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April 30, 2024

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Dufferin Aggregates Teedon Pit – 2023 Combined Annual Monitoring Report

Please find enclosed the Annual Monitoring Report for the Dufferin Aggregates Teedon Pit for the 2023 calendar year. This report fulfills the requirements for PTTW No. 6258-BRDJ2M and ECA No. 1293-CF7J3M. Dufferin Aggregates is a division of CRH Canada Group Inc.

Hard copies of the report can be provided upon request.

Please do not hesitate to contact me if you have any questions or comments.

Yours sincerely,

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2023 Annual Monitoring Report

Teedon Pit

Dufferin Aggregates, a CRH Company

30 April 2024

→ The Power of Commitment

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1. Introduction

GHD was retained by Dufferin Aggregates, a CRH Company (Dufferin), to complete the 2023 Annual Monitoring Report (AMR) for the Dufferin Teedon Pit (Site) for the period between January 1 and December 31, 2023. This monitoring report was completed pursuant to and combines the associated monitoring results of:

– Ontario Ministry of the Environment, Conservation and Parks (MECP) Permit to Take Water (PTTW) No. 6258-BRDJ2M issued on January 14, 2021
– MECP PTTW No. P-300-1196295834 Version 1 issued on January 6, 2023
– MECP PTTW No. P-300-1196295834 Version 2 issued on December 21, 2023
– MECP Environmental Compliance Approval (ECA) No. 1293-CF7J3M issued on (December 6, 2022)

The Dufferin Teedon Pit is located at 40 Darby Rd, Township of Tiny, County of Simcoe, Ontario (north 1/2 Lot 79 Concession 1, PT south 1/2 Lot 80 Concession 1). Dufferin also owns land located to the North of the Site (Teedon Pit Extension). This AMR includes data collected by Dufferin and GHD and includes relevant data from the Teedon Pit Extension, where applicable. A map of the Site and surrounding lands is presented on Figure 1.1.

The purpose of the AMR is to document the results of the 2023 monitoring program specified in the PTTW(s) and ECA. A copy of PTTW No. 6258-BRDJ2M is presented in Appendix A; copies of PTTW No. P-300-1196295834 Version 1 and Version 2 are presented in Appendix D-1 and D-2, respectively. A copy of the ECA is provided in Appendix B. Please note that ECA No. 1293-CF7J3M was issued on December 6, 2022 and as of December 31, 2023 construction of the approved works was in progress but had not completed. The commencement of works under ECA No. 1293-CF7J3M is documented herein, and the finalized works will be documented as required by the ECA.

The 2023 monitoring program and related activities include the following, which are discussed in detail in the subsequent sections:

– Quarterly hydraulic monitoring events (groundwater levels and datalogger downloads)
– Recording of water takings (completed by Dufferin)
– Daily Source Pond Water Level Monitoring (completed by Dufferin)
– Routine berm inspections (completed by Dufferin)
– Private water well sampling
– Sump Pond Water Quality Monitoring

2. Background

2.1 Geological/Hydrogeological Setting

The regional overburden deposits near the Site are approximately 140 to 150 metres (m) thick (Singer et al., 1999). They were deposited during and shortly after the Wisconsonian glaciation, and as such are all Pleistocene in age. The primary overlying deposits are the silty to sandy till. These deposits are stone-poor and carbonate-derived (OGS, 2003).

The top of bedrock elevations near the Site are approximately 130 to 140m AMSL (Singer et al., 1999). The bedrock beneath the overburden in this area is the Shadow Lake Formation, which is part of the Simcoe and Ottawa Groups and are Middle Ordovician in age (OSG, 2006). It is usually found to be more than 12 m thick, and due to its relative thinness the Shadow Lake Formation and overlying Gull River Formation are commonly portrayed as a single unit (Singer et al., 1999). The Shadow Lake Formation consists of shale, sandstone, limestone, and conglomerate.

The Teedon Pit is located above the Alliston Aquifer Complex (an overburden aquifer), which covers the entire area between the Oak Ridges Moraine and Georgian Bay. It consists of fine to coarse sand deposits that occur at variable depths in close association with silt and clay deposits (Singer, 2003). All these materials were laid down in glacial and glaciolacustrine environments (Singer, 2003). The Alliston Aquifer Complex consists of multiple aquifers at shallow and deep levels. The Alliston Aquifer (referred to as the Upper Aquifer on-Site) has a relatively high permeability and generally has good water-yielding capacity. A localized, thick silt and clay aquitard underlies the source/sump pond, settling pond, and the unnamed pond and downstream unnamed tributary. The aquitard layer limits the interconnections between this shallow groundwater system (shallow groundwater zone) and the Upper Aquifer as is evidenced by the large (greater than 15 metres) water elevation difference between shallow groundwater zone monitoring wells and the Upper Aquifer monitoring wells (refer to Section 4.2).

2.2 Permit to Take Water (PTTW)

This monitoring report satisfies the requirements of the monitoring program under the MECP Section 34.1 of the Ontario Water Resources Act (OWRA) PTTW No. 6258-BRDJ2M which was issued on January 14, 2021 and amended January 19, 2021 as presented in Appendix A. The requirements of PTTW No. P-300-1196295834 are discussed in Section 2.3.1.

PTTW No. 6258-BRDJ2M includes the following authorized water takings, as specified in Table A, therein:

Source Name	Source Type	Taking Specific Purpose	Taking Major Category	Max Taken (L/min)	Max Hours Per Day	Max Taken (L/day)	Max Days Per Year
PW1-09 (WWR#7124734)	Well Drilled	Aggregate Washing	Industrial	950	24	1,368,000	210
Source Pond	Pond Dugout	Aggregate Washing	Industrial	7,274	12	5,237,280	210
					Total	**6,605,280**	

The PTTW No. 6258-BRDJ2M environmental monitoring requirements are presented in Condition 4.2 and summarized below:

Condition 4.2

i. Install and maintain dataloggers at the on-Site and off-Site monitoring wells listed in Schedule B and monitor groundwater levels at a minimum frequency of every four hours. This monitoring shall occur, at a minimum, between February 15 and December 15 of each year for which the Permit is valid.

ii. Should any other on-Site monitoring well be installed, then groundwater levels shall be monitored as per item (i) above and the data included in the Annual Monitoring Report.

iii. Measure water levels in private water wells WWR 7150632 and WWR 5717709, if permission is granted by the well owners. Should the permission of either of these domestic water well owners be withdrawn, then the permit holder shall replace the well for which permission has been denied with a well in the same aquifer either on or off site.

iv. Measure the water level elevation in the Source Pond between February 15 and December 15 when the pond is not frozen at a minimum frequency of twice per day, once in the early morning and once in the late afternoon or evening.

Please note the PTTW references the location, Source Pond (as above), the ECA also refers to this same location as the Sump Pond. Throughout this report this feature will be referred to as the Sump Pond; except were directly referencing a PTTW requirement. Within the Source/Sump Pond water levels and samples are collected in reference to monitoring location SW1, as shown on Figure 1.1.

2.3 Environmental Compliance Approval (ECA)

ECA No. 1293-CF7J3M was issued on December 6, 2022. Aggregate washing occurred on-Site in 2023 using the existing aggregate washing system presented in the application for ECA No. 1293-CF7J3M to allow for operations to continue during the design and tendering of the reconstructed ECA work. Construction of the ECA works began on November 22, 2023 with Sump Pond dewatering (see Section 2.3.1). Construction continued through the end of 2023 and is scheduled to be completed prior to the 2024 aggregate washing season.

ECA No. 1293-CF7J3M is presented in Appendix B.

Where applicable, prior to construction of the approved works, ECA No. 1293-CF7J3M routine environmental monitoring requirements were initiated in 2023 as presented in Condition 6.2 and Condition 7.2. The monitoring conditions are summarized below:

Condition 6.2 - Samples shall be collected and analyzed at the following sampling locations, at the sampling frequencies and using the sample type specified for each parameter listed:

SURFACE WATER MONITORING	
Sample Locations	1) The upgraded sump (source) pond cell (SW1); and 2) The unnamed downstream pond (SW2)
Sample Frequency	1) Before commencement of the operating season; 2) In April/May; 3) In July/August; and 4) In October/November
Sample Type	Grab
Sample Parameters	Total Suspended Solids (TSS), Metals, Anions, Turbidity

SURFACE WATER MONITORING	
Sample Locations	Water discharged from the upgraded sump (source) pond cell emergency overflow pipe discharging to the unnamed downstream pond
Sample Frequency	During an emergency overflow event from the upgraded sump (source) pond cell emergency overflow pipe discharging to the unnamed downstream pond
Sample Type	Grab
Sample Parameters	Total Suspended Solids (TSS), Metals, Anions, Turbidity

Condition 7.2 - Subject to landowner permission, samples of groundwater shall be collected at the location and frequency specified below, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

GROUNDWATER QUALITY MONITORING	
Sample Locations	Private water wells at the following addresses: 1) 127 Darby Road, Tay, Ontario; 2) 6970 Highway 93, Tiny, Ontario; 3) 7062 Highway 93, Tiny, Ontario; 4) 1189 Marshall Road, Tiny, Ontario; and 5) 1190 Marshall Road, Tiny, Ontario
Sample Frequency	Quarterly (once every three months)
Sample Type	Grab
Sample Parameters	Total Suspended Solids (TSS), Metals, Anions, Turbidity

It should be noted that under ECA Condition 7.2 groundwater quality monitoring is to be completed “until the installation of the lined recirculation cell has been completed”.

2.3.1 Construction Dewatering

Prior to construction of the Approved ECA works, removal of water stored within the Sump Pond and on-Site discharge was required. On November 23, 2022, a Category 2 Permit to Take Water Application was filed and subsequently approved by MECP. PTTW No. P-300-1196295834 was issued on January 6, 2023.

PTTW No. P-300-1196295834 was issued with water taking restrictions (rate, volume, and hours of taking) consistent with PTTW No. 6258-BRDJ2M Table A for the Source Pond (see Section 2.2). The Taking Purpose of PTTW No. P-300-1196295834 was specified as Construction dewatering and not aggregate washing. The expiry date of PTTW No. P-300-1196295834 was December 31, 2023.

Water taken from the Source Pond was to be discharged on-Site within the lowest mined bench and allowed to infiltrate to the local groundwater system.

Due to a prolonged design phase, a request to extend PTTW No. P-300-1196295834 (Version 1) through May 31, 2024 was submitted on September 20, 2023 and renewed PTTW No. P-300-1196295834 (Version 2) was issued by MECP on December 21, 2023.

PTTW No. P-300-1196295834 (Version 1) is presented in Appendix D-1 and PTTW No. P-300-1196295834 (Version 2) is presented in Appendix D-2.

Condition 4.2 of both permits requires that water takings be included in the Annual Monitoring Report required by Permit to Take Water No. 6258-BRDJ2M (Condition 4.3).

3. Site Operations

The Teedon Pit is licensed under the MNRF ARA Licence No. 3670 for above water table aggregate extraction of up to 600,000 tonnes annually. The Teedon Pit has an 85.39 hectare (ha) licensed area of which 50.5 ha can be extracted.

The Teedon Pit was acquired by Dufferin in 2017 and was previously owned by Cedarhurst Quarries & Crushing Limited since 1987. The accuracy of the hydraulic monitoring data collected prior to ownership by Dufferin, could not be confirmed as these data were collected by the previous owner; however, the data has been reviewed and deemed appropriate to include herein for context.

2023 Site operations included aggregate extraction and processing, which includes on-Site water use for aggregate washing operations, dust suppression, operational uses (i.e., equipment washing and filling office water supply), and Sump Pond dewatering.

3.1 Construction of ECA Works

On November 22, 2023, Dufferin began construction of the works approved under ECA No. 1293-CF7J3M. Construction began with the removal of water stored within Sump Pond which occurred between November 22 and December 11, 2023. Ongoing dewatering during construction is also anticipated to manage stormwater accumulations. Construction activities through December 31, 2023 consisted primarily of Site preparations/land works.

The completion of the construction of the ECA works will be documented as required by the ECA.

3.2 PW1-09 Pump Motor Replacement

On June 1, 2023 an issue with the well pump at PW1-09 was identified. Canadian Well Drilling was contracted to remove, inspect, and repair the pump on June 5, 2023. A temporary repair was completed, and a new pump was ordered. Following the pump repair, the conduit used to protect the datalogger in the well became damaged and the datalogger was unable to be reinstalled.

The new well pump was installed on October 12, 2023. The conduit was repaired and the datalogger was re-installed at that time. No datalogger water level records for PW1-09 are available during that time; however, pumping operations were assessed using the datalogger at MW5-18 which responds to pumping cycles at PW1-09. No irregular pumping was observed at MW5-18 during that time. Additional discussion on water level monitoring is provided in Section 4.2.

4. Hydraulic Monitoring

The following 2023 routine activities were completed by GHD at the Site, on behalf of Dufferin, and, on the dates presented below:

Date (2023)	Site-wide Hydraulic Monitoring	SW1 and SW2 Surface Water Sampling	Private Well Sampling
January 19	Completed	NR	Completed
March 24	NR	Completed	NR
April 20	Completed	Completed	Completed
July 13	Completed	Completed	Completed
October 12	Completed	Completed	Completed
NR – Monitoring not required			

Groundwater depths were measured using a water level meter to the nearest 0.01 m. Dataloggers were downloaded and verified at the pumping well, on-Site groundwater monitoring wells, private wells, and SW1 during each of the 2023 hydraulic monitoring events.

The monitoring well completion details are provided in Table 4.1 and the groundwater and surface water monitoring locations are presented on Figure 1.1. A summary of the 2023 groundwater elevations is provided in Table 4.2.

SW1 and SW2 sampling was completed as presented above and results are summarized in Section 6.0, below.

In addition to the field activities completed by GHD, Dufferin completed the daily flow meter readings during periods of taking (PTTW Condition 4.1) and twice daily Sump Pond water level observation (PTTW Condition 4.2.iv.). Dufferin monitoring results are discussed in Section 5.

4.1 Precipitation

The 2023 daily and monthly precipitation data were obtained from Environment Canada's Collingwood, Ontario station located approximately 35 kilometres west-southwest of the Site (Climate Station I.D. #6111792); through May 31, 2023. No data record for Station #6111792 is available after June 16, 2023. Daily and monthly precipitation data after June 1, 2023 were obtained from Environment Canada's Barrie-Oro, Ontario station located approximately 30 kilometres (km) southeast of the Site (Climate Station I.D. #6117700). The Combined 2023 precipitation data are presented on Figure 4.1 and are compared to the monthly Environment Canada Climate Normals (1981-2010) prepared by Environment Canada for Station #6115127 located at the Midland Wastewater Treatment Plant. Climate Normals are not available for the Barrie-Oro or Collingwood stations and weather data is no longer presented for the Midland station.

Conditions at the Collingwood and Barrie-Oro stations have been observed to be generally typical of the conditions at the Site. Due to the localized nature of thunderstorm activity in the summer months, some variation in precipitation totals may occur between the weather stations and the Site.

Precipitation totals in 2023 (954.1 millimetres [mm]) were less than the climate normal annual precipitation total from 1981-2010 of 1,040.6 mm. As shown on Figure 4.1, precipitation totals varied significantly month to month compared to historical averages with very wet periods (April and June/July/August) and very dry periods (January, May and September through December).

4.2 Site Wide Groundwater Elevations

Hydraulic water level monitoring events occurred in 2023 at one pumping well (PW1-09), six on-Site groundwater monitoring wells (MW1, MW4-10, MW5-18, MW6-18, MW6R-18, and MW7R-22), five off-Site groundwater monitoring wells located on adjacent Dufferin property (MW1-09, MW8-18, MW9-18, MW10S-18, and MW10D-18), two private wells [WW9 (#50632) and WW15 (#17709)], and one surface water location within the Sump Pond for elevation (SW1).

Groundwater elevation contours for the January 19, 2023 and October 12, 2023 monitoring events are provided on Figure 4.2 and Figure 4.3, respectively. Conditions on January 19, 2023 represent the Site with no significant water taking from PW1-09 or the Sump Pond since December 7, 2022. Conditions on October 12, 2023 represent the Site following a season of water taking at both PW1-09 and the Sump Pond. The groundwater elevation contours show that groundwater in the Upper Aquifer generally flows to the west, from about 238 to 234 m above mean sea level (AMSL). Localized drawdown in the immediate vicinity of PW1-09 (i.e., up to approximately 0.4 m at MW5-18) is anticipated during routine water takings. Drawdown recovers rapidly following the cessation of pumping at PW1-09.

A hydrograph presenting the historical monitoring well groundwater elevation data (2010 to current) is presented on Figure 4.4. A hydrograph presenting the monitoring well groundwater elevation data for 2023 is presented on Figure 4.5. In addition, individual hydrographs for on-Site monitoring wells/well nests, monitored private wells, and SW1 are presented in Appendix C. The Appendix C hydrographs present both manually recorded water levels along with datalogger data and daily precipitation for 2023.

Groundwater elevations measured in 2023 were generally within historical ranges for each of the locations (within historical lows and highs). Following dewatering of the Sump Pond, some of the wells screened in the shallow groundwater zone near the Sump Pond (MW1 and MW7R-22) began to experience water level declines, as is to be expected. Groundwater levels in the Upper Aquifer typically vary by approximately 0.3 m due to seasonal climatic conditions. Somewhat larger variations of up to 0.7 m were observed at monitoring well MW5-18 which are attributed to pumping influences from PW1-09, as anticipated. Consistent water level trends at MW5-18 can be used to support that performance of pumping at PW1-09, during the period that the datalogger was removed (see Section 3.2), was consistent with historical observations. Monitoring well MW5-18 is located approximately 110 m from pumping well PW1-09.

In the shallow groundwater zone, annual variations of approximately 0.5 to 1.5 m can be observed with noticeable response to periods of increased precipitation. As presented on Figure 4.4 and 4.5, the shallow groundwater zone and the Upper Aquifer potentiometric surfaces are typically separated by greater than 15 m due to the presence of the local aquitard in the vicinity of the Sump Pond.

The surface water hydrograph for SW1 in 2023 is presented on Figure 4.5 (datalogger only). Appendix C also presents the historical data at SW1 including manuals readings; however, data prior to August 2017 (the start of Dufferin washing operations) was not made available by the previous landowner. In the Spring of 2021, Dufferin implemented measures to reduce the sustained water elevation within the Sump Pond and raised the outlet elevation as a further factor of safety to prevent overflow of the Sump Pond. The float control (which ceases the supply of water from PW1-09) was also adjusted such that a minimum of 0.30 m of freeboard was maintained below the historical outlet elevation throughout the washing season. Operation of the float control began in 2018.

No overflow from the Sump Pond to the unnamed pond was observed in 2023. Following the start of construction dewatering on November 22, 2023, water levels began to steadily decline. As of November 25, 2023, the datalogger began recording dry readings; the staff gauge became inaccessible on November 27, 2023. Continued monitoring through dry out of the pond was no longer feasible during dewatering.

No notable changes to the Upper Aquifer were observed in the datalogger data following dewatering of the Sump Pond.

Groundwater elevations at Private Wells WW9 and WW15 showed routine variability and response to domestic supply demands as presented in Appendix C. Please note that a manual water level was recorded on July 14, 2022 at WW9 during apparent heavy domestic use; at that time the groundwater elevation was 184.94m AMSL. The datalogger at WW9 is hung at an elevation of 211 m AMSL. During extended periods of domestic supply well usage, water levels at WW9 may drop below the monitoring interval of the datalogger but water levels generally recover to within the monitoring interval within a couple hours after the domestic usage ceases. The four-hour transducer monitoring frequency may not capture the full extent of drawdown to 211m AMSL due to the rapid response to domestic use.

5. Water Taking

PTTW No. 6258-BRDJ2M allows for the water taking from PW1-09 with takings up to 24 hours per day and up to 210 days per year. Routine water takings are permitted up to 950 litres per minute (L/min) (maximum of 1,368,000 litres per day [L/day]). PTTW No. 6258-BRDJ2M also allows for water taking from the Sump Pond with takings up to 12 hours per day and up to 210 days per year. Water taking is permitted up to 7,274 L/min (maximum of 5,237,280 L/day). It is noted that the Sump Pond also received clarified water recirculated from the on-Site aggregate washing system and the water taking from the Sump Pond includes water supplied from PW1-09, recirculated wash water, direct precipitation, and adjacent runoff.

The water taking data under PTTW No. 6258-BRDJ2M for 2023 are presented in Table 5.1 along with the twice daily sump pond (SW1) water levels collected by Dufferin. Please note that the manual measurement collected by Dufferin generally track the datalogger data, as presented in Appendix C – Figure C-13.

Water takings from PW1-09, for the purposes of Sump Pond top-up, occurred between April 27 and November 23, 2023. Limited water takings from PW1-09 also occurred in January, February, April , November, and December for on-Site uses (filling office water supply, equipment washing, etc). Water takings from the Sump Pond for aggregate washing, occurred between April 27 and November 23, 2023. There were no exceedances of the permitted water taking quantities, rates or hours in 2023 from either PW1-09 or the Sump Pond.

In total, 15,511,455 L of groundwater were taken from PW1-09 in 2023 for on-Site uses; approximately 5% of the permitted water taking. Water taking from the Sump Pond includes water supplied from PW1-09, water recirculated from the aggregate washing operations, direct precipitation and adjacent runoff. In total, 597,436,278 L of water was utilized from the Sump Pond in 2023; over 38 times the volume of water supplied to the Sump Pond from PW1-09. Groundwater top-up from PW1-09 equates to approximately 3% of the total water used within the aggregate washing operations which indicates very limited water is lost due to leakage, water retained within the aggregate, and/or evapotranspiration.

5.1 Construction Dewatering

Construction dewatering, completed under PTTW No. P-300-1196295834, occurred between November 22 and December 11, 2023. Water Takings under PTTW No. P-300-1196295834 are presented in Table 5.2.

During that period, 24,487,473 L of water was taken from the Sump Pond and discharged to the lowest mined bench (approximately 200 m southwest of the Sump Pond and away from the localized thick silt and clay aquitard) and allowed to infiltrate. No off-Site, overland discharged occurred as a result of construction dewatering under PTTW No. P-300-1196295834 and no significant ponding was noted within the discharge location (i.e., all discharge rapidly infiltrated).

Following dewatering, only minor amounts of stormwater remained within the Sump Pond which will continue to be managed throughout construction under PTTW No. P-300-1196295834. Water taking results for 2024 will be documented in the 2024 AMR.

6. Analytical Results

Water quality sampling was complete throughout 2023. Four surface water samples were collected at SW1 and SW2 and quarterly groundwater sampling was completed at select Private Water Supply Wells; consistent with the approved ECA monitoring program. Surface water samples were collected on March 24 (before commencement of the operating season on April 4, 2023), April 20, July 13, and October 12, 2023. The latter three samples were collected mid-week (Thursdays) and mid-day (between 12:00 and 14:30) during routine aggregate washing operations. Private water well sampling events were completed on January 19, 2023 as well as during the same mobilization/day as the April, July, and October surface water sampling events.

6.1 Surface Water Quality

For the purposes of this AMR, SW1 is the monitoring location designation for the Sump Pond and SW2 is the monitoring location designation for the unnamed pond adjacent to the Sump Pond.

SW1 and SW2 water quality samples were each collected near the overflow structure to the unnamed pond (see Figure 1.1); SW1 is near the inlet and SW2 is near the outlet. No flow through the Sump Pond overflow was observed during the sampling events. For each location, grab samples were collected from open water portions of the respective feature.

Surface water quality samples were collected and submitted to ALS Laboratories in Waterloo, Ontario. The surface water samples were collected in laboratory-supplied analyte-specific sample containers, preserved according to laboratory requirements, and delivered in coolers, on ice, under chain-of-custody procedures. All surface water samples were analyzed for the following parameters: total and dissolved (field filtered) metals, anions, turbidity and TSS. Laboratory results were reviewed and validated by a GHD chemist to confirm acceptability of the laboratory results; all 2023 results were considered accepted for use with noted qualifiers, where applicable.

The 2023 validated analytical results are provided in Table 6.1 and are screened against Ontario Provincial Water Quality Objectives (PWQOs) to provide context.

In general water quality at both SW1 and SW2 are within the PWQO with the following exceptions:

– Total Aluminum at SW1 was detected above the PWQO in all samples at concentrations ranging from 0.189 to 0.617 milligram per litre (mg/L). The PWQO for aluminum (0.075 mg/L) is based on clay-free samples. Elevated aluminum is to be expected given the presence of the clay within the aggregate wash water. All field-filtered dissolved aluminum results were below the PWQO and demonstrate that the total aluminum is likely the result of suspended clays within the wash water at SW1.
– Total iron at SW1 was detected above the PWQO of 0.30 mg/L in one of six samples in March 2023 at a concentration of 0.611 mg/L. Elevated iron is likely attributable to the suspension of pond sediments disturbed during sampling through the ice layer.
– Total iron at SW2 was also detected above the PWQO in all samples at concentrations ranging from 0.361 to 0.88 mg/L. It is noted the iron floc is routinely observed around the perimeter of the unnamed pond and concentrations of iron are likely the result of venting of shallow perched groundwater from iron rich soils near SW2.
– Total phosphorous at SW1 was detected above the PWQO of 0.01 mg/L in March 2023 at a concentration of 0.055 mg/L. The remaining total and dissolved phosphorous results were below the laboratory detection limit of

0.05mg/L. Elevated phosphorous is likely attributable to the suspension of pond sediments disturbed during sampling through the ice layer.

– Total phosphorous at SW2 was detected above the PWQO of 0.01 mg/L in March 2023 at a concentration of <0.05/0.06 mg/L (duplicate sample collected). The remaining total and dissolved phosphorous results were below the laboratory detection limit of 0.05 mg/L; including the duplicate sample collected in March 2023. Elevated phosphorous is likely attributable to the suspension of pond sediments disturbed during sampling through the ice layer.

