



## **Neoen Ontario BESS 1 Inc.**

### **Tara BESS Project**

Lot 39, Concession 4, Arran Township, ON

Technical Report

### **Draft Class EA Environmental Study Report**

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**FINAL**



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## REVISION HISTORY

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Use of this document acknowledges acceptance of the foregoing conditions.



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Appendix G:	Built Heritage and Cultural Heritage Landscapes Screening Report
Appendix H:	ECA Application for the Stormwater Management System



## 1. Introduction

Neoen Ontario BESS 1 Inc. (Neoen), an Independent Power Producer, proposes to construct and operate a new 400-megawatt (MW) Battery Energy Storage System (BESS), the Tara BESS Project, that will provide electricity storage services to the Ontario grid (the Project). The Project will occupy approximately 25.42 hectares and have an approximately 490 m 230 kV overhead transmission line connecting to the provincial grid. The Project is located in the Municipality of Arran-Elderslie on private land currently used for agriculture.

The Tara BESS Project has been awarded a storage contract by the Independent Electricity System Operator (IESO) under the for Long-Term Electricity Reliability Services (LT1) RFP. The RFP is intended to add storage projects onto the provincial grid (electric utility system) to improve its performance and reliability. Regulatory approvals are now being sought for the Project (Figure 1). Subject to receipt of approvals, construction of this project is expected to last between 18 and 24 months, and project operation start is anticipated for end of 2027. The project will connect to the provincial electric transmission system.



Figure 1: Timeline of the proposed Project

Battery energy storage systems are not included in Ontario Regulation (O. Reg.) 116/01 under the *Ontario Environmental Assessment Act (EA Act)* nor the “*Guide to Environmental Assessment Requirements for Electricity Projects*”, and therefore are not normally subject to an assessment under the *EA Act*. However, construction and operation of a new transmission station  $\geq 115$  kV is subject to *Class Environmental Assessment for Transmission Facilities* (Hydro One Network Inc., 2024) established under the *Ontario Environmental Assessment Act* (Ministry of the Environment, Conservation and Parks, 2011). Since the proposed substation which triggers the assessment is part of larger overall development, all components – including the BESS facility – are assessed.



The Class Environmental Assessment for Transmission Facilities (Class EA for TF) has two stages (screening and environmental review, or full Class EA process). In the first stage, a Proponent-driven screening process is conducted by answering sixteen screening criteria questions to determine if the full Class EA Process applies. If the Proponent determines the sixteen criteria are cleared, an Environmental Screening Report is made available to MECP and the public. If through Proponent screening or agency/public feedback on the Environmental Screening Report, the full Class EA process is determined to be required, the Proponent prepares an Environmental Study Report (ESR). Based on the Project screening, Neoen is advancing directly to the full Class EA process.

Additional provincial permits and approvals may include:

- Environmental Compliance Approval (water quality: stormwater management system);
- Environmental Activity Sector Registration (noise);
- Archaeology Clearance Letter;
- Approved Soil and Excess Materials Management Plan (if applicable);
- Ontario Endangered Species Act Sec.17 approval (if applicable).


Federal and municipal permits and approvals may include:

- Site Plan Approval (or equivalent) from the Municipality of Arran-Elderslie;
- Official Plan and Zoning Bylaw amendment;
- Ontario Regulation 41/24 permit from Grey Sauble Conservation Authority (GSCA)
- Land Use Approval (NavCanada) to be submitted to confirm no conflict. (Aeronautical Assessment Form (Transport Canada) will not be submitted since structures are < 60 m tall).

The general location of the proposed Project is depicted in Figure 2.





-  Project Development Area (Neoen)
-  Proposed Project Development Area (HONI)



Tara BESS Project -  
Class EA Environmental Study Report  
Bruce County, Ontario

**Figure 2**  
**General Location of the Proposed Project**

Sources:  
CanVec, 1/250 000, NRCan, 2017  
Municipal Boundary , Ontario Ministry of Natural Resources and Forestry, May 2023  
Project Data, BBA, 2025

BBA Project Number: 7757017-000000-4E

2025-03-05

0 50 100 m  
UTM, zone 17, NAD 83



Prepared by: J. Day      Drawn by: A. Haffaci      Verified by: F. Karcha



The structure of this document is as follows:

- Section 1: Introduction;
- Section 2: Project description;
- Section 3: Engagement summary;
- Section 4: Environmental assessment approach;
- Section 5: Existing conditions;
- Section 6: Effects assessment;
- Section 7: Cumulative effects assessment;
- Section 8: Climate change;
- Section 9: Monitoring and commitments; and,
- Section 10: References.

Concordance Table

As an effort to facilitate the reading, review and validate the completeness of this Environmental Study Report, the table below provides a concordance between the Class EA Study Report and the Class EA requirements stated in the following documents:

- *Class Environmental Assessment for Transmission Facilities* (Hydro One Network Inc., 2024):
  - *Section 3.3.1 (study area definition);*
  - *Section 3.3.3 (Class environmental assessment screening process);*
  - *Section 3.3.4 (Environmental Inventory);*
  - *Section 3.4.1 (draft environmental study report);*
  - *Section 4 (consultation);*
  - *Section 6.4 (consideration of climate effects); and,*
  - *Section 6.5 (consideration of cumulative effects).*
- MECP's *Class EA Notice of Commencement Acknowledgement Letter* (Macki, 2024); and,
- *Guide to Preliminary Screening for Species at Risk* (Ministry of Environment, Conservation and Parks. Species at Risk Branch, Permissions and Compliance, 2019).

Evaluation of environmental effects is supported through desktop study. The concordance table identifies information requirements that were additionally supported by the collection of primary data (field survey) related specifically to Neoen's proposed project.

Information Requirements and Screening Criteria to be considered		Environmental Study Report		Primary data study conducted
Class EA for Transmission Facilities	Acknowledgement of Notice of Commencement	Section	Heading title	
Name and description of the proposed project (Class EA for TF, Section 3.4.1)	-	1, 2.1., 2.2 Appendix A	Introduction, Major components, Major activities Typical drawings and cross-sections	-
Description of potential environmental effects of climate change on the project and their incorporation into design, siting, construction and operation (Class EA for TF, Section 6.4)	Describe the resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation)	8	Climate change	-
Description of the need for the proposed project (Class EA for TF, Section 3.4.1)	-	1	Introduction	-
Description of the alternatives for the project (Class EA for TF, Section 3.4.1)	Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical).	2.3	Alternatives to the undertaking	-
Description of the preferred alternative (Class EA for TF, Section 3.4.1)	-	2.3	Alternatives to the undertaking	-
-	<ul style="list-style-type: none"><li>■ Identify:<ul style="list-style-type: none"><li>– current or historical waste disposal sites</li><li>– other known contaminated sites</li><li>– location of any underground storage tanks</li></ul></li><li>■ Describe tests to determine soil contaminant levels where excavation will occur.</li></ul>	5.3 6.3	Existing conditions – Agricultural resources Effects assessment – Agricultural resources	<ul style="list-style-type: none"><li>■ Soil survey (to be conducted pre-construction within Project Development Area)</li></ul>



Information Requirements and Screening Criteria to be considered		Environmental Study Report		Primary data study conducted
Class EA for Transmission Facilities	Acknowledgement of Notice of Commencement	Section	Heading title	
Description of consultation (Class EA for TF, Section 3.4.1, Section 4), including:	The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all consultation efforts undertaken during the planning process.	3 Appendix B	Engagement summary Consultation materials	-
■ Consultation principles	-	3 Appendix B	Consultation principles Consultation records	-
■ Methods used to consult	-	3 Appendix B	Methods Consultation records	-
■ Notification techniques	-	3 Appendix B	Engagement techniques Consultation records	-
■ Copy of all notification material	-	3 Appendix B	Engagement techniques Consultation records	-
■ Information related to involvement of Indigenous communities, municipal, provincial and federal government officials, government agencies, potentially affected and interested persons, affected businesses, and interest groups in the consultation process	-	3 Appendix B	Description of consulted entities Consultation records	-
■ List of consulted persons	■ Consult owners of above or underground utilities ■ Include the full distribution/consultation list	3 Appendix B	Description of consulted entities Consultation records	-
■ Schedule of events	-	3 Appendix B	Engagement schedule Consultation records	-
■ Identification and resolution of concerns	Include copies of comments submitted on the project, and the proponent's responses to these comments.	3 Appendix B	Concerns raised Consultation records	-
■ Commitments made by the proponent	-	3 Appendix B	Summary of commitments Consultation records	-
■ Outstanding concerns	-	3 Appendix B	Outstanding concerns Consultation records	-

Information Requirements and Screening Criteria to be considered			Environmental Study Report		Primary data study conducted
Class EA for Transmission Facilities		Acknowledgement of Notice of Commencement	Section	Heading title	
Description of other applicable permits and approvals required for the project (Class EA for TF, Section 3.4.1)		<ul style="list-style-type: none"><li>■ If excess soil management applies reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).</li><li>■ Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA)</li><li>■ Include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under federal impact assessment legislation.</li></ul>	1.3	Permits and approvals required for the project	-
Description for the study area definition rationale (Class EA for TF, Section 3.4.1)		-	4.1.2	Study area	-
Class EA for TF, Section 3.4.1: "Description of a study area for the project and the existing environment"; "summary of environmental inventory"; "potential environmental effects (positive and negative)"; "mitigation measures and predicted net effects"; and "environmental monitoring". Acknowledgement letter specifies requirement to include a description of construction and post-construction monitoring strategies and programs."					
a	Conflict with written environmental goals, objectives, plans, standards, policy statements or guidelines approved or adopted by the Province of Ontario; municipal government or local body within an unorganized territory as defined in the Municipal Act, 2001 where the project is to be located (Class EA for TF, Section 3.3.3)	Applicable plans and policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans. The report should also discuss the planning context at the municipal and federal levels, as appropriate	5.1 6.1	Existing conditions – Land use planning Effects assessment – Land use planning	-
b	Have significant effects on persons or property, including lands zoned to permit residential or other sensitive land uses (Class EA for TF, Section 3.3.3)	-	5.2 6.2	Existing conditions – Residential or sensitive land uses Effects assessment – Residential or sensitive land uses	-
c	Necessitate the irreversible commitment of any significant amount of non-renewable resources, including Prime Agricultural Lands, which includes Specialty Crop Areas (as defined in the Provincial Planning Statement under the Planning Act) and/or Canada Land Inventory Classes 1, 2 and 3 lands (Class EA for TF, Section 3.3.3)	-	5.3 6.3	Existing conditions – Agricultural resources Effects assessment – Agricultural resources	-
d	Pre-empt the use, or potential use, of a significant natural resource for any other purpose (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A



Information Requirements and Screening Criteria to be considered			Environmental Study Report		Primary data study conducted
Class EA for Transmission Facilities		Acknowledgement of Notice of Commencement	Section	Heading title	
e.1	Result in a significant detrimental effect on air quality (Class EA for TF, Section 3.3.3)	<ul style="list-style-type: none"><li>Document and describe the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation)</li><li>If there are sensitive receptors in the surrounding area of this project, provide a quantitative or qualitative air quality/odour impact assessment</li><li>Describe dust control measures during construction</li></ul>	5.4 6.4	Existing conditions – Air quality Effects assessment – Air quality	-
e.2	Result in a significant detrimental effect on ambient noise levels for adjacent areas (Class EA for TF, Section 3.3.3)	<ul style="list-style-type: none"><li>Describe noise control measures during construction</li><li>Describe potential impacts of increased noise levels during operation and potential measures to mitigate significant noise impacts. Provide ambient noise levels and noise assessment, as appropriate.</li></ul>	5.5 6.5 Appendix C	Existing conditions – Noise Effects assessment – Noise Noise Impact Assessment	<ul style="list-style-type: none"><li>Baseline ambient noise levels survey</li></ul>
e.3	Result in a significant detrimental effect on water quality (Class EA for TF, Section 3.3.3)	<ul style="list-style-type: none"><li>The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area. If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water and document and discuss how the project adheres to or has regard to applicable policies.</li><li>Status of, and potential impacts to any well water supplies should be addressed</li><li>Describe potential effects on the quantity and quality of groundwater (e.g., due to drawdown effects or the redirection of existing contamination flows) resulting from changes to drainage patterns</li><li>Provide a Stormwater Management Plan</li><li>Provide description of spill response plan</li></ul>	5.6 6.6 Appendix D	Existing conditions – Water quality Effects assessment – Water quality Hydrogeological survey	<ul style="list-style-type: none"><li>Hydrology assessment</li><li>Hydrogeology assessment</li><li>Geotechnical survey</li></ul>
f.1	Cause significant interference with the movement of any resident or migratory wildlife species, or their respective habitats (Class EA for TF, Section 3.3.3)		5.7 6.7 Appendix E	Existing conditions – Wildlife and wildlife habitat Effects assessment – Wildlife and wildlife habitat Natural heritage and constraints assessment	<ul style="list-style-type: none"><li>Breeding bird surveys</li><li>Breeding amphibian surveys</li><li>Bat acoustic monitoring</li><li>Woodpecker nest cavity search</li></ul>

Information Requirements and Screening Criteria to be considered			Environmental Study Report		Primary data study conducted
Class EA for Transmission Facilities		Acknowledgement of Notice of Commencement	Section	Heading title	
f.2	Cause significant interference with the movement of any resident or migratory fish, or their respective habitats (Class EA for TF, Section 3.3.3)	Include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area.	5.8 Appendix E	Existing conditions – Fish and fish habitat Natural heritage and constraints assessment	<div><div></div>Aquatic habitat assessment</div>
f.3	Cause significant interference with the movement of any resident or migratory species at risk, or their respective habitats (Class EA for TF, Section 3.3.3)	-	5.9 6.9 Appendix E	Existing conditions – Rare species and rare species habitat Effects assessment – Rare species and rare species habitat Natural heritage and constraints assessment	<div><div></div>See f.1</div>
g	Establish a precedent or involve a new technology, either of which is likely to have significant environmental effects now or in the future (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A
h	Be a pre-condition to the implementation of another larger and more environmentally significant project that is subject to an Individual Environmental Assessment or Renewable Energy Approval that has not yet been approved at the issuance of the Notice of Commencement of the undertaking (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A
i	Likely generate significant secondary effects <sup>1</sup> , directly caused by the proponent's activities, which will adversely affect the environment (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A
j	Block pleasing views or significantly affect the aesthetic image of the surrounding area (Class EA for TF, Section 3.3.3)	-	5.10 6.10	Existing conditions – Visual aesthetics Effects assessment – Visual aesthetics	-
k	Significantly change the social structure or demographic characteristics of the surrounding neighbourhood or community (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A
l	Overtax existing community services or facilities (e.g., transportation, water supply, sanitary and storm sewers, solid waste disposal system, schools, parks and/or care facilities) (Class EA for TF, Section 3.3.3)	<div><div></div>Identify:<div><div>-</div>above or underground utilities<div>-</div>servicing infrastructure (wastewater, water, stormwater) that may be impacted</div></div>	N/A	N/A	N/A
m	Result in undesired or inappropriate access to previously inaccessible areas (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A
n	Create the removal of a significant amount of timber resources (Class EA for TF, Section 3.3.3)	-	N/A	N/A	N/A

<sup>1</sup> The Environmental Assessment Branch intends 'secondary effects' to mean 'indirect effects'.

Information Requirements and Screening Criteria to be considered			Environmental Study Report		Primary data study conducted
Class EA for Transmission Facilities		Acknowledgement of Notice of Commencement	Section	Heading title	
o	Result in significant effects to natural heritage resources <sup>2</sup> (Class EA for TF, Section 3.3.3)	Natural heritage and hydrologic features should be identified and described in detail. <ul style="list-style-type: none"><li>■ Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars</li><li>■ Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.</li><li>■ Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.</li></ul>	5.12 6.12 Appendix E	Existing conditions – Natural heritage resources Effects assessment – Natural heritage resources Natural heritage and constraints assessment	■ Natural heritage resources assessment
p	Result in significant effects to cultural heritage resources (which may include built heritage resources, cultural heritage landscapes, and/or archaeological resources). Significant effects to cultural heritage resources are to be determined based on technical, cultural heritage studies prepared by qualified persons (Class EA for TF, Section 3.3.3)	-	5.13 6.13 Appendix F Appendix G	Existing conditions – Cultural heritage resources Effects assessment – Cultural heritage resources Stage 1 archaeological resource assessment Built heritage resources and cultural heritage landscapes screening	■ Stage 1 archaeology assessment ■ Built heritage resources and cultural heritage landscapes screening
-		Ecosystem form and function	5.12 6.12 Appendix E	Existing conditions – Natural heritage and hydrologic features Effects assessment – Natural heritage and hydrologic features Natural heritage and constraints assessment	■ Ecological land classification
-		Describe changes to groundwater-dependent natural features such as streams, wetlands or other surficial features (e.g., ecological processes of and/or function)	5.6 6.6	Existing conditions – Water quality Effects assessment – Water quality	-
Description of potential cumulative environmental effects (positive and negative); mitigation measures; and environmental monitoring (Class EA for TF, Section 6.5)		The proponent must consider cumulative effects when planning projects.	7	Cumulative effects assessment	-

<sup>2</sup> Natural heritage features and areas: means features and areas, including *significant wetlands, significant coastal wetlands, fish habitat, significant woodlands* south and east of the Canadian Shield, *significant valleylands* south and east of the Canadian Shield, *significant* habitat of *endangered species* and *threatened species*, *significant wildlife habitat*, and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscapes of an area.



## 2. Project description

The Project is proposed to be located within lands herein referred to as the Development Land which is an irregular shaped area to the southwest of the intersection of Concession 4 Arran and the Grey-Bruce Line. The Development Land totalling approximately 67.60 hectares includes four assessment parcels (410349000307100, 410349000307200, 410349000104201, and a portion of 410349000305200) at municipal address 39 Concession 4 Arran, in the Municipality of Arran-Elderslie. It is a rural farmstead with a mixture of cultivated fields, pastureland and woodlot, bisected by the Sauble River. There is a Hydro One transmission line (B27S/B28S) traversing the southern boundary of the Development Land. The BESS facility will connect to this 230kV line, which extends from Bruce Power Centre to Owen Sound. This is a key transmission line that has a high voltage carrying capacity and connects to other lines across Ontario. As a result, this transmission line is ideally suited for a BESS project. It is the intent that Neoen will occupy approximately 25.42 hectares of the east portion of the Development Land to accommodate the facility. The BESS will have two accesses: one off Concession 4 Road and a second which will enter from the Grey Bruce Line on the east side of the Development Land, north of Sauble River. The balance of the Development Land will remain in agricultural use. The footprint of the BESS avoids wetlands and woodlands.

The proposed Project includes installation and operation of a 400 MW BESS facility, a substation (with two transformers in-service and a 3<sup>rd</sup> transformer for redundancy) and an overhead 230 kV transmission line on private land in the Municipality of Arran-Elderslie. A gravel access road will be constructed off Concession 4 Arran to allow access to the BESS facility. Site grading will occur across the BESS facility site, stormwater system, and gravel access road; no ground disturbance, aside from structure foundations, is planned for the overhead transmission line. A system of roadside and pad ditches and stormwater pond at the northwestern section of the BESS/substation area will be installed to manage on-site runoff. A floodplain compensation area (14.19 hectares) will be constructed to maintain flood storage volume and floodplain function in the Development Land.

The transmission line will consist of double-circuit steel-monopole structures as well as associated switching structures and gantries on Hydro One's ROW. The transmission line crosses the Sauble River; however, no in-stream works are planned and no riparian habitat is expected to be disturbed as the transmission line will span wetlands and riparian habitats, while transmission structures will be sited away from the wetlands and riparian habitat.



The area surrounding the proposed Project is at the intersection of Concession Road 4 and Grey Bruce Line, generally being agricultural lands interspersed with remnant woodland and rural residences. The Sauble River is within approximately 30 m to the southwest at its closest point to the BESS/substation area; the proposed Project being situated within the 100-year floodplain and the ground being approximately 240 meters above sea level (masl) across the BESS site, dropping to approximately 237 masl at the river. There are nine dwellings within 1.5 km of the proposed Project. There is no recreational use of the land or waters in the area, and it is unknown if any hunting, gathering, or fishing occurs in the area.

## **2.1. Major components**

The proposed Project is comprised of (Figure 3):

- BESS facility, including containers, foundation, collector lines, inverters, and medium-voltage (MV) transformers;
- Tara 230 kV substation;
- Stormwater management system, including stormwater wet pond and drainage channel;
- 230 kV transmission line;
- Maintenance area;
- Site access;
- Floodplain compensation area; and
- Internal roads and fill slopes.

Table 2-1 summarizes the spatial requirement of the project, including project component temporary and permanent footprint (or span area in the case of the transmission line).

The proposed Project will also include:

- Perimeter fence, site security, and lighting;
- Long-term topsoil and subsoil storage area; and
- Visual/acoustic screen/landscaping adjacent to the facility.



Table 2-1: Summary of spatial requirement of the proposed Project

Project Component	Area (hectares)			
	Total	Permanent	Temporary	Span
BESS facility	2.12	2.12		
Tara 230 kV substation	1.56	1.56		
Stormwater management system				
■ Drainage wet pond	0.71	0.71	-	-
■ Drainage channel	0.34	-	0.34	-
230 kV transmission line	2.54	-	-	2.54
Maintenance area	0.47	0.47		
Site access	0.70	0.63	0.07	
Floodplain compensation area	14.19	-	14.19	-
Internal roads, fill slopes	2.78	2.50	0.28	
<b>TOTAL</b>	<b>25.42</b>	<b>8.00</b>	<b>14.87</b>	<b>2.54</b>
HONI PDA	0.20			0.20

Equipment selection and layout is continuing into detailed design and may vary slightly from what is presented in the Class EA ESR. Table 2-2 provides setbacks that are being applied to position the proposed Project to meet Neoen's target capacity in the least impactful location within the Development Land (buildable area<sup>3</sup>). NOTE: The buildable area in terms of the transmission line is most informative for influencing structure placement and evaluating span lengths.

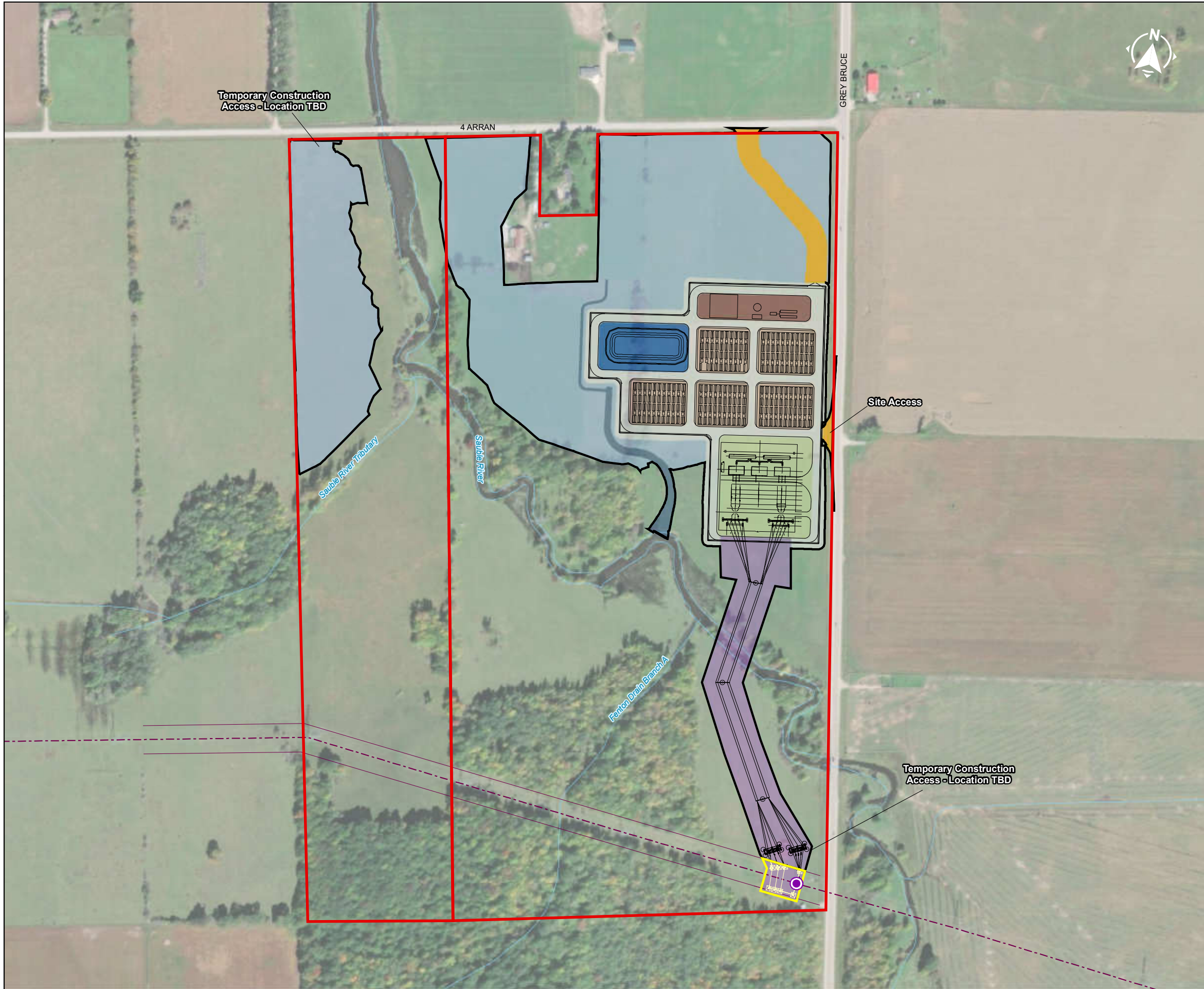
Table 2-2: Land and environmental features and their minimum setback

Feature	Source	Minimum Setback (m)
Transmission line (existing ROW)	HONI	200 m for BESS
Lot line – front, rear, side yard (other than abutting Grey Bruce Line)	Zoning Bylaw	20
Lot line – side yard abutting Grey Bruce Line	BBA	5
Woodland	Beacon Environmental Limited	10
Wetland (boundary)	Beacon Environmental Limited	15
Watercourse (high water mark)	Beacon Environmental Limited	30

<sup>3</sup> The setbacks do not apply to the floodplain compensation, perimeter fence or the transmission line conductors.



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- Proposed Neoen Project Components**
- Development Land
  - Project Development Area (Neoen)
  - BESS Facility
  - Tara 230 kV Substation
  - Stormwater Wet Pond
  - Drainage Channel
  - 230 kV Transmission Line Right-of-Way
  - Maintenance Area
  - Site Access
  - Floodplain Compensation Area
- Existing HONI Transmission Line and Structure**
- B27S/B28S Point-of-Interconnection
  - Existing HONI Transmission Line (Centerline)
  - Existing HONI Transmission Line Easement
- Proposed HONI Structures**
- Proposed HONI Transmission Facilities
  - Proposed Project Development Area (HONI)
- Hydrography**
- Watercourse

**NEOEN** Tara BESS Project -  
Class EA Environmental Study Report  
Bruce County, Ontario

**Figure 3**  
**Site Plan**

**Sources:**  
Ontario Road Network (ORN), Ontario Ministry of Natural Resources and Forestry, June 2023  
Beacon Environmental Limited, 2024  
Satellite Image (Maxar) licensed, resolution 31 cm, Copyright © May 2023  
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Project Data, BBA, 2025

BBA Project Number: 7757017-000000-4E

2025-03-04

0 50 100 m  
UTM, Zone 17, NAD 83



Prepared by: J. Day

Drawn by: A. Haffaci

Verified by: F. Karcha



### **2.1.1. BESS facility**

The BESS is comprised of 420 lithium-ion battery containers (e.g., Tesla Megapack 2XL); each battery container being approximately the size of a shipping container (8.8 m x 1.7 m x 2.8 m). The battery containers are lithium-iron phosphate (LFP), fully sealed, modular, and controlled by a central control system. The battery containers are connected in groups of four to a step-up transformer; these then connected from the step-up transformer to an on-site 230 kV substation. The battery containers are grouped into five container blocks. The battery container foundations are screw piles or concrete footings with gravel underlay. Battery containers have a 20-25 year lifespan. The BESS facility, collector system, and substation will be placed on fill to reach design elevation, ranging from 0 to 3.8 m above current ground elevation. Containment will be installed as needed for specific equipment. The Project will be separated from the underlying natural environment using compacted clay, liner, or geotextile as determined through engineering and design. The topsoil and subsoil will be stripped for long-term storage prior to engineered barrier and fill placement).

The inverters are integrated with the battery containers (e.g., Tesla 2XL) and operate in a charge and a discharge mode. Underground wires and cabling will run from the battery cable collection box to the MV transformer. From the MV transformer, cabling will be run to the Project substation.

A noise barrier wall up to 7.5 m tall will be installed on the north and west boundaries of each of the battery container blocks.

### **2.1.2. Tara 230 kV substation**

A high-voltage substation with three transformers (two active, one for redundancy), sited immediately adjacent to the BESS facility, will provide voltage conversion between the BESS (34.5 kV) and to the existing transmission voltage (230 kV). The Project will connect to the existing transmission line (designated as lines B27S & B28S) approximately 490 m south of the Project via a T-tap configuration, using a double-circuit configuration. Near the proposed substation, the transmission line will split to service the two active transformers. A temporary construction access road, with a new highway approach from Grey Bruce Line will be required within the proposed transmission ROW south of Sable River.

A 7 m tall noise barrier wall will be installed on the east, north, and west boundaries of each of the transformers.



### 2.1.3. Stormwater management system

The proposed Project will drain to ditches and storm drainpipes connected to a detention pond that is sized for the 100-year storm event and will provide retention time for solids settling. Water will be gravity discharged from the detention pond into an approximately 235 m long naturalized channel leading to a release over an apron (installed above annual high-water mark) into the Sauble River located south of the BESS facility. Water velocity will be controlled by gradient and/or rip-rap. The detention pond will be monitored to maintain planned storage capacity and will be designed in a manner that permits easy access for cleanout during construction and operation phases. Oil/water separators will be required in the system in the event of a leak or spill.

Detailed Stormwater Management (SWM) is subject to review and approval by the MECP and GSCA. The stormwater system and release to environment parameters will be consistent with the Environmental Compliance Approval to be sought for these works.

### 2.1.4. 230 kV transmission line

The transmission line corridor will be 40 m in total width, which includes a 30 m wide permanent easement and 30 m wide temporary construction area (15 m on the outer edge of both sides of the permanent easement) as well as a temporary access road and a 625 m<sup>2</sup> temporary construction area for delivery of equipment. Neoen will require five structures: three steel monopoles structures in a double-circuit configuration; and two steel A-frame gantries in a single circuit configuration. The monopole structure will occupy a 3 x 3 m area while the A-frame gantry will occupy a 20 x 15 m area, transmission structures occupying a total of 627 m<sup>2</sup>. Typical structures and cross-sections for the ROW are in Appendix A.

After Neoen's gantries, Hydro One will require 8 steel-lattice tower structures in a single-circuit configuration to connect the transmission lines to the existing B27S/B28S. These structures will occupy a 2 x 2 m area, transmission structures occupying a total of 32 m<sup>2</sup>.

### 2.1.5. Maintenance area

The maintenance area includes:

- Operations and maintenance building (un-manned) adjacent to the BESS facility; and
- BESS facility site servicing including potable water tank, wastewater storage tank, two fire water storage tanks, and fire hydrants.





### 2.1.6. Site access

The BESS facility is accessed from the north by an approximately 230 m long site access road from Concession 4 Arran. The road will be built up approximately 2 m from existing grade and be approximately 40 m wide including ditch line on both sides.

The BESS facility and substation will also have permanent access from Grey Bruce Line and temporary construction access from Concession 4 Arran, west of Sauble River, for the floodplain compensation area construction and from Grey Bruce Line, south of Sauble River, for the transmission line construction. These access points and routes have yet to be determined.

### 2.1.7. Floodplain compensation area

The Project lies within the 100-year floodplain. An area to compensate for the floodplain loss will be created (i.e., 14.19 ha) by excavating to design level, predominantly ranging from 0 to 2 m below current ground elevation, but reaching 4.2 m at the knoll,. The area will be integrated into the existing lands the owner uses for agriculture (i.e., crop, pasture).

### 2.1.8. Internal roads and fill slopes

The BESS facility, stormwater detention pond, maintenance area, and substation will be surrounded by a gravel yard that will be used as internal access across the site. This area will be filled and graded above the current ground conditions (with engineered barrier between existing ground and fill), leaving fill slopes that will be incorporated into the landscaping scheme.

## 2.2. Major activities

Major activities of the project include:

- **Site preparation:** including flagging construction area, topsoil and subsoil stripping, earth movement and grading, road construction and installing erosion control measures and the perimeter fence.
- **Construction of the BESS facility, substation, and tower assembly and erection:** Project equipment, e.g., battery containers, transformers and tower steel is delivered via access roads to the sites where it is assembled and put into place, many pieces of equipment being lifted into position by crane.
- **Conductor stringing:** in two ways: slack stringing or tension stringing. Slack includes dragging along the ground, tension includes use of a helicopter or pulling equipment.



- **Testing and commissioning:** testing equipment for proper operation before full commissioning.
- **Clean-up:** Removal of all construction materials, replacement of topsoil and subsoil on temporarily disturbed areas, seeding of cleared areas and stabilization of exposed soils and/or areas of potential erosion.
- **BESS site and ROW maintenance:** which may include weed and erosion monitoring and woody plant material removal. The site is operated remotely; maintenance staff are to be present during routine maintenance.

### 2.2.1. Decommissioning

Decommissioning of the Project at the end of its useful life would include the removal of BESS equipment from the foundations, disconnection from the transmission system, and removal of site infrastructure. The facilities would be decommissioned and dismantled, and the site would be restored. Most of the Project components are recyclable, and the batteries, equipment, and other materials will be recycled to the extent feasible to minimize disposal in landfills. A Decommissioning Plan will be prepared in advance of decommissioning activities in accordance with standard industry practices in place at the end of the project lifecycle and approvals required at that time will be secured.

In general, activities would include the following:

- Dismantling and removal of all aboveground equipment (e.g., battery enclosure units) and excavation and removal of all underground cabling less than 1 meter below ground;
- Removal of fencing;
- Break up and removal of concrete pads and foundations;
- Scarification of compacted areas; and
- Seeding of disturbed areas with a seed mix requested by the landowner.

## 2.3. Alternatives to the undertaking

The Class EA for TF states that the recommendations of an independent agency (e.g., the IESO) as part of a previous planning process will be accepted as a starting point for the Class EA Process and the alternatives considered and rejected by that agency's planning process will not be revisited (Hydro One Network Inc., 2024). Therefore, the evaluation of alternatives to the undertaking, including the 'do nothing' approach, is not required for this Class EA Screening. As described above, the IESO has identified the need for new energy storage in the province, evaluating several bid submissions from various proponents as part of the LT1-RFP process, and the Project has been awarded a contract for the project.



### 3. Engagement summary

As part of the Class EA for TF process, proponents must conduct consultation to “provide those who may be interested in, or potentially affected by, the proposed project with timely and adequate information and opportunities to participate in the planning process” and to “inform and explain the approach to and value of the proposed project”.

Neoen has consulted extensively. Consultation for Tara BESS began in 2023, more than one year prior to issuing Notice of Commencement of the Class EA for TF on November 25, 2024.

Consultation for Tara BESS was carried out in steps with MECP consultation principles for the Class EA for TF. Neoen consulted on both the BESS and transmission facilities to ensure a complete understanding of the project among consulted groups.

Consulted groups include: the Saugeen Ojibway Nation (representing the Saugeen First Nation and Chippewas of Nawash Unceded First Nation), the Métis Nation of Ontario's Georgian Bay Historic Métis Community, Elected Officials and staff from the Province of Ontario, Bruce County, Grey County, the Municipality of Arran-Elderslie, and the Township of Chatsworth, the Grey Sauble Conservation Authority, landowners and occupants in the vicinity of the project, and the Village of Tara.

Neoen employed a diverse mix of consultation methods and notification techniques including use of project notices, a project website, open houses, working groups, canvassing, phone, e-mail, meetings, feedback forms, and delegations.

Neoen received feedback on a range of subject matter, including stormwater management, floodplain, safety, community benefits, decommissioning, visual impacts, and noise. Neoen provided detailed responses to all feedback and incorporated feedback where reasonable and appropriate. A detailed summary of Neoen's consultation efforts, including what we heard, from whom, when, and how we responded is outlined in the appended Consultation Record (Appendix B).

Notice of Completion will be issued the week of June 16, 2025. A 30-day public comment period will follow. Copies of the notice will be provided to the aforementioned consulted groups.

Neoen is confident it has satisfied the consultation requirements set out for proponents, provided adequate opportunity for participation, and adequately represented feedback received to date.



## 4. Environmental assessment approach

The Class EA for TF requires an environmental inventory that considers Agriculture, Forestry, Cultural Heritage, Human settlements, Mineral resources, Natural environment resources, Recreational resources, and Visual resources (Hydro One Network Inc., 2024). Specific to this project, this includes such things as inventory of:

- Areas of biological importance including migration corridors or areas supporting mobile species;
- Species diversity and abundance and their habitats – species at risk or culturally important species;
- Current level of both anthropogenic and natural (fire, flood, drought, etc.) disturbance associated with vegetation and forest land;
- Riparian areas, shoreline, banks, current and future flood risk areas, wetland catchment boundaries;
- Wetland class, ecological community type, functions, current level of disturbance, abundance at local and regional scales;
- Current level and types of land use;
- Presence of heritage resources, for example artifacts or cultural landscapes.

The assessment was scoped by developing the Criteria and Indicators that will be used to predict and quantify environmental impacts of the project. Scoping also includes identifying the survey methods (e.g., desktop, field) and the spatial area over which information should be collected and assessed. The assessment includes conducting studies, identifying potential interactions of the Valued Components with the proposed Project, predicting the impact (qualitatively and/or quantitative), developing mitigation and monitoring programs to manage those effects, and evaluating the net environmental effects.

### 4.1. Scoping

#### 4.1.1. Criteria and Indicators

The assessment is intended to evaluate the biophysical and socio-cultural criteria addressed in the 16 Class EA screening questions (Hydro One Network Inc., 2024).



The screening questions allow for an environmental assessment process that is focused on those environmental and social components that have the potential to interact with Project activities and components. As demonstrated in Table 4-1, eight (8) of the 16 screening questions were answered with “no” interaction with the proposed Project, thereby screening these questions out of consideration. Impacts on natural resources, social structure and demographics, community services and facilities, access, and timber resources were screened out from further assessment for the proposed Project due to the limited interaction with the Project works and/or activities.

Environmental effects expected from this proposed Project include:

- Soil impacts including compaction, erosion, and sedimentation;
- Change to surface runoff quantity, quality, and patterns;
- Noise emissions from BESS inverters and substation equipment;
- Potential for impacts on agricultural resources;
- Potential for wildlife habitat loss;
- Potential for impacts on wildlife corridors and movement;
- Potential for impacts on viewscape; and,
- Potential for impacts on archaeological resources.

Table 4-1 summarizes criteria and indicators BBA has developed through consideration of the project type, its potential interactions with the environment, and the environmental context. To date, no additional criteria or indicators have been identified through consultation with Indigenous Nations and communities, stakeholders, or the public. Engagement with Indigenous Nations and communities is continuing throughout the project development phase. Neoen will refine and/or expand the criteria and indicators used in the assessment should an Indigenous Nation or community identify one.

Professional judgement, the nature of the proposed Project, and BBA's understanding of the environmental and social context of the area have been used to determine potential interaction with the 16 criteria. A rationale has been provided for these interactions.

The criteria are not an exhaustive characterization and complexity of the environment, rather these criteria, and indicators, are elements of the environment, specific to the screening criteria, that are predicted to be most affected by the proposed Project.





Table 4-1: The 16 screening criteria and EA Criteria and Project

Indicators used to evaluate the effects of the proposed

Screening Criteria Will the Project...		Project Interaction?	Rationale	Criteria and Sub-Criteria	Indicators	Measurement
a	Conflict with written environmental goals, objectives, plans, standards, policy statements or guidelines approved or adopted by the Province of Ontario; municipal government or local body within an unorganized territory as defined in the Municipal Act, 2001 where the project is to be located	Possibly	Examination of environmental goals, objectives, plans, standards, policy statements and guidelines at the provincial and municipal level is warranted	<ul style="list-style-type: none"><li>Land and Resource Use:<ul style="list-style-type: none"><li>Land use planning</li><li>Parks and Protected Areas (Provincial Parks, Regional Parks, Conservation Reserves, Areas of Natural and Scientific Interest)</li></ul></li></ul>	<ul style="list-style-type: none"><li>Change and conformance with land use planning</li><li>Change to protected areas including:<ul style="list-style-type: none"><li>provincial parks and provincial nature reserves;</li><li>regional parks;</li><li>conservation reserves;</li><li>areas of natural and scientific interest (earth and life science), including candidate areas; and</li><li>other ecologically sensitive areas.</li></ul></li></ul>	<ul style="list-style-type: none"><li>Qualitative assessment of current and planned future land uses.</li><li>Qualitative assessment of changes potentially required in land use policy and planning.</li><li>The potential effects to protected areas are measured quantitatively by calculating the area affected by the Project footprint, through the use of land use mapping.</li></ul>
b	Have significant effects on persons or property, including lands zoned to permit residential or other sensitive land uses	Possibly	The Project crosses various lands and land uses.	<ul style="list-style-type: none"><li>Property use and enjoyment</li><li>Recreation</li></ul>	<ul style="list-style-type: none"><li>Change to property use and enjoyment considering:<ul style="list-style-type: none"><li>Traffic volumes and patterns;</li><li>Noise (addressed under criteria e.2); and</li><li>Visuals (addressed under criteria j).</li></ul></li><li>Changes to recreation considering:<ul style="list-style-type: none"><li>Proximity to areas of concern associated with tourism and recreation in the study area; and</li><li>Proximity to recreational trails and access points in the study area.</li></ul></li></ul>	<ul style="list-style-type: none"><li>The potential effects are assessed qualitatively through assessment of change in traffic volume and pattern.</li><li>The potential effects are assessed qualitatively and quantitatively through assessment of change in environmental conditions (e.g., noise, visual aesthetics) and cultural and recreational values that might change users' experience.</li><li>Qualitative assessment of change to recreational values within the area (e.g., recreational trails).</li></ul>
c	Necessitate the irreversible commitment of any significant amount of non-renewable resources, including Prime Agricultural Lands, which includes Specialty Crop Areas (as defined in the Provincial Planning Statement under the Planning Act) and/or Canada Land Inventory Classes 1, 2 and 3 lands	Possibly	The Project occurs on and in the context of agricultural land	<ul style="list-style-type: none"><li>Agricultural land base</li><li>Soil classes</li><li>Weeds</li></ul>	<ul style="list-style-type: none"><li>Change to agricultural land base</li><li>Change to soil classes</li><li>Change in type, abundance and distribution of weed species</li></ul>	<ul style="list-style-type: none"><li>The potential effects to the agricultural land base is measured quantitatively by calculating the area affected by the Project footprint, through the use of land use mapping.</li><li>Quantitative assessment of change in soil type and availability across the study area.</li><li>Qualitative assessment of change in weed type, abundance and distribution of weed species across the study area.</li></ul>
d	Pre-empt the use, or potential use, of a significant natural resource for any other purpose	No	The Project does not pre-empt the use or potential use of a significant natural resource; therefore, this criteria has been screened out of further consideration	n/a	n/a	n/a



Screening Criteria Will the Project...		Project Interaction?	Rationale	Criteria and Sub-Criteria	Indicators	Measurement
e.1	Result in a significant detrimental effect on air quality	No	The Project is not a significant source of air emission; therefore, this criteria has been screened out of further consideration	n/a	n/a	n/a
e.2	Result in a significant detrimental effect on ambient noise levels for adjacent areas	Possibly	The Project has noise emitting equipment.	<ul style="list-style-type: none"><li>■ Sound levels (during operation)</li></ul>	<ul style="list-style-type: none"><li>■ Change in sound levels</li></ul>	<ul style="list-style-type: none"><li>■ Quantitative assessment of change in sound levels across the study area.</li></ul>
e.3	Result in a significant detrimental effect on water quality	Possibly	<ul style="list-style-type: none"><li>■ The Project's stormwater management system discharges into the Sauble River.</li><li>■ The Project is located within the 1:100 year floodplain</li><li>■ The Project could affect groundwater (e.g., intercept during construction; alter groundwater recharge)</li></ul>	<ul style="list-style-type: none"><li>■ Water quality</li></ul>	<ul style="list-style-type: none"><li>■ Change in water quality</li></ul>	<ul style="list-style-type: none"><li>■ Qualitative assessment of change in water quality across the study area.</li></ul>
f.1	Cause significant interference with the movement of any resident or migratory wildlife species, or their respective habitats	Possibly	The Project is within an area used by wildlife and further assessment is warranted	<ul style="list-style-type: none"><li>■ Wildlife and Wildlife Habitat<ul style="list-style-type: none"><li>- Bats, Raptors, Migratory Birds</li><li>- Amphibians and Reptiles</li><li>- Wildlife breeding and nesting habitat</li><li>- Wildlife movement corridors</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ Wildlife presence and abundance:<ul style="list-style-type: none"><li>- Bobolink, Eastern meadowlark</li></ul></li><li>■ Wildlife movement</li><li>■ Important habitat features:<ul style="list-style-type: none"><li>- Bobolink and Eastern meadowlark breeding areas</li><li>- Bat maternity roost and hibernacula</li></ul></li><li>■ Habitat availability considering:<ul style="list-style-type: none"><li>- change to amount (ha) of wildlife habitat in the study area and animal use of available habitat.</li></ul></li><li>■ Habitat quantity considering:<ul style="list-style-type: none"><li>- change to amount (ha) of SAR critical habitat in the study area.</li></ul></li><li>■ Habitat distribution considering:<ul style="list-style-type: none"><li>- change to spatial configuration of habitat in the study area, including the effects on wildlife movement and habitat connectivity.</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ Changes in habitat availability and animal use are estimated quantitatively by calculating the amount of different types of suitable habitat for each criterion, and qualitatively considering potential changes in habitat use (e.g., avoidance due to sensory disturbance).</li><li>■ Changes in habitat distribution, including the effects on wildlife movement and habitat connectivity, are estimated qualitatively by examining changes to the distribution of habitat patches within the relevant criterion-specific study areas, and considering potential barriers to movement.</li></ul>



Screening Criteria Will the Project...		Project Interaction?	Rationale	Criteria and Sub-Criteria	Indicators	Measurement
f.2	Cause significant interference with the movement of any resident or migratory fish, or their respective habitats	No	The project does not have any works that are a significant interference to fish movement; therefore, this criterion has been screened out of further consideration	n/a	n/a	n/a
f.3	Cause significant interference with the movement of any resident or migratory species at risk (SAR), or their respective habitats	Possibly	The Project is within an area used by SAR and further assessment is warranted	<ul style="list-style-type: none"><li>■ Rare, Threatened or Endangered Species of Flora or Fauna or their Habitat<ul style="list-style-type: none"><li>- Wildlife Species of Conservation Concern (SOCC)</li><li>- Wildlife SAR</li><li>- Plant SAR</li><li>- Rare plants communities and wetlands</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ Habitat availability considering:<ul style="list-style-type: none"><li>- change to amount (ha) of SAR habitat in the study area and animal use of available habitat.</li><li>- change to amount (ha) of rare plant community and wetlands.</li></ul></li><li>■ Habitat quality considering:<ul style="list-style-type: none"><li>- change (qualitative) to the type and condition of habitat available for various life history stages of wildlife.</li></ul></li><li>■ Distribution and connectivity considering:<ul style="list-style-type: none"><li>- change (qualitative) to habitat availability, including the effects on wildlife movement and habitat connectivity.</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ Quantitative assessment of potential changes to total area of habitat present, calculated and presented as absolute (i.e., area) and relative (e.g., percentage change), as appropriate.</li><li>■ Qualitative assessment of the quality of habitat available for SAR confirmed or potentially present.</li></ul> <p>Distribution and connectivity assessed through a qualitative assessment of changes to distribution via direct and indirect changes in habitats.</p>
g	Establish a precedent or involve a new technology, either of which is likely to have significant environmental effects now or in the future	No	The Project relies on established technologies with proven applications and known environmental mitigation measures therefore, this criterion has been screened out of further consideration.	n/a	n/a	n/a
h	Be a pre-condition to the implementation of another larger and more environmentally significant project that is subject to an Individual Environmental Assessment or Renewable Energy Approval that has not yet been approved at the issuance of the Notice of Commencement of the undertaking	No	This project is not a pre-condition to another project that is subject to an Individual Environmental Assessment or Renewable Energy Approval.	n/a	n/a	n/a



Screening Criteria Will the Project...		Project Interaction?	Rationale	Criteria and Sub-Criteria	Indicators	Measurement
i	Likely generate significant secondary effects <sup>4</sup> , directly caused by the proponent's activities, which will adversely affect the environment	No	In the context of Minor Transmission Facility Class EA, 'secondary effects' are intended to mean 'indirect effects'. Indirect effects, should there be any, will be assessed under the relevant Valued Component, e.g., under wildlife (Q. f).	Potential indirect effects include: <ul style="list-style-type: none"><li>■ Indirect effects to wildlife presence, abundance and movement through direct effects to wildlife habitat</li></ul> Indirect effects, or secondary effects, to each of these values are discussed under Screening Criteria f.1.	n/a	n/a
j	Block pleasing views or significantly affect the aesthetic image of the surrounding area	Possibly	The Project may affect views of sensitive receptors in the area.	■ Visual Aesthetics	■ Change to the visual landscape considering: <ul style="list-style-type: none"><li>- visibility of the Project; and</li><li>- visual contrast of the Project relative to the existing landscape.</li></ul>	■ Qualitative assessment of the change to the visual landscape during operations and maintenance.
k	Significantly change the social structure or demographic characteristics of the surrounding neighbourhood or community	No	This project is situated in a populated area with similar industry (i.e., transmission lines) in the area. The project does not lead to a significant change in this factor; therefore, this criterion has been screened out of further consideration.	n/a	n/a	n/a
l	Overtax existing community services or facilities (e.g., transportation, water supply, sanitary and storm sewers, solid waste disposal system, schools, parks and/or care facilities);	No	The Project has limited requirements for municipal services.	n/a	n/a	n/a
m	Result in undesired or inappropriate access to previously inaccessible areas	No	The Project does not lead to a significant change in this factor; therefore, this criterion has been screened out of further consideration	n/a	n/a	n/a
n	Create the removal of a significant amount of timber resources	No	This Project does not involve removal of a significant amount of timber resources; therefore, this criterion has been screened out of further consideration.	n/a	n/a	n/a

<sup>4</sup> The Environmental Assessment Branch intends 'secondary effects' to mean 'indirect effects'.



Screening Criteria Will the Project...		Project Interaction?	Rationale	Criteria and Sub-Criteria	Indicators	Measurement
o	Result in significant effects to natural heritage resources <sup>5</sup>	Possibly	Significant wetland, significant wildlife habitat, significant habitat of endangered species and threatened species, and/or ANSI may occur in the LSA.	<ul style="list-style-type: none"><li>■ Natural Heritage Resources</li></ul>	<ul style="list-style-type: none"><li>■ Significant wetland</li><li>■ Significant woodland</li><li>■ Significant valleylands</li><li>■ Significant habitat of endangered and threatened species</li><li>■ Significant wildlife habitat</li><li>■ Significant waterbody</li><li>■ Significant areas of natural and scientific interest</li></ul>	<ul style="list-style-type: none"><li>■ Quantitative assessment of potential changes to total area of natural heritage resources, calculated and presented as absolute (i.e., area) and relative (e.g., percentage change), as appropriate.</li></ul>
p	Result in significant effects to cultural heritage resources (which may include built heritage resources, cultural heritage landscapes, and/or archaeological resources). Significant effects to cultural heritage resources are to be determined based on technical, cultural heritage studies prepared by qualified persons	Possibly	The Project is within an area with potential to host cultural heritage resources and further assessment is warranted	<ul style="list-style-type: none"><li>■ Cultural Heritage Resources<ul style="list-style-type: none"><li>- archaeological resources</li><li>- built heritage resources and cultural heritage landscapes</li><li>- traditional knowledge</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ Change to archaeological resources considering:<ul style="list-style-type: none"><li>- number of archaeological sites in the Project footprint;</li><li>- area (ha) of Project footprint with archaeological potential; and</li><li>- number of archaeological sites where archaeological assessment is completed prior to Project construction.</li></ul></li><li>■ Change to built heritage resources and cultural heritage landscapes considering:<ul style="list-style-type: none"><li>- proximity of built heritage resources and cultural heritage landscapes identified in the study area; and</li><li>- proximity of known historical cemeteries.</li></ul></li></ul>	<ul style="list-style-type: none"><li>■ Quantitative and qualitative assessment of known archaeological sites, objects, material, or physical features that may have cultural heritage value or interest, that are protected under the <i>Ontario Heritage Act</i>.</li><li>■ Quantitative and qualitative assessment of areas with archaeological potential.</li><li>■ Quantitative and qualitative assessment of known and potential built heritage resources and cultural heritage landscapes.</li></ul>

<sup>5</sup> Natural heritage features and areas: means features and areas, including *significant wetlands, significant coastal wetlands, fish habitat, significant woodlands* south and east of the Canadian Shield, *significant valleylands* south and east of the Canadian Shield, *significant habitat of endangered species and threatened species, significant wildlife habitat*, and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscapes of an area.



