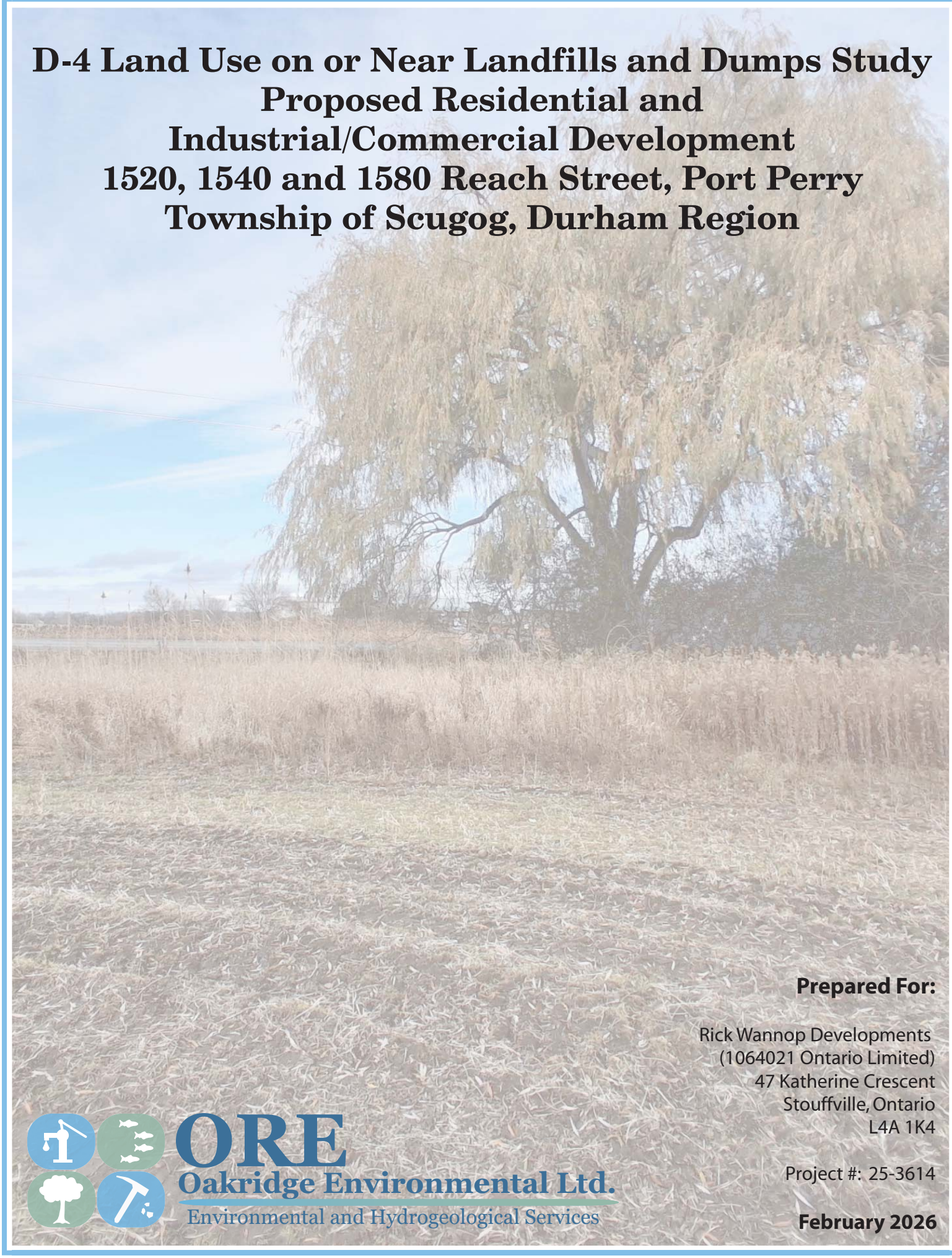
D-4 Land Use on or Near Landfills and Dumps Study
Proposed Residential and Industrial/Commercial Development
1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region



Prepared For:

Rick Wannop Developments
(1064021 Ontario Limited)
47 Katherine Crescent
Stouffville, Ontario
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Project #: 25-3614

February 2026

ORE
Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

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February 20, 2026

Rick Wannop Developments (1064021 Ontario Limited)
47 Katherine Crescent
Stouffville, Ontario
L4A 1K4

Attention: **Richard (Rick) Wannop**, Owner

Re: D-4 Land Use on or Near Landfills and Dumps Study
Proposed Residential and Industrial/Commercial Development
1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region
ORE File No. 25-3614

Dear Mr. Wannop:

In accordance with our revised proposal October 30, 2025, we are pleased to present our report in support of the above-referenced development project.

As you will see, our investigations have not identified any significant landfill-related constraints that would physically prohibit the proposed development. Based on the available data, it is apparent that the migration of leachate from the former landfill site is directed north and away from the subject site. Similarly, a landfill gas monitoring program concluded that any combustible gas (i.e., methane) generated by the former landfill must naturally vent through the sandy glaciolacustrine soils that surround the waste pile.

As servicing for the proposed subdivision is assumed to require excavations along Reach Street, it is recommended that an assessment of potential landfill gas migration be conducted prior to those activities. Similarly, if dewatering of those excavations will be required, a hydrogeological study examining the potential for leachate to be within the radius of influence of those dewatering operations should be also conducted.

Should you have any questions, please contact the undersigned.

Yours truly
Oakrige Environmental Ltd.

Brian R. King, P. Geo.

Table of Contents

Page No.

1.0 Introduction . . . 1
1.1 General . . . 1
1.2 Scope of Work . . . 1
1.3 Proposed Development . . . 2
1.4 Previous Work . . . 3
1.5 Former Landfill Site Description . . . 3

2.0 Physical Setting . . . 4
2.1 Topography, Drainage and Surrounding Land Use . . . 4
2.2 Geology . . . 5
2.2.1 Bedrock . . . 5
2.2.2 Surficial Geology . . . 5

3.0 Groundwater Flow Pattern . . . 6
3.1 On-Site Groundwater Flow . . . 6
3.2 Landfill Site Groundwater Flow Pattern . . . 6

4.0 Groundwater Quality . . . 7
4.1 On-Site Data . . . 7
4.2 Landfill Site Data . . . 8
4.3 Leachate Pathways . . . 9

5.0 Landfill Gas . . . 10
5.1 General . . . 10
5.2 Potential Existing Pathways . . . 10
5.3 On-Site Data . . . 11
5.4 Potential Future Pathways . . . 12

6.0 Nuisance Effects . . . 13

7.0 Conclusions and Recommendations . . . 14

List of Figures

Figure 1	General Location
Figure 2	Topography & Drainage
Figure 3	Surficial Geology
Figure 4	Site Features
Figure 5	Cross Section
Figure 6	On-Site Groundwater Flow Pattern
Figure 7	Off-Site Groundwater Flow Pattern

List of Appendices

Appendix A	Preconsultation Letter
Appendix B	Preliminary Development Concept Plan
Appendix C	Field and Laboratory Water Quality Data
Appendix D	On-Site Combustible Gas Data

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D-4 Land Use on or Near Landfills and Dumps Study
Proposed Residential and Industrial/Commercial Development
1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region

1.0 Introduction

1.1 General

Oakridge Environmental Ltd. was retained by the Applicant, Rick Wannop Developments (1064021 Ontario Limited), to conduct a study of the potential for impacts associated with the presence of a nearby (former) landfill site, in accordance with the requirements outlined by the Township of Scugog's Pre-consultation letter of March 4, 2025 (Appendix A) and the Ministry of the Environment, Conservation and Parks (MECPs) Guideline D-4. The letter includes the requirements of other agencies consulted.

We are also providing (under separate cover) reports that address the following related matters:

1. Preliminary Hydrogeological Study (requested by Township of Scugog - Engineering);

2. Excess Soil Management (requested by Township of Scugog - Planning), and

3. A Site Screening Questionnaire (SSQ) or a Record of Site Condition (RSC) compliant Phase I Environmental Site Assessment (ESA) Report.

The location of the proposed development site is illustrated on Figure 1.

1.2 Scope of Work

In conducting this and the other studies, the following general tasks were completed:

- Compilation and review of background information;
- Preparation of a geo-referenced base plan;
- Conduct site inspections, soil and groundwater investigations;
- Mapping of site features (including borehole and well locations) utilizing a mapping-grade differential GPS unit;
- Collection of combustible gas measurements in all nearby accessible monitoring wells;
- Programming and installation of data logging pressure transducers ("dataloggers") to record water level variations in the monitoring wells;

- Development and sampling of on-site monitoring wells;
- Preparation of technical illustrations;
- Data interpretation, and report preparation.

1.3 Proposed Development

The proposed development site comprises a total of ~63.88 ha (~157.8 acres), situated within three (3) parcels of land with civic addresses 1520, 1540 and 1580 Reach Street (Port Perry), on Part of Lots 15 & 16, Concession 8, Township of Scugog. The development site fronts onto Reach Street, which follows the northern property boundary (see Figures 1 and 2).

The Site is proposed to be developed in two (2) parts, consisting of a 42.3 ha residential ("Community") area in the eastern approximately two thirds and a 21.58 ha industrial/commercial ("Employment") area to the west.

Based on the preliminary conceptual plan provided by Malone Given Parsons (as provided in Appendix B), the residential component will include up to approximately 1,017 units of various densities with area set aside for a long-term care facility or a mid-rise mixed use development. The industrial area will have about 14.57 ha available for those uses (by Plan of Subdivision) and will also include a stormwater management facility. Both development areas include portions that are slated to be set-aside to accommodate natural heritage features and related setbacks. It is understood that the proposed developments will be serviced for potable water and wastewater by connecting to the municipal systems.

The closed landfill site in question occurs immediately off the northeast corner of the proposed development Site, directly across (north of) Reach Street, within the 500 m "area of influence" described by Guideline D-4, as per the following:

> *"...Ministry staff shall ensure that the proponent has evaluated the presence and impact of any adverse effects or risks to health and safety and that necessary remedial measures are taken when land use proposals are within this distance. This assessment shall be based on the nature and knowledge of the disposal site, and the nature of land use(s) proposed."*

This report addresses the requirements of D-4 in terms of leachate and groundwater, landfill gas migration and potential nuisance effects.

A copy of the preliminary conceptual development plan is presented in Appendix B.

1.4 Previous Work

A large part of the current Site (i.e., 41.4 ha), comprising roughly the lands currently proposed for the industrial/commercial development plus the western half of the proposed residential development, was the subject of an initial, preliminary review of hydrogeological conditions by Gibson & Associates Ltd. (GAL), in late 1990.[1]

At that time, the investigation was intended to assess private groundwater supply and private sewage treatment to support development in the absence of municipal services. However, the initial report focussed on the potential for groundwater impact associated with septic effluent, as this was viewed as the principal constraint on development density, at the time. The water supply component of the investigation was to be completed at a later time.

It should be noted that the impact assessment completed in 1990/1991 pre-dates the currently applicable Ministry of the Environment, Conservation and Parks' (MECP's) Procedure D-5-4 which came into effect in 1996. As such, the impact assessment is not applicable to the current development application, which will be municipally serviced. Regardless, the information provided by GAL has been considered in our assessment.

