

October 21, 2024

**Sent by e-mail**

Kyle Peel M.Pl.  
Planner  
Township of Leeds and the Thousand Islands  
1233 Prince Street  
P.O. Box 280  
Lansdowne, ON K0E 1L0

Dear Mr. Peel:

**Re:           Application for Minor Variance Section 45(1) D13-2024-050 (Foley)  
Plan 28R 13311; Former Front of Escott  
18 Club Island, Township of Leeds and the Thousand Islands  
Waterbody: The St. Lawrence River & Hill Island East Provincially  
Significant Wetland**

Cataraqui Conservation staff have reviewed the above-noted application and offer the following comments for the Committee of Adjustment's consideration. These comments are provided based on Cataraqui Conservation's role as technical advisor to the Township on *Planning Act* applications and as a regulatory authority responsible for the implementation of Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits*.

**Summary of Proposal**

The application is requesting relief from the Township Zoning By-Law to permit an existing solar array that was added to the property in the absence of the required municipal approval and permit. The existing solar array installation requires zoning relief from the minimum 30 metre setback from the highwater mark of the St. Lawrence River, the minimum 30 metre setback from Hill Island East Provincially Significant Wetland and from the minimum 30 metre front yard setback requirement.

The solar array is approximately 4 metres from the highwater mark of the St. Lawrence River, 2 metres from the boundary of Hill Island East Provincially Significant Wetland and 4 metres from the front yard boundary.

**Site Description**

Staff attended a site visit on September 26, 2024 to review the existing development and obtain additional site specific information relative to the Hill Island East Provincially Significant Wetland. The subject property is approximately 1.01 hectares in size and is located on the southwestern point of Club Island and is encompassed by Hill Island East Provincially Significant Wetland. The shoreline of the subject property varies with some areas of gradual sloping topography and areas where the slope reaches at height of 3

metres. The lot is occupied primarily by woodland with areas that have been cleared for existing development. Existing development includes a single residential dwelling, a shed, a generator shed, and a solar array.

The subject property is designated 'Rural', Provincially Significant Wetland', 'Woodlands', and 'Highly Vulnerable Aquifer' in the Township Official Plan and zoned 'Island Residential' and 'Locally Significant Wetland' in the implementing zoning by-law.

### **Discussion**

The main interest of Cataraqui Conservation with respect to this application is the avoidance of natural hazards (i.e. flooding and erosion) associated with the St. Lawrence River and the protection of the hydrologic function of Hill Island East Provincially Significant Wetland as it relates to mitigating natural hazards.

#### **Natural Hazards**

Cataraqui Conservation, through our implementation of Ontario Regulation 41/24 and, in accordance with the natural hazards policies of the 2020 Provincial Policy Statement (PPS), directs development away from lands subject to natural hazards, such as flooding and erosion to protect people and property.

#### ***Flooding***

The regulatory flood plain for the St. Lawrence River in the location of the subject property is 75.9 m GSC. Generally, development (buildings and structures) and site alteration (excavating, grading and placement of fill) is required to occur outside of 6 metres from the regulatory flood plain elevation. However, under Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* certain exemptions apply. Specific to this application, non-habitable structures less than 15 sq metres in size are exempt from O.Reg 41/24 where meeting the minimum setback from natural hazards does not apply.

As constructed, the solar array is located within the flood plain. Staff assessed the solar array and determined that the overall impact of the 30 sq metre area of the solar panels when in a position parallel to the ground has minimal impact on the flooding hazard. It is only the 12.5 sq. m. concrete slab and support frame that are in direct contact with the ground. From our review, these components present negligible risk in terms of the flooding hazard. Also, as a non-habitable structure less than 15 sq metres in size, the structure is not subject to the 6 metre setback under CRCA's regulatory policies.

#### ***Erosion***

Cataraqui Conservation defines the extent of potential erosion hazards for connecting channels such as the St. Lawrence River as the sum of either a 1(h):1(v) or 3(h):1(v) slope stability allowance (depending on slope material), toe erosion allowance, plus an erosion access allowance of 6 metres. Together, these make up what is known as the 'Erosion Hazard Limit'.

The shoreline in the location of the solar array is approximately 0.5 metres in height and is composed of shallow till over granite bedrock. Using a 1:1 slope stability allowance applied to a 0.5-metre-high slope, plus a 5 metre toe erosion allowance, the erosion hazard associated with the shoreline is 5.5 metres measured inland from the toe of slope.

As constructed, the solar array is located within the erosion hazard. However, as noted above, the structure is less than 15 sq. metres. in area, is exempt from CRCA's O. Reg. 41/24 and presents negligible risk in terms of the erosion hazard.

### **Hydrologic Function of Hill Island East Provincially Significant Wetland**

Under Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits*, generally all new development and site alteration must take place outside a minimum 30 metre setback from the boundary of all wetlands greater than 0.5 hectares. The 30 metre setback is required to protect the hydrologic function of the wetland especially as it relates to the wetland's ability to store water during high water levels events assisting in flood prevention and contribute to erosion prevention.

Hill Island East Provincially Significant Wetland consists of several wetland types including open water marsh, marsh and swamp. Directly adjacent to the solar array is a marsh which is composed of emergent vegetation and is clearly discernable through aerial mapping and on site. The wetland is a coastal riverine wetland which in this case is located within the main waterbody of the large St. Lawrence River watershed system.

As noted above, under Ontario Regulation 41/24, structures less than 15 sq metres in size that are not used for habitable living space are exempt provided they are not located directly within a wetland or watercourse.

As constructed, the solar array was measured 2 metres from the boundary of Hill Island East Provincially Significant Wetland. Staff assessed the overall impact of the entire structure, which took into consideration the 30 sq metre area of the solar panels which would cover area adjacent to the wetland from time to time and determined that the impact to the hydrologic function of the wetland is low.

**Staff recognize the use of the structure requires an optimal position and location to achieve consistent sun exposure. As a general statement, CRCA does not recommend buildings or structures of any size be located within the flooding or erosion hazard as there is always some level of risk or damage.**

### **Recommendation**

Staff have no objection to the approval of minor variance application D13-2024-050 based on our consideration of natural hazard policies and Ontario Regulation 41/24.

**Staff note that the property has been significantly cleared as a result of the existing development and redevelopment. As a best management practice towards sustainable waterfront living, staff encourage re-naturalization of the property. This**

**can be achieved by planting a healthy native vegetative buffer which would provide protection against the unpredictable energy and impact associated with the hydrologic processes of the St. Lawrence River.**

#### **Ontario Regulation 41/24**

Portions of the subject property are located within a regulated area under Ontario Regulation 41/24: *Prohibited Activities, Exemptions and Permits* which regulates development and interference with wetlands, as well as alterations to shorelines and watercourses. **A permit is not required for the solar array.**

If you have any questions, please contact the undersigned. Please inform this office of any decision made by the Committee of Adjustment regarding this application.

Sincerely,



Emily Su  
Resource Planner  
613-546-4228 ex.258

cc: applicant, via e-mail