE THE EAST BRANCH OF THE APPLEBY CREEK FROM THE EXISTING STORM WATER POND. SEE PLAN/PROFILE DETAILS ON PP1.
071820253
PROPOSED TOB 99.0m, INTERIOR POND SLOPES 4:1
PROPOSED ENHANCED BANK PROTECTION SEE TYP. SECTION DETAILS ON DWG D1
EXISTING HEADWALL TOP 98.89m INV. 97.69m
COUNTRY CLUB DRIVE
CONC. PIPE 0.90mø
EXISTING STORM WATER POND HWL APPROX. 98.15m
PROPOSED ENHANCED BANK PROTECTION AT EX. STORM OUTFALL SEE SECTION DETAILS ON DWG D1
EXISTING IRRIGATION PUMPHOUSE (MILL BUILDING) TO REMAIN
EXISTING GOLF COURSE INTAKE TO BE EXTENDED AS REQUIRED. PIPE DIAMETER TO BE CONFIRMED. SEE DETAIL ON DWG D1
PROPOSED ENHANCED BANK PROTECTION SEE TYP. SECTION DETAILS ON DWG D1
EXISTING CONCRETE HORIZONTAL WEIR, TOP ELEV 98.11m. TO BE MODIFIED. SEE DETAIL ON DWG CH1
PROPOSED ENHANCED BANK PROTECTION SEE TYP. SECTION DETAILS ON DWG D1
HWL 98.15
EXISTING PROPERTY LINE
EXISTING DOUBLE CELL BOX CULVERT UNDER UPPER MIDDLE ROAD. BOTTOM OF SLAB 99.37m
UPPER MIDDLE ROAD
EXISTING HOLE #6
EXISTING HEADWALL TOP 98.90m INV. 97.63m
CONC. PIPE 0.90mø



CHANNEL BYPASS
PROFILE VIEW
SCALE: H 1:250, V 1:125



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2017 Annual Monitoring Report

R.J. Burnside & Associates Limited 1465 Pickering Parkway Suite 200 Pickering ON L1V 7G7 CANADA
telephone (905) 420-5777 **fax** (905) 420-5247 **web** www.rjburnside.com

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December 19, 2017

Via: Mail

Mr. Ed Liptay
Millcroft Golf Club
2155 Country Club Drive
Burlington ON L7M 4A8

Dear Mr. Liptay:

Re: 2017 Annual Permit to Take Water Monitoring Summary
2079610 Ontario Ltd. o/a Millcroft Golf Club
Project No.: PGD020649.2017

In July 2016, Millcroft Golf Club was issued Permit to Take Water (PTTW) No. 0463-ABSQSD from the Ministry of the Environment and Climate Change (MOECC) to draw water from the Mill Pond for the purposes of golf course irrigation. Water from Mill Pond is permitted to be pumped at up to 2,917 L/min for 24 hours/day up to a daily maximum volume of 1,112,300 L as stipulated in Table A of the permit. This permit is the renewal of previous PTTW No. 4745-9HBK8B, which expired on May 31, 2016. The current PTTW is noted to expire on December 31, 2018.

Burnside has been retained by the golf club to complete the monitoring program as required by the Monitoring Conditions of the PTTW. The conditions are summarized as the following:

4.1: Record the date, pumping rate and total volume of water pumped on each day water is taken and submit the daily records by March 31 annually to the Ministry's Water Taking Reporting System (WTRS).

4.2: Continue the established monitoring program, including streamflow and water level monitoring at stations SS1, SS2 and SS3 and the ongoing maintenance of the stage-discharge curves and weir flow equation.

4.3: Complete the proposed diversion/bypass structure to the online Mill Pond and submit an implementation report prepared by a Qualified Person by December 31, 2017.

4.4: Upon permit renewal or amendment application, prepare a report illustrating how the work requested has been conducted in compliance with the permit conditions.

This letter summarizes the monitoring work and associated data completed in 2017. Please keep a copy of this letter and its attachments on-site should MOECC conduct a site inspection.

Streamflow Monitoring and Ratings Curve

Burnside completed a total of four site visits in 2017, which were conducted on April 12, May 31, July 19 and October 26, 2017. Site visits consisted of taking streamflow measurements/observations and downloading the continuous water level data from the automatic water level recording (AWLR) transducers. The AWLRs were removed during the last site visit on October 26 to prevent damage caused by freezing and ice.

The streamflow measurement data for 2017 has been processed and is summarized in the table below. When applicable, flow measurements were also taken downstream of the overflow weir of Mill Pond as a manual check of the weir flow calculations.

Table 1: PTTW Stream Flow Monitoring, Appleby Creek 2017

Date	SS1		SS2		Downstream of Weir
	Stage (m)	Discharge (L/min)	Stage (m)	Discharge (L/min)	Discharge (L/min)
April 12, 2017	-	-	0.28	1,968	1,360
May 31, 2017	-	-	0.25	1,755	-
July 19, 2017	-	-	0.08	271	-
October 26, 2017	0.22	701	0.11	355	-

Streamflow data collected in 2017 was used to verify the accuracy of the established stage-discharge curves, which are noted to still be valid. As a reliable stage-discharge curve has been previously developed for the SS1 station, flow monitoring here is conducted only once annually to verify the curve. Graphical representations of the ratings curves for SS1 and SS2 are attached for your records.

Continuous Water Level Monitoring

Continuous monitoring of the water levels in Appleby Creek at SS2 and SS3 is also required by the monitoring program. The water level data collected for 2017 has been processed and water level elevation hydrographs prepared, which are attached for your records. Historical water level elevation hydrographs since 2011 have also been included. Additionally local precipitation and Mill Pond water use data are plotted on the hydrographs for comparison.

A review of the hydrographs shows that water levels in the Mill Pond were below the top of the overflow for a total of approximately five to six weeks in 2017, restricting the flow in the downstream reaches of Appleby Creek. Additionally, water levels in the creek immediately upstream of Mill Pond (SS2) were noted to be typical of previous monitoring years, and generally higher than those observed in 2016.

Regional Precipitation Review

Local precipitation data obtained from a nearby Environment Canada weather station for 2017 has been plotted against the 1971 to 2017 historical monthly average and is included for reference. A review of the data shows that the area of the golf course receives, on average, approximately 451 mm of precipitation in the irrigation season (April to September). In 2017, the golf course received approximately 587 mm of precipitation, or 130% of the historical

average. For comparison, the golf course received approximately 327 mm in 2016, or 73% of the historical average.

Water Taking Data

Permit Holders are required to submit their total daily water taking volumes annually by March 31 to the MOECC's Water Taking Reporting System (WTRS) online database. As such, Millcroft's 2017 records are due to the WTRS by March 31, 2018 to the MOECC webpage shown below:

https://www.lrcsde.lrc.gov.on.ca/wtrs/

Burnside has successfully uploaded the 2017 water taking records on behalf of the golf course. A copy of the WTRS submission confirmation is included for your records. Also included is a copy of the 2017 water taking records. A review of the records indicates that the Mill Pond was pumped on a total of 80 days in 2017, spanning May 10 to November 2. At no time in 2017 were the maximum rates or total daily maximum volumes exceeded for the Mill Pond.

In 2018, Burnside will continue the implementation of the monitoring program as required by the conditions of the permit. A minimum of four site visits will be conducted to collect streamflow measurements and to download the data from the AWLRs, and an annual monitoring report will be prepared.

Should you have any questions or concerns regarding the monitoring data collected in 2017 or the work planned for 2018, please do not hesitate to contact us.

Yours truly,

R.J. Burnside & Associates Limited



Stephen Kajan, P.Eng.
Water Resources Engineer
SK:cl

Enclosure(s)

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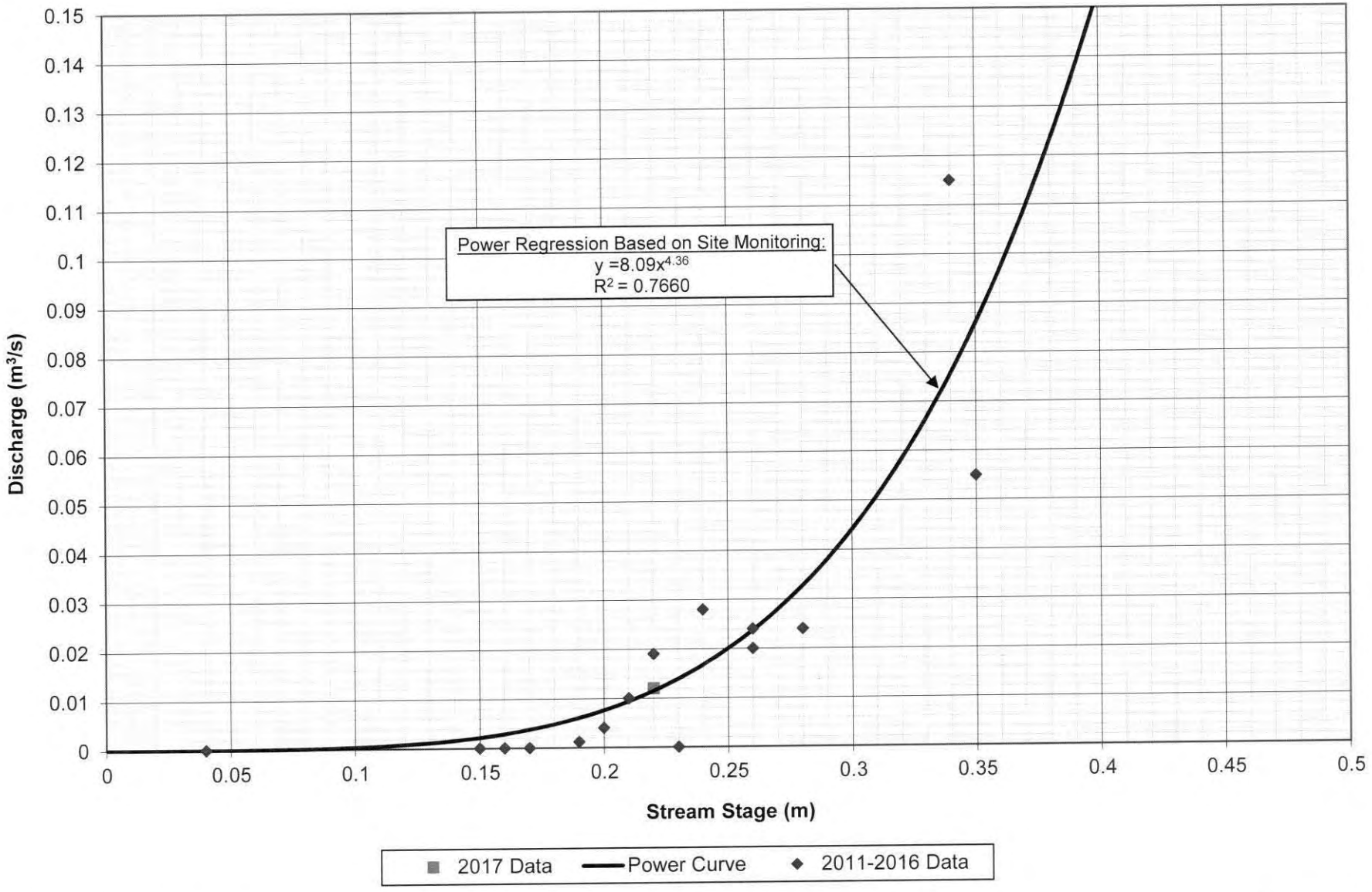
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Ratings Curve

Millcroft Golf Club
PTTW Monitoring - Appleby Creek
SS1 Stage Discharge Ratings Curve

