Golden Leaf Agrivoltaics Inc.

Project Description Report

Golden Leaf Agrivoltaics Project, Drummond-North Elmsley, Ontario, Canada

Project #: 263072

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Submitted by
Dillon Consulting Limited

David Restivo, Partner
235 Yorkland Blvd
Toronto, Ontario, M2J 4Y8

P: 416.229.4647 ext. 2438
E: DRestivo@dillon.ca

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1.0 Introduction

Golden Leaf Agrivoltaics Inc. (Golden Leaf Agrivoltaics) is proposing the Golden Agrivoltaics Project (the Project), a proposed Class 3 ground-mounted solar facility with a maximum nameplate capacity of up to 13.2 Megawatts alternating current (MWac). The Project, which consists of solar panels and associated equipment and infrastructure located on private land in Township of Drummond-North Elmsley, Ontario (the Project Location) (**Figure 1**). Figures are provided in appended to this report.

The Project is being designed using agrivoltaics, which is the practice of combining agriculture and solar energy production on the same land. As part of this approach, sheep grazing may be implemented as a vegetation management strategy to control plant growth beneath and between the solar panels, providing both sustainable land management and agricultural benefits.

Golden Leaf Agrivoltaics was awarded a contract by the Independent Electricity System Operator (IESO) under the Long Term 2 Energy – Window 1 (LT2 (e-1)) process in April 2026. The Project is subject to several approvals including an *Ontario Regulation 359/09 (O. Reg. 359/09) – Renewable Energy Approval (REA)* under Part V.0.1 of the Ontario *Environmental Protection Act*.

This draft Project Description Report (PDR) provides an overview of the proposed project including the general area of the Project Location, components, activities and potential negative environmental effects. The PDR is intended to be an evolving report as additional project details become available.

The summary of regulatory compliance is shown in **Table 1.**

Table 1: Checklist for Requirements under O. Reg. 359/09 – Project Description Report

Required Documentation	Location in Report
Any energy sources to be used to generate electricity at the renewable energy generation facility.	**Section 5.3**, *Energy Sources*
The facilities, equipment or technology that will be used to convert the renewable energy source or any other energy source to electricity.	**Section 5.4**, *Project Components*
If applicable, the class of the renewable energy generation facility.	**Section 5.1**, *Nameplate Capacity and Classification*
The activities that will be engaged in as part of the renewable energy project.	**Section 5.5**, *Project Activities*

Required Documentation	Location in Report
The name plate capacity of the renewable energy generation facility	**Section 5.1**, *Nameplate Capacity and Classification*
The ownership of the land on which the Project Location is to be situated.	**Section 5.2**, *Land Ownership*
If the person proposing to engage in the project does not own the land on which the Project Location is to be situated, a description of the permissions that are required to access the land and whether they have been obtained.	**Section 4**, *Authorizations*
Negative environmental effects that may result from engaging in the project.	**Section 6**, *Description of Environmental Effects*
If the project is in respect of a Class 2 wind facility and it is determined that the Project Location is not on a property described in Column 1 of the Table to section 19 of *O. Reg. 359/09*, a summary of the matters addressed in making the determination.	N/A – The facility is not a Class 2 wind facility.
If the project is in respect of a Class 2 wind facility in respect of which section 20 applies and it is determined that the Project Location does not meet one of the descriptions set out in subsection 20 (2) or that the Project Location is not in an area described in subsection 20 (3), a summary of the matters addressed in making the determination.	N/A – The facility is not a Class 2 wind facility.
An unbound, well-marked, legible and reproducible map that is an appropriate size to fit on a 215 millimetre by 280 millimetre page, showing the Project Location and the land within 300 metres of the Project Location.	**Figure 2**
How the requirement set out in section 57.2 (Energy Demand) is satisfied.	**Section 5.1**, *Nameplate Capacity and Classification* (**Subsection 5.1.1**, *Energy Demand*)

2.0 The Proponent

Golden Leaf Agrivoltaics Inc. (Golden Leaf Agrivoltaics) is the proponent partnership between Compass Greenfield Development Inc. (Compass) and Algonquins of Pikwakanagan First Nation (AOPFN) responsible for the development and permitting of the Golden Leaf Agrivoltaics Project (the Project) renewable energy facility. Compass is a renewable and clean energy developer, investor and asset manager working across Canada. Compass advances greenfield development opportunities for solar and battery energy storage (Compass Greenfield, 2026). Dillon is the prime consultant for the preparation of this PDR.

Compass is coordinating and managing the approvals process for the Project. The primary contact at Compass/ Golden Leaf Agrivoltaics is as follows:

Full Name of Company:	*Golden Leaf Agrivoltaics Inc. (Compass Greenfield Development Inc.)*
Prime Contact:	*Bhavin Mistry, Senior Manager, Development*
Address:	*192 Spadina Ave. Suite 506, Toronto, ON M5T 2C2*
Telephone:	*(416) 716-0898*
Email:	*bhavin@compassgreenfield.ca*
Project Website:	*https://goldenleafagrivoltaics.ca/*

Dillon Consulting Limited (Dillon) has been retained by Golden Leaf Agrivoltaics to prepare the REA application for the Project. The primary contact at Dillon is as follows:

Full Name of Company:	*Dillon Consulting Limited*
Prime Contact:	*David (Dave) Restivo, Project Manager*
Address:	*235 Yorkland Blvd., Suite 700, Toronto, ON, M2J 4Y8*
Telephone:	*(416) 229-4647 ext. 2438*
Email:	*drestivo@dillon.ca*

3.0 Project Location

The proposed Class 3 solar agrivoltaics facility is to be located within the Township of Drummond-North Elmsley, Ontario. The Project Location is generally bounded by Drummond Concession 1 to the north and Churchill Road to the east. The Project site will be contained within three privately-owned land parcels, Lot 17, Concession 10 (Property Identification Number (PIN) 05232-0010) and Lot 16, Concession 10 (PINs 05232-0237 and 05232-0238). These lands will continue to be privately owned and leased by Golden Leaf Agrivoltaics, with the approximate centroid at the following geographic coordinates:

- Latitude: 44.919350 N
- Longitude: -76.184856 W

The Project Location is defined in *O. Reg. 359/09*, which identifies the location of all project components. The term "Project Location" is defined in *O. Reg. 359/09* to be "a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the Project". Project components, including solar panels and electrical facilities such as inverters, transformers, substations and electrical collector lines; as well as Project access roads will be located on private land.

4.0 Authorizations

A list of authorizations (i.e., applicable permits, agreements, licenses, approvals and confirmation levels) that Golden Leaf Agrivoltaics expects may be required in addition to the REA are included in **Table 2.** The necessary permits will be obtained prior to construction of the Project. Information contained in **Table 2** is preliminary and will be refined as the REA process progresses. The final list of permits required will be updated in subsequent versions of this PDR.

