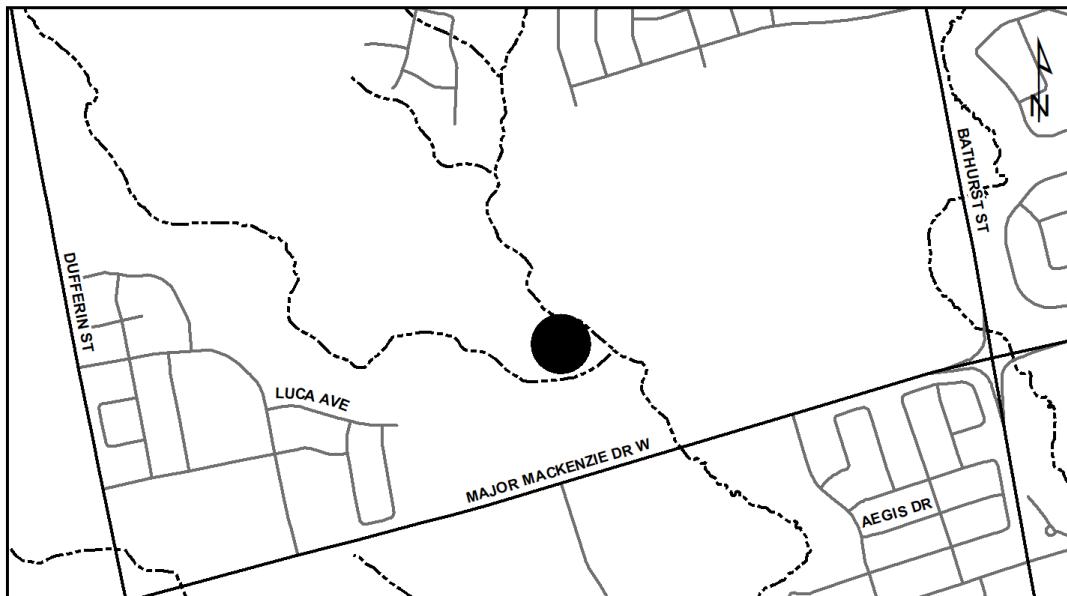


CITY OF VAUGHAN

10.3 LONGYARD PROPERTIES INC.

To construct, reconstruct, erect or place a building or structure, site grade, temporarily or permanently place, dump or remove any material, originating on the site or elsewhere, interfere with a wetland and alter a watercourse on Lot 21, Concession 2, (Major MacKenzie Drive and Bathurst Street), in the City of Vaughan, Don River Watershed as located on the property owned by Longyard Properties Inc. The purpose is to undertake works within TRCA's Regulated Area of the Don River watershed in order to facilitate site alteration and watercourse alteration works associated with the removal of a partially decommissioned water control structure and realignment and restoration of a stream and valley corridor. The subject property is located at the south eastern corner of Major Mackenzie Drive and Bathurst Street, on lands identified as Block 288 within draft approved plan of subdivision 19T-03V12, in the City of Vaughan.

MAP LOCATION: Redelmeier Pond



The permit will be issued for the period of June 12, 2020 to June 11, 2022 in accordance with the following documents and plans which form part of this permit:

- **Drawing No. GP, General Plan, Removals, and Notes, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**
- **Drawing No. ESC, Erosion and Sediment Control Plans, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**
- **Drawing No. WSP, Wetland Site Plan, Profile and Section, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**
- **Drawing No. CSP, Channel Site Plan, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**
- **Drawing No. CXS, Channel Profile and Sections, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**
- **Drawing No. SGP, Site Grading Plan, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**

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- **Drawing No. CD, Construction Details, prepared by Greck, revision no. 3 dated October 2, 2019, received by TRCA on May 5, 2020;**
- **Redelmeier Pond Planting Plan, prepared by Toronto and Region Conservation Authority, dated May 26, 2020, received by TRCA on May 26, 2020.**

RATIONALE

The application was reviewed by staff on the basis of the following information:

Proposal:

The purpose of this permit application is to undertake works within TRCA's Regulated Area of the Don River watershed in order to facilitate site alteration and watercourse alteration works associated with the removal of a partially decommissioned water control structure and restoration of a stream and valley corridor. The subject property is located at the south eastern corner of Major Mackenzie Drive and Bathurst Street, on lands identified as Block 288 within draft approved plan of subdivision 19T-03V12, in the City of Vaughan.

As a part of the draft plan of subdivision application for the lands located at the south eastern corner of the Block 12 community area (block bounded by Major Mackenzie Drive, Dufferin Street, Bathurst Street and Teston Road) it was agreed that the open space valley lands within the plan area would be dedicated into public ownership. It was agreed that TRCA would accept ownership of these lands, which was consistent with the approach taken for the other subdivisions within the larger Block 12 community area. The open space valley lands in the subdivision plan area included an online pond feature known locally as Redelmeier Pond. The century old pond was connected to two tributaries of the East Don River and was approximately 2.9 hectares in size. The downstream end of the pond consisted of an earthen berm approximately 6.5 metres high, 4.5 metres wide and 40 metres long as well as a concrete spillway structure. Based on initial assessments of the dam structure, it was identified that the control structure and berm were in poor condition and had exceeded their intended and useful life span.