The surface water chemistry of both the sump pond (SW1) and the unnamed pond (SW2) is predominantly characteristic of the minerology of the local sand and gravel deposits combined with precipitation and stormwater runoff. As anticipated, based on the intent of the sump pond (i.e., receiving wash water containing naturally occurring clays and silts in suspension), total metals concentrations and pH are generally elevated within the water at SW1 (yet generally still typically below PWQOs). The dissolved metals concentrations, however, demonstrate that any such suspended sediment would be removed by natural filtering through the depositional liner of the silt pond and/or the local aquitard underlaying the Sump Pond. The SW2 results confirm that clays and silts in suspension within the Sump Pond do not pass through the approximately 20 m of soil separating the two pond water surfaces. The lined recirculation cell, currently being constructed under permitted ECA No. 1293-CF7J3M, will provide additional separation been the aggregate wash water and the unnamed pond.

6.2 Private Water Well Sampling

Quarterly private well sampling was completed in January, April, July, and October at six private wells.

In 2023, untreated water samples were collected from six private supply wells and submitted to ALS Laboratories in Waterloo, Ontario under Chain of Custody procedures. All samples were analyzed for: total and dissolved (lab filtered) metals, anions, turbidity, and TSS.

Due to the confidential nature of the private water well sample results, those results are not presented here. However, all results were promptly provided to the respective landowners, along with observations of the results compared to Ontario Drinking Water Quality Standards (ODWQS), following receipt of the results from the laboratory.

7. Response to Public Inquiries

Condition 5.1 of the PTTW and Condition 7.5 of ECA 1293-CF7J3M stipulate that the Permit Holder shall immediately notify the local District Office of any well water complaint arising from the water taking / ECA operations.

No complaints relating to the water taking / ECA works were received by Dufferin Aggregates for the Teedon Pit in 2023 and no complaints were reported to Dufferin by the MECP in 2023.

Furthermore, on February 1, 2021 (within 30 days of the issuance of the Permit), Dufferin distributed its Dufferin Aggregates Teedon Pit – Well Complaint Response Procedure described in item 4 of Schedule A of PTTW No. 6258-BRDJ2M to the Teedon Pit Community Liaison Committee (CLC), the Corporation of the Township of Tiny and the Corporation of the Township of Tay (PTTW Condition 4.5).

8. Conclusions and Recommendations

Based on the results of the 2023 monitoring program, the following conclusions are provided:

1) On each day water was taken, the volume and rate of taking was recorded and takings were submitted to Water Taking Reporting System (WTRS) prior to March 31, 2023 (PTTW Condition 4.1).

2) Dataloggers were in place at all on- and off-Site monitoring locations throughout 2023; except were noted herein (PTTW Condition 4.2 i.).
3) No new monitoring locations were installed in 2023.
4) Water levels were recorded at WWR 7150632 and WWR 5717709 throughout 2023 (PTTW Condition 4.2 iii.).
5) Water level observations were recorded twice per day in the Sump Pond and elevation data was supplemented with a datalogger during 2023 (PTTW Condition 4.2 iv.).
6) Routine surface water quality sampling was completed at SW1 and SW2 in 2023 (ECA Condition 6.2).
7) No discharge from the Sump Pond occurred in 2023 and therefore no discharge samples were collected (ECA Condition 6.2).
8) Routine private well groundwater quality sampling was completed quarterly in 2023 (ECA Condition 7.2) and results were provided directly to the respective landowners.
9) There are no indications of water quantity or water quality impacts to water resources arising from the water taking activities.
10) Dufferin implemented operation and maintenance procedures for the existing work as well as a spill contingency and pollution prevention plan in 2023 (ECA Condition 8.0); the operation manual and maintenance plans required under ECA Condition 5.0 will be finalized following construction of the updated works.
11) No water supply complaints relating to the water taking were received for the Teedon Pit in 2023.

Based on the results of the 2023 monitoring program, the following recommendations are provided:

1) The monitoring program required by PTTW No. 6258-BRDJ2M should be continued in 2024.
2) The monitoring program required by ECA No. 1293-CF7J3M should be continued in 2024.
3) As required by PTTW Condition 4.7, this report should be posted to the Dufferin Aggregates website prior to May 31, 2024.
4) Data presented herein should be provided electronically to MECP (PTTW Condition 4.3 iii.) under separate cover.

9. References

Environment Canada, 2023. 1981 to 2010 Canadian Climate Normals – Midland Water Pollution Control Plant (ID 6115127). Accessed on March 20, 2023.

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OGS, 2006. 1:250,000 Scale Bedrock Geology of Ontario: OGS: Data 126-revised.

Singer, S.N., T. Cheng, and M.G. Scafe, 2003. The Hydrogeology of Southern Ontario, Second Edition. Toronto: Ministry of the Environment.

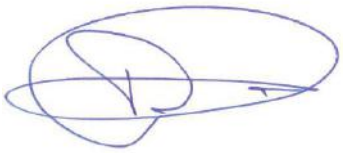
Singer, S., T. Cheng, M. Scafe, et al., 1999. The Groundwater Resources of The Severn Sound Remedial Action Plan Area. Prepared in Cooperation with the Severn Sound Remedial Action Plan and the Ministry of the Environment.

US EPA, 2016. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, USEPA 540/R-94-013, September 2016

All of Which is Respectfully Submitted,

GHD

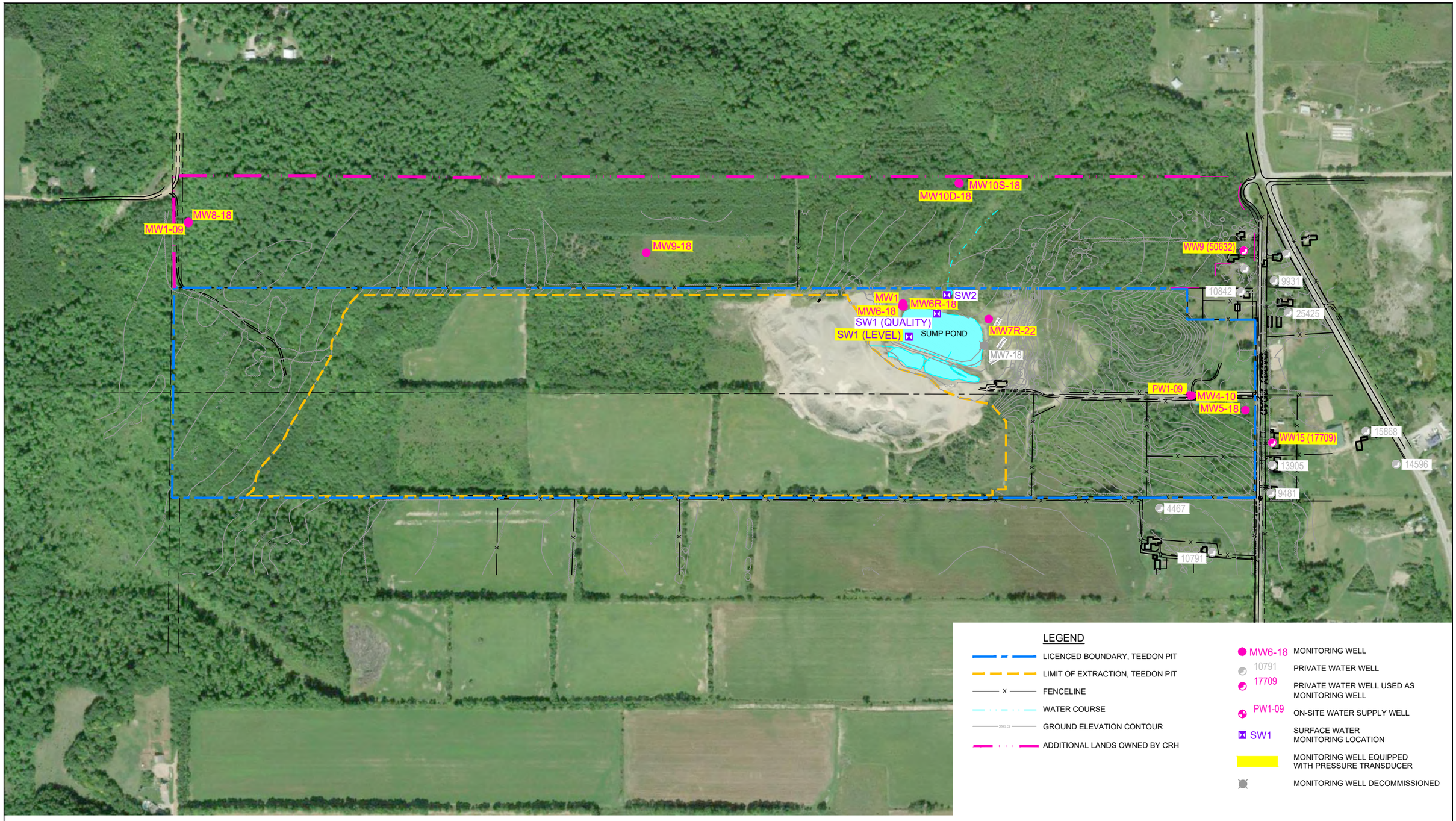
Richard Chatfield, P. Eng.



Dan Puddephatt, P. Geo (Limited)

J. Richard Murphy, M.A.Sc., P. Eng.

Figures



LEGEND

- LICENCED BOUNDARY, TEEDON PIT
- LIMIT OF EXTRACTION, TEEDON PIT
- FENCELINE
- WATER COURSE
- GROUND ELEVATION CONTOUR
- ADDITIONAL LANDS OWNED BY CRH
- MW6-18 MONITORING WELL
- 10791 PRIVATE WATER WELL
- 17709 PRIVATE WATER WELL USED AS MONITORING WELL
- PW1-09 ON-SITE WATER SUPPLY WELL
- SW1 SURFACE WATER MONITORING LOCATION
- MONITORING WELL EQUIPPED WITH PRESSURE TRANSDUCER
- MONITORING WELL DECOMMISSIONED

0 70 140 210m

1:7000

GHD

DUFFERIN AGGREGATES TEEDON PIT
TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

Project No. **11155365**
Date **February 2024**

MONITORING LOCATIONS

FIGURE 1.1

Filename: N:\CA\Waterloo\Legacy\CAD\drawings\11155000s\11155365\11155365-REPORTS\RPT011\11155365-GHD-00-00-RPT-EN-D101_WA-011.dwg
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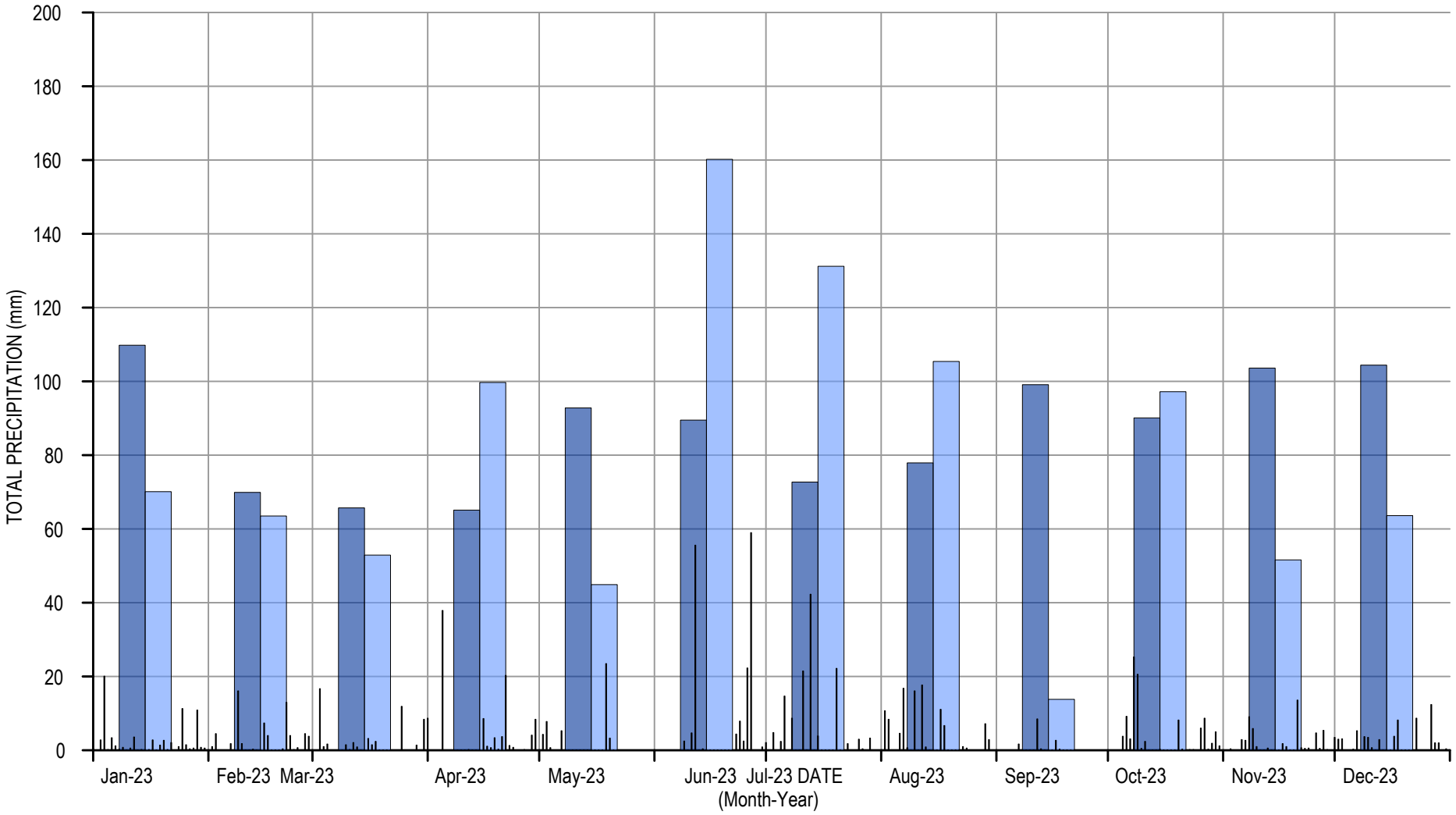


NOTE:
(1) Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700.
(2) Cimate Normal data obtained from Environment Canada Station #6115127; not avaible for Station #6111792 or #6117700.

LEGEND
- Climate Normals (1981-2010, Midland WWTP)
- Monthly Precipitation (1)
- Daily Precipitation (1)

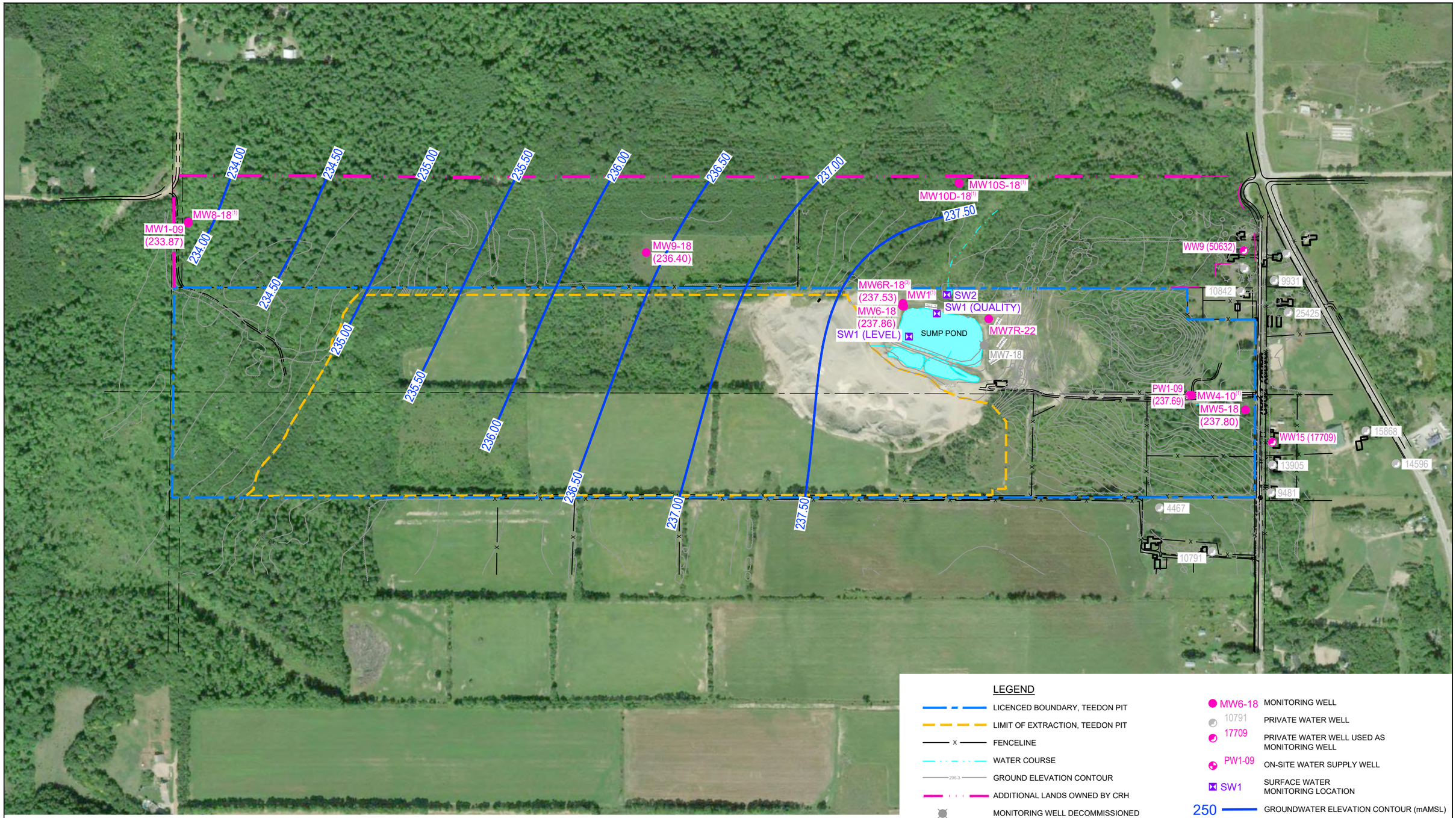
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

Project No. **11155365**
Date **February 21, 2024**

2023 PRECIPITATION SUMMARY

FIGURE 4.1

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\Figure 4.1.grf



LEGEND

- LICENCED BOUNDARY, TEEDON PIT
- LIMIT OF EXTRACTION, TEEDON PIT
- FENCELINE
- WATER COURSE
- GROUND ELEVATION CONTOUR
- ADDITIONAL LANDS OWNED BY CRH
- MONITORING WELL DECOMMISSIONED
- MW6-18 MONITORING WELL
- 10791 PRIVATE WATER WELL
- 17709 PRIVATE WATER WELL USED AS MONITORING WELL
- PW1-09 ON-SITE WATER SUPPLY WELL
- SW1 SURFACE WATER MONITORING LOCATION
- 250 GROUNDWATER ELEVATION CONTOUR (mAMSL)
- (238.15) GROUNDWATER ELEVATION (mAMSL)

NOTES
1. SHALLOW GROUNDWATER ELEVATIONS WERE NOT USED TO GENERATE THE GROUNDWATER CONTOURS.
2. DOMESTIC GROUNDWATER ELEVATIONS WERE NOT USED TO GENERATE THE GROUNDWATER CONTOURS.
3. MW6R-18 GROUNDWATER ELEVATION NOT USED AS IT IS LOCATED AT A SHALLOWER INTERVAL WITHIN THE UPPER AQUIFER.

0 70 140 210m

1:7000

GHD

DUFFERIN AGGREGATES TEEDON PIT
TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

GROUNDWATER ELEVATION CONTOURS UPPER AQUIFER JANUARY 19, 2023

Project No. **11155365**
Date **February 2024**

FIGURE 4.2

Filename: N:\CA\Waterloo\Legacy\CAD\drawings\11155000s\11155365\11155365-REPORTS\RPT011\11155365-GHD-00-00-RPT-EN-D102_WA-011.dwg
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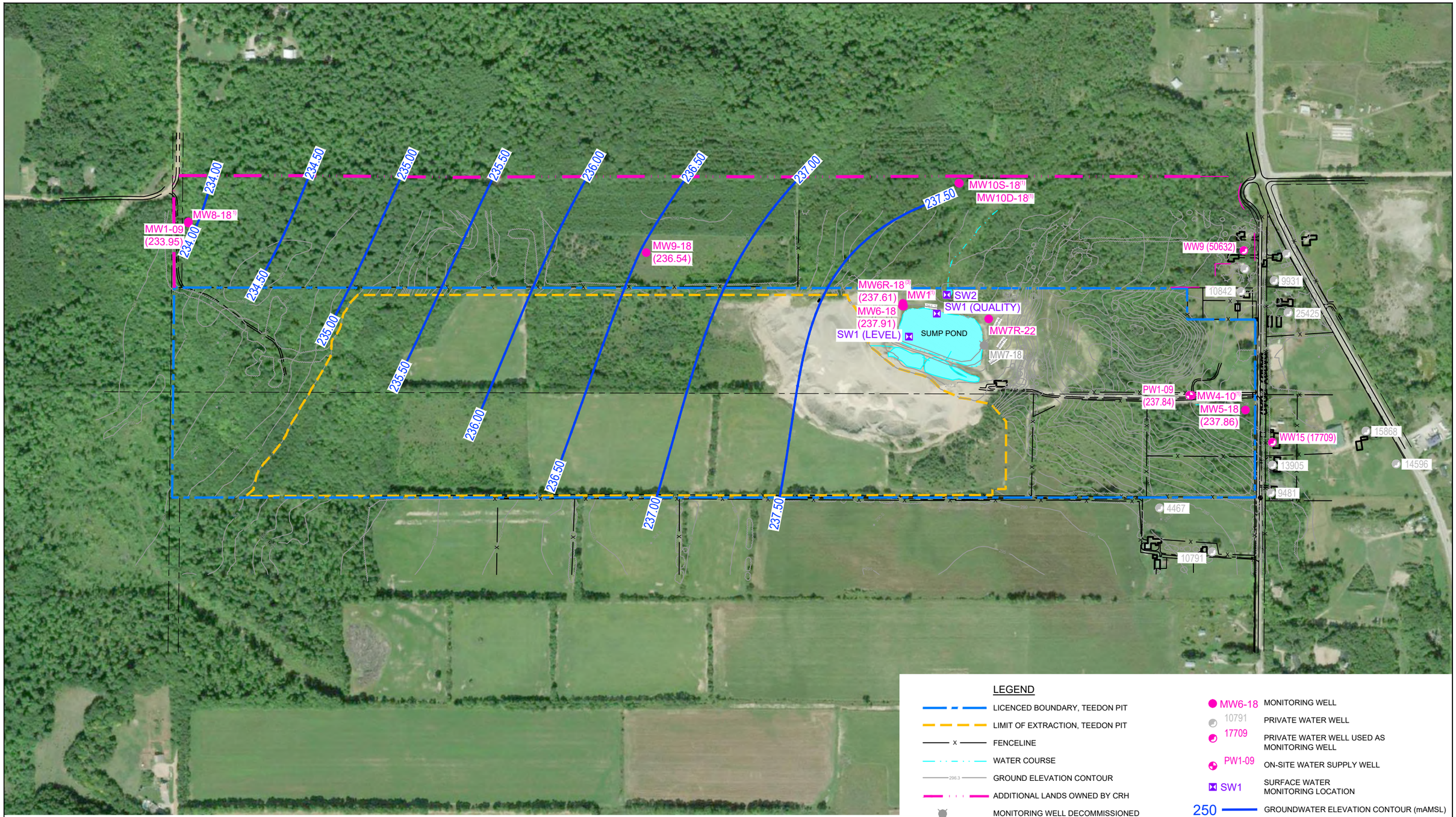
Data Source: Microsoft Product Screen shot Reprinted with permission from Microsoft Corporation, Aquisition Date 2018, Accessed April, 2018



LEGEND

- LICENCED BOUNDARY, TEEDON PIT
- LIMIT OF EXTRACTION, TEEDON PIT
- FENCELINE
- WATER COURSE
- GROUND ELEVATION CONTOUR
- ADDITIONAL LANDS OWNED BY CRH
- MONITORING WELL DECOMMISSIONED
- MW6-18 MONITORING WELL
- 10791 PRIVATE WATER WELL
- 17709 PRIVATE WATER WELL USED AS MONITORING WELL
- PW1-09 ON-SITE WATER SUPPLY WELL
- SW1 SURFACE WATER MONITORING LOCATION
- 250 GROUNDWATER ELEVATION CONTOUR (mAMSL)
- (238.15) GROUNDWATER ELEVATION (mAMSL)

NOTES
1. SHALLOW GROUNDWATER ELEVATIONS WERE NOT USED TO GENERATE THE GROUNDWATER CONTOURS.
2. DOMESTIC GROUNDWATER ELEVATIONS WERE NOT USED TO GENERATE THE GROUNDWATER CONTOURS.
3. MW6R-18 GROUNDWATER ELEVATION NOT USED AS IT IS LOCATED AT A SHALLOWER INTERVAL WITHIN THE UPPER AQUIFER.