Table 2: Possible Authorizations and Requirements for the Project

Authority, Agency or Governing Body	Requirement
Electrical Safety Authority (ESA)	• Connection Authorization • Safety Inspection and Electricity Safety Code Certification (if needed) • Approval under Ontario Electrical Safety Code, *O. Reg. 22/04*, *O. Reg. 164/99* and *O. Reg. 438/07* • Compliance with CSA C22.3 No. 1 (Overhead Systems) for minimum vertical clearance and conductor swing over utility rights-of-way
Hydro One Networks Inc. (HONI)	• Customer Impact Assessment - Integration of project within HONI system and effects on customers • Connection Impact Assessment • Connection Cost Recovery Agreement • Joint Use Agreement.
Independent Electricity System Operator (IESO)	• Long-Term 2 Energy – Window 1 (LT2 (e-1)) Contract (term commencing on the Commercial Operation Date and running through April 30, 2050, subject to extension provisions) • Authorization as market participant • Registration of facility • Registration of metering service • System Impact Assessment (SIA) - Integration of project with Hydro One's transmission and distribution infrastructure • Connection Assessment Approval (CAA) • Notice to Proceed • Security deposits, financing plan, metering plan, etc.
Landowners	• Lease Agreements • Easement Agreements

Authority, Agency or Governing Body	Requirement
Ministry of the Environment, Conservation and Parks (MECP)	• Regulatory compliance under the *Species Conservation Act* (SCA) if listed species and/or habitat is impacted. ○ Note: In 2026, the enacted SCA replaced the repealed *Endangered Species Act, 2007* and it's associated regulatory framework. • A Phase I Environmental Site Assessment (ESA) under *O. Reg. 153/04* for land development and property transactions. • Permit to Take Water under *O. Reg. 387/04* if dewatering >50,000 L/day is required for building and/or access road development under the *Ontario Resources Act* • If large volumes of soil are proposed to be disturbed and/or removed from the site, the project may be subject to the *O. Reg. 406/19: On-Site and Excess Soil Management*
Ministry of Citizenship and Multiculturalism (MCM)	• Clearance under the Ontario *Heritage Act*.
Ministry of Transportation (MTO)	• Compliance with Road User Safety Policy and Corridor Management Permits, including *Highway Traffic Act* and Road Safety Regulations • Highway Entrance Permit(s), Transportation Permits (e.g. Oversize, Overweight Permit or Special Vehicle Configuration Permit)
Rideau Valley Conservation Authority	• Permit for development in natural hazard lands under *O. Reg. 41/24* under Section 28 of the *Conservation Authorities Act*.
Ontario Energy Board (OEB)	• License to Generate under Section 57(c) of the OEB Act
Township of Drummond/North Elmsley	• Municipal approvals under the *Planning Act* (e.g., Zoning By-law Amendment) • Building Permit(s) • Transportation and public safety permits (e.g. entrance permit, road occupancy, moving permit, encroachment permit) • Road Use Agreement • Drainage assessment

5.0 Project Information

5.1 Nameplate Capacity and Classification

The Project is designed to generate a maximum nameplate capacity of 13.2 MW AC of electricity. According to Part II, Section 4 of *O. Reg. 359/09*, the proposed Project is a Class 3 Solar Facility. The characteristics of a Class 3 Solar Facility, as described in the regulation, are as follows:

- The location of solar photovoltaic collector panels and devices are at any location other than mounted on the roof or wall of a building; and
- The name plate capacity of the solar facility is greater than 10 kilowatts.

5.1.1 Energy Demand

In accordance with Section 57.2 of O. Reg. 359/09, Golden Leaf Agrivoltaics Inc. has secured an LT2 (e-1) Contract with the IESO demonstrating commercial demand for the electricity generated by the Project.

- **Use, Sale, and Supply of Electricity:** Pursuant to Sections 2.2(a), 2.2(b), and 3.1 of the IESO LT2 (e-1) Contract, all electricity generated by the facility will be delivered to the IESO-Controlled Grid and offered into the IESO-administered markets.
- **Contract Duration:** Pursuant to Section 9(a)–(c) of the IESO LT2 (e-1) Contract, the contractual term for the Project's electricity supply arrangements commences on the Commercial Operation Date (COD) and runs through April 30, 2050, subject to applicable extension provisions.
- **Nameplate Capacity vs. Supplied Quantity:** The facility is proposed to have a maximum nameplate capacity of up to 13.2 MW AC, whereas the current Contract Capacity under Exhibit B of the IESO LT2 (e-1) Contract is 9.0 MW AC (corresponding to the currently allocated capacity on the connecting Hydro One circuit). Accordingly, the proposed maximum nameplate capacity exceeds the current contracted quantity by up to 4.2 MW AC. Any generation capacity above the initial Contract Capacity will only be constructed and operated subject to obtaining the requisite approvals and capacity allocations from Hydro One and the IESO (including via an amended contract or participation in the IESO-administered markets in accordance with the LT2 (e-1) Contract terms), ensuring that all electricity generated by the facility has a confirmed commercial path to market.

5.2 Land Ownership

The Project Location is comprised of three properties. These lands will continue to be privately owned and leased by Golden Leaf Agrivoltaics Inc.

5.3 Energy Sources

The primary source of energy that will be used to generate electricity will be the kinetic solar energy of moving photons exciting electron within the solar photovoltaic (PV) panels. This will create a direct current (DC) electricity, which is converted to AC electricity by inverters.

5.4 Project Components

PV panels will be the technology used to convert solar energy into electricity. With exposure to sunlight, the solar modules convert solar radiation into direct current (DC) through a PV process. Electricity generated from the PV panels will be collected and converted into AC electricity by inverters. From the inverters, the AC voltage will be "stepped-up" at the transformer substation, at which point it will be metered, delivered to the IESO-Controlled Grid, and offered into the IESO-administered markets in accordance with Golden Leaf Agrivoltaics' IESO LT2 (e-1) Contract.

Details about the project components, both temporary and permanent, that will be used to construct, operate, maintain and decommission the solar energy facility are provided below.

5.4.1 PV Panels and Mounting System

Approximately 21,195 solar PV panels of 635 (or higher) watts (DC) each will be installed for the Project. A PV panel make and model has not been specified at this stage and is currently under consideration by Golden Leaf Agrivoltaics. The final selection will dictate the power generating capacity of each panel and the number of solar panels required..

The PV panels will be aligned in rows to be spaced according to design criteria and will be mounted on a racking system. The type of anchoring system and/or foundation supports for the racking structures will be determined as part of detailed design prior to construction, but it is anticipated that the racks will be supported by screw piles into the ground. The racking system will be a single axis tracking system that moves according to the direction of the sun's rays. Further details on the racking system and supporting structures will be provided in subsequent versions of this report and in the Design and Operations Report as the Project progresses.

