

Ontario Power Generation, Response

June 24, 2026

As noted the Regional Official Plan (Envision Durham) (now being worked into local municipal official plans or amended) makes note of the nuclear industry in Durham Region from several perspectives, as an economic benefit to the Regional economy and viewing the host function as a responsibility.

Envision Durham has a set of policies in 5.5.34 that outline various priorities in general terms including;

- b) Protection of Automatic Action Zones (AAZ), new residential developments within AAZ are required to minimize and mitigate potential adverse impacts
- c) New residential development requires a study which considers all regional and provincial planning requirements, land use compatibility, any applicable guidelines and emergency planning measures.

Brian Moss and Associates Ltd. prepared a land use compatibility report for a prior application on the subject lands, which is attached as an addendum. (2023)

The PNERP appears to focus on OPG responsibilities around radiation incidents within the AAZ, the closer neighbourhoods having faster notice.

A summary of the PNERP is below.

The **Provincial Nuclear Emergency Response Plan (PNERP) Implementing Plan for the Pickering Nuclear Generating Station (PNGS)** is Ontario's official blueprint for mitigating off-site radiological effects in the event of an emergency. It dictates how the province, municipalities, and facility operators collaborate to protect the public. [1, 2, 3]

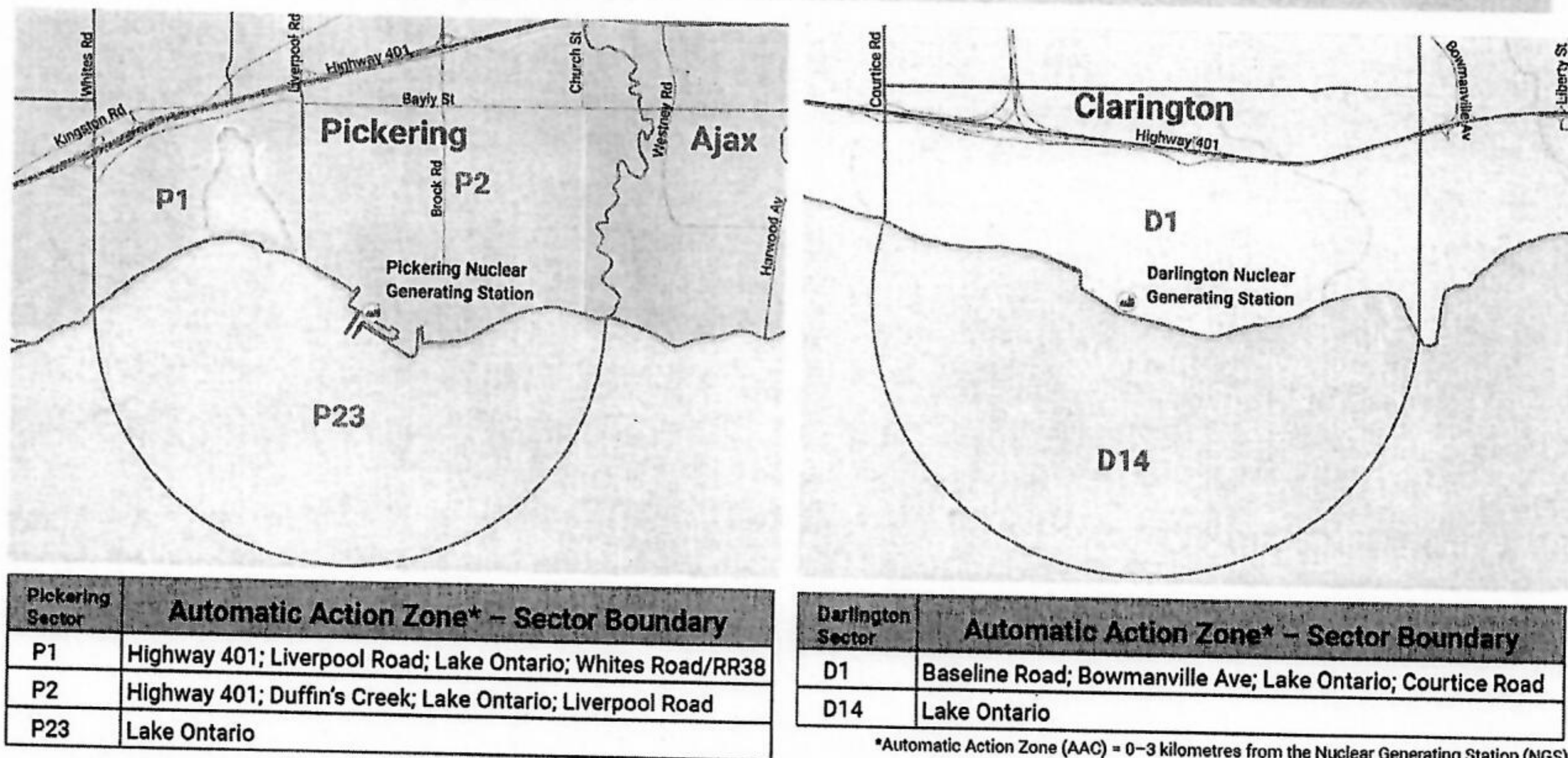
1. Key Zones and Designations

The PNERP defines specific zones around the Pickering NGS to establish predetermined protective action distances:

- **Detailed Planning Zone (DPZ):** A 10-kilometer radius around the station. The City of Pickering, the broader Regional Municipality of Durham, and parts of Toronto fall into this primary zone.
- **Contingency Planning Zone (CPZ):** Extends out to 20 kilometers, requiring localized contingency planning. [1, 2, 3]

Automatic Action Zones are pre-designated areas that are identified in the Pickering and Darlington Provincial Nuclear Emergency Response Plans. Further details can be found in those documents.

Figure 12. – Automatic Action Zones for the Pickering & Darlington Nuclear Generation Stations:



*Automatic Action Zone (AAC) = 0-3 kilometres from the Nuclear Generating Station (NGS)

*Automatic Action Zone (AAC) = 0-3 kilometres from the Nuclear Generating Station (NGS)

2. Immediate Notifications and Alerts

- **15-Minute Rule:** Under the PNERP, the Pickering NGS operator is required to notify pre-designated provincial and municipal emergency organizations within 15 minutes of categorizing an emergency event. [1, 2]