0 70 140 210m
1:7000

GHD

DUFFERIN AGGREGATES TEEDON PIT
TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

GROUNDWATER ELEVATION CONTOURS
UPPER AQUIFER
OCTOBER 12, 2023

Project No. **11155365**
Date **February 2024**

FIGURE 4.3

Filename: N:\CA\Waterloo\Legacy\CAD\drawings\11155000s\11155365\11155365-REPORTS\RPT011\11155365-GHD-00-00-RPT-EN-D103_WA-011.dwg
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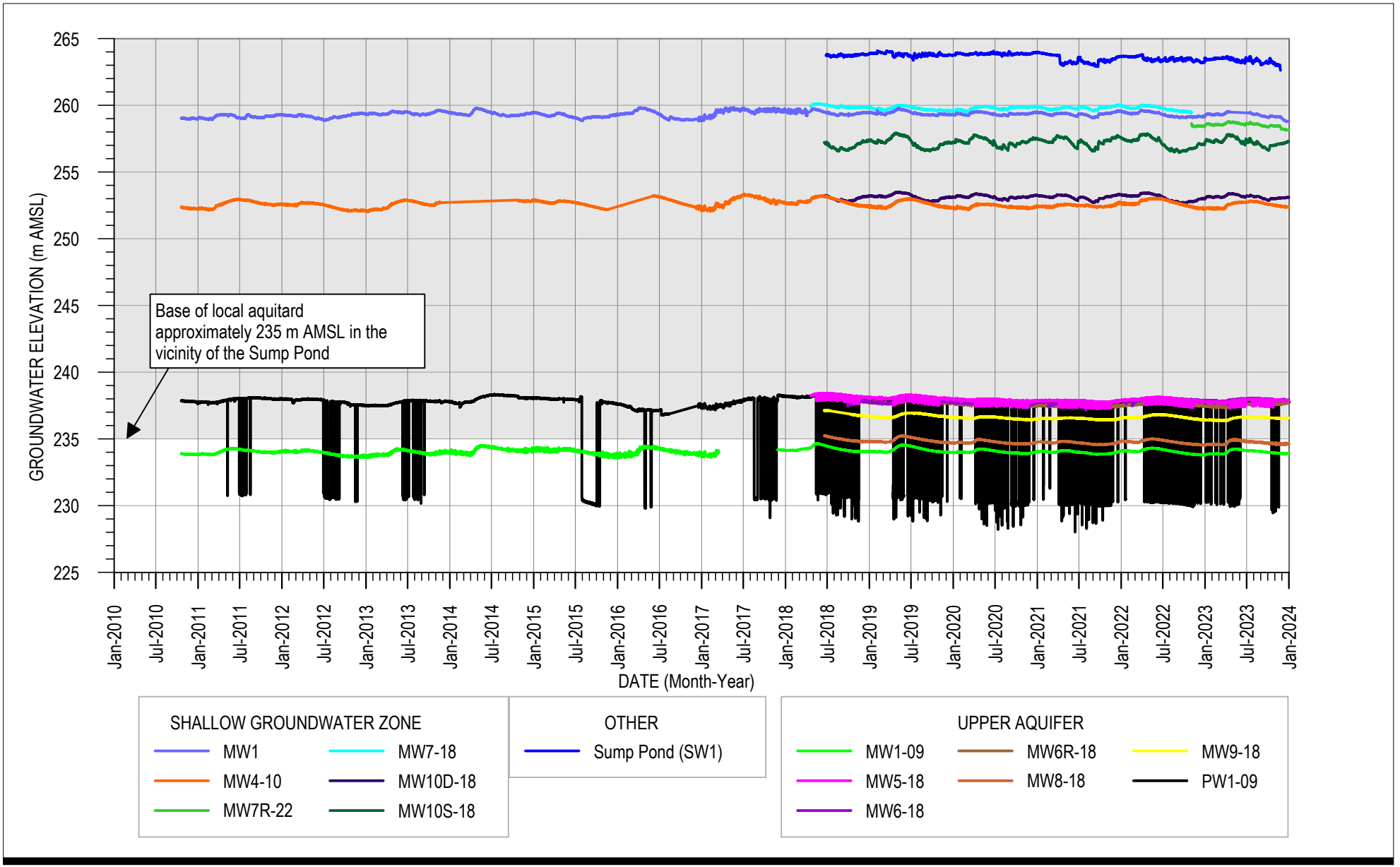
Data Source: Microsoft Product Screen shot Reprinted with permission from Microsoft Corporation, Aquisition Date 2018, Accessed April, 2018



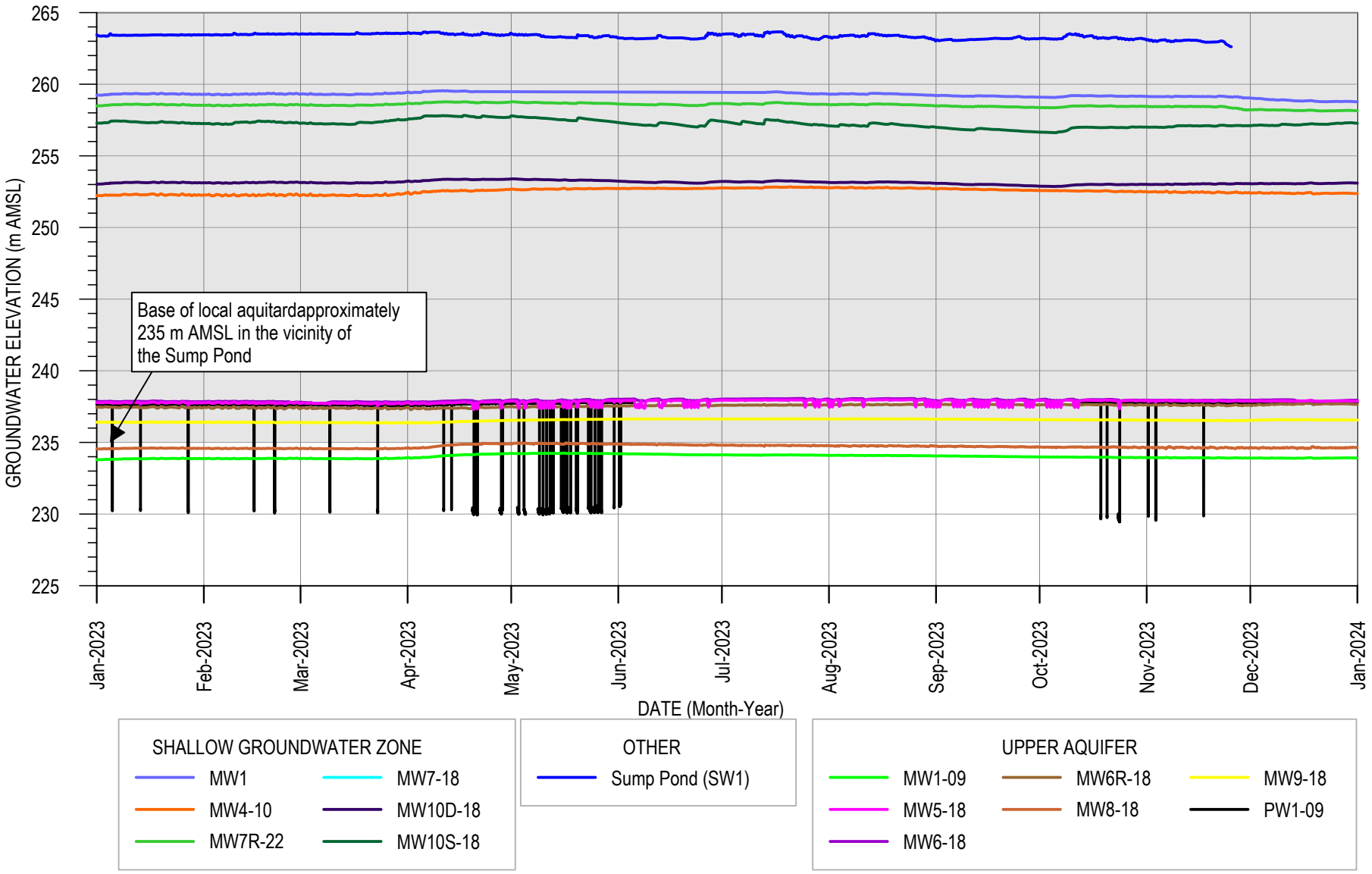
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO 2023 ANNUAL MONITORING REPORT

HYDROGRAPH - HISTORICAL GROUNDWATER ELEVATIONS

Project No. **11155365**
Date **February 21, 2024**

FIGURE 4.4

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\Figure 4.4.grf



DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO 2023 ANNUAL MONITORING REPORT

HYDROGRAPH
2023 GROUNDWATER ELEVATIONS

Project No. **11155365**
Date **February 21, 2024**

FIGURE 4.5

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\Figure 4.5.grf

Tables

Table 4.1

Monitoring Well Completion Details
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Monitoring Well	MECP Well ID	Completion Date	Easting	Northing	Ground Elevation (m AMSL)	Reference Elevation (m AMSL)	Well Bottom Elevation (m AMSL)	Well Depth (m bgs)
PW1-09[2]	7124734	4/29/2009	592343.75	4945072.04	260.72	261.32	191.4	69.3
MW1[2]	7054134	11/8/2007	591776.70	4944920.92	267.45	267.64	245.0	18.3
MW1-09[5]	7124729	6/2/2009	590519.95	4944300.96	245.45	246.04	180.4	65.1
MW4-10[2]	7150631	8/5/2010	592346.97	4945073.66	260.60	261.31	242.3	17.7
MW5-18[3]	A241648	4/5/2018	592450.79	4945106.20	256.39	257.19	186.6	69.2
MW6-18[3]	A241641	3/29/2018	591778.54	4944916.15	267.60	268.43	197.5	70.1
MW6R-18[6]	A241645	10/2/2018	591780.60	4944916.96	267.57	268.20	218.8	48.8
MW7-18[8]	A215946	4/9/2018	591953.92	4944937.13	266.83	267.56	242.8	24.1
MW7R-22[7]	A211723	11/3/2022	591933.69	4944985.63	267.35	268.23	243.6	23.8
MW8-18[5]	A242552	6/11/2018	590518.91	4944303.17	245.35	245.88	224.6	20.7
MW9-18[4]	A242553	6/6/2018	591302.29	4944734.10	291.58	292.50	230.9	60.7
MW10S-18[4]	A242554	6/6/2018	591743.06	4945177.24	259.44	260.42	248.8	10.7
MW10D-18[4]	A242555	6/6/2018	591741.82	4945176.99	259.55	260.52	233.6	25.9
WW9 - #50632[5]	7150632	8/4/2010	592280.17	4945366.28	260.48	261.12	181.3	79.2
WW15 - #17709[5]	5717709	9/23/1981	592521.69	4945085.40	256.73	257.27	198.0	57.9
#16440[1]	5716440	11/8/1979	591461.00	4944573.00	293.00	293.00	252.3	42.7

Notes:

(1) Installed as a test well and was decommissioned shortly after construction; survey details from Site Plans.
(2) Northing, eastings, ground elevation and reference elevation measured on March 15, 2018.
(3) Northing, eastings, ground elevation and reference elevation measured on April 18, 2018.
(4) Northing, eastings, ground elevation and reference elevation measured on June 13, 2018.
(5) Northing, eastings, ground elevation and reference elevation measured on July 19, 2018.
(6) Northing, eastings, ground elevation and reference elevation measured on October 11, 2018.
(7) Northing, eastings, ground elevation and reference elevation measured on November 29, 2022.
(8) MW7-18 abandoned on November 3, 2022 and replace with MW7R-22.
m AMSL Metres above mean sea level.
m bgs Metres below ground surface.
NA Information not available.

Table 4.2

Summary of 2023 Groundwater Elevations
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Well Location	January 19, 2023 Groundwater Elevation (m AMSL)	April 20, 2023 Groundwater Elevation (m AMSL)	July 13, 2023 Groundwater Elevation (m AMSL)	October 12, 2023 Groundwater Elevation (m AMSL)
PW1-09	237.69	237.73	237.86	237.84
MW1	259.33	259.46	259.39	259.21
MW1-09	233.87	234.14	234.09	233.95
MW4-10	252.34	252.59	252.82	252.56
MW5-18	237.80	237.73	237.97	237.86
MW6-18	237.86	237.83	238.03	237.91
MW6R-18	237.53	237.42	237.59	237.61
MW7R-22	258.60	258.73	258.71	258.52
MW8-18	234.61	234.90	234.79	234.69
MW9-18	236.40	236.46	236.57	236.54
MW10S-18	253.17	253.32	253.20	253.00
MW10D-18	257.39	257.73	257.57	257.07
WW9 - #50632	233.64	233.81	234.16	232.45
WW15 - #17709	237.78	237.75	237.93	237.79

Notes:

m AMSL	Metres above mean sea level
--	No measurement recorded

Table 5.1

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Weekends shown in gray for reference								
Sunday January 01 2023	-	-	-	-	-	-	-	-
Monday January 02 2023	-	-	-	-	-	-	-	-
Tuesday January 03 2023	-	-	-	-	-	-	-	-
Wednesday January 04 2023	-	-	-	-	-	-	-	-
Thursday January 05 2023	495.5	37,160	-	-	-	-	-	- Fill office water tank
Friday January 06 2023	-	-	-	-	-	-	-	-
Saturday January 07 2023	-	-	-	-	-	-	-	-
Sunday January 08 2023	-	-	-	-	-	-	-	-
Monday January 09 2023	-	-	-	-	-	-	-	-
Tuesday January 10 2023	-	-	-	-	-	-	-	-
Wednesday January 11 2023	-	-	-	-	-	-	-	-
Thursday January 12 2023	-	-	-	-	-	-	-	-
Friday January 13 2023	-	-	-	-	-	-	-	-
Saturday January 14 2023	-	-	-	-	-	-	-	-
Sunday January 15 2023	-	-	-	-	-	-	-	-
Monday January 16 2023	-	-	-	-	-	-	-	-
Tuesday January 17 2023	-	-	-	-	-	-	-	-
Wednesday January 18 2023	-	-	-	-	-	-	-	-
Thursday January 19 2023	-	-	-	-	-	-	-	-
Friday January 20 2023	-	-	-	-	-	-	-	-
Saturday January 21 2023	-	-	-	-	-	-	-	-
Sunday January 22 2023	-	-	-	-	-	-	-	-
Monday January 23 2023	-	-	-	-	-	-	-	-
Tuesday January 24 2023	-	-	-	-	-	-	-	-
Wednesday January 25 2023	-	-	-	-	-	-	-	-
Thursday January 26 2023	-	-	-	-	-	-	-	-
Friday January 27 2023	561.5	42,115	-	-	-	-	-	- Fill office water tank
Saturday January 28 2023	-	-	-	-	-	-	-	-
Sunday January 29 2023	-	-	-	-	-	-	-	-
Monday January 30 2023	-	-	-	-	-	-	-	-
Tuesday January 31 2023	-	-	-	-	-	-	-	-
Wednesday February 01 2023	-	-	-	-	-	-	-	-
Thursday February 02 2023	-	-	-	-	-	-	-	-
Friday February 03 2023	-	-	-	-	-	-	-	-
Saturday February 04 2023	-	-	-	-	-	-	-	-
Sunday February 05 2023	-	-	-	-	-	-	-	-
Monday February 06 2023	-	-	-	-	-	-	-	-
Tuesday February 07 2023	-	-	-	-	-	-	-	-

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Wednesday February 08 2023	-	-	-	-	-	-	-	-
Thursday February 09 2023	-	-	-	-	-	-	-	-
Friday February 10 2023	-	-	-	-	-	-	-	-
Saturday February 11 2023	-	-	-	-	-	-	-	-
Sunday February 12 2023	-	-	-	-	-	-	-	-
Monday February 13 2023	-	-	-	-	-	-	-	-
Tuesday February 14 2023	-	-	-	-	-	-	-	-
Wednesday February 15 2023	499.1	22,458	-	-	-	Frozen	-	- Fill office water tank
Thursday February 16 2023	-	-	-	-	-	Frozen	-	-
Friday February 17 2023	-	-	-	-	-	Frozen	-	-
Saturday February 18 2023	-	-	-	-	-	-	-	-
Sunday February 19 2023	-	-	-	-	-	-	-	-
Monday February 20 2023	-	-	-	-	-	Frozen	-	-
Tuesday February 21 2023	483.4	101,505	-	-	-	Frozen	-	- Fill office water tank
Wednesday February 22 2023	-	-	-	-	-	Frozen	-	-
Thursday February 23 2023	-	-	-	-	-	Frozen	-	-
Friday February 24 2023	-	-	-	-	-	Frozen	-	-
Saturday February 25 2023	-	-	-	-	-	-	-	-
Sunday February 26 2023	-	-	-	-	-	-	-	-
Monday February 27 2023	-	-	-	-	-	Frozen	-	-
Tuesday February 28 2023	-	-	-	-	-	Frozen	-	-
Wednesday March 01 2023	-	-	-	-	-	Frozen	-	-
Thursday March 02 2023	-	-	-	-	-	Frozen	-	-
Friday March 03 2023	-	-	-	-	-	Frozen	-	-
Saturday March 04 2023	-	-	-	-	-	-	-	-
Sunday March 05 2023	-	-	-	-	-	-	-	-
Monday March 06 2023	-	-	-	-	-	Frozen	-	-
Tuesday March 07 2023	-	-	-	-	-	Frozen	-	-
Wednesday March 08 2023	-	-	-	-	-	Frozen	-	-
Thursday March 09 2023	-	-	-	-	-	Frozen	-	-
Friday March 10 2023	-	-	-	-	-	Frozen	-	-
Saturday March 11 2023	-	-	-	-	-	-	-	-
Sunday March 12 2023	-	-	-	-	-	-	-	-
Monday March 13 2023	-	-	-	-	-	Frozen	-	-
Tuesday March 14 2023	-	-	-	-	-	Frozen	-	-
Wednesday March 15 2023	-	-	-	-	-	Frozen	-	-
Thursday March 16 2023	-	-	-	-	-	Frozen	-	-
Friday March 17 2023	-	-	-	-	-	Frozen	-	-
Saturday March 18 2023	-	-	-	-	-	-	-	-

Table 5.1

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Sunday March 19 2023	-	-	-	-	-	-	-	-
Monday March 20 2023	-	-	-	-	-	Frozen	-	-
Tuesday March 21 2023	-	-	-	-	-	Frozen	-	-
Wednesday March 22 2023	-	-	-	-	-	Frozen	-	-
Thursday March 23 2023	-	-	-	-	-	Frozen	-	-
Friday March 24 2023	-	-	-	-	-	Frozen	-	-
Saturday March 25 2023	-	-	-	-	-	-	-	-
Sunday March 26 2023	-	-	-	-	-	-	-	-
Monday March 27 2023	-	-	-	-	-	Frozen	-	-
Tuesday March 28 2023	-	-	-	-	-	Frozen	-	-
Wednesday March 29 2023	-	-	-	-	-	Frozen	-	-
Thursday March 30 2023	-	-	-	-	-	Frozen	-	-
Friday March 31 2023	-	-	-	-	-	Frozen	-	-
Saturday April 01 2023	-	-	-	-	-	-	-	-
Sunday April 02 2023	-	-	-	-	-	-	-	-
Monday April 03 2023	-	-	-	-	-	Frozen	-	-
Tuesday April 04 2023	-	-	3	6,252.8	1,125,500	263.57	263.53	-
Wednesday April 05 2023	-	-	7	6,308.2	2,460,189	-	-	-
Thursday April 06 2023	-	-	11	6,104.3	3,876,206	263.70	263.61	-
Friday April 07 2023	-	-	-	-	-	-	-	-
Saturday April 08 2023	-	-	-	-	-	-	-	-
Sunday April 09 2023	-	-	-	-	-	-	-	-
Monday April 10 2023	549.0	24,703	11	6,331.3	4,336,915	263.67	263.54	- Fill office water tank from PW1-09
Tuesday April 11 2023	-	-	11	6,482.8	4,440,720	263.60	263.51	-
Wednesday April 12 2023	-	-	11	6,372.9	4,365,440	263.57	263.47	-
Thursday April 13 2023	463.9	13,916	6	6,306.9	2,081,290	263.59	263.57	- Fill office water tank from PW1-09
Friday April 14 2023	-	-	11	6,418.1	4,396,390	263.58	263.48	-
Saturday April 15 2023	-	-	-	-	-	-	-	-
Sunday April 16 2023	-	-	-	-	-	-	-	-
Monday April 17 2023	-	-	11	6,431.9	4,405,870	263.58	263.48	-
Tuesday April 18 2023	-	-	11	6,311.6	4,323,450	263.55	263.46	-
Wednesday April 19 2023	-	-	11	6,181.3	4,234,163	263.50	263.42	-
Thursday April 20 2023	4.5	5	7	6,368.3	2,738,380	263.52	263.43	- PW1-09 pump issue; limited taking
Friday April 21 2023	-	-	10	6,273.8	3,826,990	263.56	263.46	-
Saturday April 22 2023	-	-	-	-	-	-	-	-
Sunday April 23 2023	-	-	-	-	-	-	-	-
Monday April 24 2023	-	-	11	6,274.5	4,298,053	263.60	263.50	-
Tuesday April 25 2023	-	-	11	6,700.8	4,590,067	263.57	263.48	-
Wednesday April 26 2023	-	-	11	6,294.4	4,311,632	263.53	263.44	-

Table 5.1

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Thursday April 27 2023	351.1	231,741.5	11	6,214.0	4,256,600	263.50	263.40	-
Friday April 28 2023	-	-	11	6,561.9	4,494,868	263.51	263.42	-
Saturday April 29 2023	-	-	-	-	-	-	-	-
Sunday April 30 2023	-	-	-	-	-	-	-	-
Monday May 01 2023	-	-	11	5,764.9	3,948,937	263.57	263.48	-
Tuesday May 02 2023	329.0	212,206.9	11	6,652.3	4,556,837	263.53	263.44	-
Wednesday May 03 2023	-	-	11	6,713.8	4,598,933	263.55	263.48	-
Thursday May 04 2023	326.4	215,443.8	11	6,765.0	4,633,992	263.53	263.44	-
Friday May 05 2023	-	-	11	6,718.2	4,601,978	263.53	263.45	-
Saturday May 06 2023	-	-	-	-	-	-	-	-
Sunday May 07 2023	-	-	-	-	-	-	-	-
Monday May 08 2023	327.4	216,053	2	4,455.2	534,622	263.52	263.47	-
Tuesday May 09 2023	340.0	207,461	11	6,647.4	4,553,461	263.51	263.33	-
Wednesday May 10 2023	328.5	216,839	11	6,097.5	4,176,769	263.44	263.26	-
Thursday May 11 2023	328.3	216,698	11	6,671.0	4,502,941	263.37	263.24	-
Friday May 12 2023	324.9	214,407	11	6,653.4	4,557,584	263.37	263.22	-
Saturday May 13 2023	-	-	-	-	-	-	-	-
Sunday May 14 2023	-	-	-	-	-	-	-	-
Monday May 15 2023	319.6	225,336	11	6,744.1	4,619,709	263.36	263.23	-
Tuesday May 16 2023	325.6	214,871	11	6,431.9	4,405,845	263.36	263.21	-
Wednesday May 17 2023	325.3	214,730	6	6,711.3	2,583,833	263.36	263.22	-
Thursday May 18 2023	-	-	10	6,755.6	4,039,820	263.37	263.21	-
Friday May 19 2023	327.4	216,067	11	6,736.4	4,277,645	263.32	263.12	-
Saturday May 20 2023	-	-	-	-	-	-	-	-
Sunday May 21 2023	-	-	-	-	-	-	-	-
Monday May 22 2023	-	-	-	-	-	-	-	-
Tuesday May 23 2023	316.9	233,274	10	6,923.8	3,974,289	263.44	263.21	-
Wednesday May 24 2023	325.5	214,807	11	6,676.8	4,540,206	263.40	263.15	-
Thursday May 25 2023	325.3	214,703	8	6,667.7	3,133,799	263.38	263.24	-
Friday May 26 2023	321.2	212,011	11	6,674.5	4,451,872	263.42	263.24	-
Saturday May 27 2023	-	-	-	-	-	-	-	-
Sunday May 28 2023	-	-	-	-	-	-	-	-
Monday May 29 2023	-	-	11	6,671.2	4,449,681	263.44	263.25	-
Tuesday May 30 2023	321.5	27,008	5	6,673.0	2,142,026	263.38	263.29	-
Wednesday May 31 2023	-	-	11	6,657.0	4,540,082	263.37	263.19	-
Thursday June 01 2023	226.2	40,710	9	6,796.9	3,765,494	263.32	263.20	-
Friday June 02 2023	-	-	9	6,608.8	3,714,164	263.30	263.19	-
Saturday June 03 2023	-	-	-	-	-	-	-	-
Sunday June 04 2023	-	-	-	-	-	-	-	-

Table 5.1

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Monday June 05 2023	323.1	222,972	11	6,630.7	4,376,231	263.28	263.15	-
Tuesday June 06 2023	334.9	390,145	10	6,585.0	3,885,124	263.27	263.18	-
Wednesday June 07 2023	333.0	219,763	11	6,576.6	4,373,439	263.30	263.19	-
Thursday June 08 2023	331.3	218,662	11	6,651.5	4,423,240	263.30	263.23	-
Friday June 09 2023	-	-	11	6,578.9	4,407,887	263.32	263.25	-
Saturday June 10 2023	-	-	-	-	-	-	-	-
Sunday June 11 2023	-	-	-	-	-	-	-	-
Monday June 12 2023	331.9	219,035	-	-	-	263.34	263.34	-
Tuesday June 13 2023	332.7	219,613	11	6,564.7	4,496,824	263.44	263.27	-
Wednesday June 14 2023	334.6	123,817	11	5,437.1	3,447,094	263.33	263.25	-
Thursday June 15 2023	-	-	-	-	-	263.30	263.30	-
Friday June 16 2023	347.9	10,438	-	-	-	263.30	263.30	- Fill office water tank from PW1-09
Saturday June 17 2023	-	-	-	-	-	-	-	-
Sunday June 18 2023	-	-	-	-	-	-	-	-
Monday June 19 2023	333.6	220,144	11	6,646.7	4,526,415	263.30	263.10	-
Tuesday June 20 2023	331.7	218,894	11	6,619.8	4,289,652	263.25	263.11	-
Wednesday June 21 2023	335.2	221,199	11	6,652.0	4,450,160	263.25	263.10	-
Thursday June 22 2023	308.0	257,177	11	6,628.3	4,407,817	263.26	263.12	-
Friday June 23 2023	333.3	230,005	10	6,735.1	4,142,089	263.27	263.23	-
Saturday June 24 2023	-	-	-	-	-	-	-	-
Sunday June 25 2023	-	-	-	-	-	-	-	-
Monday June 26 2023	335.8	221,645	11	6,526.9	4,372,995	263.38	263.31	-
Tuesday June 27 2023	332.0	16,598	11	6,831.9	4,638,882	263.59	263.50	-
Wednesday June 28 2023	-	-	10	6,742.2	4,011,585	263.62	263.48	-
Thursday June 29 2023	-	-	11	6,722.0	4,503,713	263.59	263.43	-
Friday June 30 2023	-	-	6	6,531.6	2,259,948	263.55	263.51	-
Saturday July 01 2023	-	-	-	-	-	-	-	-
Sunday July 02 2023	-	-	-	-	-	-	-	-
Monday July 03 2023	-	-	-	-	-	-	-	-
Tuesday July 04 2023	-	-	8	6,741.6	3,188,773	263.58	263.42	-
Wednesday July 05 2023	-	-	11	6,780.2	4,529,161	263.53	263.34	-
Thursday July 06 2023	-	-	8	6,718.9	3,057,116	263.47	263.50	-
Friday July 07 2023	441.7	13,252	11	6,778.7	4,331,604	263.59	263.45	- Fill office water tank from PW1-09
Saturday July 08 2023	-	-	-	-	-	-	-	-
Sunday July 09 2023	-	-	-	-	-	-	-	-
Monday July 10 2023	-	-	11	6,795.4	4,505,358	263.56	263.41	-
Tuesday July 11 2023	-	-	10	6,635.3	3,815,276	263.50	263.38	-
Wednesday July 12 2023	-	-	11	6,554.4	4,456,977	263.48	263.34	-
Thursday July 13 2023	-	-	9	6,629.3	3,447,232	263.65	263.63	-