In order to improve the ecological and hydrological function of the natural system, and to remove risks to public safety resulting from the potential failure of the degraded control structure, a desired plan was developed based on discussions between the landowner, City of Vaughan, Ministry of Natural Resources and Forestry (MNRF) and TRCA. A formal agreement between TRCA and the landowner establishing the specifics of the project including; future conveyance of the open space lands, responsibilities of TRCA to design and construct the restoration works and financial remuneration to be provided, was executed on August 11, 2016. The design of the desired plan for the removal of the dam structure and the re-naturalization of the stream and valley corridor associated with the tributary of the East Don River was subject to a Technical Advisory Committee (TAC) and a public consultation process with adjacent residents.

The first phase of the plan was implemented in 2017, when on-going monitoring and assessment of the dam structure revealed that there was a imminent risk of the dam failing, which would cause significant flooding impacts downstream. As such, the dam was lowered by 2.5 metres, a temporary spillway was constructed and the head pond was removed. These emergency works reduced the risk of flooding associated with the potential failure of the dam due to overtopping. These emergency works were carried out by TRCA Restoration Services staff (CFN 58362).

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The second phase of the project is represented by the works currently proposed within this permit application. This phase will include the final removal of the remaining dam structure and realignment and re-naturalization of the stream and valley corridor in the area. More specifically, the currently proposed work will include three major components:

Dam Removals and Earthworks - Works will include alteration of the existing earthen berm in order to create a more naturalized valley condition. Alteration of the berm will result in a maximum 2.5 horizontal:1 vertical slope that will be stabilized and naturalized. The works will also include the removal of the angular stone riprap used to temporarily protect the spillway surface of the dam as well as removal of the corrugated steel culvert pipe, precast concrete inlet with stop-log gate and the precast concrete outfall that was installed as part of the 2017 emergency works. Site alteration/earthworks involving a cut and fill operation will also be undertaken in order to achieve a reduction to the extent of the Regional storm flood plain associated with the tributary in the area. TRCA's flood plain modelling was updated by the project consultant to demonstrate that there will be no negative impact to the storage or conveyance of flood waters as a result of the proposed works.

Natural Channel Creation - Construction of 153 metres of natural channel between the newly forming upstream channel, at the top end of the berm where the pond used to be, and the existing downstream channel to the south of the dam structure. TRCA staff are satisfied that the proposed channel is based on natural channel design principles (i.e., meander bends, channel riffles and riparian vegetation plantings).

Riparian Wetland Creation and Slope Gully Erosion Control - Construction of a small riparian wetland is proposed within the area to the north of the dam structure. The wetland feature will intercept water discharging from an adjacent stormwater management pond that was constructed as a part of the associated subdivision development. The wetland feature will occupy an area of approximately 1,252 m². Restoration of two erosion gullies that formed as a result of the emergency works in 2017 will also be undertaken. One of the gullies will be filled with earth to restore the valley slope; the other will be constructed with a rock channel to protect the area from potential erosion caused by upstream discharge.

Based on the reports and plans submitted as a part of the current permit application, TRCA staff are satisfied that the proposed works will not result in any ecological, geotechnical or flood related impacts.

Control of Flooding:

The proposed works will take place within the Regional Storm flood plain associated with a tributary of the East Don River. TRCA staff are satisfied that the works will not result in any impacts to the conveyance or storage of flood water. The removal of the existing degraded water control structure will improve the natural hydrological function of the system and remove any potential flood risks associated with the failure of the structure.

Pollution:

All erosion and sedimentation will be mitigated through a phased erosion and sediment control plan. Standard erosion and sediment control measures will be implemented prior to construction and maintained for the duration of works, and until the site is stabilized and restored, in order to prevent construction generated sediments from entering the downstream system. Erosion and sediment control measures have been provided in accordance with the *Erosion and Sediment Control Guideline for Urban Construction*.

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Dynamic Beaches:

Not applicable.

Erosion:

Impacts to slope stability and erosion are not anticipated as a result of the proposed works.

Conservation of Land:

The proposed works will result in the removal of the existing partially decommissioned control structure and on-line pond, which will reduce thermal impacts on the receiving watercourse and improve the ecological function of the natural system. The proposal will also involve wetland creation and riparian plantings of native vegetation. Works are to be completed in accordance with the MNRF Red Side Dace Timing Window, unless otherwise specified by MNRF.

Plantings

A restoration plan is proposed for the area where the pond use to be and the realigned watercourse channel. The plan consists of a mixture of native, non-invasive, riparian vegetation. Plantings will be conducted in accordance with TRCA's *Post-Construction Restoration Guideline*.

Policy Guidelines:

This proposal complies with Section 8.4 - General Regulations Policies - and Section 8.8 - Interference with a Watercourse - of The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority.

CFN: 58732 - Application #: 1234/17/VAUG

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Date: June 1, 2020