5.4.2 Inverters, Transformers and Electrical Collection System

DC electricity generated from the panels will be transmitted through underground wires (or an appropriate above-ground alternative based on sub-surface conditions of the site) connected to combiner boxes where several incoming wires from the racks will be combined into a single outgoing cable. From the combiner box, the DC current will be transmitted above or below ground to one or more inverter units (enclosed) which will convert the DC electricity into AC electricity suitable for distribution to the local grid at M21 Point of Interconnection (POI) at Drummond Concession 1. Inverter units will be spread across the Project Location. The inverters will be equipped with noise mitigation measures to reduce noise emissions, as needed.

There will be both intermediate transformers located in proximity to the inverters as well as a primary or main step-up transformer that will transform the power up grid voltage (44 kV) suitable for the distribution to the local grid. Appropriate grounding systems will be installed for the Project, where necessary. The type of support foundation for the inverter units, intermediate transformers and the protection equipment will depend on the results of geotechnical studies and the supplier selected, thus the construction methods may vary. The primary step-up transformer will be a double-walled transformer or have secondary containment.

5.4.3 Access Roads

One main access road will be needed for the construction equipment and related vehicles to enter the Project Location. The access will be off Drummond Concession 1 Road located north of the property. Internal access roads will also be developed for construction purposes and to provide long-term access for maintenance during operation.

The roads will be approximately 4-5 metres wide and will be granular. Geotextile fabric may be used where necessary to improve structural integrity and preserve the granular. If necessary, culverts will be installed beneath the access roads at locations where conveyance of surface water drainage is required.

5.4.4 Perimeter Fence, Communications Tower and Lighting

For the safety of the public and to prevent vandalism, a perimeter fence will be installed. This will be a chain link fence as required by the Electrical Safety Authority (approximately 6 or 7 ft in height and 1 ft barb wire) around the perimeter of the Project Location with locked gated entrance(s) and with a 3-strand barbed wire at the top. Perimeter fencing will meet Electrical Safety Authority requirements and incorporate livestock-retaining and predator-exclusion measures (e.g., woven wire or buried apron mesh) to safely accommodate agrivoltaic sheep grazing during operations.

A communications tower will be installed and operated by Hydro One or the Project Team, for emergency disconnect purposes only.

For security and maintenance purposes, lights may be installed near the entrance of the facility, and task-specific lights will be provided as necessary. These will be appropriately shielded or directed and may also be motion-sensored to address potential negative effects, as necessary.

5.4.5 Temporary Construction Area and Permanent Parking

During construction it will be necessary to designate temporary storage/laydown and construction staging areas for the construction office trailers, portable washrooms, first aid stations, vehicle parking, construction equipment parking, storage sheds, truck unloading/loading, waste disposal pick-up areas, and equipment and material lay-down. All temporary facilities will be removed when the construction period is finished; however, a portion of the construction laydown area may be maintained after construction for maintenance vehicle parking and other uses, as required.

5.4.6 Water Crossings

As shown in **Figure 2**, water bodies have been mapped in relation to the Project Location. Based on the project layout, no water crossings are anticipated for this Project. Water bodies are discussed in further detail in **Section 6.3** of this report.

5.5 Project Activities

The following subsections outline project activities during the construction, operations and decommissioning phases. The Project will not require the collection, transmission, treatment, storage, handling, processing or disposal of sewage, biogas, biomass, source-separated organics or surface water. The facility will not discharge contaminants into the air. The facility will be designed and constructed to minimize potential negative impacts to stormwater runoff and drainage.

5.5.1 Construction

It is anticipated that construction would last approximately 12 to 18 months. Pending receipt of all necessary approvals and permits, construction is tentatively scheduled to begin in fall/winter 2027. It is anticipated construction activities will occur in the relative order in which they are presented in **Table 3.** This information has been summarized from the Project Construction Plan Report. Additional details are provided in the Construction Plan Report.

Pre-construction activities that may be completed in advance of construction include topographic surveys, legal survey, geotechnical studies, archaeological and cultural heritage assessments and a phase one environmental site assessment.

Table 3: Construction Activities

Activity	Description
Survey and staking of Project Location	At the beginning of the construction phase, the site will be surveyed and staked to delineate the boundaries for fencing, access roads, excavations and foundation locations. Areas to be avoided will be fenced and/or flagged for public safety.
Clearing, ground leveling, compacting and grading	The Project Location will be minimally graded to facilitate construction activities based on a grading plan and a stormwater management plan will be implemented to maintain the general off-site drainage patterns as much as possible. Graders, bulldozers, scrapers, soil compactors, dump trucks, wheel loaders and backhoes may be used to prepare the site. Selective clearing of trees and vegetation will be required (as identified in this NHA EIS Report) for installation. Major excavation works or fill placement are not expected for the project. The primary excavation work is likely to be limited to soil removal for building foundations, establishing proper containment for oil-filled transformer use, access roads, potential containment units and digging trenches to run underground electrical cables. Topsoil removed from the permanent access road will be distributed across the project area. Any excess topsoil may be used to infill low-lying areas if appropriate. Temporarily stockpiled topsoil will be stored to minimize erosion from wind and precipitation. Disturbance and/or removal of large volumes of soil from the site is not anticipated. Accordingly, *O. Reg. 406/19: On-Site and Excess Soil Management* is not expected to be applicable.
Drainage and erosion control	Based on the results of the Natural Heritage Assessment and water flow management plans, temporary and/or permanent equipment to manage flow and protect natural features during construction/operation will be installed. Temporary erosion and sediment control measures will be installed to protect natural features and other considerations identified in the Natural Heritage Assessment. Common construction water flow

Activity	Description
	management practices typically include the use of hay bales and silt fence barriers. The temporary control measures will remain installed throughout the construction period and will be routinely inspected by the contractor. Specific details regarding surface drainage and any construction requirements will be established as part of a stormwater management plan which will be prepared prior to construction and during the detailed design phase of the project. The stormwater management measures will remain installed throughout the construction period and will be routinely inspected by the contractor.
Installation of perimeter fence and security lighting	Permanent fencing will be installed along the perimeter of the Project Location. The fence will be installed as required by the Electrical Safety Act (ESA) and applicable Ontario Provincial Specification Drawing standards. A gated entrance will be installed at the site entrance. For security and maintenance purposes, lights may be installed near the entrance of the facility and task-specific lights will be provided as necessary. This will be appropriately shielded or directed to avoid impacts to neighbours. They may also be motion-sensored to address potential negative impacts, as necessary.
Installation of water crossings	The design of the Project is not expected to require water crossings.
Construction of access roads and installation of temporary power	One access road will be required for construction vehicles and equipment transport for each site. It will also provide long-term access to the site for ongoing maintenance activities. The access will be off Drummond Concession 1 Road located north of the property. Internal access roads will also be developed for construction purposes and to provide long-term access for maintenance during operation. If water crossings are required along the access road, culverts will be installed across any drainage features as needed, in accordance with the entrance permit requirements. The main access roads will be about 4-5 m wide and will be constructed as appropriate for the project site and engineering design. Internal on-site granular access roads will be developed. The location of the internal access roads and their nature may change. Row to row rack spacing will be large enough such that service vehicles can access modules and wiring for maintenance. The central on-site road will allow a