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Friday July 14 2023	-	-	9	6,799.4	3,678,467	263.74	263.58	-
Saturday July 15 2023	-	-	-	-	-	-	-	-
Sunday July 16 2023	-	-	-	-	-	-	-	-
Monday July 17 2023	-	-	-	-	-	263.74	263.74	-
Tuesday July 18 2023	-	-	4	6,604.3	1,624,655	263.74	263.57	-
Wednesday July 19 2023	-	-	11	6,624.7	4,504,798	263.58	263.36	-
Thursday July 20 2023	303.5	9,106	11	6,510.2	4,348,812	263.49	263.27	- Fill office water tank from PW1-09
Friday July 21 2023	-	-	11	6,651.0	4,489,411	263.44	263.21	-
Saturday July 22 2023	-	-	-	-	-	-	-	-
Sunday July 23 2023	-	-	-	-	-	-	-	-
Monday July 24 2023	333.8	220,322	11	6,506.9	4,177,409	263.42	263.19	-
Tuesday July 25 2023	-	-	10	6,456.8	3,964,497	263.40	263.16	-
Wednesday July 26 2023	-	-	11	6,856.2	4,531,973	263.33	263.07	-
Thursday July 27 2023	305.7	275,125	12	6,397.7	4,446,403	263.29	263.06	-
Friday July 28 2023	331.6	218,876	11	6,531.0	4,493,310	263.31	263.05	-
Saturday July 29 2023	-	-	-	-	-	-	-	-
Sunday July 30 2023	-	-	-	-	-	-	-	-
Monday July 31 2023	332.7	219,567	6	6,843.7	2,532,185	263.38	263.20	-
Tuesday August 01 2023	331.9	219,076	11	6,497.2	4,392,077	263.38	263.21	-
Wednesday August 02 2023	-	-	11	6,838.5	4,629,665	263.40	263.27	-
Thursday August 03 2023	330.2	217,930	8	6,728.9	3,034,752	263.35	263.26	-
Friday August 04 2023	475.8	23,790	11	6,628.6	4,474,279	263.46	263.37	- Fill office water tank from PW1-09
Saturday August 05 2023	-	-	-	-	-	-	-	-
Sunday August 06 2023	-	-	-	-	-	-	-	-
Monday August 07 2023	-	-	-	-	-	-	-	-
Tuesday August 08 2023	-	-	10	6,773.1	4,206,112	263.48	263.37	-
Wednesday August 09 2023	-	-	9	6,715.0	3,471,645	263.42	263.33	-
Thursday August 10 2023	330.4	218,090	-	-	-	263.38	263.31	-
Friday August 11 2023	-	-	9	6,692.9	3,667,728	263.45	263.38	-
Saturday August 12 2023	-	-	-	-	-	-	-	-
Sunday August 13 2023	-	-	-	-	-	-	-	-
Monday August 14 2023	-	-	11	6,765.9	4,458,704	263.59	263.49	-
Tuesday August 15 2023	-	-	10	6,795.0	4,226,459	263.54	263.46	-
Wednesday August 16 2023	-	-	11	6,797.6	4,452,446	263.50	263.41	-
Thursday August 17 2023	-	-	9	6,720.9	3,756,956	263.46	263.39	-
Friday August 18 2023	593.0	14,084	11	6,790.3	4,556,296	263.45	263.40	- Fill office water tank from PW1-09
Saturday August 19 2023	-	-	-	-	-	-	-	-
Sunday August 20 2023	-	-	-	-	-	-	-	-

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Monday August 21 2023	-	-	11	6,757.2	4,344,901	263.47	263.38	-
Tuesday August 22 2023	-	-	8	6,814.9	3,230,249	263.42	263.36	-
Wednesday August 23 2023	-	-	10	6,701.2	4,201,678	263.40	263.32	-
Thursday August 24 2023	-	-	11	6,662.0	4,456,903	263.36	263.27	-
Friday August 25 2023	331.7	218,953	11	6,778.7	4,575,651	263.34	263.26	-
Saturday August 26 2023	-	-	-	-	-	-	-	-
Sunday August 27 2023	-	-	-	-	-	-	-	-
Monday August 28 2023	332.3	219,344	3	6,536.2	1,196,127	263.37	263.24	-
Tuesday August 29 2023	332.7	219,553	11	6,774.8	4,539,106	263.34	263.17	-
Wednesday August 30 2023	333.1	219,876	10	6,744.4	4,033,131	263.28	263.09	-
Thursday August 31 2023	333.2	219,917	11	6,712.4	4,322,789	263.22	262.99	-
Friday September 01 2023	332.9	320,295	9	6,699.5	3,771,822	263.18	262.99	-
Saturday September 02 2023	-	-	-	-	-	-	-	-
Sunday September 03 2023	-	-	-	-	-	-	-	-
Monday September 04 2023	-	-	-	-	-	-	-	-
Tuesday September 05 2023	332.9	219,703	11	6,803.3	4,347,325	263.22	263.01	-
Wednesday September 06 2023	331.6	218,849	10	6,762.1	3,901,746	263.19	262.98	-
Thursday September 07 2023	332.3	219,340	11	6,761.0	4,556,887	263.20	263.08	-
Friday September 08 2023	333.0	219,785	11	6,763.3	4,274,394	263.19	263.07	-
Saturday September 09 2023	-	-	-	-	-	-	-	-
Sunday September 10 2023	-	-	-	-	-	-	-	-
Monday September 11 2023	333.0	219,763	11	6,541.4	4,153,778	263.23	263.11	-
Tuesday September 12 2023	333.7	220,258	9	6,733.6	3,636,146	263.24	263.13	-
Wednesday September 13 2023	334.5	220,754	11	6,773.1	4,490,590	263.27	263.14	-
Thursday September 14 2023	334.9	221,045	11	6,724.4	4,485,161	263.29	263.14	-
Friday September 15 2023	334.8	220,949	11	6,718.0	4,386,830	263.28	263.13	-
Saturday September 16 2023	-	-	-	-	-	-	-	-
Sunday September 17 2023	-	-	-	-	-	-	-	-
Monday September 18 2023	334.9	221,026	11	6,801.8	4,400,779	263.32	263.16	-
Tuesday September 19 2023	334.5	220,758	11	6,731.1	4,583,894	263.31	263.16	-
Wednesday September 20 2023	338.9	264,364	11	6,777.4	4,595,105	263.31	263.17	-
Thursday September 21 2023	335.1	221,185	11	6,740.7	4,455,591	263.32	263.16	-
Friday September 22 2023	335.0	221,104	10	6,726.0	4,136,489	263.33	263.16	-
Saturday September 23 2023	-	-	-	-	-	-	-	-
Sunday September 24 2023	-	-	-	-	-	-	-	-
Monday September 25 2023	-	-	11	6,729.0	4,542,107	263.38	263.21	-
Tuesday September 26 2023	334.8	220,967	11	6,728.1	4,507,859	263.31	263.14	-
Wednesday September 27 2023	334.9	221,008	11	6,734.0	4,478,122	263.30	263.15	-
Thursday September 28 2023	335.5	238,224	9	6,774.2	3,732,584	263.30	263.17	-

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Friday September 29 2023	-	-	10	6,774.9	4,213,972	263.32	263.14	-
Saturday September 30 2023	-	-	-	-	-	-	-	-
Sunday October 01 2023	-	-	-	-	-	-	-	-
Monday October 02 2023	333.8	220,290	11	6,758.6	4,656,642	263.31	263.11	-
Tuesday October 03 2023	333.8	220,304	9	6,715.3	3,780,741	263.29	263.11	-
Wednesday October 04 2023	333.6	220,163	9	6,742.4	3,694,812	263.29	263.12	-
Thursday October 05 2023	334.7	220,913	11	6,699.6	4,468,600	263.29	263.10	-
Friday October 06 2023	334.8	220,940	11	6,603.1	4,437,264	263.30	263.20	-
Saturday October 07 2023	-	-	-	-	-	-	-	-
Sunday October 08 2023	-	-	-	-	-	-	-	-
Monday October 09 2023	-	-	-	-	-	-	-	-
Tuesday October 10 2023	333.8	220,308	-	-	-	263.51	263.51	-
Wednesday October 11 2023	333.8	220,331	6	6,707.4	2,468,333	263.58	263.41	-
Thursday October 12 2023	128.8	1,932	10	6,615.3	4,134,547	263.54	263.40	-
Friday October 13 2023	-	-	11	6,659.2	4,261,886	263.48	263.28	-
Saturday October 14 2023	-	-	-	-	-	-	-	-
Sunday October 15 2023	-	-	-	-	-	-	-	-
Monday October 16 2023	-	-	11	6,602.4	4,410,412	263.44	263.25	-
Tuesday October 17 2023	-	-	11	6,441.4	4,380,165	263.38	263.20	-
Wednesday October 18 2023	301.2	10,542	4	6,523.4	1,591,711	263.32	263.28	- Fill office water tank from PW1-09
Thursday October 19 2023	-	-	6	6,466.4	2,457,233	263.33	263.20	-
Friday October 20 2023	321.1	9,633	10	6,455.9	3,905,821	263.31	263.18	- Fill office water tank from PW1-09
Saturday October 21 2023	-	-	-	-	-	-	-	-
Sunday October 22 2023	-	-	-	-	-	-	-	-
Monday October 23 2023	354.5	233,978	10	6,481.0	3,778,446	263.34	263.16	-
Tuesday October 24 2023	-	-	11	6,472.7	4,284,943	263.33	263.15	-
Wednesday October 25 2023	-	-	11	6,460.1	4,308,916	263.29	263.10	-
Thursday October 26 2023	-	-	11	6,466.9	4,332,810	263.26	263.06	-
Friday October 27 2023	-	-	10	6,494.5	3,942,140	263.24	263.05	-
Saturday October 28 2023	-	-	-	-	-	-	-	-
Sunday October 29 2023	-	-	-	-	-	-	-	-
Monday October 30 2023	344.0	12,384	5	6,474.4	2,071,818	263.28	263.13	- Fill office water tank from PW1-09
Tuesday October 31 2023	-	-	11	6,661.8	4,336,827	263.24	263.04	-
Wednesday November 01 2023	364.1	18,207	10	6,493.7	4,019,577	263.22	263.02	- Fill office water tank from PW1-09
Thursday November 02 2023	-	-	11	6,143.7	3,993,385	263.18	262.96	-
Friday November 03 2023	-	-	10	6,795.5	3,961,804	263.16	262.94	-
Saturday November 04 2023	-	-	-	-	-	-	-	-
Sunday November 05 2023	-	-	-	-	-	-	-	-
Monday November 06 2023	-	-	11	6,512.6	4,317,869	263.17	262.93	-

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Tuesday November 07 2023	-	-	11	6,435.0	4,182,769	263.14	263.01	-
Wednesday November 08 2023	-	-	10	6,497.1	3,859,251	263.10	263.00	-
Thursday November 09 2023	-	-	10	6,556.8	4,019,312	263.12	263.01	-
Friday November 10 2023	-	-	7	6,522.9	2,602,629	263.11	263.03	-
Saturday November 11 2023	-	-	-	-	-	-	-	-
Sunday November 12 2023	-	-	-	-	-	-	-	-
Monday November 13 2023	-	-	5	5,611.6	1,638,586	263.14	263.05	-
Tuesday November 14 2023	-	-	4	5,118.3	1,131,150	263.14	263.09	-
Wednesday November 15 2023	-	-	8	3,733.2	1,889,019	263.13	263.02	-
Thursday November 16 2023	-	-	11	3,945.0	2,568,179	263.09	262.97	-
Friday November 17 2023	331.7	8,956	11	5,380.7	3,572,760	263.01	262.89	- Fill office water tank from PW1-09
Saturday November 18 2023	-	-	3	6,074.1	1,093,332	262.99	262.98	-
Sunday November 19 2023	-	-	-	-	-	262.99	262.99	-
Monday November 20 2023	-	-	-	-	-	262.99	263.00	-
Tuesday November 21 2023	-	-	-	-	-	263.00	263.00	-
Wednesday November 22 2023	-	-	-	-	-	263.00	262.88	-
Thursday November 23 2023	-	-	-	-	-	262.88	262.57	-
Friday November 24 2023	-	-	-	-	-	262.57	262.15	-
Saturday November 25 2023	-	-	-	-	-	262.15	261.67	-
Sunday November 26 2023	-	-	-	-	-	261.67	261.16	-
Monday November 27 2023	-	-	-	-	-	261.19	260.79	-
Tuesday November 28 2023	-	-	-	-	-	Dewatered for Construction		-
Wednesday November 29 2023	-	-	-	-	-	Dewatered for Construction		-
Thursday November 30 2023	-	-	-	-	-	Dewatered for Construction		-
Friday December 01 2023	-	-	-	-	-	Dewatered for Construction		-
Saturday December 02 2023	-	-	-	-	-	-	-	-
Sunday December 03 2023	-	-	-	-	-	-	-	-
Monday December 04 2023	-	-	-	-	-	Dewatered for Construction		-
Tuesday December 05 2023	-	-	-	-	-	Dewatered for Construction		-
Wednesday December 06 2023	-	-	-	-	-	Dewatered for Construction		-
Thursday December 07 2023	-	-	-	-	-	Dewatered for Construction		-
Friday December 08 2023	-	-	-	-	-	Dewatered for Construction		-
Saturday December 09 2023	-	-	-	-	-	-	-	-
Sunday December 10 2023	-	-	-	-	-	-	-	-
Monday December 11 2023	-	-	-	-	-	Dewatered for Construction		-
Tuesday December 12 2023	-	-	-	-	-	Dewatered for Construction		-
Wednesday December 13 2023	-	-	-	-	-	Dewatered for Construction		-
Thursday December 14 2023	-	-	-	-	-	Dewatered for Construction		-
Friday December 15 2023	-	-	-	-	-	Dewatered for Construction		-

Water Taking Summary (PTTW No. 6258 BRDJ2M) and Sump Pond Water Levels
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	PW1-09		Sump Pond					Comments
	Rate of Taking (L/min)	Amount of Taking (L/day)	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	Start of Day SW1 Elevation (m AMSL)	End of Day SW1 Elevation (m AMSL)	
Saturday December 16 2023	-	-	-	-	-	-	-	-
Sunday December 17 2023	-	-	-	-	-	-	-	-
Monday December 18 2023	-	-	-	-	-	-	-	-
Tuesday December 19 2023	-	-	-	-	-	-	-	-
Wednesday December 20 2023	-	-	-	-	-	-	-	-
Thursday December 21 2023	-	-	-	-	-	-	-	-
Friday December 22 2023	-	-	-	-	-	-	-	-
Saturday December 23 2023	-	-	-	-	-	-	-	-
Sunday December 24 2023	-	-	-	-	-	-	-	-
Monday December 25 2023	-	-	-	-	-	-	-	-
Tuesday December 26 2023	-	-	-	-	-	-	-	-
Wednesday December 27 2023	-	-	-	-	-	-	-	-
Thursday December 28 2023	-	-	-	-	-	-	-	-
Friday December 29 2023	-	-	-	-	-	-	-	-
Saturday December 30 2023	-	-	-	-	-	-	-	-
Sunday December 31 2023	-	-	-	-	-	-	-	-

Table 5.2

Water Taking Summary (PTTW No. P-300-1196295834)
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	Sump Pond			Comments
	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	
NO CONSTUCTION DEWATERING PRIOR TO NOVEMBER 22, 2023; Weekends shown in gray for reference				
Monday November 20 2023	-	-	-	-
Tuesday November 21 2023	-	-	-	-
Wednesday November 22 2023	4.8	4,002	1,160,602	- Start of Construction Dewatering
Thursday November 23 2023	11.9	3,402	2,436,168	-
Friday November 24 2023	10.1	5,579	3,392,261	-
Saturday November 25 2023	12.0	5,462	3,932,440	-
Sunday November 26 2023	11.5	5,791	4,007,521	-
Monday November 27 2023	12.0	5,810	4,171,458	-
Tuesday November 28 2023	11.3	4,975	3,382,958	-
Wednesday November 29 2023	9.9	1,155	683,542	-
Thursday November 30 2023	-	-	-	-
Friday December 01 2023	3.4	2,197	448,208	-
Saturday December 02 2023	-	-	-	-
Sunday December 03 2023	-	-	-	-
Monday December 04 2023	-	-	-	-
Tuesday December 05 2023	-	-	-	-
Wednesday December 06 2023	-	-	-	-
Thursday December 07 2023	-	-	-	-
Friday December 08 2023	3.6	3,184	684,548	-
Saturday December 09 2023	-	-	-	-
Sunday December 10 2023	-	-	-	-
Monday December 11 2023	7.4	424	187,768	-
Tuesday December 12 2023	-	-	-	-
Wednesday December 13 2023	-	-	-	-
Thursday December 14 2023	-	-	-	-
Friday December 15 2023	-	-	-	-
Saturday December 16 2023	-	-	-	-
Sunday December 17 2023	-	-	-	-
Monday December 18 2023	-	-	-	-
Tuesday December 19 2023	-	-	-	-
Wednesday December 20 2023	-	-	-	-
Thursday December 21 2023	-	-	-	-
Friday December 22 2023	-	-	-	-
Saturday December 23 2023	-	-	-	-
Sunday December 24 2023	-	-	-	-
Monday December 25 2023	-	-	-	-

Table 5.2

Water Taking Summary (PTTW No. P-300-1196295834)
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Date	Sump Pond			Comments
	Hours of Taking	Rate of Taking (L/min)	Amount of Taking (L/day)	
Tuesday December 26 2023	-	-	-	-
Wednesday December 27 2023	-	-	-	-
Thursday December 28 2023	-	-	-	-
Friday December 29 2023	-	-	-	-
Saturday December 30 2023	-	-	-	-
Sunday December 31 2023	-	-	-	-

Table 6.1

2023 Water Quality Results - SW1 and SW2
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Sample Location:				SW1	SW1	SW1	SW1
Sample ID:				SW-11155365-032423-CL-001	SW-11155365-200423-RC-001	SW-11155365-071323-RC-001	SW-11155365-071323-RC-002
Sample Date:				3/24/2023	4/20/2023	7/13/2023	7/13/2023 (Duplicate)
Parameters	**Units**	**PWQO**					
Metals							
Aluminum	mg/L	0.075	(1,2)	**0.617**	**0.303**	**0.193**	**0.219**
Aluminum (Dissolved)	mg/L	0.075	(1,2)	0.0294	0.0166	0.0355	0.0353
Antimony	mg/L	0.02	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Antimony (Dissolved)	mg/L	0.02	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Arsenic	mg/L	0.005		0.00031	0.00022	0.00022	0.00025
Arsenic (Dissolved)	mg/L	0.005		0.00020	0.00018	0.00021	0.00020
Barium	mg/L	-		0.0298	0.0257	0.0179	0.0182
Barium (Dissolved)	mg/L	-		0.0242	0.0228	0.0166	0.0165
Beryllium	mg/L	0.011	(3)	0.000025	ND (0.000020)	ND (0.000020)	ND (0.000020)
Beryllium (Dissolved)	mg/L	0.011	(3)	ND (0.000020)	ND (0.000020)	ND (0.000020)	ND (0.000020)
Bismuth	mg/L	-		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Bismuth (Dissolved)	mg/L	-		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Boron	mg/L	0.2	(1)	0.022	0.019	0.024	0.024
Boron (Dissolved)	mg/L	0.2	(1)	0.020	0.017	0.022	0.023
Cadmium	mg/L	0.0002		0.0000173	ND (0.0000050)	ND (0.0000050)	ND (0.0000050)
Cadmium (Dissolved)	mg/L	0.0002		ND (0.0000050)	ND (0.0000050)	ND (0.0000050)	ND (0.0000050)
Calcium	mg/L	-		34.3	36.9	34.9	34.6
Calcium (Dissolved)	mg/L	-		34.3	36.4	33.8	33.8
Chromium Total	mg/L	0.001	(4)	0.00083	0.00068	ND (0.00050)	ND (0.00050)
Chromium Total (dissolved)	mg/L	0.001	(4)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Cobalt	mg/L	0.0009		0.00031	0.00023	0.00012	0.00014
Cobalt (Dissolved)	mg/L	0.0009		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Copper	mg/L	0.005		0.00110	0.00110	0.00086	0.00092
Copper (Dissolved)	mg/L	0.005		0.00117	0.00034	0.00049	0.00046
Iron	mg/L	0.3		**0.611**	0.300	0.166	0.191
Iron (Dissolved)	mg/L	0.3		0.021	ND (0.010)	ND (0.010)	ND (0.010)
Lead	mg/L	0.005	(5)	0.000496	0.000179	0.000098	0.000124
Lead (Dissolved)	mg/L	0.005	(5)	ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Lithium	mg/L	-		0.0014	ND (0.0010)	ND (0.0010)	ND (0.0010)
Lithium (Dissolved)	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Magnesium	mg/L	-		9.03	8.03	6.44	6.47
Magnesium (Dissolved)	mg/L	-		8.86	7.93	6.48	6.34
Manganese	mg/L	-		0.0342	0.0268	0.0166	0.0184
Manganese (Dissolved)	mg/L	-		0.00394	0.00237	0.00309	0.00221
Molybdenum	mg/L	0.04	(1)	0.00242	0.00187	0.00224	0.00219
Molybdenum (Dissolved)	mg/L	0.04	(1)	0.00240	0.00198	0.00231	0.00233
Nickel	mg/L	0.025		0.00071	ND (0.00050)	ND (0.00050)	ND (0.00050)
Nickel (Dissolved)	mg/L	0.025		ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Phosphorous	mg/L	0.01	(1,6)	**0.055**	ND (0.050)	ND (0.050)	ND (0.050)
Phosphorous (Dissolved)	mg/L	0.01	(1,6)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Potassium	mg/L	-		4.20 J	2.40	2.84	2.87
Potassium (Dissolved)	mg/L	-		10.1 J	2.49	3.03	2.91
Selenium	mg/L	0.1		0.000058	0.000058	0.000075	0.000085
Selenium (Dissolved)	mg/L	0.1		ND (0.000050)	0.000052	0.000067	0.000068
Silicon	mg/L	-		4.86	3.35	3.78	3.71
Silicon (Dissolved)	mg/L	-		4.09	2.80	3.52	3.51
Silver	mg/L	0.0001		0.000026	ND (0.000010)	ND (0.000010)	ND (0.000010)
Silver (Dissolved)	mg/L	0.0001		0.000015	ND (0.000010)	ND (0.000010)	ND (0.000010)
Sodium	mg/L	-		7.47	7.85	7.09	7.11
Sodium (Dissolved)	mg/L	-		7.92	7.93	7.25	7.07
Strontium	mg/L	-		0.110	0.0954	0.0883	0.0876
Strontium (Dissolved)	mg/L	-		0.106	0.104	0.0884	0.0870
Thallium	mg/L	0.0003	(1)	ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Thallium (Dissolved)	mg/L	0.0003	(1)	ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Tin	mg/L	-		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Tin (Dissolved)	mg/L	-		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Titanium	mg/L	-		0.0347	0.0140	0.00769	0.00907
Titanium (Dissolved)	mg/L	-		ND (0.00150)	ND (0.00030)	ND (0.00030)	ND (0.00030)
Tungsten	mg/L	0.03	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Tungsten (Dissolved)	mg/L	0.03	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Uranium	mg/L	0.005	(1)	0.000406	0.000327	0.000357	0.000351
Uranium (Dissolved)	mg/L	0.005	(1)	0.000384	0.000319	0.000336	0.000332
Vanadium	mg/L	0.006	(1)	0.00136	0.00087	0.00083	0.00084
Vanadium (Dissolved)	mg/L	0.006	(1)	ND (0.00050)	ND (0.00050)	0.00050	0.00052
Zinc	mg/L	0.03		0.0110	ND (0.0030)	ND (0.0030)	ND (0.0030)
Zinc (Dissolved)	mg/L	0.03		0.0033	ND (0.0010)	ND (0.0010)	ND (0.0010)
Zirconium	mg/L	0.004	(1)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)
Zirconium (Dissolved)	mg/L	0.004	(1)	ND (0.00030)	ND (0.00030)	ND (0.00030)	ND (0.00030)
General Chemistry							
Chloride (Dissolved)	mg/L	-		7.48	10.7	9.26	9.37
Nitrate (as N)	mg/L	-		0.149	0.027	ND (0.020)	ND (0.020)
Nitrite (as N)	mg/L	-		ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)
Orthophosphate (dissolved)	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Sulphate (Dissolved)	mg/L	-		8.64	9.03	8.97	8.88
Total Suspended Solids (TSS)	mg/L	-		6.9	10.5	3.9	5.3
Turbidity	NTU	-		3.92 J	11.2	4.08	4.75