In addition to the results of our on-site explorations, our report relies extensively on data and interpretations presented in the report:

> *"Scugog Landfill: 2024 Annual Monitoring Report, by RWDI AIR Inc., Consulting Engineers & Scientists, Guelph, Ontario, RWDI #2404106, March 28, 2025."*

1.5 Former Landfill Site Description

RWDI AIR Inc. (RWDI 2024) provide the following description of the former landfill site:

> *"The Scugog Landfill (Site) is located on part of the south half Lot 17, Concession 7 in the Township of Scugog, Regional Municipality of Durham (Durham Region), and is municipally addressed as 1623 Reach Road, Port Perry, ON. The Site is situated northwest of the Town of Port Perry, on the north side of Reach Street, west of Old Simcoe Street....*
>
> *The Site historically operated under Environmental Compliance Approval (ECA) for Waste Disposal Site No. A390708 (Waste ECA), which is regulated by the Ontario Ministry of the Environment, Conservation and Parks (MECP). The Site was licensed for the disposal of domestic, commercial, and 5% non-hazardous solid industrial wastes (limited to automotive garage debris). The Site began operations in 1972 and*

[1] report dated January 16, 1991.

reached capacity in 1989, with the final cover being placed in November 1990. The Site was closed in 1992. An amendment to the Waste ECA was issued in 1985, in part to establish a groundwater and surface water quality monitoring and reporting program. The estimated area of landfilling was approximately 7.2 hectares within a 40.4 hectare property, which includes the Nonquon River Water Pollution Control Plant (NRWPCP) to the north. Durham Region currently operates the Scugog Waste Management Facility transfer station in the southern portion of the Site, under ECA for a Waste Transfer Station No. A390711..."

2.0 Physical Setting

2.1 Topography, Drainage and Surrounding Land Use

As illustrated by Figure 2, the Site exhibits approximately 19 m of topographic relief, with the uplands situated in the eastern third, consisting of a drumlin ridge, elongated along its roughly north-south axis. The apex of the drumlin occurs in the south-central part of the Site, extending across the southern boundary.

From the apex, the eastern flank declines about 17 m to a small meandering watercourse feature situated on an adjacent property (referred to locally as Cawkers Creek). The watercourse conveys flows northward, eventually to Lake Scugog. In contrast, the western flank of the drumlin exhibits a more gentle decline of approximately 19 m across the rest of the Site, toward the adjacent properties, which consist of existing commercial/industrial developments, accessed by N. Port Road. The axis of the drumlin ridge is a local drainage divide, with flows on the west side eventually reaching the Nonquon River Wetland #7, approximately 400 m to the west of the Site.

There are no mapped (channelized) watercourses or wetlands on the subject Site. The closest watercourse is Cawkers Creek, immediately to the east, separating the nearby residential subdivision along Roseborough Crescent and Roseborough Drive from the Site. The watercourse is contained within a dedicated Natural Heritage area, likely preserved as part of the nearby subdivision development, functioning as a receiver for flows from the stormwater management pond. Similar stormwater management ponds are visible on aerial imagery to occur adjacent to the creek, south of the study area, suggesting the feature may be dominated by overland flows.

A variety of uses surround the subject Site. To the east, land uses are predominantly urban residential (i.e., east of the watercourse and green space). To the south, uses are agricultural opposite the eastern two thirds of the Site, with active farming. To the west, uses include an industrial/commercial subdivision (employment lands) that are largely built-out. North of the Site (i.e., north of Reach Street), uses include agricultural, a possible small pit operation (to the northwest) and a municipal waste transfer facility (to

the northeast).[2] The waste transfer location was formerly a ~7.2 ha landfill site, which was closed in 1989. The former landfill site and its relationship to the proposed development is the subject of this study.

2.2 Geology

2.2.1 Bedrock

Published mapping (not illustrated) indicates the Site and surrounding area is underlain by shales of the Whitby Formation. This deeply buried formation consists of a dark grey to black, hard and fissile shale, which has been subdivided into three members (upper, middle and lower) although all members are dominantly shale. The shale is highly fossiliferous, carbonaceous (organic-rich) and can exhibit some hydrocarbon content. The Whitby Shale has been studied for its potential as an oil shale resource in Ontario.

Local well records (e.g., No. 7108816) and associated drift thickness mapping from the Ontario Geological Survey (OGS) suggest that the bedrock occurs below a depth of at least 76 m below the Site. Given that depth and the nature of the overlying overburden deposits (discussed below), the bedrock is not overly important to the Site's hydrogeology for this study.

2.2.2 Surficial Geology

As illustrated by Figure 3, the Site and surrounding area's surficial geology is dominated by glaciolacustrine deposits, consisting largely of layered sand in the west and layered silt and clay in the east. These deposits represent the remnants of an ancient period of post-glacial inundation. It is unlikely that there is a sharp contact between the two types, but rather a transitional change from one to the other across the area.

In the centre of the Site and sporadically to the east, elevated areas comprised of stone-poor, sand and silt till occur, in drumlinized ridges that are typically oriented with north-south axes. The drumlins are composed of Newmarket Till, a widely recognized regional aquitard. During the post-glacial inundation, some of the drumlins were likely small islands or shoals. The on-site drumlin is mapped as having fluvial terracing around its northern flanks, suggesting a remnant beach or shoreline. Other drumlins in the area appear to be less topographically pronounced, suggesting they were water-covered at one time.

Ten (10) boreholes were drilled and fifteen (15) manual auger probes were advanced about

[2] Scugog Waste Management Facility - 1623 Reach Street.

the subject Site to explore the shallow soil conditions as part of the hydrogeological investigation (Figure 4). The results of those explorations generally confirmed the above geology. The reader is referred to the accompanying Preliminary Hydrogeological Study for more details.

The proposed development Site's geology extends northeastward onto the former landfill site. RWDI (2024) describes the geological setting as:

> *"...the predominant stratigraphic unit near the [landfill] Site is a till which ranges in texture from a coarser sandy soil to a finer silty to clayey soil till. The till is overlain by a clayey silt unit in the northwest and southern portions of the Site. Deposits of sand and gravel occur through the central area of the [landfill] Site. The sand and gravel and the clayey silt are intermittently overlain by surficial sand. The landfill footprint was excavated into the surficial sand. The waste was historically interpreted to be approximately seven (7) metres in thickness...."*

While the general soil stratigraphy is very similar to that of the subject Site, it is apparent that the glaciolacustrine deposits, particularly the sandy upper layers, are thicker below the former landfill than at the development property.

Figure 5 presents an East-West cross section through the northern part of the former landfill, illustrating the relationship between the host soil substrate and the waste pile.

3.0 Groundwater Flow Pattern

3.1 On-Site Groundwater Flow

As part of the accompanying hydrogeological study, groundwater levels have been monitored manually and by utilizing programmable pressure transducers (dataloggers). The compiled data indicate that groundwater flow on the subject development Site occurs in two main regimes separated by a local drainage divide that follows the apex of the central drumlin ridge (Figure 6).

To the east of the drumlin, groundwater flows to the east/northeast toward Cawker's Creek. To the west, groundwater flows westward/north-westward toward the Nonquon #7 wetland. To the north (i.e., along the ridge of the drumlin, groundwater flow is interpreted to be northeastward, being a subdued reflection of the local topography. As such, the subject development Site is situated upgradient of the former landfill.

3.2 Landfill Site Groundwater Flow Pattern

Numerous monitoring wells have been constructed within the former landfill site since its

closure (Figure 7). These include wells constructed within the waste pile to observe leachate conditions (i.e., levels and quality) and wells constructed peripheral to the pile, to observe potential leachate plume(s) within the surrounding groundwater. To augment those wells, a series of surface water monitoring stations have also been established, which are also subjected to periodic flow and water quality monitoring.

While the monitoring record has some gaps, a considerable amount of monitoring data have been compiled by RWDI (2024), spanning February 1986 to August 2024, as presented in their report. Similar to the subject Site, RWDI have determined from their data that:

> *"...A regional watershed divide follows the crest of the southwest-northeast trending upland and crosses the Site. In general, the ground surface east of the Site slopes eastward towards Lake Scugog. The ground surface that is west of the Site slopes generally to the west, towards the Nonquon River. Shallow groundwater flow was interpreted to be outward from the landfill. Discharge of shallow groundwater is expected to occur both towards Cawkers Creek and to the wetland area northwest of the landfill."*

RWDI (2024) also present long-term hydrographs for the monitored wells illustrating the variations in leachate and groundwater elevations over the monitoring program. While the hydrographs indicate variability, the measured water elevations appear to consistently remain within well defined ranges, suggesting that the conditions are stable, although subject to seasonal effects. RWDI (2024) have also provided a plot of the groundwater flow pattern on the former landfill site, as reproduced in Figure 7.

As illustrated, groundwater flow is somewhat radial, emanating from the waste pile, with flows to the west, north and east. No groundwater flow occurs toward the subject Site, consistent with our interpretation that the subject Site is entirely upgradient of the former landfill.

4.0 Groundwater Quality

4.1 On-Site Data

As part of our accompanying hydrogeological study, two of the on-site monitoring wells were sampled for water quality analyses to assist in determining whether disposal of potential dewatering flows (if any) would be problematic (for Durham Region's Sewer-Use By-Law parameters). Of these, the sample obtained from BH25-5 represents the closest to the former landfill and was intended to represent groundwater conditions at a proposed Stormwater Management Pond to be constructed near the subject Site's northeast corner.

During well development (prior to slug testing), field-measured groundwater quality was

measured, including electrical conductivity, oxidation-reduction potential (ORP) and pH.

The field water quality data and laboratory certificates are presented in Appendix C. The data provide no indication of leachate presence or leachate-related effects. Elevated total dissolved solids (TDS) and salinity concentrations were noted in Cawker Creek, immediately south of Reach Street and in BH25-3, immediately west (and down-gradient) of the driveway associated with 1520 and 1540 Reach Street. The elevated TDS at these locations is likely related to deicing (i.e., road salt) applications.

4.2 Landfill Site Data

The on-going groundwater monitoring program at the former landfill site also includes chemical water quality, with an emphasis on leachate indicator parameters. Over the monitoring period (1986 to 2024), a considerable body of data has been compiled by RWDI (2024).

With reference to Figure 7, the closest landfill monitoring well to the subject development Site is referred to as "6-1". Well 6-1 is situated approximately 62 m from the Site's northeast corner along the western boundary of the current Waste Transfer Station and is described as being an *upgradient* well. Another monitoring well, referred to as "11-1", situated several hundred metres west of the former landfill site along the north side of Reach Street, is also considered by RWDI (2024) to be an upgradient well.

RWDI (2024) provides the following with respect to water quality at both locations:

> *"Increases in concentrations of chloride, TDS, and sodium have been observed at monitoring well 11-1 since approximately 2009. The elevated concentrations of chloride, TDS, and sodium are not interpreted to be a result of a landfill leachate effect, as other indicator parameters, manganese, alkalinity, iron, TKN and DOC, are not observed at concentrations indicative of leachate impacts. The increasing trend for these above-noted constituents may be a result of surface deicing practices to maintain safe driving conditions for the public, as monitoring well 11-1 is adjacent to Reach Street. The constituents of chloride, TDS, and sodium are commonly observed within road-salting-impacted groundwater. A similar trend has been observed at monitoring well 6-1, located adjacent to the Transfer Station, where deicing salt is expected to be used during the winter months."*

Upon review of the available data, we agree with this finding. As such, the available data provide no suggestion that landfill leachate has migrated toward, or is likely to migrate toward, the subject Site, under natural conditions.

In contrast to well 6-1, monitoring wells 12-2 and 13-1, which are both situated in the central part of the waste pile, exhibit significant concentrations of typical landfill leachate,

as indicated by RWDI (2024):

> *"For 2024, concentrations of BOD5, TDS, hardness, alkalinity, chloride, bromide, ammonia, COD, DOC, phenols, TKN, calcium, magnesium, sodium, potassium, barium, boron, cobalt, and conductivity values were, in general, greater within the leachate compared to groundwater. Parameter concentrations observed within the leachate monitoring well 13-1 were similar to the leachate characteristics observed at leachate monitoring well 12-2. Select parameter concentrations within the leachate at monitoring well 13-1 were slightly greater than the respective concentrations detected at monitoring well 12-2 for the 2024 monitoring period."*

RWDI (2024) does not provide a map illustrating the shape or extents of the leachate plume emanating from the waste pile. While such an illustration could be beneficial for visualizing the potential for impact, it may not be practical to do so, given the distribution of monitoring wells and the radial groundwater flow pattern. Regardless, the monitoring data do confirm that leachate effects on groundwater quality are discernable downgradient of the waste pile, although appear to be fairly limited in extent.