- **Public Alerting:** In an emergency, the province manages the Alert Ready system. You will receive notifications via cell phone, TV, and radio. For homes and businesses within 10 km, automated telephone dialing systems and local sirens (within a 3 km radius) will also be activated. [1, 2]

3. Public Protective Actions

The plan outlines three primary protective measures for the public, depending on the severity of the incident: [1]

- **Shelter in Place:** Remaining indoors with doors and windows closed and ventilation systems turned off.
- **Potassium Iodide (KI) Pills:** Pre-distributed or stockpiled pills to be taken when instructed by provincial or regional officials; these block the thyroid gland from absorbing radioactive iodine.
- **Evacuation:** The organized relocation of residents away from the affected sector(s) to designated reception and host community centers. [1, 2, 3, 4, 5]

4. Municipal Integration

While the province oversees the overarching nuclear response, local execution relies heavily on the designated municipalities. For Pickering, response guidelines are integrated with the **Durham Nuclear Emergency Response Plan (DNERP)**. [1, 2]

To review the full policy and access contingency maps, you can read the complete PNERP Implementing Plan for Pickering NGS. [1]

The subject lands were designated low density residential development since the first Pickering Official Plan and have been designated medium density in June 2024. The current application increases the density within the medium density designation as a response to the current housing market and affordability issues.

The facts in the land use compatibility report remain current.

There are no adverse impacts from the lands being developed for medium density housing. The overall community of Bay Ridges is primarily in the 3 km radii of the plant, impacting potentially thousands of residents.

The measures proposed for the immediate community will also apply to the subject lands.

Brian Moss, R.P.P. MCIP



BRIAN MOSS & ASSOCIATES LTD.

DEVELOPMENT MANAGEMENT PLANNING

38 Clark Road
Ajax, Ontario L1S 3B6

February 13, 2023

City of Pickering
City Development Department
One The Esplanade
Pickering, ON
L1V 6K7

Attention: Mr. Nilesh Surti
Manager, Development Review and Urban Design

Dear Ms. Surti,

**Re: Official Plan Amendment, Zoning Bylaw Amendment, Plan of Subdivision,
Plan of Draft Plan of Common Element Condo, 640 Liverpool Road, Land
Use Compatibility Letter**

1.0 Introduction

This land use assessment reviews all commercial/industrial activities adjacent the subject site at 640 Liverpool Road. The proposal introduces a sensitive land use (residential) into a mixed use area in southern portion of Liverpool Road. (The mix of uses does not include industrial facilities.)