Notes:

ND (#) Not present at or above the associated value
J Estimated concentration based on GHD Data Verification
PWQO Provincial Water Quality Objectives, February 1999
(1) Interim PWQO
(2) At pH >6.5 to 9.0, based on clay-free samples
(3) Assume hardness as CaCO3 <75 mg/L
(4) PWQO for trivalent chromium (Cr III) is 8.9 µg/L
(5) Alkalinity as CaCO3 >80 mg/L
(6) Prevent excessive plant growth in rivers and streams
Detected above PWQO; below for Dissolved Oxygen

Table 6.1

2023 Water Quality Results - SW1 and SW2
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Sample Location:				SW1	SW1	SW2	SW2
Sample ID:				SW-11155365-101223-RC-01	SW-11155365-101223-RC-02	SW-11155365-032423-CL-002	SW-11155365-032423-CL-003
Sample Date:				10/12/2023	10/12/2023 (Duplicate)	3/24/2023	3/24/2023 (Duplicate)
Parameters	**Units**	**PWQO**					
Metals							
Aluminum	mg/L	0.075	(1,2)	**0.198**	**0.189**	0.0432	0.0259
Aluminum (Dissolved)	mg/L	0.075	(1,2)	0.0203	0.0204	0.0019	ND (0.0010)
Antimony	mg/L	0.02	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Antimony (Dissolved)	mg/L	0.02	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Arsenic	mg/L	0.005		0.00024	0.00025	0.00018	0.00020
Arsenic (Dissolved)	mg/L	0.005		0.00020	0.00020	0.00016	0.00016
Barium	mg/L	-		0.0314	0.0327	0.0247	0.0261
Barium (Dissolved)	mg/L	-		0.0294	0.0292	0.0232	0.0244
Beryllium	mg/L	0.011	(3)	ND (0.000020)	ND (0.000020)	ND (0.000020)	ND (0.000020)
Beryllium (Dissolved)	mg/L	0.011	(3)	ND (0.000020)	ND (0.000020)	ND (0.000020)	ND (0.000020)
Bismuth	mg/L	-		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Bismuth (Dissolved)	mg/L	-		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Boron	mg/L	0.2	(1)	0.026	0.026	0.013	0.013
Boron (Dissolved)	mg/L	0.2	(1)	0.026	0.026	0.012	0.012
Cadmium	mg/L	0.0002		ND (0.0000050)	ND (0.0000050)	ND (0.0000050)	ND (0.0000050)
Cadmium (Dissolved)	mg/L	0.0002		ND (0.0000050)	ND (0.0000050)	ND (0.0000050)	ND (0.0000050)
Calcium	mg/L	-		36.4	35.9	58.6	60.8
Calcium (Dissolved)	mg/L	-		35.0	35.1	60.5	61.2
Chromium Total	mg/L	0.001	(4)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Chromium Total (dissolved)	mg/L	0.001	(4)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Cobalt	mg/L	0.0009		0.00014	0.00013	0.00016	0.00020
Cobalt (Dissolved)	mg/L	0.0009		ND (0.00010)	ND (0.00010)	0.00016	0.00018
Copper	mg/L	0.005		0.00092	0.00094	ND (0.00050)	ND (0.00050)
Copper (Dissolved)	mg/L	0.005		0.00068	0.00071	ND (0.00020)	0.00022
Iron	mg/L	0.3		0.186	0.174	**0.716**	**0.880**
Iron (Dissolved)	mg/L	0.3		ND (0.010)	ND (0.010)	0.089	0.056
Lead	mg/L	0.005	(5)	0.000110	0.000115	ND (0.000050)	ND (0.000050)
Lead (Dissolved)	mg/L	0.005	(5)	ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Lithium	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Lithium (Dissolved)	mg/L	-		0.0012	0.0011	ND (0.0010)	ND (0.0010)
Magnesium	mg/L	-		8.42	8.57	9.65	9.88
Magnesium (Dissolved)	mg/L	-		8.76	8.85	9.56	9.74
Manganese	mg/L	-		0.0145	0.0141	2.02	2.31
Manganese (Dissolved)	mg/L	-		0.00141	0.00156	2.02	2.29
Molybdenum	mg/L	0.04	(1)	0.00260	0.00264	0.000195	0.000196
Molybdenum (Dissolved)	mg/L	0.04	(1)	0.00248	0.00249	0.000189	0.000206
Nickel	mg/L	0.025		ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Nickel (Dissolved)	mg/L	0.025		ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Phosphorous	mg/L	0.01	(1,6)	ND (0.050)	ND (0.050)	ND (0.050)	**0.060**
Phosphorous (Dissolved)	mg/L	0.01	(1,6)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Potassium	mg/L	-		3.28	3.24	1.73	2.47
Potassium (Dissolved)	mg/L	-		3.15	3.16	1.78	2.65
Selenium	mg/L	0.1		ND (0.000050)	0.000051	ND (0.000050)	ND (0.000050)
Selenium (Dissolved)	mg/L	0.1		ND (0.000050)	0.000050	ND (0.000050)	ND (0.000050)
Silicon	mg/L	-		4.74	4.97	5.06	4.98
Silicon (Dissolved)	mg/L	-		4.40	4.31	4.82	4.91
Silver	mg/L	0.0001		ND (0.000010)	ND (0.000010)	ND (0.000010) J	0.000031 J
Silver (Dissolved)	mg/L	0.0001		ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Sodium	mg/L	-		7.26	7.37	6.01	5.94
Sodium (Dissolved)	mg/L	-		7.27	7.22	6.04	6.26
Strontium	mg/L	-		0.123	0.124	0.158	0.152
Strontium (Dissolved)	mg/L	-		0.121	0.121	0.150	0.151
Thallium	mg/L	0.0003	(1)	ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Thallium (Dissolved)	mg/L	0.0003	(1)	ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Tin	mg/L	-		ND (0.00010)	ND (0.00010)	0.00012	ND (0.00010)
Tin (Dissolved)	mg/L	-		ND (0.00010)	ND (0.00010)	0.00010	ND (0.00010)
Titanium	mg/L	-		0.00844	0.00804	0.00126 J	ND (0.00090) J
Titanium (Dissolved)	mg/L	-		ND (0.00030)	ND (0.00030)	ND (0.00030)	ND (0.00030)
Tungsten	mg/L	0.03	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Tungsten (Dissolved)	mg/L	0.03	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Uranium	mg/L	0.005	(1)	0.000371	0.000380	0.000089	0.000085
Uranium (Dissolved)	mg/L	0.005	(1)	0.000323	0.000328	0.000084	0.000083
Vanadium	mg/L	0.006	(1)	0.00087	0.00085	ND (0.00050)	ND (0.00050)
Vanadium (Dissolved)	mg/L	0.006	(1)	0.00052	0.00051	ND (0.00050)	ND (0.00050)
Zinc	mg/L	0.03		ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)
Zinc (Dissolved)	mg/L	0.03		0.0012	0.0015	ND (0.0010)	ND (0.0010)
Zirconium	mg/L	0.004	(1)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)
Zirconium (Dissolved)	mg/L	0.004	(1)	ND (0.00030)	ND (0.00030)	ND (0.00030)	ND (0.00030)
General Chemistry							
Chloride (Dissolved)	mg/L	-		8.70	8.62	7.02	7.57
Nitrate (as N)	mg/L	-		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
Nitrite (as N)	mg/L	-		ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)
Orthophosphate (dissolved)	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	0.0018
Sulphate (Dissolved)	mg/L	-		10.9	10.8	2.70	2.68
Total Suspended Solids (TSS)	mg/L	-		3.2	3.2	3.1	4.7
Turbidity	NTU	-		4.42	4.21	4.82 J	6.05 J

Notes:

ND (#) Not present at or above the associated value
J Estimated concentration based on GHD Data Verification
PWQO Provincial Water Quality Objectives, February 1999
(1) Interim PWQO
(2) At pH >6.5 to 9.0, based on clay-free samples
(3) Assume hardness as CaCO3 <75 mg/L
(4) PWQO for trivalent chromium (Cr III) is 8.9 µg/L
(5) Alkalinity as CaCO3 >80 mg/L
(6) Prevent excessive plant growth in rivers and streams
Bold Detected above PWQO; below for Dissolved Oxygen

Table 6.1

2023 Water Quality Results - SW1 and SW2
2023 Annual Monitoring Report
Dufferin Aggregates Teedon Pit
Township of Tiny, County of Simcoe, Ontario

Sample Location:				SW2	SW2	SW2	SW2
Sample ID:				SW-11155365-200423-RC-002	SW-11155365-200423-RC-003	SW-11155365-071323-RC-003	SW-11155365-101223-RC-03
Sample Date:				4/20/2023	4/20/2023 (Duplicate)	7/13/2023	10/12/2023
Parameters	**Units**	**PWQO**					
Metals							
Aluminum	mg/L	0.075	(1,2)	0.0106	0.0102	0.0240	ND (0.0030)
Aluminum (Dissolved)	mg/L	0.075	(1,2)	ND (0.0010)	ND (0.0010)	0.0016	0.0035
Antimony	mg/L	0.02	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Antimony (Dissolved)	mg/L	0.02	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Arsenic	mg/L	0.005		0.00016	0.00013	0.00025	0.00018
Arsenic (Dissolved)	mg/L	0.005		0.00014	0.00016	0.00017	0.00017
Barium	mg/L	-		0.0174	0.0176	0.0146	0.0170
Barium (Dissolved)	mg/L	-		0.0170	0.0172	0.0129	0.0160
Beryllium	mg/L	0.011	(3)	ND (0.000020)	ND (0.000020)	ND (0.000020)	ND (0.000020)
Beryllium (Dissolved)	mg/L	0.011	(3)	ND (0.000020)	ND (0.000020)	ND (0.000020)	ND (0.000020)
Bismuth	mg/L	-		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Bismuth (Dissolved)	mg/L	-		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Boron	mg/L	0.2	(1)	0.013	0.014	0.016	0.020
Boron (Dissolved)	mg/L	0.2	(1)	0.012	0.013	0.014	0.019
Cadmium	mg/L	0.0002		ND (0.0000050)	ND (0.0000050)	ND (0.0000050)	ND (0.0000050)
Cadmium (Dissolved)	mg/L	0.0002		ND (0.0000050)	ND (0.0000050)	ND (0.0000050)	ND (0.0000050)
Calcium	mg/L	-		60.8	59.6	60.0	71.6
Calcium (Dissolved)	mg/L	-		62.6	60.6	59.6	65.4
Chromium Total	mg/L	0.001	(4)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Chromium Total (dissolved)	mg/L	0.001	(4)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Cobalt	mg/L	0.0009		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Cobalt (Dissolved)	mg/L	0.0009		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Copper	mg/L	0.005		ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Copper (Dissolved)	mg/L	0.005		ND (0.00020)	ND (0.00020)	ND (0.00020)	0.00025
Iron	mg/L	0.3		**0.361**	**0.344**	**0.395**	**0.600**
Iron (Dissolved)	mg/L	0.3		0.099	0.075	0.077	0.186
Lead	mg/L	0.005	(5)	ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Lead (Dissolved)	mg/L	0.005	(5)	ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Lithium	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Lithium (Dissolved)	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Magnesium	mg/L	-		9.55	9.45	9.54	10.4
Magnesium (Dissolved)	mg/L	-		9.48	9.51	9.81	10.5
Manganese	mg/L	-		0.433 J	0.433	0.714	0.624
Manganese (Dissolved)	mg/L	-		0.532 J	0.487	0.608	0.544
Molybdenum	mg/L	0.04	(1)	0.000238	0.000236	0.000160	0.000152
Molybdenum (Dissolved)	mg/L	0.04	(1)	0.000233	0.000247	0.000142	0.000156
Nickel	mg/L	0.025		ND (0.00050)	ND (0.00050)	0.00062	ND (0.00050)
Nickel (Dissolved)	mg/L	0.025		ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Phosphorous	mg/L	0.01	(1,6)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Phosphorous (Dissolved)	mg/L	0.01	(1,6)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Potassium	mg/L	-		1.82	1.70	2.02	1.83
Potassium (Dissolved)	mg/L	-		1.78	1.69	1.89	1.76
Selenium	mg/L	0.1		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Selenium (Dissolved)	mg/L	0.1		ND (0.000050)	ND (0.000050)	ND (0.000050)	ND (0.000050)
Silicon	mg/L	-		4.78	4.62	4.02	5.16
Silicon (Dissolved)	mg/L	-		4.58	4.78	3.89	5.02
Silver	mg/L	0.0001		ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Silver (Dissolved)	mg/L	0.0001		ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Sodium	mg/L	-		5.86	5.51	5.89	7.70
Sodium (Dissolved)	mg/L	-		5.92	5.97	6.03	7.42
Strontium	mg/L	-		0.151	0.141	0.153	0.171
Strontium (Dissolved)	mg/L	-		0.151	0.147	0.144	0.168
Thallium	mg/L	0.0003	(1)	ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Thallium (Dissolved)	mg/L	0.0003	(1)	ND (0.000010)	ND (0.000010)	ND (0.000010)	ND (0.000010)
Tin	mg/L	-		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Tin (Dissolved)	mg/L	-		ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Titanium	mg/L	-		ND (0.00060)	0.00046	0.00102	ND (0.00030)
Titanium (Dissolved)	mg/L	-		ND (0.00030)	ND (0.00030)	ND (0.00030)	ND (0.00030)
Tungsten	mg/L	0.03	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Tungsten (Dissolved)	mg/L	0.03	(1)	ND (0.00010)	ND (0.00010)	ND (0.00010)	ND (0.00010)
Uranium	mg/L	0.005	(1)	0.000109	0.000104	0.000052	0.000059
Uranium (Dissolved)	mg/L	0.005	(1)	0.000100	0.000109	0.000044	0.000053
Vanadium	mg/L	0.006	(1)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Vanadium (Dissolved)	mg/L	0.006	(1)	ND (0.00050)	ND (0.00050)	ND (0.00050)	ND (0.00050)
Zinc	mg/L	0.03		ND (0.0030)	ND (0.0030)	ND (0.0030)	ND (0.0030)
Zinc (Dissolved)	mg/L	0.03		ND (0.0010)	ND (0.0010)	0.0013	0.0012
Zirconium	mg/L	0.004	(1)	ND (0.00020)	ND (0.00020)	ND (0.00020)	ND (0.00020)
Zirconium (Dissolved)	mg/L	0.004	(1)	ND (0.00030)	ND (0.00030)	ND (0.00030)	ND (0.00030)
General Chemistry							
Chloride (Dissolved)	mg/L	-		7.40	7.53	7.20	8.72
Nitrate (as N)	mg/L	-		ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
Nitrite (as N)	mg/L	-		ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)
Orthophosphate (dissolved)	mg/L	-		ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Sulphate (Dissolved)	mg/L	-		3.21	3.26	0.82	0.62
Total Suspended Solids (TSS)	mg/L	-		ND (3.0)	ND (3.0)	4.5	ND (3.0)
Turbidity	NTU	-		2.44	2.56	2.55	2.93

Notes:

ND (#) Not present at or above the associated value
J Estimated concentration based on GHD Data Verification
PWQO Provincial Water Quality Objectives, February 1999
(1) Interim PWQO
(2) At pH >6.5 to 9.0, based on clay-free samples
(3) Assume hardness as CaCO3 <75 mg/L
(4) PWQO for trivalent chromium (Cr III) is 8.9 µg/L
(5) Alkalinity as CaCO3 >80 mg/L
(6) Prevent excessive plant growth in rivers and streams
Detected above PWQO; below for Dissolved Oxygen

Appendices

Appendix A

Permit to Take Water No. 6258 BRDJ2M

Ministry of the Environment, Conservation and Parks
Environmental Assessment and Permissions Division
Brownfields and Permit to Take Water
Permit To Take Water Unit
Floor 1, 135 St Clair Ave W
Toronto, ON
M4V 1P5
Tel: (416) 326-3766

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Direction des évaluations et des permissions environnementales
1er étage, 135 av St. Clair O
Toronto, ON
M4V 1P5
Tél:(416) 326-3766

Ontario

January 19, 2021

CRH Canada Group Inc.
Floor 4 - 2300 Steeles Ave W
Concord, Ontario, L4K 5X6
Canada

Attn: Kevin Mitchell

RE: Amendment to Permit To Take Water Number 6258-BRDJ2M
90 Darby Rd Lots 79 and 80 Concession 1 Original Township of Tiny
Tiny, County of Simcoe
Reference Number 0363-AV9PXK

In an email dated January 15, 2021 to Ms. Erinn Lee (MECP) from Kevin Mitchell of CRH Canada Group Inc., an error was identified in Permit To Take Water number 6258-BRDJ2M, issued on January 14, 2021. Specifically, the submission deadline for an annual report was identified as April 31, rather than April 30 of each year following the issuance of the Permit To Take Water.

As Director under section 34.1 of the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended ("OWRA"), and pursuant to my authority under subsection 34.1(2) of the OWRA, I am exercising my discretion to amend Permit to Take Water 6258-BRDJ2M by amending Condition 4.3 as follows:

4.3 The Permit Holder shall submit an Annual Monitoring Report to the District Office and the Director by April 30^{t} of each year following the issuance of the Permit to Take Water. The report shall include:

i. All of the monitoring data collected for the preceding calendar year for the locations listed under 4.1 and 4.2.

ii. All other relevant groundwater or surface water monitoring data collected by the Permit Holder for the preceding calendar year from any on site and off-site monitoring wells/ locations, including on the adjacent property where the proposed Teedon Pit extension is located and identified by the land registry

system's PIN 583870135.

iii. **An electronic version of all of the monitoring data reported.**

Please note that all other terms and conditions of Permit to Take Water 5684-BRCSS4 shall remain in force, including the maximum water taking rates and volumes listed in Table A.

This notice, as of January 19, 2021, forms part of the Permit and is to remain attached to the Permit at all times.

Any change in circumstances related to this permit should be reported promptly to a Director.

Yours truly,

Gregory Meek
Supervisor (Acting), Permit To Take Water
Director, Section 34.1, Ontario Water Resources Act, R.S.O. 1990
Environmental Assessment and Permissions Branch

File Storage Number: SI-SI-TI-C1-220

PERMIT TO TAKE WATER
Surface and Ground Water
NUMBER 6258-BRDJ2M

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

CRH Canada Group Inc.
Floor 4 - 2300 Steeles Ave W
Concord, Ontario, L4K 5X6
Canada

For the water taking from: PW1-09 (WWR # 7124734), Source Pond

Located at: 90 Darby Rd Lots 79 and 80 Concession 1 Original Township of Tiny
Tiny, County of Simcoe

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 Barrie District Office.

(e) "Permit" means this Permit to Take Water No. 6258-BRDJ2M including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA.

(f) "Permit Holder" means CRH Canada Group Inc..

(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 January 17, 2018 and signed by Nicolle Bellissimo, 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 **January 13, 2031**. 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	PW1-09 (WWR # 7124734)	Well Drilled	Aggregate Washing	Industrial	950	24	1,368,000	210	17 592343 4945072
2	Source Pond	Pond Dugout	Aggregate Washing	Industrial	7,274	12	5,237,280	210	17 591900 4944960
						Total Taking:	6,605,280		

3.3 In addition to aggregate washing, the water taken under this Permit may also be used for other onsite uses including dust suppression.

4. Monitoring

4.1 Under section 9 of O. Reg. 387/04 as amended from time to time, 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 or calculated in accordance with the method described in the application for this Permit, or as otherwise accepted by the Director.

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 31^{s} in every year, the records required by this condition to the ministry's Water Taking Reporting System.

4.2 The Permit Holder shall implement the following groundwater and pond water level monitoring program:

i. Install and maintain dataloggers at the on-site and off-site monitoring wells listed in Schedule B and monitor groundwater levels at a minimum frequency of once every four hours. This monitoring shall occur, at a minimum, between February 15 and December 15 of every year for which the Permit is valid.

ii. Should any other on-site monitoring well be installed, then groundwater levels shall be monitored as per item (i) above and the data included in the Annual Monitoring Report.

iii. Measure water levels in private water wells WWR 7150632 and WWR 5717709, if permission is granted by the well owners. Should the permission of either of these the domestic water well owners be withdrawn, then the Permit Holder shall replace the well for which permission has been denied with a well in the same aquifer either on or

off site.

iv. measure the water level elevation in the Source Pond between February 15 and December 15 when the pond is not frozen at a minimum frequency of twice per day, once in the early morning and once in the late afternoon or evening.

4.3 The Permit Holder shall submit an Annual Monitoring Report to the District Office and the Director by April 31st of each year following the issuance of the Permit to Take Water. The report shall include:

i. All of the monitoring data collected for the preceding calendar year for the locations listed under 4.1 and 4.2.

ii. All other relevant groundwater or surface water monitoring data collected by the Permit Holder for the preceding calendar year from any on site and off-site monitoring wells/ locations, including on the adjacent property where the proposed Teedon Pit extension is located and identified by the land registry system's PIN 583870135.

iii. An electronic version of all of the monitoring data reported.

4.4 The Permit Holder may replace damaged or inoperable monitoring wells without amendment of the PTTW. The changes shall maintain or expand the intended scope of the monitoring program, be approved at the time of the change by a responsible qualified professional, and be documented in the Annual Monitoring Report along with the justification for the changes.

4.5 Within 30 days of the issuance of the Permit, the Permit Holder shall distribute its *Dufferin Aggregates Teedon Pit – Well Complaint Response* described in Item 4 of Schedule A of this Permit to the Teedon Pit Community Liaison Committee (CLC), the Corporation of the Township of Tiny and the Corporation of the Township of Tay.

4.6 Any request for an amendment or renewal of this Permit shall be accompanied by a report prepared by a Qualified Person (P.Geo. or equivalent) assessing all data collected under the Conditions 4.1 to 4.4 of this Permit. The report shall also document all reported well interference complaints and how they were addressed. The report shall include an electronic version of the monitoring data collected. This Condition does not apply to administrative amendments.

4.7 The Permit Holder shall make the Annual Monitoring Report required by Condition 4.3 available publicly by posting it on the Company's website by May 31st of each year following the issuance of the Permit to Take Water.

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.

For Groundwater Takings

If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.

If permanent interference is caused by the water taking, the Permit Holder shall restore the water supplies of those permanently affected.

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 Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks 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 Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7J 2J3

AND

The Director, Section 34.1,
Ministry of the Environment,
Conservation and Parks
Client Services and Permissions Branch
1st Floor
135 St Clair Ave W
Toronto ON M4V 1P5
Fax: (416) 314-8452

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.*

This Permit cancels and replaces Permit Number 5003-APFH26, issued on 2017/08/14.

Dated at Toronto this 14th day of January, 2021.

Adam Leus
Director, Section 34.1
Ontario Water Resources Act , R.S.O. 1990

Schedule A

This Schedule "A" forms part of Permit To Take Water 6258-BRDJ2M, dated January 14, 2021.

1. GHD. 2018. Category 1 Permit-To-Take-Water Renewal Application Supporting Hydrologic and Hydrogeologic Study Dufferin Teedon Pit, Township of Tiny, County of Simcoe, Ontario; Project: 11155365, Report No 1, Signed and stamped by Gary Lagos, P.Geo. and signed by J. Richard Murphy, P. Eng. January 18, 2018.

2. GHD. 2018. Items Completed At The Request of MOECC Associated with the PTTW Renewal, Dufferin Teedon Pit, Township of Tiny, County of Simcoe, Ontario letter to Mr. Vincent Bulman, MOECC, Central Region, Water Unit signed and stamped by Gary I. Lagos of GHD; April 20, 2018 Reference No. 11155365.

3. GHD. April 26, 2018. Re: 2018 Domestic Well Survey Dufferin Teedon Pit, Township of Tiny, County of Simcoe letter addressed to V. Bulman, Ministry of the Environment and Climate Change Ontario; April 26, 2018; signed and stamped by Gary I. Lagos, P. Geo. of GHD. Reference No. 11155365.

4. Dufferin. 2018. Dufferin Aggregates Teedon Pit - Well Interference Protocol, addressed to the Ministry of the Environment, Conservation and Parks, signed by Maria Tapalovic of Dufferin Aggregates, a division of CRH Canada Group Inc. dated August 2, 2018.

Schedule B

This Schedule B forms part of Permit to Take Water 6258-BRDJ2M, dated January 13, 2021

Teedon Pit Production and Monitoring Wells
Dufferin Teedon Pit, Township of Tiny, County of Simcoe, Ontario

Location	MOECC Well ID	Well Tag Number	Completion Date	Easting	Northing
PW1-09 (1)(5)	**7124734**	A082190	4/29/2009	592343.75	4945072.04
MW1-09 (3)(5)	**7124729**	A082184	6/2/2009	590513.00	4944298.00
MW1 (1)(5)	**7054134**	A062215	11/8/2007	591776.70	4944920.92
MW4-10 (1)(5)	**7150631**	A105968	8/5/2010	592346.97	4945073.66
MW5-18 (4)(5)	**7310101**	A241648	4/5/2018	592450.79	4945106.20
MW6-18 (4)(5)	**7310100**	A241641	3/29/2018	591778.54	4944916.15
MW7-18 (4)(5)	**7310099**	A215946	4/9/2018	591953.92	4944937.13
MW8-18	**7314361**	A242552	6/11/2018	590518.91	4944303.17
#50632 (5)	**7150632**		8/4/2010	592282.00	4945366.00
#17709 (5)	**5717709**		9/23/1981	592539.00	4945093.00
#16440 (3)	**5716440**		11/8/1979	591461.00	4944573.00

Notes:
(1) Northing, eastings, measured on March 15, 2018.
(2) Northing, eastings, measured on April 18, 2018.
(3) Northing, eastings, from the approved Site Plans.
(4) These monitoring wells include Tag Numbers.
(5) Pressure transducers are installed at these locations.