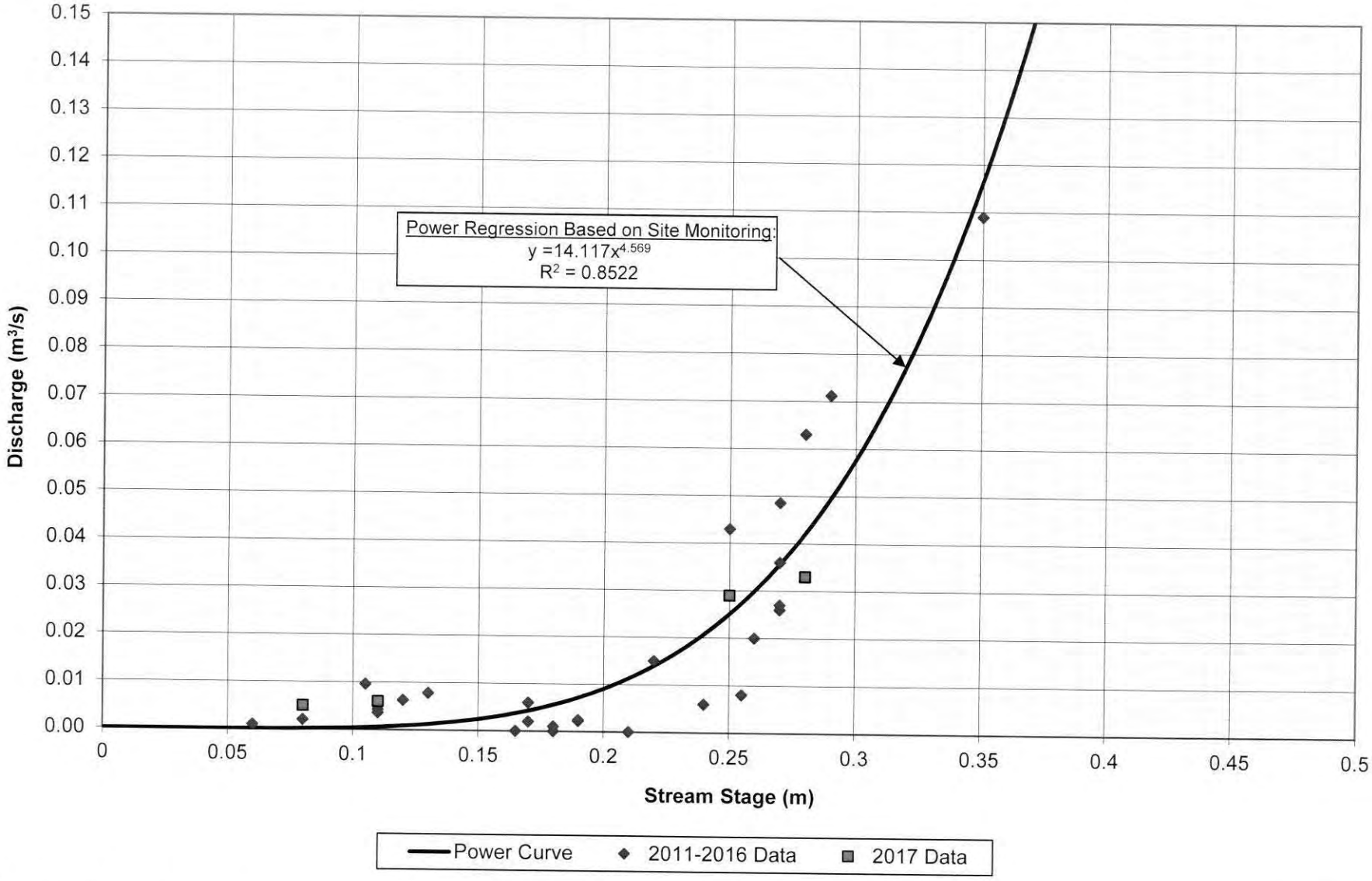


R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft SS1 and SS2 Stage Discharge Curves.xlsx
Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

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Millcroft Golf Club
PTTW Monitoring - Appleby Creek
SS2 Stage Discharge Ratings Curve



000202

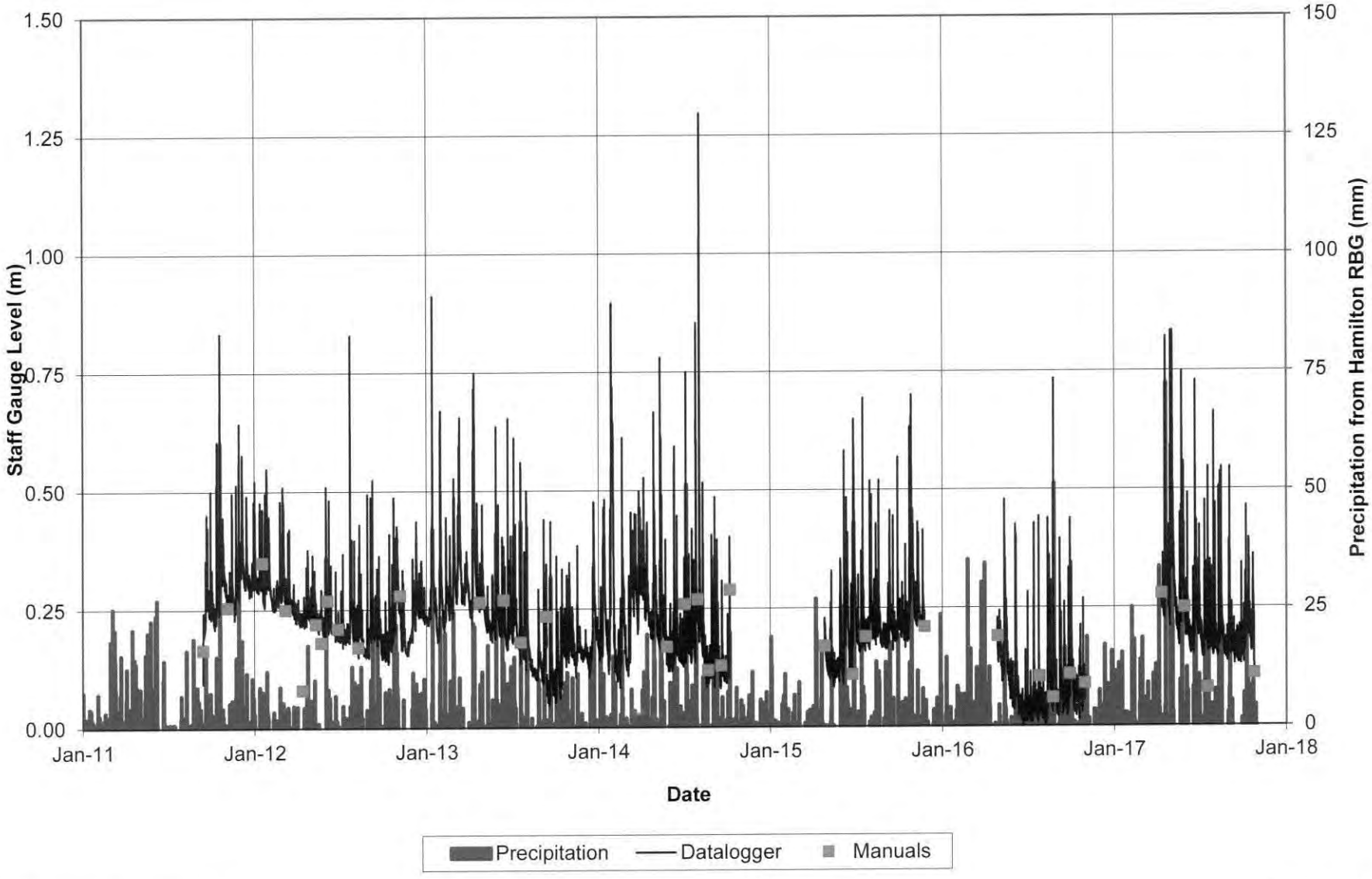
R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft SS1 and SS2 Stage Discharge Curves.xlsx
Prepared By: JJM, 12/7/2017

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Hydrographs

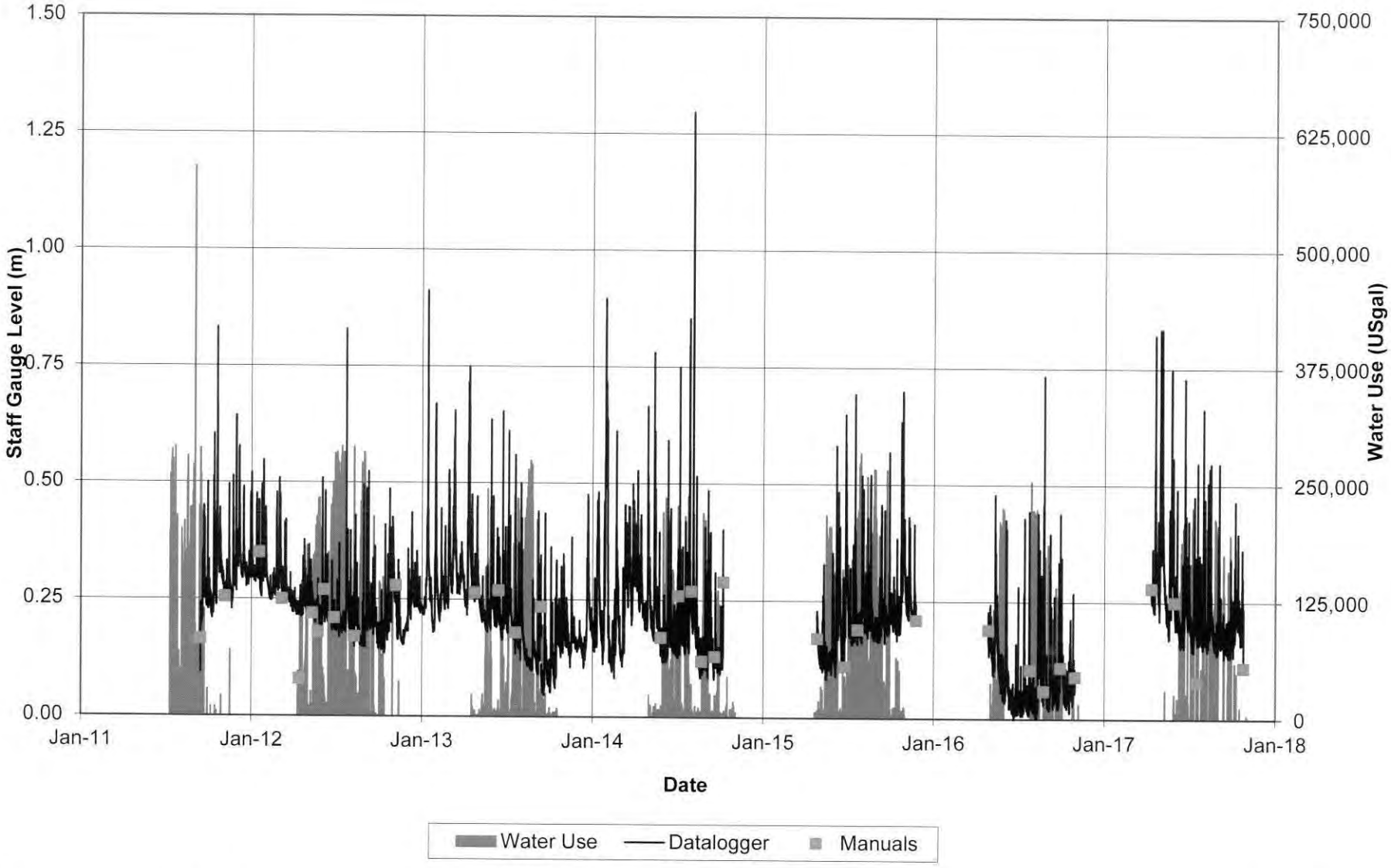
Millcroft Golf Club
SS2: Upstream of Pond
2011-2017 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS2: Upstream of Pond
2011-2017 Hydrograph with Water Use