For example, despite the likely migration of leachate affected groundwater toward Cawker's Creek, the surface water sampling and analyses do not indicate any impacts, suggesting that natural attenuation is managing groundwater quality.

In any case, the monitoring data clearly indicate that leachate is not migrating toward the subject development Site from the former landfill, consistent with our expectations and on-site data.

4.3 Leachate Pathways

As outlined above, the natural pathways for leachate migration in groundwater are well established, with any leachate plume occurring within the somewhat radial groundwater flow pattern, extending to the northwest, north and northeast from the waste pile. Under current, "natural" conditions, this should continue indefinitely, given the geology and topography. As such, no impact on the proposed development would be expected.

However, the groundwater flow pattern could potentially be affected by external factors and if extreme, could increase the risk of impact. Although considered unlikely, large-scale dewatering activities, should any occur, could potentially alter the flow regime such that the leachate migration could be reversed, resulting in leachate migration toward the subject Site.

While there are no known plans for dewatering and the need for dewatering has not been fully assessed, the accompanying Preliminary Hydrogeological Study includes a theoretical assessment for dewatering a rectangular excavation. This methodology can be

adapted for assessing a similar excavation associated with the northeastern SWM pond, which could represent the worst-case scenario in this setting.

Utilizing the Sichardt Formula (for unconfined aquifers), a very approximate radius of the dewatering effects can be modelled, as per:

$$R_0 = 3000 \cdot s_w \cdot K^{1/2}$$

where,

R_0 is the radius of influence (m);
s_w is the drawdown in the equivalent well (m), and
K is the hydraulic conductivity (m/s).

As an example scenario where 4 m of drawdown is needed in a silty sand (with an average K = 5 x 10^{-6} m/s), the R_0 is:

3000 • 4 m • sqrt of 5 x 10^{-6} m/s ≈ 27 m.

Although the R_0 will vary widely depending on the average soil properties surrounding the dewatering location, the above model clearly indicates that even a significant dewatering exercise should not cause a widespread discernable effect. Since the landfill's waste pile (and leachate mound) is situated more than 170 m from the proposed SWM pond, there should be no expectation of a flow reversal or impact, especially for a short-term dewatering.

5.0 Landfill Gas

5.1 General

Waste decomposition in landfills typically generates gas as bi-products. Landfill gases can include carbon dioxide, hydrogen sulphide and methane, plus other trace gases. Of these, methane is considered potentially problematic as it is a combustible gas that can be generated in sufficient quantity to be an issue. Methane is also "lighter than air", therefore, it can migrate upwards and accumulate in enclosed spaces. As such, our assessment includes a review of potential methane pathways between the former landfill and the subject development Site, and a summary of the available methane data.

5.2 Potential Existing Pathways

The decomposition of waste in a capped landfill can create an elevated pressure

environment which can promote the outward movement of methane into surrounding areas of lower pressure. Concentration gradients can also promote the movement of methane.

Highly permeable soils such as sand and gravel facilitate methane migration, while low-permeability soils such as clay can act as a barrier. As discussed by RWDI (2024), the former landfill appears to have been excavated into the sandy glaciolacustrine deposits, to a depth of about 7 m. It is not clear whether the waste materials were deposited on or into the underlying clay-rich soils or into the Newmarket Till below. However, the cross section presented in Figure 5 suggests that the waste occurs entirely within the sandy soils.

Based on the geological setting, it is likely that any methane generated by the landfill would "out-gas" to the sandy soils surrounding the waste pile. Although these soils are generally considered to be permeable, they are layered with silt-rich zones that could impede the upward movement of methane, enhancing lateral migration.

From the cross section of Figure 5, it is clear that the waste pile is elevated above most of the glaciolacustrine sand and that the sand layers drape the underlying clay-rich soils (including the Newmarket Till). On the west side of the central ridge, the sands are terminated by the falling topography. The same occurs to the east, where Cawker's Creek is also incised into the topography. As such, there should be ample opportunity for soil gases generated within the refuse to escape the subsurface along the flanks of the ridge, even if there is some lateral migration.

RWDI (2024) also reports that the risk of landfill gas migration is low, presumably for the same rationale, as per:

> *"...Combustible gas monitoring was completed between 1988 and 1991. No landfill gas was detected at the monitoring locations. The dense underlying soils in the vicinity of the Site were interpreted to inhibit landfill gas migration in the subsurface. Off-Site landfill gas migration was determined not to be an issue, given the observed subsurface conditions, local topography in the area, and lack of structures near the landfill area."*

Notwithstanding the above, our investigations have included testing to verify the absence of combustible gases in boreholes, auger probes and monitoring wells, as outlined in the following section.

5.3 On-Site Data

As part of the accompanying hydrogeological study, upon completion of the monitoring wells and standpipes, headspace testing for combustible gases was conducted in each. The

testing was completed utilizing a calibrated RKI Eagle gas detector, with and without methane cancelling. The test data are presented in Appendix D.

No anomalous combustible gas concentrations were recorded during the survey, including BH25-5 and HA25-15, the two closest boreholes to the former landfill. BH25-5 is especially relevant, as this monitoring well is situated where the proposed northeast SWM pond is planned.

Given the field data, it is clear that methane is not migrating from the landfill to the subject Site in any appreciable quantity, nor would such be expected in this environment.

Despite the above observations, groundwater in the study area may exhibit effervescence (i.e., micro-bubbling) due to naturally occurring dissolved gas (i.e., methane). Given the geological setting and the likelihood of buried organic/alluvial materials deposited during repeated periods of ancient inundation, some naturally occurring methane in the groundwater is to be expected but is not anticipated to pose a significant hazard unless the groundwater is allowed to vent into a small confined space.

5.4 Potential Future Pathways

While we cannot be definitive with regard to future subsurface works associated with the proposed development, it is assumed that significant infrastructure improvements along Reach Street will be needed, to extend municipal services westward to the Site. Major excavations along that route, if sufficiently deep, could theoretically intersect the glaciolacustrine sands that mantle the former landfill. Should that occur, soil gases that are currently retained within the sands could find a pathway to the surface, or migrate within the granular service-trench fill, west of Cawker's Creek.

While not expected, should infilling be required along the northeast portion of the site, the placement of sandy (more permeable) soils abutting granular materials below Reach Street could create a scenario that would allow landfill gas (should it be present) to migrate towards the site. Should this be of concern, it may be necessary to recommence the landfill gas monitoring activities that appear to have ceased in 1991.

Similarly, any needed dewatering of groundwater along Reach Street (i.e., closer to the landfill site) would need to be assessed based on the specific location and the nature of the planned activities. It is important to recognize that the estimated radius of influence presented above is based on an assumed hydraulic conductivity (K) for the silty sand that occurs on the Site. Should the glaciolacustrine sands below the landfill extend to Reach Street, the K value could easily be an order of magnitude greater (i.e., 10^{-4} m/s), resulting in a radius of influence that would extend from Reach Street to below the former landfill.

We expect that given the proximity of the former landfill, any needed precautions will be incorporated into the design of the services along Reach Street, and that those will protect the proposed development.

6.0 Nuisance Effects

Nuisance effects associated with landfill sites typically include wind-blown refuse (litter), odours, pests and vectors.

The former landfill reached its maximum capacity in 1989 with the final cover being placed in November 1990. It now operates as a waste transfer station, managed by Durham Region. The cover (cap) encloses the refuse and should prevent the release of litter. Based on our review of recent aerial photography and observations in the area, the cap appears to be functioning as required. We also note that the waste pile area is separated from the proposed development Site and other nearby residential uses by wide buffers that should ameliorate visual impacts, odours, etc.

Semi-annual site condition assessments are routinely completed as part of the on-going monitoring program. As outlined by RWDI (2024), as of August 2024, the landfill cover was confirmed to be in good condition, with abundant vegetation. No slope stability nor erosion issues were observed and there were no issues with fencing/site security. No recommendations with regard to the physical stability of the landfill were provided.

Moreover, RWDI (2024) report that efforts to improve the site have been undertaken and appear to be successful:

> *"The Region has partnered with Sir Sandford Fleming College and Kawartha Conservation to develop plans for the long-term use of the Scugog landfill. The goal is to provide beneficial habitat for native wildlife in the area. In October 2018 the Region hosted a TD Tree Day event in partnership with Kawartha Conservation. Over 300 trees and shrubs were planted along the western boundary of the Site. Two (2) test plots were also established on the northeast area of the landfill cover. The plants species for the test plots were chosen based on recommendations from the Sir Sandford Fleming College students. The plant species selected should tolerant the clayey soil of the landfill cover and have a shallow root system. These test plots will be monitored and, if successful, further plantings will be conducted."*

Given the preceding, it is unlikely that the former landfill will deteriorate under the management of Durham Region and potential nuisance effects should be entirely mitigated.

7.0 Conclusions and Recommendations

7.1 Based on our review of the available on-site and off-site data, it is our opinion that the former landfill site situated near the subject Site's northeast corner does not represent a significant potential risk to the proposed development, with regard to leachate contamination of groundwater, landfill gas (e.g., methane) migration or nuisance effects, under current (natural) conditions. The former landfill site is well managed by Durham Region and is subject to semi-annual inspections and monitoring. As of August 2024, conditions at the former landfill appear to be stable and of no concern.

7.2 Landfill leachate is being generated by the waste pile and is migrating generally to the northwest, north and northeast in the shallow groundwater, away from the proposed development Site. Leachate conditions appear to be reasonably stable, based on recent monitoring data. As such, the subject development Site is upgradient of the former landfill.

While there is no significant risk of leachate-related impacts under current conditions, those conditions could be affected by major dewatering efforts, should dewatering be needed as part of future construction within the proposed development. Modelling of a reasonable dewatering scenario for the nearby proposed SWM pond suggest the radius of influence of the dewatering would not theoretically reach the leachate mound. As such, the natural groundwater flow pattern associated with the landfill would not be affected, therefore, no leachate-related impact would occur.

However, since the actual dewatering requirements are not known at this early stage of the development planning, this should be revisited as part of the Dewatering Plan at the detailed design stage.

7.3 There is no evidence that the former landfill's waste pile is generating significant quantities of landfill gases (e.g., methane) nor that such gases are migrating off-site or represent potential risks to the subject development Site. The landfill's geological and topographic setting is conducive to the rapid release of any such gases in close proximity to the waste pile, rather than long-distance migration through the subsurface. Moreover, combustible gas measurements in boreholes, wells and standpipes on the Site have revealed no suggestion of problems.

Given the above, it is our opinion that landfill gas migration, including methane, is not a potential risk for the proposed development Site. However, we expect that the potential for landfill gas impacts will need to be examined as part of the design and planning of municipal servicing, which are assumed to be extended past the former landfill site, along Reach Street.

* end of report *

Oakridge Environmental Ltd.

Dan MacIntyre, BSc.
Senior Hydrogeological Technician, Project Manager

Brian R. King, P. Geo.
Principal



Selected References

Armstrong, D. K., and T. R. Carter; *The Subsurface Paleozoic Stratigraphy of Southern Ontario*. Vol. 7. Sudbury, Ontario: Ontario Geological Survey, 2010.