Appendix B

Environmental Compliance Approval No. 1293-CF7J3M

Ontario

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

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1293-CF7J3M
Issue Date: December 6, 2022

CRH Canada Group Inc.
2300 Steeles Avenue West, 4th floor
Concord, Ontario
L4K 5X6

Site Location: Dufferin Aggregates - Teedon Pit
40 Darby Road
the north half of Lot 79 and the south half of Lot 80,
Concession 1
Township of Tiny, County of Simcoe
L0K 2E1

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

upgrades to the existing Works for the collection, transmission, treatment and reuse of wash water from existing aggregate washing operations located at the existing Teedon Pit located in the Township of Tiny, County of Simcoe, consisting of the following:

- one (1) upgraded two-cell sump (source)/recirculation pond divided by a new engineered berm located along the eastern boundary of the sump (source) pond cell, located in the north of the eastern half of the site and constructed above the groundwater table with the bottom of the pond constructed into naturally occurring silt/clayey silt deposit, complete with a sustained water level a minimum 1.0 m below the berm crest around the edges of the pond, having a total footprint size of approximately 10,000 m^2 and a total capacity of approximately 43,000 m^3, consisting of the following:

  - one (1) upgraded sump (source) pond cell located in the western part of the sump (source)/recirculation pond, receiving water from the existing supply well (PW1-09), having a footprint size of approximately 4,500 m^2 and a capacity of approximately 16,000 m^3, complete with a minimum 200 mm diameter emergency overflow pipe designed to convey any overflow to the existing unnamed downstream pond, one (1) automatic high-level float control, installed and maintained at least 0.3 metres below the elevation of the 200 mm diameter emergency overflow pipe, that stops the supply of water from the existing supply well (PW1-09) and one (1) or two (2) appropriately sized pumping arrangement(s) supplying clarified water to the existing wash plant;

- one (1) new recirculation pond cell lined with a synthetic liner (HDPE, or another material of equivalent or lower permeability), located in the eastern part of the sump (source)/recirculation pond, receiving water from the existing supply well (PW1-09) and effluent from the last cell of the upgraded silt pond and the upgraded sump (source) pond cell, having a maximum water depth of 8.0 m, a maximum area of 5,500 m^2 and a maximum capacity of 27,000 m , complete with an emergency overflow pipe designed to convey the 100-year return storm to the upgraded sump (source) pond cell and one (1) appropriately sized pumping arrangement supplying clarified water to the existing wash plant;

- one (1) upgraded multiple-cell in series silt pond located south of the upgraded two-cell sump (source)/ recirculation pond, constructed above the groundwater table with the bottom of the pond constructed into naturally occurring clay or silt deposits and complete with a sustained water level a minimum 1.0 m below the berm crest around the edges of the pond, having a maximum depth of 6 m and a maximum footprint size of approximately 8,500 m^2, each cell separated from the next one by a berm complete with an interconnected pipe, the first cell complete with a maximum 450 mm diameter inlet pipe discharging wash water from the existing wash plant to the first cell and the last cell discharging via an outlet structure to the new recirculation pond cell;

- all other controls, electrical equipment, instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned Works;

all in accordance with the supporting documents listed in Schedule A.

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" means this entire document and any schedules attached to it, and the application;

"District Manager" means the District Manager of the Barrie District Office of the Ministry;

"Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;

"EPA" means the *Environmental Protection Act,* R.S.O. 1990, c.E.19, as amended;

"Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the Professional Engineers Act, R.S.O. 1990, c. P.28

"Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

"Owner" means CRH Canada Group Inc. and its successors and assignees;

"OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended; and

"Works" means the sewage works described in the Owner's applications, this Approval and in the supporting documentation referred to herein, to the extent approved by this Approval.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.

3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

4. The issuance of, and compliance with the conditions of this Approval does not:

    a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the Works; or

    b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

2. EXPIRY OF APPROVAL

The approval issued by this Approval will cease to apply to those parts of the Works which have not been constructed within five (5) years of the date of this Approval.

3. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:

    a. change of address of Owner;

    b. change of Owner, including address of new owner;

    c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act* , R.S.O. 1990, c.B17 shall be included in the notification to the District Manager;

    d. change of name of the corporation and a copy of the most current information filed under the

Corporations Informations Act , R.S.O. 1990, c. C39 shall be included in the notification to the District Manager.

2. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.

3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

4. CONSTRUCTION OF WORKS/RECORD DRAWINGS

1. Upon completion of construction of the Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval.

2. Within one (1) year of completion of construction of the Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

5. OPERATION AND MAINTENANCE

1. The Owner shall ensure that at all times, the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained. The Owner shall also ensure that all monitoring programs and maintenance schedules for the Works are complied with.

2. The Owner shall ensure that the automatic high-level float control installed in the sump (source) pond cell is installed and maintained at least 0.3 metres below the elevation of the sump (source) pond cell emergency overflow pipe.

3. The Owner shall, upon identification of any spill, bypass or loss of any product, by-product, intermediate product, oil, fuel, solvent, waste material or any other polluting substance into the environment, take immediate action to prevent the further occurrence of such loss and prevent the substance from entering the upgraded silt pond and the upgraded sump (source)/recirculation pond.

4. In furtherance of, but without limiting the generality of, the obligation imposed by subsection 1, the Owner shall ensure that equipment and material for the containment, clean up and disposal of any spill, bypass or loss of any product, by product, intermediate product, oil, fuel, solvent, waste material or any other polluting substance are kept on hand and in good repair for immediate use in the event of:

   a. any spill, bypass or loss of any product, by product, intermediate product, oil, fuel, solvent, waste material or any other polluting substance;

b. a spill within the meaning of Part X of the EPA; or

c. the identification of an abnormal amount of any product, by product, intermediate product, oil, fuel, solvent, waste material or any other polluting substance in any part of the Works.

5. The Owner shall ensure that the design minimum liquid retention volumes of the Works are maintained at all times.

6. The Owner shall undertake weekly (once a week) during the operating season and monthly (once a month) during the non-operating season assessments of the condition of the upgraded sump (source)/ recirculation pond perimeter containment berms. When appropriate, an assessment shall be conducted by a qualified Licensed Engineering Practitioner.

7. The Owner shall undertake weekly (once a week) during the operating season and monthly (once a month) during the non-operating season visual inspections of the Works for potential spills, structural integrity of the perimeter containment berms and accumulation of sediment in the Works and undertake corrective measures, if necessary, to ensure continued suspended solids removal performance of the Works, with results recorded in a log book.

8. The Owner shall periodically measure or otherwise assess the amount of sediment accumulating in the upgraded silt pond and the upgraded sump (source)/recirculation pond and remove the sediment, if necessary, to ensure continued suspended solids removal performance of the upgraded silt pond and the upgraded sump (source)/recirculation pond, with results recorded in a log book. No sediment shall be used on site for rehabilitation without complying with all applicable laws in place at the time of reuse.

9. The Owner shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook at the site. The logbook shall include the following:

   a. any spill, bypass or loss of any product, by product, intermediate product, oil, fuel, solvent, waste material or any other polluting substance;

   b. the name of the Works;

   c. the name of the inspector who conducted each inspection;

   d. the date and results of each inspection, description of maintenance and cleaning, including an estimate of the quantity of any materials removed and method of clean-out of the Works; and

   e. the date measurement of sediment was undertaken, the amount of sediment measured, if sediment removal was undertaken and where any removed sediment was placed.

10. The log book shall be retained at the site and be made available for Ministry inspection upon request.

11. The Owner shall prepare an operations manual prior to the introduction of wash water to the

Works, that includes, but not necessarily limited to, the following information:

a. operating procedures for routine operation of the Works;

b. inspection programs, including frequency of inspection for the Works and the methods or tests employed to detect when maintenance is necessary;

c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;

d. contingency plans and procedures for dealing with potential spill, bypasses and any other abnormal situations and for notifying the District Manager; and

e. complaint procedures for receiving and responding to public complaints.

12. The operations manual shall include a maintenance plan and associated figures describing:

a. the bottom elevation of the upgraded silt pond and the upgraded sump (source)/recirculation pond;

b. maintenance tasks and methods for cleaning out (dredging) the ponds;

c. steps to ensure the liner integrity during dredging activities;

d. the thickness or other measurement of sediment that will trigger dredging activities;

e. estimated volume of sediment to be removed annually as well as storage location of sediment;

f. sediment stockpile dewatering method; and

g. the proposed use of sediment for site restoration.

13. The Owner shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the Works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

14. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this Approval.

6. SURFACE WATER QUALITY MONITORING AND RECORDING

The Owner shall, upon issuance of this Approval, carry out the following monitoring program:

1. All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

2. Samples shall be collected and analyzed at the following sampling locations, at the sampling frequencies and using the sample type specified for each parameter listed:

Table 1 - Surface Water Monitoring	
Sampling Locations	1) The upgraded sump (source) pond cell (SW1); and 2) The unnamed downstream pond (SW2)
Sampling Frequency	1) before commencement of the operating season; 2) in April/May; 3) in July/August; and 4) in October/November
Sampling Type	Grab
Sampling Parameters	Total Suspended Solids (TSS), Metals, Anions, Turbidity

Table 2 - Surface Water Monitoring	
Sampling Location	Water discharged from the upgraded sump (source) pond cell emergency overflow pipe discharging to the unnamed downstream pond
Sampling Frequency	During an emergency overflow event from the upgraded sump (source) pond cell emergency overflow pipe discharging to the unnamed downstream pond
Sampling Type	Grab
Sampling Parameters	Total Suspended Solids (TSS), Metals, Anions, Turbidity

3. The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

   a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended; and

   b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions.

4. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

7. GROUNDWATER QUALITY MONITORING AND RECORDING

Subject to continued permission of the well owner, the Owner shall, upon issuance of this Approval, carry out the following groundwater quality monitoring program until the installation of the lined recirculation cell has been completed:

1. All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

2. Subject to landowner permission, samples of groundwater shall be collected at the location and frequency specified below, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 3 - Groundwater Quality Monitoring	
Sampling Locations	Private water wells at the following addresses: 1) 127 Darby Road, Tay, Ontario; 2) 6970 Highway 93, Tiny, Ontario; 3) 7062 Highway 93, Tiny, Ontario; 4) 1189 Marshall Road, Tiny, Ontario; and 5) 1190 Marshall Road, Tiny, Ontario
Sampling Frequency	Quarterly (once every three months)
Sampling Type	Grab
Sampling Parameters	Total Suspended Solids (TSS), Metals, Anions, Turbidity

3. The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

   a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended; and

   b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions.

4. The Owner shall ensure that the results of the groundwater monitoring sampling shall be provided to the respective owner of the drinking water well forthwith after the result of the sampling have been received from a laboratory.

5. The Owner shall forthwith notify the District Manager after a well water complaint is received. Furthermore, the Owner shall forthwith test the complainant's well water, as directed by the District

Manager, for Total Suspended Solids (TSS), Metals, Anions, Turbidity and any other sampling parameters as directed by the District Manager.

6. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

8. SPILL CONTINGENCY AND POLLUTION PREVENTION PLAN

1. Within three (3) months of the construction of the Works, the Owner shall implement a Spill Contingency and Pollution Prevention Plan that includes, but is not necessarily limited to, the following information:

   a. the name, job title and location (address) of the Owner, person in charge, management or person(s) in control of the facility;

   b. the name, job title and 24-hour telephone number of the person(s) responsible for activating the Spill Contingency and Pollution Prevention Plan;

   c. a site plan drawn to scale showing the facility, nearby buildings, streets, drainage patterns, any receiving body(ies) of water that could potentially be significantly impacted and any features which need to be taken into account in terms of potential impacts on access and response (including physical obstructions and location of response and clean-up equipment);

   d. steps to be taken to report, contain, clean up and dispose of contaminants following a spill;

   e. a listing of telephone numbers for: local clean-up company(ies) who may be called upon to assist in responding to spills; local emergency responders including health institution(s); and MOE Spills Action Centre 1-800-268-6060;

   f. Materials Safety Data Sheets (MSDS) for each hazardous material which may be transported or stored within the area serviced by the Works;

   g. the means (internal corporate procedures) by which the Spill Contingency and Pollution Prevention Plan is activated and a description of the Trigger Mechanism(s);

   h. a description of the spill response and pollution prevention training provided to employees assigned to work in the area serviced by the Works, the date(s) on which the training was provided and by whom;

   i. an inventory of response and clean-up equipment available to implement the Spill Contingency and Pollution Prevention Plan, location and, date of maintenance/replacement if warranted; and

   j. the date on which the Spill Contingency and Pollution Prevention Plan was prepared and subsequently, amended.

2. The Spill Contingency and Pollution Prevention Plan shall be kept in a conspicuous, readily accessible

location on-site.

3. The Spill Contingency and Pollution Prevention Plan shall be amended from time to time as required by changes in the existing aggregate washing operations.

9. REPORTING

1. Each operating season, one (1) week prior to the start-up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.

2. The Owner shall forthwith orally report to the District Manager or designate, of an emergency overflow event from the upgraded sump (source) pond cell (discharge from the upgraded sump (source) pond cell emergency overflow pipe discharging to the unnamed downstream pond).

3. The Owner shall, upon request, make all reports, manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

4. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption Of Spills and Reporting of Discharges**)**, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and Ontario Regulation 675/98*,* submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.

5. The Owner shall prepare an annual performance report by May 31^{s} of the following year. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The report shall contain, but shall not be limited to, the following information:

   a. a summary and interpretation of all monitoring data, including an overview of the success and adequacy of the Works;

   b. a description of any operating problems encountered and corrective actions taken;

   c. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;

   d. a complete record of water well complaints received (whether directly or through the Ministry);

   e. a record of the upgraded sump (source)/recirculation pond perimeter containment berms inspections;

   f. a record of visual inspections of the Works;

   g. a summary of any by-pass, spill or abnormal discharge events; and

h. any other information the District Manager requires from time to time.

6. The Owner shall make the annual performance report publicly available by posting it on the Owner's website by May 31^{s} of each year following the issuance of the Approval. The annual performance report shall be combined with Permit To Take Water annual report.

10. SPECIAL CONDITION – PUBLIC ACCESSIBILITY TO REPORT

The Owner shall make the annual performance report required by condition 9 available to the community advisory panel and public by posting it on the Owner's website at the time specified in condition 9.

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

1. Condition 1 is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which Approval was granted. This condition is also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. Condition 1.4 is included to emphasize that the issuance of this Approval does not diminish any other statutory and regulatory obligations to which the Owner is subject in the construction, maintenance and operation of the Works. The condition specifically highlights the need to obtain any necessary conservation authority approvals. The condition also emphasizes the fact that this Approval doesn't limit the authority of the Ministry to require further information.

2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

4. Condition 4 is included to ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are maintained for future references.

5. Condition 5 is included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner and made available to the Ministry. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper operations and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Work. Condition 5 is also included to ensure that the Works will be operated and maintained in a manner enabling compliance with the terms and conditions of this Approval, such that the environment is protected and deterioration, loss, injury or damage to any person or property is minimised and/or prevented. Furthermore, Condition 5 is included to ensure that accumulated sediment in the upgraded silt pond and the upgraded sump (source)/recirculation pond is removed to maintain the intended sediment removal performance of the Works.

6. Conditions 6 and 7 are included to enable the Owner to evaluate and demonstrate the performance of the

Works, on a continual basis, and to demonstrate that the Works are properly operated and maintained and do not cause any impairment to the environment.

7. Condition 8 is included to ensure that the Owner will implement the Spill Contingency and Pollution Prevention Plan, such that the environment is protected and deterioration, loss, injury or damage to any person(s) or property is prevented.

8. Conditions 9 and 10 are included to provide a performance record for future references, to ensure that the Ministry as well as the general public is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

Schedule A forms part of this Approval and contains a list of supporting documentation/information received, reviewed and relied upon in the issuance of this Approval.

SCHEDULE A

1. Environmental Compliance Approval Application submitted by Gary I. Lagos, M.Sc., P.Geo., GHD Limited, dated February 16, 2021 and received on February 16, 2021.

2. The design report titled "OWRA S53 Environmental Compliance Approval (ECA) Supporting Information Teedon Pit Dufferin Aggregates, a division of CRH Canada Group Inc." dated June 7, 2022 and prepared by GHD Limited.

3. All other information and documentation provided by GHD Limited.

In accordance with Section 139 of the *Environmental Protection Act,* you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights,* 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and

The Minister of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

and

The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

This instrument is subject to Section 38 of the *Environmental Bill of Rights,* 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at https://ero.ontario.ca/, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act.*

DATED AT TORONTO this 6th day of December, 2022

Fariha Pannu.

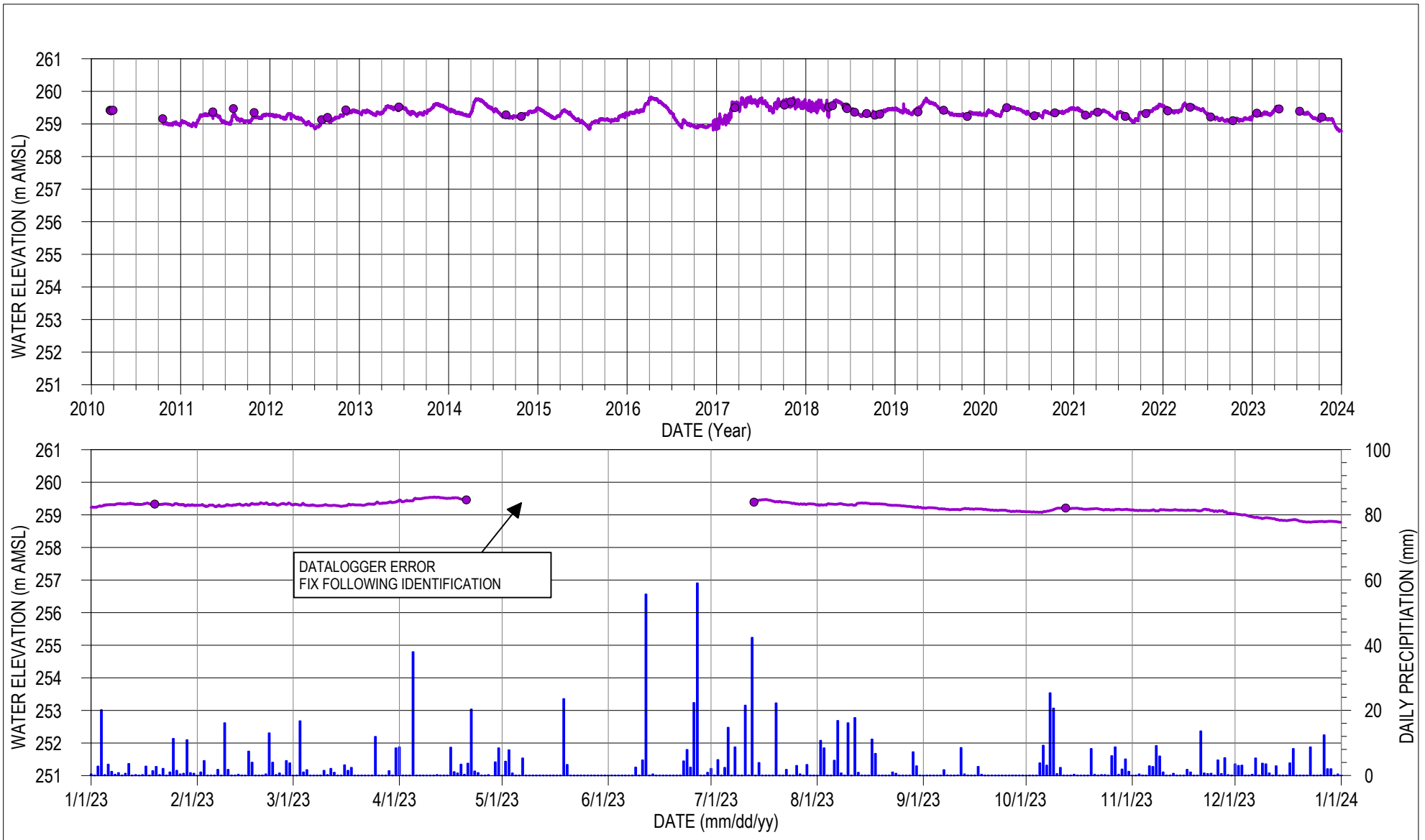
Fariha Pannu, P.Eng.
Director

appointed for the purposes of Part II.1 of the *Environmental Protection Act*

KC/
c: District Manager, MECP Barrie District Office
Richard Chatfield, P.Eng., GHD Limited

Appendix C

Hydrographs



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW1 — Daily Precipitation

GHD

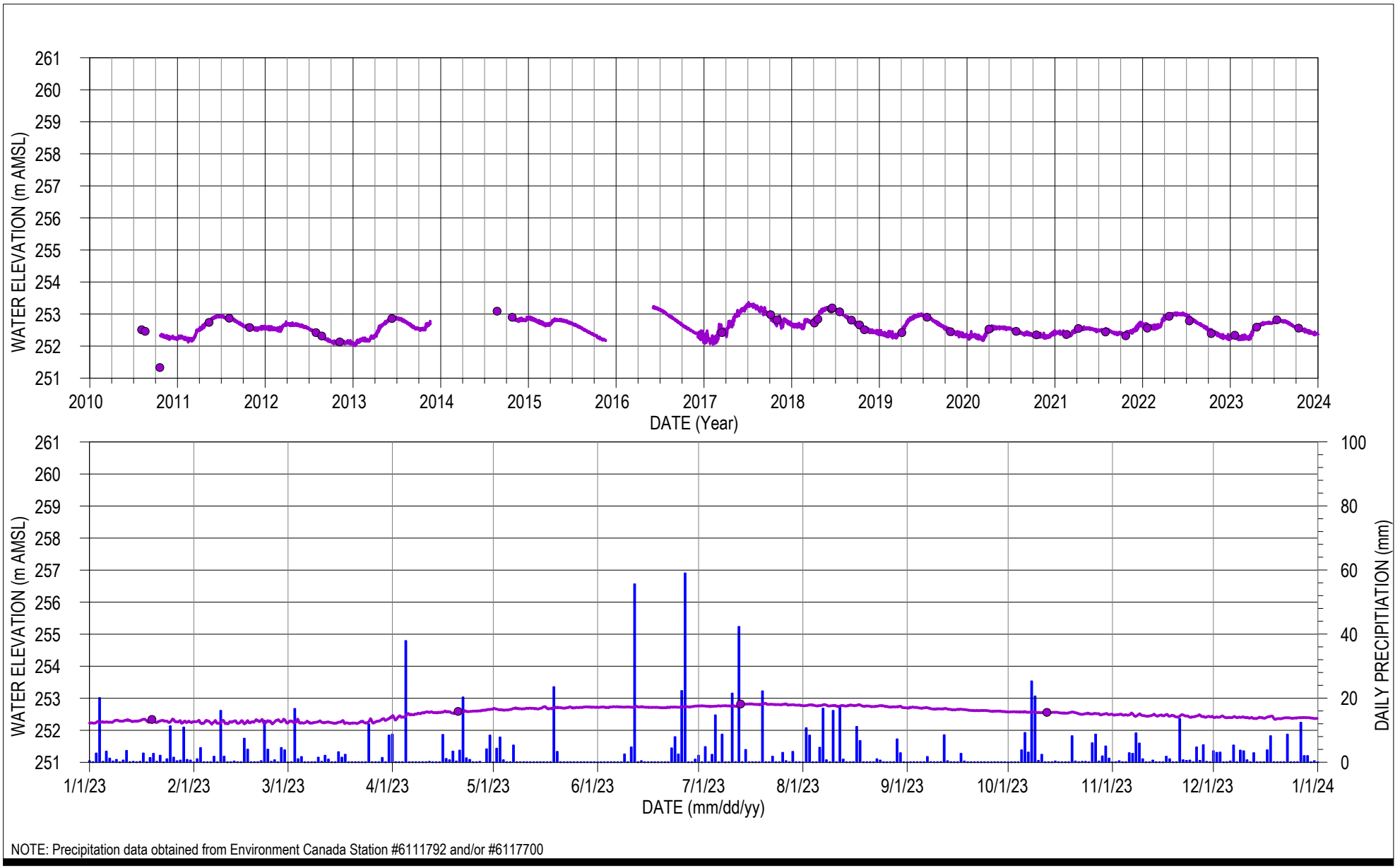
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
SHALLOW GROUNDWATER ZONE
MW1

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-1

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW1.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW4-10