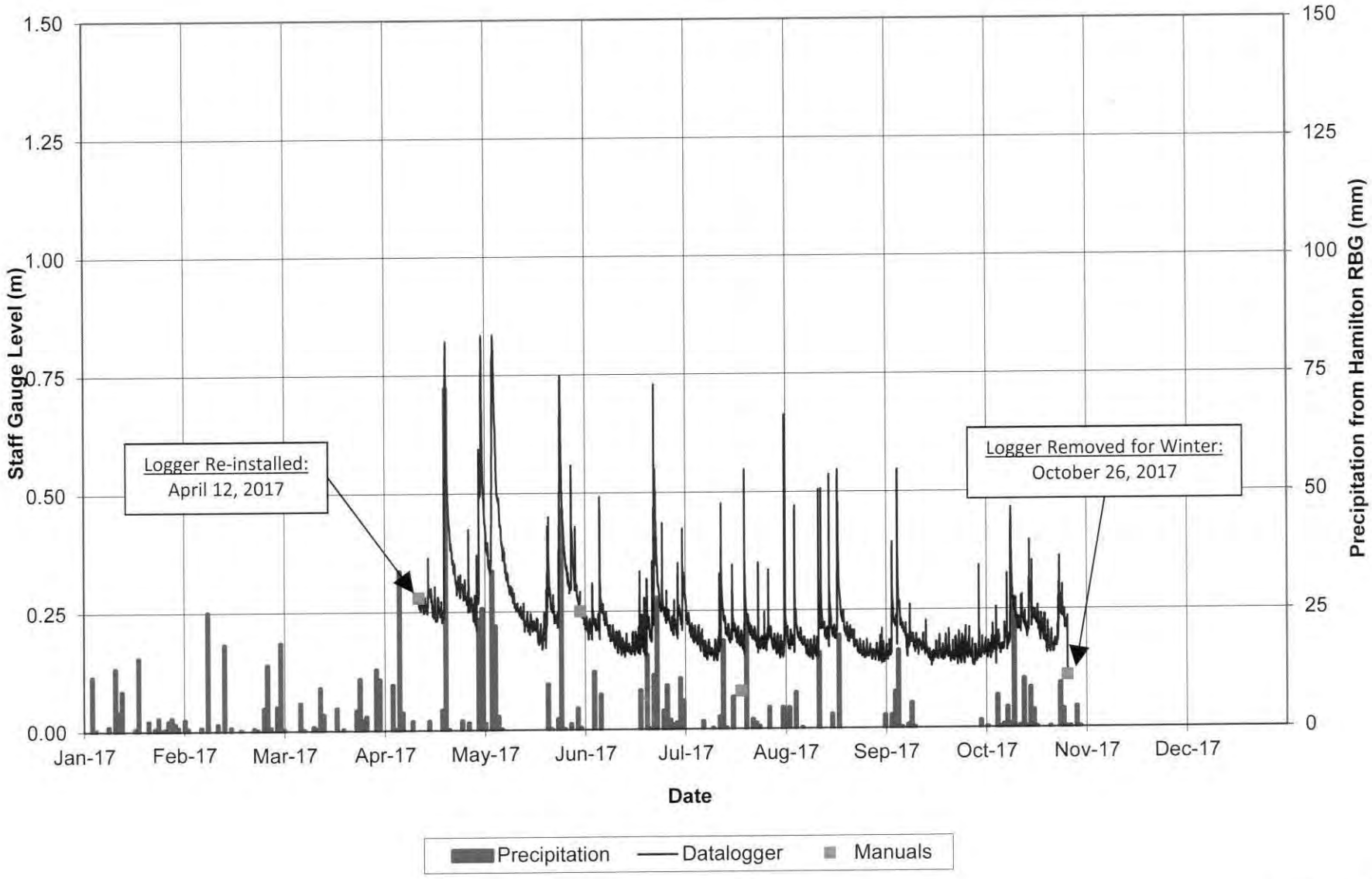


000205

R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS2: Upstream of Pond
2017 Hydrograph with Precipitation

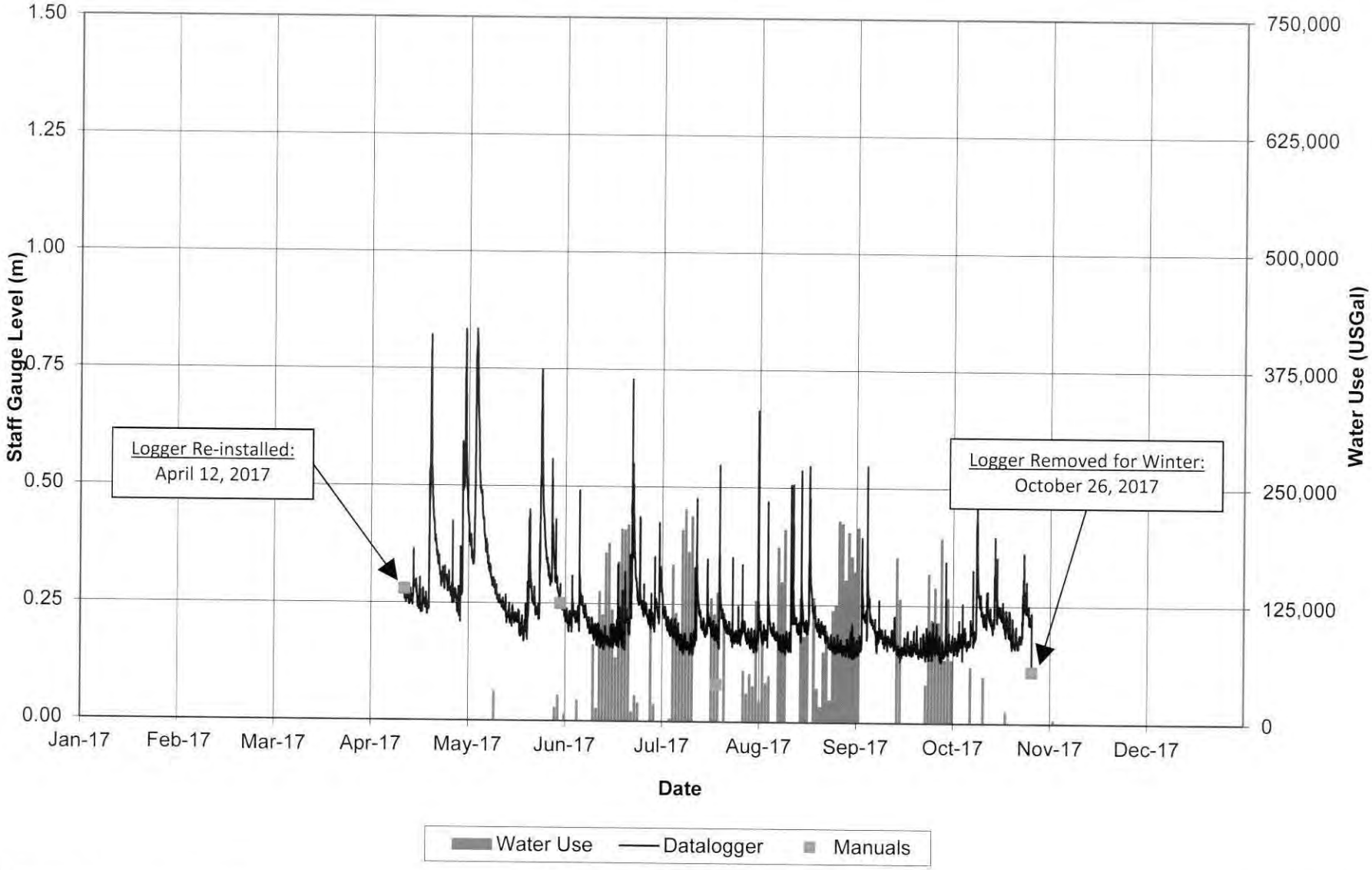


R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

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Millcroft Golf Club
SS2: Upstream of Pond
2017 Hydrograph with Water Use

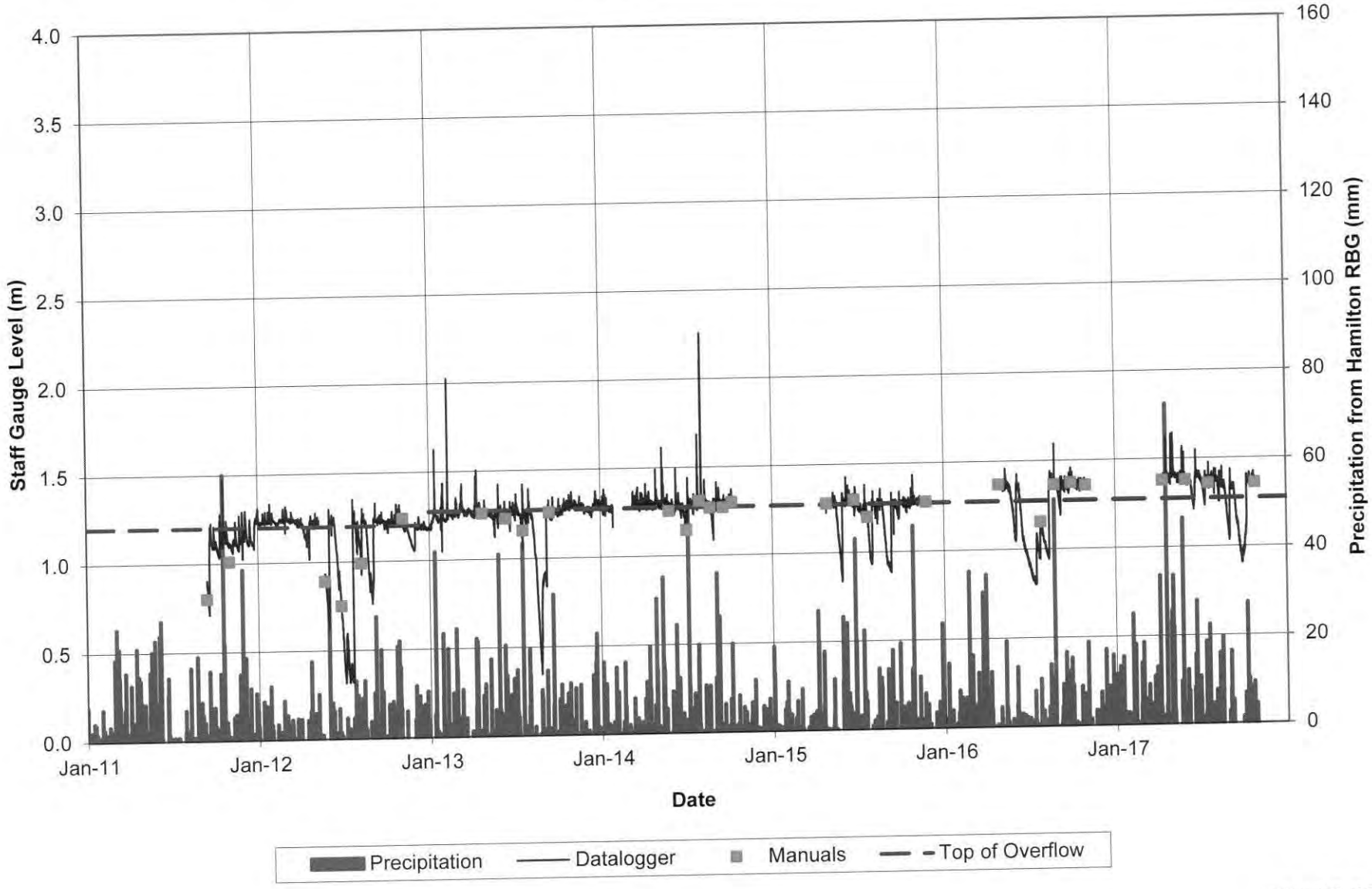


000207

R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Upstream of Pond SS2 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

Millcroft Golf Club
SS3: Main Irrigation Pond
2011-2017 Hydrograph with Precipitation