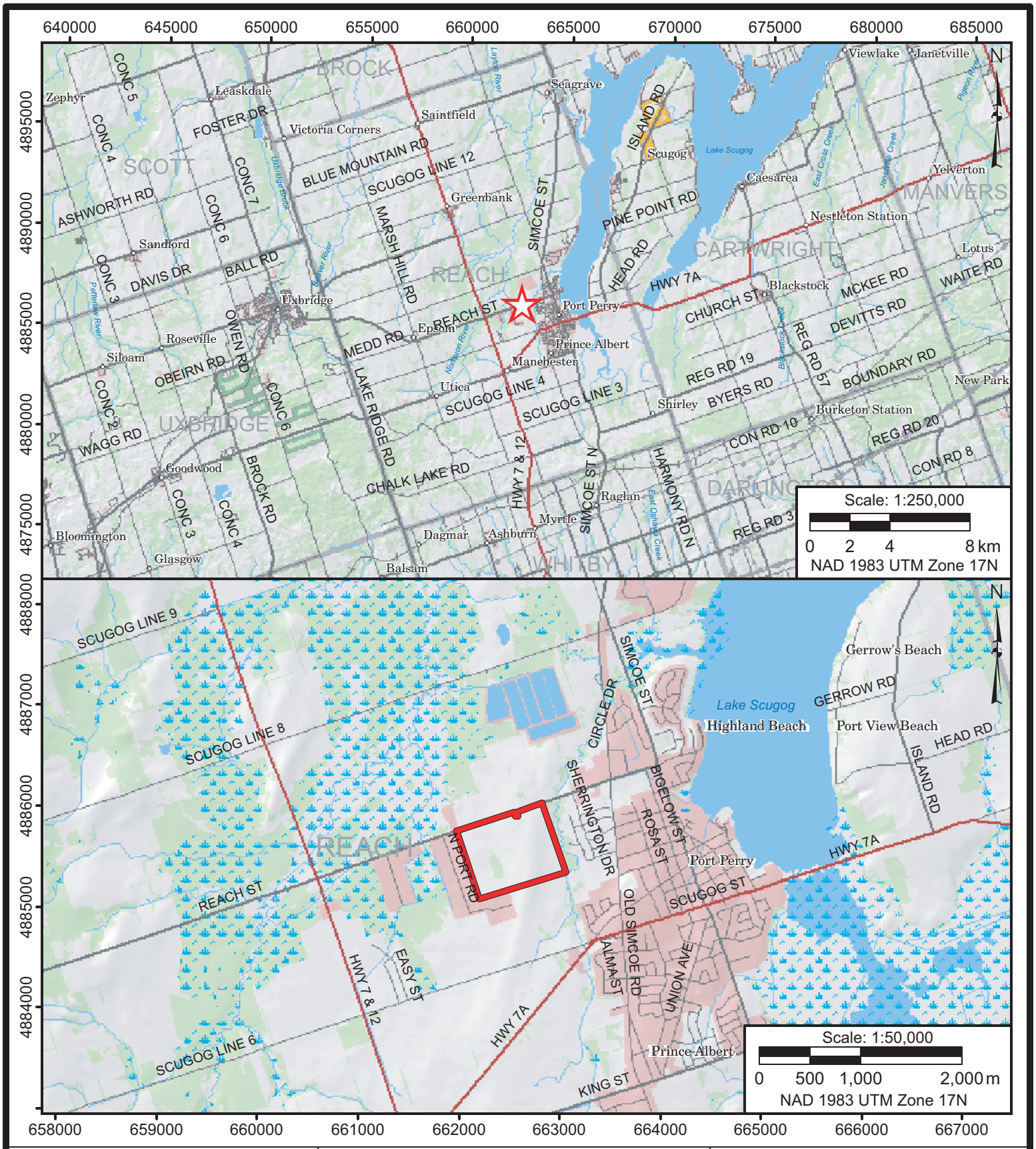
Barnett, P.J.; *Quaternary Geology of Ontario*; *in* Geology of Ontario, Ontario Geological Survey, Special Volume 4 (Part 2), Ministry of Northern Development and Mines, 1992.

Gibson and Associates Limited, *Phase 1 Letter-Report, Hydrogeologic Assessment, Proposed Residential and Industrial Development, Part of Lots 15 and 16, Concession 8, Township of Scugog, Regional Municipality of Durham*, File No. F-825, January 16, 1991.

Ministry of the Environment, Conservation and Parks, *Guideline D-4 (formerly 07-07) Land Use On or Near Landfills and Dumps*, April, 1994.

RWDI AIR Inc., Consulting Engineers & Scientists, *Scugog Landfill: 2024 Annual Monitoring Report*, RWDI #2404106, March 28, 2025."

Figures



Approximate Site Location

Approximate Property Boundary

Notes:
Base mapping provided by the Ontario Ministry of Natural Resources and Forestry (MNRF) Land Information Ontario (LIO) database, copyright the King's Printer (2025)

Optimized for Oakridge Environmental Ltd. printing

D-4 Land Use On or Near Landfills and Dumps Study
Proposed Residential and Industrial/Commercial Development
Port Perry, Ontario

1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region

North American Datum (NAD) 1983

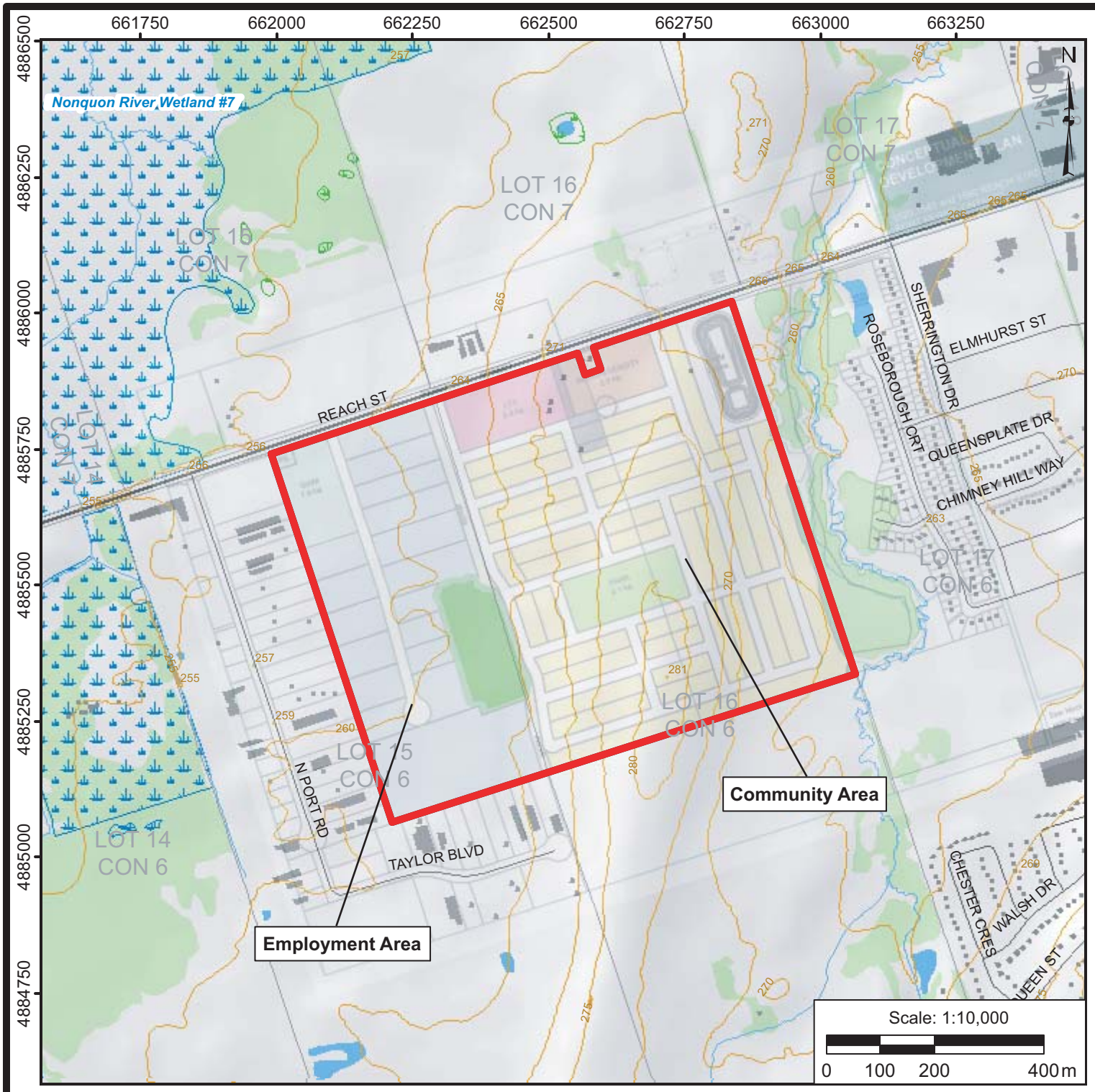
TITLE
General Location

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT # 25-3514

DATE February 2026

FIGURE NO. **1**



D-4 Land Use On or Near Landfills and Dumps Study
Proposed Residential and Industrial/Commercial Development
Port Perry, Ontario
1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region

- Approximate Property Boundary
- Wetland (Unevaluated)
- Wetland (Provincially Significant)
- Waterbody
- Wooded Area
- Building (to scale)
- Geographic Lot Fabric
- Watercourse
- Highway
- Arterial Road
- Road
- Contour (5m Intervals)
- Building (symbol)
- Spot Height (m asl)

Notes:
Base mapping provided by the Ontario Ministry of Natural Resources and Forestry (MNRF) Land Information Ontario (LIO) database, copyright the King's Printer (2025)

Preliminary development plan provided by Malone Given Parsons Ltd. (September 24, 2024)

Optimized for Oakridge Environmental Ltd. printing

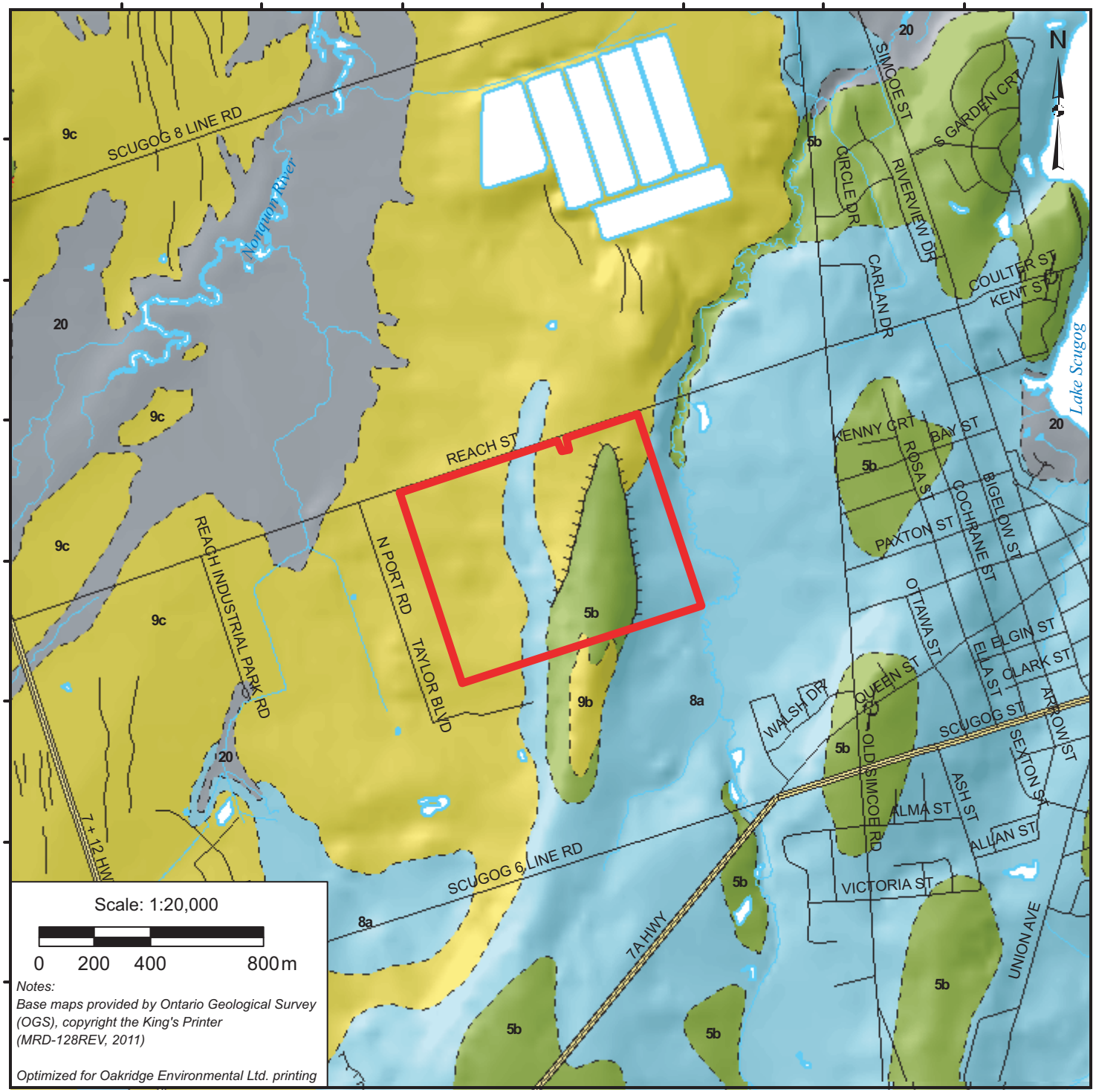
TITLE
Topography and Drainage

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
25-3614	**2**
DATE	
February 2026	