Daily Precipitation

GHD

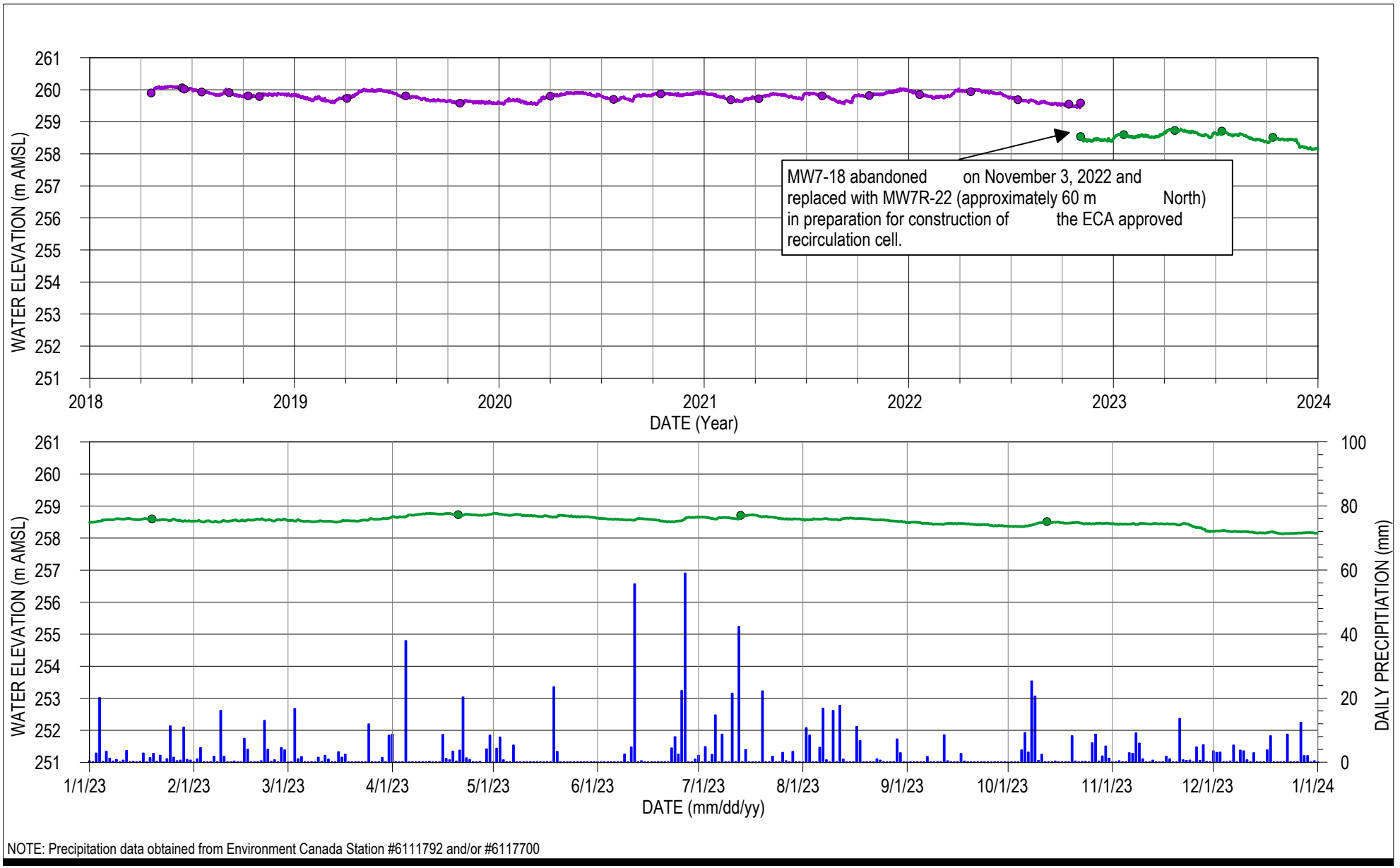
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
SHALLOW GROUNDWATER ZONE MW4-10

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-2

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW4-10.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW7R-22 MW7-18 Daily Precipitation

GHD

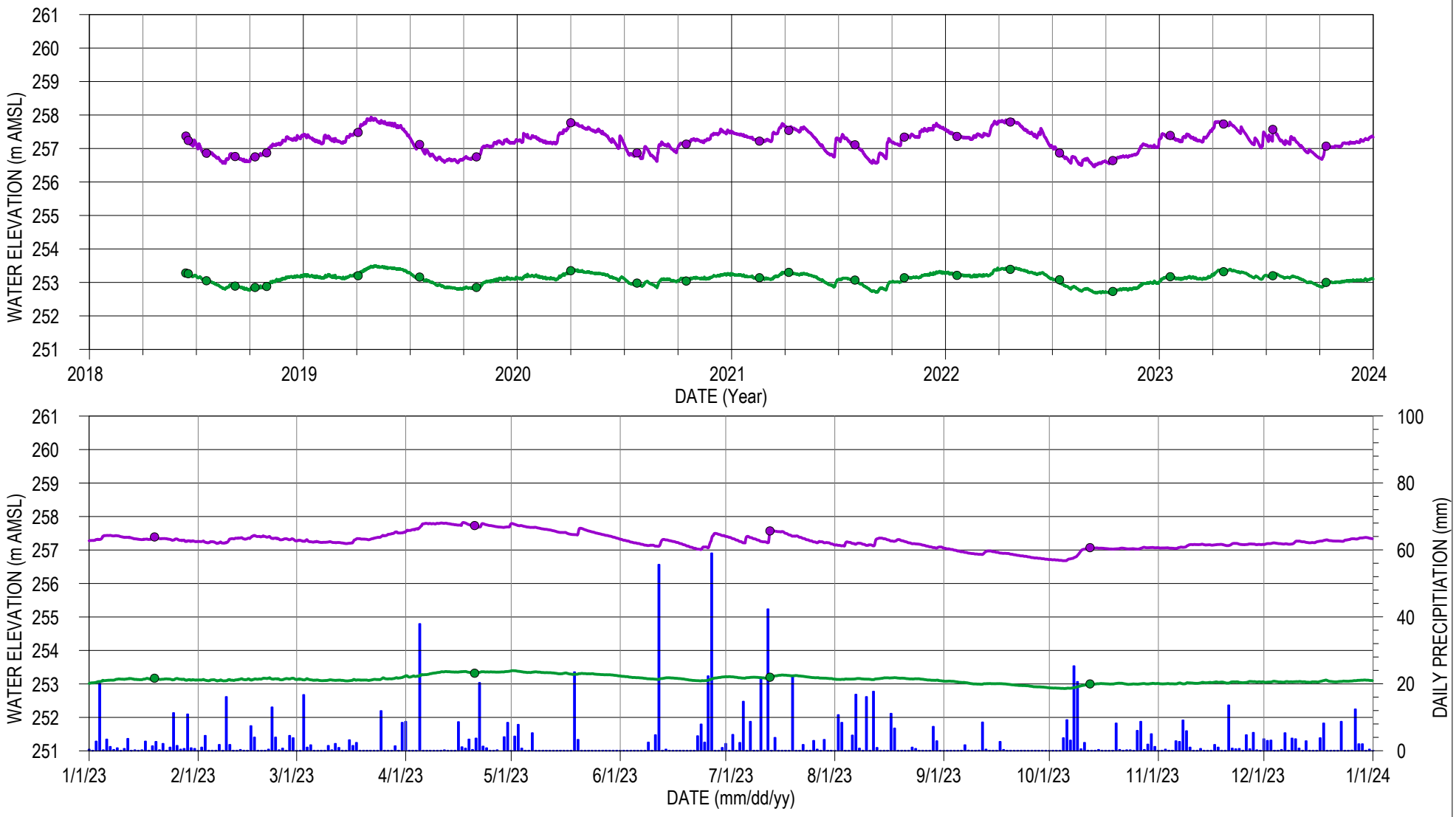
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
SHALLOW GROUNDWATER ZONE
MW7R-22

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-3

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW7-18.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW10-18S | MW10-18D | Daily Precipitation

GHD

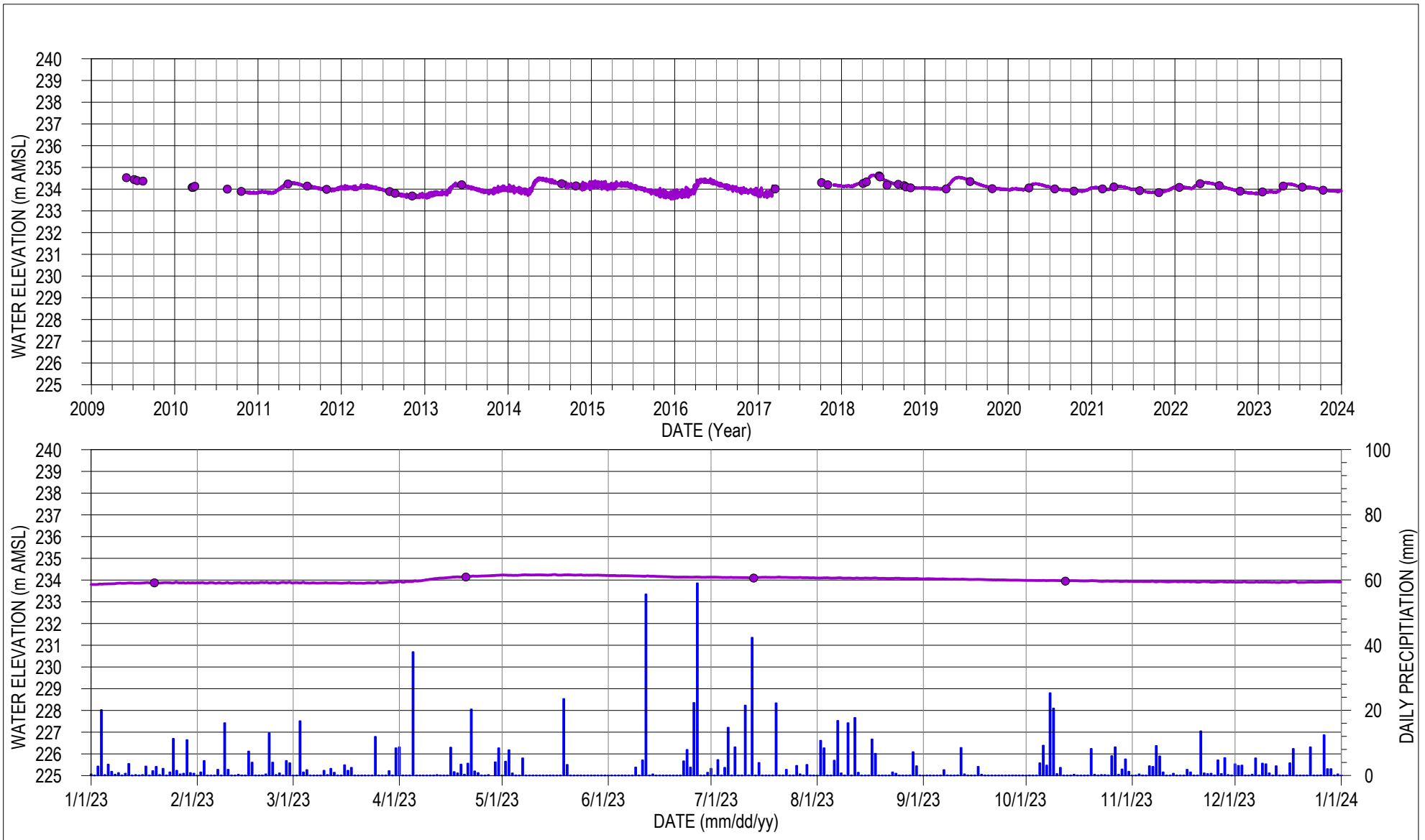
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
SHALLOW GROUNDWATER ZONE
MW10-18

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-4

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW10-18.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW1-09 — Daily Precipitation

GHD

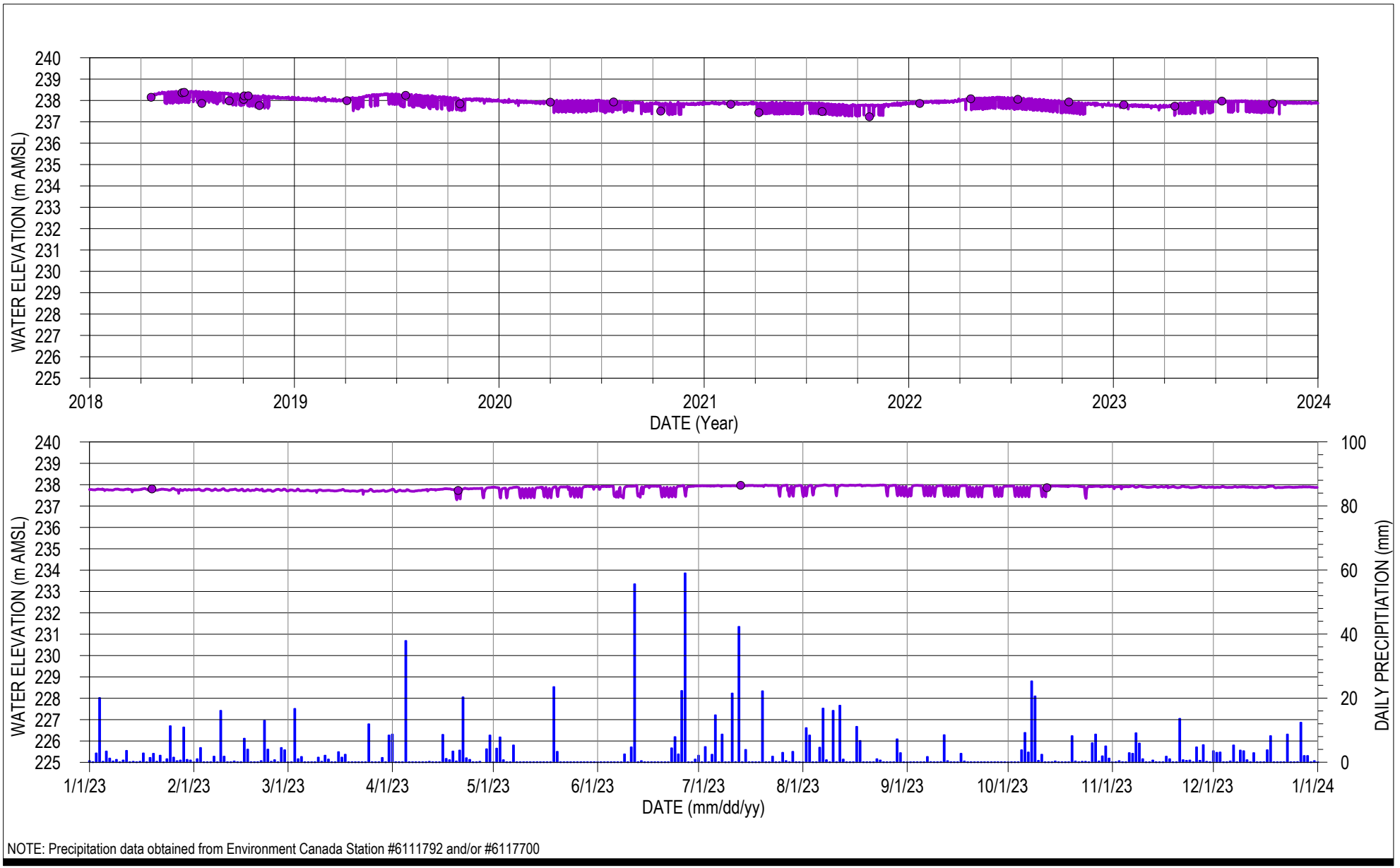
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
UPPER AQUIFER
MW1-09

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-5

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW1-09.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND
MW5-18
Daily Precipitation

GHD

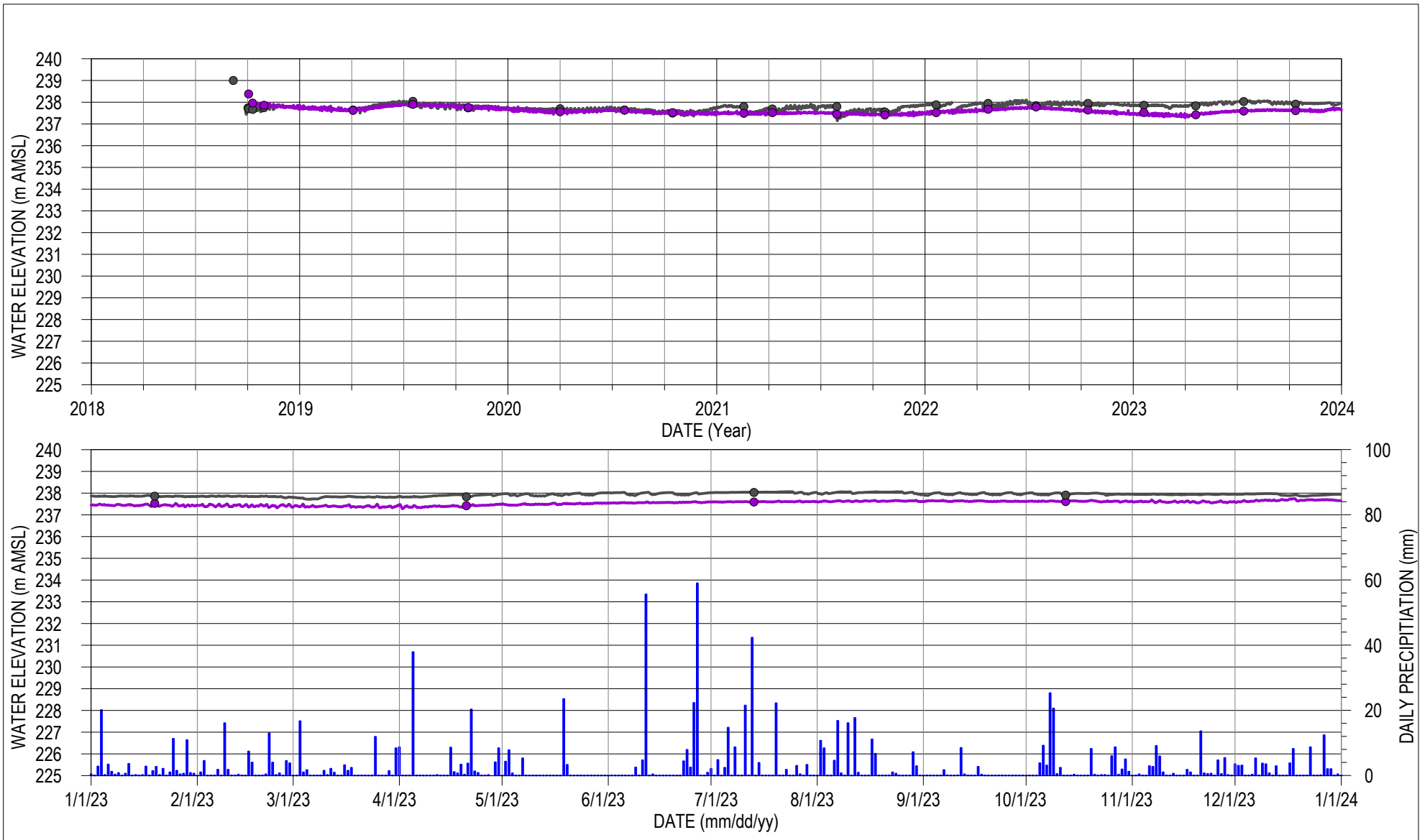
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
UPPER AQUIFER
MW5-18

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-6

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW5-18.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW6-18 | MW6-18R | Daily Precipitation

GHD

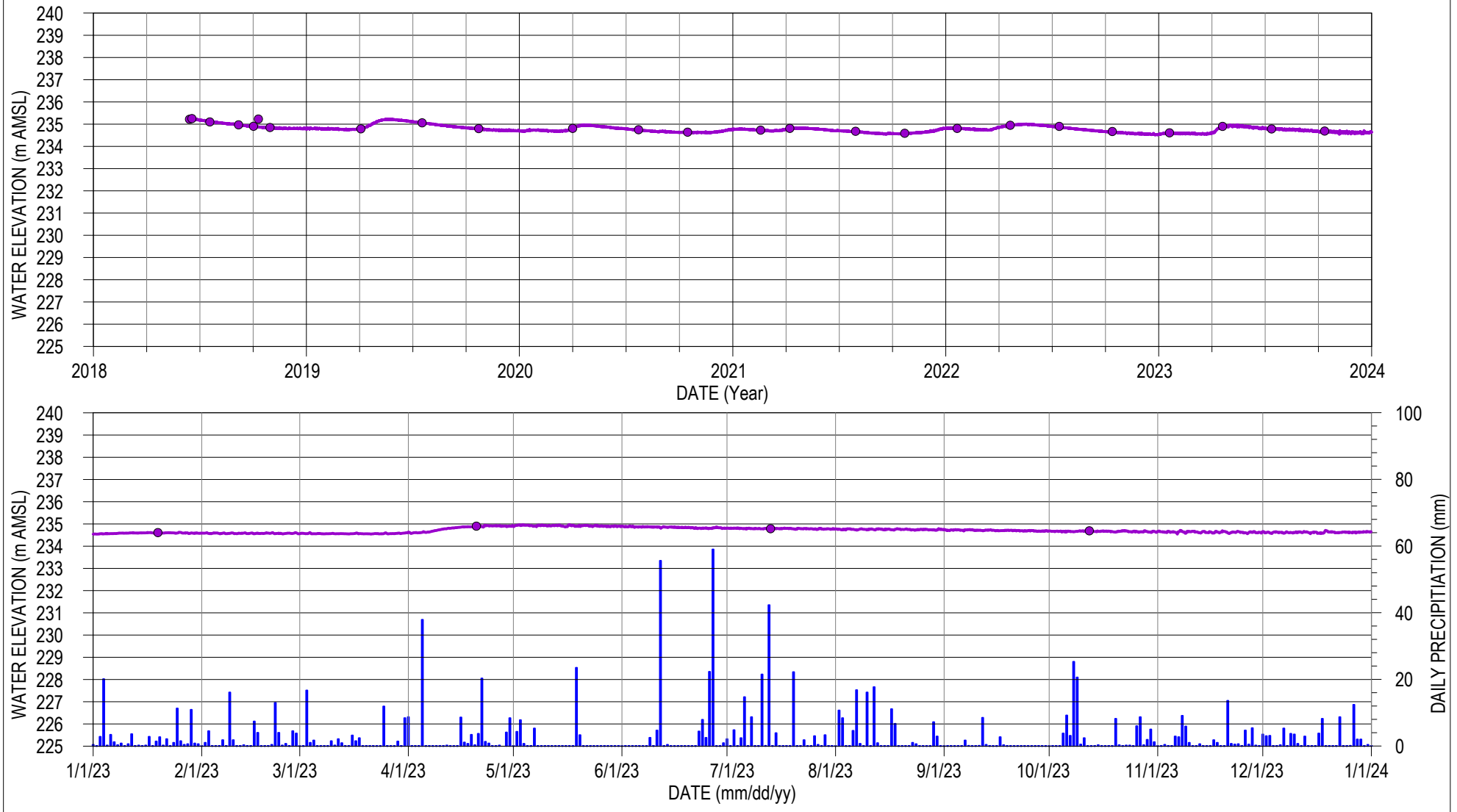
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
UPPER AQUIFER
MW6-18

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-7

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW6-18.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW8-18 Daily Precipitation

GHD

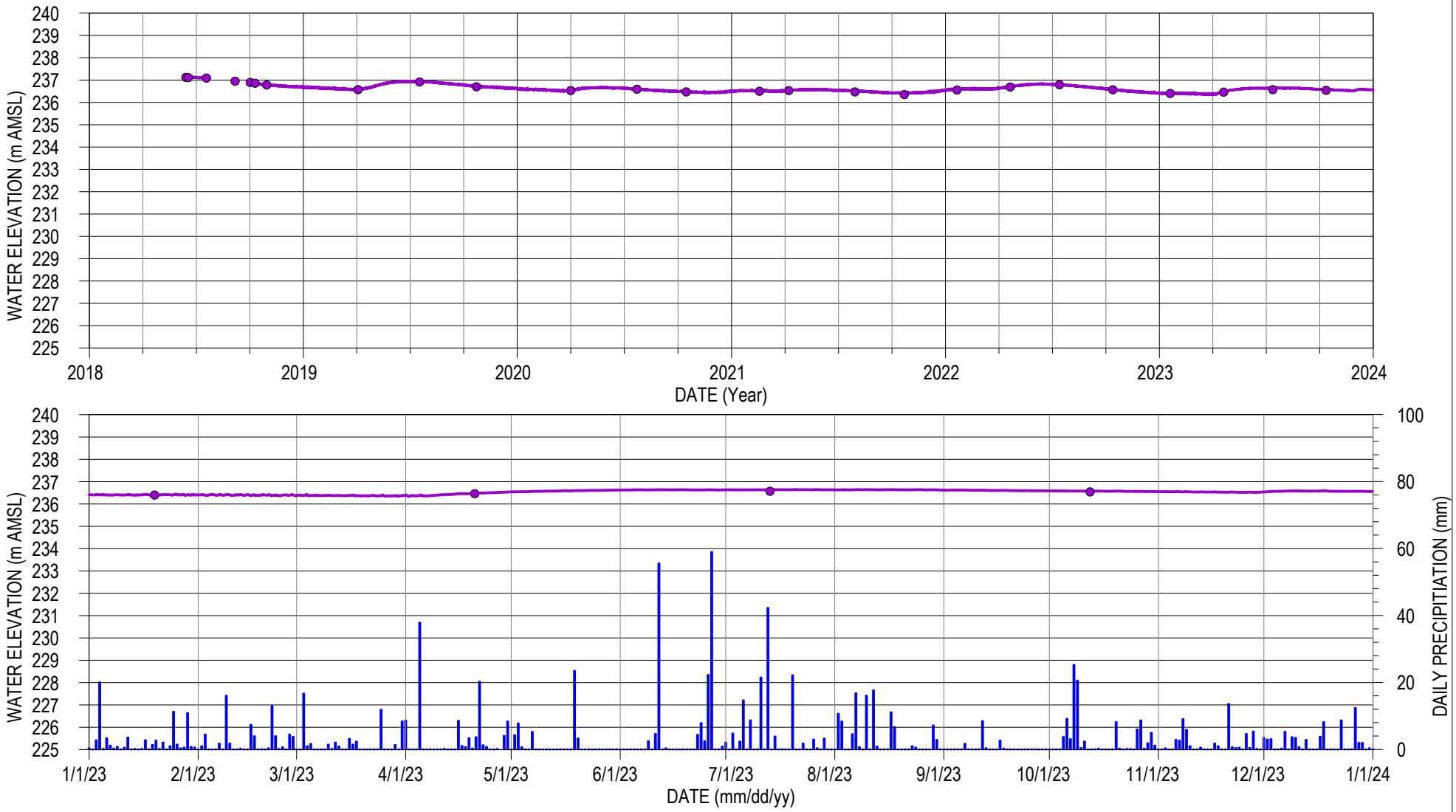
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
UPPER AQUIFER
MW8-18