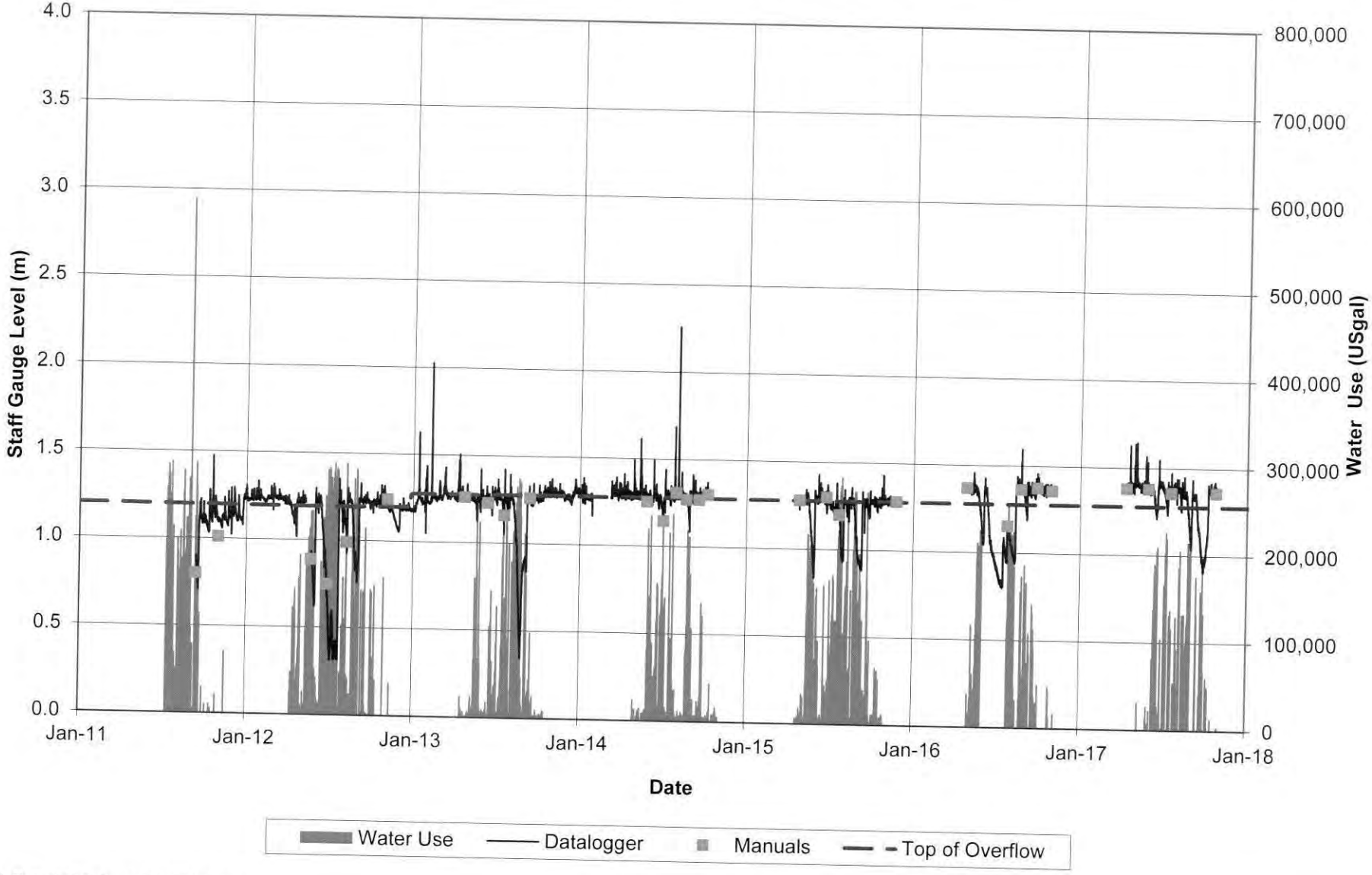


R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

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PTTW Monitoring
PGD020649

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Millcroft Golf Club
SS3: Main Irrigation Pond
2011-2017 Hydrograph with Water Use

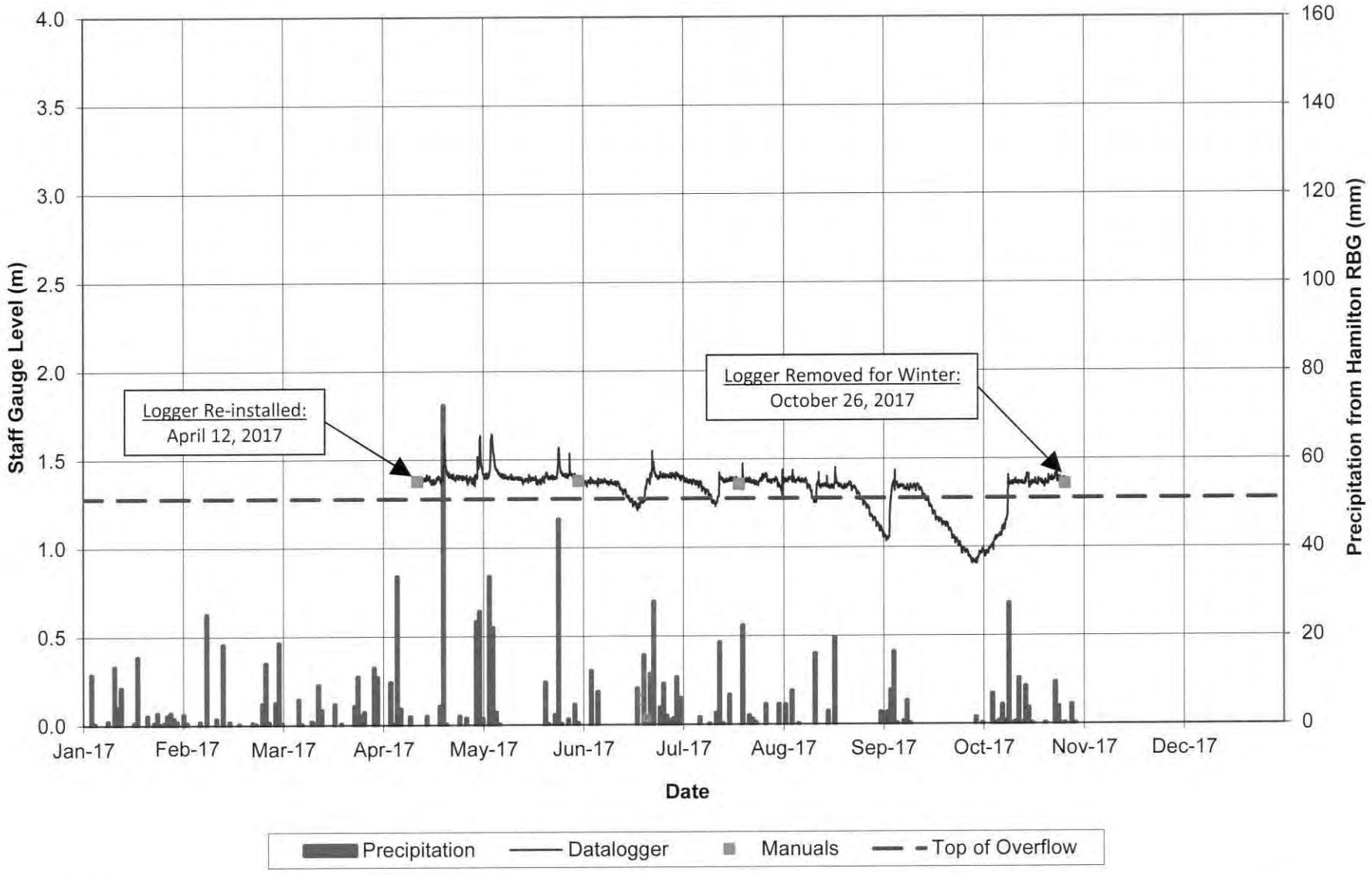


R.J. Burnside & Associates Limited
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Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

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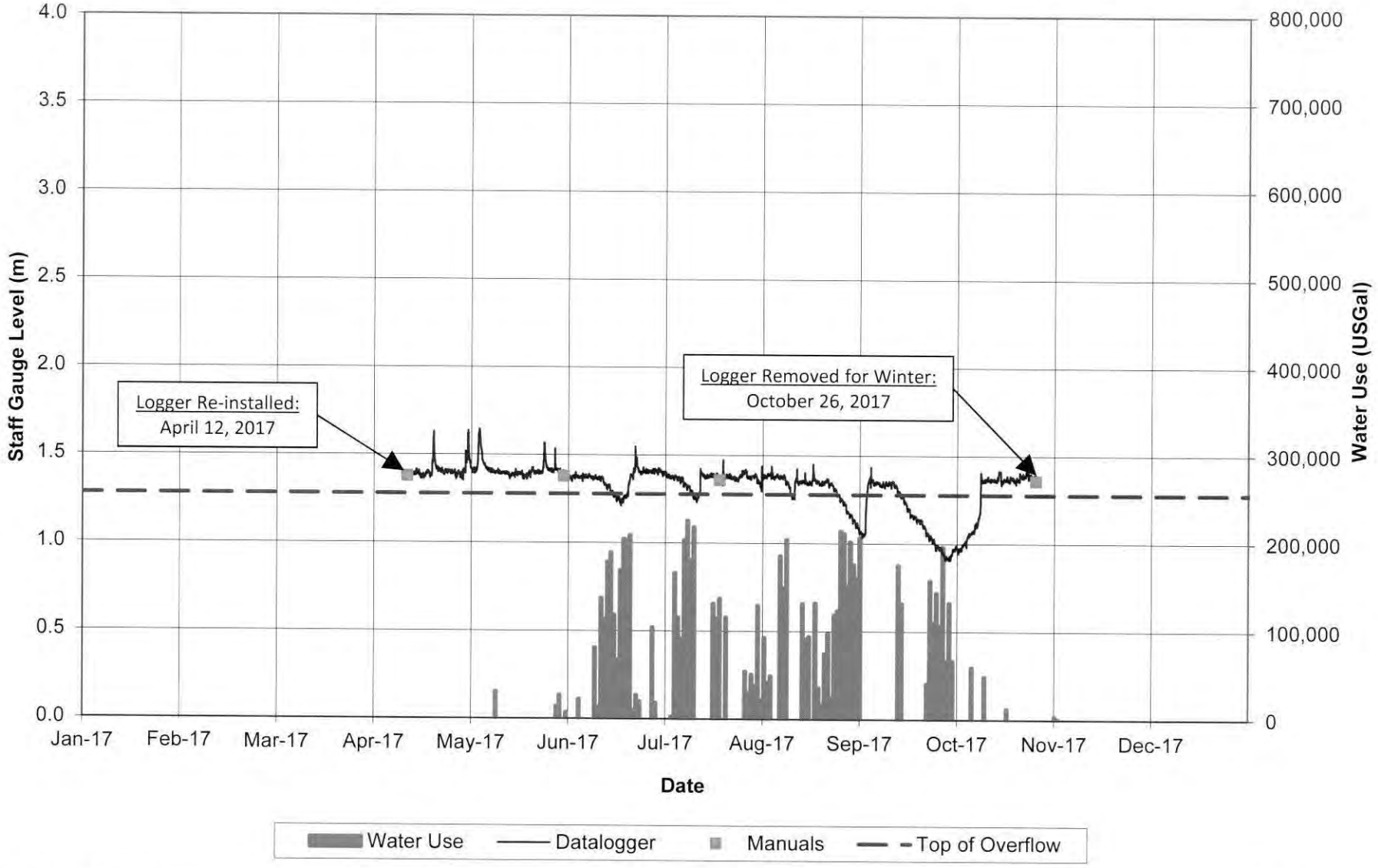
Millcroft Golf Club
SS3: Main Irrigation Pond
2017 Hydrograph with Precipitation



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

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PTTW Monitoring
PGD020649

Millcroft Golf Club
SS3: Main Irrigation Pond
2017 Hydrograph with Water Use



R.J. Burnside & Associates Limited
File: 020649_PGD Millcroft Irrigation Pond SS3 Hydrograph.xlsx
Prepared By: JJM, 12/7/2017