D-4 Land Use On or Near Landfills and Dumps Study
Proposed Residential and Industrial/Commercial Development
Port Perry, Ontario

1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region



Scale: 1:20,000

0 200 400 800m

Notes:
Base maps provided by Ontario Geological Survey (OGS), copyright the King's Printer (MRD-128REV, 2011)

Optimized for Oakridge Environmental Ltd. printing

NAD 1983 UTM Zone 17N

- Approximate Property Boundary
- Drumlin or Drumlinoid Ridges
- Shore Bluff or Scarp
- Ribbed or Rogen Moraine (arrows indicate direction of ice flow)
- Fluvial Terrace
- Contact (approximate/assumed)
- 5b — Glacial Deposits (Till): Stone-poor, carbonate-derived silty to sandy till
- 8a — Fine-textured glaciolacustrine deposits: Massive-well laminated
- 9b — Coarse-textured glaciolacustrine deposits: Littoral-foreshore deposits
- 9c — Coarse-textured glaciolacustrine deposits: Foreshore-basinal deposits
- 20 — Organic deposits
- Waterbody
- Watercourse

TITLE

Surficial Geology

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
25-3614	3
DATE	
February 2026	

662000 662250 662500 662750 663000 663250

4886000 4885750 4885500 4885250 4885000

N

REACH ST

N PORT RD

ELMHURST ST

ROSEBOROUGH CRT

ROSEBOROUGH DR

SHERRINGTON DR

6-1

11-1 W-5

HA25-15 BH25-5

W-3 W-4

T-9 W-2 W-1 BH25-3

T-8

MW-2 MW-3 T-1 MW-4 MW-1

HA25-6

HA25-14 BH25-9

T-15

HA25-3 HA25-4 HA25-5

T-14

BH25-4 BH25-10

BH25-2 T-13 T-10

BH25-6 HA25-11 HA25-10

T-2 BH25-8 T-7

HA25-13 BH25-1 HA25-7 HA25-8

HA25-1 HA25-2 HA25-12 T-12

T-3

BH25-7 T-6 HA25-9

T-11

T-5

T-4

Scale: 1:5,000

0 50 100 200 m

NAD 1983 UTM Zone 17N

D-4 Land Use On or Near Landfills and Dumps Study Proposed Residential and Industrial/Commercial Development Port Perry, Ontario

1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region

- Approximate Property Boundary
- Approximate Easement (Bell Canada)
- Glacial Till Terrain
- Galciolacustrine Terrain
- Domestic Bored/Dug Well
- Domestic Drilled Well
- Monitoring Well (2025)
- Monitoring Well (Historical)
- Mechanized Borehole (2025)
- Manual Auger Borehole (2025)
- Off-Site Borehole / Monitoring Well (RWDI)
- Test Pit (Historical)
- Watercourse (Ontario GeoHub)

Notes: Imagery and base map features provided by Ontario GeoHub (SCOOP, 2023)

Feature locations determined by differential GPS (+/- 3.0 m)

Base plan provided by Sabourin Kimble & Associates Ltd. (2025)

Off-site borehole/monitoring well locations provided by Rown Williams Davies & Irwin Inc. (RWDI, 2025)

Historical terrain data provided by Gibson & Associates Ltd. (1991)

Optimized for printing by Oakridge Environmental Ltd.

TITLE

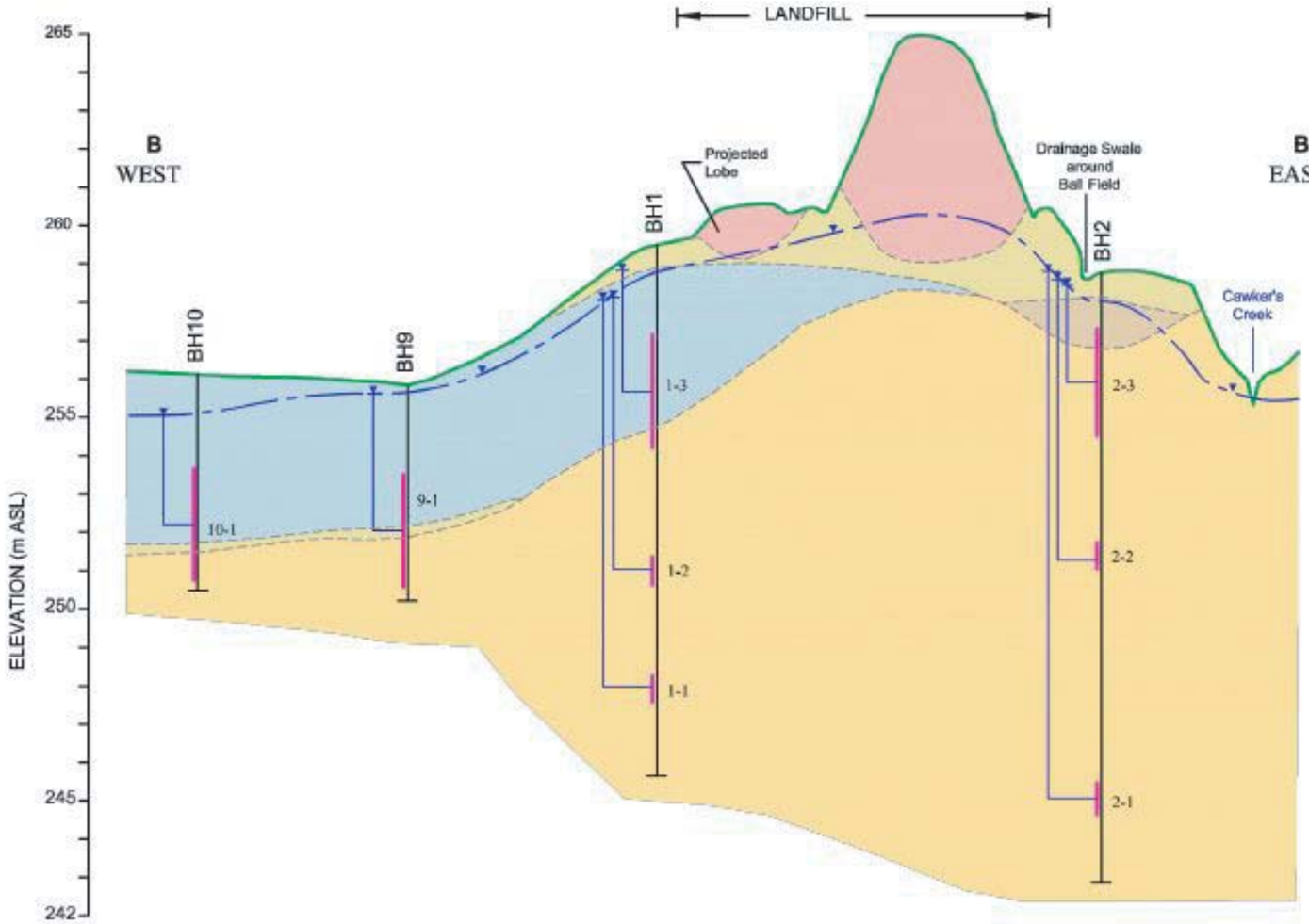
Site Features

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT # 25-3614

DATE February 2026

FIGURE NO. **4**



LEGEND

- REFUSE
- SAND, PART SILTY
- SAND AND GRAVEL, PART SILTY
- SILT AND CLAY, STRATIFIED
- TILL, SILTY, SANDY, CLAYEY

BH9 — BOREHOLE IDENTIFICATION AND LOCATION

- ORIGINAL GROUND
- SCREEN INTERVAL
- INFERRED STRATIGRAPHIC CONTACT
- WATER TABLE (MAY, 2008)

HORIZONTAL SCALE 1:6000
VERICAL SCALE 1:200

60 0 120 metres

NOTES:
1. GEOLOGIC CONTACTS AND WATER TABLE WERE INFERRED BETWEEN DATA POINTS AND MAY VARY FROM THE CONFIGURATION DEPICTED HERE.
2. MAPSOURCE: GARTNER LEE LIMITED, 2006 MONITORING REPORT, FIGURE 3, NOVEMBER 2006.

Notes:
Excerpt from Figure 3 (Geologic Cross Sections) in Regional Municipality of Durham, Scugog Landfll: 2024 Annual Monitoring Report by RWDI Air Inc. Consulting Engineers & Scientists (October 2, 2024)

Optimized for Oakridge Environmental Ltd. printing

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
25-3614	5
DATE: February 2026	

662000 662250 662500 662750 663000

4886000 4885750 4885500 4885250

N

REACH ST

N PORT RD

ROSEBOROUGH CRT

W-5 W-4 W-3 W-2 W-1

BH25-5 (1.11 mbgs)

BH25-3 (1.92 mbgs)

BH25-4 (3.94 mbgs)

BH25-10

BH25-2

BH25-6

BH25-8 (0.90 mbgs)

BH25-7 (1.72 mbgs)

BH25-1 (5.60 mbgs)

BH25-9

MW-2 MW-3 MW-1 MW-4

HA25-15 HA25-14 HA25-6 HA25-3 HA25-4 HA25-5 HA25-10 HA25-11 HA25-13 HA25-7 HA25-8 HA25-12 HA25-1 HA25-2 HA25-9

NAD 1983 UTM Zone 17N

D-4 Land Use On or Near Landfills and Dumps Study Proposed Residential and Industrial/Commercial Development Port Perry, Ontario

1520, 1540 and 1580 Reach Street, Port Perry
Township of Scugog, Durham Region

- Approximate Property Boundary
- Approximate Easement (Bell Canada)
- Domestic Bored/Dug Well
- Domestic Drilled Well
- Monitoring Well (2025)
- Monitoring Well (Historical)
- Mechanized Borehole (2025)
- Manual Auger Borehole (2025)
- Test Pit (Historical)
- Watercourse (Ontario GeoHub)
- Water Table Contours
- Interpreted Groundwater Flow Direction

Scale: 1:4,000

0 50 100 200 m

Notes: Imagery and base map features provided by Ontario GeoHub (SCOOP, 2023)

Static water level elevations, water table contours and interpreted groundwater flow direction from December 17, 2025 water level data

Water table contours generated using a simple triangulation algorithm with no edge point interpolation

Feature locations determined by differential GPS (+/- 3.0 m)

Base plan provided by Sabourin Kimble & Associates Ltd. (2025)

Historical test pit locations after Gibson & Associates (1991)

Optimized for printing by Oakridge Environmental Ltd.