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-8

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW8-18.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

MW9-18 Daily Precipitation

GHD

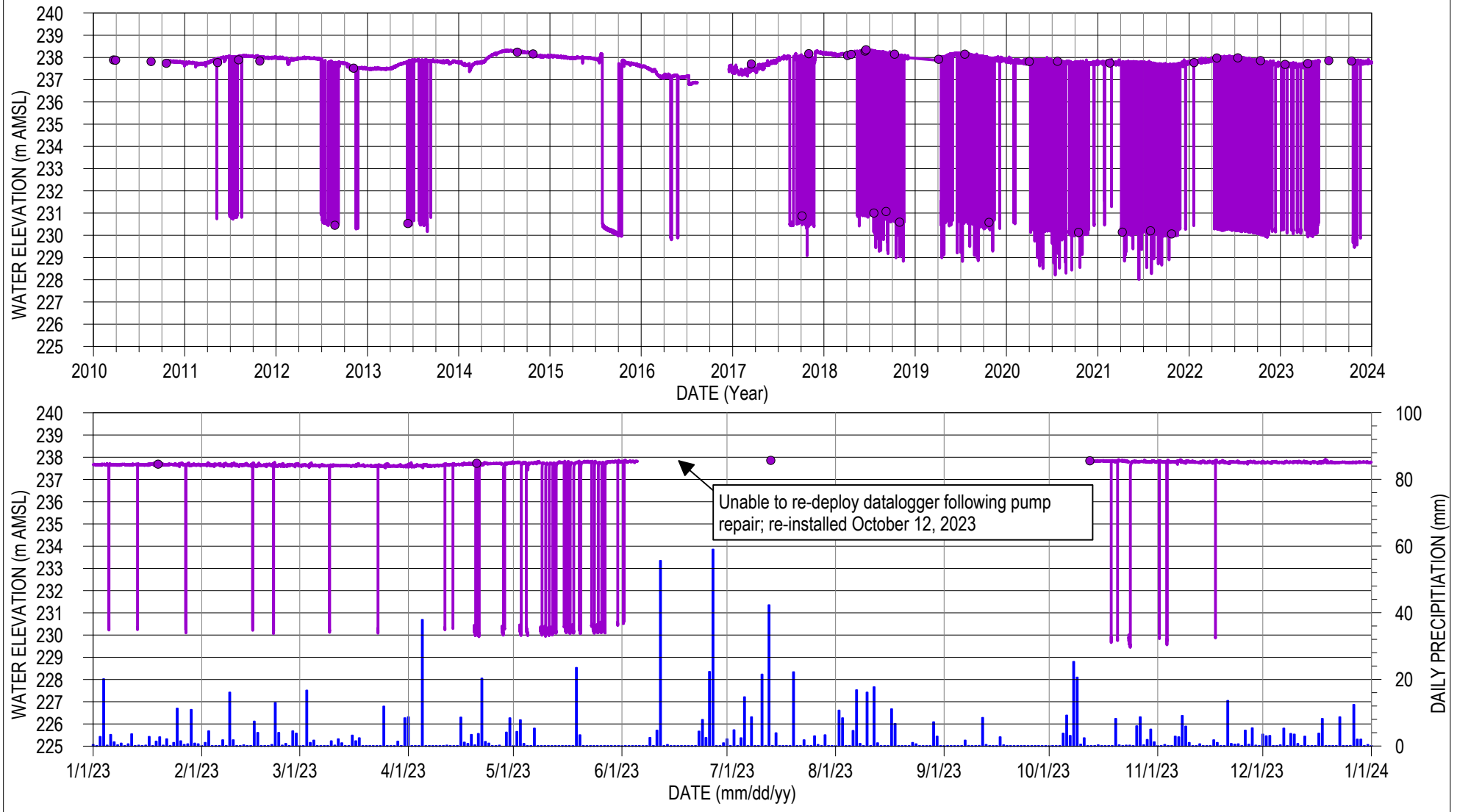
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
UPPER AQUIFER
MW9-18

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-9

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-MW9-18.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

PW1-09 — Daily Precipitation

GHD

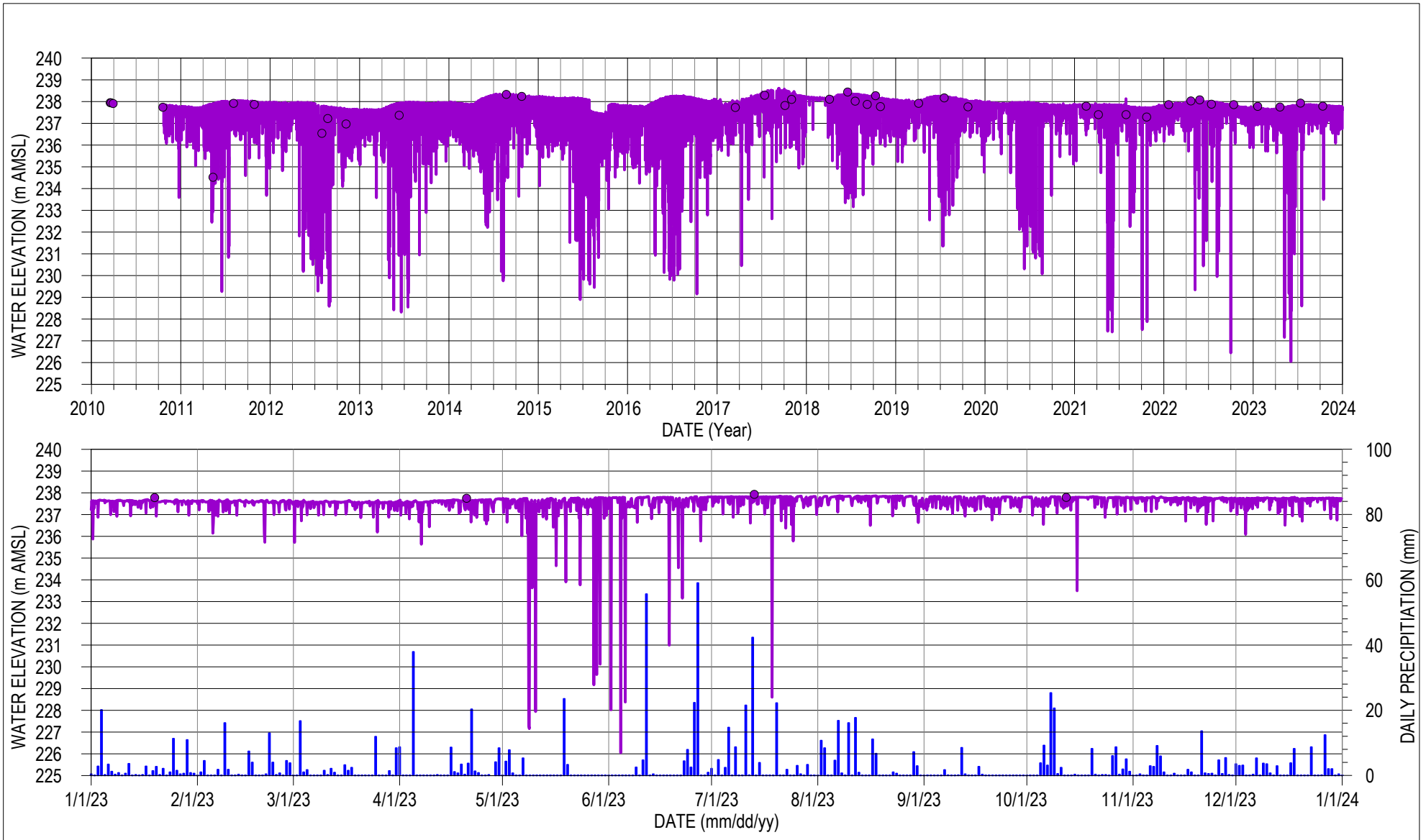
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
UPPER AQUIFER
PW1-09

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-10

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-PW1-09.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

WW15 (#17709) Daily Precipitation

GHD

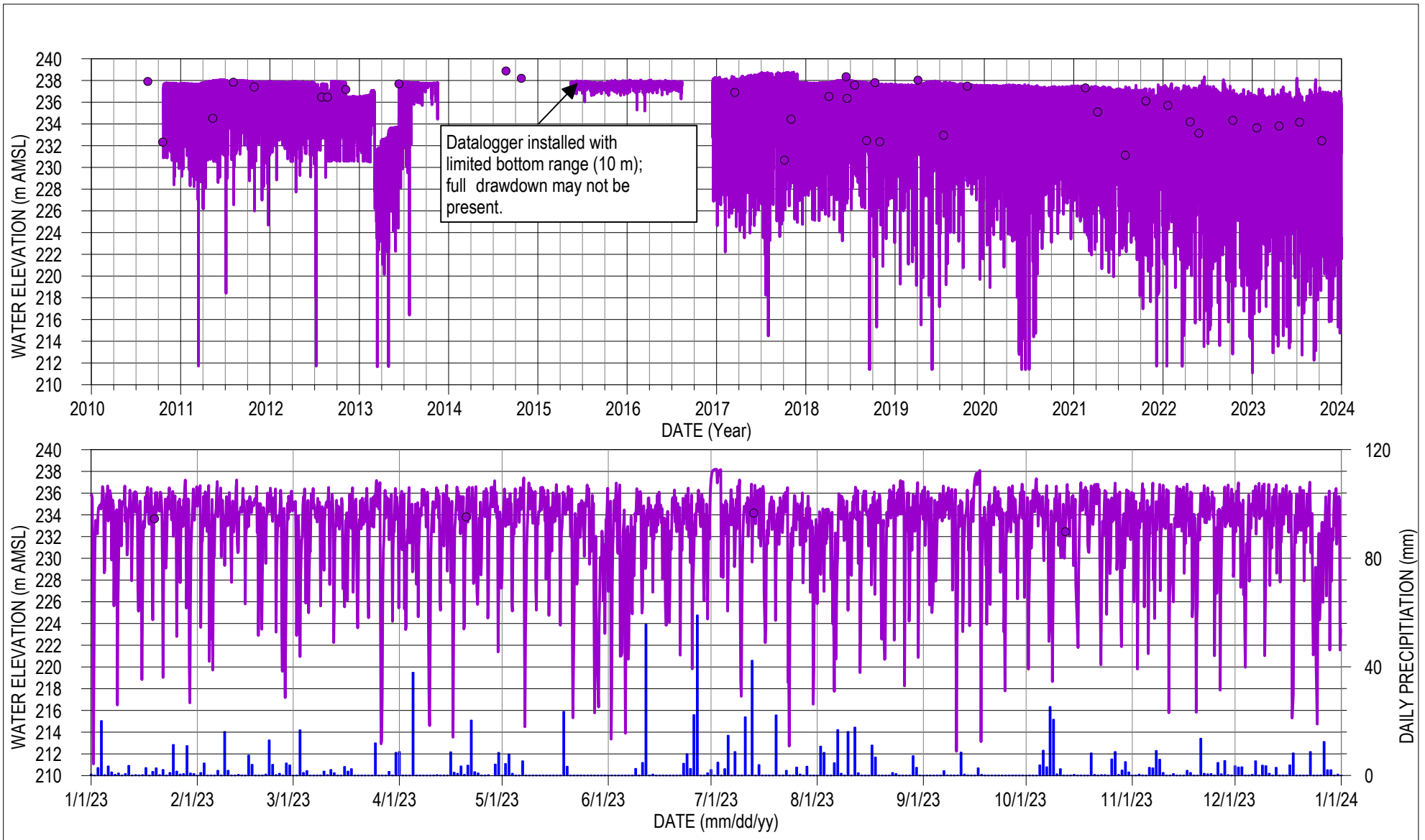
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
PRIVATE WELL WW15 (#17709)

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-11

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-WW15.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

WW9 (#50632) Daily Precipitation

GHD

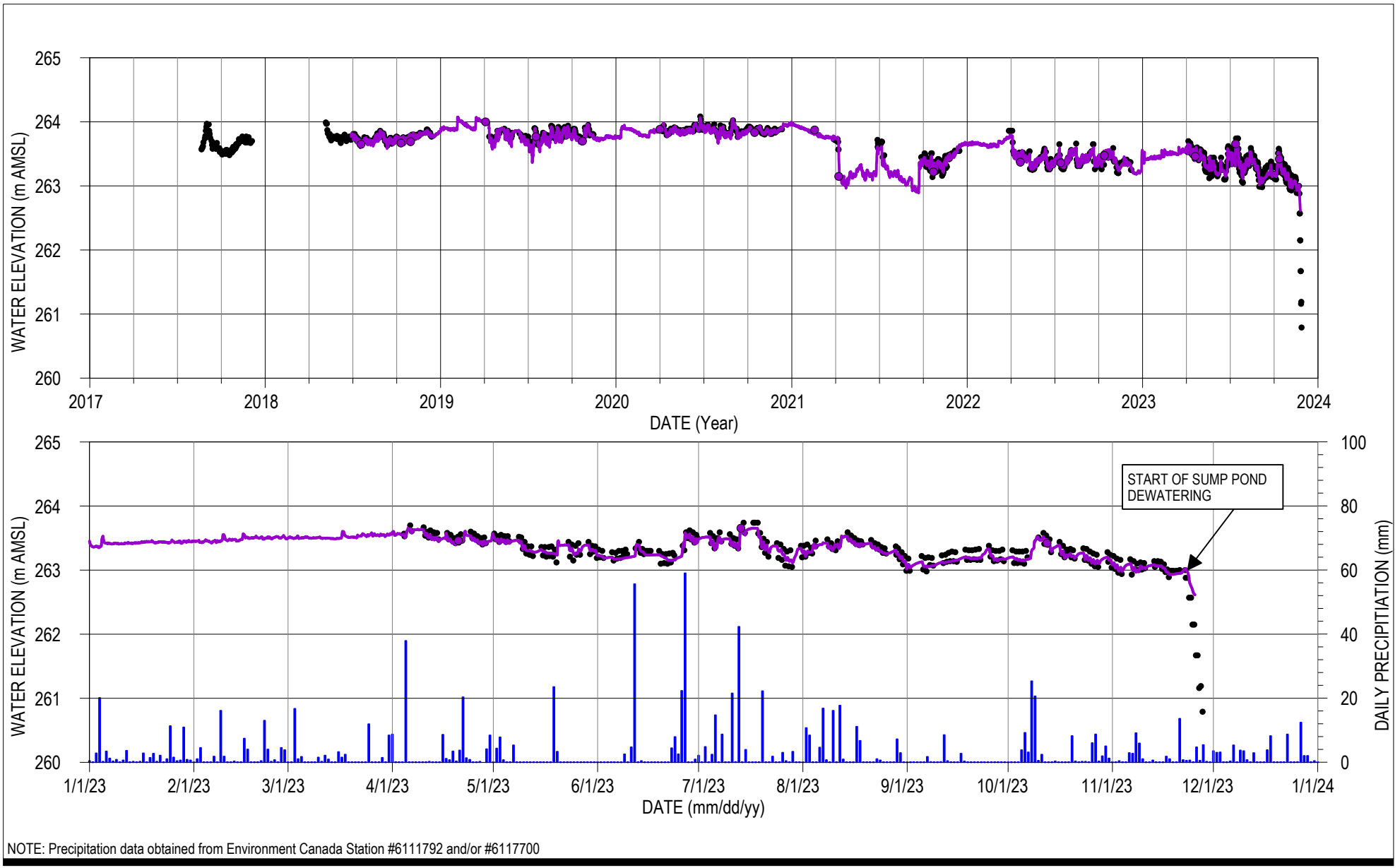
DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH
PRIVATE WELL WW9 (#50632)

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-12

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-WW9.grf



NOTE: Precipitation data obtained from Environment Canada Station #6111792 and/or #6117700

LEGEND

SW1

Water Level Observation (DFA)

Daily Precipitation

GHD

DUFFERIN AGGREGATES TEEDON PIT TOWNSHIP OF TINY, COUNTY OF SIMCOE, ONTARIO

HYDROGRAPH - SURFACE WATER SUMP POND (SW1)

Project No. **11155365**
Date **April 18, 2024**

FIGURE C-13

HEG file: N:\CA\Waterloo\HEG\HEG\11155365\Teedon Pit\Data\Hydrographs\All and AMR\2023\APPC-SW1.grf

Appendix D

Permit to Take Water

Appendix D.1
Permit to Take Water No. P-300-1196295834
Version 1

PERMIT TO TAKE WATER
Surface Water & Groundwater
NUMBER P-300-1196295834
Version: 1.0
Effective Date: January 6, 2023
Expiry Date: December 31, 2023

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

GROUPE CRH CANADA INC./CRH CANADA GROUP INC.

435 JEAN NEVEU Rue
LONGUEUIL
QUEBEC
Canada
J4G2P9

For the water taking from

Source Pond

Located at:

40 Darby Road , Tiny Township, TINY, ONTARIO, CANADA, L0K 2E1

DEFINITIONS

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

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 of the 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 the ministry of the government of Ontario responsible for the administration of the OWRA, currently named the Ministry of the Environment, Conservation and Parks.

d. "District Office" means the Barrie District Office of the Ministry.

e. "Permit" or "PTTW" means this Permit to Take Water No. P-300-1196295834 including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA, as may amended.

f. "Permit Holder" means GROUPE CRH CANADA INC./CRH CANADA GROUP INC..

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

TERMS AND CONDITIONS

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

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, attested to by Richard Chatfield, on November 23, 2022, 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 without the Director's written consent.

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.

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, 2023. 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 (litres)

	Source Name / Description	Source Type	Purpose Category	Specific Purpose	Activity	Maximum Taken per minute	Maximum Number of Hours Taken per day	Maximum volume per Day	Maximum days in a year	Zone / Easting / Northing
1	Source Pond (Source Pond)	Pond	Construction	Construction	Dewatering	7274	12	5237280	150	17 / 591900 / 4944960
Total Taking								**5237280**		

4. **Monitoring**

4.1. The Permit Holder shall maintain a record of all water takings. The daily volume of water taken shall be measured by a flow meter or calculated in accordance with the method described in the application for this Permit, or as otherwise accepted by the Director. This record shall include the dates and times of water takings, the rates of pumping, and an estimated calculation of the total amounts of water pumped per day for each day that water is taken under the authorization of this Permit. A separate record shall be maintained for each source. The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon request. The Permit Holder, unless otherwise required by the Director, shall submit, on or before March 31st in every year, the records required by this condition to the Ministry's Regulatory Self Reporting System.

4.2. The water takings shall be included in the Annual Monitoring Report required by Condition 4.3 of Permit to Take Water No. 6258-BRDJ2M.

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. Impacts for Water Situation Type

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.

For Groundwater Takings

If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent or alleviate the observed negative impact. Pending permanent

restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.
If permanent interference is caused by the water taking, the Permit Holder shall restore the water supplies of those permanently affected.

6. **Director May Amend Permit**

6.1. 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).

REASONS

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.

APPEAL PROVISIONS

In accordance with Section 100 of the *Ontario Water Resources Act, R.S.O. 1990*, you may by written notice served upon me and the Ontario Land Tribunal within 15 days after receipt of this notice, require a hearing by the Tribunal. Section 101 of the *Ontario Water Resources Act, R.S.O. 1990*, as amended, provides that the notice requiring the hearing ("the Notice") 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:

Registrar* Ontario Land Tribunal 655 Bay Street, Suite 1500 Toronto ON M5G 1E5 OLT.Registrar@ontario.ca	and	The Director, Section 34.1, Ministry of the Environment, Conservation and Parks 5775 Yonge Street, 8th Floor Toronto, ON M2M 4J1 Fax: (416) 325-6347

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

Dated at Toronto this 6th day of January, 2023

Gregory Meek

Director, Section 34.1

Ontario Water Resources Act , R.S.O. 1990

c: Richard Chatfield, GHD Limited

SCHEDULE 1

This Schedule "A" forms part of Permit To Take Water P-300-1196295834 Version Number 1.0, dated January 6, 2023.

1. Permit To Take Water Application New Permit Reference Number: 1000196294, for GROUPE CRH CANADA INC./CRH CANADA GROUP INC., at Dufferin Aggregates - Teedon Pit - 40 Darby Road, Tiny Township; ON L0K 2E1; contact person Jennah Pettenuzzo, for temporary construction dewatering from an existing off-line dug PTTW Source (PTTW No. 6558- BRDJ2M -Source Pond) to facilitate the temporary construction of MECP ECA ISW works consistent with ECA reference number No. 3828-BYBFQD. Application signed by Richard Chatfield, P. Eng. Of GHD Ltd. 2022/11/23.

2. GHD. 2022. Category 2 Permit to Take Water Application Supporting Information Dufferin Aggregates Teedon Pit, signed and stamped by Richard Chatfield, P. Eng. and signed by Dan Puddephatt of GHD, Ref: 11155365-LTR-18, 23 November 2022.

Appendix D.2
Permit to Take Water No. P-200-1196295348 Version 2

PERMIT TO TAKE WATER
Surface Water & Groundwater
NUMBER P-300-1196295834
Version: 2.0
Effective Date: December 21, 2023
Expiry Date: May 31, 2024

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

GROUPE CRH CANADA INC./CRH CANADA GROUP INC.

435 JEAN NEVEU Rue
LONGUEUIL
QUEBEC
Canada
J4G2P9

For the water taking from

Source Pond

Located at:

40 Darby Road , Tiny Township, TINY, ONTARIO, CANADA, L0K 2E1

This Permit cancels and replaces Permit Number P-300-1196295834 Version 1.0, issued on January 6, 2023.

DEFINITIONS

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

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 of the 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 the ministry of the government of Ontario responsible for the administration of the OWRA, currently named the Ministry of the Environment, Conservation and Parks.

d. "District Office" means the Barrie District Office of the Ministry.

e. "Permit" or "PTTW" means this Permit to Take Water No. P-300-1196295834 including its Schedules, if any, issued in accordance with Section 34.1 of the OWRA, as may amended.

f. "Permit Holder" means GROUPE CRH CANADA INC./CRH CANADA GROUP INC..

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

TERMS AND CONDITIONS

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

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, attested to by Jennah Pettenuzzo, on September 20, 2023, 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 without the Director's written consent.

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.

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 May 31, 2024. 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 (litres)

	Source Name / Description	Source Type	Purpose Category	Specific Purpose	Activity	Maximum Taken per minute	Maximum Number of Hours Taken per day	Maximum volume per Day	Maximum days in a year	Zone / Easting / Northing
1	Source Pond (Source Pond)	Pond	Construction	Construction	Dewatering	7274	12	5237280	150	17 / 591900 / 4944960
Total Taking								**5237280**		

3.3. This Permit does not authorize the Permit Holder to discharge pumped water into the natural environment. It is the Permit Holder's responsibility to obtain all necessary approvals from the appropriate authority prior to discharging into the natural environment.

4. **Monitoring**

4.1. The Permit Holder shall maintain a record of all water takings. The daily volume of water taken shall be measured by a flow meter or calculated in accordance with the method described in the application for this Permit, or as otherwise accepted by the Director. This record shall include the dates and times of water takings, the rates of pumping, and an estimated calculation of the total amounts of water pumped per day for each day that water is taken under the authorization of this Permit. A separate record shall be maintained for each source. The Permit Holder shall keep all required records up to date and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon request. The Permit Holder, unless otherwise required by the Director, shall submit, on or before March 31st in every year, the records required by this condition to the Ministry’s Regulatory Self Reporting System.

4.2. The water takings shall be included in the Annual Monitoring Report required by Condition 4.3 of Permit to Take Water No. 6258-BRDJ2M, or as amended.

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. Impacts for Water Situation Type

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.

For Groundwater Takings
If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of a Permit for this water taking, the Permit Holder shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Permit Holder shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.

If permanent interference is caused by the water taking, the Permit Holder shall restore the water supplies of those permanently affected.

6. **Director May Amend Permit**

6.1. 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).

REASONS

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.

APPEAL PROVISIONS

In accordance with Section 100 of the *Ontario Water Resources Act, R.S.O. 1990*, you may by written notice served upon me and the Ontario Land Tribunal within 15 days after receipt of this notice, require a hearing by the Tribunal. Section 101 of the *Ontario Water Resources Act, R.S.O. 1990*, as amended, provides that the notice requiring the hearing ("the Notice") 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:

Registrar* Ontario Land Tribunal 655 Bay Street, Suite 1500 Toronto ON M5G 1E5 OLT.Registrar@ontario.ca	and	The Director, Section 34.1, Ministry of the Environment, Conservation and Parks 5775 Yonge Street, 8th Floor Toronto, ON M2M 4J1 Fax: (416) 325-6347

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

Dated at Toronto this 20th day of December, 2023

Archana Uprety

Director, Section 34.1

Ontario Water Resources Act , R.S.O. 1990

c: Jennah Pettenuzzo, York Rapidlink Constructors
Richard Chatfield, GHD Limited

SCHEDULE 1

This Schedule1 forms part of Permit To Take Water P-300-1196295834 Version Number 2.0, dated December 20, 2023.

1. Permit To Take Water Application New Permit Reference Number: 1000196294, for GROUPE CRH CANADA INC./CRH CANADA GROUP INC., at Dufferin Aggregates - Teedon Pit - 40 Darby Road, Tiny Township; ON L0K 2E1; contact person Jennah Pettenuzzo, for temporary construction dewatering from an existing off-line dug PTTW Source (PTTW No. 6558- BRDJ2M -Source Pond) to facilitate the temporary construction of MECP ECA ISW works consistent with ECA reference number No. 3828-BYBFQD. Application signed by Richard Chatfield, P. Eng. Of GHD Ltd. 2022/11/23.

2. GHD. 2022. Category 2 Permit to Take Water Application Supporting Information Dufferin Aggregates Teedon Pit, signed and stamped by Richard Chatfield, P. Eng. and signed by Dan Puddephatt of GHD, Ref: 11155365-LTR-18, 23 November 2022.

3. Permit to Take Water Application signed by Richard Chatfield and dated September 20, 2023.