Millcroft Golf Club
PTTW Monitoring
PGD020649

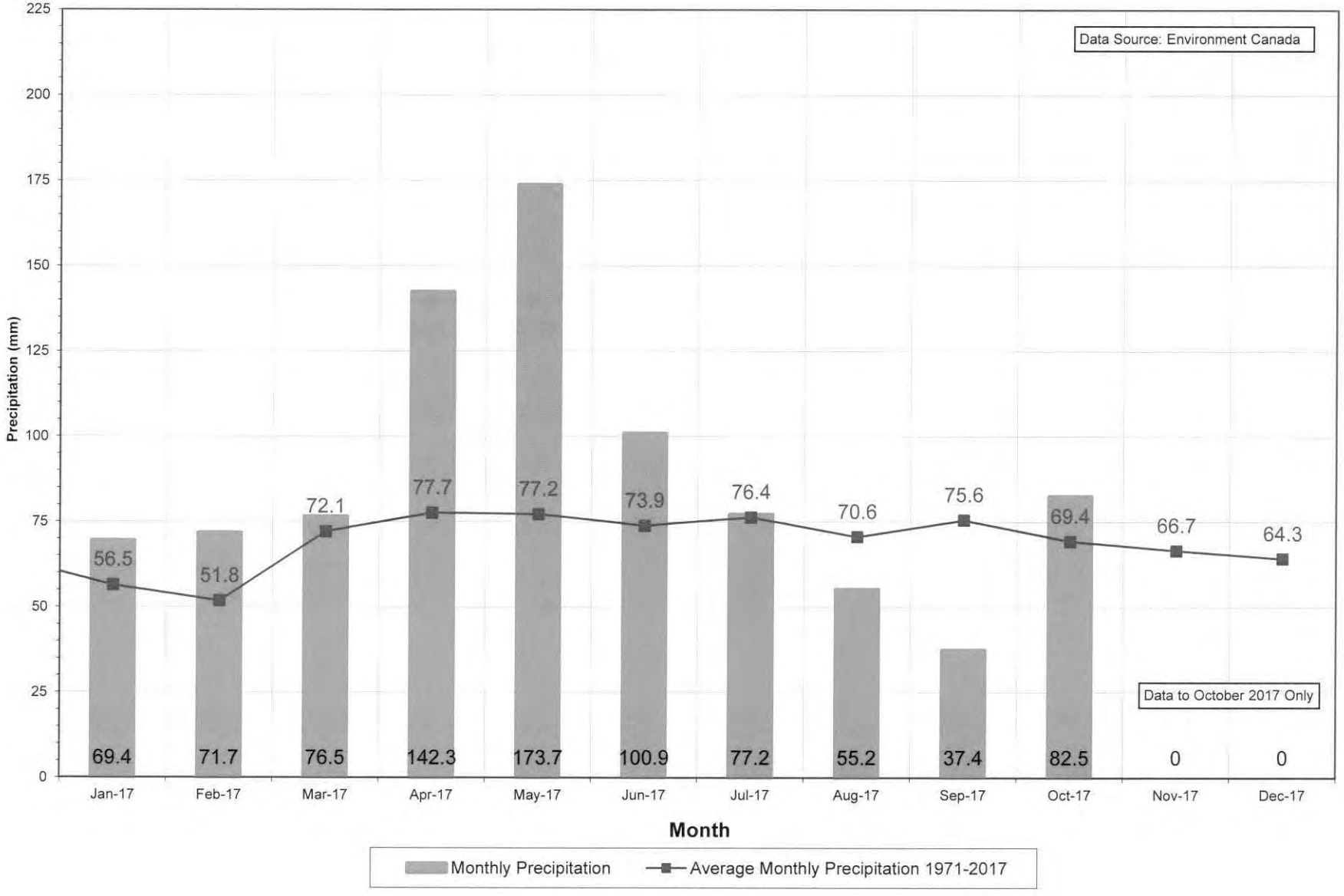
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Precipitation Data

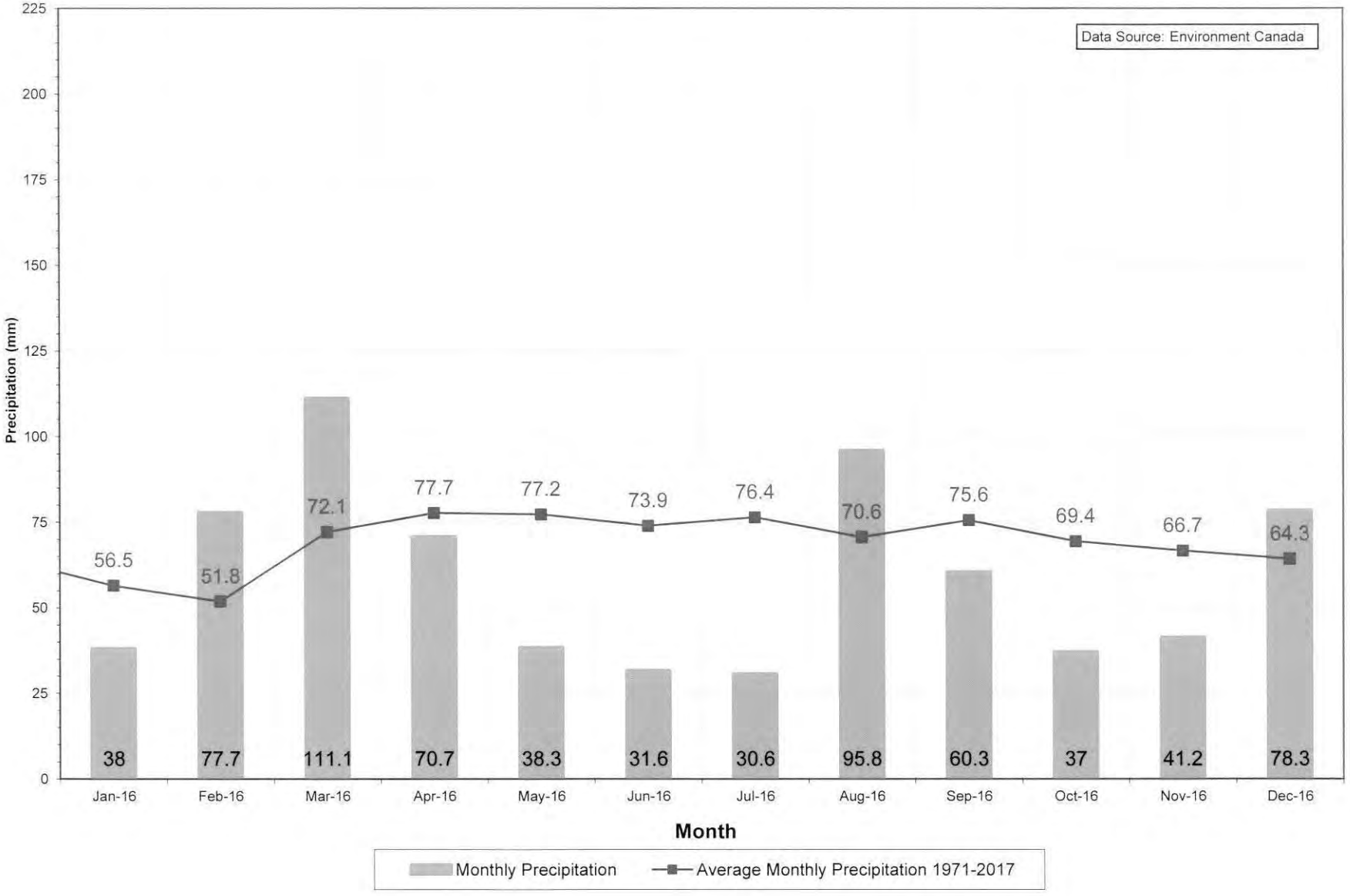
Millcroft Golf Club
PTTW Monitoring

2017 Actual versus Average Monthly Precipitation 1971-2017
Weather Station - Hamilton RBG



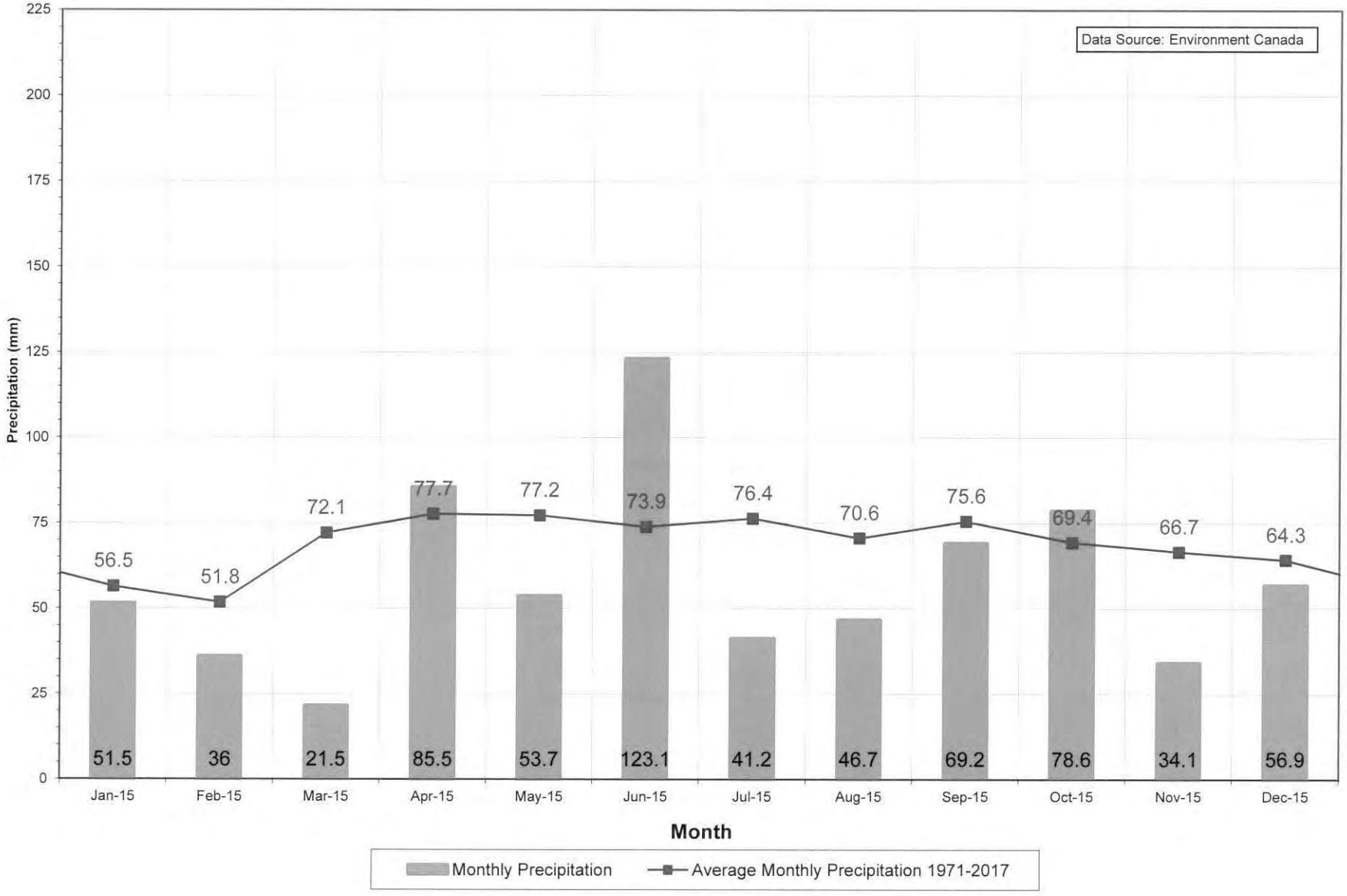
Millcroft Golf Club
PTTW Monitoring

2016 Actual versus Average Monthly Precipitation 1971-2017
Weather Station - Hamilton RBG



Millcroft Golf Club
PTTW Monitoring

2015 Actual versus Average Monthly Precipitation 1971-2017
Weather Station - Hamilton RBG



R.J. Burnside & Associates Limited
File: 020649_PGD Hamilton RGB precip summary.xlsx
Date: JJM, 12/7/2017