Activity	Description
	service vehicle to access each inverter station directly. Internal access roads will be approximately 4-5 m wide. During the construction period, the only on-site electricity to be used is a combination of temporary local service and on-site generators. Electricity required for temporary construction offices, lighting and other purposes will be arranged for and obtained from the local electricity provider.
Delineation of temporary storage and construction areas and installation of temporary facilities	Temporary laydown and construction staging areas will be created in the Project Location, specific location(s) to be confirmed. These areas will be used for the construction office trailers, portable washrooms, first aid stations, vehicle parking, construction equipment parking, storage sheds, truck unloading/loading, waste disposal pick-up areas, and equipment and material lay-down. After site grading (discussed above) a layer of granular material will be installed to provide an adequate base for construction vehicles, heavy equipment and material laydown. The area may be retained to accommodate vehicle parking for maintenance personnel and equipment storage.
Construction of foundations	The type of support foundation for the main transformer, inverter units and intermediate transformers will depend on the results of geotechnical studies and the supplier selected, thus the construction methods may vary. The main transformer area and inverter unit's areas will be prepared/excavated as needed and foundations for the equipment installed. Based on preliminary geotechnical investigation, foundation types are expected to consist of ground screws.
Installation of support, racking and PV modules, as well as communication tower	The panels will align in rows approximately seven (7) metres apart and will be mounted on fixed aluminum or steel racking systems which will be attached to galvanized steel support structures. Preliminary design has confirmed that the Project could require steel support structures. A communication tower will be installed.
Installation of wiring and inverters/transformers	The electricity generated by the PV panels will be in the form of direct current (DC). Inverters will be required to convert the DC output of the PV cells into alternative current (AC) suitable for supplying the electrical grid. DC wiring mounted to the back side of the racks is connected to a combiner box. Cables will be installed underground or via an appropriate above-ground alternative, depending on sub-surface conditions. Sub-surface installation

Activity	Description
	methodology involves laying cables into trenches created by a trenching machine or an excavator. Overhead cabling supported by poles will be installed as required within the Project Location. After all major construction activities are complete the components will be tested. If any problems or issues arise, remedial corrections and calibration of equipment will be made prior to start-up.
Remediation and clean-up of work areas	All construction-related waste from the project site will be removed/reused/recycled where applicable once the project is complete. Trucks will be used to remove all non-permanent equipment from the Project Location, along with any debris. The truck(s) will access the site via the permanent access roads.
Site landscaping and vegetation	Site restoration and reclamation is planned for as much of the Project Location as possible, including along access roads. The restoration and reclamation strategy may include re-contouring of the land to natural drainage patterns (in accordance with a stormwater management plan), management and replacement of subsoil (if applicable) and topsoil and re-vegetation. Disturbed areas may be seeded with a low-growing species such as clover, or allowed to re-vegetate naturally as needed, to help stabilize soil conditions, enhance soil structure and increase soil fertility.

Construction activities will be conducted by licensed contractors in accordance with required standards and codes and all activities will abide by local laws and requirements. Construction-related activities will be conducted within the Project Location boundary outlined in **Figure 2**. Testing and commissioning of the facility will occur over the last few weeks to months of construction. During construction, if hazardous materials, including fuel, oils or grease will be stored on site, these materials will be stored away from sensitive features and secondary containment used. Disposal of hazardous wastes will only be required in the case of accidental spills and will follow the procedures outlined in the Spills Response Plan. Decisions on waste disposal or recycling during, and immediately after, construction will be made by the on-site contractor who will refer to the *Environmental Protection Act*.

5.5.2 Operation and Maintenance

The following activities, outlined in **Table 4**, are associated with the operation and maintenance of the solar facility. It will operate year-round and generate electricity during daylight hours only. The amount

of daily power generated will depend on the available resource. The Project will be monitored and managed remotely; therefore, minimal on-site activity is required.

This information will be summarized from the Design and Operations Report under a separate cover.

Table 4: Operations and Maintenance Activities

Activity	Description
Monitoring and Meter Calibrations	The facility will be monitored remotely twenty-four hours a day off-site to ensure proper power output and to alert the operations staff to potential issues. Most issues can be remotely diagnosed so that the correct individual(s) can be dispatched to the facility to correct any problems.
Routine Periodic Maintenance and Inspection of Project Components	Site visits will occur as scheduled to visually inspect the solar facility and Project Location and ensure that the facility is in proper working order. Activities that will occur during these visits may include data collection, regular maintenance (as described below) and any necessary minor repairs such as replacement of weathered electrical components. Security visits may also occur periodically. Transformers, inverters, panels and arrays will be visually inspected during scheduled visits.
Lighting	For security and maintenance purposes, task-specific lighting may be installed near the entrance of the facility and task-specific lights will be provided as necessary. These will be appropriately shielded or directed to avoid impacts to neighbours. They may also be motion-sensored to address potential negative effects, as necessary and will be inspected for burned/broken bulbs. Regularly scheduled maintenance will occur.
Periodic Landscape Maintenance	Short native vegetation may be planted once construction activities are complete. It will be necessary to maintain the land in such a way that vegetation does not shade or in other ways impact the solar panels. Regular scheduled maintenance will also occur to manage weed growth, which may include the use of sheep grazing as a vegetation management strategy. This will be done in consideration of any seasonal limitations outlined in the NHA. It is not anticipated that herbicides will be used to manage vegetation. Regularly scheduled maintenance will occur.
Major Maintenance	Unforeseen, large repairs are not anticipated. Should major maintenance be required it will be performed using existing roads and site access points.

Activity	Description
Third Party Inspections and Testing	Activities will be carried out as required by the local utility and other governing bodies in addition to any regularly scheduled inspections and testing.
Traffic	Activities will be carried out as required by the local utility and other governing bodies in addition to any regularly scheduled inspections and testing. No major deliveries are anticipated for maintenance. Minimal vehicle traffic is associated with regular maintenance.
Drainage and Erosion Control	Stormwater runoff at the Project Location will be managed as per a stormwater management plan to be developed by the appropriate contractor; and this will be done with consideration to maintaining pre-construction drainage patterns and any recommendations or limitations outlined in the NHA or Water Reports. Any implemented measures will be inspected during routine maintenance.
Waste	During the operation phase, no hazardous materials will be stored on-site except for oil for transformers and small quantities required for facility maintenance. Transformer oil will be adequately contained and accompanied by a Spills Response Plan, which will be developed prior to the start of construction.

