



December 13, 2024

Shoreham Development Limited

15 Shoreham Lane
Halifax, NS B3P 2R3
Attention: Murugesu Sooriyakumaran

Subject: **1226 Cole Harbour Road, Cole Harbour, NS**
Water Feature Assessment
Englobe reference: 2409710.000

Mr. Murugesu:

As we understand, Shoreham Development Limited is in the process of designing the development of a Long-Term Care Facility on PID No. 00403014 (Civic No. 1226 Cole Harbour Road) in Cole Harbour, Nova Scotia. During the design process, a water feature was noted along the eastern and southern boundaries of the property. Englobe was hired to determine if this water feature is considered a watercourse, as defined by the *Nova Scotia Environment Act*.

The term 'watercourse' is defined in the *Nova Scotia Environment Act* as the bed and shore of every river, stream, lake, creek, pond, spring, lagoon, or other natural body of water - whether it contains water or not - and the water therein (as well as all groundwater). Nova Scotia Environment and Climate Change (NSECC) provides the following guidance on how to identify a watercourse:

- If a watercourse is drawn on a National Topographic Series (NTS) map, it is considered a watercourse by NSECC.
- If air photos less than 40 years old show evidence of a watercourse, it may be a watercourse. Evidence would include visible water, visible stream channel (riffles, eroded areas, bars, rapids, pools, etc.), and vegetation that indicates a watercourse.
- Look for a clearly defined stream channel. Is there a mineral soil channel? Is there sand, gravel, and/or cobbles evident in a continuous pattern over a continuous length, with little to no vegetation? Is there an indication that water has flowed in a path or channel for a length of time and at a rate sufficient to erode a channel or pathway? Is there water flowing in this channel? Are there pools, riffles, or rapids? Are there aquatic animals, insects, or fish? Are there aquatic plants? If two or more of these characteristics are present, it is a watercourse, unless otherwise determined by NSECC.

Prior to visiting the site, Englobe conducted a desktop review of available resources such as: Google Earth, provincial and/or federal aerial imagery, LiDAR, provincial and/or federal watercourse mapping, Nova Scotia Wet Areas Mapping (WAM), small scale topographic maps and survey plans. Englobe then visited the site on September 24, 2024, to visually assess the water feature. Any relevant features found were recorded using a GPS instrument with an accuracy of 5m or less.

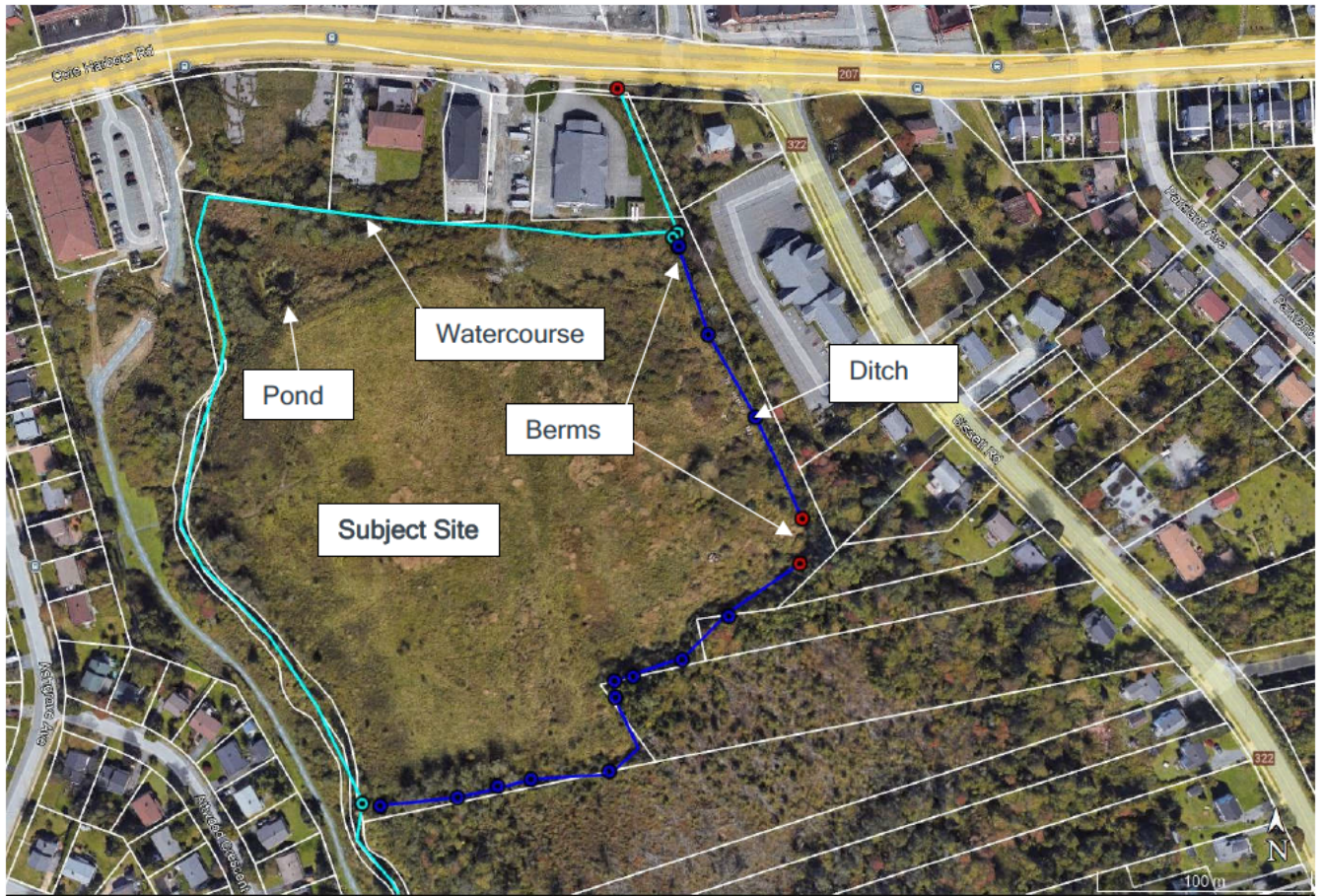
During the desktop review, aerial images from the years 1964, 1974, 1983, and 1992, and a survey plan from 1987, were reviewed. In 1964, a watercourse was observed flowing under Cole Harbour Road and entering PID No. 00403014 from the north, making a 90 degree turn to the west across the property, and then widening and flowing southward into Bissett Lake. In 1974, only the wider portion of the watercourse flowing along the western boundary of the property could be seen. In 1983, the whole watercourse could be seen again and appeared the same as in 1964. An irregular-shaped road had been developed on the property as well. On the 1987 survey plan of the “Reddy Park Subdivision” by KW Robb & Associates Ltd., a proposed watercourse diversion was depicted moving a small portion of the watercourse (that enters the property from the north) eastward on PID Nos. 40132169 and 00403014. In the 1992 aerial image, the irregular-shaped road on the property was not visible, but the entire property appears to be tree-cleared. A pond was present in the northwest corner of the property.