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Water Taking Records

Water Taking Records

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
1-Jan-17	0	0
2-Jan-17	0	0
3-Jan-17	0	0
4-Jan-17	0	0
5-Jan-17	0	0
6-Jan-17	0	0
7-Jan-17	0	0
8-Jan-17	0	0
9-Jan-17	0	0
10-Jan-17	0	0
11-Jan-17	0	0
12-Jan-17	0	0
13-Jan-17	0	0
14-Jan-17	0	0
15-Jan-17	0	0
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22-Jan-17	0	0
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24-Jan-17	0	0
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26-Jan-17	0	0
27-Jan-17	0	0
28-Jan-17	0	0
29-Jan-17	0	0
30-Jan-17	0	0
31-Jan-17	0	0
1-Feb-17	0	0
2-Feb-17	0	0
3-Feb-17	0	0
4-Feb-17	0	0
5-Feb-17	0	0
6-Feb-17	0	0
7-Feb-17	0	0
8-Feb-17	0	0
9-Feb-17	0	0
10-Feb-17	0	0
11-Feb-17	0	0
12-Feb-17	0	0
13-Feb-17	0	0
14-Feb-17	0	0
15-Feb-17	0	0
16-Feb-17	0	0
17-Feb-17	0	0
18-Feb-17	0	0
19-Feb-17	0	0
20-Feb-17	0	0
21-Feb-17	0	0
22-Feb-17	0	0
23-Feb-17	0	0
24-Feb-17	0	0

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
25-Feb-17	0	0
26-Feb-17	0	0
27-Feb-17	0	0
28-Feb-17	0	0
1-Mar-17	0	0
2-Mar-17	0	0
3-Mar-17	0	0
4-Mar-17	0	0
5-Mar-17	0	0
6-Mar-17	0	0
7-Mar-17	0	0
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28-Mar-17	0	0
29-Mar-17	0	0
30-Mar-17	0	0
31-Mar-17	0	0
1-Apr-17	0	0
2-Apr-17	0	0
3-Apr-17	0	0
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11-Apr-17	0	0
12-Apr-17	0	0
13-Apr-17	0	0
14-Apr-17	0	0
15-Apr-17	0	0
16-Apr-17	0	0
17-Apr-17	0	0
18-Apr-17	0	0
19-Apr-17	0	0
20-Apr-17	0	0

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
21-Apr-17	0	0
22-Apr-17	0	0
23-Apr-17	0	0
24-Apr-17	0	0
25-Apr-17	0	0
26-Apr-17	0	0
27-Apr-17	0	0
28-Apr-17	0	0
29-Apr-17	0	0
30-Apr-17	0	0
1-May-17	0	0
2-May-17	0	0
3-May-17	0	0
4-May-17	0	0
5-May-17	0	0
6-May-17	0	0
7-May-17	0	0
8-May-17	0	0
9-May-17	0	0
10-May-17	30,498	115,447
11-May-17	0	0
12-May-17	0	0
13-May-17	0	0
14-May-17	0	0
15-May-17	0	0
16-May-17	0	0
17-May-17	0	0
18-May-17	0	0
19-May-17	0	0
20-May-17	0	0
21-May-17	0	0
22-May-17	0	0
23-May-17	0	0
24-May-17	0	0
25-May-17	0	0
26-May-17	0	0
27-May-17	0	0
28-May-17	0	0
29-May-17	13,835	52,371
30-May-17	26,515	100,370
31-May-17	0	0
1-Jun-17	6,868	25,998
2-Jun-17	0	0
3-Jun-17	0	0
4-Jun-17	0	0
5-Jun-17	21,995	83,260
6-Jun-17	0	0
7-Jun-17	0	0
8-Jun-17	0	0
9-Jun-17	0	0
10-Jun-17	80,848	306,043
11-Jun-17	12,918	48,900
12-Jun-17	137,377	520,029
13-Jun-17	112,754	426,820
14-Jun-17	178,662	676,309

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
15-Jun-17	189,066	715,693
16-Jun-17	118,148	447,239
17-Jun-17	67,024	253,713
18-Jun-17	169,132	640,234
19-Jun-17	204,537	774,257
20-Jun-17	203,362	769,809
21-Jun-17	209,237	792,048
22-Jun-17	9,547	36,139
23-Jun-17	26,908	101,858
24-Jun-17	19,364	73,301
25-Jun-17	0	0
26-Jun-17	0	0
27-Jun-17	0	0
28-Jun-17	104,011	393,724
29-Jun-17	17,971	68,028
30-Jun-17	0	0
1-Jul-17	0	0
2-Jul-17	0	0
3-Jul-17	0	0
4-Jul-17	2,460	9,312
5-Jul-17	166,233	629,260
6-Jul-17	115,139	435,849
7-Jul-17	91,482	346,297
8-Jul-17	203,726	771,187
9-Jul-17	225,909	855,159
10-Jul-17	180,167	682,006
11-Jul-17	218,411	826,776
12-Jul-17	0	0
13-Jul-17	0	0
14-Jul-17	0	0
15-Jul-17	0	0
16-Jul-17	0	0
17-Jul-17	131,112	496,313
18-Jul-17	114,032	431,658
19-Jul-17	137,066	518,851
20-Jul-17	0	0
21-Jul-17	115,742	438,131
22-Jul-17	0	0
23-Jul-17	0	0
24-Jul-17	0	0
25-Jul-17	0	0
26-Jul-17	0	0
27-Jul-17	53,983	204,348
28-Jul-17	29,834	112,934
29-Jul-17	50,687	191,871
30-Jul-17	37,686	142,657
31-Jul-17	128,911	487,981
1-Aug-17	21,347	80,807
2-Aug-17	92,684	350,847
3-Aug-17	41,492	157,064
4-Aug-17	48,787	184,679
5-Aug-17	0	0
6-Aug-17	0	0
7-Aug-17	185,706	702,974
8-Aug-17	148,946	563,822

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
9-Aug-17	204,724	774,965
10-Aug-17	0	0
11-Aug-17	0	0
12-Aug-17	0	0
13-Aug-17	0	0
14-Aug-17	131,564	498,024
15-Aug-17	90,724	343,428
16-Aug-17	94,081	356,135
17-Aug-17	0	0
18-Aug-17	132,197	500,420
19-Aug-17	35,684	135,079
20-Aug-17	16,131	61,062
21-Aug-17	74,707	282,797
22-Aug-17	97,176	367,851
23-Aug-17	23,617	89,400
24-Aug-17	118,536	448,708
25-Aug-17	123,786	468,581
26-Aug-17	214,362	811,448
27-Aug-17	211,584	800,933
28-Aug-17	151,333	572,858
29-Aug-17	202,009	764,687
30-Aug-17	176,009	666,267
31-Aug-17	159,985	605,609
1-Sep-17	206,968	783,459
2-Sep-17	0	0
3-Sep-17	0	0
4-Sep-17	0	0
5-Sep-17	0	0
6-Sep-17	0	0
7-Sep-17	0	0
8-Sep-17	0	0
9-Sep-17	0	0
10-Sep-17	0	0
11-Sep-17	0	0
12-Sep-17	0	0
13-Sep-17	175,582	664,650
14-Sep-17	131,751	498,732
15-Sep-17	0	0
16-Sep-17	0	0
17-Sep-17	0	0
18-Sep-17	0	0
19-Sep-17	0	0
20-Sep-17	0	0
21-Sep-17	0	0
22-Sep-17	40,391	152,897
23-Sep-17	158,162	598,708
24-Sep-17	109,022	412,693
25-Sep-17	143,769	544,225
26-Sep-17	106,710	403,941
27-Sep-17	196,347	743,254
28-Sep-17	66,787	252,816
29-Sep-17	132,629	502,055
30-Sep-17	66,539	251,878
1-Oct-17	0	0
2-Oct-17	0	0

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
3-Oct-17	0	0
4-Oct-17	0	0
5-Oct-17	0	0
6-Oct-17	59,256	224,308
7-Oct-17	0	0
8-Oct-17	0	0
9-Oct-17	0	0
10-Oct-17	48,694	184,327
11-Oct-17	0	0
12-Oct-17	0	0
13-Oct-17	0	0
14-Oct-17	0	0
15-Oct-17	0	0
16-Oct-17	0	0
17-Oct-17	12,108	45,834
18-Oct-17	0	0
19-Oct-17	0	0
20-Oct-17	0	0
21-Oct-17	0	0
22-Oct-17	0	0
23-Oct-17	0	0
24-Oct-17	0	0
25-Oct-17	0	0
26-Oct-17	0	0
27-Oct-17	0	0
28-Oct-17	0	0
29-Oct-17	0	0
30-Oct-17	0	0
31-Oct-17	0	0
1-Nov-17	3,192	12,083
2-Nov-17	401	1,518
3-Nov-17	0	0
4-Nov-17	0	0
5-Nov-17	0	0
6-Nov-17	0	0
7-Nov-17	0	0
8-Nov-17	0	0
9-Nov-17	0	0
10-Nov-17	0	0
11-Nov-17	0	0
12-Nov-17	0	0
13-Nov-17	0	0
14-Nov-17	0	0
15-Nov-17	0	0
16-Nov-17	0	0
17-Nov-17	0	0
18-Nov-17	0	0
19-Nov-17	0	0
20-Nov-17	0	0
21-Nov-17	0	0
22-Nov-17	0	0
23-Nov-17	0	0
24-Nov-17	0	0
25-Nov-17	0	0
26-Nov-17	0	0

Millcroft Golf Club

PTTW No. 0463-ABSQSD

2017 Water Taking Records

PTTW Sources	Max Pumping Rate (L/min)	Max Daily Volume (L)
Mill Pond	2,917	1,112,300

Date	Mill Pond	
	US Gallon	Litres
27-Nov-17	0	0
28-Nov-17	0	0
29-Nov-17	0	0
30-Nov-17	0	0
1-Dec-17	0	0
2-Dec-17	0	0
3-Dec-17	0	0
4-Dec-17	0	0
5-Dec-17	0	0
6-Dec-17	0	0
7-Dec-17	0	0
8-Dec-17	0	0
9-Dec-17	0	0
10-Dec-17	0	0
11-Dec-17	0	0
12-Dec-17	0	0
13-Dec-17	0	0
14-Dec-17	0	0
15-Dec-17	0	0
16-Dec-17	0	0
17-Dec-17	0	0
18-Dec-17	0	0
19-Dec-17	0	0
20-Dec-17	0	0
21-Dec-17	0	0
22-Dec-17	0	0
23-Dec-17	0	0
24-Dec-17	0	0
25-Dec-17	0	0
26-Dec-17	0	0
27-Dec-17	0	0
28-Dec-17	0	0
29-Dec-17	0	0
30-Dec-17	0	0
31-Dec-17	0	0

	Annual Summary	
	US Gallons	Litres
Total:	8,418,636	31,868,004
Days of Taking:	80	80
Max. Daily Vol:	225,909	855,159
Ave. Daily Vol:	105,233	398,350
Exceedances:	0	0

Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 0463-ABSQSD
Permit Holder: 2079610 ONTARIO LTD. OPERATING AS MILLCROFT GOLF CLUB.
Received on:Dec 8, 2017 1:57 PM

This confirmation indicates that your data has been received by the Ministry,but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