Finally, MECP provided additional factors for consideration in their acknowledgement letter for receipt of Neoen's Notice of Class EA Commencement, including:

- Qualitative air quality assessment

#### 4.1.2. Study Area

To adequately characterize the existing environment and predict impacts a Local Study Area (LSA) has been developed for the purposes of this assessment. The LSA is defined as the project footprint (the Project Disturbance Area or PDA), along with a 500 m buffer<sup>6</sup>. This area could potentially be affected by the proposed Project and is considered sufficient to characterize the biophysical and socio-cultural conditions.

A Regional Study Area (RSA) has been defined as a 5 km buffer around the proposed Project and is considered the area over which cumulative effects could occur.

#### 4.1.3. Information Sources

Existing conditions were established through primary and secondary data sources.

Primary data was collected through field work and consultation activities. BBA conducted noise, vegetation, wildlife, and aquatic environment field studies in 2024. In addition, Neoen has commissioned cultural heritage resource, geotechnical surveys, hydrogeological studies and an agricultural impact assessment.

Desktop sources were collected from publicly available databases including natural heritage resource databases and mapping tools, municipal websites, and government planning and guidance documents.

### 4.2. Assessment

Criteria, indicators, and measurable parameters were developed to use for the analysis of the 16 screening criteria, including predicting and quantifying impacts and developing mitigation measures (Table 4-1). Analysis was based on qualitative and/or quantitative predictions of impacts anticipated to occur from construction or operation of the proposed Project.

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<sup>6</sup> The buffer is expanded to 1,500 m for analysis of aesthetics (acoustics and visuals)



#### 4.2.1. Net Effects

Net effects, or residual effects, are the effects that remain after application of mitigation measures to prevent or limit negative effects or enhance positive effects. Net effects are identified by first considering the effects that will occur from the Project (e.g., habitat clearing) and the mitigation to be implemented (e.g., post-construction reclamation). Net effects are qualitatively characterized in terms of spatial (e.g., scale or magnitude) and temporal (e.g., frequency, amplitude, and duration) variables (Table 4-2).

**Table 4-2: Net effects characterization definitions**

Magnitude <sup>7</sup>	Spatial Extent	Temporal Consideration
Low	Within PDA	Short-term – effect occurs during construction phase
Moderate	Within LSA	Medium-term – effect occurs during construction and/or operation but is does not persist beyond first few years of operation
High	Within RSA	Long-term – effect occurs during construction and/or operation and persists into operations and thereafter

#### 4.2.2. Cumulative Effects

Cumulative effects are net effects from past, current, and future projects interacting with net effects of the proposed Project. Existing cumulative effects have been incorporated into predicting and quantifying project effects by considering the project effects in context of the 'damaged baseline'.

Cumulative effects predicted in the RSA are qualitatively characterized in terms of spatial and temporal variables.

### 5. Existing conditions

The following section describes the baseline conditions of the screening criteria in the LSA. In accordance with Section 3.3.4 of the Class EA document (Hydro One Network Inc., 2024), information for the factors with potential to interact with the proposed Project (Table 4-1)) were inventoried.

<sup>7</sup> Intensity of an effect or degree of change from baseline conditions. These are quantitative to the extent possible, e.g., in reference to thresholds (ecological, regulatory, etc.).





Desktop information for the inventory was obtained through published documents, government agency resources databases and mapping tools, municipal websites, government planning and guidance documents, and relevant project documents.

Primary data collection (field surveys and assessments; Development Land used as survey area) undertaken for the proposed Project include:

- Agricultural impact assessment
- Aquatic habitat assessment
- Breeding bird survey
- Breeding amphibian survey
- Bat acoustic monitoring
- Cultural heritage preliminary impacts assessment
- Ecological land classification and flora survey
- Floodplain assessment
- Natural heritage feature survey
- Noise impact assessment
- Stage 1 archaeology assessment
- Woodpecker cavity nest search

## **5.1. Land use planning**

The Development Land lies within the Municipality of Arran-Elderslie. Land use planning and development on the Development Land is guided by the Provincial Planning Statement, the Municipality of Arran-Elderslie Zoning Bylaw, and the County of Bruce Official Plan. The GSCA has responsibility in municipality land use planning as regards surface water.

### **5.1.1. Provincial Planning Statement**

The Provincial Planning Statement provides overarching guidance and direction on land uses within the province. Policy implementation is primarily through Official Plans of the upper tier municipalities of the province (Ministry of Municipal Affairs and Housing, 2024), with Official Plans being implemented primarily through lower tier municipality zoning bylaws (or single-tier municipality Official Plan and zoning bylaw, as the case may be). The proposed Project is defined as “energy supply” (BESS) and “infrastructure” (transmission facilities) in the Provincial Planning Statement (Ministry of Municipal Affairs and Housing, 2024).





Chapter 3.8 of the Provincial Planning Statement is relevant to energy supply and indicates that *“planning authorities should provide opportunities for development...to accommodate current and projected needs”* (Ministry of Municipal Affairs and Housing, 2024, p. 20)

Chapter 3 of the Provincial Planning Statement is relevant to infrastructure and can be summarized as follows:

- Planning and protecting corridors and ROWs for infrastructure to meet current and projected needs
- Preserving and reusing abandoned corridors for purposes that maintain the corridor's integrity and continuous linear characteristics wherever feasible
- Co-locating linear infrastructure is promoted where appropriate

Chapter 3.1 of the Provincial Planning Statement requires that when planning corridors and ROWs for significant electricity transmission and infrastructure facilities that consideration be given to resources managed under Chapter 4 of the Provincial Planning Statement, which includes natural heritage, water, agriculture, minerals, petroleum, aggregate, cultural heritage and archaeology. Effects to these resources are analyzed in Section 6 of this report.

Chapter 4 of the Provincial Planning Statement provides a range of objectives and restrictions to manage resources; those relevant to the proposed Project can be summarized as follows:

- The natural heritage system, e.g., significant woodlands and wetlands, in Ecoregion 6E will be defined and their diversity, connectivity, and ecological function will be maintained, restored, or improved. Development and site alteration shall not be permitted in significant wetlands, while it may occur in significant woodlands or wildlife habitat, or adjacent lands, that would have a negative impact on the heritage system component or its ecological function unless it is demonstrated that there will be no negative impacts.
- Watersheds are an ecologically meaningful scale to consider cumulative impacts.
- Identifying and maintaining linkages and function among surface and ground waters and restricting development and site alteration in and around sensitive surface and ground water features, and implementing mitigation, as needed, to protect, improve or restore features and/or their function.



- Prime agricultural areas<sup>8</sup> are intended for agricultural use, however development and site alteration of land is permissible provided the land is not a specialty crop area, minimum distance separation requirements are met (as applicable), need has been demonstrated, and alternative locations have been evaluated, with preference being to avoid prime agricultural areas or site in lower priority prime agricultural lands, and to conduct an agricultural impact assessment.
- Archaeological, or areas of high potential, and cultural heritage resources (built heritage and cultural heritage landscapes) will be conserved

### 5.1.2. Municipality of Arran-Elderslie / Bruce County

The Bruce County Official Plan provides guidance and direction for how the land in the County should be used by delineating lands into distinct land use areas and developing policy direction for each of those areas. The portion of the Development Land north of Sauble River is located within lands designated as 'Agricultural Areas' and south of the Sauble River on lands designated as 'Rural Area' (County of Bruce, 2024). Lands designated as 'Agricultural Areas' and 'Rural Area' (County of Bruce, 2024) and 'Agricultural' and 'Hazard Lands' (County of Grey, 2024) are found within the LSA. Permitted uses in 'Agricultural Areas' include agriculture, agriculture-related uses, limited on-farm diversified uses, pits, asphalt plants, schools, churches, cemeteries, garden suite and additional residential units. 'Rural Area' permits non-farm residential and seasonal residential uses, in addition to the uses specified for 'Agricultural Areas'. Aside from hydroelectric facilities, the Bruce County Official Plan does not specify what land use designation(s) utilities can be built within. Section 4.7.4 of the Official Plan addresses major utilities, the category of land use the proposed Project would fall under. This section implies that the only land and buildings used for executive or administrative purposes would be subject to the Plan, however the Plan only discusses lines, but does not appear to address other facilities that comprise a major utility, e.g., substation or BESS (County of Bruce, 2010, pp. 42-43). The plan only considers major utilities undertaken by Hydro One or Ontario Power Generation.

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<sup>8</sup> **Prime agricultural areas** are areas that have been designated by planning authorities and are where **Prime agricultural land** predominates, and includes associated Canada Land Inventory Class 4 to 7 lands (Ministry of Municipal Affairs and Housing, 2024, p. 26). **Prime agricultural land** meaning 'specialty crop areas' and/ Canada Land Inventory Class 1, 2, and 3 lands (Ministry of Municipal Affairs and Housing, 2024, p. 49).



The Municipality of Arran-Elderslie Zoning Bylaw provides the policy direction to implement the Official Plan. The proposed Project is situated on General Agriculture (A1) and Environmental Protection (EP) zoned lands (County of Bruce, 2024). The Zoning Bylaw indicates that electric facilities are permitted uses in any land use zone, height restrictions indicated in any land use zone do not apply to electric transmission towers, and dwellings are not permitted to be built within 30 m of 240+ kV transmission line corridors (County of Bruce, 2019, p. 33). The EP zone is associated with the GSCA's regulated area (Section 5.1.3).

At the request of the Municipality, Neoen is submitting an Official Plan amendment and Zoning Bylaw amendment to revise the land use and zoning designation to specifically allow for BESS use.

### **5.1.3. Grey Sauble Conservation Authority**

A portion of the proposed Project lies within the GSCA's regulated area. Proposed developments must receive approval from the GSCA if they will occur within their regulated area. Neoen will require approval from this authority to construct within this regulated area.

### **5.1.4. Parks and protected areas**

There are no parks or protected areas within the LSA.

## **5.2. Residential or sensitive land uses**

### **5.2.1. Property use and enjoyment**

There are six rural properties with dwellings within the 500 m biophysical LSA, including four dwellings to northwest of the proposed Project and two to the northeast. Two of the properties are accessed via Grey Bruce Line, while the four others are accessed via Concession 4.

### **5.2.2. Recreation**

No recreation features (e.g., parks, trails, golf courses, cottages, major waterways, etc.) or recreational activities (e.g., canoeing, hiking, fishing, hunting) occur in the LSA.



### 5.3. Non-renewable resource use

This factor considers agricultural production and associated practices through analysis of prime agricultural lands<sup>9</sup>; which includes consideration of Prime Agricultural Area<sup>10</sup>, Specialty Crop Area<sup>11</sup>, and the capability of the land for agricultural production (i.e., Canada Land Inventory (CLI) Class).

#### 5.3.1. Agricultural land base

Municipalities may evaluate their land base and define Prime Agricultural Areas. The County of Bruce has identified current and potential Prime Agricultural Areas (County of Bruce Planning & Development, 2020). The proposed Project lies upon lands identified as Prime Agricultural Area.

According to the Agricultural Impact Assessment conducted for the project, crop production occurs in the northeastern portion of Lot 36 (soybean in 2024), the north-central portion containing a barn and yard (for cattle) and a round-pen and run-in shelter (for horses), and the remainder of the Lot being comprised of pasture, woodland, wetland, and Sauble River.

The Agricultural Impact Assessment concluded that these agricultural uses are typical within the LSA (crop production and livestock), that no specialty crop production occurs on Lot 36 or anywhere else within the LSA and no supportive agricultural uses/facilities occur within the LSA.

There are no known soil or groundwater contamination events within the LSA, and no known storage tanks (above- or under-ground) within or near the PDA.

#### 5.3.2. Soil classes

The proposed Project's PDA predominantly lies upon Chesley soils, although some components of the transmission line, e.g., structures, may occur within bottomland and muck soils. Soil types available within the LSA, as well as some of their physical properties and their capability to support agriculture (i.e., CLI rank) are summarized in Table 5-1.

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<sup>9</sup> The PPS defines *Prime Agricultural Land* as *Specialty Crop Area* and/or Canada Land Inventory Class 1, 2, and 3 lands. These are a designated land zone in Municipal planning documents; distinct from a general 'Agriculture' zone. These lands are designated based on soil class to support agriculture (e.g., Class 1), in addition to other factors.

<sup>10</sup> The PPS defines *Prime Agricultural Area* as areas where prime agricultural lands predominate, including associated Canada Land Inventory Class 4 to 7 lands. The Ministry of Agriculture, Food and Rural Affairs (MAFRA) has mapped these areas within the Greenbelt and Greater Golden Horseshoe. These areas may be shown on Official Plans, across Ontario, as well as within the Greenbelt and Greater Golden Horseshoe.

<sup>11</sup> The PPS defines *Specialty Crop Area* as designated areas where specialty crops use (e.g., fruit, vegetable, or greenhouse crops) predominates. These areas are designated by the upper and/or lower tier municipality using provincial guidelines and .



**Table 5-1: Summary description of soil types found within the LSA**

Soil Characteristic	Soil Type				
	Bottomland (ZAL)	Burford (BUF)	Chesley (CLY)	Kemble (KMB)	Muck (ZMK)
Classification	Gleyed Melanic Brunisol	Orthic Gray Brown Luvisol	Orthic Humic Gleysol	Gleyed Eluviated Melanic Brunisol	Terric Humisol
Parent Material	Fluvial	Glaciofluvial	Lacustrine	Till (morainal)	Undifferentiated organic
Profile/depth (cm) (topsoil/subsoil)	0-19 / 19-42	0-22 / 22-50	0-30 / 30-39	0-22 / 22-38	0-99 (organic) / 99-149
Texture (topsoil)	Loam, silt loam	Loam	Silty clay loam	Silty clay	Organic
Drainage Class	Imperfectly drained	Well drained	Poorly drained	Imperfectly drained	Very poorly drained
Capability for Agriculture (CLI)	5	2	2	1	organic

### 5.3.3. Weeds

To date weeds have not been observed in the PDA.

## 5.4. Air quality

Air quality in the RSA is affected by motorists, farming activities and equipment, and forest fires. No air quality monitoring occurs, within the RSA, the closest station being Tiverton (monitoring ozone and fine particulate matter) approximately 40 km southwest of the proposed Project. The region has had twelve air quality advisories between 2015 to 2024 (Ministry of the Environment, Conservation and Parks, 2024).

## 5.5. Noise

The proposed Project is located on an agricultural field in the context of fields interspersed with woodlands, rural residences, local roads and highway. Dominant noise sources are natural sounds, road noise, and farming activities.

Receptors in the area include landowners and wildlife. There are 9 receptors within 1,500 m (the noise- and visuals-specific LSA). Receptors are all dwellings, no land or water-based recreational receptor locations are identified within 1,500 m. Six of those residential receptors are within 500m.



Ambient sound levels were measured at two locations within the LSA, to the west of the dwelling in the land subdivided from Lot 36 and just south of the Grey Bruce Line and Concession 4 intersection to support the Noise Impact Assessment conducted for the project. Daytime sound levels average 46 dBA and 64 dBA at the monitoring locations, respectively while nighttime sound levels average 45 and 58 dBA at the respective monitoring locations.

See Noise Impact Assessment (Appendix C) for more detail.

## 5.6. Water quality

The LSA lies within the Arran Drumlin Field physiographic region. A majority of wells obtain groundwater from bedrock aquifers, while overburden aquifers can occur in the Arran Drumlin Field, for example to the southwest of Tara (Waterloo Hydrogeologic, Inc., 2003). Within Arran-Elderslie, wells completed in overburden range between 5 to 102 m deep and wells completed within bedrock range between 6 to 133 m deep, with yields ranging from 0.3 to 9.1 and 0.8 to 45.7 L/min, respectively (AECOM, 2012).

Four wells are found within the LSA (Ministry of Environment, Conservation and Parks, 2025):

- Well ID 2511737, 280 m northeast (45.7 m deep, domestic use, 1991)
- Well ID 2502388, 375 m northeast (15.5 m deep, domestic and livestock use, 1953)
- Well ID 1409515, 270 m northwest (47.9 m deep, domestic use)
- Well ID 7154535, 360 m northwest (43.3 m deep, domestic use)

The proposed Project is located within the Grey Sauble Source Protection Administrative Area (Ministry of Environment, Climate and Parks, 2024). No intake protection zones or wellhead protection areas are found within the LSA. *Escherichia coli* (*E. coli*) is a naturally occurring bacteria present in the digestive systems and feces of animals, including cattle. Since the LSA is outside of any intake protection zone, no data on *E.coli* is available, however ranching occurs within the LSA and is a potential source of *E.coli*. A highly vulnerable aquifer (score 6) is found in the southeast portion of the LSA (Figure 4); the southern half of the PDA occurring within bounds of this aquifer (Saugeen Conservation and Grey Sauble Conservation, 2015). A significant groundwater recharge area (vulnerability ranks 4 and 6) roughly bisects the LSA north-south and is adjacent to a portion of the Sauble River stretch found within the LSA (Figure 4); a portion of the PDA occurring within bounds of this recharge area (Ministry of Environment, Climate and Parks, 2024).





Southern Ontario features a mix of confined and unconfined aquifer systems, typically consisting of glacial till, sand, and gravel deposits overlying fractured bedrock aquifers. This region is dominated by till parent material (low hydraulic conductivity) with sand plains and glaciofluvial sand deposits (higher hydraulic conductivity) (Waterloo Hydrogeologic, Inc., 2003).

According to available data from Geology Ontario, the depth to the water table in the LSA ranges from 0.4 to 24 meters, with an average of approximately 7 meters, depending on surface topography. Across the County, most wells obtain groundwater from bedrock aquifers, however groundwater is obtained from overburden in some locations, e.g., Tara Moraines, Willscroft Moraine (Waterloo Hydrogeologic, Inc., 2003) and of interest to the proposed Project, the area between Dobbinton and Tara has low overburden thickness and is designated as highly vulnerable aquifer (Saugeen Conservation and Grey Sauble Conservation, 2015).

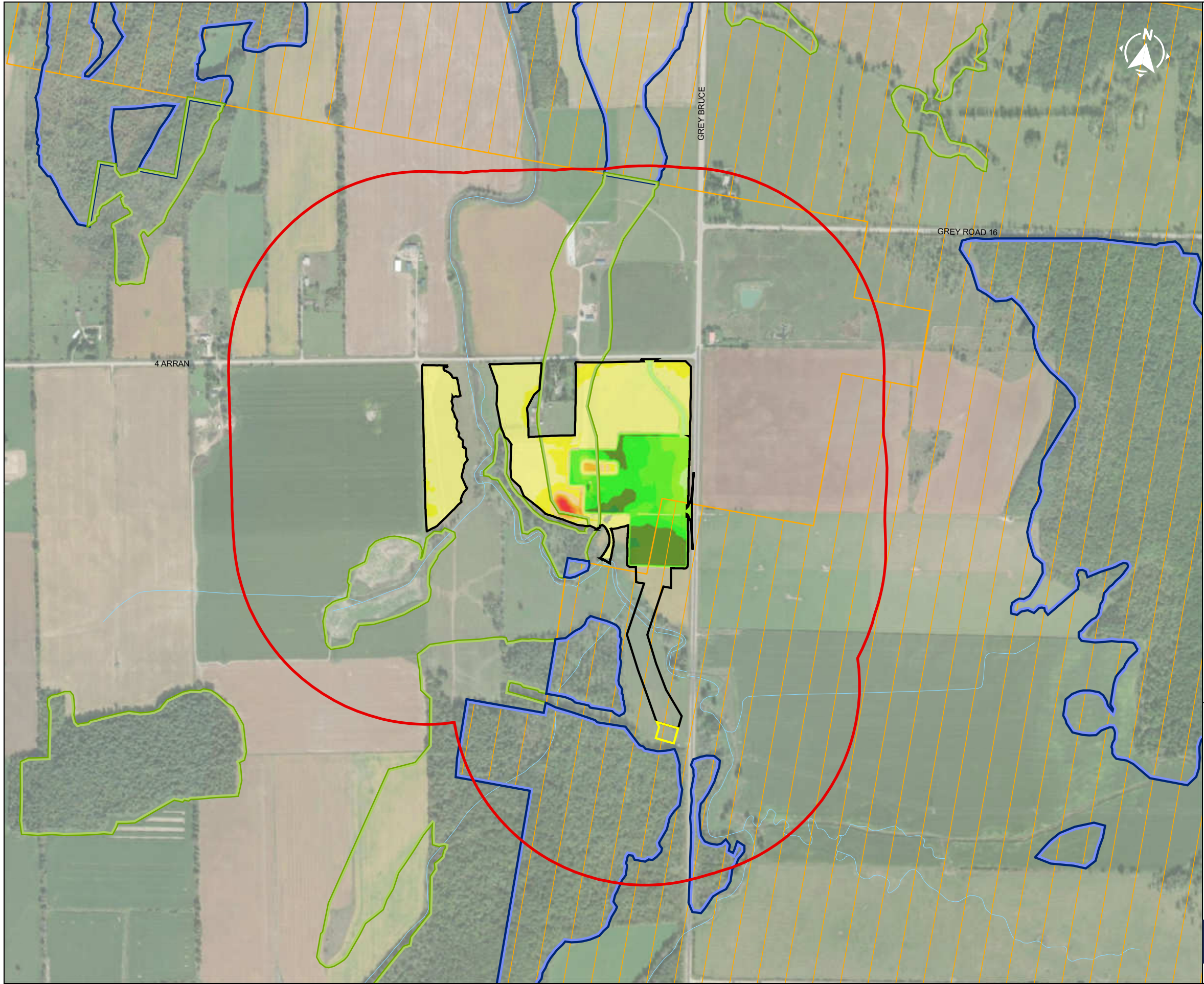
A comprehensive geotechnical and hydrogeological field investigation was carried out on-site in 2025 (Appendix D). This program included 56 boreholes and test pits drilled within the PDA providing detailed data on soil stratigraphy and the hydraulic properties of the overburden and shallow bedrock. Three distinct geological layers were identified across the site, comprising two main types of aquifers:

- Surficial unconfined aquifer: Composed of unconsolidated sand and silt deposits with low permeability.
- Silt/clay confining layer: Functions as an aquitard, restricting vertical movement of surface water and potential contaminants between the surface and deeper aquifer.
- Deep confined/semi-confined aquifer: Comprised of sand, gravel, and fractured rock with moderate to high hydraulic conductivity.

The surficial aquifer has a thickness ranging from approximately 0.5 to 3.3 m across the site and is characterized by low to moderate hydraulic conductivity. Groundwater levels throughout the site are shallow, generally ranging from 0 to 1 m below ground surface. In contrast, the deeper aquifer exhibits moderate to high hydraulic conductivity and is considered a likely source of potable water for nearby residents. Groundwater within this deeper unit generally flows from northeast (NE) to southwest (SW).

Separating the two aquifers is a silt/clay layer that varies in thickness from 0 to 10.7 m, with values between 3 and 10 m near the proposed BESS/substation location. Near the centre of the site, close to the river, this layer becomes discontinuous within a localized and confined zone. Despite this discontinuity, the layer exhibits low hydraulic conductivity and generally acts as an effective barrier against downward contaminant migration from the surface.

File: 7757017\_000000\_4E\_D20\_0004\_R01\_Figure4.mxd



Project Development Area (Neoen)

Proposed Project Development Area (HONI)

Local Study Area (Biophysical)

Highly Vulnerable Aquifers

Significant Groundwater Recharge Area

4

6

Hydrography

Watercourse

FLOODPLAIN COMPENSATION LEGEND			
No.	MAX. DEPTH	MIN. DEPTH	COLOUR
1	-4.228	-4.000	
2	-4.000	-3.500	
3	-3.500	-3.000	
4	-3.000	-2.500	
5	-2.500	-2.000	
6	-2.000	-1.500	
7	-1.500	-1.000	
8	-1.000	-0.500	
9	-0.500	0.000	
10	0.000	0.500	
11	0.500	1.000	
12	1.000	1.500	
13	1.500	2.000	
14	2.000	2.500	
15	2.500	3.000	
16	3.000	3.500	
17	3.500	3.873	

NEOEN

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Class EA Environmental Study Report  
Bruce County, Ontario

Figure 4  
Groundwater Recharge Area and Vulnerable  
Aquifer

Sources:  
Ontario Road Network (ORN), Ontario Ministry of Natural Resources and Forestry, June 2023  
Forest Resources Inventory, Ontario Ministry of Natural Resources and Forestry, June 2023  
Highly Vulnerable Aquifers, Environment and Climate Change Canada, December 2023  
Source Protection Information Atlas, MECP, 2025  
Satellite Image (Maxar) licensed, resolution 31 cm, Copyright © May 2023  
Esri and its licensors. All rights reserved  
Project Data, BBA, 2025  
BBA Project Number: 7757017-000000-4E

2025-06-12

0100200 m

UTM, Zone 17, NAD 83

Prepared by: J. Day

Drawn by: A. Haffaci

Verified by: F. Karcha





## 5.7. Wildlife and wildlife habitat

The region is a mosaic of young forest, older remnant forest, agricultural lands, remnant tallgrass prairie, urban areas, and road and other linear infrastructure. Much of the original forest cover and grassland has been cleared for cultivation and settlement; consequently, contiguous, extensive forest tracts are relatively uncommon. Common forests are sugar maple- yellow birch- hemlock-white pine mixed woodlots with coniferous white spruce-balsam fir and black spruce- tamarack on saturated soils. Forest communities on well-drained soils are typically dominated by sugar maple and beech, other tree species including basswood, bur oak, red ash, red maple, red oak, white ash, white oak and yellow birch may also be found. Coniferous species found within the tolerant hardwood types include balsam fir, eastern hemlock and eastern white pine. Black cherry, butternut and ironwood, also occur on upland sites, but are scattered and rarely abundant. Species found on slightly moister, cooler sites include black ash, blue-beech, eastern white cedar, green ash, silver maple, slippery elm and white elm. Balsam poplar, cottonwood, large-toothed aspen and trembling aspen are widespread, occurring within young, successional forests, and usually at the ecotones (interface) between fields or meadows and more mature phases of forest growth.

Wildlife typical of the area includes beaver, black bear, Canada lynx, coyote, deer, mouse, eastern chipmunk, eastern cottontail, ermine, gray squirrel, fisher, long-tailed weasel, masked shrew, meadow vole, mink, muskrat, northern flying squirrel, northern short-tailed shrew, porcupine, raccoon, red fox, red squirrel, river otter, snowshoe hare, star-nosed mole, striped skunk, white-footed mouse, white-tailed deer and woodchuck. Birds common to the area include Blackburnian warbler, black-throated blue warbler, chestnut-sided warbler, common merganser, common raven, dark-eyed junco, evening grosbeak finch, golden-crowned kinglet, hermit thrush, magnolia warbler, northern goshawk, olive-sided flycatcher, Philadelphia vireo, pine siskin finch, purple finch, red-breasted merganser, red crossbill, ruby-crowned kinglet, Swainson's thrush, yellow-bellied flycatcher, yellow-rumped warbler and yellow-bellied sapsucker. Herptiles that can be found in the area include American toad, Blanding's turtle, eastern milksnake, garter snake, green frog, gray treefrog, massasauga, northern leopard frog, queensnake, ribbon snake, snapping turtle, spring peeper, spotted turtle, western chorus frog and wood frog. The RSA supports a wide range of wildlife and wildlife habitat, including that of Species at Risk (SAR) and Species of Conservation Concern (SOCC).

Due to their ecological and/or cultural importance and potential interaction with the proposed Project, Neoen has focused on the following taxonomic groups and/or wildlife species for the purpose of assessment, as they provide an ability to understand impacts to wildlife generally and mitigation applied to these taxonomic groups/wildlife species will limit impacts to the broad range of wildlife and habitat occurring in the LSA:



- Bats (eastern red bat (SAR-endangered), eastern small-footed myotis (SAR-endangered), hoary bat (SAR-endangered), little brown myotis (SAR-endangered), silver-haired bat (SAR-endangered), tri-colored bat (SAR-endangered))
- Birds (eastern meadowlark (SAR-threatened), eastern wood-pewee (SOCC-special concern), and red-headed woodpecker (SAR-endangered))
- Herptiles (green frog, northern leopard frog, snapping turtle (SOCC-special concern), spring peeper, and wood frog)

A natural heritage and constraints assessment was conducted for the project (Appendix E).

### 5.7.1. Ecological Land Classification

Ontario's Ecological Land Classification (ELC) framework is organized into six classification units, each helping the researcher identify landscapes. Hierarchically nested levels, from largest to smallest, are as follows: ecozone, ecoregion, ecodistrict, ecosection, ecosite and finally ecoelement, which includes vegetation and substrate type (or alternate terminology Site Region, System, Community Class, Community Series, Ecosite, Vegetation Type (Ministry of Natural Resources, 1998)). Ecosites provide a good basis for environmental planning, more detailed classification to ecoelement scale may be useful to develop understanding of, for example a special management concern or rare species habitat availability in the survey area.

The proposed Project is within the Mount Forest (6E-5) ecodistrict, within the Lake Simcoe – Rideau ecoregion of the Mixedwood Plains ecozone.

The Ministry of Natural Resources and Forests has delineated ecosites across southern Ontario (Ministry of Natural Resources and Forests, 2023); this mapping has been used as baseline mapping of ELC (to community series level) present within the LSA (Table 5-2). Review of imagery was used to categorize units that were undifferentiated in the provincial analysis. Field survey to validate ecosite delineation and classification, as well as identify ecosite classification in areas of interest (e.g., habitat that supports rare species) was performed in summer, 2024 (see Appendix E).

Agricultural lands, deciduous forest, deciduous swamp, and meadow marsh are found within the LSA (Table 5-2; Figure 5).

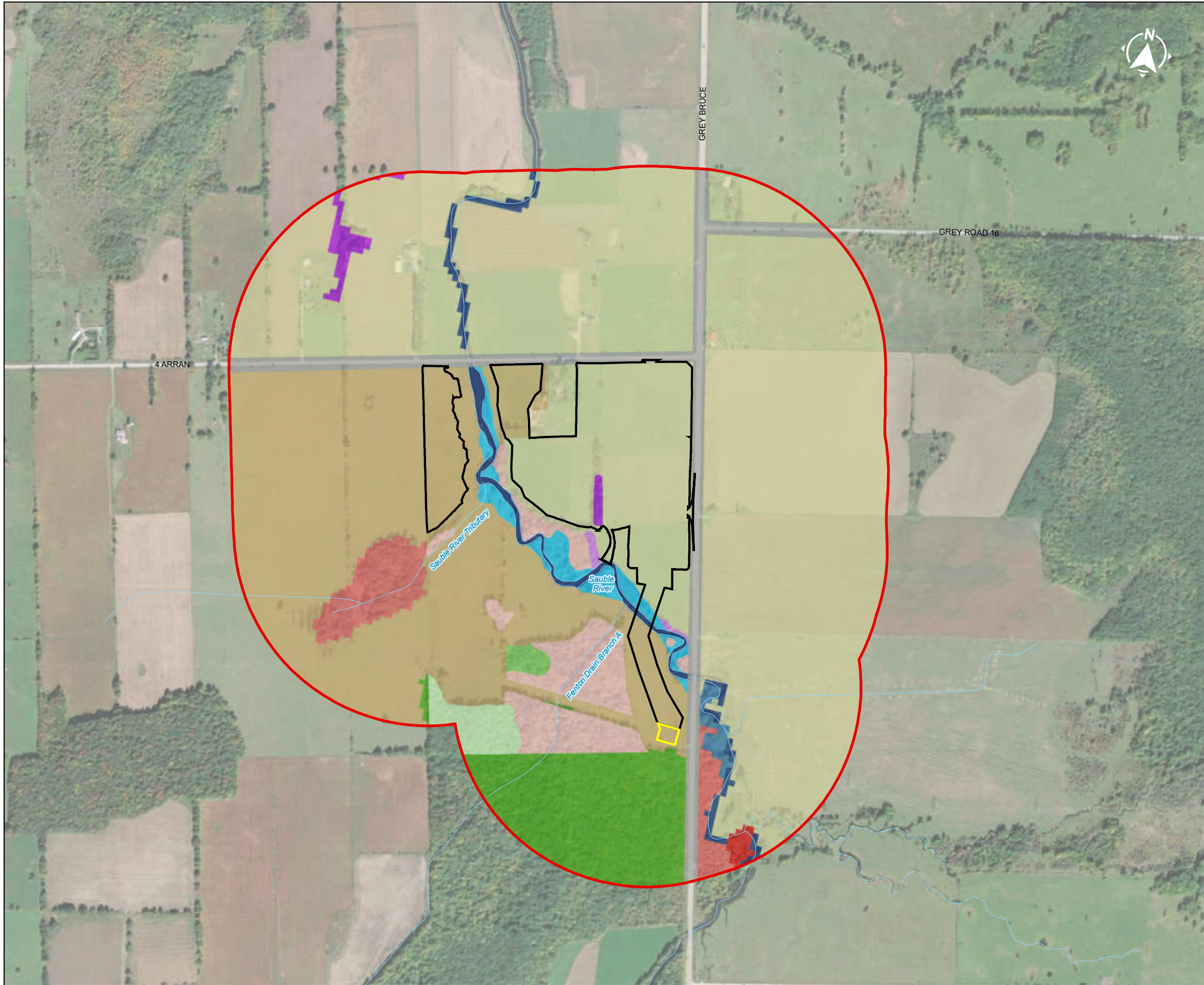


Table 5-2: Community series / ecosites within the LSA

ELC (community class, series, ecosite)	Area in the LSA (ha)	LSA cover (%)
<b>Wetlands</b>	20.84	8%
<b>Swamps</b>	16.60	6%
Deciduous swamp (green ash)	9.66	
Deciduous Swamp (Undifferentiated)	6.42	
Thicket swamp	0.53	
<b>Marshes</b>	4.23	2%
Meadow marsh (reed canary grass)	3.31	
Meadow Marsh (Undifferentiated)	0.92	
<b>Upland Communities</b>	224.87	84%
<b>Deciduous Forest</b>	19.16	7%
Deciduous Forest (Sugar Maple-Black Cherry)	2.56	
Deciduous Forest (Trembling Aspen)	0.73	
Deciduous Forest (Undifferentiated)	15.87	
<b>Cultural</b>	205.70	77%
Plantation (hawthorn-green ash)	0.31	
Hedgerow	1.44	
Agriculture - crop	140.44	
Agriculture – pasture	63.51	
<b>Open water</b>	3.96	1%
<b>Build-up area - impervious</b>	18.27	7%
<b>TOTAL</b>	267.94	



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Proposed Project Development Area (HONI)

Project Development Area (Neoen)

Local Study Area (Biophysical)

Hydrography

Watercourse

Ecological Land Classification

Built-Up Area - Impervious

Agriculture - Crop

Agriculture - Pasture

Deciduous Forest (Sugar Maple-Black Cherry)

Deciduous Forest (Trembling Aspen)

Deciduous Forest (Undifferentiated)

Deciduous Swamp (Green Ash)

Deciduous Swamp (Undifferentiated)

Thicket Swamp

Plantation (Hawthorn-Green Ash)

Hedgerow

Meadow Marsh (Reed Canary Grass)

Meadow Marsh (Undifferentiated)

Open Water

NEOEN

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Figure 5

Ecological Land Classification

Sources:  
Ontario Road Network (ORN), Ontario Ministry of Natural Resources and Forestry, June 2023  
Southern Ontario Land Resource Information System (SOLRIS) 3.0, MNRF, 2019  
Beacon Environmental Limited, 2024  
Satellite Image (Maxar) licensed, resolution 31 cm, Copyright © May 2023  
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Project Data, BBA, 2025

BBA Project Number: 7757017-000000-4E

2025-03-05

0100200 m

UTM, Zone 17, NAD 83

Prepared by: J. Day

Drawn by: A. Haffaci

Verified by: F. Karcha





### 5.7.2. Bats

Big brown bats, eastern red bats, eastern small-footed bats, hoary bats, little brown myotis, northern long-eared myotis, silver-haired bats, and tri-colored bats occur in Ontario (Layng, et al., 2019). Big brown bat and hoary bat may be the most represented species in the LSA due to the geographic location of the project and dominant habitat type (open agricultural areas) (Rodriguez, 2007). Wooded habitat types in this area provide potential foraging and roosting habitat for all the bat species. Acoustic bat detection surveys were conducted in relation to the proposed Project, targeting woodland in proximity to the PDA to assess the suitability for bat maternity roosting habitat (see Natural Heritage Assessment, Appendix E). Big brown bat, eastern small-footed bat, eastern red bat, hoary bat, little brown myotis, silver-haired bat, and tri-colored bats were detected (as well as undifferentiated myotis species) during acoustic monitoring conducted for the project between June and August, 2024. The little brown myotis and big brown bat were the most detected species<sup>12</sup> (31% and 29% of all detections, respectively), undifferentiated myotis species (15% of all detections) and hoary bat (13% of all detections) also accounting for many bat detections. No bat hibernacula are known to occur within the LSA. Average commuting distance of bat species between foraging and roosting habitat in agriculture dominated landscapes in Ontario is approximately 3 kilometers (Monck-Whipp, Martin, Francis, & Fahrig, 2018).

As eastern red bat, eastern small-footed bat, hoary bat, little brown myotis, silver-haired bat, and tri-colored bat are SAR species, they are also addressed in Section 5.8 (Rare species) and Section 5.11.2 (Significant Wildlife Habitat).

Key habitat of interest includes maternity roosts (all the species use trees as maternity roosts), nursery colonies and overwintering habitat. Eastern red bats roost singularly in large deciduous trees in low-density stands, hoary bats roost singularly in foliage, and silver-haired bats roost alone or in small groups in deep tree crevasses or behind loose bark of large trees (e.g., eastern white pine) (Layng, et al., 2019). Big brown bats prefer roosting in buildings but can also be found in hollow trees or under bark (Gerson, 1984).

### 5.7.3. Birds

Approximately 345 bird species are found in the area (Cornell Lab of Ornithology, 2025), approximately 171 of which are documented as breeding in the area (Cartwright, 2013). Neoen observed 65 bird species during breeding bird surveys conducted in relation to the proposed Project, including two SAR species (eastern meadowlark and red-headed woodpecker) and two (2) SOCC species (barn swallow and eastern wood-pewee) (see Natural Heritage Assessment, Appendix E). Most commonly observed were red-winged blackbird, followed by observations of

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<sup>12</sup> Inferences about abundance based on acoustic detection may not be reliable (Layng, et al., 2019).



cliff swallow, common grackle, European starling, Savannah sparrow, song sparrow, and yellow warbler. All species, aside from great blue heron, great egret, herring gull, and ring-billed gull could potentially be breeding within the vicinity of the PDA, however no breeding or signs of breeding were recorded during breeding bird surveys.

Breeding in the area occurs between March 15 to September 12 (Figure 6), with at least 20% or more of species breeding between April 21 and August 2, and peak breeding between approximately May 23 to July 13 (Rousseu & Drolet, 2015).

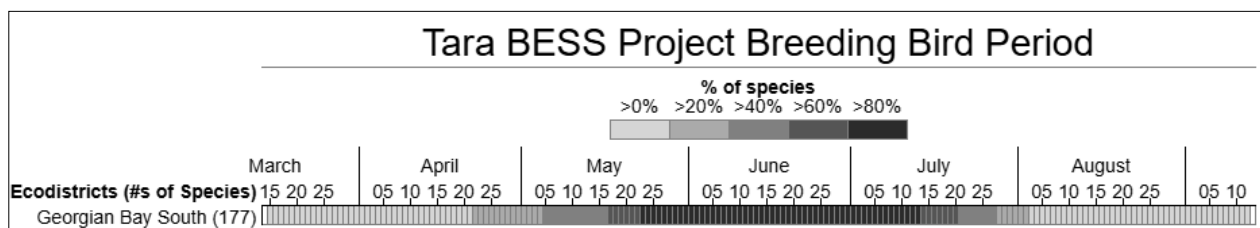


Figure 6: Breeding bird season in Georgian Bay South Ecodistrict

#### 5.7.4. Herptiles

Eastern garter snake, norther leopard frog and western chorus frog have been documented on iNaturalist, within the LSA near the wetland south of Grey Road 16 (iNaturalist, 2024). Green frog, midland painted turtle, northern leopard frog, red-spotted newt, snapping turtle, spring peeper, western chorus frog, and wood frog have been documented on the Ontario reptile and amphibian atlas, square 17MK92 (Ontario Nature, 2019). Green frog was the only species heard calling during amphibian breeding surveys conducted for the project; tadpoles also being observed in one of the Sauble River tributaries found in the LSA (Appendix E). Northern leopard frog and snapping turtle were observed during other surveys conducted for the project. The treed swamps in the LSA provide suitable habitat for spring peeper and wood frog breeding.

### 5.8. Rare species

The *Endangered Species Act* (2007) applies to all private and public land in Ontario under provincial jurisdiction. The PDA is located on private land therefore, it falls under provincial legislation. The *Ontario Species at Risk Act* lists rare species and ranks them based on their conservation rank. Species of Conservation Concern (SOCC) are species ranked as 'special concern'. These species are identified as being under pressure of becoming endangered or threatened; or becoming a SAR (i.e., an endangered- or threatened-ranked species); SAR are at risk of becoming extinct or extirpated from a defined area. SAR have habitat and species protections through the Act, while all rare species have best management practices to limit or



prevent impact on the species or their habitat, including identifying significant wildlife habitat for SOCC and SAR within the LSA.

The Provincial Planning Statement states that development and site alteration may be permitted in endangered and threatened<sup>13</sup> species' habitat except in accordance with provincial and federal requirements, e.g., Overall Benefit Permit. Endangered and threatened species habitat as defined by the *Endangered Species Act* means: "area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding. Habitat also includes places in the area that are used by members of the species (regulated or non-regulated species) as dens, nests, hibernacula or other residences". Some species have specific habitat defined under regulation pursuant to the *Endangered Species Act*.

Rare species that may occur in the area are presented in Table 5-3<sup>14</sup>. A cursory review of species habitat preference and known occurrences has been conducted to identify species more likely to occur in the area; these have been highlighted with **bold, blue** text.

**Table 5-3: Federally and provincially listed species that may occur in the area**

Species	Ontario Endangered Species Act	Canada Species at Risk Act
<b>Mammal</b>		
<b>American badger</b>	<i>Endangered</i>	<i>Special Concern</i>
<b>Eastern red bat</b>	<i>Endangered</i>	<i>N/A</i>
<b>Eastern small-footed bat</b>	<i>Endangered</i>	<i>N/A</i>
<b>Hoary bat</b>	<i>Endangered</i>	<i>N/A</i>
<b>Little brown bat</b>	<i>Endangered</i>	<i>Endangered</i>
<b>Northern long-eared bat</b>	<i>Endangered</i>	<i>Endangered</i>
<b>Silver-haired bat</b>	<i>Endangered</i>	<i>N/A</i>
<b>Tri-coloured bat</b>	<i>Endangered</i>	<i>Endangered</i>
<b>Birds</b>		
Bald eagle	<i>Special Concern</i>	<i>N/A</i>
Bank swallow	<i>Threatened</i>	<i>Threatened</i>
<b>Barn swallow</b>	<i>Special Concern</i>	<i>Threatened</i>

<sup>13</sup> As identified on the Species at Risk in Ontario List

<sup>14</sup> This list is indicative. Some species may be added or deleted based upon habitat availability in the project area, particularly in relation to plant species. The list has been prepared through review of "Species at risk in Ontario" (Ministry of Environment and Energy, 2024), "Species at risk public registry" (Environment Canada, 2024), and "Watershed characterization. Approved assessment report for the Grey Sauble Source Protection Area" (Saugeen Conservation and Grey Sauble Conservation, 2015). Based on land ownership and the respective species at risk Acts, only endangered or threatened rank species under the provincial legislation are afforded regulatory protection in relation to the Project.



Species	Ontario Endangered Species Act	Canada Species at Risk Act
<b>Bobolink</b>	<i>Threatened</i>	<i>Threatened</i>
Canada warbler	<i>Special Concern</i>	<i>Threatened</i>
Cerulean warbler	<i>Threatened</i>	<i>Endangered</i>
<b>Chimney swift</b>	<i>Threatened</i>	<i>Threatened</i>
Common nighthawk	<i>Special Concern</i>	<i>Threatened</i>
<b>Eastern meadowlark</b>	<i>Threatened</i>	<i>Threatened</i>
<b>Eastern wood-pewee</b>	<i>Special Concern</i>	<i>Special Concern</i>
Evening grosbeak	<i>Special Concern</i>	<i>Special Concern</i>
Golden-winged warbler	<i>Special Concern</i>	<i>Threatened</i>
Grasshopper sparrow	<i>Special Concern</i>	<i>Special Concern</i>
<b>Henslow's sparrow</b>	<i>Endangered</i>	<i>Endangered</i>
<b>Loggerhead shrike</b>	<i>Endangered</i>	<i>Endangered</i>
Louisiana waterthrush	<i>Threatened</i>	<i>Threatened</i>
<b>Northern bobwhite</b>	<i>Endangered</i>	<i>Endangered</i>
Olive-sided flycatcher	<i>Special Concern</i>	<i>Threatened</i>
Peregrine falcon	<i>Special Concern</i>	<i>Special Concern</i>
Prothonotary warbler	<i>Endangered</i>	<i>Endangered</i>
<b>Red-headed woodpecker</b>	<i>Endangered</i>	<i>Endangered</i>
Short-eared owl	<i>Threatened</i>	<i>Special Concern</i>
<b>Whip-poor-will</b>	<i>Special Concern</i>	<i>Threatened</i>
Wood thrush	<i>Special Concern</i>	<i>Threatened</i>
Yellow breasted chat	<i>Special Concern</i>	<i>Special Concern</i>
<b>Amphibians and Reptiles</b>		
Blanding's turtle	<i>Threatened</i>	<i>Endangered</i>
Butler's gartersnake	<i>Endangered</i>	<i>Endangered</i>
<b>Common snapping turtle</b>	<i>Special Concern</i>	<i>Special Concern</i>
Eastern musk turtle (stinkpot)	<i>Special Concern</i>	<i>Special Concern</i>
Eastern milksnake	<i>N/A</i>	<i>Special Concern</i>
Eastern ribbonsnake	<i>Special Concern</i>	<i>Special Concern</i>
Jefferson salamander	<i>Endangered</i>	<i>Endangered</i>
<b>Massasauga</b>	<i>Endangered</i>	<i>Endangered</i>
Midland (northern) painted turtle	<i>N/A</i>	<i>Special Concern</i>
Northern (common) map turtle	<i>Special Concern</i>	<i>Special Concern</i>



Species	Ontario Endangered Species Act	Canada Species at Risk Act
Queensnake	Endangered	Endangered
Spiny softshell	Endangered	Endangered
Spotted turtle	Endangered	Endangered
Western (midland) chorus frog	N/A	Threatened
Wood turtle	Endangered	Threatened
<b>Plants</b>		
American chestnut	Endangered	Endangered
American columbo	Endangered	Endangered
American ginseng	Endangered	Endangered
Black ash	Endangered	N/A
Blue ash	Threatened	Threatened
Butternut	Endangered	Endangered
Eastern prairie fringed-orchid	Endangered	Endangered
False hop sedge	Endangered	Endangered
Flooded jellyskin	Threatened	Threatened
Gattinger's agalinis	Endangered	Endangered
Large whorled pogonia	Endangered	Endangered
Small white lady's-slippers	Endangered	Threatened
Smooth yellow false foxglove	N/A	Threatened
Wood poppy	Endangered	Endangered

SAR species observations that have been recorded with MECP in the LSA (NHIC query areas<sup>15</sup>) in the LSA include:

- Bobolink
- Eastern meadowlark
- Eastern wood-pewee
- Midland painted turtle
- Upland sandpiper
- Western chorus frog

<sup>15</sup> Rectangle bounded by 17MK9022 in NW corner and 17MK9220 in SE corner



The assessment has been focused upon eight rare vertebrate species based on consideration of the likelihood of SOCC and SAR species habitat occurrence within the LSA (based on the biology of the species, the results of field investigations (see Appendix E) and the project interaction with the environment.

- Barn swallow (SOCC-special concern)
- Eastern meadowlark (SAR-threatened)
- Eastern red bat (SAR-endangered)
- Eastern small-footed myotis (SAR-endangered)
- Eastern wood-pewee (SOCC-special concern)
- Hoary bat (SAR-endangered)
- Little brown myotis (SAR-endangered)
- Silver-haired bat (SAR-endangered)
- Snapping turtle (SOCC-special concern)
- Red-headed woodpecker (SAR-endangered)
- Tri-colored bat (SAR-endangered)

These rare species along with their respective habitat preference and occurrence within the LSA, are summarized in the following sections.

### 5.8.1. Wildlife species of conservation concern

#### Barn swallow

Barn swallow was observed foraging during field surveys. Barn swallow predominantly build their nests on human-made structures (e.g. open structures with ledges); suitable habitat is expected to occur within the LSA.

#### Eastern wood-pewee

Five pairs of eastern wood-pewee were observed during breeding bird surveys. Eastern wood-pewee are typically found in the mid-canopy layer of forest clearings and edge of deciduous and mixed forest; suitable habitat is expected to occur within the LSA.

#### Snapping turtle

Snapping turtles were observed in the Sauble River and adjacent uplands during field surveys, including nesting in crop fields north of the river. Snapping turtles prefer shallow waters and





during nesting season, females travel up nearby upland areas searching for suitable nesting sites (e.g., gravelly or sandy areas). Suitable habitat is expected to occur within the LSA, however nests are not expected to be successful due to crop activities.

## 5.8.2. Wildlife species at risk

### Bats (eastern red bat, eastern small-footed myotis, hoary bat, little brown myotis, silver-haired bat, tri-colored bat)

All the rare bat species (and unconfirmed myotis species) were detected during acoustic surveys conducted in relation to the proposed Project. Eastern small-footed bat and tri-colored bat are predicted to be using land in and around the PDA for foraging, no roosting being expected (see Appendix E, Section 3.6). In addition to foraging, little brown myotis may be using treed swamp and cultural woodland habitat types for roosting in light of analysing their call behaviour (see Appendix E, Section 3.6); this species typically roosts in deciduous trees (Layng, et al., 2019). Bat monitoring and habitat distribution analysis conducted in the area related to other projects indicates there is potential for all these bat species to use the forested habitat types for roosting (Rodriguez, 2007), however tri-colored bat typically roost close to foraging habitat (aquatic areas, particularly large water bodies) (Golder Associates Ltd., 2021), which are not found in the LSA.

### Eastern meadowlark

Eastern meadowlark were observed throughout the pasture areas found in Lot 36. At least five (5) singing males were observed and based upon this behaviour, season, and habitat conditions, eastern meadowlark are considered to be breeding in this area<sup>16</sup>. Eastern meadowlark prefer native grasslands, pastures and savannahs but will use other grassland habitat, e.g., hayfields, meadows. Eastern meadowlark habitat is found in the LSA in the agriculture-pasture ecosite, accounting for 63.58 hectares (24%) of the LSA.

### Red-headed woodpecker

Red-headed woodpecker were observed in the western and southwestern portions of Lot 36 and are presumed to be nesting in this area. Red-headed woodpecker breed in a variety of habitat types including woodlands, farmland, forest edges and roadsides. Typically, they create their own nest cavities in dead trees (or dead, decadent parts of live trees). Thirteen (13) cavity trees potentially suitable for nesting were recorded during the cavity search survey. Two (2) of the trees

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<sup>16</sup> Based on similar habitat requirements, bobolink may also occur although they were not observed during breeding bird surveys.



had woodpecker nest holes (species unconfirmed), the remainder being created through damage (e.g., broken branches).

### 5.8.3. Plant species at risk

Ontario tracks several rare plant species. American ginseng, black ash, butternut, and eastern prairie fringed orchid being plant SAR (all Endangered rank) species with potential to occur in the LSA.

A total of 167 vascular plant species were identified during field surveys of the LSA undertaken in summer 2024 (see Appendix E). Of these, none are SAR or SOCC but four (4) species are considered rare in the County including:

- Long-leaved starwort
- Pale sedge
- Shining ladies tresses
- Tall mannagrass

A targeted search for butternut and black ash was conducted within suitable habitat over the Development Land however no individuals were encountered.

## 5.9. Fish and fish habitat

Sauble River, a cold-water regime river, and two (2) of its tributaries occur within the LSA. Aquatic habitat was characterized through reconnaissance survey in 2024 (see Appendix E).

Sauble River consists of pools, runs, and riffles through the LSA, ranging from 5 to 12 m wetted width and 0.5 to 1.4 m depth, with a sand and silt substrate, abundant emergent and submergent vegetation, and abundant undercut banks and woody debris. Fish species expected to occur include central mudminnow, creek chub, Johnny darter, least darter, northern pike, pumpkinseed, rainbow darter, rock bass, and spotfin shiner. No aquatic SAR are anticipated and no SAR records exist in DFO mapping in the LSA.

The tributaries range from 0.5 to 2 m wetted width and 0.1 to 0.4 m depth, one tributary having been channelized and culvert installed to accommodate agricultural use (known as Fenton Drain Branch A) and the other largely confined within a dense, deciduous swamp. The tributaries are anticipated to support fish and herptiles.