5.5.3 Decommissioning

Through the decommissioning phase of the Project, the site will be returned to a state similar to its pre-construction condition. The installed components will be removed and reused/recycled, where possible. Any remaining materials will be removed and disposed of off-site at an appropriate location. The final decision on waste disposal or recycling will be the responsibility of the on-site contractor who will refer to the *Environmental Protection Act*, or the applicable standards of the day before submitting a Generator Registration Report, or other applicable report, for each type of waste produced at the solar facility.

The decommissioning plan for this Project is based on current procedures and experience. These procedures may be subject to revision based on new experiences and requirements over time. At the time of decommissioning various options and procedures will be re-evaluated to ensure that decommissioning is safe, beneficial to the environment and to landowners. Soil erosion and sedimentation control measures, as well as other mitigation measures used during construction will be re-implemented during the decommissioning phase and until the site is stabilized.

This information is summarized from the Project Decommissioning Plan Report. Additional details are provided in that report related to decommissioning.

5.5.4 Equipment Dismantling and Removal

After the facility has been disconnected from the utility power grid and all electrical components have been disconnected within the facility, components will be dismantled and removed as outlined in **Table 5**. Decommissioning will be undertaken by licensed subcontractors using similar techniques and equipment as those employed during construction.

Table 5: Equipment Dismantling and Removal

Component	Description
Above Ground Structures	
PV Arrays	• Disconnect all above ground wirings, cables and electrical interconnections. • Remove PV modules from racks, temporarily store on-site in delineated area before removal by truck to an appropriate facility. • Dismantle and remove all racks and support structures, including extraction of in-ground support structures. Temporarily store on-site before removal by truck to recycling facility.
Inverter Units and Transformers	• Disconnect and remove all electrical equipment. • Remove inverters and associated components including combiners, low voltage switch gear and medium voltage transformers and transport off-site to appropriate facility. • Unbolt substation transformer and remove from the foundation with a crane. • If concrete foundations have been used for inverter units or substations, they will be removed.
Access Roads and Other Components	• Consult with landowner(s) to determine if access roads should be left in place for their continued use. • If one or more access roads are removed after consultation with the landowner(s), the aggregate materials will be excavated by a backhoe/front-end loader, along with any underlying geotextile fabric. • All compacted areas will be tilled in a manner adequate to restore the sub-grade material to the proper density and depth, consistent with the surrounding fields. Clean, compatible sub- grade material, followed by topsoil will be applied as necessary. • Above ground lines and poles that are not owned by HONI will be removed along with associated equipment (isolation switches, fuses, metering) and holes will be filled in with clean fill or on- site fill. • The communication tower will be dismantled and components removed.

Component	Description
	• Removal of the perimeter fencing, followed by removal of fence pole foundations will be completed.
Below Ground Structures	
Underground Cables	• Underground electrical lines running between inverters and the substation may be cut and the ends buried to one metre below grade and left in place. These lines are inert and will have no negative impacts on the environment, soil and/or cultivation practices.
Equipment Foundations	• The inverter units and steel racking for the solar modules will have foundations that require removal. These foundations will likely consist of steel piles but may also include concrete. Other underground infrastructure requiring removal may include concrete protective electrical structures. It is anticipated that structures will be fully removed from the ground and that the affected area shall be backfilled as necessary. • If a structure breaks during excavation, any portion below 1.2 metres in depth will remain in place; the portion above 1.2 metres will be removed. Waste concrete will be recycled off-site by a concrete recycler or crushed on-site and used as backfill material. • All foundation materials will be removed from the site via truck and managed at appropriate facilities.

5.5.5 Site Restoration

Once the on-site solar equipment is removed, it is expected that the site will be returned to its former use (i.e., rural). Some minor site grading may be required. Site restoration activities will be undertaken in consultation of the landowner where applicable. Where appropriate, vegetation will be re-established.

5.5.6 Managing Excess Materials and Waste

During the decommissioning phase, waste materials will be removed in accordance with applicable local requirements, at a minimum; however, the goal will be to recycle all Project materials where possible and to work with local subcontractors and waste firms to segregate material to be recycled. For example, since the mounting racks are made of manufactured metal, it is anticipated that nearly 100% of the above grade metal structures are salvageable.

6.0 Description of Environmental Effects

The following subsections provide a summary of potential effects that may result from the construction, installation, operation, use and retirement of the solar facility at the Project Location and within 120 metres. Mitigation and/or monitoring measures to address potential negative environmental effects to natural features, water bodies, cultural heritage and archaeological features, provincial and local infrastructure, land use, public health and safety and land use plan areas are also described below. Details on mitigation measures and monitoring will be provided in the Natural Heritage Assessment and the Design and Operations Report.

6.1 Cultural Heritage and Archaeological Resources

A cultural heritage sub-consultant has been retained by Dillon on behalf of Compass and Golden Leaf Agrivoltaics to complete a Phase 1 Cultural Heritage Assessment Report (CHAR) and Stage 1 Archaeological Assessment, as required under *O. Reg. 359/09*.

6.1.1 Cultural Heritage Assessment

A cultural heritage assessment was completed in accordance with current best practices and requirements set out in the legislation and guidelines including *Ontario Regulation 359/09* made under the *Environmental Protection Act* (2009) and the MCM's (formerly Ministry of Tourism, Culture and Sport's) *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 - Renewable Energy Approvals* (2013).

The purpose of the cultural heritage assessment is to identify and document properties with cultural heritage value or interest, as well as present conclusions and recommendations concerning potential project impacts. This process involved a windshield survey of the entire Project Location to identify participating and abutting properties that have potential heritage resources (e.g., buildings, bridges, dams, culverts and other structures). The properties were photographed, and background research was conducted to aid in the determination of if these features have cultural heritage value or interest. As required by *O. Reg. 359/09*, the study area was examined for Protected Properties (e.g., properties designated under the *Ontario Heritage Act*). Cultural Heritage Landscape (CHL) features which may be located within or near the study area were also identified.

The assessment identified one potential built heritage resource (the stone house at 1161 Drummond Concession 1, has been identified in the study area but outside of the project area) and zero cultural heritage landscapes.

Following evaluation under Ontario Regulation 9/06, it was determined that the property does not possess cultural heritage value or interest. The study did not identify any protected properties within the study area.

6.1.2 Archaeological Assessment

Dillon, on behalf of Compass and Golden Leaf Agrivoltaics, also contracted a sub-consultant to undertake a Stage 1 assessment to fulfill the requirements of the REA. The Stage 1 archaeological assessment was completed as part of the REA application, in accordance with the requirements set out in Sections 21 and 22, in *Ontario Regulation 359/09* under the *Environmental Protection Act*. The purpose of the assessment was to determine whether there is potential for the discovery of archaeological resources within the Study Area.