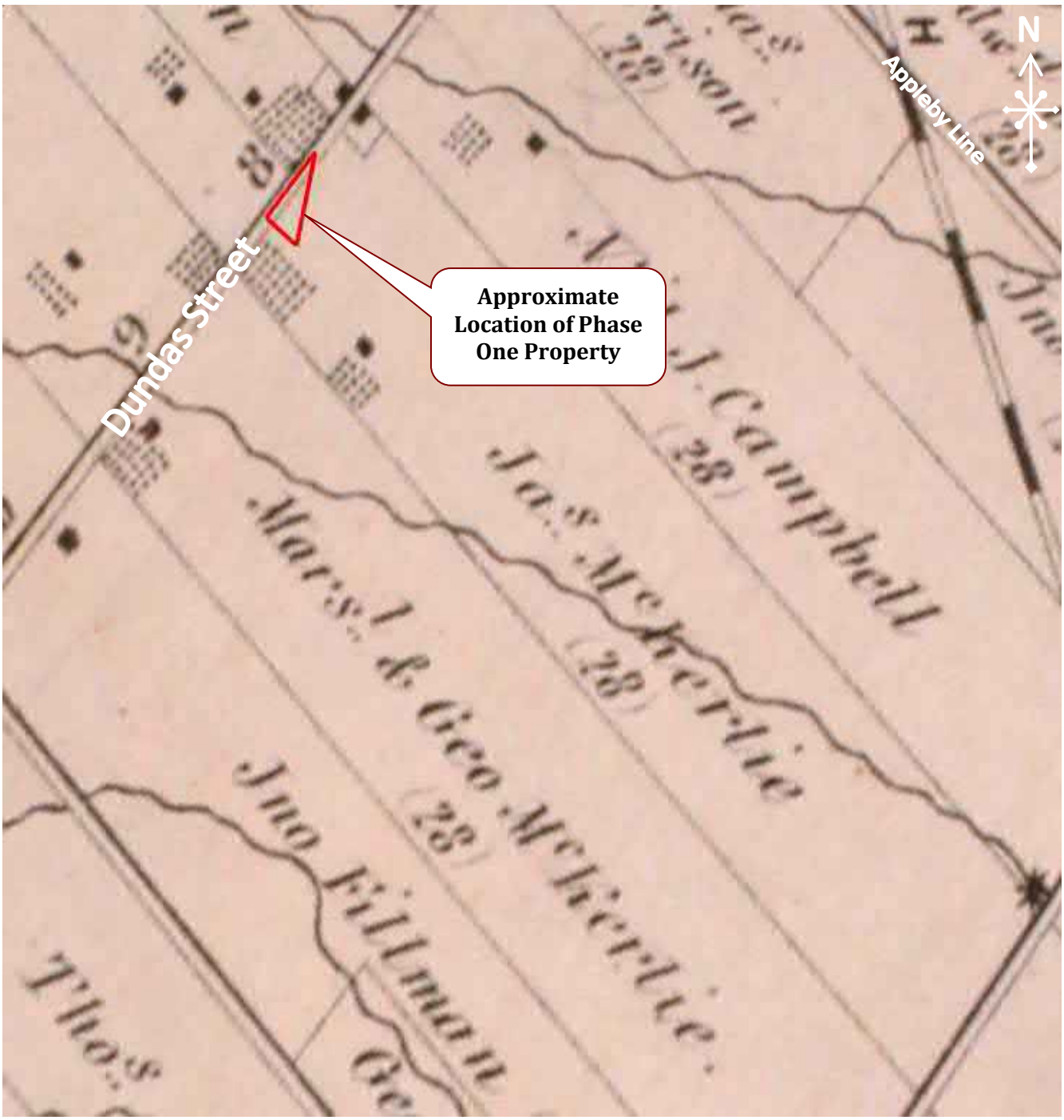
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STEVE KAJAN | 2017/12/08
version: v4.5.0.7 (build#: 17)
Last modified: 2017/09/15

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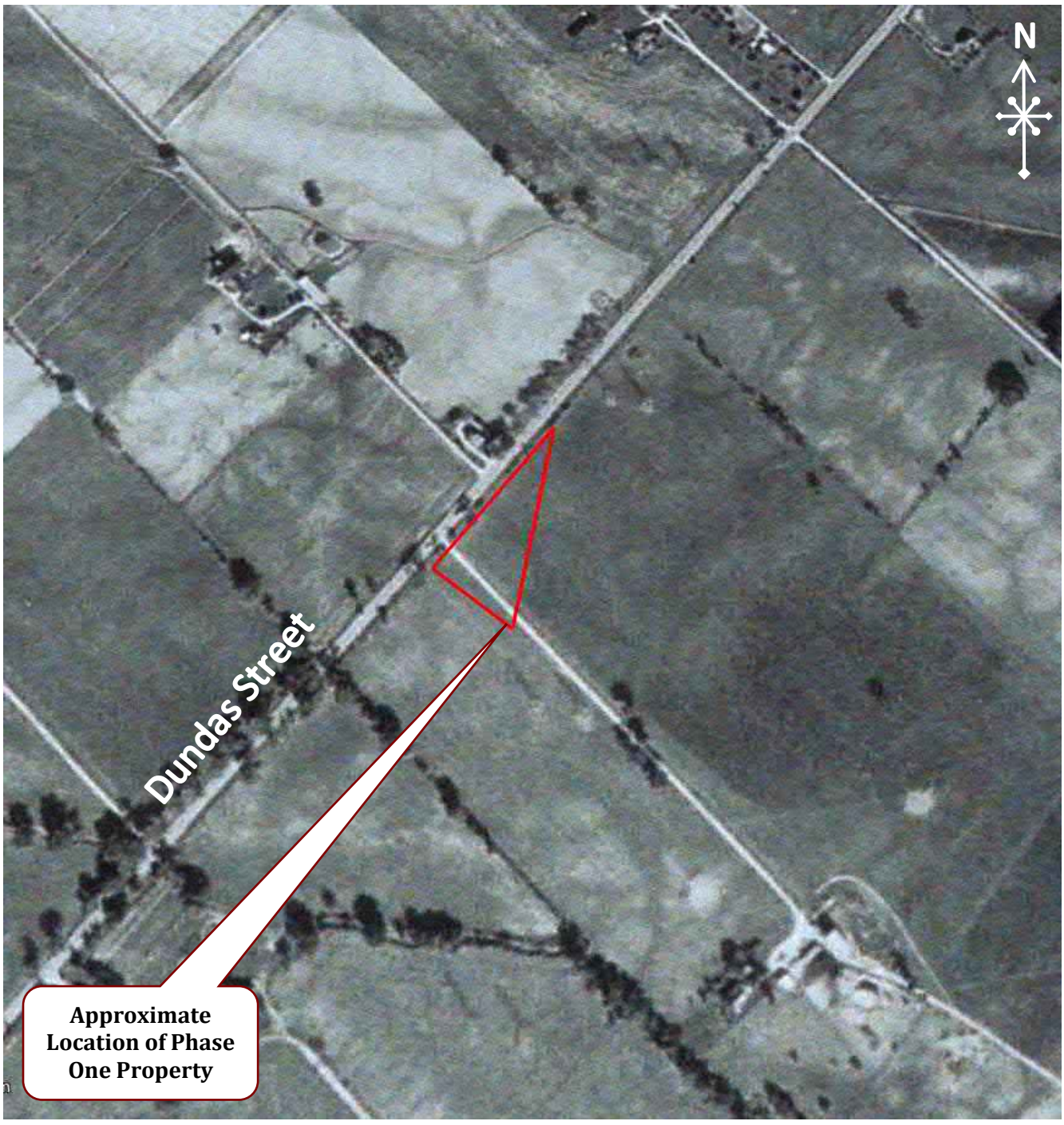
Appendix E



© 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 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-1**

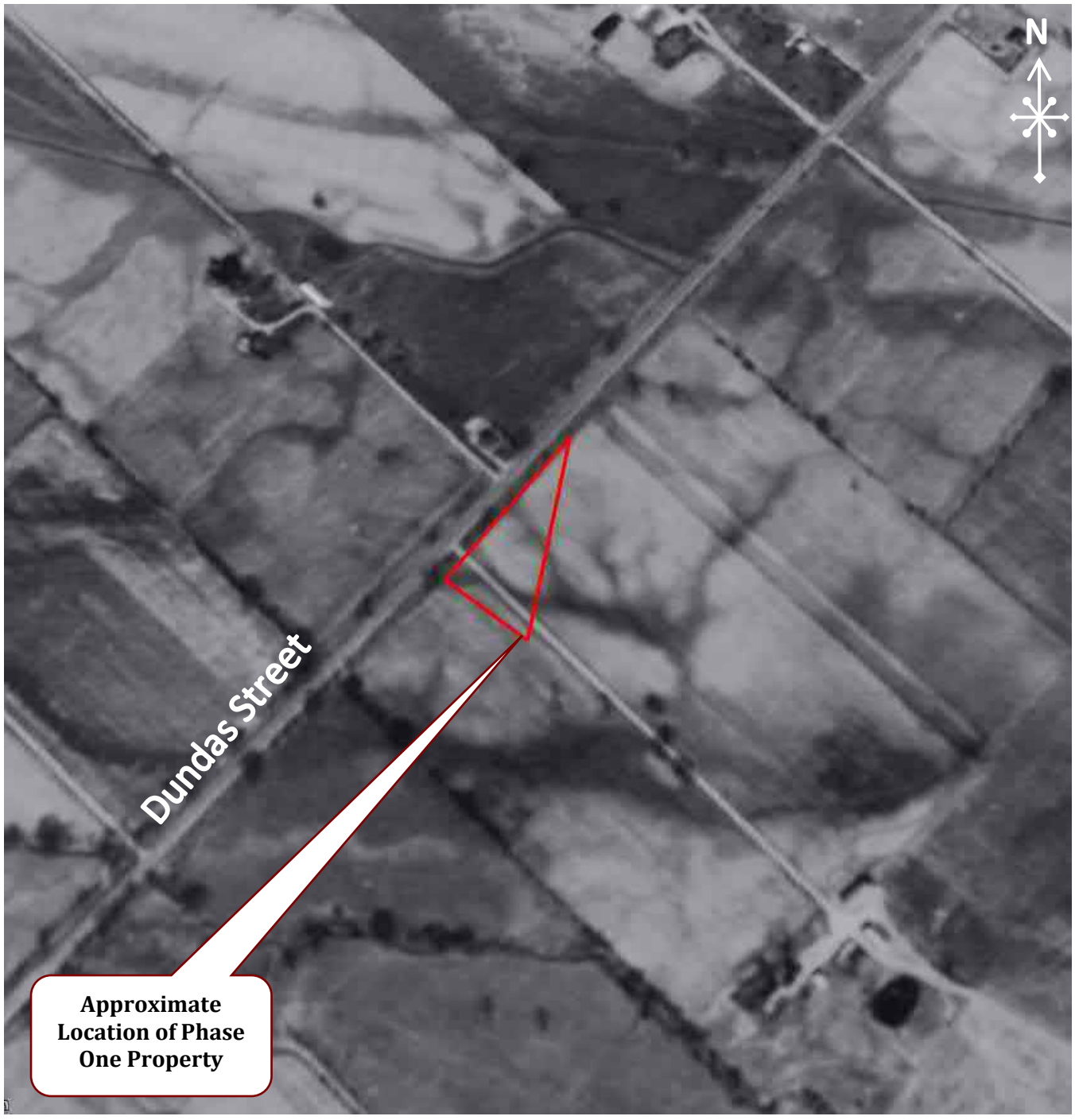


© NAPL

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

AERIAL PHOTOGRAPH: 1954

Scale: ~1:4800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	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: 1962

Scale: ~1:4700	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-3**



© NAPL

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

AERIAL PHOTOGRAPH: 1972

Scale: ~1:4800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-4**



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

AERIAL PHOTOGRAPH: 1987

Scale: ~1:4000	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	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: 1995

Scale: ~1:3300	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-6**



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	AERIAL PHOTOGRAPH: 2002	
Scale: ~1:4800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT** **Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-7**

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



© Google Earth

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

AERIAL PHOTOGRAPH: 2005

Scale: ~1:3800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	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: 2011

Scale: ~1:2800	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-9**



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

AERIAL PHOTOGRAPH: 2015

Scale: ~1:3700	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-10**



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AERIAL PHOTOGRAPH: 2019

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

Scale: ~1:2900	**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT Millcroft Golf Club (Area 3), Burlington, Ontario**	Prepared By: JGB
Date: Jan-20		Reviewed By: DD
Project: 19-199-102	Prepared For: Argo (Millcroft) Limited	Drawing No. **D-11**

Appendix F



Picture 1: View of the maintenance building present on the Phase One Property, facing west.



Picture 2: View of adjacent properties northwest of the Phase One Property, facing northwest.



Picture 2: View of adjacent properties northeast of the Phase One Property, facing northeast.



Picture 4: View of the south adjacent properties to the Phase One Property, facing south.



Picture 5: View of the east portion of the Phase One Property, facing east.