No in-water work is proposed, therefore preventing adverse impact on fish and fish habitat. Best management practices will be implemented to limit or prevent effects from swale excavation



and rip-rap placement in and around the proposed stormwater discharge into the Sauble River. Therefore, fish and fish habitat has not been carried forward to the effects assessment.

## 5.10. Visual aesthetics

The proposed Project is located on an agricultural field in the context of fields interspersed with woodlands, rural residences, local roads and highway. Dominant visual influences are planar fields, vertical woodlands, and human-made structures (e.g., dwellings and farm buildings, roads, transmission line). Dominant light sources are natural, dwellings and farm buildings in the area, and vehicles.

Receptors in the area include landowners, motorists, and wildlife. There are nine receptors within 1,500 m. Receptors are all dwellings, no land or water-based recreational receptor locations are identified within 1,500 m. Six of those receptors are within 500m.

## 5.11. Natural heritage resources

Natural Heritage Resources include:

- Significant wetland
- Significant woodland
- Significant valleylands
- Significant habitat of endangered and threatened species
- Significant wildlife habitat
  - Seasonal concentration areas for animals
  - Rare vegetation communities
  - Specialized habitat for wildlife
  - Habitat for species of conservation concern
  - Animal movement corridors
- Significant areas of natural and scientific interest

No significant wetlands, significant valleylands, rare vegetation communities, animal movement corridors, nor significant areas of natural and scientific interest are located within the LSA. (Ministry of Natural Resources and Forestry, 2024).

A fulsome Natural Heritage field survey report is provided in Appendix E and is summarized below.



### 5.11.1. Significant woodland

The Provincial Planning Statement states that development and site alteration may be permitted in significant woodlands provided that there will be no negative impacts to the identified natural features and functions that lend significance to the woodland. Woodlands as defined by the Provincial Planning Statement are: “treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of woodland products. Woodlands include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels.” (Ministry of Municipal Affairs and Housing, 2024, p. 55). Significant, with regards to woodlands is defined in the Provincial Planning Statement as: “an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history” (Ministry of Municipal Affairs and Housing, 2024, p. 52). The Ministry of Natural Resources’ *Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Planning Statement* outlines the recommended Significant Woodland Evaluation Criteria and Standards using woodland size, ecological function, possession of uncommon characteristics and economic and social values to determine the woodland's significance (Ministry of Natural Resources, 2010).

The County of Bruce has not delineated and classified significant woodland to date; instead the Official Plan categorizes woodlots equal to or greater than 40 hectares in size as significant woodlands in Townships having less than 30% forest cover (County of Bruce, 2010, p. 15), which would include Arran Township.

The woodland in the southwest portion of the LSA is approximately 70 hectares and would therefore be considered a significant woodland.

### 5.11.2. Significant wildlife habitat

The Significant Wildlife Habitats (SWH) within the RSA were determined to be either candidate or confirmed. Based on Ministry of Natural Resources and Forestry (2015), and the environmental context of the LSA, SWH within the LSA may consist of the following:

- Seasonal concentration areas for animals;
- Specialized habitat for wildlife; and,
- Habitat for species of conservation concern.



The Provincial Planning Statement states that development and site alteration may be permitted in significant wildlife habitat provided that there will be no negative impacts to the identified natural features and functions that lend significance to the wildlife habitat. Wildlife habitat as defined by the Provincial Planning Statement means: "areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations. Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species." (Ministry of Municipal Affairs and Housing, 2024, p. 54)

Significant, with regards to wildlife habitat is defined in the Provincial Planning Statement as: "ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system" (Ministry of Municipal Affairs and Housing, 2024, p. 52).

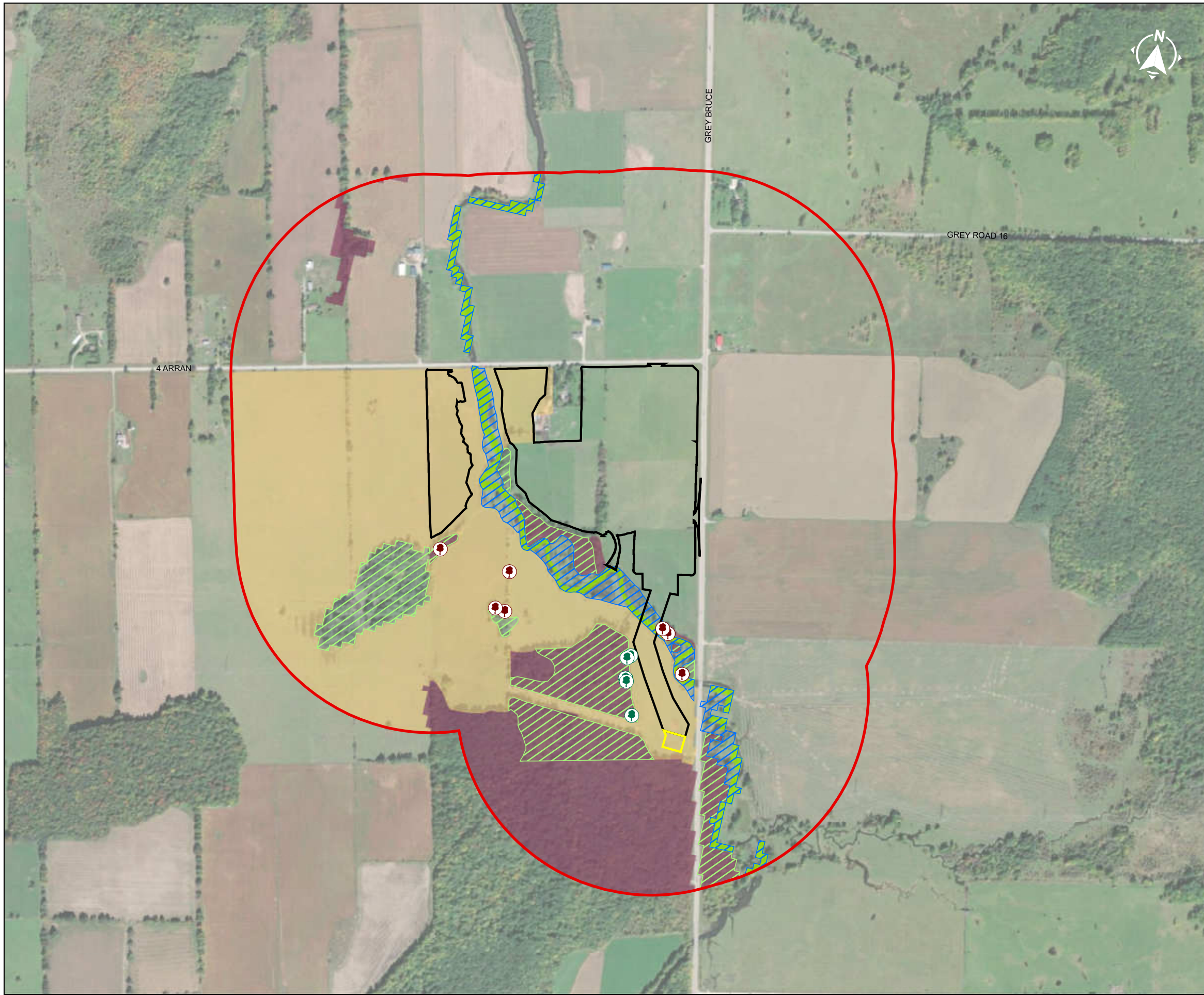
The Ministry of Natural Resources and Forestry's '*Significant wildlife habitat ecoregional criteria schedule: Ecoregion 6E*' provides types of significant wildlife habitat found within the ecoregion. There are 37 types of SWH under four different categories (seasonal concentrations of animals, specialized habitats and rare plants, SOCC habitat, animal movement corridors) within Ecoregion 6E (Ministry of Natural Resources and Forestry, 2015). Categories and types of SWH that have potential to occur in the LSA have been filtered from the full list (see **Table 5-4** and **Table 5-5**).

Significant wildlife habitat is identified through studies and analysis conducted by the provincial government, municipalities and by project proponents in relation to their projects. The Ministry of Natural Resources and Forestry provides spatial data for important wildlife values, including SWH. The only wildlife values within the dataset in vicinity of the proposed Project are white-tailed deer winter congregation areas (SWH), the closest of which is approximately 4 km to the northeast.

A significant wildlife habitat survey consistent with the Ministry of Natural Resources and Forestry's '*Significant Wildlife Habitat Technical Guide*' was commissioned by Neoen in summer, 2024 (see Appendix E). Summary of significant wildlife habitat observations is provided in the following sub-sections. Significant Wildlife Habitat is depicted on Figure 7. No rare vegetation communities or animal movement corridors occur within the LSA.



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- Project Development Area (Neoen)
- Proposed Project Development Area (HONI)
- Local Study Area (Biophysical)
- Significant Wildlife Habitat**
- Cavity Trees
- Snag Location
- Amphibian Breeding Habitat - Woodland
- Amphibian Breeding Habitat - Wetland
- Turtle Wintering Area
- Potential Maternity Roost Habitat (Little Brown Myotis)
- Eastern Meadowlark Habitat

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**Figure 7**  
**Significant Wildlife Habitat**

**Sources:**  
Ontario Road Network (ORN), Ontario Ministry of Natural Resources and Forestry, June 2023  
Significant Wildlife Habitat, Beacon Environmental Limited, 2024  
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Project Data, BBA, 2025

BBA Project Number: 7757017-000000-4E

2025-03-05

0 100 200 m  
UTM, Zone 17, NAD 83



Prepared by: J. Day

Drawn by: A. Haffaci

Verified by: F. Karcha





### 5.11.2.1. Seasonal concentration areas for animals

Seasonal concentration areas are those where wildlife species occur annually in aggregations at certain times of the year. Such areas are sometimes highly concentrated with members of a given species, or several species, within relatively small areas. Table 5-4 provides a summary of the seasonal concentration areas located within the LSA.

**Table 5-4: Seasonal concentration areas for animals within the LSA**

Area	Description
Bat Maternity Colonies	Several qualifying ecosites occur in the LSA (deciduous forest and deciduous swamp), accounting for 31.56 hectares (12%) of the LSA.
Turtle Wintering Area	Turtle wintering area is found in the LSA in the open water ecosite and in and around Sauble River, accounting for 3.96 hectares (1%) of the LSA. Snapping turtle were observed during field survey.

### 5.11.2.2. Specialized wildlife habitat

Some wildlife species require large areas of suitable habitat or unique habitat/landscape features for their long-term survival. Many wildlife species require substantial areas of suitable habitat for successful breeding. Their populations decline when habitat becomes fragmented and reduced in size.

Table 5-5 provides a summary of the candidate and confirmed specialized habitat for wildlife within the LSA.

**Table 5-5: Specialized habitat for wildlife within the RSA**

Area	Description
Amphibian Breeding Habitat: Woodland	Potentially suitable habitat associated with swamp wetlands, accounting for 16.07 hectares (6%) of the LSA.
Amphibian Breeding Habitat: Wetland	Potentially suitable habitat associated with Sauble River and wetlands, accounting for 8.19 hectares (3%) of the LSA.
Turtle Nesting Areas	Snapping turtles were observed nesting in crop field north of Sauble River; nests likely unsuccessful due to agricultural activities.



### 5.11.2.3. Habitat for species of conservation concern

Special concern rank species (i.e., SOCC species) known or potentially occurring within the LSA include:

- Barn swallow
- Eastern wood-pewee
- Snapping turtle

Habitat has only been identified for snapping turtle (see Section 5.11.2.1 and Section 5.11.2.2).

## 5.12. Cultural heritage resources

### Archaeological resources

The Ministry of Citizenship and Multiculturalism conducted a review of their database and indicated that no archaeological resources have been recorded within 300 m of the proposed Project (R. von Bitter, personal communication, April 8, 2024).

A Stage 1 archaeological assessment was conducted, concluding that the LSA has archaeological potential based on review of land use history and nearby features (e.g., Sauble River) (see Appendix F). Further analysis is recommended, i.e., a Stage 2 Archaeology Assessment.

### Built heritage resources and cultural heritage landscapes

No provincial heritage properties, properties owned by the Ontario Heritage Trust or properties subject to their easements, or municipal heritage properties occur in the LSA (see Appendix G). Built heritage resources (e.g., individual buildings) and cultural heritage landscapes (e.g., farming landscapes, the Sauble River) have been considered in the LSA. Properties at 37 Concession 4 and 39 Concession 4, collectively may be considered a cultural heritage landscape because they have contextual value being functionally linked to Sauble River and help define the character of the area (farmsteads and farming landscape),



## 6. Effects assessment

### 6.1. Land use planning

#### Project effects

The proposed Project is a compatible land use that integrates into regional and local land use planning for the area.

The proposed Project will be located within the GSCA's regulated area associated with the Sauble River; approval will be required for the proposed Project within this area.

#### Proposed mitigation

Mitigation to reduce impacts on land use planning includes:

- Acquiring compatible Official Plan land use designation and Zoning Bylaw zoning
- Acquiring Ontario Regulation (O.Reg.) 41/24 Approval from GSCA

#### Net effects

With implementation of mitigation, BBA does not predict any measurable net effects to land use planning resulting from the proposed Project.

#### Monitoring

No monitoring is planned.

### 6.2. Residential or sensitive land use

#### 6.2.1. Property use and enjoyment

##### Project effects

The proposed Project could affect property use and enjoyment through change in traffic or aesthetics (noise and visual). Aesthetic effects are assessed in Section 6.5 (noise) and Section 6.9 (visual).



The proposed Project site access off Concession 4 is approximately 200 m east of the closest property access. Locations for the permanent access off Grey Bruce Line, as well as the temporary accesses off Concession 4 (west of Sauble River) and Grey Bruce Line (south of Sauble River) to construct the floodplain compensation area and the transmission line, respectively, are not determined at this time. There will be an increase in traffic volumes as well as lane closures during construction. There will be no long-term change in traffic volumes or patterns in relation to the proposed Project.

## Proposed mitigation

Mitigations implemented to address noise and/or visual effects are expected to be suitable for lowering adverse effects on the property use and enjoyment. Additional mitigation includes:

- Preparing a Construction Traffic Management Plan (CTMP) prior to construction, in consultation with the landowner, adjacent landowners, and the relevant road authority to minimize vehicle noise and reduce traffic-related safety risks. Include, as a minimum, the following management measures:
  - Undertake consultation with the relevant road authorities and adjacent landowners during the preparation of the CTMP.
  - Ongoing consultation with the relevant authorities.
  - An equipment and supplies delivery management process.
  - Routes to be used by construction-related heavy vehicles to minimize impact on sensitive land uses and local residents. Activities related to secondary alternative construction routes should be included in case the main route is blocked by an emergency situation.
  - Identification of workforce parking areas to minimize impact on sensitive land uses and businesses.
  - Implement measures to manage and facilitate the ingress and egress of vehicles to ensure the safety of all users along the municipal roads, including, where appropriate, regulatory and directional signage, variable message signs, traffic management personnel and any other traffic control devices required.

## Net effects

With implementation of mitigation, BBA does not predict any measurable net effects to property use and enjoyment resulting from the proposed Project.



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## Monitoring

Construction traffic monitoring will be carried out, and a dedicated phone line will be established to receive and document stakeholder requests concerning traffic safety and noise concerns.

## 6.3. Non-renewable resource use

### 6.3.1. Agricultural land base

#### Project effects

Agricultural land currently used to grow crops and with an average agricultural capability of CLI2 will be displaced due to the proposed Project. The crops grown on these lands are typical for the area and with reclamation following decommissioning, the displacement would not be permanent.

The proposed Project does not cause fragmentation or isolation of agricultural lands nor cause incompatibility concerns for farm practices in the LSA.

#### Proposed mitigation

Mitigations implemented to address soil effects, noise and/or visual effects, as well as installation of a stormwater management system and effective reclamation are expected to be suitable for lowering adverse effects on the agricultural land base. Additional mitigation includes:

- Maintain existing agricultural access and practice to remaining areas within the property and around the proposed infrastructure to the extent possible.
- Contractor orientation to working on construction projects in active farming and ranching areas.
- Ensure that the pre-construction soil conditions for agricultural use are preserved in the floodplain compensation excavation area, including topsoil depth and moisture levels, as well as vegetation type in hay crop areas.
- Ensure that existing agricultural drainage (e.g., canals, subsurface drains, if any) are functional or replaced following construction completion.



## Net effects

Even with application of mitigation, net effects are predicted for the agricultural land base. These are characterized in Table 6-1.

**Table 6-1: Characterization of net effects on agricultural land base**

Magnitude	Spatial Extent	Temporal Consideration
Moderate	Within LSA	Long-term – effect occurs during construction and/or operation and persists into operations

## Monitoring

Following the project's decommissioning and soil restoration for agricultural use, a monitoring program (three (3) growing seasons) will be implemented to evaluate land quality and ensure agricultural productivity matches pre-development levels.

### 6.3.2. Soil classes

## Project effects

The proposed Project displaces Chelsey and Burford Loam soils (both Class 2 for agricultural capability). Some areas will be displaced for the life of the project while others are temporarily disturbed for construction. Table 6-2 provides an indicative volume balance of topsoil and subsoil to be stripped and either stored or replaced at post-construction reclamation.



Table 6-2: Indicative topsoil and subsoil volume balance

Project Component	Area (hectares)	Dominant soil type	Topsoil Volume (m³)			Subsoil Volume (m³)		
			Stripped	Replaced (at post-construction reclamation)	Long-term storage	Stripped	Replaced (at post-construction reclamation)	Long-term storage
BESS facility	2.12	Chesley (30 cm topsoil; 9 cm subsoil)	6360		6360	1908		1908
Tara 230 kV substation	1.56		4680		4680	1404		1404
Stormwater management system	1.05		3150	1020	1020	945	306	639
Maintenance area	0.47		1410		1410	423		423
Site access <sup>17</sup>	0.70		2100	210	1890	630	63	567
Internal roads, fill slopes <sup>19</sup>	2.78		8340	834	7506	2502	250	2252
Floodplain compensation	14.19	70% Chesley and 30% Burford Loam (22 cm topsoil; 28 cm subsoil)	36894	36894		26252	26252	
<b>TOTAL</b>	<b>22.87</b>		<b>62934</b>	<b>38958</b>	<b>22866</b>	<b>34064</b>	<b>26871</b>	<b>7193</b>

<sup>17</sup> Approximately 10% of the project footprint is temporarily disturbed during construction and will be reclaimed post-construction, e.g., road edges, fill slopes.





## Proposed mitigation

Mitigation to reduce impacts on soil includes:

- Achieve equivalent soils capability for reclaimed areas
- Pre-construction soils survey within PDA to develop soils stripping depth and handling plan. Soil samples will include lab analysis of a representative portion of total samples, including contamination analysis
- Design (prior to construction) and implement a Soil Conservation and Reclamation Plan
- Two or three lift soil stripping (i.e., stripping as separate layers the topsoil and one or two subsoil layers)
- Barrier placed between undisturbed soil and soil storage piles
- Soil layers stored separate from one another
- Topsoil and subsoil replaced in reverse order and to similar depth as was removed
- Long-term topsoil and subsoil storage piles will be stabilised (e.g., seeded) and marked on as-built drawings
- Soil samples (contamination analysis) from a representative portion of total backfill will be collected
- An unexpected discovery protocol will be included in the EPP to manage any disturbance of odorous, stained or anthropogenic materials, should these be encountered during construction
- Prepare and implement, as needed, a spill response and recovery protocol

## Net effects

Even with application of mitigation, net effects are predicted for soils. These are characterized in Table 6-4.

**Table 6-3: Characterization of net effects on soil**

Magnitude	Spatial Extent	Temporal Consideration
Moderate	Within PDA	Long-term – effect occurs during construction and/or operation and persists into operations



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## Monitoring

Monitoring of soils includes:

- Post-construction monitoring (three (3) growing seasons) of reclaimed areas to verify equivalent soils capability has been achieved and weed populations have not been established
- Long-term topsoil and subsoil storage piles will be monitored for weed establishment

### 6.3.3. Weeds

#### Project effects

Weed species may establish in exposed soil and temporarily disturbed areas. No weed populations within the PDA have been identified.

#### Proposed mitigation

Mitigations implemented to address soil effects and effective reclamation are expected to be suitable for lowering adverse effects from weeds. Additional mitigation includes:

- Include survey for weed populations and plant disease in the pre-construction soil survey
- Knock soil clumps of vehicles before entering or leaving the construction site to limit spread of weed seed or plant parts

#### Net effects

BBA does not predict any measurable net effects to weeds resulting from the proposed Project.

## Monitoring

Monitoring for weed presence will be incorporated into the monitoring plan described for soils.

## 6.4. Air quality

#### Project effects

The proposed Project does not have point-source emissions and is not expected to affect air quality.



Dust may be generated by vehicle traffic during construction and operation and earth movement during construction. Dust deposition is expected to be very localized and not a significant contributor to local air quality. Dust generated by construction traffic travelling are not expected since the roads are asphalt base and dust potential is limited

## Proposed mitigation

Mitigation implemented to address soil effects (e.g., knocking soil clumps off vehicles before exiting the site, stabilizing exposed soil) will limit dust generation. Additional mitigation includes:

- Water working areas during construction and site access as needed to limit dust

No mitigation is planned during operation.

## Net effects

BBA does not predict any measurable net effects to air quality resulting from the proposed Project.

## Monitoring

Monitoring of air quality includes:

- Dust emission during construction will be monitored and mitigations implemented if necessary.

## 6.5. Noise

### Project impacts

The proposed Project includes noise generating equipment, e.g., BESS HVAC and transformers. Sensitive receptors include adjacent properties with dwellings.

### Proposed mitigations

Mitigation to reduce impacts on the soundscape includes:

- Conducting a Noise Impact Assessment and complete a noise report.
- Registering noise emitting equipment (EASR).
- Meeting sound level thresholds established as per provincial O. Reg. 1/17 requirements that must be met related to the discharge of sound.



- Implementing design features (e.g., noise-generating equipment selection, barriers, enclosures, spatial arrangement) to meet sound level thresholds, as applicable.
- Limit noise-generating construction activities to the recommended standard working hours (as per Arran-Elderslie Noise Bylaw):
  - 7 a.m. to 7 p.m., Monday to Saturday
  - No work on Sundays or statutory holidays.
  - It should be noted that some activities may be required outside normal construction hours. Key stakeholders will be informed in advance of after-hours activities. These activities could include
    - Delivery of plant and equipment
    - Commissioning and testing activities, which must be aligned with network requirements
    - Emergency work to prevent damage to people or property and/or environmental damage
    - Construction work where it can be demonstrated and justified that the work must be undertaken outside normal construction hours.
- Conducting a Post-construction Noise Assessment.
- Notify relevant recipients (e.g., adjacent landowners) before construction begins
- Creating a noise complaint feedback mechanism. The procedure will contain at least the following elements:
  - Responsibility for complaint investigation.
  - Exploration of mitigation options at source if a problematic noise source is identified.
  - If necessary, a noise survey on the complainant's premises should be undertaken if a noise source issue is not resolved with the corrective action.
  - Mechanism for recording all complaints and corrective actions.
  - Notification of potentially affected receptors if observations indicate that noise criteria are exceeded due to site activities. The receptor concerned will be informed in writing of the exceedances and the source of the impact as soon as possible.

## Net effects

BBA does not predict any measurable net effects to the soundscape.

## Monitoring

No monitoring is planned.



## 6.6. Water quality

### Project effects

The proposed Project may lead to adverse impacts to water quality by intersecting groundwater during construction (and dewatering to surface) or in the event there is a spill that reaches surface- and/or groundwater. The proposed Project will implement mitigation and best management practices to prevent effects on water quality.

Due to the placement of the BESS and substation on a fill area (including an engineered liner separating the fill layer from underlying ground), combined with the presence of a clay layer (which may act as an aquitard), there is anticipated to be limited interaction between the proposed Project and groundwater during operations. The stormwater management system will prevent impacts of the proposed Project on surface water quality (e.g., discharge of sediment-laden water).

### Proposed mitigation

Mitigation and best management practices to reduce impacts on water quality includes:

- Wherever possible, the project design will take into account the following stormwater management principles:
  - Maintaining existing sub-watersheds
  - Maintain existing downstream flow paths
  - Maintain downstream connection to existing drainage outlet
  - Maximize permeable zones
  - Ensure that potentially contaminated runoff is adequately collected and appropriately treated.
- Creating a floodplain compensation area.
- Project design preventing any encroachment in wetlands, waterbodies or riparian areas and their associated buffer zones.
- Maintain the topography of excavation areas in a way that preserves a water flow pattern similar to current conditions.
- Developing a Stormwater Management Plan.
- Acquiring a Provincial Environmental Compliance Approval as per the Section 53 of the Ontario Water Resources Act<sup>18</sup>.

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<sup>18</sup> See Appendix H for a copy of the ECA application.



- Developing and implementing an Operation and Maintenance Plan of the Stormwater System that includes conditions of the ECA permit.
- Developing and implementing an Erosion and Sediment Control Plan (ESCP) to prevent sedimentation into wetlands, Sauble River and its tributaries.
- Developing and implementing a Spill Contingency Plan and implementing spill prevention measures.
- Not transferring or storing fuel within 30 m of the wetlands, Sauble River and its tributaries. Conduct all refuelling activities with an appropriate spill kit available. Use drip trays when refueling to prevent releases to the environment.
- Inspecting all heavy equipment and light vehicles for leaks and failures daily.
- Dewater to vegetated areas without direct drainage to surface water features (e.g., wetlands, Sauble River) and at a rate that does not create erosion.

## Net effects

With application of mitigation, BBA does not predict any measurable net effects to water quality.

## Monitoring

Monitoring of water quality includes:

- A monitoring plan for surface and groundwater will be developed and implemented before, during, and after construction. Additionally, riparian wetlands along the river will be monitored during operations. If any impacts are detected, a mitigation plan will be coordinated with the MECP.
- A preliminary monitoring plan will be developed and implemented, with monitoring implemented during construction and over a three (3) year period during operation. Objectives are:
  - Assess efficiency of the ESC measures during construction
  - Evaluate the effectiveness of sediment and oil removal from the wet pond
  - Ensure effluent meets Ontario Water Quality Objectives (OWQO) and ECA permit conditions.
  - Identify system inefficiencies or required upgrades.



## 6.7. Wildlife and wildlife habitat

### 6.7.1. Ecological Land Classification

#### Project impacts

Cropland accounts for most of the LSA landcover (52% of landcover), with approximately 15% of landcover also attributed to woodland and wetland. The PDA is almost entirely comprised of agricultural lands (70% cropland; 27% pasture). The HONI PDA is entirely within pasture. The PDA removes approximately 21% of hedgerow and 13% of cropland available within the LSA, temporarily removes approximately 7% of pasture in relation to the floodplain compensation area, and both the Neoen transmission line PDA and HONI PDA span pasture (11% and 1% of total available in the LSA, respectively). Table 6-3 summarizes hectares of ecological communities across the PDA and LSA <sup>19</sup>.

**Table 6-3: Community series / ecosites within the PDA and LSA**

ELC (community class, series, ecosite)	Area in the LSA (ha)	LSA cover (%)	Neoen PDA (ha)	% of LSA	HONI PDA (ha)	% of LSA
<b>Wetlands</b>	<b>20.84</b>	<b>8%</b>	<b>0.16</b>	<b>1%</b>	<b>0</b>	<b>0%</b>
<b>Swamps</b>	<b>16.60</b>	<b>6%</b>	<b>0.00</b>		<b>0.00</b>	
Deciduous swamp (green ash)	9.66					
Deciduous Swamp (Undifferentiated)	6.42					
Thicket swamp	0.53					
<b>Marshes</b>	<b>4.23</b>	<b>2%</b>	<b>0.16</b>	<b>4%</b>	<b>0.00</b>	
Meadow marsh (reed canary grass)	3.31		0.16			
Meadow Marsh (Undifferentiated)	0.92					
<b>Upland Communities</b>	<b>224.87</b>	<b>84%</b>	<b>24.98</b>	<b>11%</b>	<b>0.20</b>	<b>0%</b>
<b>Deciduous Forest</b>	<b>19.16</b>	<b>7%</b>	<b>0.00</b>		<b>0.00</b>	
Deciduous Forest (Sugar Maple-Black Cherry)	2.56					
Deciduous Forest (Trembling Aspen)	0.73					
Deciduous Forest (Undifferentiated)	15.87					
<b>Cultural</b>	<b>205.70</b>	<b>77%</b>	<b>24.98</b>	<b>12%</b>	<b>0.20</b>	<b>0%</b>
Plantation (hawthorn-green ash)	0.31					
Hedgerow	1.44		0.30	21%		
Agriculture - crop	140.44		17.73	13%		

<sup>19</sup> Habitat coverage is based upon current conditions, not upon expected conditions when the proposed Project is to be built.





ELC (community class, series, ecosite)	Area in the LSA (ha)	LSA cover (%)	Neoen PDA (ha)	% of LSA	HONI PDA (ha)	% of LSA
Agriculture – pasture	63.51		6.94	11%	0.74	1%
<b>Open water</b>	<b>3.96</b>	<b>1%</b>	<b>0.09</b>	<b>2%</b>		<b>0%</b>
<b>Buil-up area - impervious</b>	<b>18.27</b>	<b>7%</b>	<b>0.20</b>	<b>1%</b>		<b>0%</b>
<b>TOTAL</b>	<b>267.94</b>		<b>25.42</b>		<b>0.20</b>	

As described in Section 5.7.1, wetlands are present in the LSA and associated with forest stands (swamps) and riparian areas of the Sauble River (marsh). The treed swamps have been conserved and not used for agricultural purposes and there are several woodland communities on the Development Land.

The Sauble River and two tributaries are found in the Development Land. A 30 m buffer to the watercourses on the subject properties have been applied, limiting any works in these locations.

The proposed Project is located in vicinity of wetlands and overwintering habitat. Limited habitat loss (e.g., overwintering habitat) associated with the structures and construction are predicted and the proposed Project is predicted to not measurably impact herptiles. The project layout design avoids any encroachment in wetlands, waterbodies or riparian areas, reducing potential impacts on herptile and their habitat.

The floodplain compensation measures will involve excavating and lowering the surface elevation in areas to the north/northeast and northwest of the Sauble River. Subsoil excavation depths will generally range from 0.1 to 2 meters across the PDA (except the knoll where excavation reaches 4.2 m), with deeper excavation occurring in the northern sections and shallower depths closer to the river in the south. Topsoil and subsoil will be stripped and carefully stored during construction and reinstated afterward to support the continuation of agricultural activities.

Except for the surface water collected on the BESS pad—which will be filtered, treated in the wet pond, and discharged into the river—the surface runoff and infiltration patterns within the excavated areas are expected to remain consistent with pre-construction conditions. The riparian wetland located on the north side of the river is not anticipated to be affected by the excavation activities and is expected to maintain its current water regime.

## Proposed mitigations

Mitigations implemented to address water quality as well as effective reclamation are expected to be suitable for lowering adverse effects on ecological communities. Additional mitigation includes:



- Apply setbacks to ecological community features including wetlands (15 m), woodland (10 m), and Sauble River (30 m).

## Net effects

BBA does not predict any measurable net effects to the woodland or wetland ecological community types.

## Monitoring

No monitoring is planned.

### 6.7.2. Bats

## Project impacts

The proposed Project occurs in the context of agricultural cropland, pasture, deciduous forest and wetland habitat. Bat species and habitat presence is expected to be ubiquitous across the LSA.

During the field assessment, seven bat species were identified on the subject properties, including six endangered species listed under the ESA (Appendix E). These species generally make use of forested areas, including treed swamps, for maternity roosting; therefore, the swamp, forest and woodland communities mapped within the LSA represent potential habitat for these species.

The project design incorporates mitigation measures for these listed species, minimizing tree removal to only a few isolated trees within the north-south windrow, located immediately west of the proposed BESS site. The 2024 field assessment confirmed that no cavity-bearing trees are present in this windrow. Additionally, the project will avoid any encroachment into existing forest stands or woodland habitats that could support nesting. To further minimize impacts on bat maternity habitats, tree removal will be scheduled during winter, outside the bat reproductive season (April 1 to November 30). If trees need to be removed inside the reproductive season, MECP will be contacted for guidance.

The proposed Project is not expected to directly impact roosting habitat, change in bat habitat use predicted to be indirectly related to electromagnetic fields, noise, and light generated by the proposed Project.

No research appears to have been conducted in relation to bat behaviour and BESS projects, however studies have demonstrated that bats generally are attracted to transmission lines during



high relative humidity, possibly due to transmission lines attracting insects, while bats may avoid transmission lines during lower humidity levels due to physical structures and/or electromagnetic fields (Froidevaux, Jones, Kerbiriou, & Park, 2023). Passive-listening bats may avoid transmission lines in these same conditions due to corona discharge noise (Froidevaux, Jones, Kerbiriou, & Park, 2023). Similar behaviour may be expected in response to the proposed Project.

Bats may be positively affected by the increase in field heterogeneity afforded by project landscaping, especially if it incorporates shrubs and trees (Monck-Whipp, Martin, Francis, & Fahrig, 2018). Erecting roost boxes, for example as described in (Holroyd, et al., 2023) adjacent to water sources may be an effective mitigation for local populations (Brack, Sparks, & Kennedy, 2022).

## Proposed mitigations

Mitigation to reduce impacts on bats includes:

- The project design ensures no encroachment on the forest stands or their buffer zones present on the property.
- Tree clearing will occur outside of the roosting period which occurs between April 1 to November 30.
- Incorporating shrubs and trees into project landscaping.
- Strategic placement of roost boxes (e.g., as described in (Holroyd, et al., 2023)) in medium to highly suitable bat habitat.

## Net effects

Even with application of mitigation, net effects are predicted for bats (behaviour and habitat use). These are characterized in Table 6-4.

**Table 6-4: Characterization of net effects on bats**

Magnitude	Spatial Extent	Temporal Consideration
Low	Within PDA	Long-term – effect occurs during construction and/or operation and persists into operations

## Monitoring

No monitoring is planned.



### 6.7.3. Birds

#### Project impacts

The project may result in habitat loss, and disturbance due to human activity, as well as potential collision with infrastructure, may lead to changes in bird species presence and abundance.

No research appears to have been conducted in relation to bird behaviour and BESS projects, however studies have demonstrated that bird abundances have been observed to be higher in close proximity to linear infrastructure, dropping within the first 35 m, then increasing again with an overall Infrastructure Effects Zone (IEZ) on the order of 650m (de Jonge, Gallego-Zamorano, Huijbregts, Schipper, & Benitez-Lopez, 2022). Carnivorous birds appear to have larger drops in abundance but smaller IEZs than non-carnivorous birds and all bird species' abundance reductions within the IEZ is greater in open habitat environments but the IEZ is smaller in comparison to closed habitat (de Jonge, Gallego-Zamorano, Huijbregts, Schipper, & Benitez-Lopez, 2022). Similar behaviour may be expected in response to the proposed Project.

Mitigation measures have been integrated into the project design to avoid any encroachment on the forest stands present on the property. Most of the proposed infrastructure will be located on agricultural crop land, with a smaller portion situated on pasture. The project layout will not require tree removal, except for a few isolated trees within the north-south windrow immediately west of the proposed BESS site. The 2024 field assessment confirmed that no cavity-bearing trees are present in this windrow. To further reduce potential impacts on tree-nesting habitats, any necessary tree removal will be scheduled during the winter, outside the bird reproductive season.

#### Proposed mitigations

Mitigation to reduce impacts on birds includes:

- Project design preventing any encroachment on the forest stands present on the property and limit cutting down mature trees.
- Designing transmission structures and substation equipment to adhere to best practices reduce risk of electrocution and collision (APLIC, 2012).
- Install nest deterrents as necessary to prevent use by bird species (e.g., as described in (Stantec Consulting Ltd., n.d.)).
- Install guards within substation equipment as necessary to prevent electrocution of birds and wildlife.
- Pre-construction active raptor nest survey (no later than seven days prior to construction) and implementation of setbacks to reduce adverse effect of construction.



- Avoid clearing and beginning construction work within the breeding bird period (March 15 to September 12). If work is required to be initiated during the breeding bird period, conduct pre-construction nest survey in advance of construction no later than seven days prior to construction start<sup>20</sup>. If work is stopped on-site during the breeding bird period for more than seven days, an additional survey should be conducted.
- Develop and implement an Avian Protection Plan as part of Construction and Operations phases.

## Net effects

Even with application of mitigation, net effects are predicted for birds. These are characterized in Table 6-5.

**Table 6-5: Characterization of net effects on birds**

Magnitude	Spatial Extent	Temporal Consideration
Moderate	Within PDA	Long-term – effect occurs during construction and/or operation and persists into operations

## Monitoring

No monitoring is planned.

### 6.7.4. Herptiles

## Project impacts

Two amphibian species were identified during the field surveys, with the potential for two additional species to be present due to the treed swamp communities within the LSA. Snapping turtle have also been observed along the edge of the riparian wetland along the Sauble River and in adjacent cropland areas (Appendix E). The proposed Project is situated near wetlands and overwintering habitats. While limited habitat loss, such as overwintering areas outside of wetlands, may occur due to structures and construction activities, the project is not expected to have a measurable impact on herptile populations. The project layout has been designed to avoid encroachment into wetlands, waterbodies, and riparian areas, thereby minimizing potential impacts on herptiles and their habitats.

<sup>20</sup> Idle day spread is breeding season dependent as birds can create nests and start nesting over shorter duration at peak breeding, e.g., within three days.



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## Proposed mitigations

Mitigations implemented to address water quality and ecological communities are expected to be suitable for lowering adverse effects on herptiles. No additional mitigation is proposed.

## Net effects

BBA does not predict any measurable net effects to herptiles resulting from the proposed Project.

## Monitoring

No monitoring is planned.

## 6.8. Rare species

### 6.8.1. Wildlife species of conservation concern

#### Project impacts

Wildlife SOCC known or potentially occurring in the LSA include barn swallow, eastern wood-pewee, and snapping turtle. Potential impacts to birds and herptiles, including SOCC, are addressed in Section 6.7.3 and Section 6.7.4, respectively. Impacts on habitat of SOCC species are also addressed in Section 6.10.2.3.

#### Proposed mitigations

Mitigation proposed for ecological communities and birds (Section 6.7.1 and Section 0, respectively) are expected to address impacts to wildlife SOCC. No additional mitigation is proposed.

#### Net effects

Net effects on wildlife SOCC (birds and herptiles) are addressed in Section 0 and Section 6.7.4, respectively.

#### Monitoring

No monitoring is planned.





## 6.8.2. Wildlife species at risk

### Project impacts

Wildlife SAR known or potentially occurring in the LSA include bat species (eastern red bat, eastern small-footed myotis, hoary bat, little brown myotis, silver-haired bat, tri-colored bat), eastern meadowlark, and red-headed woodpecker. Potential impacts to bats, including SAR, are addressed in Section 6.7.2 and impacts to birds, including SAR, are addressed in Section 6.7.3.

Eastern meadowlarks were observed during the breeding season across the pastures located south of the Sauble River. While no nests were directly identified, the presence of suitable habitat suggests that this ecosite can be considered potential breeding habitat. Quantity of pasture and its distribution across the PDA (and LSA) are provided in Table 6-3 and Figure 5, respectively. Figure 7 shows the distribution of eastern meadowlark habitat across the LSA.

Construction activities within eastern meadowlark habitat are largely anticipated to be temporary, or are spanned by transmission lines, and will be reclaimed to similar land use. Temporary construction impacts within this habitat include those associated with access roads, construction laydowns, and flood compensation totalling approximately 7.14 hectares (6.94 hectares related to Neoen and 0.20 hectares related to HONI). Total eastern meadowlark habitat available within the LSA is 63.58 hectares. Access roads, laydown areas, and flood compensation impacts to pasture are temporary and will be restored to their original condition after construction is complete. The long-term impact of the project on eastern meadowlark habitat will be minimal, limited to the permanent use of 659 m<sup>2</sup> (0.063 hectares related to Neoen and 0.003 hectares related to HONI) for the transmission structures.

Construction is expected to require 18 to 24 months, however this duration does not necessarily apply to specific aspects of the project, for example earth movement and reclamation to create the floodplain compensation area or installation of the transmission line and structures. Site preparation is presently scheduled for Spring 2026 but a more detailed construction schedule has not been completed at this time. Site preparation (specifically vegetation removal) in pasture areas (that will be required for 2026 construction) will be scheduled to occur in advance of the breeding season (i.e., will conclude by early May) to avoid direct impacts to eastern meadowlark (or bobolink). Completing floodplain compensation area construction or transmission line construction would occur within the year that initial site preparation was conducted (e.g., completed within 2026). These pasture areas will be reclaimed and revegetated with a goal to re-establish pasture with a focus on providing attributes suitable to eastern meadowlark and cattle grazing, for example medium to tall grasses and forbs, low bare ground cover, and no woody species. Revegetation of these areas may be conducted by October 2026 or May 2027, depending on when construction of these project components



concludes. A similar general schedule would apply if these components were not constructed until 2027.

Under Ontario Regulation 830/21, removal of eastern meadowlark habitat for non- agricultural activities (e.g. development, infrastructure, resource management, etc.) is permitted under a conditional exemption, which requires creating or enhancing an equivalent or greater area of habitat elsewhere (typically within the same ecoregion as the existing habitat) or paying into a species conversation fund administered by the province. If temporary impacts related to construction activities are anticipated to persist for more than one active season for Eastern Meadowlark, guidance from MECP and/or an authorization under Ontario Regulation 830/21 may be sought to ensure compliance with the *Endangered Species Act*.

Red-headed woodpecker and potential nesting trees were observed during the field survey although no breeding was observed. The wooded areas within the Development Land that may provide potentially suitable habitat for this species are being avoided therefore the proposed Project is not expected to impact this species.

Currently six of the species of bats listed as endangered under the ESA have been identified on the Development Land. These species generally make use of forested areas, including treed swamps, for maternity roosting; therefore, the swamp, forest and woodland communities mapped within the Development Land represent potential habitat for these species.

## Proposed mitigations

Mitigation implemented for bats and birds (see Section 6.7.2 and Section 6.7.3, respectively) are expected to address impacts to wildlife SAR. Additional mitigation includes:

- Land clearing or starting construction activities within eastern meadowlark habitat will occur outside the breeding period (early May to mid-August).
- Cavity trees identified on site will be retained. Transmission ROW will not include identified cavity trees. If cavity trees are identified as danger trees outside of the ROW boundaries, then a biologist will assess the tree for nest presence prior to clearing. Clearing of danger trees will occur outside of the nesting period (second week of May to third week of August) if possible.

## Net effects

Net effects to bat species and bird species, including SAR species, are addressed in Section 6.7.2 and Section 6.7.3, respectively.



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## Monitoring

Post-construction monitoring (three (3) growing seasons) to assess reclamation effectiveness for temporarily disturbed pasture areas. This monitoring is integrated into monitoring being conducted in relation to soils (see Section 6.3.2).

### 6.8.3. Plant species at risk

#### Project impacts

No plant SAR have been located within the LSA to date. As such, no effects on plant SAR are predicted.

#### Proposed mitigations

No mitigation measures are proposed.

#### Net effects

BBA does not predict any measurable net effects to plant SAR resulting from the proposed Project.

## Monitoring

No monitoring is planned.

### 6.9. Visual aesthetics

#### Project impacts

The existing land uses within the LSA are agricultural, residential, and natural. Sensitive visual receptors include adjacent properties with dwellings and farm buildings.

#### Proposed mitigations

Mitigation to reduce impacts on visual aesthetics includes:

- Landscaping.
- Visual screening (e.g., walls, vegetation) to reduce visual effects on sensitive receptors and roadways located to the north and east of the site.



## **Net effects**

BBA does not predict any measurable net effects to visual aesthetics resulting from the proposed Project.

## **Monitoring**

No monitoring is planned.

## **6.10. Natural heritage resources**

### **6.10.1. Significant woodland**

#### **Project Impacts**

The proposed Project has no direct impacts (e.g., clearing) on the significant woodland in the SW of the LSA and indirect effects are anticipated to be minimal due to pre-existing disturbance levels.

#### **Proposed mitigations**

No mitigation is proposed.

#### **Net effects**

BBA does not predict any measurable net effects to significant woodland resulting from the proposed Project.

#### **Monitoring**

No monitoring is planned.



## 6.10.2. Significant wildlife habitat

### 6.10.2.1. Seasonal concentration areas for animals

#### Project Impacts

Table 6-6 provides a summary of the seasonal concentration areas located within the PDA and LSA. The proposed Project is not predicted to have measurable impact upon seasonal concentration areas. The proposed Project is not predicted to have measurable impact upon seasonal concentration areas for animals.

**Table 6-6: Seasonal concentration areas for animals within the PDA and LSA**

Area	Area within PDA (ha)	Area within HONI PDA (ha)	Area within LSA (ha)
Bat Maternity Colonies	0	0	31.56
Turtle Wintering Area	0.09	0	3.96

#### Proposed mitigations

Mitigations proposed for ecological communities, birds, bats, and herptiles in Section 6.7 are expected to address impacts to seasonal concentration areas for animals. Additional mitigation includes:

- Pre-construction survey and exclusion flagging to prevent direct disturbance in setbacks and to potential SWH (e.g., treed swamp, marsh).
- Natural recovery and/or planting to reclaim temporarily disturbed areas at the stormwater pond that will trend the revegetated lands towards the plant community found at local analogue wetland fringe areas.
- Weed control and ROW vegetation control will use mechanical techniques (e.g., mowing, mulching, hand-removal, etc.).

#### Net effects

BBA does not predict any measurable net effects to seasonal concentration areas for animals resulting from the proposed Project.

#### Monitoring

No monitoring is planned.



### 6.10.2.2. Specialized habitat for wildlife

#### Project impacts

Table 6-7 provides a summary of specialized habitat for wildlife located within the PDA and LSA. The proposed Project is not predicted to have measurable impact upon specialized habitat for wildlife. The proposed Project is not predicted to have measurable impact upon specialized habitat for wildlife.

**Table 6-7: Specialized wildlife habitat within the PDA and LSA**

Area	Area within PDA (ha)	Area within HONI PDA (ha)	Area within LSA (ha)
Amphibian Breeding Habitat: Wetland	0.25	0	8.19
Amphibian Breeding Habitat: Woodland	0	0	16.07
Turtle Nesting Areas	0	0	0.00

#### Proposed mitigations

Mitigations proposed for wildlife and wildlife habitat (Section 6.7) are expected to address impacts to specialized wildlife habitat. No additional mitigation is proposed.

#### Net effects

BBA does not predict any measurable net effects to specialized habitat for wildlife resulting from the proposed Project.

#### Monitoring

No monitoring is planned.

### 6.10.2.3. Habitat for species of conservation concern

#### Project impacts

Species of conservation concern known or potentially occurring within the LSA include barn swallow, eastern wood-pewee, and snapping turtle. Habitat for SOCC has only been identified for snapping turtle. The proposed Project is not predicted to have measurable impact upon significant habitat for SOCC.





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## Proposed mitigations

Mitigation proposed for ecological communities and birds (Section 6.7.1 and Section 6.7.3, respectively) are expected to address impacts to wildlife SOCC. No additional mitigation is proposed.

## Net effects

BBA does not predict any measurable net effects to habitat for wildlife SOCC resulting from the proposed Project.

## Monitoring

No monitoring is planned.

## 6.11. Cultural heritage resources

### 6.11.1. Archaeological resources

#### Project effects

The proposed project may potentially impact archaeological resources due to excavation at varying depths as part of the flood compensation measures. While most infrastructure will be constructed on previously disturbed soils from agricultural activities, some excavation will extend beyond the topsoil and subsoil layer, particularly in areas further from the river that may have remained undisturbed until now.

#### Proposed mitigation

Mitigation and best management practices to reduce impacts on archaeological resources include:

- Complete a Stage 2 archaeological survey for subsurface ground disturbance in areas of archaeological potential.
- Implement mitigation recommendations from the Stage 2 archaeological survey, if applicable.
- Create and implement a contingency plan for unanticipated discoveries.
- Stop work if unanticipated archaeological or cultural resources are discovered during project activities. Include an archaeological monitor, if recommended.



- Avoid subsoil disturbance for the Project temporary construction access within areas of archaeological potential by using access matting, corduroy roads, or similar techniques.

## Net effects

BBA does not predict any measurable net effects to archaeological resources resulting from the proposed Project.

## Monitoring

No monitoring is planned.

### 6.11.2. Built heritage resources and cultural heritage landscapes

## Project effects

Lot 37 and 39 Concession 4 collectively may be considered a cultural heritage landscape due to their functional connection to Sauble River and their importance in maintaining the character of the area (farmstead, farming landscape). The proposed Project is sited at a distance from the buildings on these Lots and is not anticipated to affect their value as a potential cultural heritage landscape (e.g., destruction, shadows, view obstruction) (LHC Heritage Planning & Archaeology, 2024).

## Proposed mitigation

Mitigation and best management practices to reduce impacts on built heritage resources or cultural heritage landscapes include:

- Avoid heritage attributes found at 37 and 39 Concession 4.
- Conduct a property-specific cultural heritage impact assessment if direct impacts to the house at 37 Concession 4 are proposed.

## Net effects

BBA does not predict any measurable net effects to built heritage resources or cultural heritage landscapes resulting from the proposed Project since the project will not require any demolition

## Monitoring

No monitoring is planned.



## 6.12. Summary of net effects

Net effects predicted for the proposed Project include:

- Low magnitude, long-term effects on bats
- Moderate magnitude, long-term effects on agricultural land base
- Moderate magnitude, long-term effects on soils
- Moderate magnitude, long-term effects on birds

## 7. Cumulative effects assessment

The proposed Project will be built in the context of existing human activity including agricultural practices, transportation, dwellings, and electric infrastructure. Within the RSA, continued agricultural activities are the only proposed projects or activities Neoen is aware of in terms of considering future cumulative effects.

The proposed Project will be situated on crop land, in context of existing land disturbance, and there are no known projects proposed within the RSA. The addition of the Project's net effects and interaction with net effects of existing and future projects is not predicted to be measurable.

## 8. Climate change

### 8.1. Project effects on climate change

The proposed Project will provide power capacity by drawing and storing energy during off-peak periods and releasing it to the electricity grid when energy demand is at its peak. Due to the intermittency of renewable energy, energy storage is key to supporting a transition to only zero-carbon sources. The Project will serve an important role as Ontario's electricity grid continues to transition to a grid that can be more reliant on green energy production. As such, the Project is anticipated to have a positive effect on climate change.

The short period of construction of the Project is generally not considered as a period over which the effects of future climate change can or should be considered.



## 8.2. Climate change effects on the Project

Forecasted changes in climate may affect the operation and maintenance of the proposed Project. Changes in climate that could potentially have an effect on the Project can include increases in the frequency, magnitude and severity of precipitation events, more frequent incidences of flooding and erosion, extreme storms (i.e., freezing precipitation, thunderstorms, strong winds, etc.), as well as larger and more frequent wildfires. Climate change can impact battery storage systems, transmission lines and distribution networks, resulting in larger economic losses, changes in transfer capacity and physical damages. The floodplain assessment considered future climate scenarios to design a project that is sited to account for a 100-year return period flooding event and to calculate adequate floodplain compensation.

## 9. Monitoring and commitments

### 9.1. Monitoring

Monitoring to be implemented for the proposed Project includes:

- Environmental monitoring during construction to confirm effective implementation of mitigation measures, as applicable.
- Post-construction monitoring (three (3) growing seasons) of reclaimed areas to verify equivalent soils capability has been achieved and weed populations have not been established.
- Following the project's decommissioning and soil restoration for agricultural use, a monitoring program (three (3) growing seasons) will be implemented to evaluate land quality and ensure agricultural productivity matches pre-development levels.
- Long-term topsoil and subsoil storage piles will be monitored for weed establishment.
- Construction traffic monitoring will be carried out, and a dedicated phone line will be established to receive and document stakeholder requests concerning traffic safety and noise concerns.
- Dust emission during construction will be monitored and mitigations implemented if necessary.
- A monitoring plan for surface and groundwater will be developed and implemented before, during, and after construction. Additionally, riparian wetlands along the river will be monitored during operations. If any impacts are detected, a mitigation plan will be coordinated with the MECP.



- A preliminary monitoring plan will be developed and implemented, with monitoring implemented during construction and over a three (3) year period during operation. Objectives are:
  - Assess efficiency of the ESC measures during construction
  - Evaluate the effectiveness of sediment and oil removal from the wet pond
  - Ensure effluent meets Ontario Water Quality Objectives (OWQO) and ECA permit conditions.
  - Identify system inefficiencies or required upgrades.
- Post-construction monitoring to assess reclamation efficiency of temporarily disturbed pasture areas.

## 9.2. Commitments

Plans to be prepared in advance of construction to manage potential effects on the environment include, but are not limited to:

- Accidental cultural heritage resource discovery contingency plan
- Accidental nest discovery contingency plan
- Avian protection plan
- Conceptual decommissioning plan
- Construction traffic management plan
- Emergency response plan
- Erosion and sediment control plan
- Landscape plan
- Noise complaint response protocol
- Pre- and during-construction wildlife survey protocol
- Soil conservation and reclamation plan
- Soil stripping and storage protocol
- Stormwater management plan
- Waste management plan

Neoen commits to implementing the mitigation and best management practices summarized in Table 9-1.