TITLE

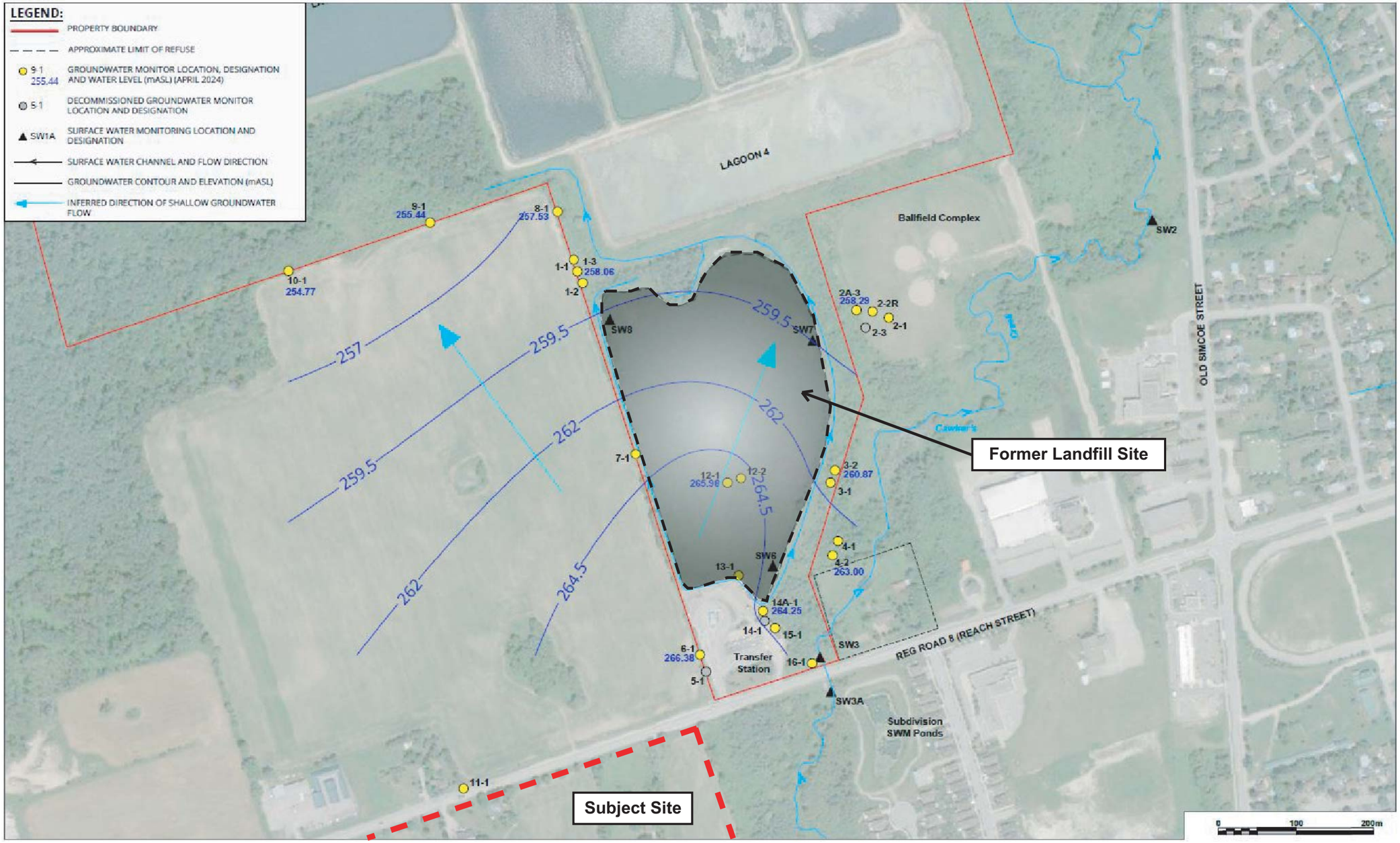
Groundwater Flow Direction

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT # 25-3614

DATE February 2026

FIGURE NO. **6**



Notes:
Excerpt from Figure 4 (Shallow Groundwater Flow Regime - April 2024) in Regional Municipality of Durham, Scugog Landfill: 2024 Annual Monitoring Report by RWDI Air Inc. Consulting Engineers & Scientists (October 2, 2024)

Optimized for Oakridge Environmental Ltd. printing

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
25-3614	7
DATE	
February 2026	

Appendix A

Preconsultation Letter

PRE-CONSULTATION & COMPLETE APPLICATION SUBMISSION REQUIREMENTS

Pre-Consultation Record Date:	March 4, 2025
Owner(s):	Richard Wannop
Applicant:	Malone Given Parsons
Address and Location:	1520, 1540 1580 Reach Street
Proposed Use(s):	New Community and Employment Area
Application Type(s) Requested:	Official Plan Amendments, Zoning By-law Amendments, Draft Plan of Subdivision

Township Staff and Outside Agencies:

- Valerie Hendry, Township of Scugog (Planning) – vhendry@scugog.ca
- Nick Dawkins, Township of Scugog (Chief Building Official) – ndawkins@scugog.ca
- Denise Stephenson, Township of Scugog (By-law Enforcement) – dstephenson@scugog.ca
- Grant Taylor, Township of Scugog (Public Works) – gtaylor@scugog.ca
- Ethan Green, Township of Scugog (Fire Prevention) – egreen@scugog.ca
- Bruce Alexander, RJ Burnside (Peer Engineering) - Bruce.Alexander@rjburnside.com
- Kurt Niles, Region of Durham (Works Department) – Kurt.Niles@durham.ca
- Lesley Kennedy, Region of Durham (Health Department) – Lesley.Kennedy@durham.ca
- Harmanpreet Kaur, Kawartha Conservation Authority – hkaur@kawarthaconservation.com
- Yan Yu, Durham District School Board - yan.yu@ddsb.ca
- Jody Dale, Durham Catholic District School Board – jody.dale@dcdsb.ca

DESCRIPTION OF PROPOSAL:

The applicant is proposing to develop a new community in Port Perry on certain lands municipality known as 1520, 1520, and 1580 Reach Street. Regional Council supported a conversion of 2/3rds of the subject lands from Employment Area to Community Areas in the Region's Official Plan. The remainder of the lands are Employment and also form part of the subject lands. The subject lands are approximately 40 hectares Community Areas and approximately 20 hectares Employment Areas (see below).

The applicant is seeking an Official Plan Amendment, Zoning By-law Amendment and Draft Plan of Subdivisions to develop the new community and employment area. The applicant's planning consultant has indicated to the Township that as part of their future application submission, studies will be submitted to address the Regional Official Plan secondary plan policies, and to conform with other provincial, Regional and local policies. They have also advised that they will be engaging with the public and agencies to help shape the final outcome of the land uses for these lands before approval.

The proposed development consists of two medium/high density residential blocks, open space and two residential streets within the Community Areas designation. A plan of subdivision will be required

for all of the subject properties to facilitate the creation of any proposed local roads, the various multiple residential blocks, and open space blocks within the Community Areas designation.

The Employment Areas are also proposed to be developed through a Draft Plan of Subdivision.

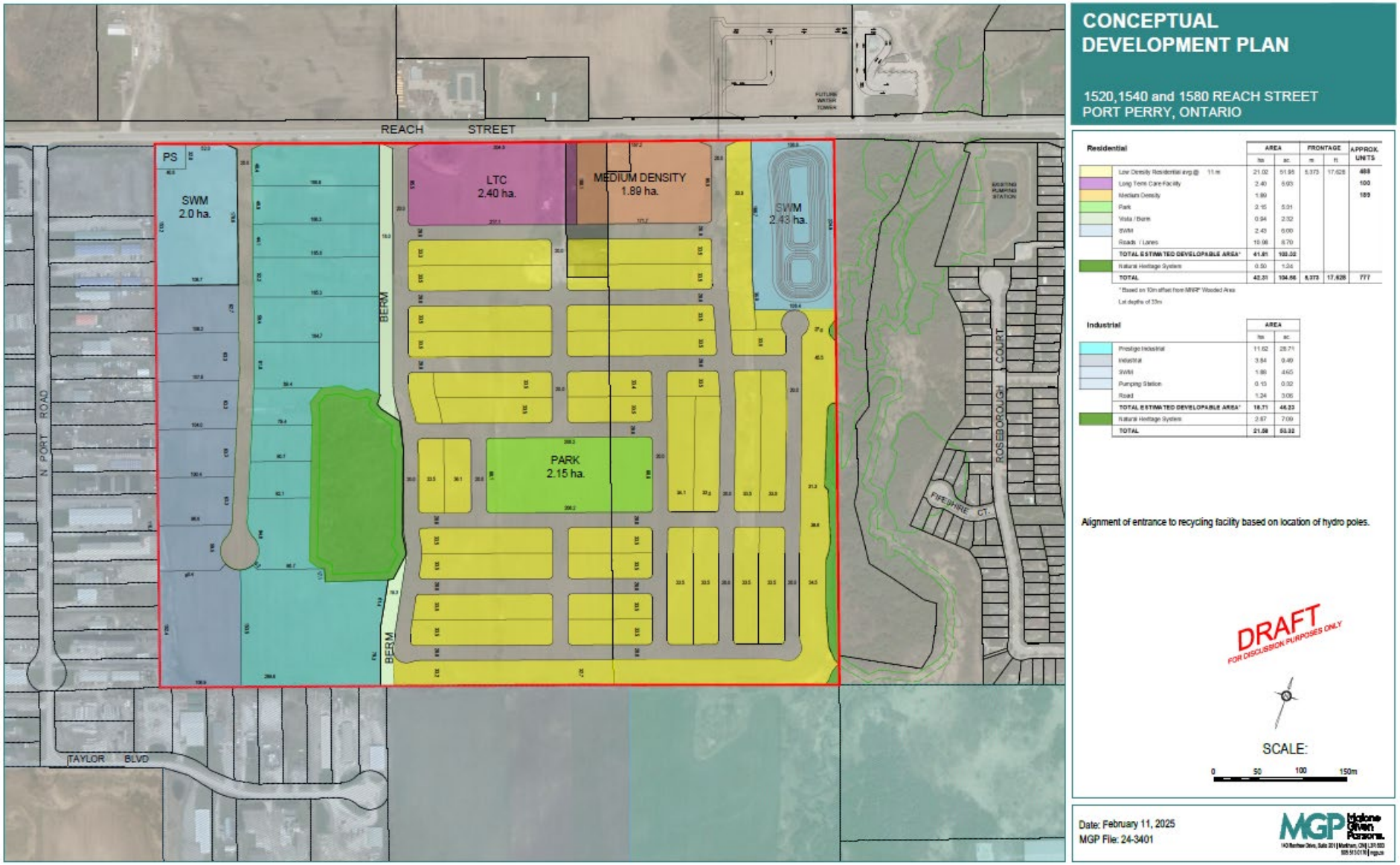
PLANNING POLICY CONTEXT:

REGIONAL OFFICIAL PLAN:	Community Areas and Employment Areas
SCUGOG OFFICIAL PLAN:	Prestige Industrial, General Industrial, Open Space, with Proposed Local Roads
ZONING BY-LAW 14-14:	Prestige Industrial (M1(H)), and General Industrial (M2(H)), Environmental Protection

MAP OF SUBJECT LAND:



PROPOSED PLAN:



AGENCY COMMENTS:

Region of Durham – Health Department

- The proposed development will be serviced by municipal water and sanitary services. The Health Department only requirements would be:
    - All existing private sewage systems be properly abandoned as per best management practices.
    - All existing private water wells be abandoned as per Ministry of the Environment's Regulation 903: Water wells.