The purpose of this assessment is to summarize all and any effects of surrounding land uses on the proposed development. The observations are in compliance with Ministry of the Environment and Climate Change (MOECC) Guideline D-1 Land Use Compatibility.

1.1 Surrounding Land Uses

To the immediate north of the site are exclusively detached residential dwellings of various ages, from the 1930's to the current period. There is a municipal park to the northwest with frontage on Frenchman's Bay. There is a small craft launch site at the park for kayaks, canoes, sailboats, not motorized craft. There are no fueling facilities. Some patrons use the park for fishing from the bay wall and walkway. There is a play structure in the park for children.

To the immediate west is Frenchman's Bay and two detached homes. The property at 1278 Wharf Street has a dock on the bay, a number of boats in storage and a sitting area. None of these properties have commercial or industrial activity.

To the immediate east are detached home of a variety of ages on Annland, Liverpool and Wharf Street. To the immediate southeast (on east side of Liverpool Road) is The Montessori Learning Centre of Pickering, a private school with all activities located within the school building.

To the southeast is the Ontario Power Generation, Pickering Nuclear Generating Station. The exclusion zone around the station is shown in Figure 1. Note the exclusion zone ends east of Liverpool Road and south of Wharf Street.

To the immediate south are townhomes on Wharf Street and Liverpool Road including live/work units with personal service and commercial activities (retail, food and beverage). The Port Restaurant is located immediately south of the site with normal restaurant servicing requirements. It has seasonal outdoor seating overlooking Frenchman's Bay.

In addition, there is a boat lift used for boat launches in and out of Frenchman's Bay on a seasonal basis. The boat lift is a ramp into the bay with a vehicle capable of carrying motorized and larger sail boats. It operates seasonally and transports boats to storage locations.

2.0 Land Use Compatibility Guidance

2.1 Guideline D-1 Land Use and Compatibility

Guideline D-1 identifies the direct interest of the Ministry in recommending distances and other control measures for land use planning proposals to prevent or minimize adverse effects from the encroachment of incompatible land uses where a facility either exists or is proposed.

This guideline sets the context for all existing and new guidelines relating to land use compatibility. The guideline is intended to apply only when a change in land use is proposed. The intent is to achieve protection from off-site adverse effects. Depending upon the particular facility, adverse effects may be related to, but not limited to, one of more of the following;

- Noise vibration
- Visual impact (only for landfills under O. Regulation 347)
- Odours and other air emissions
- Litter, dust and other particulates

- Other contaminants

This guideline applies when a change in land use for a site-specific development places a sensitive land use within the influence area of potential influence are of a facility.

3.0 Analysis

The environmental impact of noise was addressed by YCA Engineering Ltd. in a report dated December 2022 relative to road and surrounding uses noise.

There are no facilities in proximity to the proposed development (640 Liverpool Road) that would have adverse impact on the proposed sensitive land use.

The existing land use is residential (8 detached homes) and the development proposes 51 townhomes to intensify the residential use of the lands.

Some of the lands were used for boat storage and minor repairs in the past. Therefore the facility that might impact the neighbourhood has ceased operations.

The Pickering Generating Station exclusion zone is to the east and south of the subject property and is not a factor relative to land use compatibility.

Yours truly,



Per: Brian J Moss, MCIP, OPPI, R.P.P.
BRIAN MOSS AND ASSOCIATES LTD.

Enclosure (Figure 1)

Cc: Lino Trombino, Plan Implementation, Region of Durham Planning Department
Greg Silas, Liverpool Road Limited Partnership

DISCLAIMER: The information contained in this report is based on the information provided to the consultant by the client. The consultant has not conducted a field inspection of the site and has not verified the accuracy of the information provided. The consultant is not responsible for the accuracy or completeness of the information provided. The consultant is not responsible for the accuracy or completeness of the information provided. The consultant is not responsible for the accuracy or completeness of the information provided.



Legend

-  OPG Ownership
-  640 Liverpool Rd, Pickering
-  Exclusion Zone
-  Roads
-  Railway



PICKERING NGS

ONTARIO POWER Real Estate
GENERATION Services

2018/05/16	R. DAVIES	NAD 1983 CSRS
19,000	HE S	UTM 17N
Metres	N. BRYAN	NA 1983 CSRS
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