The Stage 1 background study included a review of current land use, historic and modern maps, past settlement history for the area and a consideration of topographic and physiographic features, soils and drainage. It also involved a review of previously registered archaeological resources within 1 km of the project area and previous archaeological assessments within 50 m. The Stage 1 background assessment concluded that, based on criteria outlined in the Standards and Guidelines for Consultant Archaeologists (Section 1.3, (2011)), the study area has both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential.

The Stage 2 AA was undertaken from June - October 2026. A total of thirteen (13) artifacts were collected from two positive test pits and subsequent intensification. The initial positive test pits were identified over 40 metres apart in the central western portion of the study area. The assemblage consists of historic 19th to 20th century domestic material. Based on the results of this investigation it is recommended that no further archaeological study is required for the study area.

6.2 Natural Heritage Resources

A Natural Heritage Assessment (NHA) Records Review for the project will be completed as per Section 25 of *Ontario Regulation 359/09*, for the Project Location and lands within 50 m of the Project Location using secondary source information. The purpose of the NHA Records Review is to determine whether the Project Location is:

- In or within 50 m of a provincial park or conservation reserve;
- In a natural feature, such as:
  - Wetlands (coastal wetland, northern wetland or southern wetland);
  - Wildlife habitats;
  - Woodlands; and/or

  - Life Science Areas of Natural and Scientific Interest (ANSI).
- Within 50 m of a natural feature that is not an ANSI.

Additionally, features identified within 300 m of the Project Location will be identified to meet the requirements of the future Construction Plan Report and features 120 m from the Project Location were identified with regards to watercourses and water bodies (further discussed in Section 6.3).

The Project Location falls within Ecoregion 6E (Mixedwood Plains), within Ecodistrict 6E-11 (Smith Falls). The Project Location is comprised of residential lots, open fields, woodlands, wetlands, and watercourses.

6.2.1 Natural Heritage Features

No Provincial Parks, Provincially Significant Wetlands (PSW), or ANSIs were identified within 300 m of the Project Location. Site investigation field studies confirmed that no wetland communities occur within 50 m of the Project Location. Candidate wildlife habitat was identified within the Project Location and surrounding 50 m setback and is discussed in Section 6.2.2.

The Project Location and Study Area contain watercourses, wetlands and woodlands. Woodland units, as defined by *O. Reg. 359/09*, are located within and adjacent to the Project Location.

Two woodland units (Woodland A and Woodland B) located within 50 m of the Project Location were evaluated during site investigations. Woodland B was confirmed as a Significant Woodland as it meets tree cover and size criteria and is designated as a significant woodland on Schedule C of the Township of Drummond/North Elmsley Official Plan. Woodland A was determined to be not significant as it did not meet the minimum size, interior, or functional criteria. The locations of woodland features are shown on Figure 2.

Most of the potential impacts to natural features are expected to occur during the construction phase. It is anticipated that through the implementation of appropriate mitigation and monitoring measures, including the establishment of an operational Vegetation Management Zone (VMZ) along the edge of Woodland B to avoid clear-cutting, adherence to seasonal clearing windows, and implementation of erosion and sediment control (ESC) and stormwater management, impacts to natural features will be minimized. These appropriate mitigation and monitoring measures are developed and outlined under separate cover within the NHA Environmental Impact Study Report.

6.2.2 Significant Wildlife Habitat

A review of wildlife habitat in the Project Location was completed during the NHA Records Review, Site Investigation and Evaluation of Significance. Potential candidate wildlife habitat related to this Ecoregion, within 50 m of the Project Location identified during the Records Review include:

- Seasonal Concentration Areas of Animals;
- Rare Vegetation Communities;
- Specialized Wildlife Habitat;
- Habitat for Species of Conservation Concern (Not Including Endangered or Threatened Species);
- Animal Movement Corridors.

Following field investigations, Woodland Raptor Nesting Habitat was determined to be not significant due to the absence of active raptor nests within the feature. Conversely, Open Country Bird Breeding Habitat, Eastern Wood-Pewee breeding habitat, and SAR bat habitat were confirmed or treated as significant based on recorded breeding evidence, call detections, and acoustic survey passes.

Detailed evaluations, impact assessments, and proposed mitigation measures for these confirmed and treated Significant Wildlife Habitat features are addressed within the NHA Evaluation of Significance Report and the NHA Environmental Impact Study Report under separate covers.

6.2.3 Species at Risk

Species at Risk (SAR) listed under the federal Species at Risk Act, 2002, and species listed on the Protected Species in Ontario List under the provincial Species Conservation Act, 2025 (formerly Endangered Species Act, 2007), were identified within the Project Location and adjacent lands during 2026 site investigations. Confirmed SAR include grassland birds (Bobolink, Eastern Meadowlark), woodland birds (Wood Thrush, Barn Swallow, Eastern Wood-Pewee), and bat species (including Silver-haired Bat, Hoary Bat, and potential habitat for Endangered resident bats). Potential project interactions with these species will be addressed in consultation with the appropriate agency. Reporting related to the protection of these SAR will be provided to the appropriate agency under separate cover.

6.3 Water Bodies

A Water Assessment Report was completed to identify water bodies within the Project Location and lands within 120 m, which included a Records Review and a Site Investigation. The results of both studies found that no water bodies as defined under *O. Reg. 359/09* were identified at the Project Location.

No lakes, Lake Trout Lakes, Seepage Areas, or Provincial Plan Areas were identified within 300 m of the Project Location during preliminary review.

Accordingly, mitigation and monitoring are not applicable as no impacts to water bodies are expected.

6.4 Air, Odour and Dust

Once operational, the renewable energy facility is not anticipated to create dust, odour or emissions to air except as a result of some maintenance activities. During construction, an increase in particulate matter (dust) may be experienced in the adjacent area, which is predominantly agricultural, as a result of construction activities such as clearing and grubbing, grading and levelling, construction of access roads and travel of construction vehicles and equipment over gravel roads. Additionally, there will be emissions from the diesel engines of construction machinery and equipment which may cause temporary negative impacts to local air quality and odour nuisance.

The impacts from construction will be localized and temporary and are unlikely to have a lasting impact on regional air quality or climate change. If required, appropriate air quality mitigation measures (such as keeping equipment properly maintained, minimizing vehicle idling and watering roads to reduce dust, as required) will be implemented during construction.