Region of Durham – Works Department

- **1520 & 1580 Reach Street**

Municipal Servicing:

- The first phase, and full build out, of this Draft Plan will potentially be impacted in time, by other active developments in Port Perry and water and wastewater infrastructure projects. This will need to be confirmed and monitored as all applications move forward. The Region allocates capacity upon the execution of Subdivision Agreements on phase-by-phase basis. A list of active and future vertical infrastructure projects that could impact the timing for this development as follows:
- New Port Perry Wells
- New Port Perry Water Treatment
- New Port Perry Water Storage
- Reach Street SSPS Expansion
- New Employment Lands SSPS
- New Sewage Forcemains from the above SSPSs to the Nonquon WPCP.
- Future Expansion at the Nonquon WPCP.
- The applicant is required to submit a **Functional Servicing Report** with a future planning application.

Transportation:

- Reach Street is classified as a Type 'B' Arterial Road that required a right-of-way width of 30.0m as per the Region's Official Plan. Therefore, no road widening is required.
- The applicant shall provide a **Traffic Impact Study**. The Terms of Reference shall be scoped by the Region's Transportation group and the Township of Scugog.

Waste Management

- The Region of Durham provides organic, yard waste and garbage collection services to draft plans of subdivisions containing **residential lots and freehold townhouse blocks** in Township of Scugog.
- Any dead-end municipal road(s) must be designed and built with a permanent or temporary, cul-de-sac or "T" type turnaround. If the

residential development is built in stages or by multiple builders, municipal waste service may be delayed to completed homes due to access availability. All municipal road networks will be reviewed through the draft plan approval process and through the detailed design of any phase limits to ensure it complies with the *Technical and Risk Management Guidelines for Municipal Waste Collection Services on Private Property and for New Residential Developments in Durham Region*. All municipal roads, including rear laneways, must be built to a Regionally approved, area municipal standard road cross sections.

- Waste Management collection for residential **blocks** (other than freehold townhouse blocks) including any units within these blocks which will front onto a municipal road will be assessed for waste collection through the Site Plan approval process.
- On June 3, 2021, Ontario filed O.Reg. 391/21 under the Resource Recovery and Circular Economy Act and made product producers responsible for the Blue Box program including collection. The Regional Municipality of Durham no longer provides service for the Blue Box program.

Development Charges/ Regional Subdivision Agreement

- The applicant is required to enter into a Region Subdivision Agreement
- The proposed development is subject to residential that due prior to issuance of a building permit and as set out in the Regional Subdivision Agreement. Any non-residential parcels will be reviewed at the time of a future site plan applicant.

Summary

- As part of a future planning application submission, the applicant shall submit a Functional Servicing Report and a Traffic Impact Study.

Kawartha Conservation Authority (KCA):

- The subject properties are regulated by Kawartha Conservation as it is minimally within the Cawkers Creek floodplain in the southeast corner. Kawartha Conservation does not support new development and/or site alteration within the floodplain. Therefore, a review will be required.
- The following will be required for the planning application-
  - **Detailed Site Plan** showing existing and proposed conditions, including the locations of proposed buildings.
  - **Topographic Survey.**
  - **Floodplain Analysis and Mapping** if any changes are proposed, along with a demonstration that there will be no downstream flooding.
  - **Stormwater Management Plan** to ensure downstream flooding risks are addressed.
  - **Erosion and Sediment Control Plan** to prevent sediment from leaving the property.
  - Additional documents or a site visit may be required as necessary

Durham District School Board	• Staff has reviewed the information on the above-noted plan. Approximately 310 elementary pupils, and 135 secondary pupils may be generated by the above noted application. • Staff participated in the pre-consultation meeting on March 4th, 2025, and looking forward to hearing from the applicant to better understand the timing of the proposed development, once the information is ready, as this would impact the DDSB's future accommodation planning for Port Perry. • We look forward to working with the developer and the Township of Scugog to find a solution that would benefit future homeowners and families within this developing area. • Should you have any questions, please contact me via email at yan.yu@ddsb.ca
Durham Catholic District School Board	• Existing elementary school may be able to accommodate anticipate pupils from this development. • Existing Secondary School in Oshawa would accommodate anticipated pupils from this development.
Township of Scugog (Engineering) **Peer Engineer: R.J. Burnside**	• See attached comment letter and redline plan dated March 5, 2025. • The following reports/studies will be required: ○ **Transportation Study** ○ **Preliminary Noise Feasibility Study** ○ **Land Use Compatibility Study** ○ **Preliminary Geotechnical Study** ○ **Preliminary Hydrological Study and Water Balance Report** ○ **Functional Servicing Report** ○ **Natural Heritage Evaluation/Environmental Impact Study** ○ **Stormwater Management Report with Low Impact Development strategies** ○ **Operations and Maintenance Manual for LID** ○ Any additional drawings/reports at the discretion of the Township's peer engineer.
Township of Scugog (Planning)	• See attached comment letter dated March 4, 2025 • The following plans and reports are required: ○ **Archaeological Study** ○ **Planning Justification Report** ○ **Environmental Impact Study/Natural Heritage Evaluation** ○ **D-4 Land Use on or Near Landfills and Dumps Study**

- **Land Use Compatibility**
- **Noise Analysis**
- **Phasing Plan**
- **Site concept plan**
- **Tree Management Plan/Vegetation Plan**
- **Urban Design Guidelines**
- **Excess Soil Management**
- **Servicing** in consultation with Region
- **Subwatershed Plans**
- **Future Official Plan Amendment and Schedules**
- **Future Zoning By-law Amendment and Draft By-law and Schedule**
- **A Site Screening Questionnaire (SSQ)** or an RSC compliance Phase 1 Environmental Site Assessment Report prepared by a Qualified Person accompanied by the Township's **Reliance Letter** and **Certificate of Insurance** will be required. The SSQ or report(s) should be no more than 18 months old at the time of the application submission and be undertaken in conformity with the Provincial Brownfields Regulation. **A Phase 1 Environmental Site Assessment (ESA)** may be required subject to the Township's review of the Site Screening Questionnaire.

Township of Scugog (Building)

- No comments.

Township of Scugog (By-law Enforcement)

- No comments.

Township of Scugog (Public Works)

- No comments.

Township of Scugog (Fire Prevention)

- Further comments to follow upon submission of the development applications. Show plans for water supply for firefighting including hydrant locations and flow rates for the proposed water supply system. Show road dimensions for fire department access.

SUMMARY OF REQUIRED PLANS/REPORTS (MUST BE SIGNED BY A QUALIFIED PERSON):

Site Plan in accordance with O.Reg 545/06 Schedule 1, number 28
Topographic Survey
Floodplain Analysis and Mapping
Update to Subwatershed Plans and Policies
D-4 Land Use on or Near Landfills and Dumps Study
A Site Screening Questionnaire (SSQ) or an RSC compliance Phase 1 Environmental Site Assessment Report prepared by a Qualified Person accompanied by the Township's Reliance Letter and Certificate of Insurance will be required.
Natural Heritage Evaluation/Environmental Impact Study + Tree Management Plan/Vegetation Plan
Transportation Study
Land Use Compatibility Study - Noise (Point source and Transportation, Vibration, Dust and Odour)
Preliminary Geotechnical Study
Preliminary Hydrological Study and Water Balance Report
Functional Servicing Report + Phasing Plan
Functional Servicing Report prepared in consultation with Region and the Township's Peer Engineer + Phasing Plan +Grading Plan
Stormwater Management Report with Low Impact Development strategies, Prepared in consultation with Region and Township Peer Engineer + Erosion and Sediment Control Measures +Operations and Maintenance Manual for LIDs – can be condition of draft approval
Archaeological Study
Excess Soil Management Plans
Planning Justification Report
Urban Design Guidelines
Future Official Plan Amendment and Schedules
Future Zoning By-law Amendment and Draft By-law and Schedule
Draft Plan of Subdivision

Number of Copies Required:
All Reports and Large sets of Plans: 2 copies of each (large plans to be folded to 8.5 x 11)
Reduced set of Plans (11X17): 1 copy of each set (folded in half)
Electronic files (PDF) on a USB or via electronic file transfer
Ensure dimension on plans are shown in metres.

Application and Agency Review Fees:

KRCA – Please confirm with agency

Region of Durham Planning – (cheques payable to Region of Durham)

Combined Official Plan and Zoning By-law Amendment - $3500

Draft Plan of Subdivision - $ 5000

Durham Region Health – Please confirm with agency

Township of Scugog (cheques payable to Township of Scugog)

Region of Durham Official Plan – $20,260

Scugog Official Plan Amendment - $30,025

Zoning By-law Amendment - $17,765

Draft Plan of Subdivision - $27,015 + $675 per unit

Newspaper Advertisement - $520 per advertisement

Public Open House - $3,340

Township of Scugog Consulting and/or Peer Review Fees

The Township will require the services of external consultant services (such as engineering, legal, and/or architect) as part of the review and approval process for these applications. The Applicant will be invoiced for any associated consulting fees incurred by the Township.

Additional Fees

There will be additional fees associated with subsequent applications and the required building permit application. Development charges will also be owed at the time of building permit issuance. Here is a link to the current Development Charge rates: https://www.scugog.ca/en/do-business/Development-Charges.aspx

***Notwithstanding the fees noted above, all fees are payable based upon the rate in the fee schedule By-law in effect on the date the application is received. Contact Township staff and the Durham Region and KRCA to confirm fees prior to application submission as the fees are subject to periodic review and change.**

***All submitted electronic documents shall be in an accessible format in accordance with O.Reg 191/11 or the application will not be accepted. The applicant shall save electronic documents with the statement "accessible" in the file name.**

Please review these notes at your earliest convenience and advise of any errors or omissions. Please note that if applications are not filed within 12 months of the date of this letter, another pre-consultation meeting and checklist of complete application requirements may be required.

Please note the Township reserves the right to request additional studies, reports, plans, documentation through the processing of the application(s).

Appendix B

Preliminary Development Concept Plan

CONCEPTUAL DEVELOPMENT PLAN
Option 3

1520,1540 and 1580 REACH STREET
PORT PERRY, ONTARIO

LAND USE		UNITS	AREA
Min. 15.24m Single Detached	o	74	4.20
Min. 12.2m Single Detached	x	174	6.09
Min. 9.8m Single Detached	+	134	3.86
Condominium Townhomes		200 - 350	7.42
Mid-Rise / Mixed Use (45-100uph)		130 - 285	2.71
Long Term Care/Mid-Rise Mixed Use (4-8 Storeys)(45-100uph)		100 250	2.47
Park			2.54
SWM			4.59
Walkway / Overland Flow			0.02
Open Space - Berm			1.61
Natural Heritage System			3.38
Prestige Industrial			5.29
General Industrial			9.28
20m Right of Way			10.03
8.5m Laneway			0.26
TOTAL		812 - 1,267	63.75

Possible Trail Network

DRAFT
FOR DISCUSSION PURPOSES ONLY

Date: January 21, 2026
MGP File: 24-3401

Malone Given Parsons.
140 Renfrew Drive, Suite 201 | Markham, ON | L3R 6B3
905 513 0170 | mgp.ca

Appendix C

Field and Laboratory Water Quality Data

Location ID	Completed As	Easting	Northing	LiDAR Elevation	pH	Temperature	Conductivity	Total Dissolved Solids	Dissolved Oxygen	ORP	Salinity
		(m)	(m)	(masl)	pH Units	°C	µS/cm	ppm	ppm	mV	unitless
BH25-1	Monitoring Well	662740	4885369	281.63	8.22	8.99	353	194	0.47	-596	0.17
BH25-3	Monitoring Well	662492	4885790	270.63	7.80	11.10	782	430	2.10	489	0.38
BH25-4	Monitoring Well	662815	4885707	272.35	7.81	9.99	497	274	8.06	395	0.24
BH25-5	Monitoring Well	662814	4885942	268.57	8.03	8.56	442	244	5.80	480	0.21
BH25-7	Monitoring Well	662258	4885271	260.00	8.44	9.23	275	151	2.80	464	0.13
BH25-8	Monitoring Well	662343	4885503	260.44	8.12	7.22	409	225	0.89	-563	0.19
MW-1	Historical Monitoring Well	662022	4885723	256.08	8.29	5.76	289	159	1.41	345	0.14
Creek NE	Cawker Creek at Reach Street	663004	4886075	258.02	8.40	0.75	1074	590	11.19	535	0.51