Table 9-1: Summary of commitments to be implemented for the proposed Project

ID	Mitigation measure	Project life cycle timing	Implemented by	Source
General				
1.	Contractor orientation to environmental management system, mitigation, monitoring, and roles and responsibilities.	Pre-construction	Neoen / Construction contractor	Corporate commitment
Agricultural land base				
2.	Maintain existing agricultural access to the extent possible.	Design	Neoen	Corporate commitment
3.	Contractor orientation to working on construction projects in active farming and ranching areas.	During construction	Construction contractor	Corporate commitment
4.	Ensure that the pre-construction soil conditions for agricultural use are preserved in the floodplain compensation excavation area, including topsoil depth and moisture levels, as well as vegetation type in hay crop areas.	During construction	Construction contractor	Corporate commitment
5.	Ensure that existing agricultural drainage (e.g., canals, subsurface drains, if any) are functional or replaced following construction completion.	During construction	Construction contractor	Corporate commitment
Air quality				
6.	Water working areas during construction and site access as needed to limit dust.	During construction	Construction contractor	Corporate commitment
Archaeological resources				
7.	Complete a Stage 2 archaeological assessment for subsurface ground disturbance in areas of archaeological potential.	Design	Neoen	Corporate commitment
8.	Implement mitigation recommendations from the Stage 2 archaeological survey, if applicable.	During construction	Construction contractor	Corporate commitment
9.	Create and implement a contingency plan for unanticipated discoveries.	Construction preparedness	Neoen	Corporate commitment
10.	Stop work if unanticipated archaeological or cultural resources are discovered during project activities. Include an archaeological monitor, if recommended.	During construction	Construction contractor	Corporate commitment
11.	Avoid subsoil disturbance for the Project travel lane and access within areas of archaeological potential by using access matting, corduroy roads, or similar techniques.	During construction	Construction contractor	Corporate commitment
Bats				
12.	The project design ensures no encroachment on the forest stands or their buffer zones present on the property.	Design	Neoen	Corporate commitment
13.	Tree clearing will occur outside of the roosting period which occurs between April 1 to November 30.	During construction	Construction contractor	Corporate commitment
14.	Incorporating shrubs and trees into project landscaping.	During construction, post-construction reclamation	Construction contractor	Corporate commitment





ID	Mitigation measure	Project life cycle timing	Implemented by	Source
15.	Strategic placement of roost boxes (e.g., as described in (Holroyd, et al., 2023)) in medium to highly suitable bat habitat.	During construction, post-construction reclamation	Neoen	Corporate commitment
Birds				
16.	Project design preventing any encroachment on the forest stands present on the property and limit cutting down mature trees.	Design	Neoen	Corporate commitment
17.	Designing transmission structures and substation equipment to adhere to best practices reduce risk of electrocution and collision (APLIC, 2012).	Design	Neoen	Corporate commitment
18.	Install nest deterrents as necessary to prevent use by bird species (e.g., as described in (Stantec Consulting Ltd., n.d.)).	During construction	Construction contractor	Corporate commitment
19.	Install guards within substation equipment as necessary to prevent electrocution of birds and wildlife.	During construction	Construction contractor	Corporate commitment
20.	Pre-construction active raptor nest survey (no later than seven days prior to construction) and implementation of setbacks to reduce adverse effect of construction.	Construction Preparedness	Neoen	Corporate commitment
21.	Avoid clearing and beginning construction work within the breeding bird period (March 15 to September 12). If work is required to be initiated during the breeding bird period, conduct pre-construction nest survey in advance of construction no later than 7 days prior to construction start <sup>21</sup> . If work is stopped on-site during the breeding bird period for more than 7 days, an additional survey should be conducted.	Construction Preparedness; During construction	Neoen	Corporate commitment
22.	Develop and implement an Avian Protection Plan as part of Construction and Operations phases	Design	Neoen	Corporate commitment
Built heritage and cultural heritage landscapes				
23.	Avoid heritage attributes found at 37 and 39 Concession 4.	Design	Neoen	Corporate commitment
24.	Conduct a property-specific cultural heritage impact assessment if direct impacts to the house at 37 Concession 4 are proposed	Design	Neoen	Corporate commitment
Ecological communities				
25.	Apply setbacks to ecological community features including wetlands (15 m), woodland (10 m), and Sauble River (30 m).	Design	Neoen	Corporate commitment
Land use planning				
	Acquiring compatible Official Plan land use designation and Zoning Bylaw zoning.	Permitting	Neoen	Planning Act
	Acquiring Ontario Regulation (O.Reg.) 41/24 Approval from GSCA.	Permitting	Neoen	Planning Act
Noise				
26.	Conducting a Noise Impact Assessment and complete a noise report.	Design	Neoen	NPC 300
27.	Registering noise emitting equipment (EASR).	Environmental permitting	Neoen	Corporate commitment
28.	Meeting sound level thresholds established as per provincial O. Reg. 1/17 requirements that must be met related to the discharge of sound.	Operation	Neoen	NPC 300

<sup>21</sup> Idle day spread is breeding season dependent as birds can create nests and start nesting over shorter duration at peak breeding, e.g., within 3 days.

ID	Mitigation measure	Project life cycle timing	Implemented by	Source
29.	Implementing design features (e.g., noise-generating equipment selection, barriers, enclosures, spatial arrangement) to meet sound level thresholds, as applicable.	Design	Neoen	Corporate commitment
30.	<p>Limit noise-generating construction activities to the recommended standard working hours:</p> <ul style="list-style-type: none"> <li>7 a.m. to 7 p.m., Monday to Saturday</li> <li>No work on Sundays or public holidays.</li> </ul> <p>It should be noted that some activities may be required outside normal construction hours. Key stakeholders will be informed in advance of after-hours activities. These activities could include</p> <ul style="list-style-type: none"> <li>Delivery of plant and equipment</li> <li>Commissioning and testing activities, which must be aligned with network requirements</li> <li>Emergency work to prevent damage to people or property and/or environmental damage</li> <li>Construction work where it can be demonstrated and justified that the work must be undertaken outside normal construction hours.</li> </ul>	During construction	Construction contractor	Corporate commitment
31.	Conducting a Post-construction Noise Assessment.	Operation	Neoen	NPC 300
32.	Notify relevant recipients (e.g., adjacent landowners) before construction begins	Construction preparedness	Neoen	Corporate commitment
33.	Creating a noise complaint feedback mechanism.	During construction	Construction contractor	Corporate commitment
34.	<p>Creating and implementing a noise complaint feedback mechanism. The procedure will contain at least the following elements:</p> <ul style="list-style-type: none"> <li>Responsibility for complaint investigation.</li> <li>Exploration of mitigation options at source if a problematic noise source is identified.</li> <li>If necessary, a noise survey on the complainant's premises should be undertaken if a noise source issue is not resolved with the corrective action.</li> <li>Mechanism for recording all complaints and corrective actions.</li> <li>Notification of potentially affected receptors if observations indicate that noise criteria are exceeded due to site activities. The receptor concerned will be informed in writing of the exceedances and the source of the impact as soon as possible.</li> </ul>	Operation	Neoen	Corporate commitment
Property use and enjoyment				
35.	<p>Preparing a Construction Traffic Management Plan (CTMP) prior to construction, in consultation with the landowner, adjacent landowners, and the relevant road authority to minimize vehicle noise and reduce traffic-related safety risks. Include, as a minimum, the following management measures:</p> <ul style="list-style-type: none"> <li>Undertake consultation with the relevant road authorities and adjacent landowners during the preparation of the CTMP.</li> <li>Ongoing consultation with the relevant authorities.</li> <li>An equipment and supplies delivery management process.</li> <li>Routes to be used by construction-related heavy vehicles to minimize impact on sensitive land uses and local residents. Activities related to secondary alternative construction routes should be included in case the main route is blocked by an emergency situation.</li> <li>Identification of workforce parking areas to minimize impact on sensitive land uses and businesses.</li> <li>Implement measures to manage and facilitate the ingress and egress of vehicles to ensure the safety of all users along the municipal roads, including, where appropriate, regulatory and directional signage, variable message signs, traffic management personnel and any other traffic control devices required.</li> </ul>	During construction	Construction contractor	Corporate commitment

ID	Mitigation measure	Project life cycle timing	Implemented by	Source
Significant Wildlife Habitat (seasonal concentration areas for animals)				
36.	Pre-construction survey and exclusion flagging to prevent direct disturbance in setbacks and to potential SWH (e.g., treed swamp, marsh).	Construction preparedness	Neoen	Corporate commitment
37.	Natural recovery and/or planting to reclaim temporarily disturbed areas at the stormwater pond that will trend the revegetated lands towards the plant community found at local analogue wetland fringe areas.	During construction, post-construction reclamation	Construction contractor	Corporate commitment
38.	Weed control and ROW vegetation control will use mechanical techniques (e.g., mowing, mulching, hand-removal, etc.).	Operation	Neoen	Corporate commitment
Soils				
39.	Achieve equivalent soils capability for reclaimed areas.	During construction, post-construction reclamation	Construction contractor	Corporate commitment
40.	Pre-construction soils survey within PDA to develop soils stripping depth and handling plan. Soil samples will include lab analysis of a representative portion of total samples, including contamination analysis.	Construction preparedness	Neoen	Corporate commitment
41.	Design (prior to construction) and implement a Soil Conservation and Reclamation Plan.	Construction preparedness	Neoen	Corporate commitment
42.	Two or three lift soil stripping (i.e., stripping as separate layers the topsoil and one or two subsoil layers).	During construction	Construction contractor	Corporate commitment
43.	Barrier placed between undisturbed soil and soil storage piles.	During construction	Construction contractor	Corporate commitment
44.	Soil layers stored separate from one another.	During construction	Construction contractor	Corporate commitment
45.	Topsoil and subsoil replaced in reverse order and to similar depth as was removed.	During construction	Construction contractor	Corporate commitment
46.	Long-term topsoil and subsoil storage piles will be stabilised (e.g., seeded) and marked on as-built drawings.	During construction	Construction contractor	Corporate commitment
47.	Soil samples (contamination analysis) from a representative portion of total backfill will be collected.	During construction	Construction contractor	Corporate commitment
48.	An unexpected discovery protocol will be included in the EPP to manage any disturbance of odorous, stained or anthropogenic materials, should these be encountered during construction.	During construction	Construction contractor	Corporate commitment
49.	Prepare and implement, as needed, a spill response and recovery protocol.	During construction	Construction contractor	Corporate commitment
Visual aesthetics				
50.	Landscaping.	Design	Neoen	Corporate commitment
51.	Visual screening to reduce visual effects on sensitive receptors and roadways located to the north and east of the site.	Design	Neoen	Corporate commitment

ID	Mitigation measure	Project life cycle timing	Implemented by	Source
Water quality				
52.	<p>Wherever possible, the project design will take into account the following stormwater management principles:</p> <ul style="list-style-type: none"> <li>■ Maintaining existing sub-watersheds</li> <li>■ Maintain existing downstream flow paths</li> <li>■ Maintain downstream connection to existing drainage outlet</li> <li>■ Maximize permeable zones</li> <li>■ Ensure that potentially contaminated runoff is adequately collected and appropriately treated.</li> </ul>	Design	Neoen	GSCA approval condition
53.	Creating a floodplain compensation area.	Design	Neoen/EPC contractor	GSCA approval condition
54.	Project design preventing any encroachment in wetlands, waterbodies or riparian areas and their associated buffer zones.	Design	Neoen	GSCA approval condition
55.	Maintain the topography of excavation areas in a way that preserves a water flow pattern similar to current conditions.	During construction	Construction contractor	Corporate commitment
56.	Developing and implementing a Stormwater Management Plan	Environmental permitting During construction Operation	Neoen	Environmental Compliance Approval condition
57.	Acquiring a Provincial Environmental Compliance Approval as per Section 53 of the Ontario Water Resources Act.	Environmental permitting	Neoen	Water Resources Act
58.	Developing and implementing an Operation and Maintenance Plan of the Stormwater System that includes conditions of the ECA permit	Environmental permitting; Operation	Neoen	Environmental Compliance Approval condition
59.	Developing and implementing an Erosion and Sediment Control Plan (ESCP) to prevent sedimentation into wetlands, Sauble River and its tributaries.	During construction	Construction contractor	Corporate commitment
60.	Developing and implementing a Spill Contingency Plan and implementing spill prevention measures.	During construction	Construction contractor	Corporate commitment
61.	Not transferring or storing fuel within 30 m of the wetlands, Sauble River and its tributaries. Conduct all refuelling activities with an appropriate spill kit available. Use drip trays when refueling to prevent releases to the environment.	During construction	Construction contractor	Corporate commitment
62.	Inspecting all heavy equipment and light vehicles for leaks and failures daily.	During construction	Construction contractor	Corporate commitment
63.	Dewater to vegetated areas without direct drainage to surface water features (e.g., wetlands, Sauble River) and at a rate that does not create erosion.	During construction	Construction contractor	Corporate commitment



ID	Mitigation measure	Project life cycle timing	Implemented by	Source
Weeds				
64.	Include survey for weed populations and plant disease in the pre-construction soil survey.	Construction preparedness	Neoen	Corporate commitment
65.	Knock soil clumps of vehicles before entering or leaving the construction site to limit spread of weed seed or plant parts.	During construction	Construction contractor	Corporate commitment
Wildlife species at risk				
66.	Land clearing or starting construction activities within eastern meadowlark habitat will occur outside the breeding period (early May to mid-August).	During construction	Construction contractor	Corporate commitment
67.	Cavity trees identified on site will be retained. Transmission ROW will not include identified cavity trees. If cavity trees are identified as danger trees outside of the ROW boundaries, then a biologist will assess the tree for nest presence prior to clearing. Clearing of danger trees will occur outside of the nesting period (second week of May to third week of August) if possible.	During construction	Neoen	Corporate commitment



## 10. References

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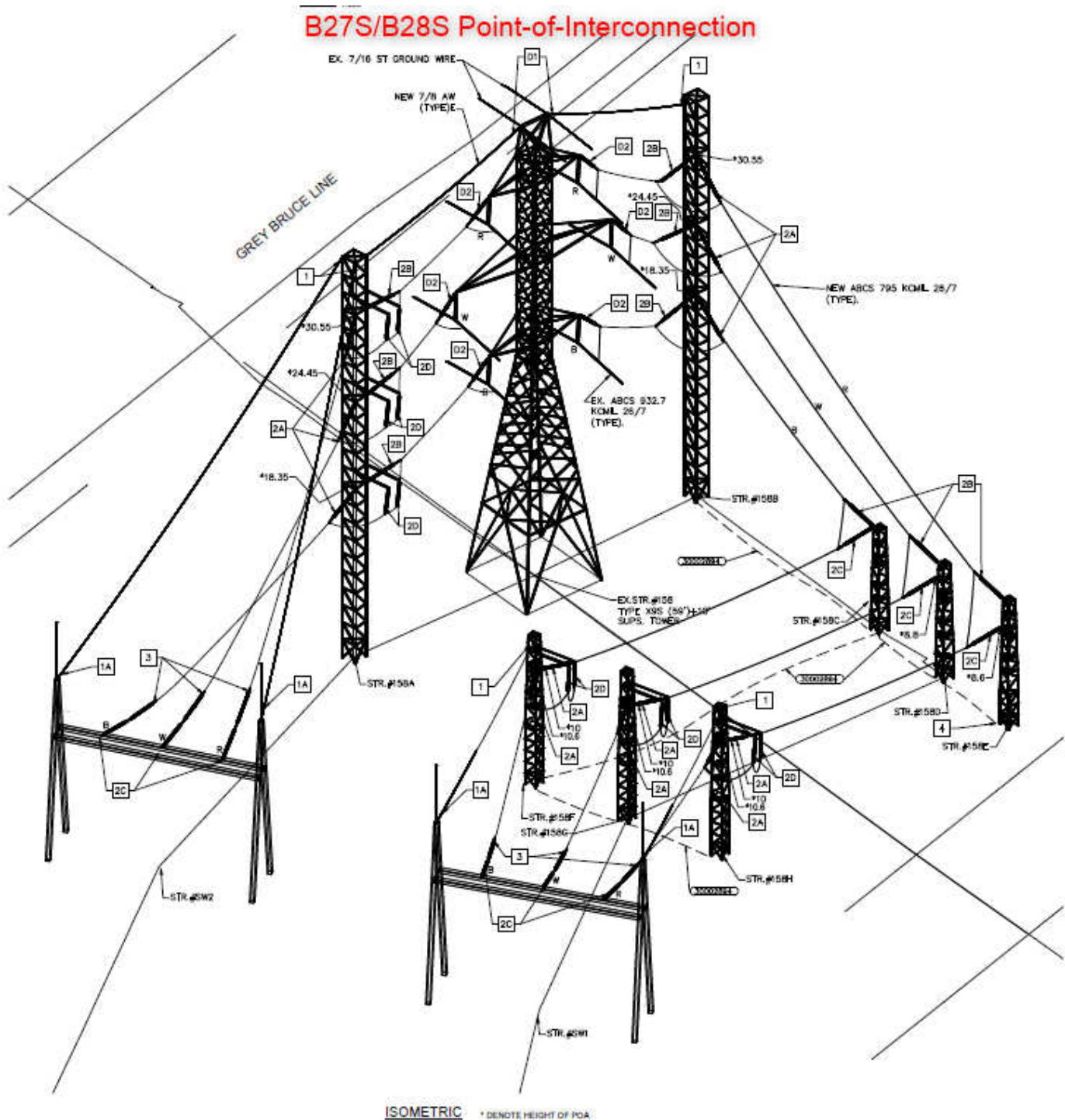
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## Appendix A: Typical Drawings and Cross-Sections



GREY BRUCE LINE





SEAL:		PROJECT: TARA BESS			
		TITLE: 230 kV OVERHEAD TRANSMISSION LINE ROW FOR PERMIT			
CLIENT:		DESIGNED BY: A. JAIN		DRAFTED BY: C. BOUCHER	
		PREPARED BY: A. JAIN		CHECKED BY: C. PEIRIS, Eng. PEO No.100611415	
		SCALE: 1:150		DATE: 2025-01-06	
		DRAWING No.: 8751002-600000-4L-D09-0003		SHEET: 01	SIZE: A1

**NOTES:**

1. ALL DIMENSIONS ARE SHOWN IN METERS (m) UNLESS NOTED OTHERWISE



## Appendix B: Consultation Record



## Consultation Record

Tara BESS

Current as of June 16, 2025



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## 1. BACKGROUND

Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600 MW hours (MWh) battery energy storage system (BESS) proposed for development on 39 Concession Road 4, Arran, approximately 5 kilometers (km) southeast of the Village of Tara in the Municipality of Arran-Elderslie (herein the “**Project Lands**”).

The project was awarded a 20-year contract by the Independent Electricity System Operator (IESO) in May 2024. Post-award consultation activities began in June 2024 and continued through spring 2025. Engagement activities will continue through the project lifecycle.

Tara BESS consists of approximately 420 lithium iron phosphate battery cell containers, an operations and maintenance building, stormwater management system, and 230-kilovolt (kV) substation, and is proposed to connect to Hydro One’s existing high voltage line at the south of the Project Lands.

### PROJECT LANDS



## 2. CONSULTATION APPROACH & PRINCIPLES

Consultation was carried out in accordance with the Class Environment Assessment for Minor Transmission Facilities. Neoen consulted Rightsholders (Indigenous communities), stakeholders, including Elected Officials, government, and regulatory bodies, and members of the public.

Neoen consulted on a host of subject matter, including but not limited to design and layout, wildlife, noise, visual screening, safety, community benefits, transportation, construction, operations, and decommissioning. Neoen consulted on the BESS facility and 230 kV substation as a whole to ensure a complete understanding of the project among consulted groups.

Neoen prioritized direct communication, early on and often, transparency, and accessibility to project information and staff by:

- Maintaining a dedicated project phone number, e-mail, and project website
- Hosting two (2) community open houses
- Issuing mail-outs
- Offering 1-on-1 meetings
- Commissioning a multi-stakeholder working group; and
- Bringing delegations before host and neighbouring councils.

Three iterations of the project layout were shared over the consultation period. Each iteration incorporated feedback received, including shifting of the BESS facility further south and vegetative screening.

Neoen endeavoured to satisfy consultation obligations under the Duty to Consult, Class Environment Assessment for Minor Transmission Facilities, and Environmental Compliance Approval. Additionally, consultation efforts supported Neoen's local planning applications.

## DUTY TO CONSULT

The Duty to Consult (DTC) with Indigenous peoples is the fiduciary duty of the Crown as represented by the Government of Canada or the Government of Ontario. The DTC and, where appropriate, accommodate Indigenous peoples requires that federal and provincial governments have a dialogue with Indigenous Nations, communities and organizations about contemplated government actions or decisions that might have a negative impact on Aboriginal and/or treaty rights.

## CLASS ENVIRONMENTAL ASSESSMENT FOR MINOR TRANSMISSION FACILITIES

The *Environmental Assessment Act* sets out requirements for mandatory notification during the terms of reference and environmental assessment process, which includes a notice of submission. In addition, the ministry is also requiring notices of commencement when the proponent begins the terms of reference and environmental assessment process.

## ENVIRONMENTAL COMPLIANCE APPROVAL

All proposals that are classified as Class II for the purposes of the Environmental Bill of Rights, 1993 (EBR) require public notification on the Environmental Registry of Ontario.

## 3. CONSULTED GROUPS

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### RIGHTSHOLDERS (INDIGENOUS COMMUNITIES)

The Ministry of Energy and Mines (formerly Ministry of Energy and Electrification) identified Rightsholders to be consulted:

- Saugeen First Nation
- Chippewas of Nawash Unceded First Nation

*collectively represented by the Saugeen Ojibway Nation (SON)*

- the Georgian Bay Historic Métis Community  
*part of the Métis Nation of Ontario – Region 7 Communities and represented by the Georgian Bay Tradition Territory Consultation Committee (GBTTC).*

## STAKEHOLDERS

The Project Lands are within Bruce County and the Municipality of Arran-Elderslie, adjacent Grey County and the Township of Chatsworth. Neoen consulted representatives from both the host and neighbouring counties and municipalities.

### Elected Officials

- Member of Provincial Parliament, Grey-Bruce-Owen Sound
- Warden and Council, Bruce County
- Warden and Council, Grey County
- Mayor and Council, Municipality of Arran-Elderslie
- Mayor and Council, Township of Chatsworth

### Government

- Ministry of Energy and Electrification (**MOEE**)
- Ministry of Environment, Conservation and Parks (**MECP**)
- Ministry of Citizenship and Multiculturalism (**MCM**)
- Ministry of Economic Development, Job Creation, and Trade (**MEDJCT**)
- Bruce County
- Grey County
- Municipality of Arran-Elderslie
- Township of Chatsworth

### Regulators

- Grey Sauble Conservation Authority (**GSCA**)
- The Independent Electricity System Operator (**IESO**)
- Hydro One

## PUBLIC

Neoen consulted landowners and occupants in the vicinity of the Project Lands. Neoen identified a 2-kilometre radius ("**community catchment area**") of the Project Lands, including properties along the concession roads 2, 4, and 6 corridors between Bruce Road 10 and Grey-Bruce Line, and on Bruce Road 10 and Grey Bruce Line between concession roads 2 and 6, as well as the broader communities of Arran-Elderslie and Chatsworth.

## 4. CONSULTATION METHODS & NOTIFICATION TECHNIQUES

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Neoen employed the following consultation methods and notification techniques:

1-on-1 Meetings	Meetings with Rightsholders, stakeholders, and landowners/occupants.
Canvassing	Canvass (door-knocking) of dwellings within the community catchment area.
Information Notices	Distribution of print and digital information notices containing project information, dates, events, and contact details.
Community Open House	Drop-in format consultation event with information boards and subject matter experts, also known as a public information centre.
Rightsholder Consultation	Consultation activities specifically for Rightsholders, including in-person and virtual meetings and events in/for Rightsholder communities.
Delegations	Presentations to upper and lower-tier local councils.
Geotargeted Digital Advertising	Geotargeted digital advertisements for the purpose of advertising notices and consultation events.
Local Bulletins	Use of local bulletins to advertise information notices and consultation events.
Multi-stakeholder Working Group	Information sharing and coordination meetings on a host of subject matter for local government and regulators.
Phone and E-mail	To facilitate communication between the public and project staff.
Project Website	A dedicated project website containing project information, Frequently Asked Questions, imagery, information notices, contact details, and a feedback form.

Neoen accepted feedback through the following channels:

- E-mail and Phone
- Feedback Form (hardcopy and digital via project website)
- In-person (via 1-on-1 meetings, delegations, open house, etc.)
- Traditional Mail

## 5. SCHEDULE OF CONSULTATION EVENTS AND ACTIVITIES

A schedule of consultation events and activities, including a description of any feedback raised, responses provided and associated attachments is included in Appendix A.

## 6. CONSULTATION SUMMARIES

This section provides a summary of Neoen’s consultation efforts with the consulted group over the consultation period, including the range and general sentiment of feedback received, and how Neoen responded to the feedback. Specific consultation events and activities are detailed in Section 5.

### PUBLIC

Neoen held two community open houses during the consultation period, January 21<sup>st</sup> and June 5<sup>th</sup>, 2025, at the Tara Community Centre located at 150 Hamilton Street in the Village of Tara. For each open house, Neoen held an afternoon (12:00 p.m. – 2:00 p.m.) and an evening session (6:00 p.m. – 8:00 p.m.). Each open house was drop-in format with information boards posted around the room. Topics covered included project capacity, BESS technology, project components and layout, floodplain management, stormwater management, noise, wildlife, decommissioning, safety, construction, operations, schedule, and community benefits. Neoen staff and consultants were present to answer questions and record feedback. Upon arrival, visitors were asked to sign-in and were provided with a feedback form that, if returned during the consultation period, would form part of Neoen’s public consultation record.

### January 21, 2025

Print notices were delivered to properties within the community catchment area and posted on local bulletins, including the Tara Library (59 Yonge St N), Tara Post Office (40 Yonge St N), and Tara Community Centre. Digital copies were shared with Rightsholders, stakeholders and posted to the project website. To reach a broader audience, Neoen placed a digital, geotargeted advertisement with Grey-Bruce Weekly targeting users in the Municipality of Arran-Elderslie, Townships of Chatsworth, Bruce County and Grey County.

A combined 61 people attended the sessions, including Mayor Steve Hammell (Arran-Elderslie), Councillor Peter Steinacker (Arran-Elderslie), Mayor Scott Mackey (Chatsworth), Deputy Mayor Terry McKay (Chatsworth), and Councillor Peter Whitten (Chatsworth). A combined 15 feedback forms were received, including three via online feedback form and one via e-mail. Feedback forms without names represent individuals that preferred to remain anonymous. The information boards are available on the project website for viewing.

<p><i>Floodplain and Stormwater Management</i></p>	<p><b><i>What we heard</i></b></p> <ul style="list-style-type: none"> <li>• The proposed BESS location is too close to the Sauble River.</li> <li>• Concerned about potential for contamination of drinking water.</li> <li>• Lack of confidence that the proposed retention pond will be sufficient to prevent contamination, manage floodplain.</li> </ul> <p><b><i>How we responded</i></b></p> <p>Staff explained how the stormwater management system is designed to prevent contamination of the river and surrounding environment. Neoen ensured the stormwater management system designer was present to answer questions. In response to the feedback, Neoen provided more detailed information on the stormwater management system at the June 5<sup>th</sup> open house.</p>
<p><i>Environment</i></p>	<p><b><i>What we heard</i></b></p>

	<ul style="list-style-type: none"> <li>Concerned about loss of Eastern Meadowlark habitat.</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that a field assessment was performed to identify cavity nests and that trees with cavity nests would be avoided during construction and operations.</p>
Agriculture	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>The site is prime agricultural land and should not be used for BESS.</li> <li>Concerns about loss of topsoil due to construction of the BESS.</li> </ul> <p><b>How we responded</b></p> <p>Staff explained why the site is suitable to host a BESS, and that an Agricultural Impact Assessment was performed which confirmed there would be no impact on the local food chain. Neoen committed to allow agricultural activities to continue around the BESS infrastructure should the landowner desire once commercial operations of Tara BESS begin. Staff explained that topsoil would be removed and stockpiled where possible and reinstated once the facility is decommissioned.</p>
Safety	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>Proximity of residential properties is too close given the risk of fire.</li> <li>Tara relies on volunteer fire fighters – the municipality is ill-equipped to respond.</li> <li>Concerns about impact on air quality in the event of fire.</li> <li>Concerns about impact to Sauble River in the event of fire.</li> <li>Concerns about impact to cattle and surrounding farmland in the event of fire.</li> <li>Loss of future farming viability in the event of a burn event.</li> <li>Concerns about the distance between facility and local fire station.</li> <li>Concerns that property insurance will increase due to fire risk.</li> <li>Concerns about the general safety of children living nearby.</li> <li>Concerns about Neoen's ability to respond to an emergency because the site will not be staffed 24/7.</li> <li>The site is too wet to contain a potential spill event.</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that BESS fires and spill events are rare, and that Tara BESS is designed with several layers of protection to mitigate risk. Staff explained the typical response to a BESS fire and confirmed that Neoen had engaged local fire personnel and would continue to do so, and that Neoen committed to provide facility training to local fire staff. Neoen committed to paying any difference in price of home insurance arising from the BESS facility for the one landowner who raised it as a concern. Following the open house, Neoen commissioned a voluntary air dispersion model to address concerns about toxic gas emissions in the event of a fire. Staff explained that the site would be fenced in preventing unauthorized access. Staff explained that an Emergency Response Plan was being developed to the satisfaction of local first responders. Neoen held a working group session on safety and shared more detailed safety information, including a copy of its Comprehensive Safety Plan and of the Air Dispersion Model at the June 5<sup>th</sup> open house.</p>
Decommissioning	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>The municipality will be burdened with decommissioning if Neoen abandons the site or dissolves its business.</li> <li>Concerns over lack of a bond in place to ensure decommissioning occurs.</li> </ul>



	<p><b>How we responded</b></p> <p>Staff explained that while there is no bond, security or policy for decommissioning, Neoen would be open to providing a security if requested by a stakeholder/regulator. Staff explained the decommissioning obligations set out in Neoen's agreement with the landowner and that the obligations would be passed onto Neoen's creditors in the event that Neoen dissolved or sold the project. On May 26, Neoen offered to provide a security to Arran-Elderslie Council in response to decommissioning concerns (see Arran Elderslie Council).</p>
Property Impacts	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>• Minimize visual impact to surrounding neighbours.</li> <li>• Concerns about potential loss in property value of surrounding residential properties.</li> <li>• Concerns about noise and construction nuisance.</li> <li>• Concerns about light pollution.</li> <li>• No artwork on noise walls.</li> </ul> <p><b>How we responded</b></p> <p>Staff explained it would consider vegetative screening around the facility as well as on the properties of landowners in the immediate vicinity of the project. Staff explained that its 'develop-to-own strategy' means Neoen will likely be around during construction and operations and that Neoen is committed to working with neighbours to address concerns about lighting and construction nuisance.</p> <p>Following the open house, Neoen commissioned and submitted a landscape plan that proposes 200+ trees and shrubs along the north, east, and parts of the west project perimeter. The proposed trees and shrubs were noted in the April 10 information notice (project update) and illustrated in a rendering at the second open house. The landscape plan was shared with the landowner of the nearest dwelling for feedback.</p> <p>Neoen committed to benefit sharing with residents in the immediate project vicinity.</p>
Other/General	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>• The Project Lands are zoned Environmentally Protected (EP) – other landowners with EP zoned lands cannot build, so Neoen should not be allowed either.</li> <li>• Not supportive (no explanation).</li> <li>• Neoen is not transparent.</li> <li>• Feels like Tara is being used as an experiment.</li> <li>• Concerns about impact to the Municipality's expansion plans (no detail provided).</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that, like all applicants, Tara BESS is subject to Official Plan Amendment and rezoning processes. Neoen explained that Tara BESS would not impact municipal expansion plans and, instead, would provide economic benefit to the municipality.</p>
Location	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>• Search for a property in closer proximity to demand.</li> <li>• Search for a property further from the Sauble River and residential properties.</li> <li>• Search for a property with a paid, 24-hour fire department.</li> <li>• Not a suitable location (no explanation).</li> </ul> <p><b>How we responded</b></p>

	Staff explained why the Project Lands are suitable to host a BESS, how Neoen would protect the Sauble River, and explained that Neoen would engage local fire on emergency response.
<i>Community Benefits</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>• Support for new roads and bridges.</li> <li>• A percentage of revenues should be allocated to the community.</li> <li>• Offer construction jobs.</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that the project would provide community benefits, including funds for local projects, and job and supplier opportunities. Neoen shared the specific details of its community benefits plan to Arran-Elderslie Council on May 26 and to the public at the June 5<sup>th</sup> open house.</p>

## June 5, 2025

Print notices were delivered to properties within the community catchment area and to more than 300 PO boxes in the Village of Tara. Print notices were posted on local bulletins, including the Tara Post Office (40 Yonge St N), and Tara Community Centre. Digital copies were shared with stakeholders and posted to the project website.

A combined 23 people attended the sessions, including Deputy Mayor Jennifer Shaw (Arran-Elderslie). A combined six feedback forms were received. Feedback forms without names represent individuals that preferred to remain anonymous.

In response to feedback from the January 21<sup>st</sup> open house, Neoen presented substantially more information on its proposal to manage the floodplain, protect the Sauble River, and on BESS safety. Neoen commissioned conceptual renderings of the facility and shared the details of its community benefits plan. Additionally, Neoen asked more specific questions on the feedback form, including questions about managing the floodplain and protecting the Sauble River.

<i>Floodplain and Stormwater Management</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>• Boards were informative and proposal is well designed.</li> <li>• Lack of confidence or undecided on whether the proposed design is sufficient to manage the floodplain and/or protect the Sauble River.</li> </ul> <p><b>How we responded</b></p> <p>Staff provided more detailed information on its proposal to manage the floodplain and on the stormwater management system, including drawings, imagery and maps. The stormwater management system designer was stationed at the boards to answer questions. Staff offered verbal examples of other BESS projects constructed in floodplain areas.</p>
<i>Noise</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>• How loud will noise from the facility be?</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that baseline noise monitoring was conducted, which determines the requirements which Tara BESS must comply with at each surrounding dwelling. Neoen shared a noise scale that identified anticipated noise levels for Tara BESS at the nearest</p>

	dwelling. Neoen explained that compliance is achieved using noise mitigation measures, including acoustic barrier walls, and that additional measures could be required in the future. Staff explained that a Noise Impact Assessment would form part of its Environmental Assessment to be reviewed by the MECP.
<i>Safety</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>Concerns about a potential contamination caused by flooding.</li> <li>Questions about how a contamination event would be managed if severe flooding occurred.</li> <li>Concerns about battery fire response protocol, particularly the impact of toxic gas emissions to humans and wildlife.</li> <li>Concerns about strain on local fire department.</li> <li>Specialized training should be provided to emergency responders.</li> <li>Explore batteries chemical compounds other than lithium ion.</li> <li>What protections are in place to prevent airborne hazards?</li> </ul> <p><b>How we responded</b></p> <p>In response to feedback received at the January 21<sup>st</sup> open house, information boards included detailed information on the Battery Management System and Thermal Management system and how they work to prevent battery fires. Staff explained how hazard events would be responded to. Neoen had copies of its Comprehensive Safety Plan and of Air Dispersion Model for Tara BESS available for viewing, which outline passive and active protection measures for Tara BESS, spill event response, fire response, and potential toxic gas emissions.</p>
<i>Decommissioning</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>What happens if Neoen abandons the project?</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that Neoen is contractually obligated to decommission the facility within 18-months of the final day of operations as set out in its agreement with the landowner, and that its obligations would be passed on to the new project owner or Neoen's creditors if Neoen were sold or dissolved. On May 26, at Arran-Elderslie Council, Neoen offered to provide a decommissioning security or bond to the Municipality if desired.</p>
<i>Property Impacts</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>Too close to neighbouring resident's well and septic beds.</li> </ul> <p><b>How we responded</b></p> <p>Neoen conducted a site visit of the property in November 2024, and based on design and modelling, there is no impact to well or septic expected.</p>
<i>Community Benefits</i>	<p><b>What we heard</b></p> <ul style="list-style-type: none"> <li>Questions about who would be eligible for resident benefits.</li> <li>A "small bribe".</li> </ul> <p><b>How we responded</b></p> <p>Staff explained that landowners with a residential dwelling within a 1 km block would receive \$5000 CAD annually, and landowners with a residential dwelling outside of the 1 km block but within a 2 km block would receive \$2500 CAD annually. Staff explained that the neighbour benefit does not require signing or project support.</p>

## STAKEHOLDERS

### **Member of Provincial Parliament, Grey-Bruce-Owen Sound**

Neoen met with Rick Byers, former Member of Provincial Parliament (MPP) for Grey-Bruce-Owen Sound, virtually, on November 13, 2024. Neoen provided an overview of the project and an update on feedback received to date. There was no feedback to report. Notice of Commencement of the Class EA was provided to MPP Byers' staff on November 25, 2024.

On February 27, 2025, Ontario held a General Election and the Honourable Paul Vickers was elected MPP for Grey-Bruce-Owen Sound. On April 7, 2025, Neoen met with MPP Vickers at his constituency office. Neoen provided an overview of the project, including the status of consultation activities and permitting requirements and timelines. MPP Vickers provided an overview of community concerns received by his offices, mostly relating to floodplain. Neoen explained its proposal to manage the floodplain. Hard copies of the presentation were left with MPP Vickers and his staff.

Neoen met with MPP Vickers again, on April 25, on a call organized by Energy Storage Canada. Neoen provided a brief status update. MPP Vickers asked about community benefits and Neoen shared the details of its community benefits plan for Tara. MPP Vickers remarked that it is fair for neighbours nearby the project to receive compensation.

### **Bruce County – Warden and Council**

Neoen brought a delegation before Bruce County Council on January 9, 2025. Neoen provided a project overview, including information on project layout, design, safety, environmental assessment, permitting, and consultation. Council raised concerns about the floodplain and fairness of allowing development on lands zoned Environmentally Protected when other landowners would be prohibited. Neoen explained that it must submit to the Official Plan Amendment and re-zoning processes like any other applicant. Council also raised concerns about safety, budget for safety, and questions about whether Neoen will receive a subsidy from the IESO. Neoen explained how a BESS fire is typically responded to and that Neoen is engaging the local fire department in its emergency response planning. Neoen explained that there is no set budget for emergency response, instead it is a project case basis, and the priority is safety. Neoen explained that it will be paid by IESO for providing 400 MW of capacity at a rate established in its LT1 bid. Neoen offered to return to Council if desired in the future. Information notices were provided to Council through Jennifer Burnett, Senior Planner, Bruce County, through the consultation period.

### **Grey County – Warden and Council**

Neoen contacted Warden Brian Milne of neighbouring Grey County on October 30, 2024, to introduce the project and request to meet. On November 6, 2024, senior policy planner, Liz Buckton, wrote Neoen to say she would meet with Neoen on behalf of the Warden. Neoen met with Liz on November 11, 2024, to provide a project overview. Future updates to Grey County Council were provided through Liz Buckton. Liz asked that Neoen continue to include Grey County in its consultation given the proximity of the project. Liz participated in the Tara BESS Working Group on behalf of Grey County.

## **Municipality of Arran-Elderslie – Mayor and Council**

Neoen first contacted Mayor Steve Hammell and Councillor Peter Steinacker (Tara) on October 29, 2024. Neoen brought a delegation before Council on December 9, 2025. Councillor Penner provided a list of questions for Neoen via e-mail to address in its delegation. Council raised concerns about the floodplain and the potential impacts of excavating fill from an adjacent property and using it on the proposed Project Lands. Neoen provided information notices and updates to Council through CAO Emily Dance. Mayor Steve Hammell and Councillor Peter Steinacker attended the community open house on January 21, 2025, where Mayor Hammell again raised concerns about the floodplain. Neoen staff explained its proposal to manage the floodplain and that it would be reviewed by the Grey Sauble Conservation Authority.

On May 26, 2025, Neoen brought a second delegation before Council. Neoen provided a project overview including a detailed layout, more detailed information on its proposal to manage the floodplain and to protect the Sauble River, information on community benefits, a high-level overview of public feedback received, how Neoen responded, and upcoming consultation activities. Council raised concerns about Neoen's proposal to manage the floodplain and protect the Sauble River, including the potential for impact to Tara's drinking water in the event of contamination and whether the retention pond could filter suspended particles. Neoen explained how the cut-and-fill method works and how the retention pond works to prevent contamination. Neoen informed Council that it had explored other host sites within the municipality but could not identify a willing landowner or encountered development constraints, such as noise. Council remarked that it was not aware of any project benefits for the municipality. Neoen explained that it commissioned a working group with municipal staff from Arran-Elderslie and held a session specifically for community benefits and outlined the benefits it anticipated the municipality would receive, including tax revenues, community benefits dollars, and artwork. Neoen also explained its neighbour benefits scheme for Tara BESS and plans to provide local employment and supplier opportunities. Neoen committed to sharing copies of its planning and Grey Sauble Conservation Authority application directly to Council. Neoen committed to providing copies of reports and more detailed information to address Council's concerns.

## **Township of Chatsworth – Mayor and Council**

Neoen contacted Mayor Scott Mackey of neighbouring Township of Chatsworth on October 30, 2024, by e-mail, to introduce the project and request to meet. Neoen did not receive a response. On December 10, 2024, Neoen sent a follow-up e-mail to CAO and Clerk, Patty Sinnamon, to share project notices and to arrange a meeting with staff. Neoen did not receive a response. On January 21, 2025, Mayor Scott Mackey, Deputy Mayor Terry McKay (Chatsworth), and Councillor Peter Whitten (Chatsworth) attended the community open house. Neoen brought a delegation before Council on February 5, 2025. Neoen provided a project overview, including information of layout, design, safety, environmental assessment, permitting, and consultation. Council noted that they do not have a say in the project as it is in Bruce County, but that they have concerns about fire safety. Neoen explained how BESS fires are typically responded to. Neoen acknowledged the proximity of the project to Chatsworth and committed to engaging Council and residents on the project. Mayor Mackey asked whether a municipal support resolution had been obtained. Neoen followed up with Mayor Mackey by e-mail to confirm it had been obtained prior to the LT1 bid. Neoen contacted Mayor Mackey on May 8, 2025, to provide a written project update and information notices.

## **Bruce County – Staff**

Jennifer Burnett, Senior Planner, is the planner assigned to the Tara BESS file at Bruce County. Neoen provided Jennifer with regular project updates and notices over the consultation period. Jennifer participated in Neoen's Tara BESS Multi-stakeholder Working Group. Staff questions and comments are reflected in the working group minutes. On October 18, 2024, Neoen met with Pierre Valley with Bruce County's Economic Development group to provide an overview of the project. Neoen has also provided project updates to Pierre and invited Pierre to attend the community benefits working group session. Pierre expressed interest in future economic impact, employment and supplier opportunities should the project be approved. Neoen committed to keeping in contact with Pierre.

## **Municipality of Arran-Elderslie – Staff**

Emily Dance, CAO, is Neoen's primary contact at Arran-Elderslie. Neoen provided Emily with regular project updates and information notices over the consultation period. Emily participated in Neoen's Tara BESS Multi-stakeholder Working Group. Staff questions and comments are reflected in the working group minutes. Neoen participated in a pre-consultation meeting with Emily and other municipal staff on May 5, 2025, regarding Arran-Elderslie's new BESS policy (site plan policy for BESS). During that meeting, Neoen shared an overview of the project with staff.

On October 30, 2024, Neoen contacted Fire Chief, Steve Tiernan, by e-mail requesting to meet. Neoen met with Chief Tiernan, virtually, on November 11, 2024. Neoen provided an overview of the project and committed to working with Chief Tiernan to develop the emergency response plan for Tara BESS. Neoen also committed to providing the fire department with training and covering the cost of air monitoring equipment for the department. Chief Tiernan participated in the Tara BESS Multi-stakeholder Working Group. Chief Tiernan's concerns and comments are outlined in the minutes. In response to a request from Chief Tiernan to disclose all toxic gases that could be emitted during a battery fire event, Neoen made a copy of its air dispersion model available for viewing at the June 5<sup>th</sup> community open house.

## **Grey County Staff**

On November 6, 2024, senior policy planner, Liz Buckton, wrote Neoen to say she would meet with Neoen on behalf of the Warden. Neoen met with Liz on November 11, 2024, to provide a project overview. Neoen provided regular project updates and information notices to Liz. Liz participated in the Tara BESS Multi-stakeholder Working Group. Liz's concerns and comments are outlined in the minutes.

## **Ministry of Energy and Mines (MOEM)**

Neoen consulted Amy Gibson, Manager, Indigenous Energy Policy, and Samir Adkar, Director, Energy Networks and Indigenous Policy, on the Tara BESS project, particularly on Indigenous consultation for the Class EA. Neoen met with Amy, Samir and members of their team on a regular basis during the consultation period to keep MOEM staff abreast Indigenous consultation activities. There is no specific project feedback to report.

## **Ministry of Environment, Conservation and Parks (MECP)**



Monika Macki is the Environmental Assessment Coordinator assigned to the Tara BESS file. Neoen held a virtual pre-consultation meeting with Monika Macki and her team on November 27, 2024, regarding the Class EA process. MECP provided preliminary comments on Neoen's draft Environmental Study Report (ESR) on April 15, 2025. Neoen met with MECP on May 8, 2025, to discuss the comments. Neoen responded to the comments on May 21, 2025. MECP's comments and Neoen's responses to the comments are outlined in Appendix A.

Neoen, its consultants, BBA, and MECP held a site visit to the proposed project lands on January 22, 2025. The purpose of the visit was to review Neoen's proposed stormwater management design.

## **Ministry of Economic Development, Job Creation, and Trade (MEDJCT)**

On March 19, Brittany Morrison and Benoit Pinot de Villechenon met with Jaspreet Singh and Atik Gilao of the Ministry of Economic Development, Job Creation, and Trade (MEDJCT), virtually, to provide an overview of the Tara BESS project. There is no feedback to report. Neoen agreed to update MEDJCT on job opportunities in the future.

## **Grey Sauble Conservation Authority (GSCA)**

MacLean Plewes, Manager of Environmental Planning, is Neoen's primary contact at GSCA. MacLean and Ian Eriksen, Manager of Engineering, participated in Neoen's Tara BESS Multi-stakeholder Working Group. Neoen held a working group session specifically for floodplain and stormwater management on February 28, 2025. GSCA concerns and comments are outlined in the working group minutes. Neoen met with MacLean, Ian, and Nicole McArthur on April 9, 2025. GSCA expressed interest in seeing modelling of flood scenarios under more frequent events. Neoen agreed and provided 5, 10, 25 and 200-year flood scenario models. In its consultation with the GSCA, GSCA expressed that Neoen's proposal to manage the floodplain does not comply with the GSCA's policy. Neoen provided policy justification reports to support its Conservation Authority and planning applications in response and referenced other BESS projects that have been approved and constructed in floodplains in Ontario.

## **The Independent Electricity System Operator (IESO)**

Alan Shek is Neoen's contact at IESO. Neoen provides IESO with monthly project updates. Neoen incorporated content from IESO's community into the January 21<sup>st</sup> and June 5<sup>th</sup> open house information boards. There is no specific project feedback to report.

## **Hydro One**

Shevaughne Wynter and Arsenije Vukojicic are Neoen's contacts at Hydro One. Neoen meets with Hydro One virtually on a bi-weekly basis to discuss interconnection design and process, including telecom design, civil design, permitting, land control, site access, project timeline, and electrical engineering. There is no specific feedback to report.

## **RIGHTSHOLDERS**

### **Saugeen Ojibway Nation (Saugeen First Nation and Chippewas of Nawash Unceded First Nation)**



On September 4, 2024, notice of project letters for Tara BESS were sent to the Saugeen Ojibway Nation (SON) Environment office and to the Saugeen First Nation and Chippewas of Nawash Unceded First Nation via e-mail. The letters included high-level project information and a request to meet to discuss the Tara BESS project.

On October 7, 2024, Owen Tanner, Manager of Energy for SON, contacted Neoen by phone to advise that the SON Joint Council had instructed staff to halt consultation on the Tara BESS project. On October 9, 2024, Neoen was copied on a letter from the Saugeen Ojibway Nation Chiefs to Samir Adkar, Director of Energy Networks and Indigenous Policy with the then Ministry of Energy and Mines (MEOM), formerly Ministry of Energy and Electrification, outlining concerns about the Tara BESS project being developed without “meaningful dialogue” and having “advanced in a way that is inconsistent” with a 2010 Agreement between the SON and the Crown. This was the first time Neoen was made aware of an agreement between SON and the Crown.

Following direction from MOEM, Neoen e-mailed and called Janet Galant, Manager of the SON Environment Office, on November 1, 2024, to request a meeting. A meeting between the SON Chiefs and Neoen was scheduled for November 20, 2024. On November 20, Janet notified Neoen by e-mail that the Chiefs needed to reschedule. Neoen made several attempts to reschedule but was unsuccessful in obtaining a meeting with the SON Chiefs or SON staff. On December 3, Janet Galant notified Neoen by e-mail that Tara BESS is proposed within a “buffer zone” identified in the 2010 Agreement between SON and the Crown and that SON must meet with MOEM before it can meet with Neoen.

On May 15, 2025, Neoen was copied on a letter from the SON Chiefs to the Honourable Todd McCarthy, Minister of Environment, Conservation and Parks. The letter states SON’s expectation that that Neoen’s Environmental Assessment for Tara BESS is not approved until SON and Ontario meet to discuss the 2010 Agreement. The letter also notes that the Tara BESS project was awarded without Indigenous equity. In response, Neoen sent a letter to the SON Chiefs via email on June 6th affirming Neoen’s commitment to continue to consult SON in a meaningful way and requesting to meet to discuss the project, including the SON’s rights and participation.

On June 6, 2025, Neoen received a letter from Janet Galant requesting that Neoen not perform planned archaeological activities until SON meets with Ontario to discuss the 2010 Agreement. Neoen replied to the letter via e-mail on June 12, 2025, confirming that stage 2 archaeological activities will not occur until after August 31, 2025.

While, despite numerous attempts, Neoen was unable to obtain a meeting with the Saugeen Ojibway Nation during the consultation period, Neoen period, shared reports, offered capacity funding, offered to host public meetings specifically for the Saugeen Ojibway Nation, provided information notices, provided project updates and material, and requested SON’s participation in archaeological activities. Consultation activities are outlined in Appendix A. Neoen is committed to meaningful consultation with Rightsholders and will continue to consult and engage SON on the Tara BESS project.

## **Georgian Bay Historical Métis Community, Métis Nation of Ontario – Region 7 (MNO)**

On September 4, 2024, Neoen e-mailed a notice of project letter for Tara BESS to the to the MNO. The letter included high-level project information and a request to meet to discuss the Tara BESS project. Mary McDougall and Mackenzie Bell (preceded by Ethan Roy) are Neoen’s primary

contacts for the Georgian Bay Historical Métis Community. Neoen provided regular project updates and notices to the MNO over the consultation period. On October 2, 2024, Neoen met with the Georgian Bay Traditional Territory Consultation Committee (GBTTCC) to provide a project overview and obtain feedback. Neoen and MNO entered into a contribution agreement on January 22, 2025, outlining consultation commitments for Tara BESS. A second consultation meeting occurred on February 14, 2025. On June 7, 2025, Neoen participated in the MNO's Upper Great Lakes Historical Métis Communities All Councils Meeting. Over the consultation period, MNO raised questions and concerns about protecting wildlife, recycling, the stormwater management system, and creating job opportunities for the Georgian Bay Historical Métis Community. Neoen provided reports and capacity funding as outlined in its contribution agreement. Consultation activities are outlined in Appendix A. Neoen is committed to continued consultation and engagement with the MNO, including participation in community events, opportunities for participation in artwork, and future meetings. Neoen and MNO use a dedicated SharePoint site to manage file sharing.

## 7. CONCLUSION

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Neoen employed a robust mix of consultation methods and notification techniques to ensure Rightsholders, stakeholders and the public were consulted in accordance with the principles outlined in the Class Environmental Assessment for Minor Transmission Facilities, including information notices, meetings, print and digital communications, open houses, working groups and delegations. Neoen offered dedicated forums to consult Rightsholders and stakeholders, and extended capacity funding to Rightsholders. Over the consultation period, Neoen heard a mix of feedback, including but not limited to concerns about safety, managing the floodplain, protecting the Sauble River, and community benefits. Consultation materials appended to this report reflect how Neoen responded to the feedback by providing more detailed information, amending studies, commissioning additional studies or resources, and incorporating feedback where reasonable. This is further reflected in the public feedback received between the January 21<sup>st</sup> and June 5<sup>th</sup> open house. While Neoen is confident that it has satisfied the consultation requirements set out for the Class Environmental Assessment for Minor Transmission Facilities, it remains committed to ongoing consultation with Rightsholders, stakeholders and communities to ensure the Tara BESS project provides meaningful and lasting benefits for all.