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



Picture 7: View of one (1) waste oil AST, and one (1) drum of lubricant oil, east to the maintenance building, facing northwest.



Picture 8: View of one (1) diesel AST east to the maintenance building, facing northwest.



Picture 9: View of one (1) gasoline AST east to the maintenance building, facing northeast.



Picture 10: View of the stockpiles of topsoil, sand and tee mix on the northcentral portion of the Phase One property, facing northeast.



Picture 11: View of the septic tank system located north adjacent of the maintenance building, facing south.



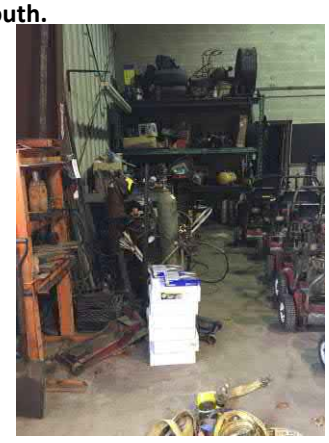
Picture 12: Miscellaneous lawnmowers (no oil staining in soil observed) to the south of the Property, facing south..



Picture 13: View of inside maintenance building, area allocated to fixed lawnmowers and golf carts, facing south.



Picture 14: One (1) hydraulic hoist was observed inside, to the south end of the maintenance building, facing west.



Picture 15: Compressed gas tanks were observed inside the maintenance work area, facing west.



Picture 16: One (1) transformer was observed on the west section of the building, facing south.



Picture 17: View of the pesticide storage room, at the northeast corner of the building, facing north.



Picture 18: View of the oil/water separator located at the north of the building, facing north.

Appendix G

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT LT 8, CON 1 SDS, PT 1, 20R16282; BURLINGTON. T/W PT LT 9, CON 1 SDS, PT 8, 20R6131 AS IN 149995 & PT LT 8, CON 1 SDS, PT 9, 20R6131 ASIN 153572. S/T H302472. S/T EASEMENT IN FAV OF LOTS 1, 16, 117 & 119 & PT LTS 8 & 9, CON 1 SDS DES AS PT 2 ON 20R16282 AS IN HR447696 AS IN HR447696.

PROPERTY REMARKS: PLANNING ACT CONSENT IN HR427157.

ESTATE/QUALIFIER: FEE SIMPLE ABSOLUTE

RECENTLY: DIVISION FROM 07182-1446

PIN CREATION DATE: 2005/11/25

OWNERS' NAMES: MILLCROFT GREENS CORPORATION

CAPACITY: TRST

SHARE:

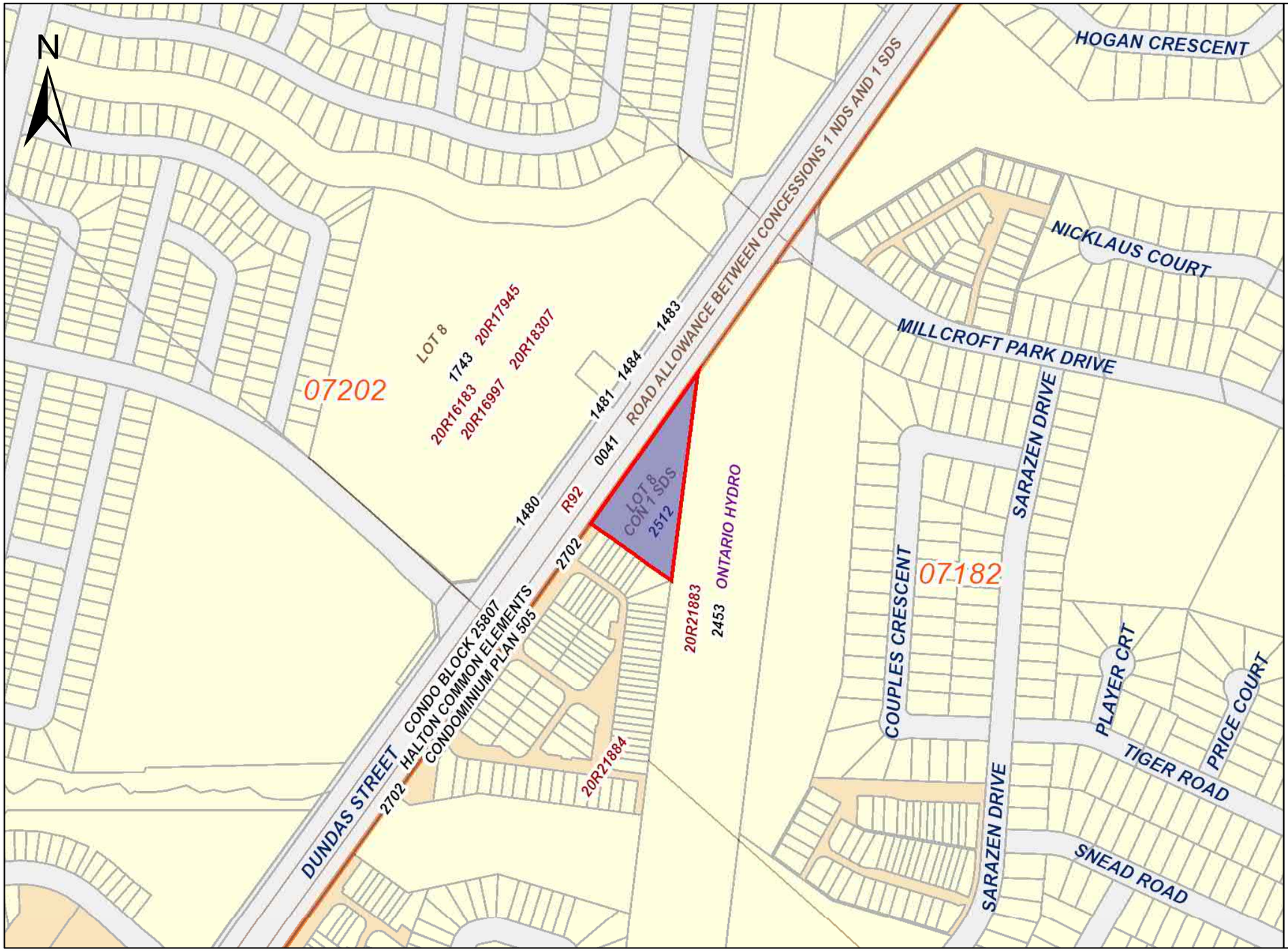
REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
*** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2005/11/25 **						
H291037	1986/11/06	NOTICE			THE REGIONAL MUNICIPALITY OF HALTON	C
	REMARKS: AGREEMENT					
H302428	1987/02/19	NOTICE			THE CORPORATION OF THE CITY OF BURLINGTON	C
	REMARKS: AGREEMENT					
H302472	1987/02/19	TRANSFER EASEMENT			THE CORPORATION OF THE CITY OF BURLINGTON	C
H302805	1987/02/24	NOTICE			THE REGIONAL MUNICIPALITY OF HALTON	C
	REMARKS: AGREEMENT					
H454978	1990/08/22	NOTICE			THE CORPORATION OF THE CITY OF BURLINGTON	C
	CORRECTIONS: 'THIS INSTRUMENT' WAS DELETED FROM PROPERTY 07182-0391 IN ERROR AND WAS RE-INSTATED ON 2001/10/25 BY ANGELA TIMBERS.					
H545455	1993/05/14	NOTICE OF LEASE			UNION GAS LIMITED	C
H667591	1997/03/13	NOTICE AGREEMENT		MONARCH CONSTRUCTION LIMITED	THE CORPORATION OF THE CITY OF BURLINGTON	C
HR138327	2002/08/12	NOTICE		THE CORPORATION OF THE CITY OF BURLINGTON		C
20R16282	2005/08/18	PLAN REFERENCE				C
HR427157	2005/11/04	TRANSFER		MONARCH CORPORATION	MONARCH CORPORATION	C
	REMARKS: CONSENT RE: PLANNING ACT					
HR447696	2006/01/18	TRANSFER	$4,600,000	MONARCH CORPORATION	2079610 ONTARIO LTD.	C
HR447697	2006/01/18	APL ANNEX REST COV		MONARCH CORPORATION		C
HR447698	2006/01/18	CHARGE		*** COMPLETELY DELETED *** 2079610 ONTARIO LTD.	MONARCH CORPORATION	

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
20R16553	2006/01/27	PLAN REFERENCE				C
HR540057	2007/01/15	DISCH OF CHARGE		*** COMPLETELY DELETED *** MONARCH CORPORATION		
	REMARKS: RE: HR447698					
HR1681063	2020/01/29	TRANSFER	$5,000,000	2079610 ONTARIO LTD.	AGRO (MILLCROFT) LIMITED	C
	REMARKS: PLANNING ACT STATEMENTS.					
HR1681064	2020/01/29	CHARGE	$2,000,000	ARGO (MILLCROFT) LIMITED	2079610 ONTARIO LTD.	C
HR1681065	2020/01/29	TRANSFER	$1	2079610 ONTARIO LTD. ARGO (MILLCROFT) LIMITED	MILLCROFT GREENS CORPORATION	C
	REMARKS: PLANNING ACT STATEMENTS.					
20R21883	2021/02/10	PLAN REFERENCE				C

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.



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SCALE

0 30 60 90 120 150
meters

PROPERTY INDEX MAP

HALTON(No. 20)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	**08050**
GEOGRAPHIC FABRIC	
EASEMENT	

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

FOR DIMENSIONS OF PROPERTIES BOUNDARIES SEE RECORDED PLANS AND DOCUMENTS

ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

Ontario

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CHAIN OF TITLE REPORT

Project #: 19-199-100
Address: s/s Dundas St & w/s Hydro Lands
Legal Description: Part Lot 8 Con 1 SDS
Part 1 20R-16282

Searched at: Milton
LRO #: 20

PIN #: 07182-2512 (LT)

INSTR #	DOC. TYPE	REG. DATE	PARTY FROM	PARTY TO
	Patent (200 Acres)	12 02 1808	Crown	**Samuel VAN EMERY**
1280	Deed	16 03 1809	Samuel Van Emery	John KEAGEY
875	Deed	30 10 1837	John Keagey	William B. HEIURE
325	Deed	31 01 1867	William B. Heiure	Neil CAMPBELL
4672	Mortgage	7 06 1890	Neil Campbell	The Guelph & Ontario Loan & Savings (Mortgagee)
5706	Deed (Power of Sale)	08 01 1896	The Guelph & Ontario Loan & Savings (Neil Campbell defaulted in Mtg 4372)	William Anderson IRVING
30171	Deed	16 11 1946	William Anderson Irving	Erwin GUNBY
285701	Deed	08 12 1969	Erwin Gunby	229823 Investments Limited
343014	Deed	04 08 1972	229823 Investments Limited	Valjim Construction Limited

Cont'd on Page 2

CHAIN OF TITLE REPORT

Project #: 19-199-100
Address: s/s Dundas St & w/s Hydro Lands
Legal Description: Part Lot 8 Con 1 SDS
Part 1 20R-16282

Searched at: Milton
LRO #: 20

PIN #: 07182-2512 (LT)

INSTR #	DOC. TYPE	REG. DATE	PARTY FROM	PARTY TO
356921	Deed	12 03 1973	Valjim Construction Limited	Far North Investors Corporation Limited
364334	Deed	14 06 1973	Far North Investors Corporation Limited	Monarch Construction Limited
H302472	Easement	19 02 1987	Monarch Construction Limited	The Corporation of The City of Burlington
H545455	Lease	14 05 1993	Monarch Construction Limited	Union Gas Limited (Lessee)
HR383148	Name Change	07 06 2005	Monarch Construction Limited	Monarch Corporation
HR447696	Deed	18 01 2006	Monarch Corporation	2079610 Ontario Ltd.
HR1681063	Deed	29 01 2020	2079610 Ontario Ltd.	Agro (Millcroft) Limited
HR1681065	Deed **(Present Owner)**	29 01 2020	2079610 Ontario Ltd. Agro (Millcroft) Limited	**Millcroft Greens Corporation**