6.5 Noise

During the construction period, construction activities will lead to elevated levels of noise in the area. Efforts will be made to minimize this noise. Mitigation measures will reduce the impact of construction noise on surrounding land uses (e.g., maintaining equipment in good working order, and prohibiting vehicle idling where possible). Minimal noise (vehicles, spray washing) could also be experienced by nearby receptors during times of periodic maintenance. Efforts will be made to minimize this noise, and the project will comply with applicable By-laws and restrictions.

Once the solar facility has been constructed and is operational, the only noise generated will be from the inverter stations and substation transformer. This equipment will be located to minimize noise impacts on receptors. As part of the REA application to MECP, a Noise Study Report will be developed that demonstrates compliance with regulated noise levels. Minimal noise (from vehicles and other maintenance operations) may be experienced during the operations phase at nearby receptors during times of periodic maintenance.

6.6 Land Use and Resources

The planned solar facility will occur within lands zoned by the Township of Drummond/North Elmsley as 'Rural'. The Project Location lands are primarily rural, and the solar facility will temporarily alter the land use. Mitigation measures will be undertaken to minimize impacts to surrounding land uses, which are rural and residential dwellings.

The proposed facility is physically low-profile and would be non-obtrusive to the surrounding community. Low profile vegetation will be grown beneath and between the panel rows to stabilize soils. As part of the Project's agrivoltaic design, sheep grazing may be used to manage vegetation beneath and between the solar panels, supporting both land management and agricultural use. The Project Location could be returned to its pre-construction condition or future anticipated land use after decommissioning.

6.7 Provincial and Local Infrastructure

Prior to the start of construction, Golden Leaf Agrivoltaics will work with the Township of Drummond/North Elmsley to obtain municipal authorizations such as a Road Use Agreement. This is a typical condition found in REAs issued by the MECP. During construction, local roads may experience additional wear from heavy construction loads. Mitigation and/or repair of local roads will be outlined in the Road Use Agreement or equivalent municipal agreement. Periodic traffic disruptions are possible along Grey Road 4 during the construction phase of the Project.

No negative effects are anticipated during the operational phase of the project. Any mitigation measures to minimize power outages will be undertaken by Hydro One.

6.8 Public Health and Safety

Potential impacts on public health and safety are anticipated to be minimal but include those generally related to construction. Noise, vibration, dust and equipment emissions during construction are the key causes of human health impacts. These effects will likely be small, localized and temporary in nature and mitigation measures will be implemented to address or minimize the impacts. Mitigation measures include maintaining equipment in good working order; traffic management; prohibiting vehicle and equipment idling, where possible; and watering down of roads as necessary.

Temporary and permanent fencing will prevent unauthorized access and ensure public safety during the construction and operational phases. Appropriate signage, flagging and other safety measures will be taken to notify the public and ensure public safety. Applicable safety policies and procedures will be adhered to during the construction phase of the project.

Construction activities will be conducted by licensed on-site contractors in accordance with Health and Safety Plans and applicable regulations.

An Emergency Response Plan and Emergency Communications Plan will also be prepared prior to construction and will outline the protocol to be followed in the event of an emergency at the Project. This plan is typically developed in consultation with the local emergency services department from the Township of Drummond/North Elmsley. The Emergency Response Plan will provide key contact information for relevant responders, regulators, landowners and other stakeholders.

6.9 Areas Protected under Provincial Plans and Policies

Under *O. Reg. 359/09*, if any part of the Project Location falls within a provincial plan area the Project may be subject to different criterion to evaluate the applicable natural features. In addition, should development occur within the prescribed setback area of a natural feature, it may be subject to a different set of prohibitions under *O. Reg. 359/09*.

Provincial plan areas include the Oak Ridges Moraine Conservation Plan Area, the Niagara Escarpment Plan Area, the Greenbelt – Natural Heritage System, and the Greenbelt – Protected Countryside. These provincial plan areas are not applicable to the proposed project.

7.0 Benefits of the Project

The generation of power from solar energy will displace up to 13.2 MW AC of electricity that otherwise may have been generated by fossil fuel burning or non-renewable power plants. As a result, the energy generated will not contribute to climate change or emissions-related health impacts. The project will contribute to the province's *Energy for Generations* (June 2025) plan, Ontario's first Integrated Energy Plan, which states that *"starting in 2025, nearly 3,000 MW of energy storage will be added to the grid enabling intermittent renewables to play a more reliable and integrated role"*. While the facility itself does not include battery storage, the 22.0 MW AC solar generation will directly support Ontario's clean energy grid expansion. A further benefit is that jobs will be created, especially during the construction phase.

References

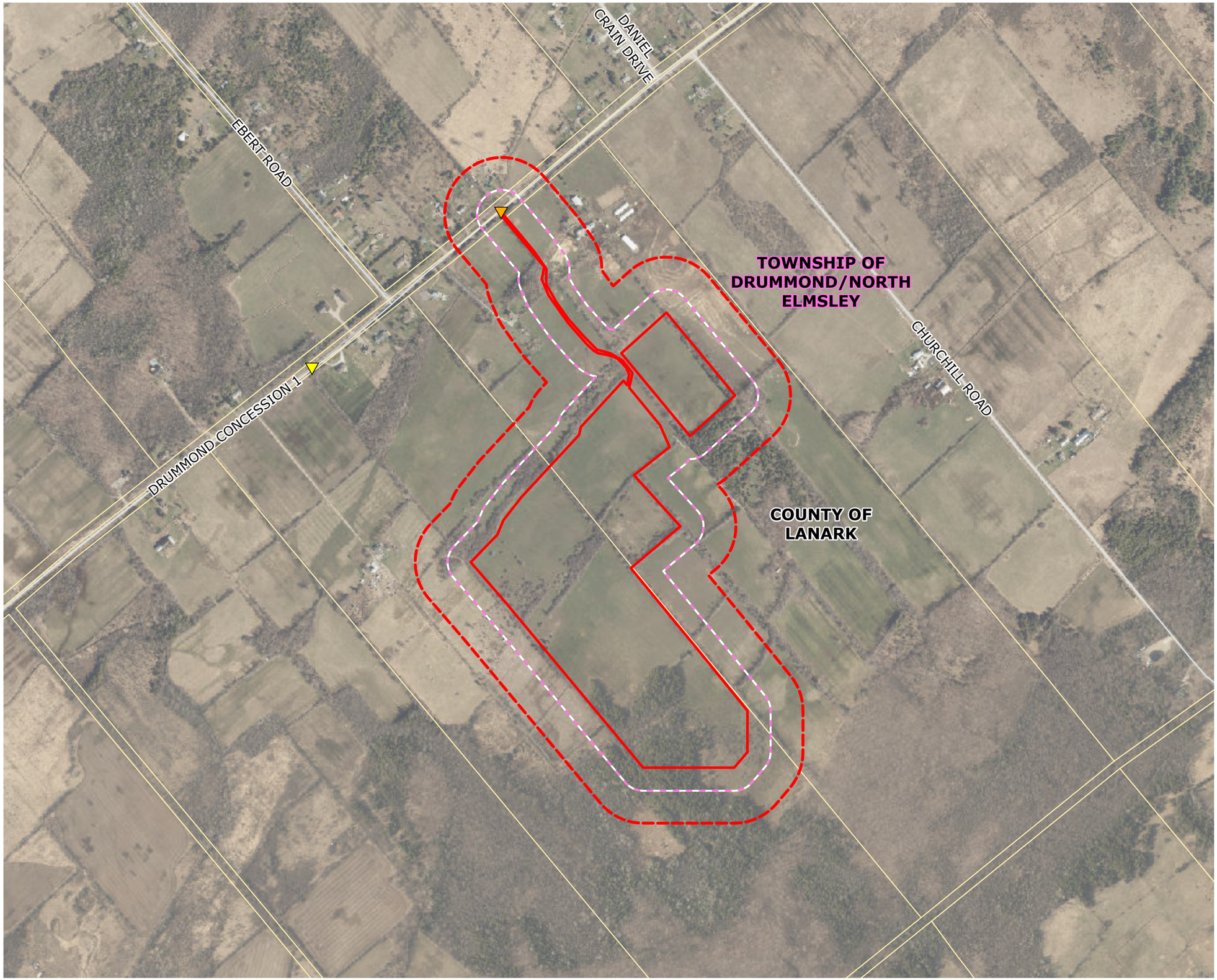
Government of Ontario. 2025. Energy for Generations: Ontario's Integrated Plan to Power the Strongest Economy in the G7. Accessed from: https://www.ontario.ca/page/energy-generations