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G132042 **REPORT No: 25-037705 - Rev. 0**

Report To:
Oakridge Environmental
PO Box 431
Peterborough, ON K9J 6Z3

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Dan MacIntyre

DATE RECEIVED: 2025-Dec-09
DATE REPORTED: 2026-Jan-07
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Reach St
P.O. NUMBER: PO#25-3614

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	2	OTTAWA	PCURIEL	2025-Dec-11	A-IC-01	SM 4110B
BOD5 (Liquid)	2	KINGSTON	DCASSIDY	2025-Dec-10	BOD-001	SM 5210B
Cond/pH/Alk Auto (Liquid)	2	OTTAWA	SBOUDREAU	2025-Dec-10	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Cyanide Total (Liquid)	2	KINGSTON	EHINCH	2025-Dec-10	CN-001	EPA 9012B
ICP/MS Total (Liquid)	2	OTTAWA	GFENTON	2025-Dec-11	D-ICPMS-01	EPA 6020
ICP/OES Total (Liquid)	2	OTTAWA	SGORMAN	2025-Dec-11	D-ICP-01	SM 3120B
Nonylphenols (Subcontracted)	2	SGS_LAKEFIELD	SWOOD	2025-Dec-12		Subcontracted
Oil & Grease (Liquid)	2	KINGSTON	TMCBRYDE	2025-Dec-11	O&G-001	SM 5520
PCB's (Liquid)	2	KINGSTON	CSUMMERHAYS	2025-Dec-11	PCB-001	EPA 8081
Phenols (Liquid)	2	KINGSTON	EHINCH	2025-Dec-15	PHEN-01	MECP E3179
SVOC - Semi-Volatiles (Liquid)	2	KINGSTON	KPARKER	2025-Dec-22	NAB-W-001	EPA 8270D
TP & TKN (Liquid)	2	KINGSTON	MWILSON	2025-Dec-11	TPTKN-001	MECP E3516.2
TSS (Liquid)	2	KINGSTON	MCLOSS	2025-Dec-10	TSS-001	SM 2540D
VOC-Volatiles Full (Water)	2	RICHMOND_HILL	JEVANS	2025-Dec-16	C-VOC-02	EPA 8260

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

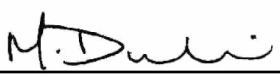
Parameter	Units	R.L.	Limits		Client I.D.	BH25-5	MW-1
					Sample I.D.	25-037705-1	25-037705-2
					Date Collected	2025-Dec-08	2025-Dec-08
						-	-
pH @25°C	pH units	-	10.5, 9.0	SAN, STORM		7.76	8.05
Fluoride	mg/L	0.1	10	SAN		0.1	0.1
Sulphate	mg/L	1	1500	SAN		17	1
BOD5	mg/L	3	300, 15	SAN, STORM		<3	<3
Total Suspended Solids	mg/L	3	350, 15	SAN, STORM		5	700
Phosphorus (Total)	mg/L	0.01	10, 0.4	SAN, STORM		0.10	0.40
Total Kjeldahl Nitrogen	mg/L	0.1	100, 1	SAN, STORM		0.4	0.5
Cyanide (Total)	mg/L	0.005				<0.005	<0.005
Phenolics	mg/L	0.001				<0.001	<0.001
Aluminum (Total)	mg/L	0.01	50	SAN		0.04	3.53
Manganese (Total)	mg/L	0.001	5, 0.15	SAN, STORM		0.037	0.163
Tin (Total)	mg/L	0.05	5	SAN		<0.05	<0.05
Titanium (Total)	mg/L	0.005	5	SAN		<0.005	0.174
Zinc (Total)	mg/L	0.005	2, 0.04	SAN, STORM		<0.005	0.022
Antimony (Total)	mg/L	0.0001	5	SAN		0.0004	0.0007
Arsenic (Total)	mg/L	0.0001	1, 0.02	SAN, STORM		0.0004	0.0014
Cadmium (Total)	mg/L	0.000015	0.7, 0.008	SAN, STORM		<0.000015	0.000052
Chromium (Total)	mg/L	0.001	2, 0.08	SAN, STORM		<0.001	0.005
Cobalt (Total)	mg/L	0.0001	5	SAN		0.0007	0.0027
Copper (Total)	mg/L	0.0001	3, 0.05	SAN, STORM		0.0012	0.0061
Lead (Total)	mg/L	0.00002	1, 0.12	SAN, STORM		0.00017	0.00337



Michelle Dubien
Data Specialist

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Parameter	Units	R.L.	Limits		Client I.D.	BH25-5	MW-1
					Sample I.D.	25-037705-1	25-037705-2
					Date Collected	2025-Dec-08	2025-Dec-08
						-	-
Molybdenum (Total)	mg/L	0.0001	5	SAN		0.0057	0.0008
Nickel (Total)	mg/L	0.0002	2, 0.08	SAN, STORM		0.0017	0.0050
Selenium (Total)	mg/L	0.001	1, 0.02	SAN, STORM		<0.001	<0.001
Silver (Total)	mg/L	0.0001	5, 0.12	SAN, STORM		<0.0001	<0.0001



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Parameter	Units	R.L.	Limits		Client I.D.	BH25-5	MW-1
					Sample I.D.	25-037705-1	25-037705-2
					Date Collected	2025-Dec-08	2025-Dec-08
						-	-
Benzene	mg/L	0.0005	0.01, 0.002	SAN, STORM		<0.0005	<0.0005
Chloroform	mg/L	0.001	0.04, 0.002	SAN, STORM		<0.001	<0.001
Dichlorobenzene,1,2-	mg/L	0.0005	0.05, 0.0056	SAN, STORM		<0.0005	<0.0005
Dichlorobenzene,1,4-	mg/L	0.0005	0.08, 0.0068	SAN, STORM		<0.0005	<0.0005
Dichloroethylene,1,2-cis-	mg/L	0.0005	4, 0.0056	SAN, STORM		<0.0005	<0.0005
Dichloropropene,1,3-trans-	mg/L	0.0005	0.14, 0.0056	SAN, STORM		<0.0005	<0.0005
Ethylbenzene	mg/L	0.0005	0.16, 0.002	SAN, STORM		<0.0005	<0.0005
Dichloromethane (Methylene Chloride)	mg/L	0.005	2, 0.0052	SAN, STORM		<0.005	<0.005
Methyl Ethyl Ketone	mg/L	0.002	8	SAN		<0.002	<0.002
Styrene	mg/L	0.0005	0.2	SAN		<0.0005	<0.0005
Tetrachloroethane,1,1,2,2-	mg/L	0.0005	1.4, 0.017	SAN, STORM		<0.0005	<0.0005
Tetrachloroethylene	mg/L	0.0005	1, 0.0044	SAN, STORM		0.0018	<0.0005
Toluene	mg/L	0.0005	0.27, 0.002	SAN, STORM		**0.0447**	<0.0005
Trichloroethylene	mg/L	0.0005	0.4, 0.008	SAN, STORM		<0.0005	<0.0005
Xylene, m,p-	µg/L	1				1	<1
Xylene, m,p,o- (Calculated)	mg/L	0.0011	1.4, 0.0044	SAN, STORM		0.0017	<0.0011
Xylene, o-	µg/L	0.5				<0.5	<0.5
Oil and Grease (Mineral)	mg/L	1.0	15	SAN		<1.0	<1.0
Oil and Grease (Anim/Veg) (Calculated)	mg/L	1.0	150	SAN		2.1	2.2

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Parameter	Units	R.L.	Limits		Client I.D.	BH25-5	MW-1
					Sample I.D.	25-037705-1	25-037705-2
					Date Collected	2025-Dec-08	2025-Dec-08
						-	-
Bis(2-ethylhexyl) Phthalate	mg/L	0.005	0.012, 0.0088	SAN, STORM		<0.005	<0.005
Dichlorobenzene,1,2-	µg/L	0.1				<0.1	<0.1
Dichlorobenzene,1,4-	µg/L	0.067				<0.07	<0.07

Parameter	Units	R.L.	Limits		Client I.D.	BH25-5	MW-1
					Sample I.D.	25-037705-1	25-037705-2
					Date Collected	2025-Dec-08	2025-Dec-08
						-	-
Poly-Chlorinated Biphenyls (PCB's) (Calculated)	mg/L	0.00005	0.001, 0.0004	SAN, STORM		<0.00005	<0.00005

Subcontracted Analyses

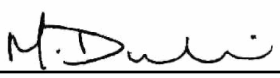
Parameter	Units	R.L.	Limits		Client I.D.	BH25-5	MW-1
					Sample I.D.	25-037705-1	25-037705-2
					Date Collected	2025-Dec-08	2025-Dec-08
						-	-
Nonylphenol Monoethoxylate	µg/L	-				<80	<10
Nonylphenol Diethoxylate	µg/L	-				<80	<10
Nonylphenols	mg/L	-	0.02	SAN		<0.01	<0.001
Nonylphenol Ethoxylates	mg/L	-	0.2	SAN		<0.08	<0.01

: Region of Durham Sewer Use By Law
SAN: Sanitary Sewer By Law
STORM: Storm Sewer By Law

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Summary of Exceedances		
Sanitary Sewer By Law		
MW-1	**Found Value**	**Limit**
Total Suspended Solids	700	350
Storm Sewer By Law		
BH25-5	**Found Value**	**Limit**
Toluene	0.0447	0.002
MW-1	**Found Value**	**Limit**
Total Suspended Solids	700	15
Manganese (Total)	0.163	0.15



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CADUCEON ENVIRONMENTAL LABORATORIES

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G132055 **REPORT No: 26-003285 - Rev. 0**

Report To:
Oakridge Environmental
PO Box 431
Peterborough, ON K9J 6Z3

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Dan MacIntyre

DATE RECEIVED: 2026-Feb-05
DATE REPORTED: 2026-Feb-09
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Reach
P.O. NUMBER: PO#25-3614

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
VOC-Volatiles Full (Water)	1	RICHMOND_HILL	CBURKE	2026-Feb-07	C-VOC-02	EPA 8260

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

				Client I.D.	BH25-5
				Sample I.D.	26-003285-1
				Date Collected	2026-Feb-04
Parameter	**Units**	**R.L.**	**Limits**	**Reg 153 - Liquid**	-
Tetrachloroethylene	µg/L	0.5	0.5	T1GW	<0.5
Toluene	µg/L	0.5	0.8	T1GW	<0.5
Xylene, m,p-	µg/L	1			<1
Xylene, m,p,o- (Calculated)	µg/L	1.1	72	T1GW	<1.1
Xylene, o-	µg/L	0.5			<0.5

Reg 153 - Liquid: Reg 153 - Liquid
T1GW: R153 Tbl. 1 - GW

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Data Specialist

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Appendix D

On-Site Combustible Gas Data

Location ID	Completed As	Easting	Northing	LiDAR Elevation	Combustible Gas (ppm)	
		(m)	(m)	(masl)	no CH_4	with CH_4
BH25-1	Monitoring Well	662740	4885369	281.63	25	70
BH25-3	Monitoring Well	662492	4885790	270.63	5	35
BH25-4	Monitoring Well	662815	4885707	272.35	15	50
BH25-5	Monitoring Well	662814	4885942	268.57	0	80
BH25-7	Monitoring Well	662258	4885271	260.00	0	15
BH25-8	Monitoring Well	662343	4885503	260.44	15	15
MW-1	Historical Monitoring Well	662022	4885723	256.08	55	110
HA25-15	Manual Borehole	662830	4885990	266.60	0	0