## Public Community Engagement Meeting

**Project Name:** Grey Owl Storage

**Date:** Thursday, November 2, 2023

**Time:** 5:30pm – 7:30pm\*

**Meeting Location:** Tara Community Centre (150 Hamilton Street, Tara, ON, N0H2N0)

**Proponent:** Shift Solar Inc.

**Proposed Project Location:** 37 Concession 4 Arran, Municipality of Arran-Elderslie, ON N0H 2N0

\*A short presentation will be made at 6pm with a formal Q&A period will be held afterwards, and we will be available to answer your questions throughout the duration of the event



Shift Solar Inc. is developing an energy storage project with a potential capacity of 400 MW and is situated on approximately 40 acres. We invite you to our in-person public community meeting to learn more about the project. Should the project be awarded a contract by the Independent Electricity System Operator (IESO), Shift Solar will work on obtaining all required provincial and municipal permits while continuing engagement efforts with the community. Project updates and resources will also be made available on the Project Website:

<https://www.shiftsolar.ca/grey-owl-storage>

Our project team is looking forward to meeting you to discuss the project!

If you cannot attend or have other questions or comments, please email us at [info@shiftsolar.ca](mailto:info@shiftsolar.ca)

A-56 Mill Street East, Unit 183  
Acton, Ontario L7J 1H3  
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6 Liberty Square, PMB 577  
Boston, Massachusetts  
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**shiftsolar.ca**

## Notice of Public Meeting - Grey Owl Storage

Mike <mike@shiftsolar.ca>

Tue 2023-10-17 11:49 AM

Bcc:planningpermits@greysauble.on.ca <planningpermits@greysauble.on.ca>;Dobbyn, Sandy (MNRF) <Sandy.Dobbyn@ontario.ca>;necowensound@ontario.ca <necowensound@ontario.ca>;david.marriott@ontario.ca <david.marriott@ontario.ca>;karla.barboza@ontario.ca <karla.barboza@ontario.ca>;noticereview@infrastructureontario.ca <noticereview@infrastructureontario.ca>;michael.dicosmo@ontario.ca <michael.dicosmo@ontario.ca>;erick.boyd@ontario.ca <erick.boyd@ontario.ca>;keith.johnston@ontario.ca <keith.johnston@ontario.ca>;SR.Planning@ontario.ca <SR.Planning@ontario.ca>;michael.nadeau@ontario.ca <michael.nadeau@ontario.ca>;marketing@heritagetrust.on.ca <marketing@heritagetrust.on.ca>;eanotification.swregion@ontario.ca <eanotification.swregion@ontario.ca>;john.s.ritchie@ontario.ca <john.s.ritchie@ontario.ca>;planning@grey.ca <planning@grey.ca>;Sylvia Kirkwood <SKirkwood@arran-elderslie.ca>;Christine Fraser-McDonald <CFraser@arran-elderslie.ca>;dthomson@brucecounty.on.ca <dthomson@brucecounty.on.ca>;manager@saugeenonijibwaynation.ca <manager@saugeenonijibwaynation.ca>;Lwhite@brucecounty.on.ca <Lwhite@brucecounty.on.ca>

 1 attachments (327 KB)

Public Meeting Notice - Grey Owl Storage.pdf;

Hello,

Shift Solar Inc. will be hosting a public information session on the Grey Owl Storage Project. Please find the details attached.

We hope you will make it out to learn more about the project and timelines. We encourage comments, questions, and general feedback either through this public engagement session or through email. Please see our project website for details at <https://www.shiftsolar.ca/grey-owl-storage>

Regards,

**Mike Brugge**

Managing Partner

1.519.465.6623

[shiftsolar.ca](https://www.shiftsolar.ca)





# Public Community Meeting Minutes

Project: Grey Owl Storage Project

Location: Tara Community Ctr

Meeting Date: November 2nd, 2023

Nameplate Capacity: 400MW Battery Energy Storage

Proponent: Shift Solar Inc.

## Summary

A Public meeting was hosted by Shift Solar to present information on the proposed Grey Owl Storage project and give members of the public an opportunity to provide comments, concerns and ask questions.

The Community Hall was open at 5:30pm for folks to arrive, grab a coffee or snack and find a seat. Shift was available for questions as well. At or around 6pm, Shift presented a PowerPoint (slides to follow), that provided project name, legal name of the proponent and contact information, nameplate capacity, type of technology, info about Shift and our partners, information about the IESO procurement, information about energy storage, the project proposed location and connection including a scale map, and a project timeline.

Following the presentation, Shift opened the floor for Q&As (notes by Stantec to follow).

## Notification

Notice of the Public Community Meeting was provided through the following mechanisms:

- Email to Chief Administrative Officer of the municipality attention Sylvia Kirkwood and Christine Fraser-McDonald as well as Deput Cleark Julie Hamilton
- Registered mail notices to property owners of land adjacent to the boundaries of the project site
- Standard mail notices to property owners within 1km of the project site
- Email to other regulatory agencies and stakeholders identified as having potential interest
- Although the project is not located on indigenous lands, Email notice was sent to Saugeen Ojibway First Nation
- Newspaper ad in the Grey Bruce This Week posted October 26<sup>th</sup>, 2023.

## Attendance

There were 36 people in attendance.

A-56 Mill Street East, Unit 183  
Acton, Ontario L7J 1H3  
CANADA

6 Liberty Square, PMB 577  
Boston, Massachusetts  
UNITED STATES

1-416-953-3495  
**shiftsolar.ca**

To:	Mike Brugge Shift Solar	From:	Domnique Zeldin and Justine Lunt Stantec Consulting Ltd.
Project/File:	160901047	Date:	November 8, 2023

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**Reference: Grey Owl Storage Open House Q&A Summary****PRESENTATION DATE:** November 2, 2023**PRESENTATION BY:** Mike Brugge, Shift Solar Inc., Mario De Aguero, Neoen, Benoit Pinot de Villechenon.**PRESENTATION START TIME:** 5:57 pm**Q AND A START TIME:** 6:16 pm**END TIME:** 7:23 pm

Question: How many containers will there be?

Answer: approximately 400 containers, but this is at preliminary stage.

Question: You mentioned that you considered it a good spot to conceal the project, can you elaborate on how you conceal the project?

Answer: Not a lot of residents, natural buffer to the south, with some added landscaping along the roads and along west side should be able to visually conceal.

Question: No solar panels?

Answer: no solar panels, just energy storage.

Question: When doing site selection, do you look at zoning? Almost the entire area is in a flood plain.

Answer: It's not the first thing we look at but we do consider it. We have met with local planners and Conservation Authority to get those details and discuss, but a lot of that would be worked out in other phases of the project, such as permitting. At this time, we don't have access to flood maps, just the area regulated by the Grey Sauble Conservation Authority.

Question: Could this move to somewhere where there is no fresh water and good farmable land? What about quarries?

Answer: It is difficult to permit on brownfields such as quarries with possible remediation requirements and other permitting requirements. We will continue to look at all the constraints and mitigation measures that can be implemented, and all things being noted, would be considered through more detailed permitting phases.

Question: Are there neighbors?

Answer: roughly 10 adjacent neighbors and 25 total within 1km radius of the project.

Question: Your graph shows that until 2028 we have energy, if it's built next year, it would be wasted?

Answer: This project wouldn't start until 2027, so it does cover where there are predicted shortages in the future. Further, the province needs to build above the projected need to serve the public reliably. The graph is a high level visual aid, and not intended to be viewed at a granular level.

Question: Will the site be on a concrete slab? What type of batteries will be used?



**Reference: Grey Owl Storage Open House Q&A Summary**

Answer: Screw piles with gravel underneath. Concrete is not the best for a project like this. Lithium Ion batteries are extremely safe. There is a low risk of fire, but many design elements are designed to prevent spread of fire in the containers themselves.

Question: Are you a farmer? This is good farmland that shouldn't be used for this type of work. We can't survive without fossil fuels.

Answer: Understood if the site truly isn't suited to it then the project wouldn't proceed.

Question: How big the batteries would be?

Answer: Showed map of site plan, and talked about the size of containers being comparable to a shipping container.

Question: Let's assume that a suitable location can be found, what is it like to live next to one of these? Emissions, sounds?

Answer: Noise assessments are part of the key studies completed. 40 decibels is the requirement for nearest receptor. If you stand next to a container it is something like 60 decibels. Also sound walls would be installed if required to help reach the levels the regulation requires. No emissions as no combustion is happening, it's just batteries.

Question: What voltage do the batteries have? Do you need a transformer?

Answer: transformer would be needed yes, similar noise to the containers, and a larger transformer substation closer to the line, likely to be surrounded by noise walls.

Question: So it's sounding like this isn't the best location for it, but if you did find a place and the property changes hands? What happens if the new landowner doesn't want it?

Answer: We lease land from the landowners, so it is tied to the land. If they don't want the project any new landowners shouldn't buy the land.

Question: When the project is done, would it carry on?

Answer: maybe a chance for a small extension, only have a lifespan of 20-25 years due to battery life.

Question: In terms of temperature what is the benefit or disadvantage of dealing with cold temperatures?

Answer: there would be power draw continually for HVAC equipment, and heating, the containers stay quite warm from the batteries themselves. Otherwise no real impact from cold temperatures.

Question: You picked this location because it's accessible, and your close to the power line? I don't think you took into consideration the neighbours beside you? And it's very good agricultural land. Are you really considering the neighbours? This is interfering.

Answer: It is something we consider, and it's something we address during the design phase. It's difficult to find land where people don't live in Ontario, it's something we do our best with, but we just have to mitigate and listen to feedback.

Question: Why does the project include the 50 acres to the left of the project site?

Answer: We do have site control over both properties, to have some buffer to allow for flexibility in design choices if the project is to move forward. Important thing to mention is that the project is only the footprint, the rest is still farmable.

Question: if I get this right, we need proximity to transmission line? There are a lot better properties that would be less intrusive on neighbours, that have not grown arable land? Are you people here to put a site on this property? Or to put a site on this corridor?

Answer: We're here to talk about this property and this project. It doesn't mean that the project can't be moved over the next 3 to 4 years of development. Shift Solar does prefer lands that have been worked



**Reference: Grey Owl Storage Open House Q&A Summary**

Question: What does that do to local planning if this was successful because it's difficult to imagine this as a permitted use?

Answer: Nothing. If a contract is secured, we still need to abide by the local planning process.

Question: How then do you go about looking for a property? Was the owner willing to work with you? Did you look at a map?

Answer: We start with where the project is needed, following transmission lines with capacity, and looking for flat cleared land, close to major roads, being close to larger towns. Then Shift Solar approached multiple landowners.

Question: Viability is based on buying power from OPG in the night, and sell it back in the day while it's high?

Answer: Yes, it's the IESO that buy the power and pay for the capacity service it provides. The IESO need storage to accommodate the gap between generation and demand of power and when it's needed.

Question: Are you not telling the whole truth, the landowner was talking about solar panels, and is under the impression it's solar panels?

Answer: When we first approached the landowner, we were planning for a solar project at the time, since then the project has changed to be an energy storage project based on the procurement.

Question: Any existing projects in Ontario?

Answer: Yes, there are many smaller pilot projects in Ontario. I helped develop and construction the Stratford project that is roughly a tenth the size of this project. There is also a 250 MW site in construction called the Onieda project.

Question: Any time you change state of something there is some loss, AC to DC back to AC etc., so what percentage are you getting back after drawing it out?

Answer: We refer to that as round trip efficiency (RTE), and we lose around 5-6%.

Question: Have you measured the energy fields off of these projects? Energy storage radiates something off of it.

Answer: Transmission lines have magnetic flux that is relatively small. The batteries are DC power, so the batteries don't produce a magnetic field.

Question: How common is it just to have power storage by itself? Because creating energy and storing it is a more common situation isn't it?

Answer: It depends on where you are in the world and what's needed. Certainly wind and solar and storage work well together. When solar is generating power that's when we need the power here in Ontario, but from wind and nuclear they are going at night and that's when we want to shift.

Question: You're hoping to make a successful bid to IESO, does Shift Solar maintain ownership for its life?

Answer: Shift Solar maintains ownership currently and likely up until bid and construction, after that there isn't much of a plan. Neoen is our partner for the long term operation.

Question: Who would be applying for permits?

Answer: Shift Solar and Neoen would be applying for permits together.

Question: All units will have to be air conditioned? My history tells me when we are short on hydro, it's the hottest days when everyone has their air conditioning on etc. So you're going to use a lot of hydro on those hot days, when we are short hydro already?

Answer: The containers are fan-cooled, and will be using a small amount of power, and the energy in the shortage is being sent out back into the system from the batteries, so they would be providing more than they are using.

**Reference: Grey Owl Storage Open House Q&A Summary**

Question: We (farmers) don't depend on hydro, and we don't care if hydro goes out, we all have generators, so whether you put the hydro on the system or not, some of the large farms are using energy a lot more than one household. This hydro is probably going to go to Toronto, this is to keep the cities going if we have a blackout?

Answer: Yes, it's an overall provincial need, and the projects do help local availability and reliability.

Question: Why not go to northern Ontario?

Answer: There isn't much availability to connect up north and there is less need up there. It's very infrastructure dependent.

Question: I'm not positive on the Meaford project? Bang for your buck, is that not a cheaper way to store energy then?

Answer: Pumped storage is much, much more expensive with a longer timeline to develop and construct. But both are very different economic profiles where pumped storage can support longer duration needs.

Question: What kind of information will you be providing to people who left their email?

Answer: If we're successful in the award, and kick off that work, then we would be reaching out to engage with stakeholders, adding your name to the list ensures you are contacted should this project proceed, for further engagement.

Question: For future presentation can you provide a street level or rendering of what this project would look like from the ground

Answer: Yes

Question: Moving forward, could it be only half the size there? Or a sound wall?

Answer: Yes, and yes

Question: What size is economically feasible? Up to 400?

Answer: Yes it could be half this size., It's not the size that determines economic feasibility, it's the duration. An hour to 4 hours are typical, and if you need longer duration storage, that's where you get into different technologies like pumped storage.

Question: What is the life expectancy of batteries?

Answer: 20-25 years

Question: Is there an efficiency drop every year in the battery?

Answer: Yes, it's minimal and depends on how much you use it and what the stresses are on the battery. You would be at around 70% of original capacity at end of battery life generally.

Question: Wouldn't it be better to be closer to where its ultimate customers are or where the power is being generated.

Answer: Not always possible to locate next to generation sources, really infrastructure dependent.

Question: What guided you to this area?

Answer: In the last round there was guidance to get storage in the southwest, for this round there was no guidance, we looked for targeted spots where there is infrastructure capacity and where redundancy is needed in the system.

Question: How many others are bidding?

Answer: We don't know what will be bid, there are 48 qualified applicants, there are a lot of projects we don't know how many will be bid.,

**Reference: Grey Owl Storage Open House Q&A Summary**

Supplemental Detail: There were 388 projects representing 67GWs that applied for deliverability. About 265 projects representing 45GW were accepted. From E-LT1, we figure less than half of that will be bid.

Question: Is Shift Solar publicly traded?

Answer: No, private company of 3 people.

Question: Who has the money in this so far?

Answer: Shift Solar and our investors

Question: How do you figure out the sound that's produced?

Answer: We have to do on site baseline tests and desktop modelling to make that determination.

Question: Is the municipal planning in place to deal with these projects, related to setbacks etc.?

Answer: Probably not specifically for battery storage, but we tend to fall under other utility infrastructure, and will work closely with the municipality to ensure we are proceeding in line with their expectations.


Question: Is there something where you put money into the community to operate here, like a community benefit fund?

Answer: Usually there are benefit sharing programs, but they are determined on a case by case basis. No specific answer at this time, but Shift Solar would be open for discussion as the project moves forward, and we would be open to discussing with the community what something like that would look like here.

Question: You put these where the problem isn't to help elsewhere?

Answer: No, these help stabilize the problem locally, as well as support the overall grid. There is a need in the Owen Sound transmission substation where this transmission line leads. The Owen Sound transmission substation has distribution feeders that supply this area and all around Bruce County.





# Grey Owl Storage - Community Engagement Meeting





WELCOME

# Community Engagement Meeting

Welcome, please sign in and provide your contact information if you would like to receive project updates. If you have any questions, there will be a formal Q&A period after the presentation. We will be available until 7:30pm for more private discussions or comments.

<b>Project Name:</b>	Grey Owl Storage
<b>Date:</b>	November 2nd, 2023
<b>Legal Name of the Proponent:</b>	Shift Solar Inc.
<b>Nameplate Capacity:</b>	400MW
<b>Technology:</b>	LFP Storage



TODAY'S MEETING

# Overview of the Meeting

- Land Acknowledgement
- About Shift Solar
- IESO Procurements
- Why Energy Storage?
- Grey Owl Storage Project
- Project Timelines
- Q&A



BEFORE WE START

# LAND ACKNOWLEDGEMENT

We would like to begin by acknowledging that we are meeting on the traditional lands and treaty territory of the Saugeen Ojibway nation which includes the Chippewas of Nawash Unceded First Nation and the Chippewas of Saugeen First Nation. We also recognize the Metis, whose ancestors shared this land and these waters. We extend our gratitude to all Anishinaabe and Metis people, and their descendants - past, present and future, who continue to care for and inhabit these lands and tend these waters.

GREY OWL STORAGE





## ABOUT US

# Catalyzing a more sustainable future

Shift Solar Inc. is an Ontario-based solar and energy storage developer with clients in Canada and the United States. Our goal is to expedite the adoption of green energy initiatives and support the shift to sustainable energy infrastructure.

With a development motto of “do the greatest good,” the Shift team is committed to the communities we work in and thus, are focused on engaging with stakeholders.



SYNERGY

# A Collaborative Partnership

The local expertise of Shift in project development, combined with Neoen's extensive international experience in developing, building, and operating storage projects, will ensure the creation of a responsible, sustainable, and high-quality project.

Together we will oversee the LT1 RFP and permitting stages.

Subsequently, Neoen will assume sole responsibility for the planning, construction, and long-term operation of the energy storage project







ABOUT US

# Neoen is dedicated to the energy transition...

Founded in 2008, Neoen is the leading French independent producer of renewable energy and a major player on the world stage.

**Our mission:** we design and implement the means to produce the most competitive renewable electricity, sustainably and on a large scale.

Our total capacity in operation or under construction is currently close to 7 GW and we are aiming for more than 10 GW by end 2025, with the ambition to reach 20 GW by 2030.



EXTENSIVE EXPERIENCE

# We have surpassed 1 GW of storage

## EUROPE

Yllikkälä Power Reserve (2020)



30 MW / 30 MWh

Azur (2019), Pod tredan (2022),  
Antugnac (2022)



22 MW / 22 MWh

Storen Power Reserve  
(2024<sup>(1)</sup>)



40 MW / 40 MWh

## AMERICAS

Albireo (2020),  
Antares (2022)



14 MW / 10 MWh

## AUSTRALIA

Hornsedale Power Reserve  
(2017)



100 MW / 129 MWh

Hornsedale Power Reserve  
Extension (2020)



50 MW / 64.5 MWh

Victorian Big Battery  
(2021)



300 MW / 450 MWh

Capital Battery (2023<sup>(1)</sup>)



100 MW / 200 MWh

Western Downs Storage (2024<sup>(1)</sup>)



200 MW / 400 MWh

Blyth Battery (2025<sup>(1)</sup>)



200 MW / 400 MWh

DeGrussa (2016)



6 MW / 1.4 MWh

Bulgana (2020)



20 MW / 34 MWh



Behind the meter



Stand alone



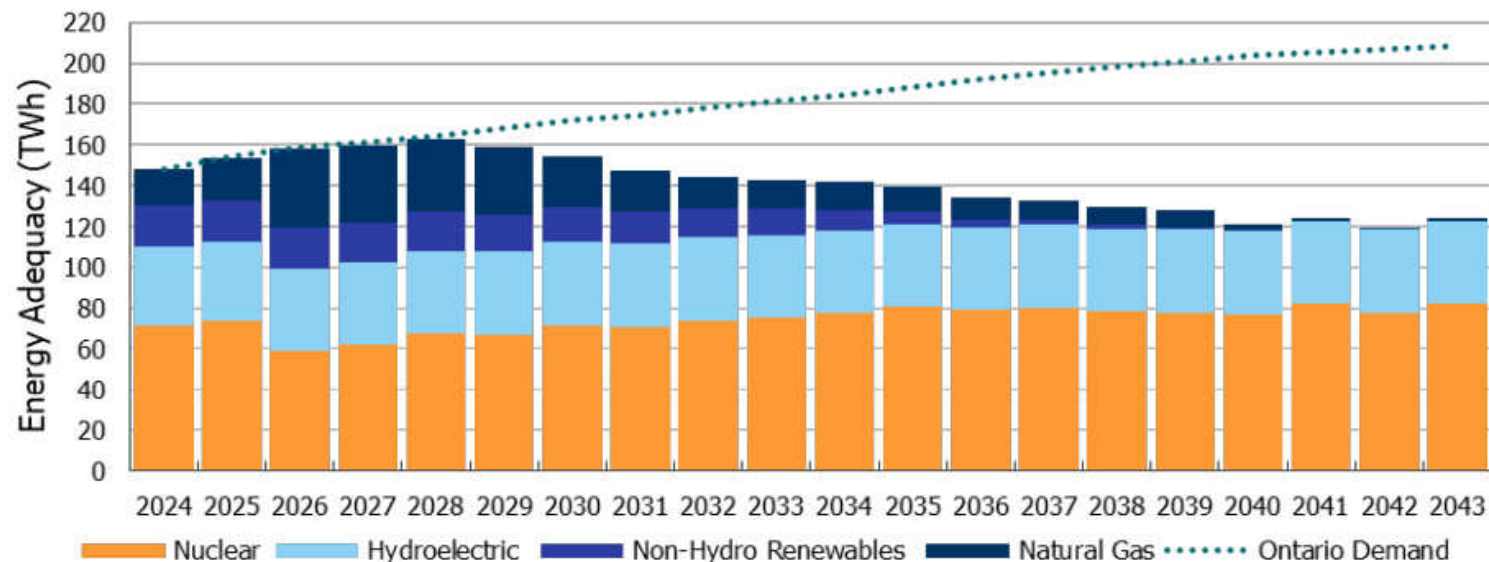
## THE NEED FOR NEW STRATEGIES

# Ontario is on the brink of an energy crisis

In their planning outlooks, the IESO predicts an energy and capacity shortfall as soon as 2026.

- Between 2025 and 2027, Ontario needs 4,000 MW of new supply
- The gap between demand and generation is expected to expand for 20 years
- Multiple storage projects have been awarded under the E-LT1 procurement and there will be an additional 1,600 MW worth of projects awarded under this LT1 procurement.

**Figure 21 | Energy Adequacy Outlook (Case 1)**

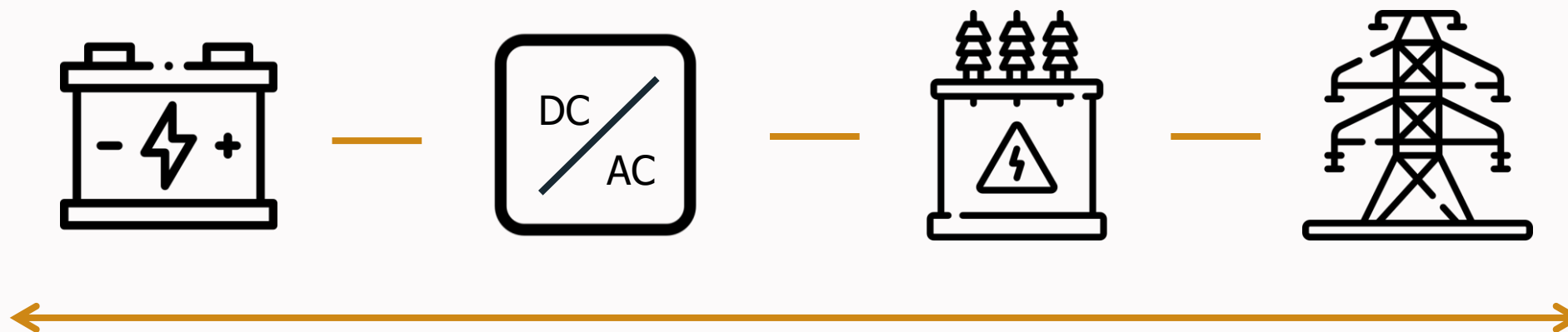


[www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook](http://www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook)



THE TECHY BITS

# Here's how energy storage works



Flow of Power

Battery Energy Storage Systems (BESS), are power plants that enable energy from the electrical grid, to be stored and then released when customers need power most. Typically in Ontario, storage is charged during the night when nuclear base load and wind power is producing more energy than the demand. Lithium-ion batteries, which are used in mobile phones and electric cars, are currently the most-used storage technology for large scale energy storage projects.





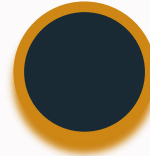
THE TECHY BITS

# Here's how energy storage looks



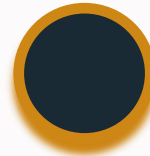
## Construction

A site consists of containerized batteries, inverters, medium voltage transformers, gravel internal access roads, buried collector and communication cabling, a small transmission substation, potential garage and operations and maintenance building.



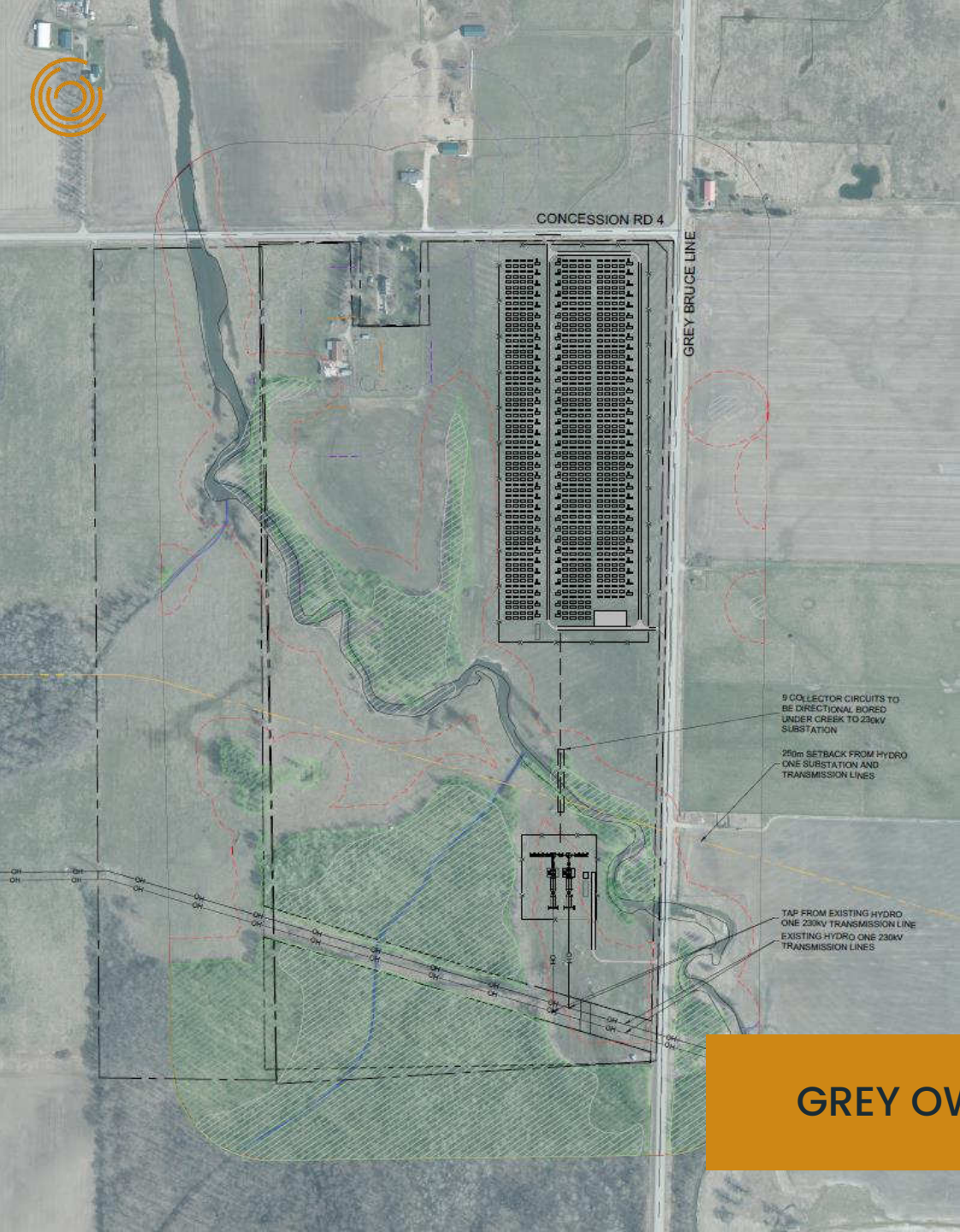
## Containerization

Each 20 ft containers holds up to 6MWh of battery “stacks” connected with DC cables to a main protective device. Also included are communication cables, HVAC and fire safety equipment.



## Fire Safety

Each container is equipped with fire alarms and detection as well as fire suppression. Battery management systems can monitor battery cell temperatures and allow for mitigation through disconnection and HVAC controls.



## THE SOLUTION

# Save it for a rainy day

This project is proposed to be a 400 MW battery energy storage system with 4 hours of capacity (1600 MWh) connected to the 230kV transmission lines. It will sit on roughly 40 acres of land. Each charge of this battery can power 1600 households for an entire month.

**Location:** Southeast Corner of Concession Road 4 and Grey Bruce Line

Why was this location chosen:

- Close to growing populous to provide power locally
- Close to major transmission lines for easy interconnection
- Land that is flat and cleared to cause no new environmental disruptions
- Long major roadway for ease of delivery during construction
- Limited residences affected and can be visually concealed

**GREY OWL STORAGE**



## THE PERKS

# Here's how your community can benefit



Grid Modernization for Greater Reliability



Emission Reduction



Economic Development



Conserving Fresh Water Resources

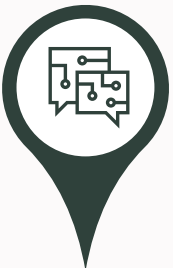


Supporting Community Growth



# Project Timeline

## NEXT STEPS



### LT1 RFP 2023 -2024

- December 2023 – bid into RFP.
- IESO reviews bids and selects winners.
- May 2024 – Contracts are awarded



### Permitting 2024-2025

- 12-18 Months for HONI and IESO studies.
- 6-12 Months for MTF Class EA studies.
- 6 Months for local permitting and zoning amendments.



### Planning 2025-2026

- HONI starts interconnection construction.
- Procurement of major material and equipment.
- Contractor selection.



### Construction 2026-2027

- Site access, earthworks, fencing and foundations
- Electrical and mechanical equipment installation.
- Commissioning, site clean-up and landscaping.



### Operations 2027

- 20-year operations period.
- Limited on-site personnel. Off-site monitoring.
- Decommissioning and site restoration.





# Questions?



## MAILING ADDRESS

A-56 Mill Street East, Unit 183  
Acton, Ontario  
CANADA  
L7J 1H3



## OUR WEBSITE

<https://www.shiftsolar.ca/grey-owl-storage>



## AVAILABILITY

Monday – Friday  
8:00 – 5:00 PM EST



## GET IN TOUCH

[info@shiftsolar.ca](mailto:info@shiftsolar.ca)





## Meeting Attendance

### Details

Date: Thursday Nov 2, 2023

Location: Tara Community Ctr

Subject: Grey Owl Storage Project - 400MW Battery Energy Storage

No.	Name	Preferred Contact Info (Email or Mailing Address)
1	John Cookman	JG.Cookman@gmail.com
2	Vince LeBel	vincentvlebel@gmail.com
3	JEFF SHERMAN	jeffandlenoresherman@gmail.com
4	Carol McMullen	carolmullen37@gmail.com
5	Jim Deemert	
6	Tammy & Frank Petch	thepetchs@gmail.com
7	Moiksen Penner	
8	Peter Steinacker	psteinacker@bells.net
9	Walter Bonta	IRRH / D Bonta
10	Natalie Munkler	
11	Derek Munkler	
12	AL COWAN	ALCOWAN@CBTEL.CA
13	Amy Harrison	amyjharrison@sympatico.ca

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	Name	Contact Info
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15	Sam Sloan	SloanSheep@gmail.com
16	Bred MacDonald	Bredmac31@icloud.com
17	Lydia MacDonald	
18	GRET & SMITH INGLIS	
19	Jake & Jasmin Sloan	SloanSheep@gmail.com
20	Ryann McLean	
21	Jen Shaw	
22	Stu Hill	
23	Jeff Horning	HORNINGJEFF@GMAIL.COM
24	Sylvia Kirkwood	SKIRKWOOD@arran-elderslie.ca
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Total ~~33~~ people  
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## Meeting information

<b>Project No.:</b>	7757006	<b>Client:</b>	Neoen		
<b>Project Title:</b>	Ontario BESS Projects Due Diligence				
<b>Purpose:</b>	Pre-consultation Meeting for Grey Owl BESS with County and Municipal Officials				
<b>Document No:</b>	7757006-000000-4E-ACR-0001-(2024-04-24)-RAA				
<b>Meeting date:</b>	2024-04-24	<b>Start time:</b>	1400 EDT	<b>End time:</b>	1501 EDT
<b>Prepared by:</b>	Foster Karcha	<b>Location:</b>	Online		
<b>Present:</b>					
Name		Company		E-mail address	
Frank (NTD Need last name) (Building Official)		Arran-Elderslie		(NTD Need email)	
Christine Fraser-McDonald (Clerk)		Arran-Elderslie		CFraser@arran-elderslie.ca	
Steve Tiernan (Fire Chief)		Arran-Elderslie		stiernan@arran-elderslie.ca	
Jennifer Burnett (Sr. Development Planner)		Bruce County		JBurnett@brucecounty.on.ca	
Mario De Aguero (Sr. Project Manager)		Neoen		mario.deaguero@neoen.com	
Sacha Lepoutre (Development Project Manager)		Neoen		Sacha.Lepoutre@neoen.com	
Benoit Pinot de Villechenon (Provincial Director)		Neoen		benoit.pinotdevillechenon@neoen.com	
Mustapha Qureshi (Sr. Project Manager)		Neoen		mustapha.qureshi@neoen.com	
Vincent Clément (Project Manager)		BBA		Vincent.clement@bba.ca	
Foster Karcha (Sr. Env. Professional)		BBA		Foster.karcha@bba.ca	
<b>Distributed to:</b>					
Name		Company		E-mail address	
Pat Johnston (Chief Building Official)		Arran-Elderslie		PJohnston@arran-elderslie.ca	
Sylvia Kirkwood (Chief Administrative Officer)		Arran-Elderslie		SKirkwood@arran-elderslie.ca	
<b>Comments</b>					



## Meeting minutes

#	Description / Comments / Discussion	Action by	Deadline
	Project Information	N/A	N/A
1.	Review of the Project and status (Foster) <ul style="list-style-type: none"><li>Project previously started by Shift Solar, now a subsidiary of Neoen.</li><li>400 MW battery energy storage system (BESS) facility, with associated substation and 520 m of 230 kV transmission line to connect to the existing transmission line.</li><li>Project is in preliminary engineering and environmental investigations.</li><li>Grey Sauble Conservation Authority (GSCA) is also being engaged.</li></ul>		
2.	Review of the LT1 Process (Mario) <ul style="list-style-type: none"><li>Competitive procurement by the Independent Electrical System Operator (IESO) of Ontario for 2.5 GW.</li><li>Previous open house for the public was completed by Shift Solar as part of the LT1 requirements.</li><li>Expected award date is May 10, 2024.</li><li>Project is expected to operate around 25 years with construction starting at the end of 2025.</li></ul>		
3.	Class EA <ul style="list-style-type: none"><li>Project is captured under the Class Environmental Assessment for Transmission Facilities.</li><li>Only preliminary siting work completed to-date.</li><li>Field surveys will be conducted if the Project is awarded by LT1.</li></ul>		
	Arran-Elderslie Discussion	Neoen – Provide UL Fire and Safety Standards for BESS to AE	May 3
4.	Arran-Elderslie (AE) – Fire Suppression Discussion <ul style="list-style-type: none"><li>Chief Tiernan (AE) requested additional information on the final fire suppression system including determining:<ul style="list-style-type: none"><li>Will the project use a wet suppression system?</li><li>Can Neoen confirm there is sufficient space between containers to prevent thermal damage?</li><li>If water will be used on site for suppression, will a berm be established to contain water which may be contaminated?</li></ul></li><li>Chief Tiernan indicated 8-9 tankers to be trucked 10-15 km if additional water is required at site to manage a potential fire.</li><li>Neoen committed to consultation with Chief Tiernan, AE, and Bruce County (BC) while producing the Emergency Response Plan.</li></ul>		



#	Description / Comments / Discussion	Action by	Deadline
5.	<ul style="list-style-type: none"><li>■ Neoen confirms the equipment and facility will conform to UL 9540 and other standards. Neoen will provide a copy to Chief Tiernan</li><li>■ Neoen mentioned that will share to Chief Tiernan more info about Neoen protocols regarding fire safety in BESS facilities.</li><li>■ Christine (AE) indicates that there is no municipal water service to the Grey Owl site.</li></ul> <p>AE – Permitting</p> <ul style="list-style-type: none"><li>■ Frank (AE) confirms a single building permit will be required, as well as a Site Plan Control Application. Site Plan and GCSA approvals need to be in place before building permit can be issued.</li><li>■ Site Plan may include requirements for landscaping or screening.</li><li>■ AE asked about flood risk. Neoen indicated a hydrological study will inform final design to minimize impacts from flooding. Hydrological study has not been completed.</li></ul>	AE to provide Neoen and BBA a copy of the Site Plan Control Application.	May 3
6.	<p>Bruce County Discussion</p> <p>Bruce County – Permitting</p> <ul style="list-style-type: none"><li>■ Jennifer (BC) confirms Section 3 of Zoning Bylaw captures the facility. No county land use changes required.</li></ul> <p>Bruce County – Concerns</p> <ul style="list-style-type: none"><li>■ Jennifer (BC) requested more information on decommissioning surety. Mario (Neoen) confirms that there is a decommissioning agreement as part of the lease with the landowner.</li><li>■ Grey-Bruce line is a high traffic area and there may be community concerns about loss of farmland and visual impacts. Neoen is aware of these concerns from the initial project open house. Grey-Bruce line is shared with Grey County – BC recommends contacting the Transportation Departments of each county for their specific concerns.</li><li>■ Jennifer (BC) identifies the area of a high archaeological concern to the county. BBA clarified that archaeological impacts will be assessed as part of the Class EA process.</li><li>■ BC works with Saugeen Ojibway Nation (SON) for archaeological concerns. BC to send a contact information for SON.</li></ul>	BC to provide contact information for SON, Bruce County transportation, and Grey County transportation.	Completed

**Note:** If no comments are received within ten (10) days following the transmission of these minutes, they will be considered accurate.



## Meeting information

<b>Project No.:</b>	7757017	<b>Client:</b>	Neoen
<b>Project Title:</b>	Grey Owl BESS Class EA approval application		
<b>Purpose:</b>	Pre-consultation Meeting for Grey Owl BESS		
<b>Document No:</b>	7757017-000000-4E-ACR-0001-(2024-06-19)-RAA		
<b>Meeting date:</b>	2024-06-19	<b>Start time:</b>	<b>End time:</b>
<b>Prepared by:</b>	Foster Karcha	<b>Location:</b>	Online
<b>Present:</b>			
Name	Company	E-mail address	
Jennifer Burnett	Bruce County	<a href="mailto:JBurnett@brucecounty.on.ca">JBurnett@brucecounty.on.ca</a>	
Ryan Errington	Bruce County	<a href="mailto:RErrington@brucecounty.on.ca">RErrington@brucecounty.on.ca</a>	
Sylvia Kirkwood	Arran-Elderslie	<a href="mailto:SKirkwood@arran-elderslie.ca">SKirkwood@arran-elderslie.ca</a>	
Steve Tiernan	Arran-Elderslie	<a href="mailto:STiernan@arran-elderslie.ca">STiernan@arran-elderslie.ca</a>	
Christine Fraser-McDonald	Arran-Elderslie	<a href="mailto:CFraser@arran-elderslie.ca">CFraser@arran-elderslie.ca</a>	
MacLean Plewes	Grey Sauble Conservation Authority	<a href="mailto:m.plewes@greysauble.on.ca">m.plewes@greysauble.on.ca</a>	
Nicole MacArthur	Grey Sauble Conservation Authority	<a href="mailto:n.mcarthur@greysauble.on.ca">n.mcarthur@greysauble.on.ca</a>	
Mario De Aguero	Neoen	<a href="mailto:Mario.deaguero@neoen.com">Mario.deaguero@neoen.com</a>	
Carlos Garcia	Neoen	<a href="mailto:Carlos.Garcia@neoen.com">Carlos.Garcia@neoen.com</a>	
Mustapha Qureshi	Neoen	<a href="mailto:Mustapha.Qureshi@neoen.com">Mustapha.Qureshi@neoen.com</a>	
Vincent Clément	BBA	<a href="mailto:Vincent.clement@bba.ca">Vincent.clement@bba.ca</a>	
Foster Karcha	BBA	<a href="mailto:Foster.karcha@bba.ca">Foster.karcha@bba.ca</a>	
Jason Day	BBA	<a href="mailto:Jason.day@bba.ca">Jason.day@bba.ca</a>	
<b>Distributed to:</b>			
Name	Company	E-mail address	
Scott McLeod	Arran-Elderslie	<a href="mailto:smcleod@arran-elderslie.ca">smcleod@arran-elderslie.ca</a>	
Pat Johnston	Arran-Elderslie	<a href="mailto:pjohnston@arran-elderslie.ca">pjohnston@arran-elderslie.ca</a>	
<b>Comments</b>			





## Meeting minutes

#	Description / Comments / Discussion	Action by	Deadline
1.	Introduction	N/A	N/A
2.	Presentation by Vincent and Mario. Attached.	N/A	N/A
3.	<p>Bruce County</p> <ul style="list-style-type: none"><li>Setbacks from highway, and side road appear to meet requirements, and a traffic impact assessment is not required.</li><li>County likes that access is not off Bruce-Grey line.</li><li>No anticipated impacts to ditches.</li><li>Based on a secondary review, Bruce County no longer believe Section 3.1.1 of the Arran-Elderslie Zoning Bylaw is applicable. An Official Plan amendment is required.</li><li>Official Plan amendments have a target timeline of 120 days that would include time to circulate the information, implement public meetings and a 2-3 week period to modify the by-law.<ul style="list-style-type: none"><li>Bruce County By-laws required an Environmental Impact Statement (EIS). BBA to provide Class EA requirements to Bruce County, and list of field assessments planned.</li><li>Agricultural Impact Assessment (AIA) will be required. BBA noted that the IESO refers to the Ministry of Agriculture, Food and Agribusiness AIA's document guideline document (<a href="#">Guidance Document for Agricultural Impact Assessments</a>) for municipal application. BC to provide a copy of what they expect for AIA.</li><li>A separate Planning Justification Report will be required due to special use of Agriculture and Environmental Protection zones.</li><li>Stormwater Management Plans and a post-construction and end-of-life Decommissioning Plan are also expected.</li><li>A Zoning By-Law Amendment should be filed before the Official Plan Amendment but will be processed in tandem.</li><li>No concerns with obtaining Official Plan amendment if Zoning By-law change is approved by Arran-Elderslie.</li></ul></li><li>BBA brought concerns regarding potential of Bill 109 preventing the completion of an Official Plan Amendment.</li></ul>	<p>BBA – Provide Class EA and list of field assessments</p> <p>Bruce County – Provide Neoen and BBA their AIA requirements.</p> <p>BBA – Will provide further details on concerns.</p>	<p>June 28</p> <p>July 5</p> <p>June 28</p>



#	Description / Comments / Discussion	Action by	Deadline
4.	<p>Grey Sauble Conservation Authority (GSCA)</p> <ul style="list-style-type: none"><li>GSCA requires doing a new hydrological study to verify the flood plain. Boundaries available publicly from an older 1999 study.</li><li>GSCA policy approach is to direct developments outside of the flood plain. Any applications for projects within flood plains (non-compliant with policy) must go to the Board of Directors for approval.<ul style="list-style-type: none"><li>A hearing would be held with information considered from Neoen and provided by GSCA staff.</li><li>If an application is denied, further appeal would go to the Land Tribunal Board.</li></ul></li><li>Flood plain is a 1-zone (i.e., entire area considered floodway). A 2-zone (floodway and flood fringe separated) are only typically in urban zones with existing development in the flood fringe.</li><li>Comments on the project with associated policy guidance from GSCA is expected shortly.</li></ul>	GSCA – Project comments and policy guidance	July 5
5.	<p>Municipality of Arran-Elderslie (AE)</p> <ul style="list-style-type: none"><li>Discussion of Fire Suppression concerns.<ul style="list-style-type: none"><li>Neoen confirmed that the Project will want to avoid water use. First mitigation will be increasing separation distance from safety standard minimum of 6 inches to 20 inches. Second is the installation of inert gas suppression systems and foam suppression systems.</li><li>Neoen committed to continued discussion on the Emergency Response Plan and fire suppression design. Details will be shared with AE as needed.</li></ul></li><li>AE noted that a Site-Specific zoning will be required to allow the development on EP and Ag zoned lands.</li><li>AE noted that they consider the Project to be big, so do not consider Section 3.1.1 of the Arran-Elderslie Zoning Bylaw applicable. Additionally, AE obtained a legal opinion to confirm their interpretation.</li><li>AE considers that justifications of impacts to Prime Agricultural land and EP zones will be difficult to justify. Based on comments heard so far from the public, meeting with the public and in council may be challenging.</li></ul>	N/A	N/A



#	Description / Comments / Discussion	Action by	Deadline
	<ul style="list-style-type: none"><li>Concerned about the visual impact from the roadside. AE uses a software (Utopia) developing visual studies. AE will be willing to test the site in this software.</li><li>AE requires that the storm water management plan summary be presented to the council as part of the approval process.</li><li>Do not anticipate any traffic concerns.</li></ul>		

**Note:** If no comments are received within ten (10) days following the transmission of these minutes, they will be considered accurate.

**Meeting Date:** 2024-08-13

**Location:** NEOEN Grey Owl BESS Proposed Project Site – Township Road 4 and Grey-Bruce Line Road

**Attendees:**

**Neoen:** Mario De Aguero and Mustapha Qureshi

**Indigenous and Community Engagement (ICE)–** Karen Heisler

**Grey Sauble Conservation Authority (GSCA):**

Manager of Environmental Planning – Mac Plewes

Planning Technician – Nicole McArthur

**Municipality of Arran-Elderslie:**

Chief Administrative Officer – Emily Dance

Fire Chief – Steven Tiernan

Chief Building Official – Patrick Johnston

Clerk - Christine Fraser-McDonald

**Bruce County Planning:**

Senior Development Planner - Jennifer Burnett

**Meeting Description**

Neoen organized a site visit to the property of the proposed Grey Owl BESS Project. Staff from the Grey Sauble Conservation Authority, the Municipality of Arran-Elderslie, Bruce County Planning, and ICE attended. The purpose of the meeting was to introduce the project to the municipal level and regional level planning and approvals authorities, ask questions regarding planning policies, regulations and decision processes. Attendees were provided with information regarding the company, the proposed project, specific information regarding site plans, and operations, and were given the opportunity to ask questions.

**Summary of Discussion**

Neoen staff provided a brief summary of the project, size, site plans and considerations for development. They explained that as part of the project they will be applying to develop a connecting transmission line to connect to the HydroOne Transmission Line and that a Class EA will be required for the transmission line.

Neoen asked for clarifying information regarding the permitting and approvals relationship between Bruce County and the Municipality of Arran-Elderslie. Bruce County planning explained that Bruce County is responsible for county and municipal official plan amendments (OPA),

changes to zoning and site plan approvals. The municipality is responsible for building permits and any requirements related to fire safety.

Neoen asked for clarifying information regarding the role and responsibilities of the Grey Sauble Conservation Authority (GSCA). GSCA is responsible for protecting the provincial interest in the protection of the watershed. The property contains natural hazard zones along a waterway, which comes under the jurisdiction of the conservation authority. The natural hazard zone triggers the need for a Flood Plan Study. The Conservation Authority is also a designated reviewer of the environmental study which will be required by Bruce County.

At a high level, we discussed GSCA's role as a commenting agency with respect to planning applications as required by Bruce County. In this respect, GSCA is commenting on provincial interests related to natural hazards as outlined in Section 3 of 2020 Provincial Policy Statement. GSCA is also a regulatory authority under Section 28 of Conservation Authorities Act. GSCA is responsible for administering Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits. Under this regulation permission is required from GSCA for development activity within the prohibited areas described in the regulation and the Act. Discussed onsite is GSCA's concern related to the floodplain of the Sauble River and concerns about the potential for the project to encroach into the floodplain. It was noted that the regulatory flood for the Sauble River is the 100-year flood event and that an engineered floodplain study is required to identify the floodplain limit. Pre-consultation comments from GSCA have noted this as well. The project proponent noted that a Terms of Reference for the study would be sent to GSCA in the near future.

Bruce County Planning will provide a list of all technical studies required for the OPA application<sup>1</sup>. The Municipality of Arran-Elderslie Building department will be responsible for issuing any building permits and inspections once construction commences. The official plan, zoning and site plan must be approved by the County prior to applications for building permits.

Bruce County Planning and the municipality expressed there is concern on the visual impact of the project on the rural character of the area, environment protection, fire safety concerns and impact on agricultural lands.

Bruce County requires the archaeological assessment report to be accepted by the Saugeen Ojibway Nation Environment Office (SON EO). Neoen should contact the SON EO for specific information regarding archaeological assessment policies.

It is recommended by Bruce County Planning that for the public open house Neoen have all technical studies completed and communication materials prepared to address frequently asked questions. If possible, follow-up directly with the participants from the public meeting that was

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<sup>1</sup> Bruce County provided a list of required technical studies and plans by email on August 23, 2024.

held about the project in 2023. It was also suggested that a timeline be provided and meeting directly with neighbors to discuss concerns one-on-one.

Specific questions were asked by attendees regarding fire safety planning and emergency access to the battery storage containers and the size and shape of the containers. The Municipality of Arran-Elderslie Fire Chief asked for information regarding access to the containers by firefighting equipment to contain a possible storage container fire. Neon explained that there is space between the container rows for access. The Fire Chief explained the water needs for fire safety and the need to consult with neighbouring fire departments that may be required to assist in the case of a fire.

### **Actions**

- 1. Bruce County Planning will confirm that the list of required technical studies has been sent to Neoen<sup>2</sup>.**
- 2. Neoen and ICE will provide a list of rightsholders and stakeholders to be contacted for engagement to Bruce County Planning and the Municipality of Arran-Elderslie staff for review and comment<sup>3</sup>.**

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<sup>2</sup> See footnote 1

<sup>3</sup> List was provided by Neoen on August 28, 2024. Bruce county replied suggesting that the list of Stakeholder should include the Municipality of Chatsworth.



**From:** [Mario De Agüero](#)  
**To:** [Brittany Morrison](#)  
**Subject:** RV: Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation  
**Attachments:** [Consultation letter SFN\\_signed.pdf](#); [General map Grey Owl vf.pdf](#); [Notification Letter Grey Owl Battery Energy Storage System Project UPDATED\\_07042024 signed.pdf](#);  
**Sent:** 2024-09-06 11:23:46 AM

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**Follow Up Flag:** Follow up  
**Flag Status:** Completed  
FYI

Mario

---

**De:** Mario De Agüero  
**Enviado el:** miércoles, 4 de septiembre de 2024 06:02 p. m.  
**Para:** [sfn@saugeen.org](mailto:sfn@saugeen.org)  
**CC:** Benoît Pinot de Villechenon <[benoit.pinotdevillechenon@neoen.com](mailto:benoit.pinotdevillechenon@neoen.com)>; Heather.swan@indigenousengagement.ca; karenheisler <[karen.heisler@indigenousengagement.ca](mailto:karen.heisler@indigenousengagement.ca)>; michael.fox@indigenousengagement.ca; Alexandra Clarke <[alexandra.clarke@indigenousengagement.ca](mailto:alexandra.clarke@indigenousengagement.ca)>  
**Asunto:** Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation

Good afternoon,

We are writing to provide some information about the Grey Owl Battery Energy Storage System (BESS), a project that Neoen is developing in Arran-Elderslie Municipality and to inquire about interest in having an introductory meeting to start discussions about the project and to learn more about you, your interests and how best to work together.

Attached you will find a letter with more information about the project and the company.

I have copied Indigenous and Community Engagement Inc. (ICE), who will be assisting us throughout the consultation process.

If you have any questions, please feel free to reach out. Additionally, let me know your availability to schedule a meeting at your convenience.