Ontario Ministry of Natural Resources and Forestry. 2012. Natural Heritage Assessment Guide for Renewable Energy Projects. Second Edition. 109 pp.

Figures

Figure 1: Project Location

Figure 2: Natural Heritage Features



Golden Leaf Agrivoltaics Project

Project Description Report

Project Location

Figure 1

- Project Location
- Study Area (120 m)
- 50 m Site Investigation Area
- Point of Common Coupling
- Hydro One Interconnection*
- Local Road
- Lot/Concession

*Outside REA Scope
(Existing/Future Transmitter Infrastructure)



Map Drawing Information:
Data Provided by Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Scale 1:8,000

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Checked By: KO	Status: DRAFT
Map Projection: NAD 1983 UTM Zone 18N	Date: 2026-11-12

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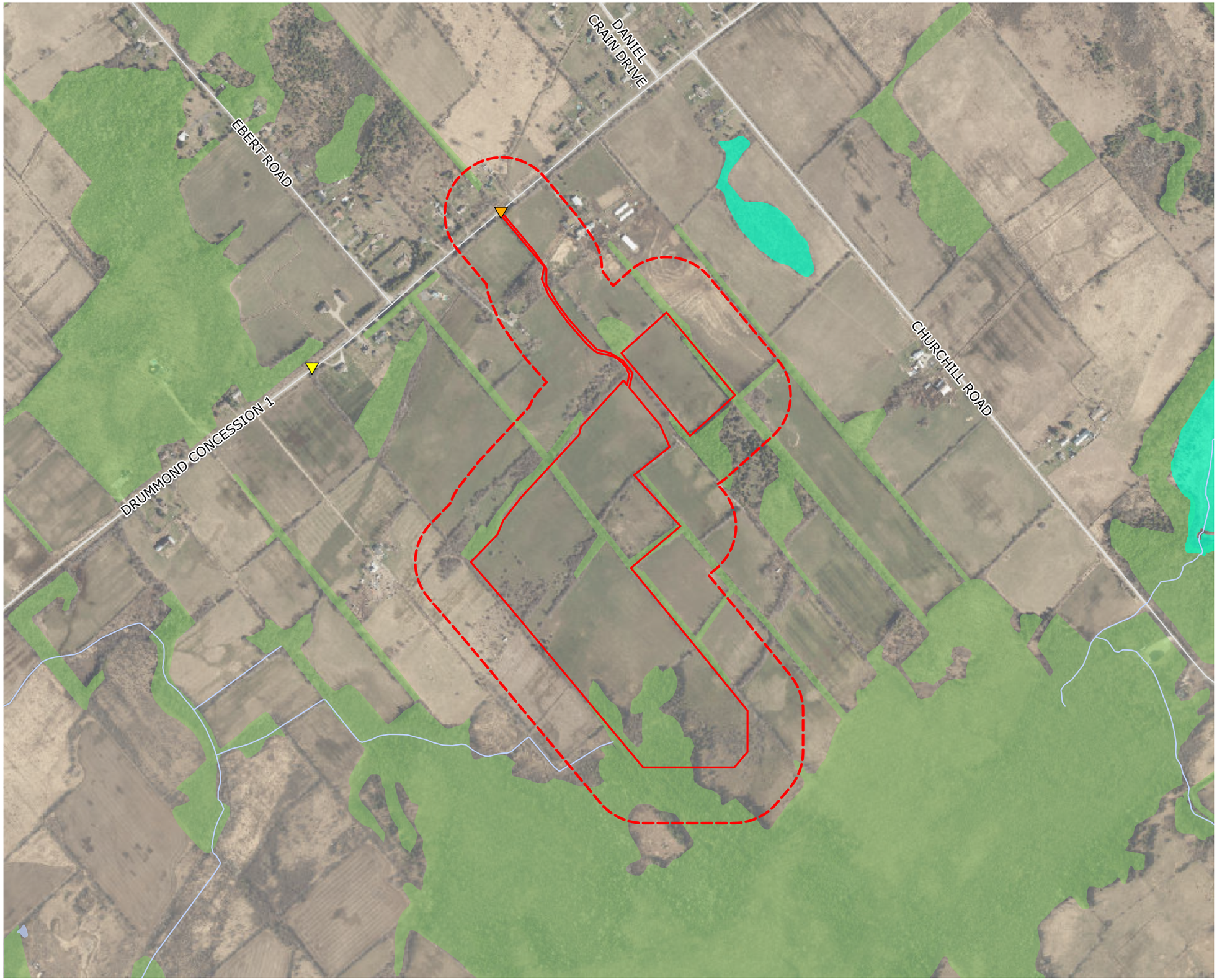

Golden Leaf Agrivoltaics Project

Project Description Report

Natural Heritage Features

Figure 2

- Project Location
- Study Area (120 m)
- Point of Common Coupling
- Hydro One Interconnection*
- Watercourse
- Highway
- Major Road
- Local Road
- Water Body
- Unevaluated Wetland
- Wooded Area

*Outside REA Scope
(Existing/Future Transmitter Infrastructure)

Map Drawing Information:
Data Provided by Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Scale 1:8,000

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Created By: AEE	Project: 26-3072
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