Google Earth images from the years 2002, 2003, 2005, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019, 2020, 2021, 2022, and 2024 were reviewed. Throughout all the years, the watercourse and pond could be seen, as well as two tributaries that entered the watercourse from the west and north. In 2002, a small building was present on PID No. 00403014. Sometime between 2005 and 2010, the on-site building was removed.

The 2017 1:10,000 topographic map (1044650063400, Upper Lawrencetown) was also reviewed. The pond and watercourse were present in the same locations; however, a water feature also ran along the eastern and southern boundaries of PID No. 00403014, converging with the watercourse in the southwest corner of the property. PID No. 00403014 was labeled as a “golf course, driving range” on the 2017 topographic map.

The water feature that was mapped running along the eastern and southern boundaries of PID No. 00403014 on the 2017 topographic map could also be seen on the 2020, 2021, 2022 and 2024 Google Earth images.

During the field assessment, there was a watercourse observed that entered from the north and extended along the north and west sides of PID No. 00403014. On the east and south side, the water feature appeared to be an artificially excavated ditch with a mucky bottom and stagnant water throughout. It was separated from the adjacent watercourse in the northeast corner of the property by a 0.6 m high berm. In the eastern corner of the property, the ditch was also completely disconnected from the rest of the more southern ditching by another 1 m high berm. The water feature along the eastern and southern property boundary appeared to be a man-made ditch, used to provide a place for on-site surface water to discharge. There were no pools, riffles nor rapids observed. A site figure including GPS points is included below.



After gathering information from desktop resources and in-person site visits, In Englobe's opinion, the water feature on the east and south side of PID No. 00403014 is not a watercourse and does not require any buffers or permits to alter.

We trust the enclosed provides a comprehensive assessment of the subject water feature within the project area however, if additional information should be required, please don't hesitate to contact the undersigned.

This report was prepared for the exclusive use of Shoreham Development Limited. It is based on data and information obtained during site visit by Englobe Corp. and is based solely upon the condition of the property on the date of such inspection, supplemented by information obtained and described herein.

The evaluation and conclusions contained in this report have been prepared in light of the expertise and experience of Englobe. In conducting this assessment, Englobe reviewed available topographic information, traversed the land parcel and conducted site inspection of soil, vegetation, and hydrology conditions. The scope of work may not be sufficient to satisfy third parties. Any use that a third party makes of this report, or any reliance on or decision made based on it, is the sole responsibility of the third party. Englobe accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Environmental conditions are dynamic in nature and changing circumstances in the environment and in the use of the property can alter radically the conclusions and information contained herein.

Yours very truly,
Englobe Corp.



Lauren Bowser, B.Sc. Env.
Project Manager
Environmental Engineering