Best regards,  
**Mario de Agüero**  
Senior Project Manager  
Ontario, Canada



M. +1 (647) 455-0877  
Suite 315, 150 King Street West  
Toronto, ON, M5H 1J9

**From:** [Mario De Agüero](#)  
**To:** [Brittany Morrison](#)  
**Subject:** RV: Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation  
**Attachments:** [Consultation Letter CNUFN\\_signed.pdf](#); [General map Grey Owl vf.pdf](#); [Notification Letter Grey Owl Battery Energy Storage System Project UPDATED\\_07042024 signed.pdf](#);  
**Sent:** 2024-09-06 11:23:35 AM

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**Follow Up Flag:** Follow up  
**Flag Status:** Completed  
FYI

Mario

---

**De:** Mario De Agüero  
**Enviado el:** miércoles, 4 de septiembre de 2024 05:54 p. m.  
**Para:** sao@nawash.ca  
**CC:** Benoît Pinot de Villechenon <benoit.pinotdevillechenon@neoen.com>; Heather.swan@indigenousengagement.ca; karenheisler <karen.heisler@indigenousengagement.ca>; michael.fox@indigenousengagement.ca; Alexandra Clarke <alexandra.clarke@indigenousengagement.ca>  
**Asunto:** Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation

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Toronto, ON, M5H 1J9

**From:** [Mario De Agüero](#)  
**To:** [Brittany Morrison](#)  
**Subject:** RV: Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation  
**Attachments:** [Consultation Letter SON\\_signed.pdf](#); [General map Grey Owl vf.pdf](#); [Notification Letter Grey Owl Battery Energy Storage System Project UPDATED\\_07042024 signed.pdf](#);  
**Sent:** 2024-09-06 11:23:21 AM

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**Follow Up Flag:** Follow up  
**Flag Status:** Completed  
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Mario

---

**De:** Mario De Agüero  
**Enviado el:** miércoles, 4 de septiembre de 2024 05:47 p. m.  
**Para:** [environmentoffice@saugeenojibwaynation.ca](mailto:environmentoffice@saugeenojibwaynation.ca)  
**CC:** Benoît Pinot de Villechenon <[benoit.pinotdevillechenon@neoen.com](mailto:benoit.pinotdevillechenon@neoen.com)>; Heather.swan@indigenouseengagement.ca; karenheisler <[karen.heisler@indigenouseengagement.ca](mailto:karen.heisler@indigenouseengagement.ca)>; michael.fox@indigenouseengagement.ca; Alexandra Clarke <[alexandra.clarke@indigenouseengagement.ca](mailto:alexandra.clarke@indigenouseengagement.ca)>  
**Asunto:** Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation

Good afternoon,

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Attached you will find a letter with more information about the project and the company.

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If you have any questions, please feel free to reach out. Additionally, let me know your availability to schedule a meeting at your convenience.

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**Mario de Agüero**  
Senior Project Manager  
Ontario, Canada



M. +1 (647) 455-0877  
Suite 315, 150 King Street West  
Toronto, ON, M5H 1J9

**From:** [Mario De Aguero](#)  
**To:** [Brittany Morrison](#)  
**Subject:** RV: Grey Owl Battery Energy Storage System Project - Consultation  
**Attachments:** [Consultation Letter GBMC MNO7\\_signed.pdf](#); [General map Grey Owl vf.pdf](#); [Notification Letter Grey Owl Battery Energy Storage System Project UPDATED\\_07042024 signed.pdf](#);  
**Sent:** 2024-09-06 11:23:03 AM

---

**Follow Up Flag:** Follow up  
**Flag Status:** Completed  
FYI

Mario

---

**De:** Mario De Aguero <mario.deaguero@neoen.com>  
**Enviado el:** miércoles, 4 de septiembre de 2024 05:11 p. m.  
**Para:** Ethan Roy <EthanR@metisnation.org>; consultations@metisnation.org  
**CC:** Benoît Pinot de Villechenon <benoit.pinotdevillechenon@neoen.com>; Heather.swan@indigenousengagement.ca; karenheisler <karen.heisler@indigenousengagement.ca>; michael.fox@indigenousengagement.ca; Alexandra Clarke <alexandra.clarke@indigenousengagement.ca>  
**Asunto:** RE: Grey Owl Battery Energy Storage System Project - Consultation

Hi Ethan,

Thank you for following up and for your patience. Please find attached our official letter to initiate the consultation process for the Grey Owl Battery Storage project we are developing in the Arran-Elderslie municipality.

I have copied Indigenous and Community Engagement Inc. (ICE), who will be assisting us throughout the consultation process.

If you have any questions, please feel free to reach out. Additionally, let me know your availability to schedule a meeting at your convenience.

Best regards,  
Mario

---

**De:** Ethan Roy <[EthanR@metisnation.org](mailto:EthanR@metisnation.org)>  
**Enviado el:** miércoles, 4 de septiembre de 2024 10:35 a. m.  
**Para:** Mario De Aguero <[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)>  
**CC:** Benoît Pinot de Villechenon <[benoit.pinotdevillechenon@neoen.com](mailto:benoit.pinotdevillechenon@neoen.com)>  
**Asunto:** RE: Grey Owl Battery Energy Storage System Project - Consultation

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Mario,

I just wanted to reach out to you regarding the consultation for the Grey Owl Battery Storage Project. I just wanted to re-iterate the interest of the MNO to engage in consultation.

Thanks,

**Ethan Roy** (he/him)  
Consultation Advisor  
Lands, Resources, and Consultations (LRC) Branch  
Métis Nation of Ontario  
Sault Ste. Marie, ON, Canada  
Email: [ethanr@metisnation.org](mailto:ethanr@metisnation.org)  
Phone: (705) 527 3612  
[www.metisnation.org](http://www.metisnation.org)

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**From:** Mario De Aguero <[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)>  
**Sent:** August 2, 2024 11:28 AM  
**To:** Ethan Roy <[EthanR@metisnation.org](mailto:EthanR@metisnation.org)>

**Cc:** Benoît Pinot de Villechenon <[benoit.pinotdevillechenon@neoen.com](mailto:benoit.pinotdevillechenon@neoen.com)>

**Subject:** RE: Grey Owl Battery Energy Storage System Project - Consultation

Hello Ethan,

Nice to meet you and thanks for reaching out to us.

We will be officially launching the consultation process of the project within the next month. We will be very happy to organize a meeting with you.

I also confirm that we agree on paying the honoraria rates.

I will be out of office until August 7 but happy to continue our discussions next week and start scheduling a meeting.

Have a great weekend.

Sincerely,  
**Mario de Agüero**

Senior Project Manager  
Ontario, Canada

**NEOEN**

M. +1 (647) 455-0877  
Suite 315, 150 King Street West  
Toronto, ON, M5H 1J9

---

**De:** Ethan Roy <[EthanR@metisnation.org](mailto:EthanR@metisnation.org)>

**Enviado el:** martes, 30 de julio de 2024 01:59 p. m.

**Para:** Mario De Aguero <[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)>

**Asunto:** Grey Owl Battery Energy Storage System Project - Consultation

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Mario,

My name is Ethan Roy and I am a consultation advisor working to support the Regional Consultation Committee (RCC) of the Métis Nation of Ontario (MNO). On July 4<sup>th</sup> 2024, the MNO received notice from the Ministry of Energy and Electrification of that Neoen would be undertaking the procedural aspects of the duty to consult for the Grey Owl Battery Energy Storage System Project in the Municipality of Arran-Elderslie.

I shared the project notice from the Ministry of Energy with the RCC and they have asked that I reach out to a representative from Neoen to facilitate a meeting to learn more about the project, and the potential impacts the project will have on the rights, interests, and way of life of Métis people in the area of the project. Members of the RCC are volunteers who act in service of their community, and as such the MNO requests that a honorarium be paid to the consultation committee members in recognition of their time, knowledge, and energy in order to facilitate meaningful engagement. The current rate for honoraria is \$200/member per day (a total of \$1200 + 15% administration fee).

Please let me know if you are available to meet with the RCC in to discuss the project, and if you are agreeable to paying the honoraria to facilitate engagement and consultation on the project.

Thanks,

**Ethan Roy** (he/him)  
Consultation Advisor  
Lands, Resources, and Consultations (LRC) Branch  
Métis Nation of Ontario  
Sault Ste. Marie, ON, Canada  
Email: [ethanr@metisnation.org](mailto:ethanr@metisnation.org)  
Phone: (705) 527 3612  
[www.metisnation.org](http://www.metisnation.org)

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## Location and preliminary layout of Grey Owl Storage project



### Notes:

- 1.- Conceptual and preliminary layout



NEOEN



Ministry of Energy and Electrification

Ministère de l'Énergie et de l'Électricité

Energy Networks and Indigenous Policy  
Branch

Direction Générale des Réseaux  
Énergétiques et des Politiques Autochtones



Indigenous Energy Policy

Politique Énergétique Autochtones

77 Grenville Street, 6<sup>th</sup> Floor

77 Rue Grenville, 6<sup>e</sup> Étage

July 4, 2024

VIA EMAIL

## **Re: Notice – LT1 Contract - Delegation – Grey Owl Battery Storage Project**

Good Afternoon,

This letter is to notify you that the Ministry of Energy and Electrification (ENERGY) has identified your community as one whose Aboriginal or treaty rights protected under section 35 of Canada's *Constitution Act 1982* (s. 35 rights) may be impacted by Neoen's proposed Grey Owl battery energy storage facility (the Project). The Project was successful in the Independent Electricity System Operator's (IESO) Long-Term Request for Proposals (LT1 RFP) process and received an LT1 contract.

On behalf of Ontario, ENERGY has delegated the procedural aspects of Project-related Indigenous consultation to Neoen. ENERGY intends on relying on this delegation in discharging the procedural aspects of its Duty to Consult with your community. Notwithstanding this delegation, ENERGY maintains the right to participate in the consultation process as it sees fit.

Neoen is proposing to develop a proposed 400MW Battery Energy Storage System in the Municipality of Arran-Elderslie. The proposed Project covers approximately six hectares on a 105-acre open-field farmland site and includes the installation of concrete foundations to support the battery enclosures. The project is expected to be in operation in 2028.

If it has not already done so, Neoen will be contacting you to discuss your community's interests in the proposed Project and to understand any potential for adverse impacts to s. 35 rights. I encourage representatives of your community to participate in efforts made by Neoen to consult your community on its proposed project so that you can receive project information and understand if there are any potential impacts on Aboriginal or treaty rights. The consultation process is an opportunity to provide your community's feedback to Neoen and the Crown, including any suggestions or proposals your community might have for mitigating, avoiding or accommodating any potential impacts to Aboriginal or treaty rights.

Under the LT1 contract requirements, Neoen must provide to the IESO a copy of ENERGY's written confirmation of its satisfaction with any delegated procedural aspects of consultation

undertaken by Neoen (Letter of Sufficiency), prior to commencing or carrying out clearing, grading or material alteration of the project site.

Please note that none of the foregoing should be taken to imply approval of this Project. Any records provided to the Crown will be subject to the *Freedom of Information and Protection of Privacy Act*. Please note the records may be exempted from disclosure under section 15.1 (Relations with Aboriginal communities) of the Act. Additionally, please note that the information provided to the Crown may also be subject to disclosure where required under any other applicable laws or as part of litigation or other dispute resolution proceedings.

Ministry officials are available should you wish to contact the Crown directly to discuss specific projects or request additional information. Should you or any members of your community have questions regarding the above, please contact Shannon McCabe, a/Manager, Strategic Indigenous Initiatives at [shannon.mccabe@ontario.ca](mailto:shannon.mccabe@ontario.ca). Please note that none of the foregoing should be taken to imply approval of this project.

Sincerely,

Samir Adkar  
Director  
Energy Networks and Indigenous Policy

Ministry of Energy and Electrification

Ministère de l'Énergie et de l'Électricité

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Branch

Direction Générale des Réseaux  
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July 4, 2024

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Neoen is proposing to develop a proposed 400MW Battery Energy Storage System in the Municipality of Arran-Elderslie. The proposed Project covers approximately six hectares on a 105-acre open-field farmland site and includes the installation of concrete foundations to support the battery enclosures. The project is expected to be in operation in 2028.

If it has not already done so, Neoen will be contacting you to discuss your community's interests in the proposed Project and to understand any potential for adverse impacts to s. 35 rights. I encourage representatives of your community to participate in efforts made by Neoen to consult your community on its proposed project so that you can receive project information and understand if there are any potential impacts on Aboriginal or treaty rights. The consultation process is an opportunity to provide your community's feedback to Neoen and the Crown, including any suggestions or proposals your community might have for mitigating, avoiding or accommodating any potential impacts to Aboriginal or treaty rights.

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Energy Networks and Indigenous Policy

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July 4, 2024

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Neoen is proposing to develop a proposed 400MW Battery Energy Storage System in the Municipality of Arran-Elderslie. The proposed Project covers approximately six hectares on a 105-acre open-field farmland site and includes the installation of concrete foundations to support the battery enclosures. The project is expected to be in operation in 2028.

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Energy Networks and Indigenous Policy



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undertaken by Neoen (Letter of Sufficiency), prior to commencing or carrying out clearing, grading or material alteration of the project site.

Please note that none of the foregoing should be taken to imply approval of this Project. Any records provided to the Crown will be subject to the *Freedom of Information and Protection of Privacy Act*. Please note the records may be exempted from disclosure under section 15.1 (Relations with Aboriginal communities) of the Act. Additionally, please note that the information provided to the Crown may also be subject to disclosure where required under any other applicable laws or as part of litigation or other dispute resolution proceedings.

Ministry officials are available should you wish to contact the Crown directly to discuss specific projects or request additional information. Should you or any members of your community have questions regarding the above, please contact Shannon McCabe, a/Manager, Strategic Indigenous Initiatives at [shannon.mccabe@ontario.ca](mailto:shannon.mccabe@ontario.ca). Please note that none of the foregoing should be taken to imply approval of this project.

Sincerely,

Samir Adkar  
Director  
Energy Networks and Indigenous Policy



Tara Battery Energy Storage System  
Georgian Bay Traditional Territory Consultation Committee (GBTTCC)  
Métis Nation of Ontario Region 7

*October 2, 2024*

We acknowledge that the proposed Tara BESS is located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. We also recognize and respect the traditional relationship to these lands and waters of the Métis Nation of Ontario - Region 7 Communities.

# Agenda

- About Neoen
- Background
- About Battery Energy Storage Systems (BESS)
- Preliminary Design
- BESS Safety
- Development Process
- Benefit Sharing
- Open Discussion



# About Neoen

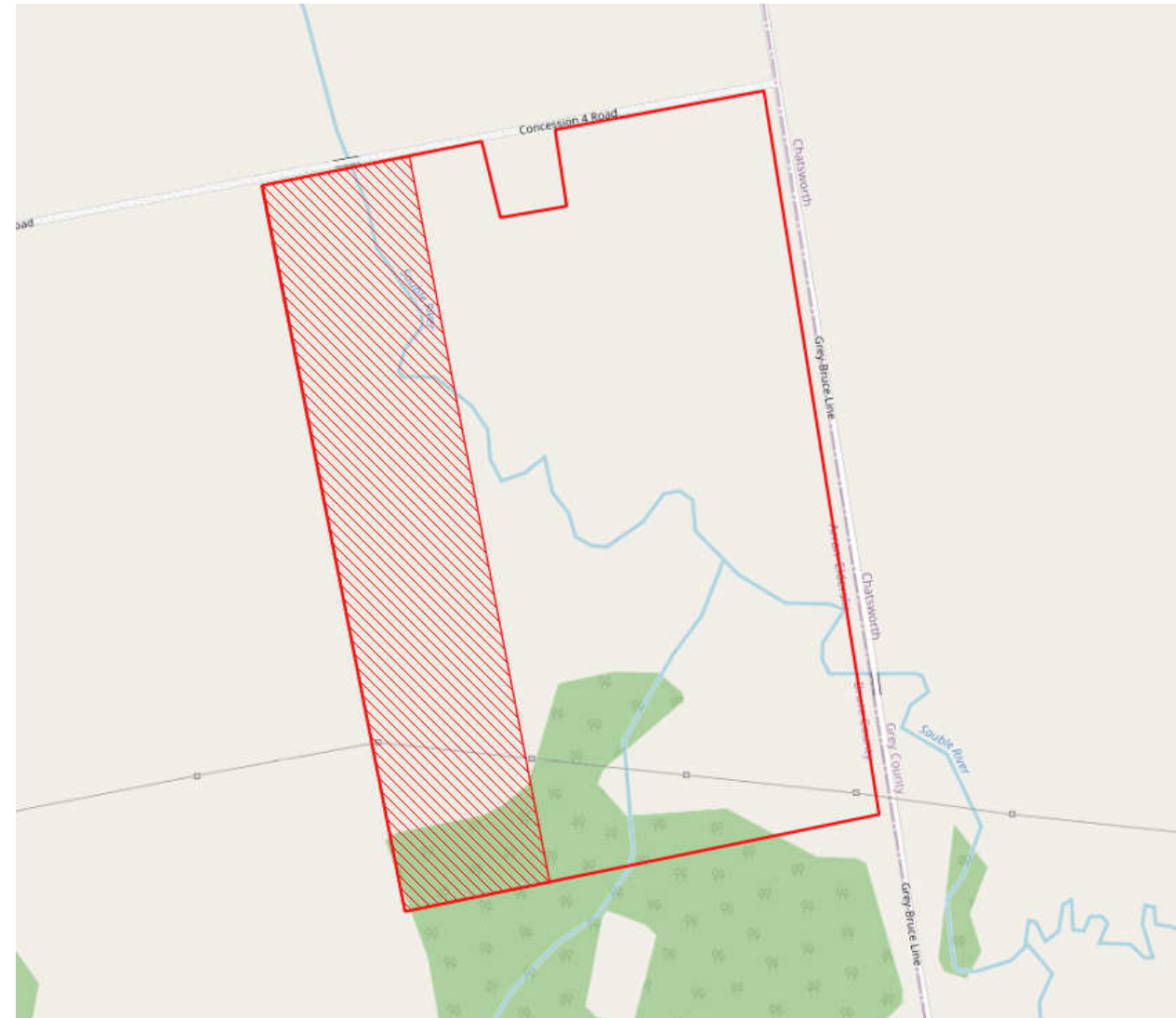
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- Neoen designs, implements, and operates renewable electricity technologies, including solar and wind power, and energy storage solutions.
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- A “long-term developer” that owns more than 90% of its plants.
- Neoen prioritizes safety, environmental protection, meaningful consultation, and benefit-sharing.

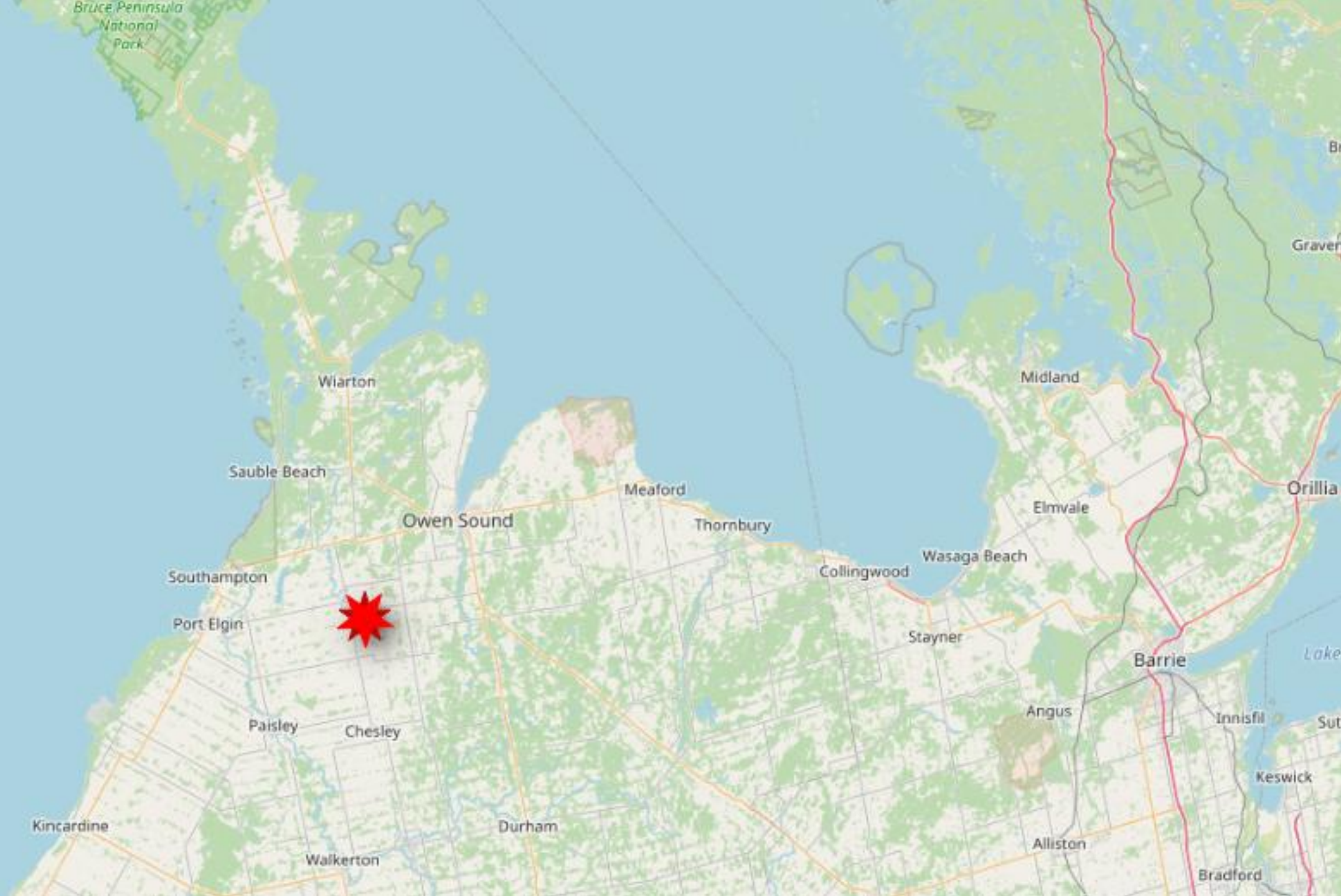




# Background

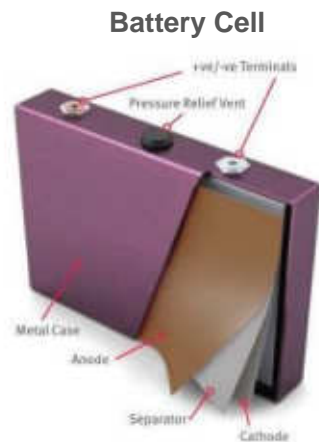
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# What is a BESS?

- Stores electricity in batteries that is delivered to-and-from an electrical grid.
- Enhances grid stability by storing excess energy for use later (typically storing overnight when demand is low and discharging in the evening when demand rises).
- Comprised of battery containers and a substation:
  - Thousands of battery cells placed in trays, organized into modules and stacked in large containers.
  - Fan system and current converter, called an inverter, built-in or attached to containers
  - Substation includes a voltage converter, called a transformer, and transmission lines





# How does a BESS work?



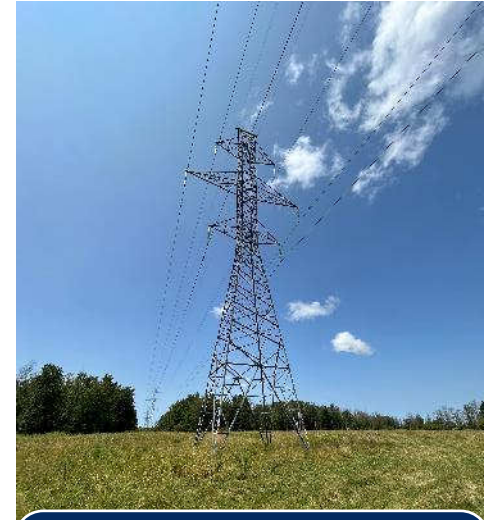
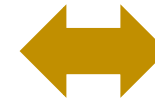
**Container**  
stores direct current (DC)  
power



**Inverter**  
converts DC power to  
alternating current (AC)



**Transformer**  
steps up power from medium  
voltage (MV) to high voltage  
(HV)



**Transmission Lines**  
carry electricity to-and-from  
the BESS







# Preliminary Design

- 400-megawatt (MW), 1600 MWh BESS – capacity equal to the daily energy consumption of ~640,000 households in Ontario
- Preliminary design includes:
  - 418 lithium-ion battery containers
  - 3 transformers (incl. 1 back-up)
  - 5 new steel structures with transmission lines
- Batteries + transformer = ~16 acres
- Transmission lines length = ~450 metres
- Connects to existing 230-kilovolt HV line to the south
- ***Design is preliminary and subject to change***



--- Existing HV Transmission Line



# Why here?

- The proposed location for Tara BESS satisfies the conditions needed to host a BESS, including:
  - Proximity to transmission lines capable of supporting a BESS
  - Suitable terrain
  - Adequate footprint
  - Landowner willingness
  - Construction feasibility (i.e. road access)
  - Proximity to demand

# What to Expect: Construction

- Estimated 1.5 years of construction, including (based on preliminary design):
  - Fence installation
  - Equipment mobilization, trucks, and deliveries
  - Clearing and grading
  - Temporary laydown and parking areas
  - Shallow excavation and pouring of concrete slabs
  - Hoisting of pre-assembled battery containers and transformers
  - Erection of steel structures and transmission lines
  - Electrical connection work
  - Landscaping



# What to Expect: Operations

- One complete charge and discharge cycle each day
- Fans will oscillate to cool the BESS when charging in warm temperatures
- Permanent fence enclosing the containers and substation
- Permanent site office and parking area
- ~10 workers on site per day

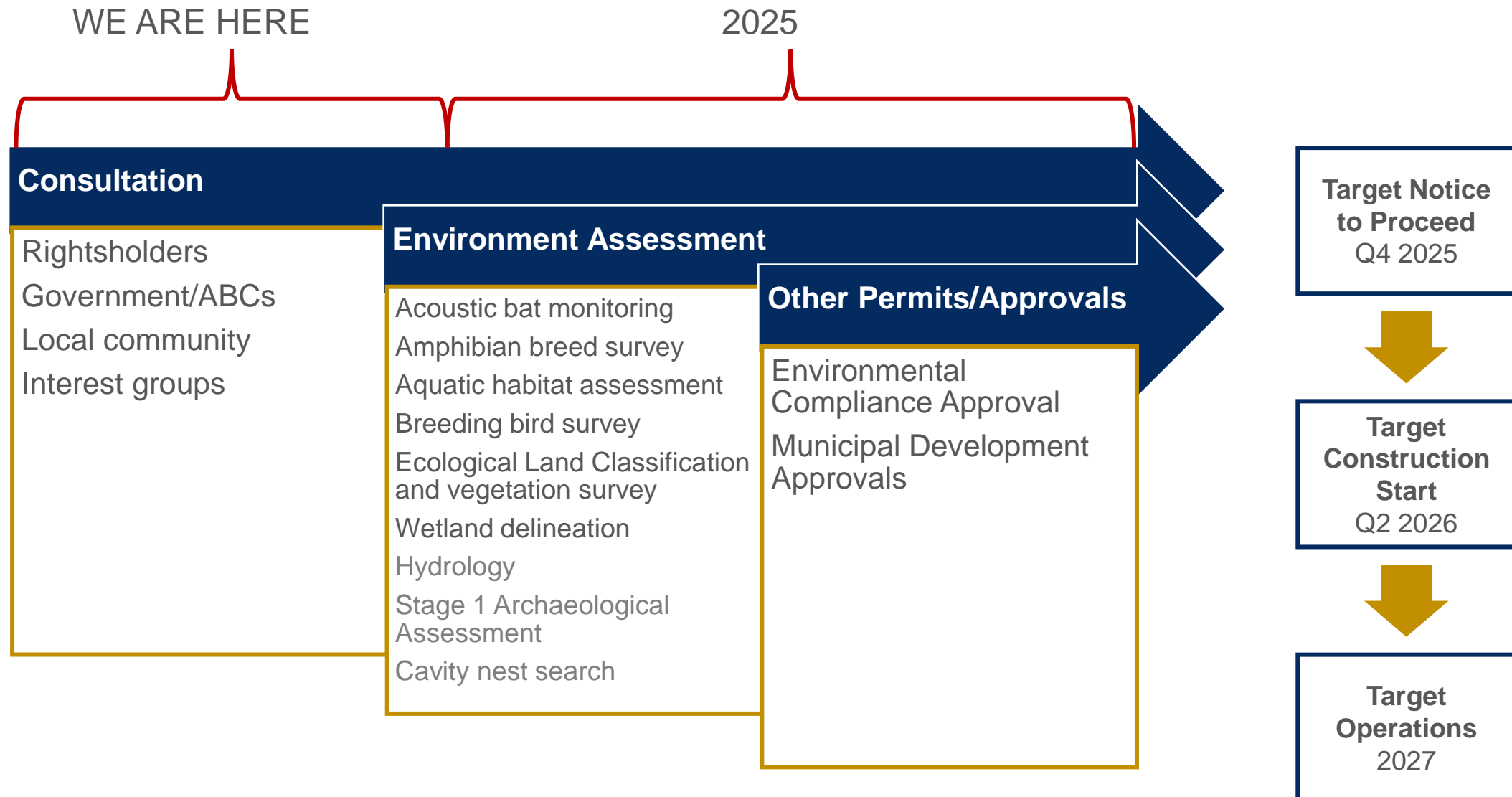




# What are the risks?

- All energy technologies come with potential for hazard.
- For a lithium ion-based BESS, the risks include fire, thermal runaway, or spill event.
- Risk of hazard is mitigated by:
  - Rigorous design and safety features, such as cooling, containment, and suppression systems;
  - A comprehensive safety and response plan, informed by and integrated with local emergency response; and
  - Thorough maintenance, and stringent health and safety protocols.
- Safety is Neoen's first priority – we have engaged local fire services and will work with Rightsholders and stakeholders to develop a detailed safety and emergency response plan for Tara BESS.

# Development Process





# Class Environmental Assessment – what's next?



- Proposed lands are a designated as floodplain
- Hydrology study underway to determine impact



- Two at-risk species identified in vicinity of site:
  - Eastern Meadowlark
  - Red-headed Woodpecker
- Cavity nest search will be conducted by a qualified wildlife biologist



- Stage 1 Archaeological Assessment will be conducted to search for items of cultural heritage or archaeological significance
- Stage 2 Archaeological Assessment may be required



- Noise monitoring has been conducted to establish baseline noise levels
- Receptor-based monitoring will be conducted



May lead to mitigation, including design changes

# Benefit Sharing

- We believe that the communities we work in should share in the benefits of our projects.
- Consultation for Tara BESS will inform a community benefits framework that, subject to project approval, could come into effect as early as commencement of construction.
- Benefits may include vendor opportunities, employment and skills training, environmental initiatives, art installations, and economic benefits.



NEOEN

Thank you!

10129 Hwy 6  
Georgian Bluffs, ON  
N0H2T0  
(519) 534-5507  
saugeenojibwaynation.ca



October 8, 2024

Samir Adkar  
Director, Energy Networks and Indigenous Policy  
Ministry of Energy and Electrification  
77 Grenville Street, 6 th Floor  
Toronto, ON M7A 2C1

VIA EMAIL

Mr. Adkar,

**RE: The Grey Owl Battery Energy Storage Facility**

We write to you regarding the Grey Owl battery energy storage facility (the Project). We understand that the Project's proponent, Neoen, has been awarded a 380 MW/four-hour capacity LT1 contract by the Independent Electricity System Operator (IESO) and we are concerned that a project proposed to be located in the heart of our Territory (Anishnaabekiing) has proceeded to this relatively advanced stage of development in the absence of any meaningful dialogue with the Saugeen Ojibway Nation (SON). We ask, therefore, that you meet with us as soon as possible to address this issue.

Any project proposed in Anishnaabekiing must be brought to our attention at the earliest stages of its development. Our 2010 agreement (the Agreement) with the Ministry of Energy, for example, requires that SON receive notice of a project as soon as the Crown obtains a description from a proponent. The Agreement recognizes that SON has special concerns regarding energy development in an ecologically and culturally sensitive zone defined as the "Peninsula" and that special assurances are required for projects in that area. In fact, the agreement requires that no project in the area proceed until SON and Ontario have an appropriate foundation of data through the completion of a study. This has not yet occurred. The Project is proposed to be located in the Peninsula.

The Agreement also requires that the Ontario Power Authority (OPA) provide SON with regular updates on projects to which the OPA's Economic Connection Test is applied, including each review of energy generation applications. This commitment must apply equally to the IESO to provide similar update regarding projects entering its RFP processes (including battery energy storage projects in LT1) that would be located in Anishnaabekiing. On this basis, SON should have received notice of the Project from IESO in advance of the LT1 contract award to Neoen. We did not receive any such notice.

The Project, like other possible projects that may emerge through the LT1 process, has been advanced in a way that is inconsistent with our Agreement and inconsistent with SON's expectations of meaningful and appropriate engagement and participation in any developments within the SON Territory. We must compare this with SON's recent engagement on the Ontario Pumped Storage Project (OPS) where the proponent approached us at the earliest stages of OPS's development, incorporated our feedback into its design, and sought our partnership through significant equity participation. The Project, like all other

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(519) 534-5507  
saugeenojibwaynation.ca



projects that might come through the LT1 process, are a significant step back from this level of meaningful engagement and are not acceptable to SON.

The general lack of engagement by both the Crown and Neoen raises a number of concerns. Given the unique relationship between SON and the Ministry of Energy we believe a meeting is required between us to address these matters quickly. We request, therefore, that you provide the Ministry's availability for a meeting within the next three weeks to address this important matter.

We await your response and look forward to meeting with you.

Miigwetch,

A handwritten signature in black ink, appearing to read "Ogimaa Gregory Nadjiwon".

Ogimaa Gregory Nadjiwon

A handwritten signature in black ink, appearing to read "Ogimaa Conrad Ritchie".

Ogimaa Conrad Ritchie

Chief, Chippewas of Nawash Unceded First Nation    Chief, Chippewas of Saugeen First Nation

cc:

Stephen Lecce, Minister, Ministry of Energy and Electrification

Chuck Farmer, Independent Electricity System Operator

Mike Lyle, Independent Electricity System Operator

Mario de Agüero, Senior Project Manager, Neoen

Benoît Pinot de Villechenon, Province Director, Ontario, Neoen

Karen Heisler, Indigenous Research and Engagement Specialist, ICE Indigenous & Community Engagement



# NEOEN



Tara Battery Energy Storage System

*October 18, 2024*



We acknowledge that the proposed Tara BESS is located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. We also recognize and respect the traditional relationship to these lands and waters of the Métis Nation of Ontario - Region 7 Communities.

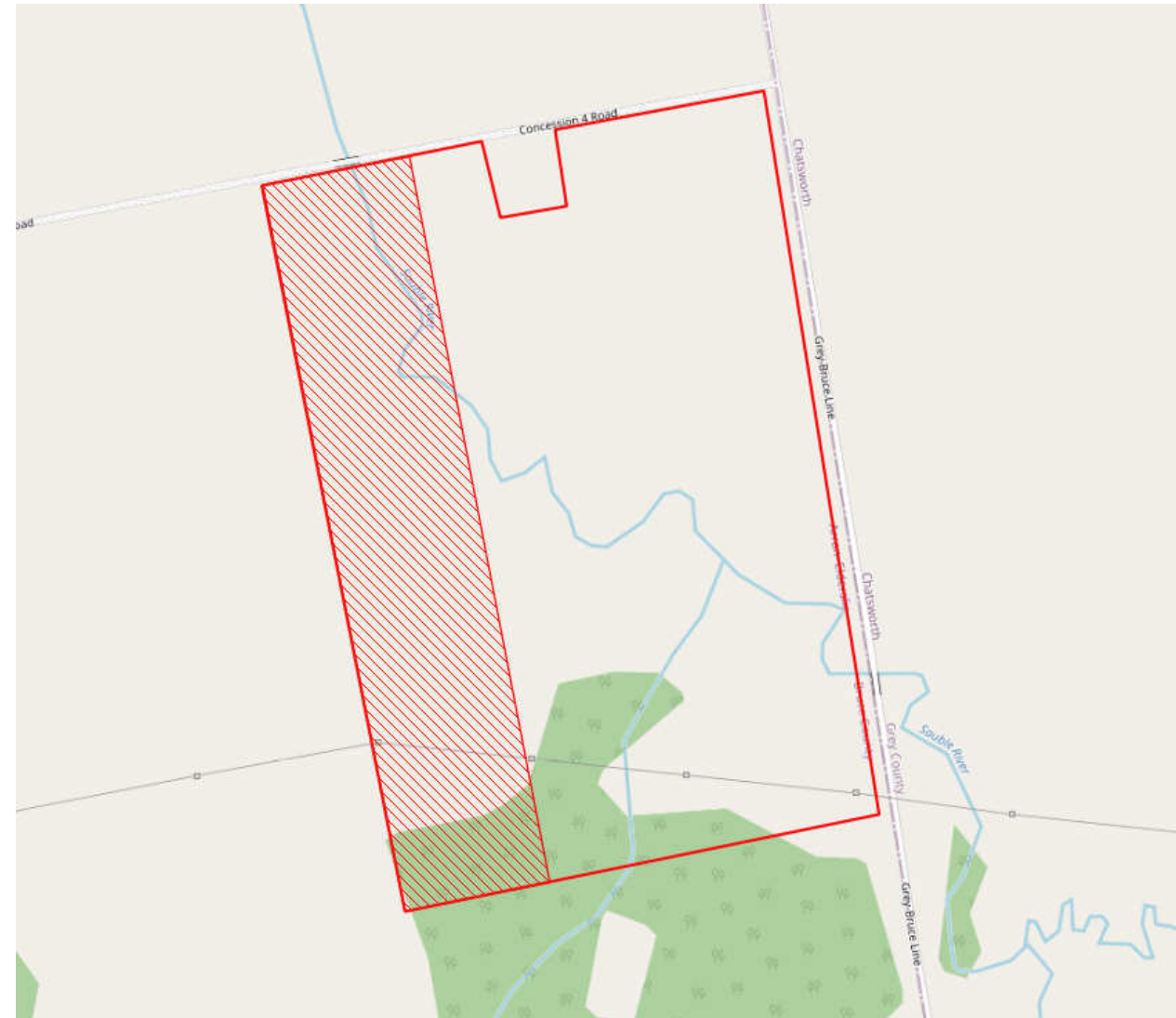
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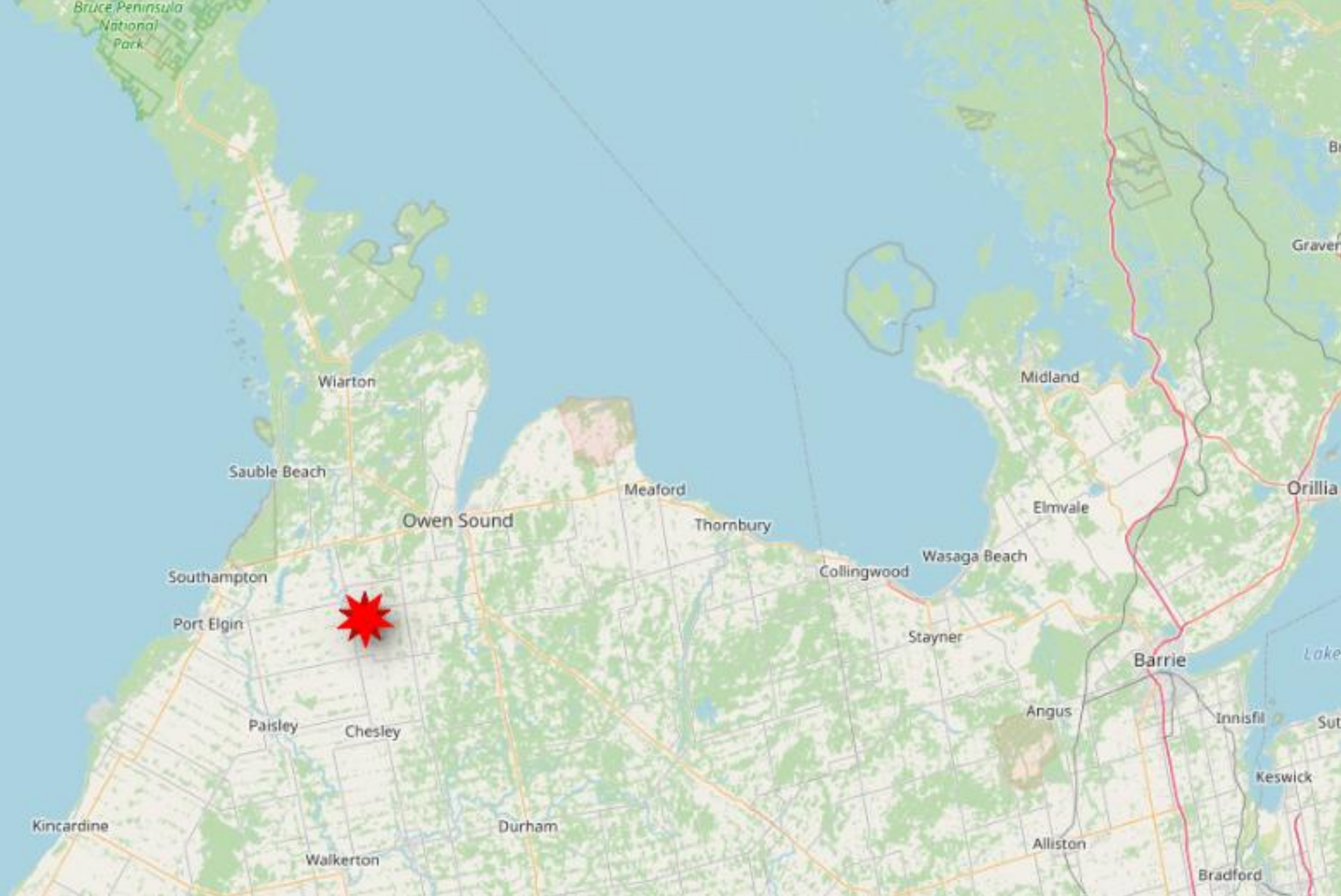
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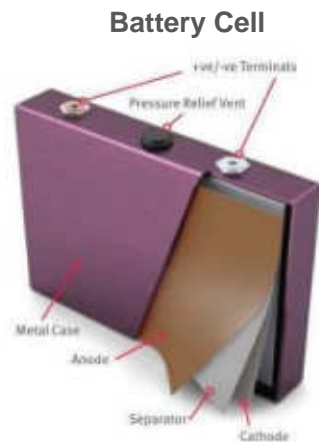
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- 400-megawatt (MW), 1600 MWh BESS – capacity equal to the daily energy consumption of ~640,000 households in Ontario
- Preliminary design:
  - 418 lithium-ion battery containers
  - 3 transformers (incl. 1 back-up)
  - 5 new steel structures with transmission lines
- Batteries + transformer = ~16 acres
- Transmission lines length = ~450 metres
- Connects to existing 230-kilovolt HV line to the south
- ***Preliminary and subject to change***



# What is a BESS?

- Stores electricity in batteries that is delivered to-and-from an electrical grid.
- Enhances grid stability by storing excess energy for use later (typically storing overnight when demand is low and discharging in the evening when demand rises).
- Comprised of battery containers and a substation:
  - Thousands of battery cells placed in trays, organized into modules and stacked in large containers.
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# How does a BESS work?



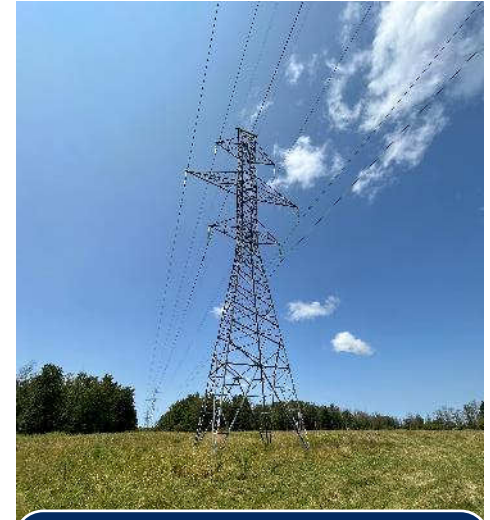
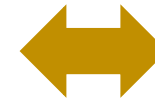
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power



**Inverter**  
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**Transformer**  
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voltage (MV) to high voltage  
(HV)



**Transmission Lines**  
carry electricity to-and-from  
the BESS







# What to Expect: Construction

- Estimated 1.5 years of construction, including (based on preliminary design):
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# What to Expect: Operations

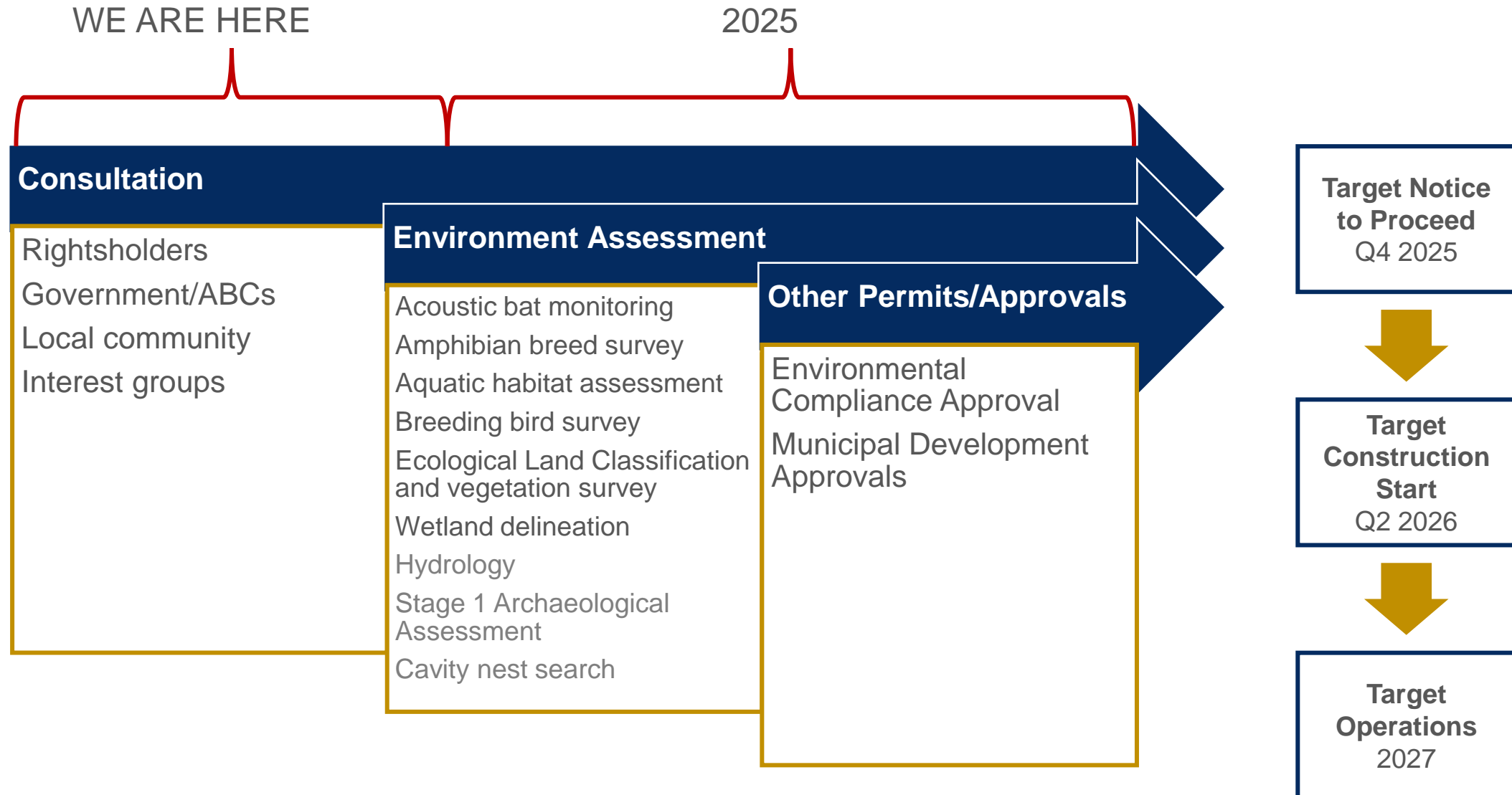
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- Permanent site office and parking area
- ~10 workers on site per day







# Development Process



# Benefit Sharing

- We believe that the communities we work in should share in the benefits of our projects.
- Consultation for Tara BESS will inform a community benefits framework that, subject to project approval, could come into effect as early as commencement of construction.
- Benefits may include vendor opportunities, employment and skills training, environmental initiatives, art installations, and economic benefits.



NEOEN

Thank you!



Arran-Elderslie Fire Coordination  
Tara BESS

*November 12, 2024*

We acknowledge that Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. We also acknowledge that the lands form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities.



# Contents

- Tara BESS Project Update
- BESS Technology
- BESS Safety and Potential Hazards
- Emergency Preparedness and Response Coordination

# Tara BESS



# About Neoen

- Founded in 2008, Neoen is an independent producer of renewable energy.
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- > 8 GW of power in operation or under construction across 15 countries.
- Neoen owns and operates its facilities for the long-term.



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- Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600-megawatt hour (MWh) battery energy storage system (BESS) proposed for lands located at 39 Concession Road 4, in the Municipality of Arran-Elderslie.
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- Neoen is now exclusively leading development of the Tara BESS project



Tara

Tara Siding

Invermay

Arranvale

Keady

Grey Bruce Line

Grey Bruce Line

& Biscuit



**TARA**  
BATTERY

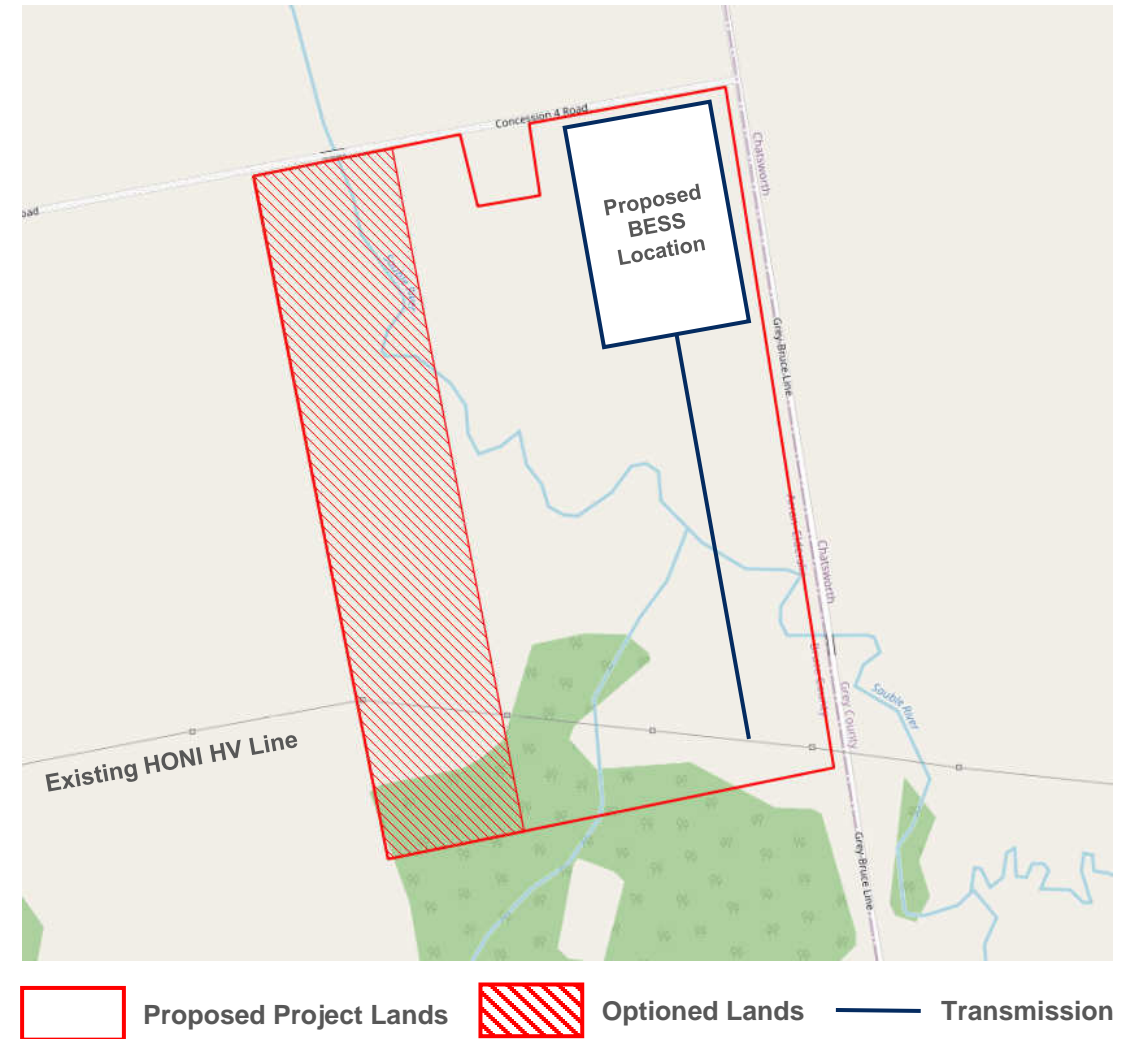


# Project Lifecycle - Ontario



# Preliminary Design

- 400-megawatt (MW) | 1600 MWh BESS
  - Capable of discharging 400 MW of electricity for four (4) hours
  - Capacity equal to the daily energy consumption of ~640,000 households in Ontario
- Preliminary design
  - 420 lithium-ion battery containers
  - 3 transformers (incl. 1 back-up)
  - ~5 new steel structures with transmission lines
- Estimated footprint
  - Battery containers and transformer station = ~16 acres
  - Transmission lines = ~450 metres
- Proposed to connect to the existing 230-kilovolt high-voltage line to the south
- *Preliminary and subject to change*



# Target Project Timeline

Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027 - 2047
Project Development												
Consultation												
		Permitting and Approvals										
						Construction						
						Community Engagement						
												Operations

# BESS Technology

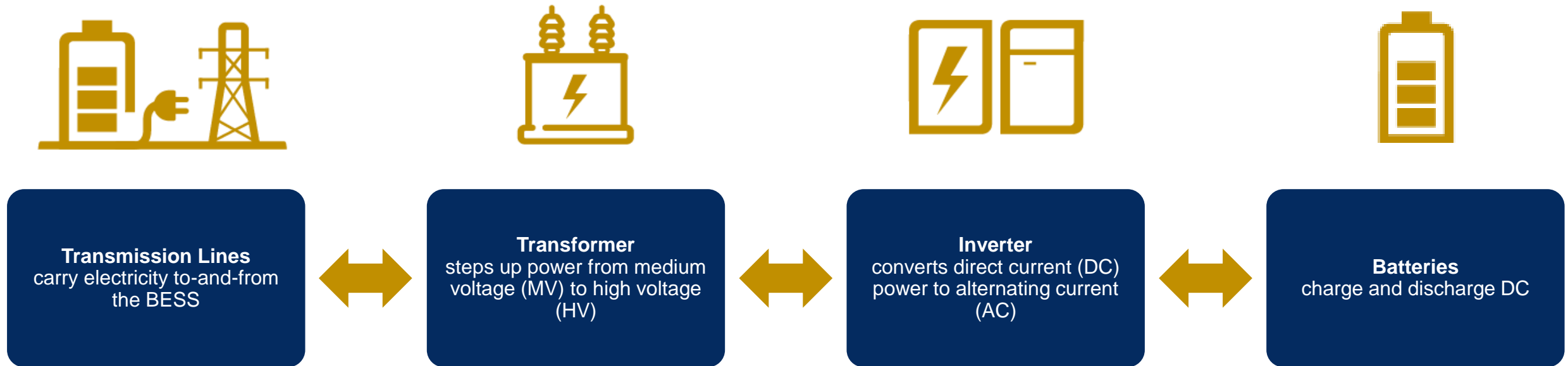


# Battery Energy Storage Technology

- Electricity is stored in batteries and discharged to an electrical grid.
- Typically charges overnight when demand is low and discharges when demand rises.
- A BESS can standalone or support another renewable technology.
- Components include:
  - Thousands of battery cells organized into modules placed on racks in large steel containers
  - Inverters to convert current
  - Fans to cool the batteries during charging
  - Transformers and substation to convert voltage
  - SCADA system to operate the BESS



# Standalone BESS Functionality



# Neoen BESS Facilities in Australia

## HORNSDALE POWER RESERVE

Our 150MW battery outside Jamestown, South Australia  
co-located with Hornsdale Wind Farm



## VICTORIAN BIG BATTERY

Our 300MW battery near Geelong, Victoria  
that is currently in development



# BESS Safety



# BESS Potential Hazards

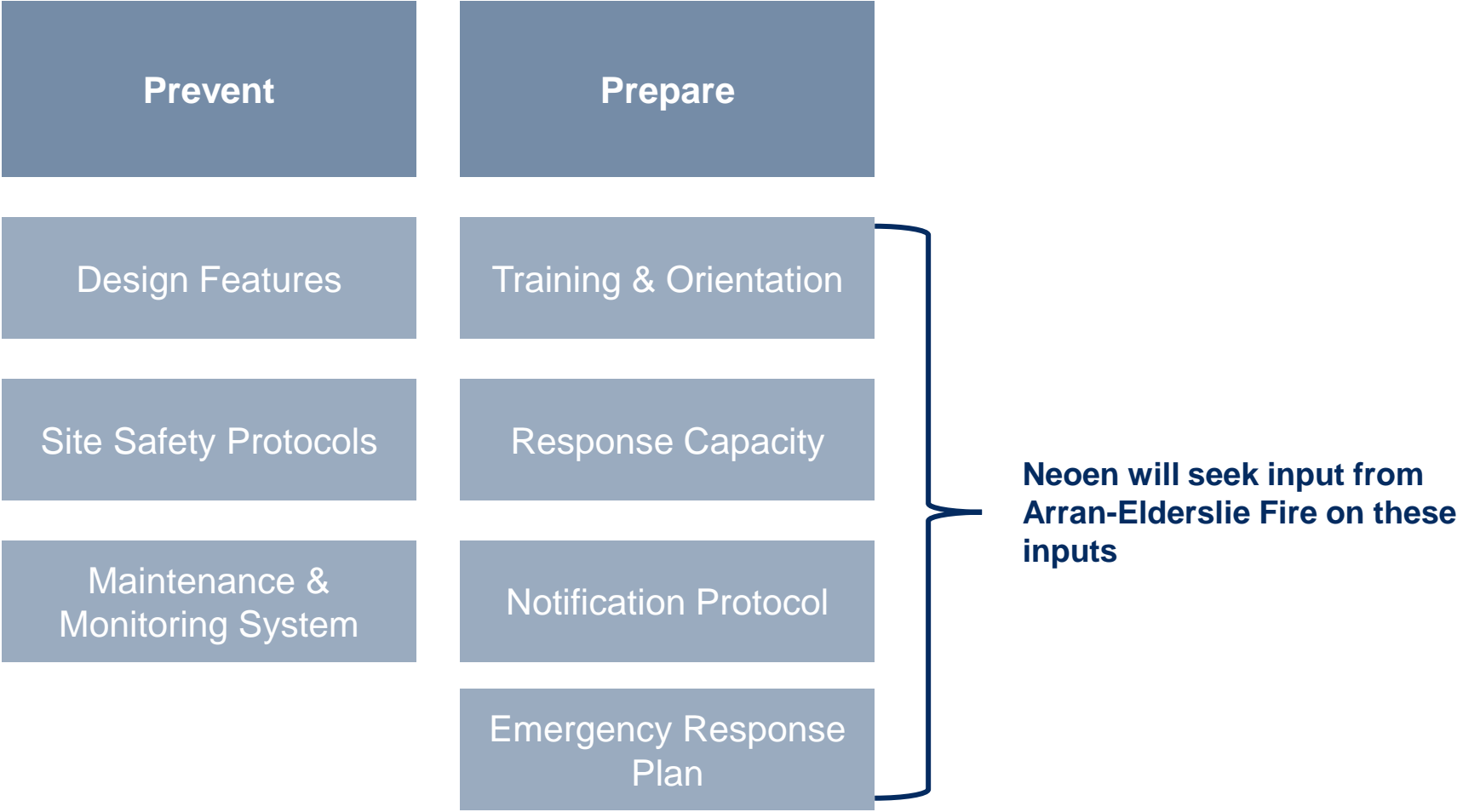
- Like all energy technologies, BESS facilities present potential hazards.
- Potential hazards for lithium-ion BESS include thermal runaway and spill events.
  - **Thermal runaway** is an exothermic reaction whereby damaged battery cells release energy in the form of abnormal heat, which can propagate and result in smoke, fire, or combustion. Thermal runaway can occur from an internal short circuit, external short circuit, external fire, and BESS degradation.
  - **Spill events**, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.

# Hazard Mitigation and Response Preparedness

- Hazard events are infrequent and prevented by rigorous design, thorough maintenance and monitoring, and stringent safety protocols:
  - Active protection, such as on-site water sprinkler and hydrant systems.
  - Passive protection, such as use of fire barriers and non-combustible oils
  - Site security and delineation
  - Maintenance and monitoring systems
- Hazards events are managed by preparedness and rapid, effective response.



# Safety Framework Inputs



# Coordination



# Next Steps

- Neoen will arrange future meetings with Arran-Elderslie Fire to share and obtain information, coordinate, and to seek feedback on:
  - Tara BESS design and safety features
  - Tara BESS Emergency Response Plan (incl. capacity)
  - Notification procedure
  - Site orientation and training

# We want to hear from you!



**Mario De Agüero**  
Senior Project Manager,  
Tara BESS  
[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)  
(647) 455-0877



**Brittany Morrison**  
Manager, Communication,  
Engagement & Stakeholder  
Relations  
[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)  
(416) 312-0057

- 319-150 King Street West, Toronto, Ontario M5H 1J9
- [www.neoen.com](http://www.neoen.com)
- [www.tarabattery.ca](http://www.tarabattery.ca) (coming soon)



# Tara BESS Project Update

*November 13, 2024*



Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities.

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Tobermory

Lake Huron

Owen Sound

Arran-Elderslie

**TARA**  
BATTERY

Hanover

Barrie

Lake Simcoe

# About Neoen

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## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.





# BESS Technology

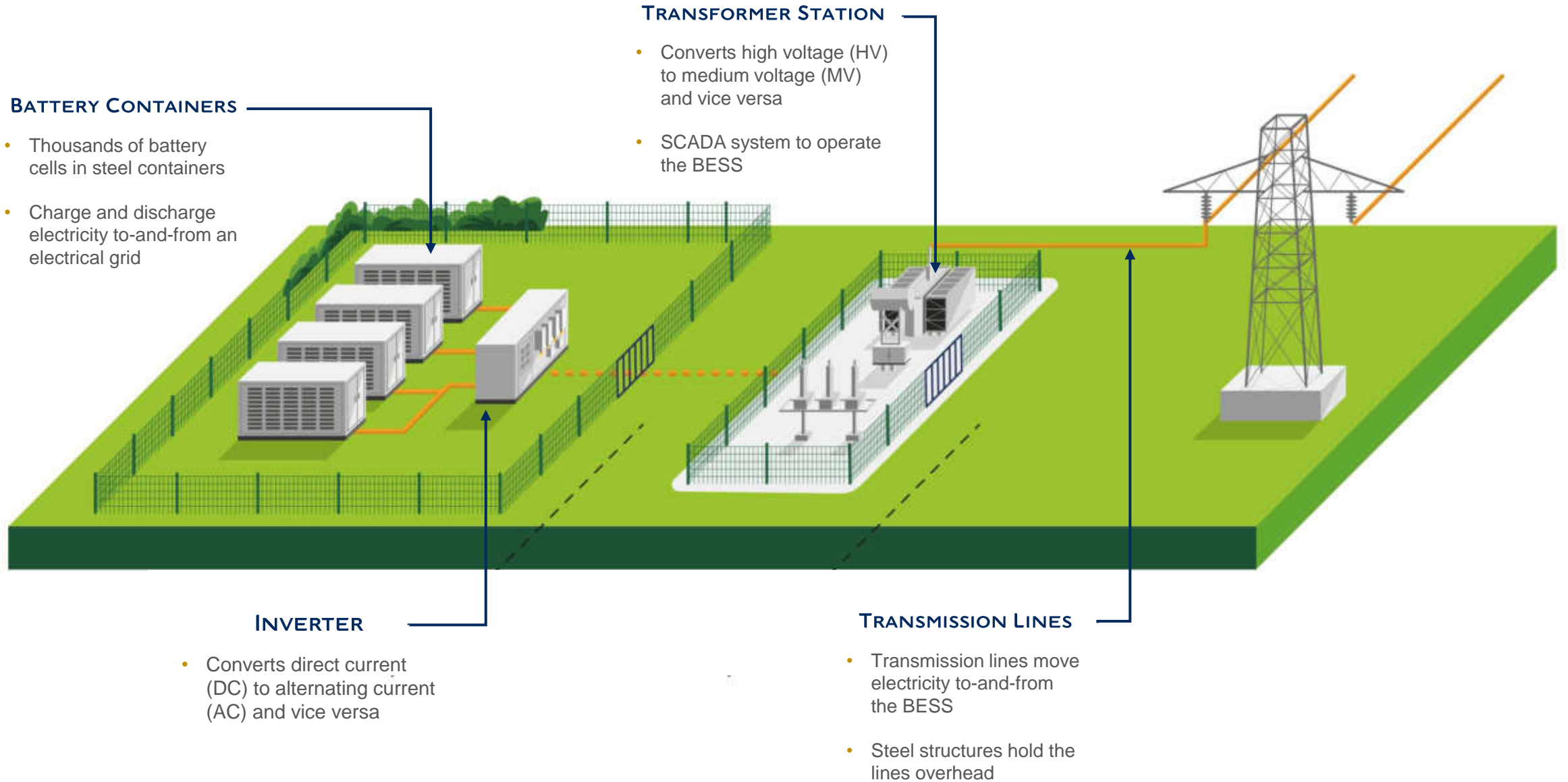




# BESS Technology

- Stores (or “charges”) electricity in batteries that is later discharged to an electrical grid.
- Charging typically occurs overnight when demand for electricity is low.
- Discharging typically occurs when demand rises.
- BESS can standalone or accompany a renewable technology, like wind or solar power.
- BESS components:
  - Battery cells organized in modules and placed on racks in steel containers
  - Inverters to convert current
  - Fans to cool the batteries during charging
  - Transformer station to convert voltage
  - SCADA system to operate the BESS
  - Transmission lines to move electricity

# How a Standalone BESS Works



# Neoen BESS Facilities in Australia

## HORNSDALE POWER RESERVE

Our 150MW battery outside Jamestown, South Australia  
co-located with Hornsdale Wind Farm



## VICTORIAN BIG BATTERY

Our 300MW battery near Geelong, Victoria  
that is currently in development



# Tara BESS



# Tara BESS – Preliminary Design



**Standalone BESS**  
**400 MW | 1600 MWh Capacity**  
**(400 MW for 4 hours)**



**Equal to the daily energy**  
**consumption of ~640K**  
**households in Ontario**



**420 lithium-ion battery**  
**cell containers**



**3 transformers**



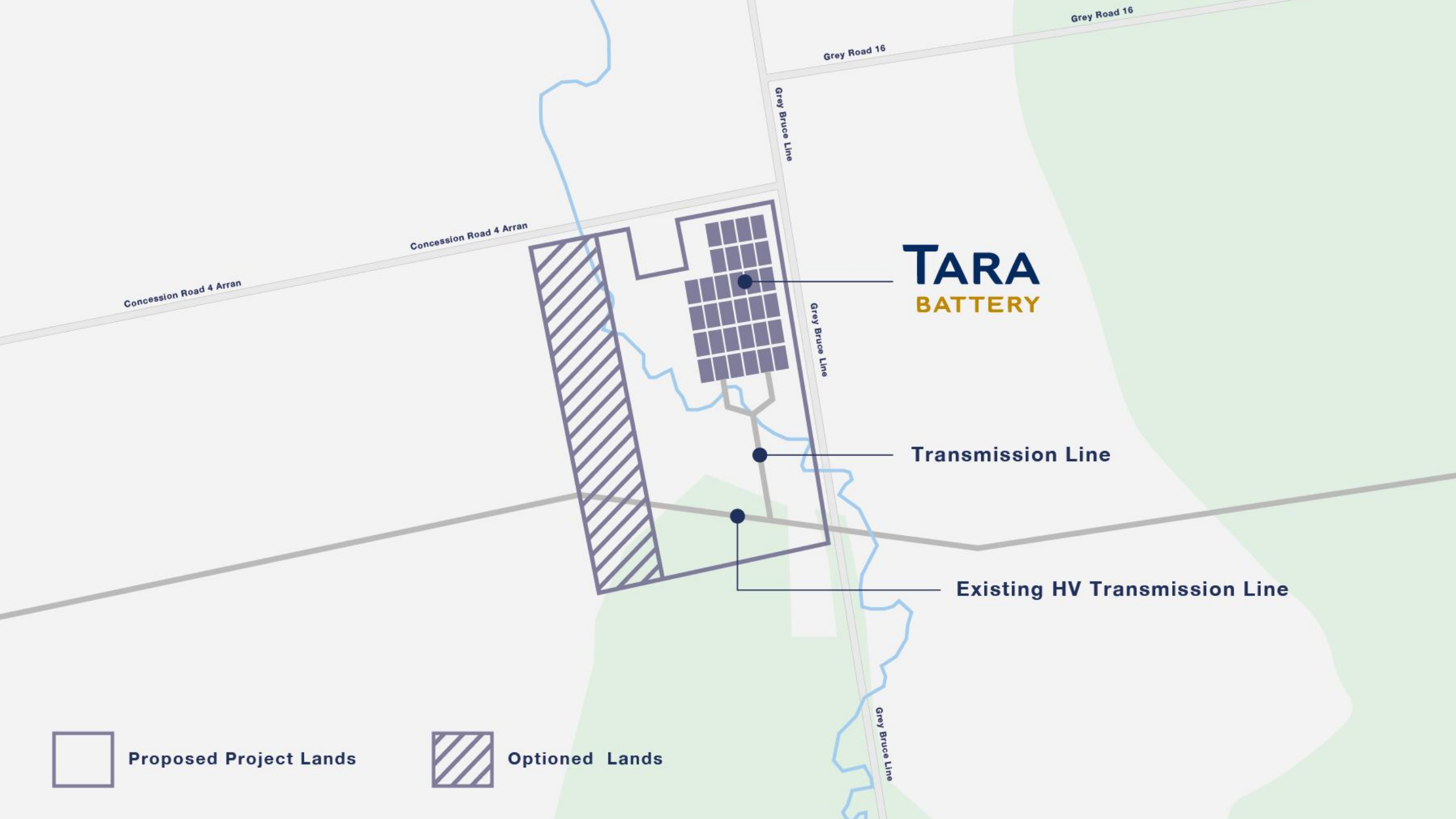
**~6.5 ha of at-grade**  
**equipment**



**~450 m of overhead**  
**transmission line + 5 steel**  
**structures**

**This information is preliminary and subject to change.**





# Project Lifecycle



# Target Project Timeline

Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027 - 2047
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												Operations

What's Next?



# Consultation

- 1-on-1 consultation with Rightsholders, stakeholders, and adjacent landowners/occupants underway.
- Week of November 18
  - Project website: [www.tarabattery.ca](http://www.tarabattery.ca)
  - Notice of Commencement
- Community open house in early Q1 2025.



# Community Benefits

- We believe that the communities we work in should share in the benefits of our projects.
- Consultation for Tara BESS will inform a community benefits plan.
- Benefits may include vendor opportunities, employment and skills training, environmental initiatives, sponsorship, donations, and art installations.



# We want to hear from you!



**Mario De Agüero**

Senior Project Manager,  
Tara BESS

[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)

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Owen Sound

Arran-Elderslie

Hanover

Barrie

Lake Simcoe

**TARA**  
BATTERY

# About Neoen

- Founded in 2008, Neoen is an independent producer of renewable energy.
- Neoen designs, implements, and operates renewable electricity technologies, including solar and wind power, and energy storage solutions.
- > 8 GW of power in operation or under construction across 15 countries.
- Neoen owns and operates its facilities for the long-term.

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.



# BESS Technology

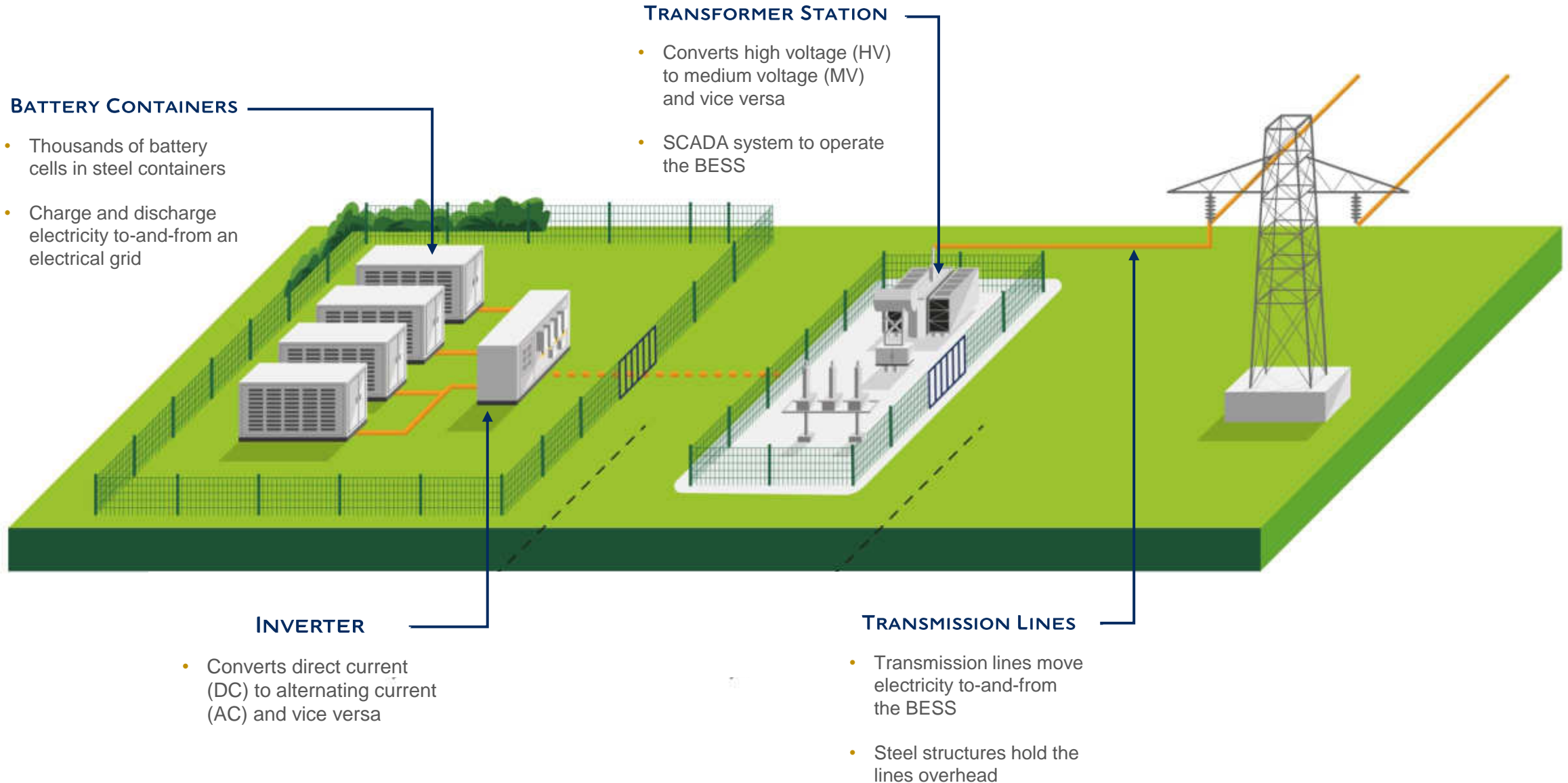


# BESS Technology

- Stores (or “charges”) electricity in batteries that is later discharged to an electrical grid.
- Charging typically occurs overnight when demand for electricity is low.
- Discharging typically occurs when demand rises.
- BESS can standalone or accompany a renewable technology, like wind or solar power.
- BESS components:
  - Battery cells organized in modules and placed on racks in steel containers
  - Inverters to convert current
  - Fans to cool the batteries during charging
  - Transformer station to convert voltage
  - SCADA system to operate the BESS
  - Transmission lines to move electricity



# How a Standalone BESS Works





# Neoen BESS Facilities in Australia

## HORNSDALE POWER RESERVE

Our 150MW battery outside Jamestown, South Australia  
co-located with Hornsdale Wind Farm



## VICTORIAN BIG BATTERY

Our 300MW battery near Geelong, Victoria  
that is currently in development



# Tara BESS



# Tara BESS – Preliminary Design



**Standalone BESS**  
**400 MW | 1600 MWh Capacity**  
**(400 MW for 4 hours)**



**Equal to the daily energy**  
**consumption of ~640K**  
**households in Ontario**



**420 lithium-ion battery**  
**cell containers**



**3 transformers**

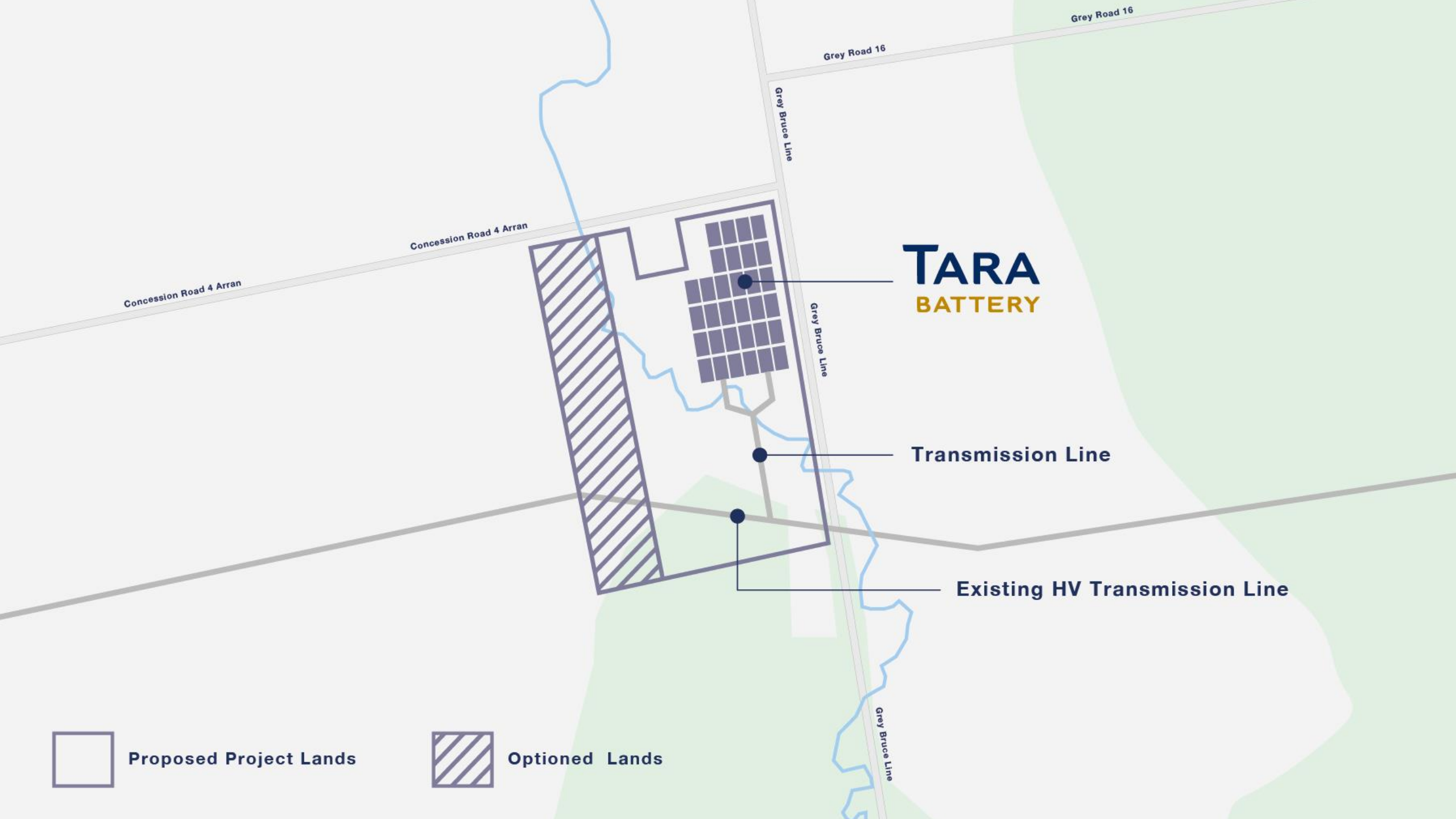


**~6.5 ha of at-grade**  
**equipment**



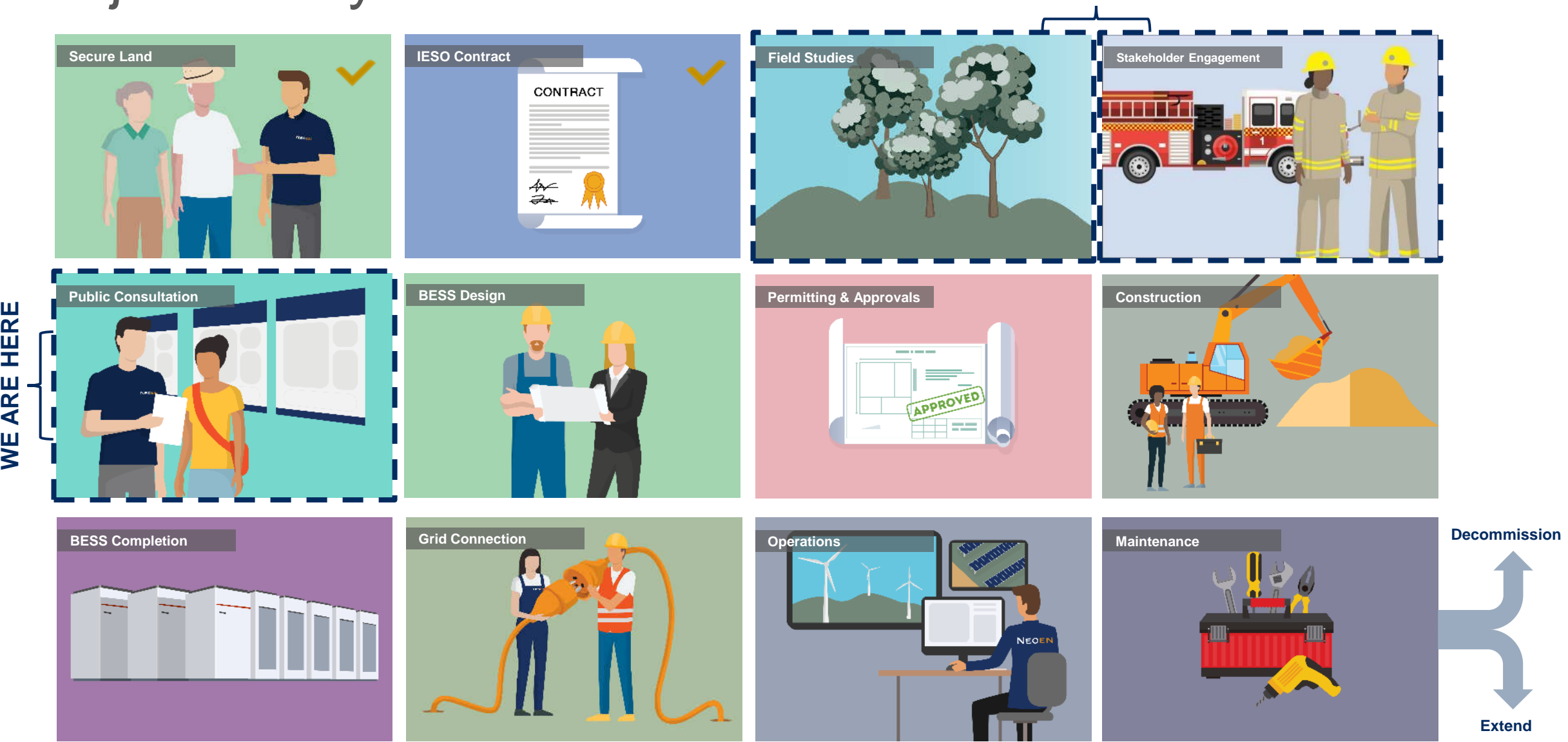
**~450 m of overhead**  
**transmission line + 5 steel**  
**structures**

**This information is preliminary and subject to change.**





# Project Lifecycle





# Target Project Timeline

Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027 - 2047
Project Development												
Consultation												
		Permitting and Approvals										
						Construction						
						Community Engagement						
												Operations

# BESS Safety



# BESS Potential Hazards

- Like all energy technologies, BESS facilities present potential hazards.
- Potential hazards for lithium-ion BESS include thermal runaway and spill events.
  - **Thermal runaway** is an exothermic reaction whereby damaged battery cells release energy in the form of abnormal heat, which can propagate and result in smoke, fire, or combustion. Thermal runaway can occur from an internal short circuit, external short circuit, external fire, and BESS degradation.
  - **Spill events**, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.

# Hazard Mitigation and Response Preparedness

- Hazard events are infrequent and prevented by rigorous design, thorough maintenance and monitoring, and stringent safety protocols:
  - Active protection, such as on-site water sprinkler and hydrant systems.
  - Passive protection, such as use of fire barriers and non-combustible oils
  - Site security and delineation
  - Maintenance and monitoring systems
- Hazards events are managed by preparedness and rapid, effective response.

What's Next?





# Consultation

- 1-on-1 consultation with Rightsholders, stakeholders, and adjacent landowners/occupants underway.
- Week of November 18
  - Project website: [www.tarabattery.ca](http://www.tarabattery.ca)
  - Notice of Commencement
- Community open house in early Q1 2025.

# Community Benefits

- We believe that the communities we work in should share in the benefits of our projects.
- Consultation for Tara BESS will inform a community benefits plan.
- Benefits may include vendor opportunities, employment and skills training, environmental initiatives, sponsorship, donations, and art installations.



# We want to hear from you!



**Mario De Agüero**  
Senior Project Manager,  
Tara BESS  
[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)  
(647) 455-0877



**Brittany Morrison**  
Manager, Communication,  
Engagement & Stakeholder  
Relations  
[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)  
(416) 312-0057

- 319-150 King Street West, Toronto, Ontario M5H 1J9
- [www.neoen.com](http://www.neoen.com)
- [www.tarabattery.ca](http://www.tarabattery.ca) (coming soon)

**From:** [Brittany Morrison](#)  
**To:** [manager@saugeenojibwaynation.ca](mailto:manager@saugeenojibwaynation.ca)  
**Subject:** RE: Tara BESS Consultation Follow-up  
**Sent:** 2024-11-06 5:28:00 PM

---

Good afternoon, Janet,

I am following up on my e-mail and voicemails.

We would like to arrange a meeting with SON Joint Council to discuss the proposed Tara BESS, formerly Grey Owl, project.

We will be conducting an archaeology and cultural heritage site walk very soon. I want to ensure SON Joint Council and/or its representatives can participate, if desired.

As I mentioned to Owen, we respect SON's position, and we regret that early outreach did not meet expectations. The Tara BESS project is now being led exclusively by Neoen, and it is important to us that SON Joint Council is consulted in a meaningful way— one that meets the Nations' expectations.

I really hope to hear from you.

Thank you,

**Brittany Morrison**  
M. +1 416-312-0057

---

**From:** Brittany Morrison  
**Sent:** November 1, 2024 7:27 PM  
**To:** [manager@saugeenojibwaynation.ca](mailto:manager@saugeenojibwaynation.ca)  
**Subject:** FW: Tara BESS Consultation Follow-up

Hello Janet,

I hope you are well.

I received your contact information from Amy Gibson at the Ministry of Energy and Electrification, who suggested I reach out to you.

My name is Brittany Morrison. I work with Neoen—we are developing the Tara BESS project proposed for lands at Concession Road 4 and Grey-Bruce Line.

I am hoping to arrange a meeting with the SON Joint Council to discuss the project. I previously spoke with Owen Tanner. I've included the e-mail thread here.

Perhaps we can find a time to speak on the phone on Monday? My phone number is (416) 312-0057, and I will also try calling you.

Have a great weekend!

**Brittany Morrison**  
Communication, Engagement & Stakeholder Relations Manager

---

**NEOEN**

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)  
M. +1 416-312-0057  
Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

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**From:** Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>  
**Sent:** October 8, 2024 11:31 AM  
**To:** [manager.energy@saugeenojibwaynation.ca](mailto:manager.energy@saugeenojibwaynation.ca)  
**Cc:** Mario De Aguero <[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)>  
**Subject:** Tara BESS Consultation Follow-up

Hello Owen,

Thank you very much for your call yesterday morning. We are sorry to hear that the SON Joint Council wishes to halt consultation on the proposed Tara BESS (formerly Grey Owl) project.

We respect the Council's position that appropriate consultation protocol was not met at the RFP stage. If it is helpful, I have confirmed that on October 17, 2023, prior to awarding of the contract by IESO, Shift Solar Inc. extended a community meeting invitation by e-mail to [manager@saugeenojibwaynation.ca](mailto:manager@saugeenojibwaynation.ca) as an initial meeting of Rightsholders and community stakeholders. Though, we recognize it was not the best approach. Neoen respects the Saugeen Ojibway Nation's rights, interests, and Territory, and intends to consult the SON Joint Council in a way that meets its expectations.

Our intention for retaining ICE was to help Neoen navigate the procedural aspects of consultation, not to lead it. We understand that Neoen is the relationship holder. ICE will continue to support Neoen in providing advice and protocol guidance. My colleague, Mario de Agüero, Project Manager for Tara BESS, performed Neoen's initial outreach (see below). ICE then followed up to set up a meeting for Neoen and SON about the project overall as well as to invite the Nation's Archaeology team to a field visit, which we understand to be SON protocol.

I would be grateful if, at your Wednesday meeting with the Council, you would convey our wishes to start on a better foot. We want to form positive relations with the Saugeen Ojibway Nation and lead a meaningful consultation process.

Tara BESS is proposed and in the preliminary design phase. It's important to us to understand the Nation's interests and concerns at this early stage. We hope the SON Joint Council will consider meeting with us soon.

Sincerely,

**Brittany Morrison**

Communications & Engagement Manager

---



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 315 – 150 King Street West, Toronto, ON M5H 1J9

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**De:** Mario De Aguero

**Enviado el:** miércoles, 4 de septiembre de 2024 05:47 p. m.

**Para:** [environmentoffice@saugeenojibwaynation.ca](mailto:environmentoffice@saugeenojibwaynation.ca)

**CC:** Benoît Pinot de Villechenon <[benoit.pinotdevillechenon@neoen.com](mailto:benoit.pinotdevillechenon@neoen.com)>; [Heather.swan@indigenouseengagement.ca](mailto:Heather.swan@indigenouseengagement.ca);

karenheisler <[karen.heisler@indigenouseengagement.ca](mailto:karen.heisler@indigenouseengagement.ca)>; [michael.fox@indigenouseengagement.ca](mailto:michael.fox@indigenouseengagement.ca); Alexandra Clarke

<[alexandra.clarke@indigenouseengagement.ca](mailto:alexandra.clarke@indigenouseengagement.ca)>

**Asunto:** Grey Owl Battery Energy Storage System (BESS) proposed by Neoen - Consultation

Good afternoon,

We are writing to provide some information about the Grey Owl Battery Energy Storage System (BESS), a project that Neoen is developing in Arran-Elderslie Municipality and to inquire about interest in having an introductory meeting to start discussions about the project and to learn more about you, your interests and how best to work together.

Attached you will find a letter with more information about the project and the company.

I have copied Indigenous and Community Engagement Inc. (ICE), who will be assisting us throughout the consultation process.

If you have any questions, please feel free to reach out. Additionally, let me know your availability to schedule a meeting at your convenience.

Best regards,

**Mario de Agüero**

Senior Project Manager  
Ontario, Canada

---



M. +1 (647) 455-0877

Suite 315, 150 King Street West  
Toronto, ON, M5H 1J9



**From:** [Janet Galant](#)  
**To:** [Brittany Morrison](#)  
**Subject:** Re: Meeting tomorrow  
**Sent:** 2024-11-20 11:31:01 AM

---

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Brittany,

The Chiefs have asked to reschedule. I will let them know which dates work best for you.

Sorry about that.  
I will be in touch.

Janet Galant  
Senior Manager  
T: 519.373.6075  
10129 Hwy 6  
Georgian Bluffs, ON  
N0H 2T0



**Environment  
Office**

Saugeen Ojibway  
Nation

[saugeenojibwaynation.ca](http://saugeenojibwaynation.ca)

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On Wed, Nov 20, 2024 at 11:13 AM Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)> wrote:

Hi Janet,

Any word back? If we will meet, I'll have to head out shortly.

If it is helpful, we can also meet in-person next Friday November 29<sup>th</sup> or December 6<sup>th</sup>, we can also meet virtually most days.

**Brittany Morrison**

M. +1 416-312-0057

---

**From:** Janet Galant <[manager@saugeenojibwaynation.ca](mailto:manager@saugeenojibwaynation.ca)>  
**Sent:** November 19, 2024 8:21 PM  
**To:** Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>  
**Subject:** Meeting tomorrow

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Brittany,

I spoke with chief Nadjiwon tonight and he is available tomorrow after another meeting we have at 2pm in Owen Sound.

I know it's late notice but if you could make an in-person meeting, we could find a place to meet in Owen Sound, otherwise we can meet virtually.

If you can't make tomorrow, please let me know and we can rearrange another date.

Thanks,

Janet Galant

Senior Manager

T: 519.373.6075

10129 Hwy 6

Georgian Bluffs, ON  
N0H 2T0



[saugeenojibwaynation.ca](http://saugeenojibwaynation.ca)

The material contained in this email message is considered privileged and confidential information intended only for the use of the individual or group addressed. Any use, dissemination, distribution or copy of this email by persons that this message was not intended for is strictly prohibited. If you have received this email in error, please contact us immediately by telephone.



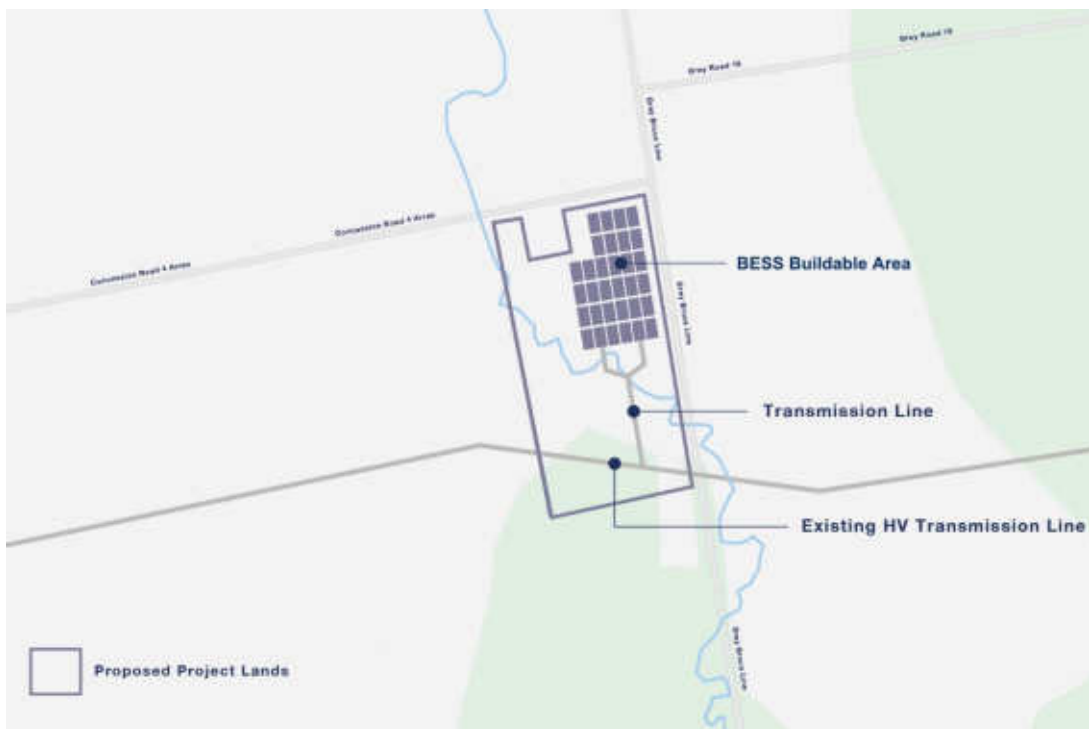
## Notice of Commencement: Class Environmental Assessment for Transmission Facilities

Published: November 25, 2024

Neoen is initiating a Class Environmental Assessment for Transmission Facilities (Class EA for TF) for Tara BESS, a battery energy storage system (BESS) proposed for development in the Municipality of Arran-Elderslie.

### About the Project

Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600-megawatt hour (MWh) capacity standalone battery energy storage system (BESS) proposed for development in the Municipality of Arran-Elderslie, approximately 5-kilometres southeast of the Village of Tara. The project was awarded a 20-year contract by Ontario's Independent Electricity System Operator (IESO), through IESO's "long-term 1" (LT1) RFP procurement. Tara BESS is one of ten energy storage contracts awarded in the LT1 procurement to meet Ontario's growing electricity needs. Tara BESS is proposed to store and discharge electricity to Ontario's grid, adding up to 400 MW of capacity. Neoen Ontario BESS 1 Inc. (Neoen) is leading development of Tara BESS.



### Study Area

Tara BESS is proposed for development on private lands located at 39 Concession Road 4, Tara, Ontario (the pictured "proposed project lands").

Tara BESS is expected to occupy a footprint of approximately 20 acres at-grade, plus approximately 450 metres of overhead transmission line and approximately five (5) steel structures to hold the transmission lines.

Tara BESS is proposed to connect to Hydro One's existing 230-kilovolt high voltage transmission line to the south of the proposed project lands.

The pictured "buildable area" represents the potential BESS development area. It is not reflective of the proposed BESS layout, and is subject to change. Details of the proposed BESS layout will be provided in a future communication.

### Planning Process

Tara BESS is subject to the Class Environmental Assessment for Transmission Facilities process ([www.hydroone.com/classea](http://www.hydroone.com/classea)) in accordance with the Ontario Environmental Assessment Act. This is a process for electricity transmission-related projects that do not generate electricity. Construction is expected to begin in spring 2026, subject to required permits and approvals.

### About Neoen

Neoen is a leading independent power producer of exclusively renewable energy technologies, including solar and onshore wind power, and energy storage solutions. Neoen has more than 8-gigawatts of power in operation or under construction across 15 countries. Neoen owns and operate its facilities for the long-term. To learn more about Neoen, visit [www.neoen.com](http://www.neoen.com).

### Share Your Feedback

Neoen is committed to meaningful consultation. Your feedback will inform the Class EA for TF process\*.

**To share your feedback, ask questions, or to subscribe to the Tara BESS mailing list, please contact:**

Brittany Morrison  
*Manager, Communication & Engagement*

[info@tarabattery.ca](mailto:info@tarabattery.ca)  
**(416) 312-0057**

For more information or to share your feedback using our online feedback form, visit [www.tarabattery.ca](http://www.tarabattery.ca).

\*Personal information included in your feedback/question, such as name, address, telephone number and property location, is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential.

NEOEN

**From:** [Brittany Morrison](#)  
**To:** [Janet Galant](#)  
**Cc:** [environmentoffice@saugeenojibwaynation.ca](mailto:environmentoffice@saugeenojibwaynation.ca)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 5:04:00 PM

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Hello Janet,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice is attached to this e-mail.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Happy to answer any questions.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [edance@arran-elderslie.ca](mailto:edance@arran-elderslie.ca)  
**Cc:** [Mario De Aguero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 3:45:00 PM

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Good afternoon, Emily,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice will be delivered to properties in the immediate vicinity of the proposed site. I have attached a copy to this email.

Typically, I would send a copy to mayor and ward councillor. Would you like to provide it to them, or would you prefer that I send directly?

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The Neoen logo consists of the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" are in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9



**From:** [Brittany Morrison](#)  
**To:** [Byers, Rick](#); [LaPierre, Lisa](#);  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 3:48:00 PM

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Good afternoon, Lisa,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice will be delivered to properties in the immediate vicinity of the proposed site. I have attached a copy to this email.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The Neoen logo consists of the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" are in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Liz Buckton](#)  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 3:49:00 PM

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Good afternoon, Liz,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice will be delivered to properties in the immediate vicinity of the proposed site. I have attached a copy to this email.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The Neoen logo consists of the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" are in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [CPeabody@brucecounty.on.ca](mailto:CPeabody@brucecounty.on.ca)  
**Cc:** [Mario De Aguero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 3:53:00 PM

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Good afternoon, Warden Peabody,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice will be delivered to properties in the immediate vicinity of the proposed site. I have attached a copy to this email.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

We would be happy to meet with you to discuss the Tara BESS project. Please, do not hesitate to contact us.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

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**From:** Brittany Morrison  
**Sent:** October 30, 2024 11:38 AM  
**To:** 'CPeabody@brucecounty.on.ca' <CPeabody@brucecounty.on.ca>  
**Cc:** Mario De Aguero <mario.deaguero@neoen.com>  
**Subject:** Introduction and Meeting Request - Tara BESS

Dear Warden Peabody,

I am writing to share information about Neoen's energy storage project, Tara BESS, proposed for 39 Concession Road 4, located at Concession Road 4 and Grey-Bruce Line in the Municipality of Arran-Elderslie, and to arrange a meeting to discuss the project with you.

Tara BESS, formerly, Grey Owl, is a 400-megawatt (MW) capacity battery energy storage system (BESS) project, awarded by Ontario's Independent Electricity System Operator's (IESO) in May 2024, through its competitive "long-term 1" (LT1) energy procurement process.

Neoen is a developer of exclusively renewable energy technologies with expertise in solar and wind power, and energy storage solutions. Neoen has more than 8-gigawatts of power in operation or under construction across 15 countries, including Fox Coulee, a 93 MWp solar farm in Starland County, Alberta.

Understanding community interests is an important part our development process. We are beginning to connect with Rightsholders, stakeholders, landowners, occupants, and farmers in the proposed project area to share information and gather feedback. Consultation with these groups will inform our plans and will allow us to address any reasonable concerns surrounding the project.

My colleague, Mario de Aguero (copied), is leading development of the Tara BESS project. Mario and I would be happy to meet with you, and any colleagues you feel appropriate, to discuss the Tara BESS project in more detail. We are happy to meet in-person or virtually.

Please do not hesitate to call me.

We look forward to meeting you.

Sincerely,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Pierre Valley](#)  
**Cc:** [Mario De Aguero](#)  
**Subject:** FW: Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 3:55:00 PM

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Hi Pierre,

Today, we issued the Notice of Commencement of Class EA for the Tara BESS project. See attached.

Below is a copy for the communication we sent to Warden Peabody's office. I haven't heard back. Can you tell me if there is a staff person I should direct these communications to?

Thank you!

**Brittany Morrison**

M. +1 416-312-0057

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**From:** Brittany Morrison  
**Sent:** November 25, 2024 3:53 PM  
**To:** CPeabody@brucecounty.on.ca  
**Cc:** Mario De Aguero <mario.deaguero@neoen.com>  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS

Good afternoon, Warden Peabody,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice will be delivered to properties in the immediate vicinity of the proposed site. I have attached a copy to this email.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

We would be happy to meet with you to discuss the Tara BESS project. Please, do not hesitate to contact us.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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**NEOEN**

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

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**From:** Brittany Morrison  
**Sent:** October 30, 2024 11:38 AM  
**To:** 'CPeabody@brucecounty.on.ca' <[CPeabody@brucecounty.on.ca](mailto:CPeabody@brucecounty.on.ca)>  
**Cc:** Mario De Aguero <[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)>  
**Subject:** Introduction and Meeting Request - Tara BESS

Dear Warden Peabody,

I am writing to share information about Neoen's energy storage project, Tara BESS, proposed for 39 Concession Road 4, located at Concession Road 4 and Grey-Bruce Line in the Municipality of Arran-Elderslie, and to arrange a meeting to discuss the project with you.

Tara BESS, formerly, Grey Owl, is a 400-megawatt (MW) capacity battery energy storage system (BESS) project, awarded by Ontario's Independent Electricity System Operator's (IESO) in May 2024, through its competitive "long-term 1" (LT1) energy procurement process.

Neoen is a developer of exclusively renewable energy technologies with expertise in solar and wind power, and energy storage solutions. Neoen has more than 8-gigawatts of power in operation or under construction



across 15 countries, including Fox Coulee, a 93 MWp solar farm in Starland County, Alberta.

Understanding community interests is an important part our development process. We are beginning to connect with Rightsholders, stakeholders, landowners, occupants, and farmers in the proposed project area to share information and gather feedback. Consultation with these groups will inform our plans and will allow us to address any reasonable concerns surrounding the project.

My colleague, Mario de Aguero (copied), is leading development of the Tara BESS project. Mario and I would be happy to meet with you, and any colleagues you feel appropriate, to discuss the Tara BESS project in more detail. We are happy to meet in-person or virtually.

Please do not hesitate to call me.

We look forward to meeting you.

Sincerely,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The logo for NEOEN, with the word in a bold, sans-serif font. The 'N' and 'E' are blue, and the 'O', 'E', and 'N' are orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Mary MacDougall](#); [Ethan Roy](#);  
**Cc:** [Mario De Aguero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 5:06:00 PM

---

Hello Mary and Ethan,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice is attached to this e-mail.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Happy to answer any questions.

We are still reviewing the workplan and will be in touch very shortly.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** ['sao@nawash.ca'](mailto:sao@nawash.ca)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 5:19:00 PM

---

Hello,

I am writing to let you know that, today, we issued [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#) for the Tara BESS project.

A copy of the notice is attached to this e-mail.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Happy to answer any questions.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [sfn@saugeen.org](mailto:sfn@saugeen.org)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-25 5:20:00 PM

---

Hello,

I am writing to let you know that, today, we issued [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#) for the Tara BESS project.

A copy of the notice is attached to this e-mail.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Happy to answer any questions.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [lwhite@brucecounty.on.ca](mailto:lwhite@brucecounty.on.ca); [JBurnett@brucecounty.on.ca](mailto:JBurnett@brucecounty.on.ca);  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-26 9:07:00 AM

---

Good morning,

I am writing to let you know that, yesterday, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice will be delivered to properties in the immediate vicinity of the proposed site. I have attached a copy to this email.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The Neoen logo consists of the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" are in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9



**From:** [Brittany Morrison](#)  
**To:** ['ClassEAnotices@ontario.ca'](#); ['eanotification.swregion@ontario.ca'](#);  
**Cc:** [Mario De Aguero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-26 4:02:00 PM

---

Good afternoon,

I am writing to let you know that, yesterday, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Please contact us if you wish to discuss.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** ['ontarioregion-regiondontario@iaac-aeic.gc.ca'](mailto:'ontarioregion-regiondontario@iaac-aeic.gc.ca')  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-26 4:07:00 PM

---

Good afternoon,

I am writing to let you know that, yesterday, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Please contact us if you wish to discuss.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** ['m.plewes@greysauble.on.ca'; 'n.mcarthur@greysauble.on.ca'; 'Ian Eriksen';](#)  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Commencement of Class EA for TF - Tara BESS  
**Attachments:** [Final - Notice of Commencement - Tara BESS - Nov 25 2024.pdf](#)  
**Sent:** 2024-11-26 4:46:00 PM

---

Good afternoon,

I am writing to let you know that we have issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Please contact us if you wish to discuss.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [carolmcmillan37@gmail.com](mailto:carolmcmillan37@gmail.com)  
**Subject:** Tara BESS Website and Notice of Commencement of Class EA  
**Sent:** 2024-11-26 5:03:00 PM

---

Hi Carol,

I hope you are well.

I am writing to let you know that the project website, [www.tarabattery.ca](http://www.tarabattery.ca), is now live. It includes project information, contact information, an online feedback form, and a section to view project updates.

Also, here a link to the [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#) for Tara BESS. You will receive a hardcopy in the mail as well.

Please give me a call if you have any questions. Otherwise, I will be in touch to meet again in the coming weeks.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with 'NEO' in blue and 'EN' in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [JG.cookman@gmail.com](mailto:JG.cookman@gmail.com)  
**Subject:** Tara BESS Website and Notice of Commencement of Class EA  
**Sent:** 2024-11-26 5:06:00 PM

---

Hi John,

I hope you are well.

I am writing to let you know that the project website, [www.tarabattery.ca](http://www.tarabattery.ca), is now live. It includes project information, contact information, an online feedback form, and a section to view project updates.

Also, here a link to the [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#) for Tara BESS. You will receive a hardcopy in the mail as well.

Please give me a call if you have any questions. Otherwise, I will be in touch to meet again in the coming weeks.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

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[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Janet Galant; manager.energy@saugeenojibwaynation.ca](mailto:Janet.Galant;manager.energy@saugeenojibwaynation.ca);  
**Cc:** [environmentoffice@saugeenojibwaynation.ca](mailto:environmentoffice@saugeenojibwaynation.ca); [Mario De Agüero](#);  
**Subject:** Archaeological Site Walk - Tara BESS  
**Sent:** 2024-11-28 10:20:00 AM

---

Hello Janet and Owen,

I am writing to inform you that, in early December, Neoen will conduct an archaeological field walk as part of the Stage 1 Archaeological Assessment for Tara BESS.

We would like to invite SON Joint Council or its representatives to participate. Neoen would, of course, provide capacity funding for your participation. As discussed, we have held off on scheduling the field walk in hopes that we would first meet with SON Joint Council. The snow will soon be upon us, so we, unfortunately, cannot hold off any longer.

I have downloaded a copy of SON's Archaeological Standards and will provide a copy to our consultant team. I have included your Environment Office, who I understand will receive the notice from the Province once the walk has been scheduled.

Please let me know as soon as possible if SON Joint Council wishes to participate, so we can select a day that best suits you and your representatives.

Also, Janet, I have tried several times to reach you by phone and e-mail since our meeting with Chief Nadjiwon and Chief Ritchie was cancelled last Wednesday but have not heard back. I hope everything is OK.

We really would like to meet with the Chiefs. I am sure they are busy, but is there a time in the first three weeks of December that they are available? We can go to them or meet virtually.

In the meantime, can we meet with the Energy team to introduce ourselves and the Tara BESS project?

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

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Suite 319 – 150 King Street West, Toronto, ON M5H 1J9





Tara BESS Project Update  
The Municipality of Arran-Elderslie Council Meeting

*December 9, 2024*

Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities.

# Background

- Tara BESS, formerly Grey Owl Storage, is a **400-megawatt (MW), 1600-megawatt hour (MWh) battery energy storage system (BESS)** proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.
- Awarded a 20-year energy storage contract by the Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's Long-term 1 (LT1) RFP procurement – one of ten BESS contracts awarded in the RFP.
- Tara BESS responds directly to Ontario's growing energy needs and 2050 energy procurement target, by adding grid capacity equivalent to the daily energy consumption of ~640,000 households in Ontario.
- Neoen Canada BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# About Neoen

- Founded in 2008, Neoen is an independent producer of renewable energy.
- Neoen designs, implements, and operates renewable electricity technologies, including solar and wind power, and energy storage solutions.
- > 8 GW of power in operation or under construction across 15 countries.
- Neoen owns and operates its facilities for the long-term.

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.





# BESS Technology



# What is Battery Energy Storage?

- Stores (or “charges”) electricity in batteries that is later discharged to an electrical grid.
- Typically, charges overnight when demand is low and discharges when demand rises.
- BESS can standalone or accompany a renewable technology, like wind or solar power.
- Supports the transition from fossil fuels by maximizing the use of energy produced from renewable sources.
- Provides ancillary services such as frequency and voltage support, and virtual inertia.



# How does a Standalone BESS Work?

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

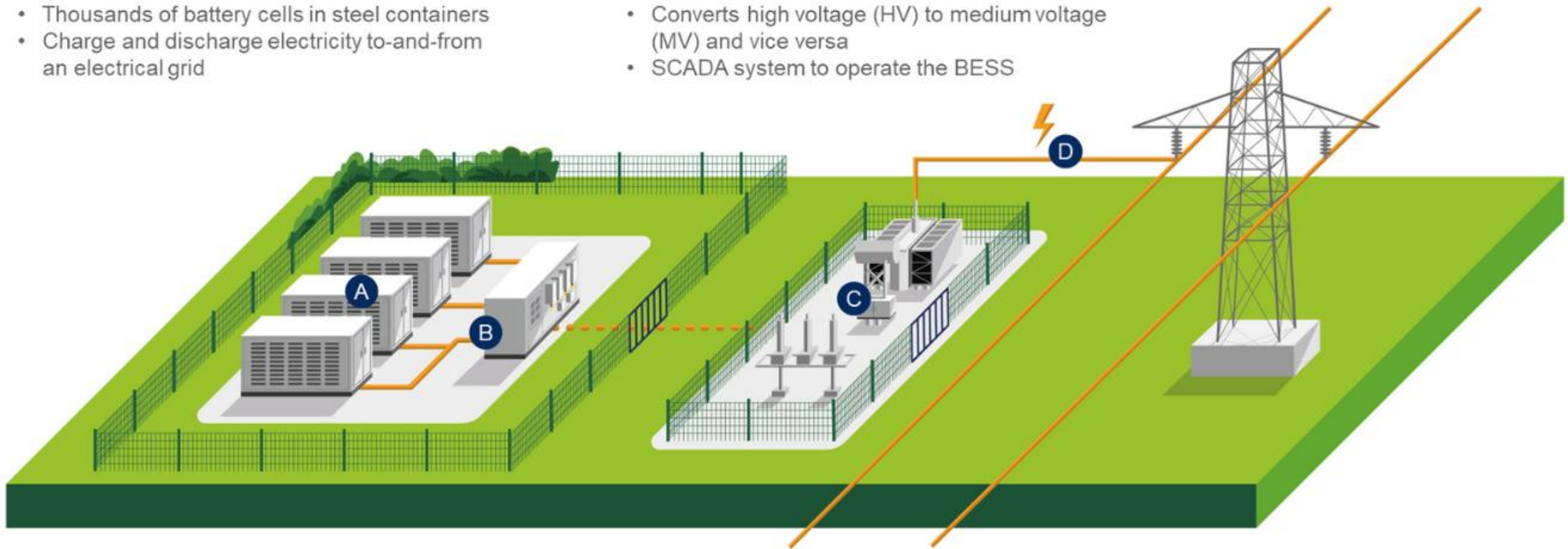
- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS

## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

## D - Transmission Lines

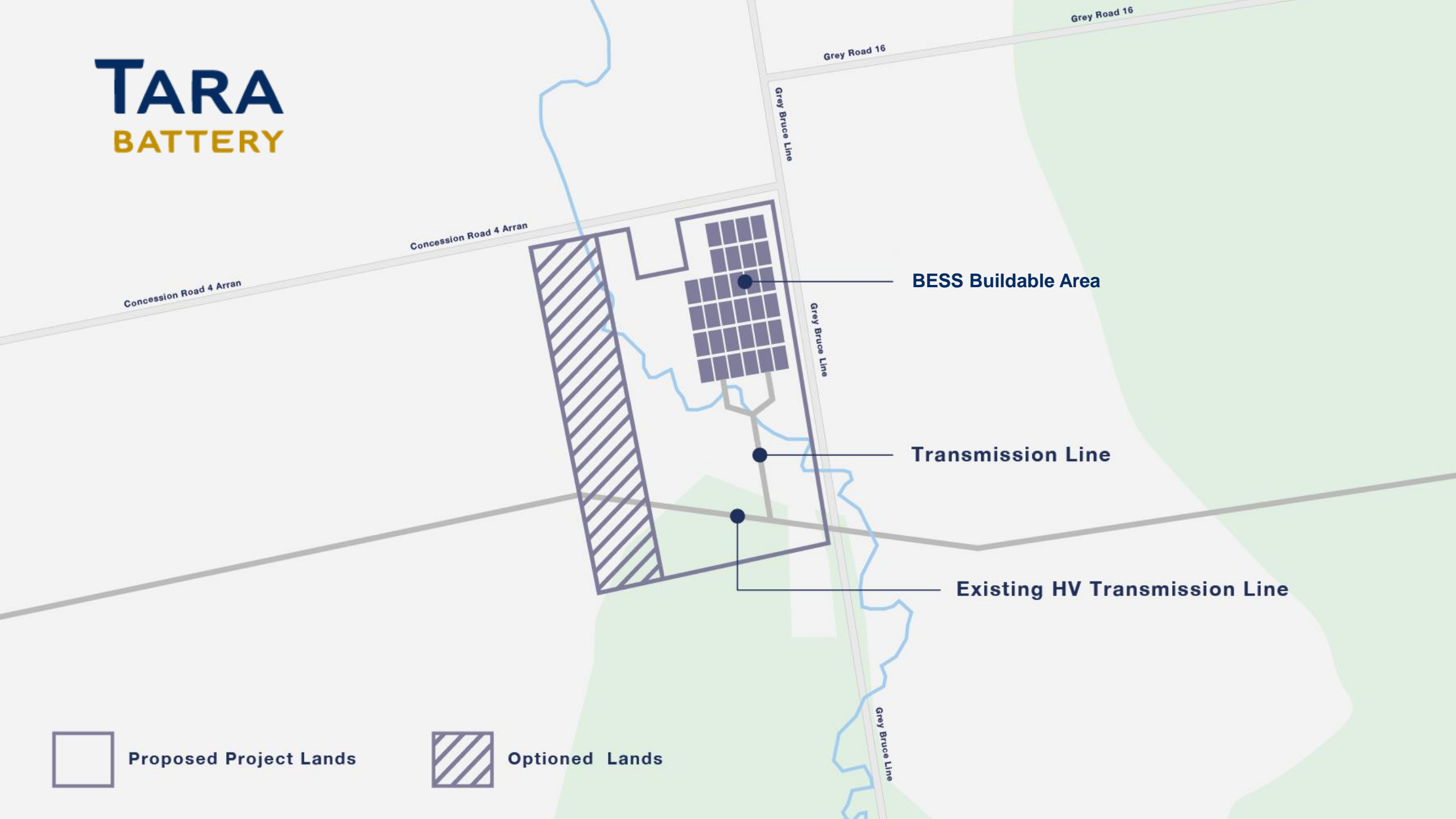
- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid



# Tara BESS



# TARA BATTERY



# Tara BESS Preliminary Design



**Standalone BESS facility**



**Capable of providing 400  
MW of power for four  
hours**



**~420 lithium-ion battery  
cell containers**



**3 Transformers  
(1 back-up)**



**~20 acres of at-grade  
equipment**



**~400 m of overhead  
transmission line and ~5  
transmission structures**

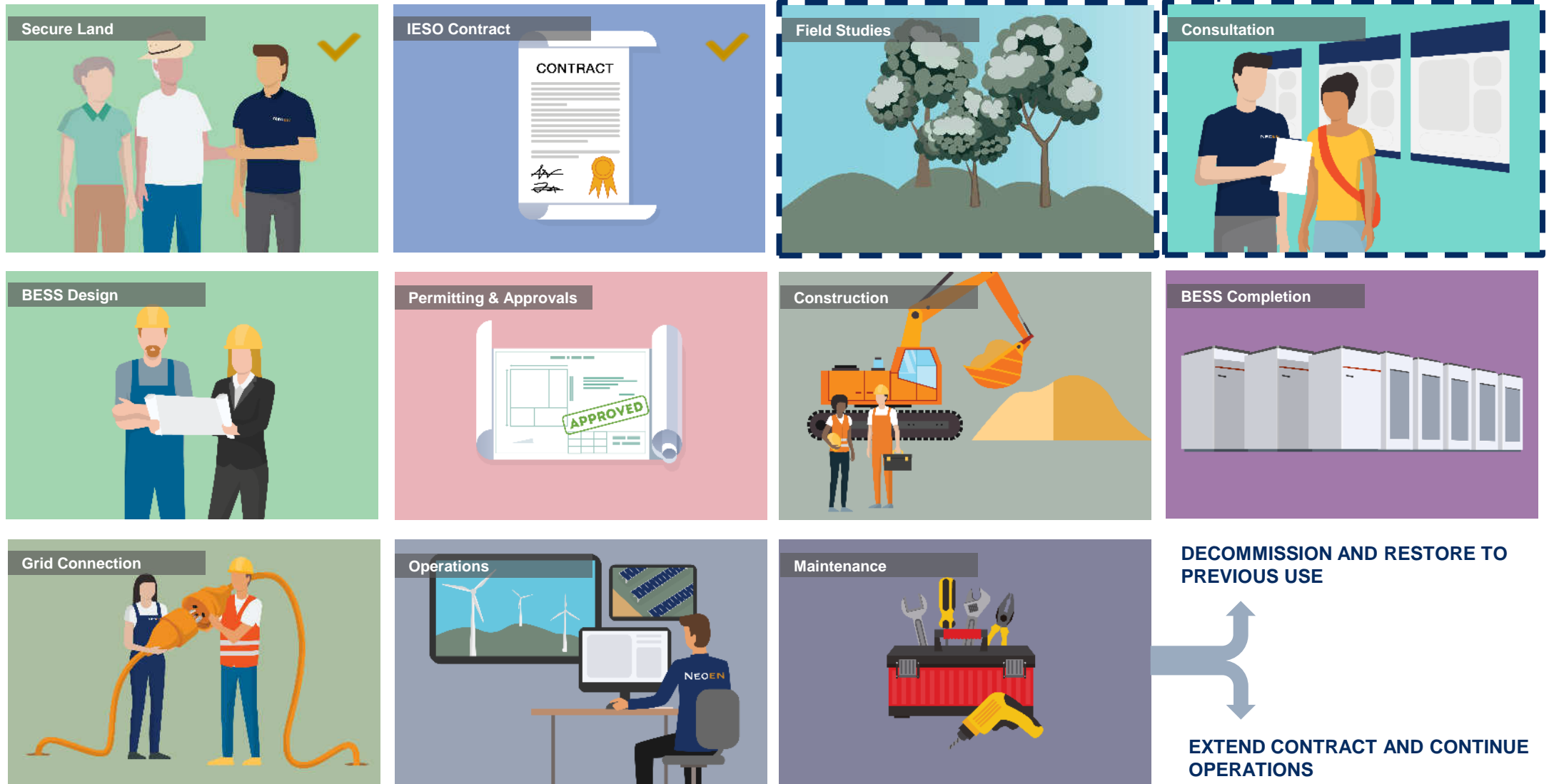
**This information is preliminary and subject to change.**

# Development Process





# Project Lifecycle





# Target Project Timeline

	'24	2025				2026				2027			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Development													
Consultation													
Permitting & and Approvals													
Construction													
Community Engagement													
Operations													



# Project Permits and Approvals

- Class Environmental Assessment (EA) for Transmission Facilities
  - Aquatic Habitat Assessment
  - Ecological Land Classification and Vegetation Surveys
  - Breeding Bird Surveys
  - Breeding Amphibian Surveys
  - Bat Habitat Assessment (Maternity Roost Surveys)
  - Noise Impact Assessment
  - Archaeological Assessment
  - Agricultural Impact Assessment
- Environmental Compliance Approval for Stormwater
- Species-at-Risk\*
- Environmental Activity Sector Registration (noise)
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan\*
- Ontario Endangered Species Act Sec.17 approval\*
- Regulation 41/24 Approval from Grey Sauble Conservation Authority

\* TO BE CONFIRMED

# Consultation

- Consultation for Tara BESS is underway.
- Neoen will consult Rightsholders, stakeholders, landowners and occupants in the immediate vicinity, and the broader community.
- We invite feedback via the following channels:
  - Phone: (416) 312-0057
  - Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
  - Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
  - Mail: 319-150 King Street West, Toronto, ON M5H 1J9
  - Request a 1-on-1 meeting
  - Public open house – January 21, 2025
  - Public open house – Spring 2025 (date TBC)



# BESS Safety



# BESS Safety

- BESS are designed to prevent the following potential hazards:
  - **Thermal runaway** is an exothermic reaction whereby damaged battery cells release energy in the form of abnormal heat, which can propagate and result in smoke, fire, or combustion. Thermal runaway can occur from an internal short circuit, external short circuit, external fire, and BESS degradation.
  - **Spill events**, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.
- BESS hazard events are infrequent and prevented by rigorous design mitigation, thorough maintenance and monitoring, and stringent safety protocols, including:
  - Active protection, such as on-site water sprinkler and hydrant systems
  - Passive protection, such as use of fire barriers and non-combustible oils
  - Facility systems and security
- Hazards events are managed by preparedness and rapid response.
- Neoen has engaged Arran-Elderslie's Fire Department on the Tara BESS project.

# Community Benefits





# Community Benefits

- Neoen believes that the communities it works in should share in the benefits of its projects.
- Consultation for Tara BESS will inform a community benefits plan that may include vendor opportunities, employment and skills training, Indigenous-specific benefits or opportunities, environmental initiatives, sponsorship, donations, or art installations.



Contact Us



# We want to hear from you!



**Mario De Agüero**  
Senior Project Manager,  
Tara BESS  
[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)  
(647) 455-0877



**Brittany Morrison**  
Manager, Communication,  
Engagement & Stakeholder  
Relations  
[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)  
(416) 312-0057

- 319-150 King Street West, Toronto, Ontario M5H 1J9
- [www.neoen.com](http://www.neoen.com)
- [www.tarabattery.ca](http://www.tarabattery.ca)



# COMMUNITY OPEN HOUSE

Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600-megawatt hours (MWh) battery energy storage system proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.

Awarded a 20-year contract by Ontario's Independent Electricity System Operator (IESO), Tara BESS is one of ten battery energy storage systems procured by IESO through its long-term 1 (LT1) RFP in May 2024.

Tara BESS will store and discharge electricity directly to Ontario's electrical grid, adding 400 MW of capacity – equivalent to the daily energy consumption of approximately 640,000 households in Ontario.

The project responds directly to the Government of Ontario's plan to procure up to 7,500 MW of power to meet the province's projected 2050 energy needs.

To learn more about Tara BESS, visit [www.tarabattery.ca](http://www.tarabattery.ca)



## Community Open House

Consultation for Tara BESS is now underway, and we want to hear from you!

Join us for a drop-in open house on **Tuesday January 21, 2025**. Meet the project team and learn about:

- Project Layout
- BESS Technology
- Environmental Assessment
- Development Process

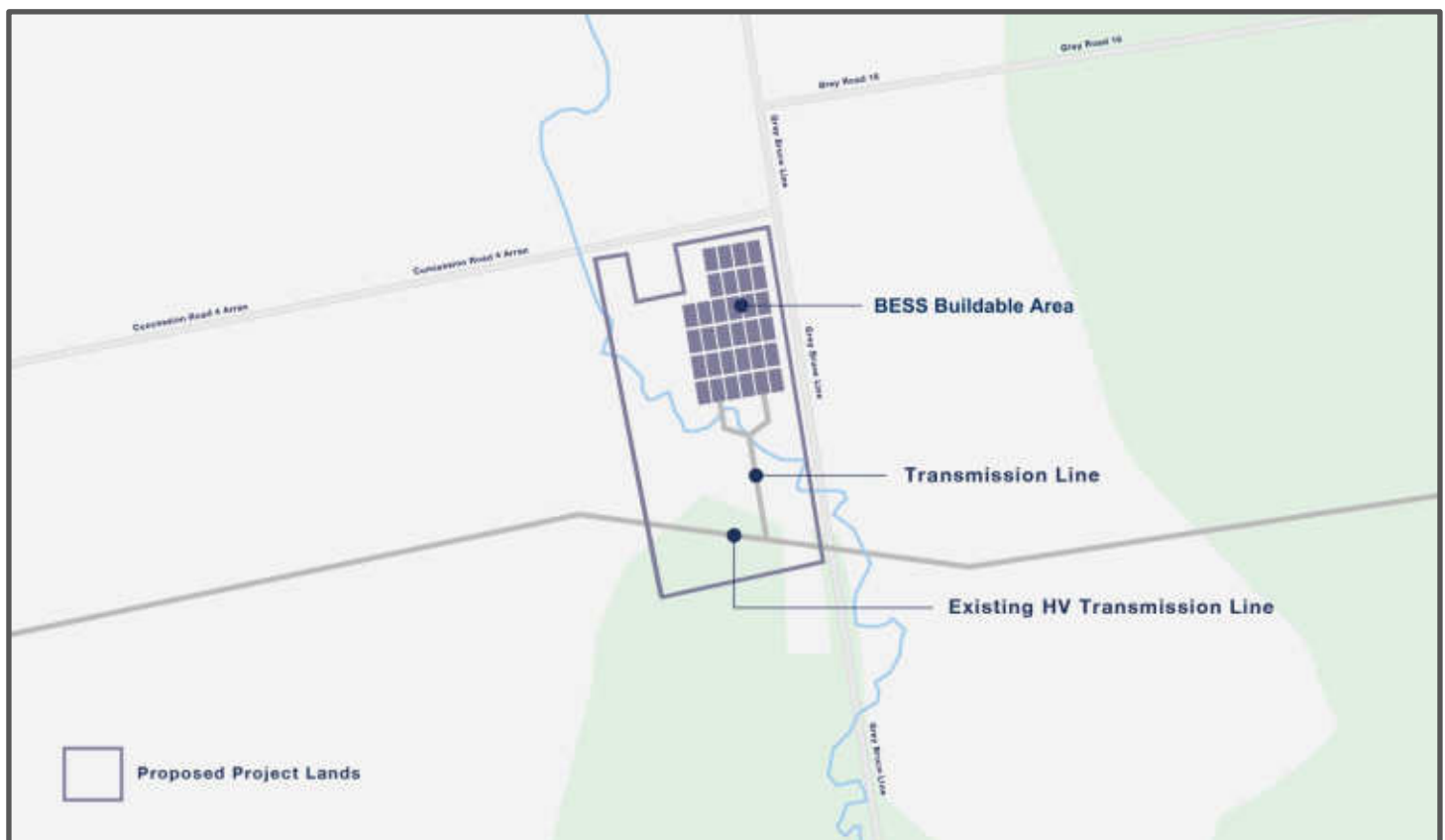
Feedback will be collected and included in a public consultation record that will form part of Neoen's development applications for Tara BESS.

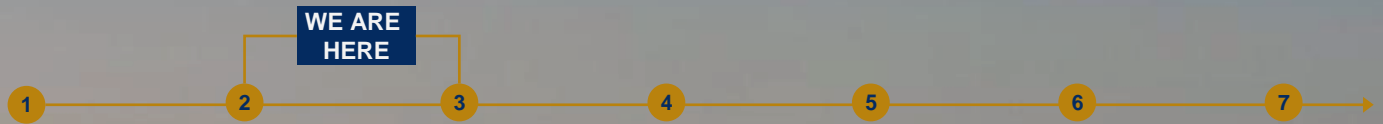
**12:00 pm – 2:00 pm**

**6:00 pm – 8:00 pm**

**Community Hall – Tara Community Centre  
150 Hamilton St, Tara, ON**

In the event of inclement weather, the open house will be rescheduled for Tuesday January 28, and notice will be posted on [www.tarabattery.ca](http://www.tarabattery.ca).





1	2	3	4	5	6	7
<b>Project Awarded</b>	<b>Field Studies &amp; Assessments</b>	<b>Public Consultation</b>	<b>Submission</b>	<b>Assessment &amp; Approval</b>	<b>Construction</b>	<b>Operations</b>
<b>MAY 2024</b>	<b>MAY 2024 – MAR 2025</b>	<b>SEP 2024 – MAR 2025</b>	<b>SPRING 2025</b>		<b>SPRING 2026</b>	<b>LATE 2027</b>
Project contract is awarded by IESO.	Neoen undertakes studies and assessment to inform the project design.	Neoen gathers feedback from the community.	Neoen submits applications to regulatory authorities for approval.	Regulatory authorities assess the project.	Construction of Tara BESS begins.	Tara BESS begins operations.

## Contact Us

Can't attend the open house?

You can request information, ask questions, and share feedback by:

- Phone
- E-mail
- Mail
- Online (via Feedback Form)
- Request a 1-on-1 meeting

(416) 312-0057

[info@tarabattery.ca](mailto:info@tarabattery.ca)

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

[www.tarabattery.ca](http://www.tarabattery.ca)

Join us, **Tuesday January 21, 2025**, for an open house on the Tara Battery Energy Storage project.

**12 - 2 PM and 6 - 8 PM**  
Community Hall Room  
Tara Community Centre  
150 Hamilton St, Tara, ON



In the event of inclement weather, the open house will be rescheduled for Tuesday January 28.



**From:** [Brittany Morrison](#)  
**To:** [Linda White; Pierre Valley;](#)  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Community Open House - Jan 21 2025  
**Attachments:** [Notice of Open House - Tara BESS - January 21 2025.pdf](#)  
**Sent:** 2024-12-17 4:12:00 PM

---

Hello Linda and Pierre,

On Tuesday January 21, 2025, Neoen will host a community open house for the Tara BESS project.

We will host two drop-in times, 12 – 2 pm, and 6 – 8 pm, both at the Tara Community Centre in the Community Hall room.

Copies of the notice have been delivered to mailboxes of properties in the project area.

Is there a public area in the County Hall where the notice can be posted?

Also, it would be great if the County could share it on its social channels or website.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The Neoen logo consists of the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" are in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Byers, Rick](#)  
**Subject:** FW: Notice of Community Open House - Jan 21 2025  
**Attachments:** [Notice of Open House - Tara BESS - January 21 2025.pdf](#)  
**Sent:** 2024-12-17 4:13:00 PM

---

Hello MPP Byers,

On Tuesday January 21, 2025, Neoen will host a community open house for the Tara BESS project.

We will host two drop-in times, 12 – 2 pm, and 6 – 8 pm, both at the Tara Community Centre in the Community Hall room.

Copies of the notice have been delivered to mailboxes of properties in the project area.

It would be great if your team could help share the notice through your channels.

Please let us know if you have any questions.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Liz Buckton](#)  
**Cc:** [Mario De Agüero](#)  
**Subject:** Notice of Community Open House - Jan 21 2025  
**Attachments:** [Notice of Open House - Tara BESS - January 21 2025.pdf](#)  
**Sent:** 2024-12-17 4:17:00 PM

---

Hello Liz,

On Tuesday January 21, 2025, Neoen will host a community open house for the Tara BESS project.

We will host two drop-in times, 12 – 2 pm, and 6 – 8 pm, both at the Tara Community Centre in the Community Hall room.

Copies of the notice have been delivered to mailboxes of properties in the project area.

Can you please share the notice with Council? Also, it would be great if you could help share the notice through your channels.

One more thing—we haven't heard back from Chatworth. I've tried reaching out to both the Mayor's office and Patty Sinnamon's office. Is there somebody you recommend that we reach out to?

Please let us know if you have any questions.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "N" and "E" are blue, and the "O" and "E" are orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Steve Tiernan](#)  
**Subject:** Notice of Community Open House - Jan 21 2025  
**Attachments:** [Notice of Open House - Tara BESS - January 21 2025.pdf](#)  
**Sent:** 2024-12-17 4:19:00 PM

---

Hello Steve,

I hope you are well.

Writing to let you know that on Tuesday January 21, 2025, Neoen will host a community open house for the Tara BESS project.

We will host two drop-in times, 12 – 2 pm, and 6 – 8 pm, both at the Tara Community Centre in the Community Hall room.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The Neoen logo consists of the word "NEOEN" in a bold, sans-serif font. The letters "NEO" are in blue and "EN" are in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#) on behalf of [Brittany Morrison](#)  
**To:** [Janet Galant](#)  
**Subject:** RE: Meeting tomorrow  
**Attachments:** [Notice of Open House - Tara BESS - January 21 2025.pdf](#)  
**Sent:** 2024-12-17 2:00:00 PM

---

Good afternoon, Janet,

Thank you very much for this information.

We respect SON's wishes, and we hope that we can meet soon. I will continue to provide project updates as they become available. Please let me know if you have any questions about the material.

Neoen has organized a community open house for Tara BESS. It is scheduled for Tuesday January 21, 2025. There is an afternoon timeslot, from 12 – 2 pm, and an evening one, from 6 – 8 pm. We are happy to organize an open house specifically for SON's communities.

Wishing you a safe and happy holiday season!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

---

**From:** Janet Galant <[manager@saugeenobwaynation.ca](mailto:manager@saugeenobwaynation.ca)>  
**Sent:** December 3, 2024 7:13 AM  
**To:** Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>  
**Subject:** Re: Meeting tomorrow

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Brittany,

I have spoken to joint council regarding your project and there are further conversations that they need to have with the Minister's Office, that is beyond the scope of this project.

A buffer zone was identified, and agreed upon by both Joint Council and the Ministry many years ago, where no projects were to be developed within. Your project is within that buffer zone. The Ministry needs to answer to this and in the meantime, I have been instructed to engage directly with the Ministry.

Once I receive further instruction, I will let you know.

Thanks,

Janet Galant  
Senior Manager  
T: 519.373.6075  
10129 Hwy 6  
Georgian Bluffs, ON  
N0H 2T0

  
[saugeenobwaynation.ca](http://saugeenobwaynation.ca)

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On Mon, Dec 2, 2024 at 6:19 PM Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)> wrote:

Hello Janet,

I hope everything is OK.

I've tried reaching you by e-mail and phone many times since our last call on November 20<sup>th</sup>, but I have been unable to reach you and have not heard back.

I just tried to call you and was directed to a voicemail for another individual.

Development of the Tara BESS project is progressing. It is important to us that SON is meaningfully consulted on the project, so we would like to meet with SON as soon as possible. We would also like SON's input on the benefit-sharing plan we are preparing for Tara BESS.

We understand that Chief Ritchie and Chief Nadjiwon are busy and that scheduling a meeting with them may be difficult. Further to my last email, perhaps in the meantime Neoen can meet with SON Energy and/or Environment staff while we work to organize a meeting between the Chiefs and Neoen. The meeting would be attended by our Province Director, Project Manager, and me.

If I should be reaching out to somebody else, please let me know. As always, we are happy to meet in-person, in your Territory, or virtually.

I have attached two important project communications I sent to you recently: Notice of Commencement of Class EA for Transmission Facilities, and a communication regarding scheduling of our archaeological site walk.

I hope to hear from you soon.

Sincerely,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

[Suite 319 – 150 King Street West, Toronto, ON M5H 1J9](#)

---

**From:** Brittany Morrison

**Sent:** November 21, 2024 1:50 PM

**To:** Janet Galant <[manager@saugeenonijibwaynation.ca](mailto:manager@saugeenonijibwaynation.ca)>

**Subject:** RE: Meeting tomorrow

Hi Janet,

Any luck with a meeting time for next week?

Thank you,

**Brittany Morrison**

M. +1 416-312-0057

---

**From:** Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>

**Sent:** November 20, 2024 11:59 AM

**To:** Janet Galant <[manager@saugeenonijibwaynation.ca](mailto:manager@saugeenonijibwaynation.ca)>

**Subject:** RE: Meeting tomorrow

Hi Janet,

Thanks for letting me know.

As discussed, we are available to meet in-person on Friday November 29, and Friday December 6. We can meet virtually most days, except for Tuesday November 26. I've confirmed that we can do a virtual meeting on Wednesday, but only from 4:00 p.m. onward.

We do need to complete the archeological and cultural significant field walk very soon. We want to ensure SON or its representative can participate, if desired. So, I am hoping we can meet sooner than later.

Thanks very much,



**Brittany Morrison**

M. +1 416-312-0057

---

**From:** Janet Galant <[manager@saugeenajibwaynation.ca](mailto:manager@saugeenajibwaynation.ca)>

**Sent:** November 20, 2024 11:30 AM

**To:** Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>

**Subject:** Re: Meeting tomorrow

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Brittany,

The Chiefs have asked to reschedule. I will let them know which dates work best for you.

Sorry about that.

I will be in touch.

Janet Galant


Senior Manager

T: 519.373.6075

[10129 Hwy 6](#)

[Georgian Bluffs, ON](#)

[N0H 2T0](#)

  
[saugeenajibwaynation.ca](http://saugeenajibwaynation.ca)

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On Wed, Nov 20, 2024 at 11:13 AM Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)> wrote:

Hi Janet,

Any word back? If we will meet, I'll have to head out shortly.

If it is helpful, we can also meet in-person next Friday November 29<sup>th</sup> or December 6<sup>th</sup>, we can also meet virtually most days.

**Brittany Morrison**

M. +1 416-312-0057

---

**From:** Janet Galant <[manager@saugeenajibwaynation.ca](mailto:manager@saugeenajibwaynation.ca)>

**Sent:** November 19, 2024 8:21 PM

**To:** Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>

**Subject:** Meeting tomorrow

**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Brittany,

I spoke with chief Nadjiwon tonight and he is available tomorrow after another meeting we have at 2pm in Owen Sound.

I know it's late notice but if you could make an in-person meeting, we could find a place to meet in Owen Sound, otherwise we can meet virtually.

If you can't make tomorrow, please let me know and we can rearrange another date.

Thanks,

Janet Galant

Senior Manager

T: 519.373.6075

[10129 Hwy 6](#)  
[Georgian Bluffs, ON](#)  
[N0H 2T0](#)

[saugeenobjibwaynation.ca](#)

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----- Forwarded message -----

From: Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>  
To: Janet Galant <[manager@saugeenobjibwaynation.ca](mailto:manager@saugeenobjibwaynation.ca)>  
Cc: "[environmentoffice@saugeenobjibwaynation.ca](mailto:environmentoffice@saugeenobjibwaynation.ca)" <[environmentoffice@saugeenobjibwaynation.ca](mailto:environmentoffice@saugeenobjibwaynation.ca)>  
Bcc:  
Date: Mon, 25 Nov 2024 22:04:22 +0000  
Subject: Notice of Commencement of Class EA for TF - Tara BESS  
Hello Janet,

I am writing to let you know that, today, we issued our [Notice of Commencement of Class Environmental Assessment for Transmission Facilities](#).

A copy of the notice is attached to this e-mail.

Additionally, our project website, [www.tarabattery.ca](http://www.tarabattery.ca) is now live. Visitors can use the site to obtain project information, contact Neoen, provide feedback (using online feedback form), subscribe to the mailing list, and view project updates.

Happy to answer any questions.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

**NEOEN**

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

----- Forwarded message -----

From: Brittany Morrison <[Brittany.Morrison@neoen.com](mailto:Brittany.Morrison@neoen.com)>  
To: Janet Galant <[manager@saugeenobjibwaynation.ca](mailto:manager@saugeenobjibwaynation.ca)>, "[manager.energy@saugeenobjibwaynation.ca](mailto:manager.energy@saugeenobjibwaynation.ca)" <[manager.energy@saugeenobjibwaynation.ca](mailto:manager.energy@saugeenobjibwaynation.ca)>  
Cc: "[environmentoffice@saugeenobjibwaynation.ca](mailto:environmentoffice@saugeenobjibwaynation.ca)" <[environmentoffice@saugeenobjibwaynation.ca](mailto:environmentoffice@saugeenobjibwaynation.ca)>, Mario De Agüero <[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)>  
Bcc:  
Date: Thu, 28 Nov 2024 15:20:25 +0000  
Subject: Archaeological Site Walk - Tara BESS  
Hello Janet and Owen,

I am writing to inform you that, in early December, Neoen will conduct an archaeological field walk as part of the Stage 1 Archaeological Assessment for Tara BESS.

We would like to invite SON Joint Council or its representatives to participate. Neoen would, of course, provide capacity funding for your participation. As discussed, we have held off on scheduling the field walk in hopes that we would first meet with SON Joint Council. The snow will soon be upon us, so we, unfortunately, cannot hold off any longer.

I have downloaded a copy of SON's Archaeological Standards and will provide a copy to our consultant team. I have included your Environment Office, who I understand will receive the notice from the Province once the walk has been scheduled.

Please let me know as soon as possible if SON Joint Council wishes to participate, so we can select a day that best suits you and your representatives.

Also, Janet, I have tried several times to reach you by phone and e-mail since our meeting with Chief Nadjiwon and Chief Ritchie was cancelled last Wednesday but have not heard back. I hope everything is OK.

We really would like to meet with the Chiefs. I am sure they are busy, but is there a time in the first three weeks of December that they are available? We can go to them or meet virtually.

In the meantime, can we meet with the Energy team to introduce ourselves and the Tara BESS project?

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [edance@arran-elderslie.ca](mailto:edance@arran-elderslie.ca)  
**Cc:** [Mario De Agüero](#); [cfraser@arran-elderslie.ca](mailto:cfraser@arran-elderslie.ca);  
**Subject:** Notice of Community Open House - Jan 21 2025  
**Attachments:** [Notice of Open House - Tara BESS - January 21 2025.pdf](#)  
**Sent:** 2024-12-17 4:09:00 PM

---

Hello Emily,

On Tuesday January 21, 2025, Neoen will host a community open house for the Tara BESS project.

We will host two drop-in times, 12 – 2 pm, and 6 – 8 pm, both at the Tara Community Centre in the Community Hall room.

Can you please include this in the January Council materials?

Copies of the notice have been delivered to mailboxes of properties in the project area.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for Neoen, featuring the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

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Suite 319 – 150 King Street West, Toronto, ON M5H 1J9



Tara BESS Project Update  
Bruce County Council Meeting

*January 9, 2025*

Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities.



# Background

- Tara BESS, formerly Grey Owl Storage, is a **400-megawatt (MW), 1600-megawatt hour (MWh) battery energy storage system (BESS)** proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.
- Awarded a 20-year energy storage contract by the Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's Long-term 1 (LT1) RFP procurement – one of ten BESS contracts awarded in the RFP.
- Tara BESS responds directly to Ontario's growing energy needs and 2050 energy procurement target, by adding grid capacity equivalent to the daily energy consumption of ~640,000 households in Ontario.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# About Neoen

- Founded in 2008, Neoen is an independent producer of renewable energy.
- Neoen designs, implements, and operates renewable electricity technologies, including solar and wind power, and energy storage solutions.
- > 8 GW of power in operation or under construction across 15 countries.
- Neoen owns and operates its facilities for the long-term.

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.



# BESS Technology



# What is Battery Energy Storage?

- Stores (or “charges”) electricity in batteries that is later discharged to an electrical grid.
- Typically, charges overnight when demand is low and discharges when demand rises.
- BESS can standalone or accompany a renewable technology, like wind or solar power.
- Supports the transition from fossil fuels by maximizing the use of energy produced from renewable sources.
- Provides ancillary services such as frequency and voltage support, and virtual inertia.



# How does a Standalone BESS Work?

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

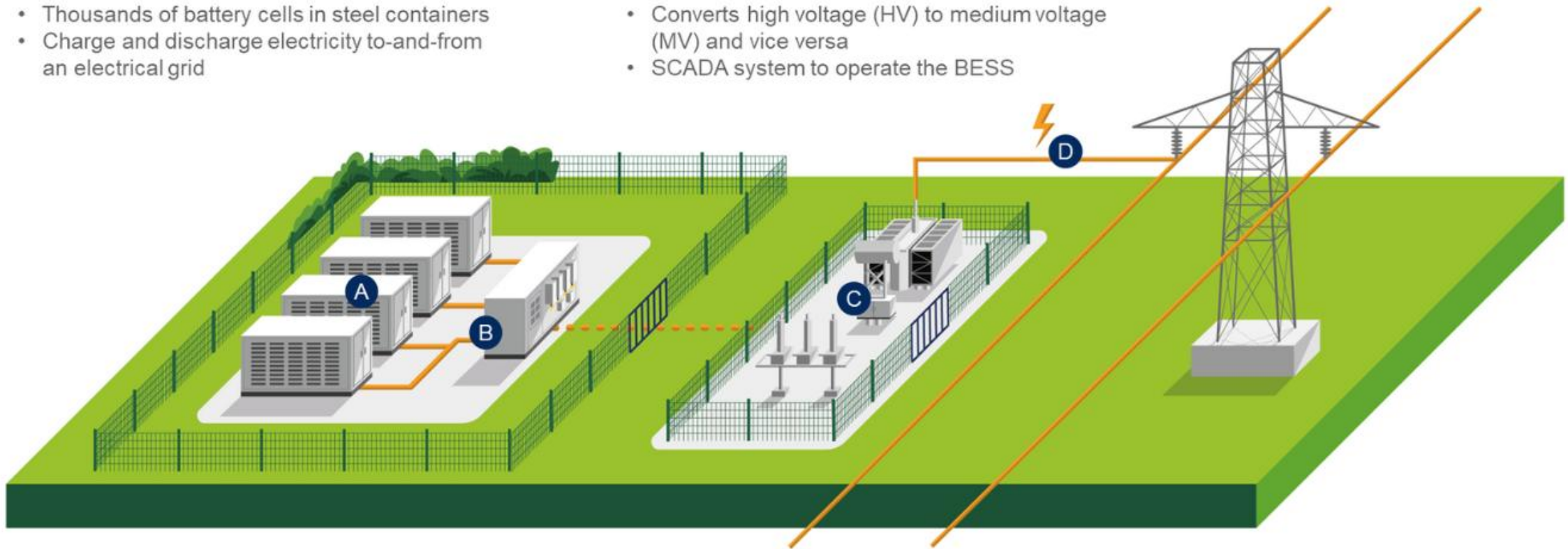
- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS

## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

## D - Transmission Lines

- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid



# Tara BESS







Tobermory



Lake Huron

BESS Buildable Area

Owen Sound



Arran-Elderslie



**TARA**  
BATTERY

Barrie

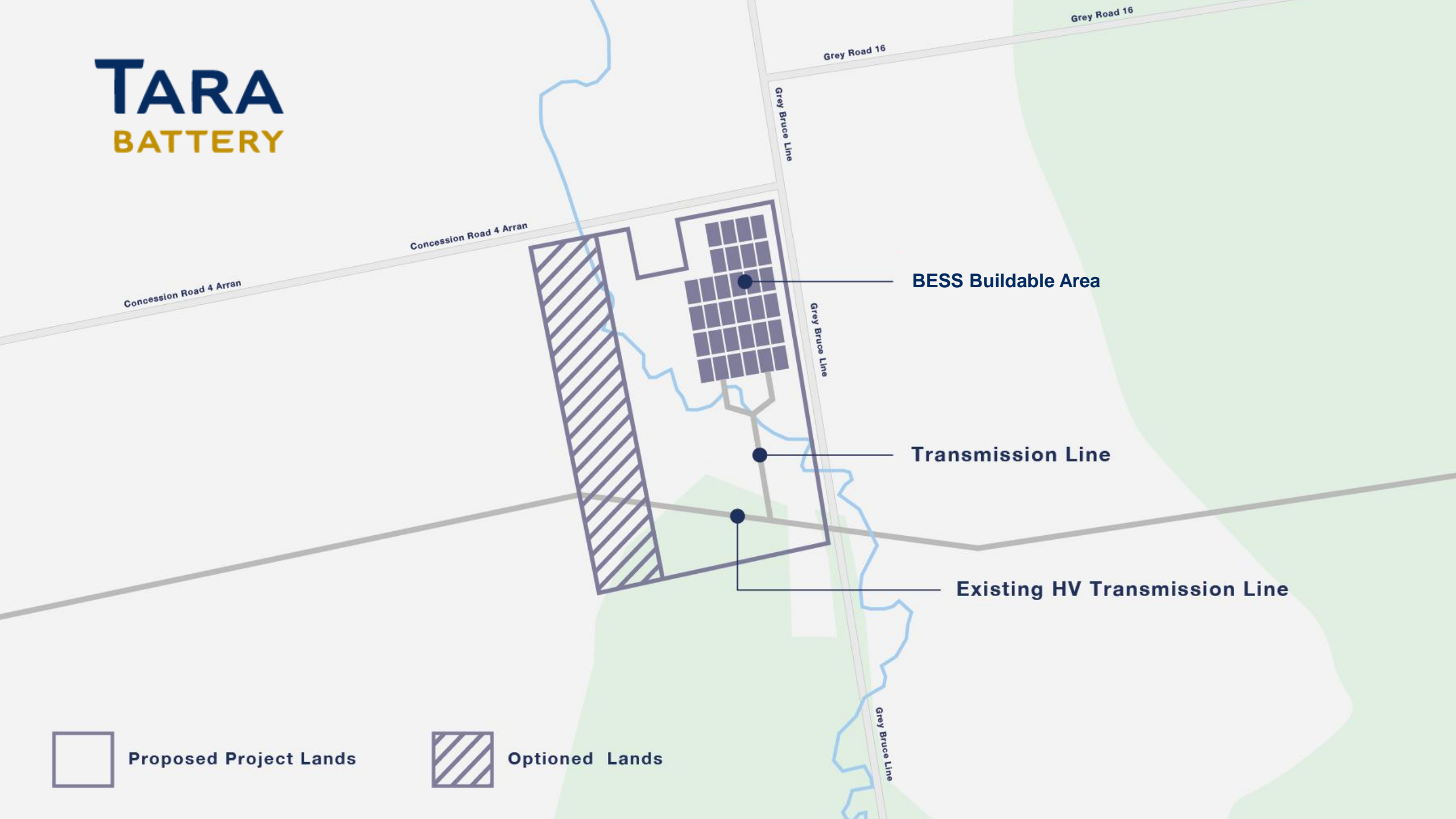


Lake Simcoe



Hanover

# TARA BATTERY



# Tara BESS Preliminary Design



**Standalone BESS facility**



**Capable of providing 400  
MW of power for four  
hours**



**~420 lithium-ion battery  
cell containers**



**3 Transformers  
(1 back-up)**



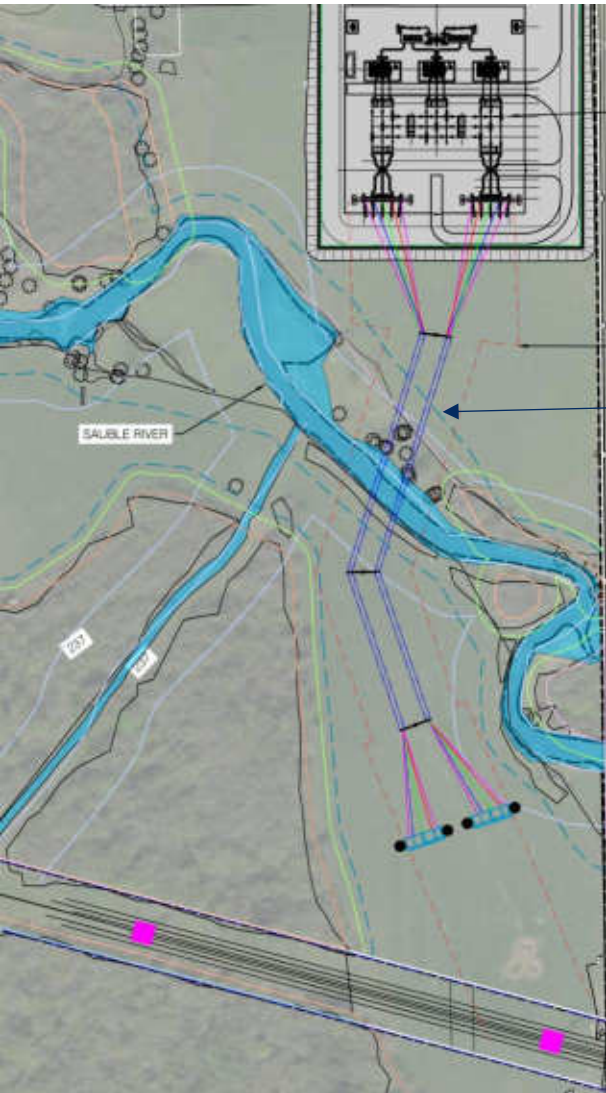
**~20 acres of at-grade  
equipment**



**~400 m of overhead  
transmission line and ~5  
transmission structures**

**This information is preliminary and subject to change.**

# Proposed BESS Layout

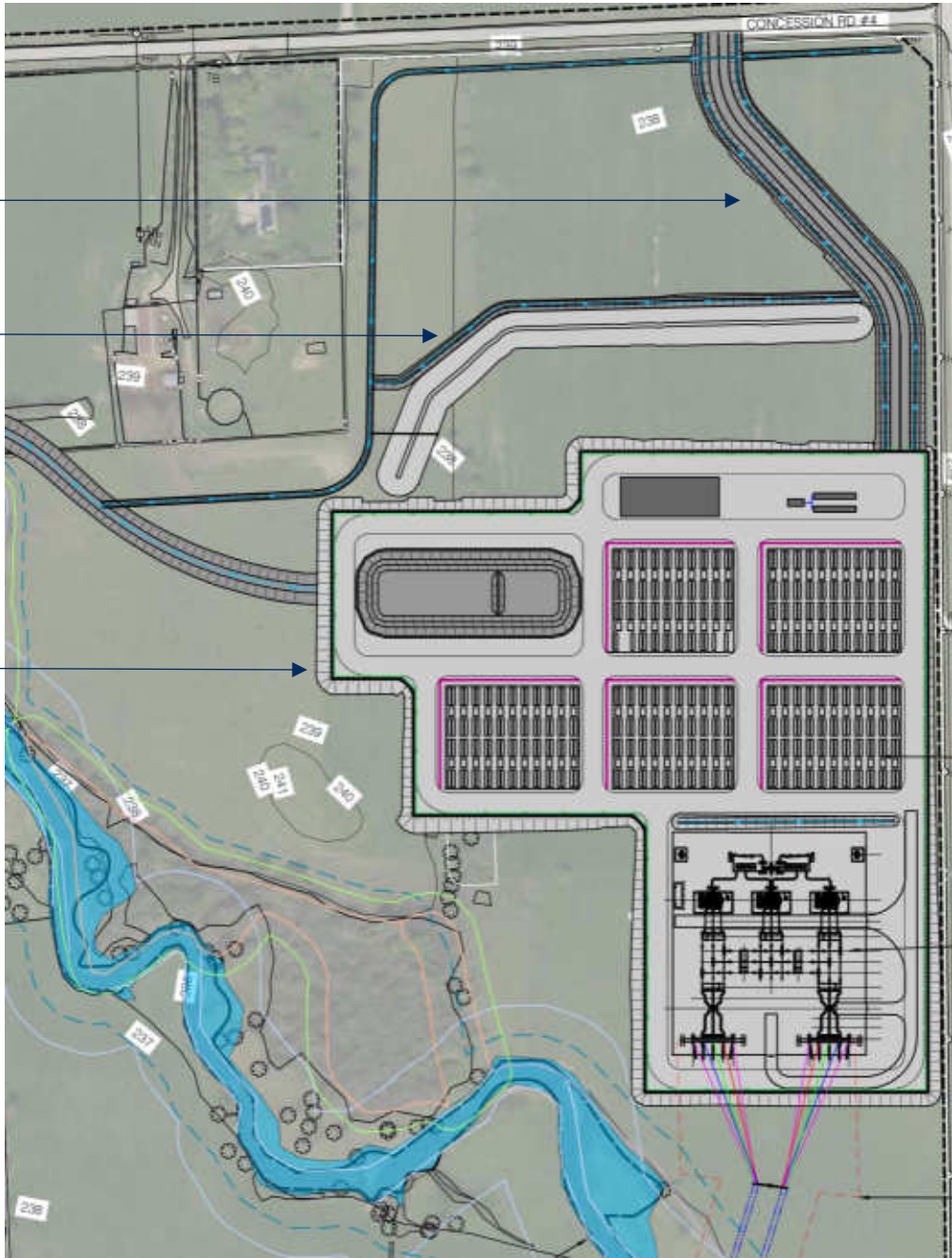


**SITE ACCESS ROUTE**

**ACOUSTIC BARRIER WALL**

**TRANSMISSION ROUTE**

**BESS FACILITY**

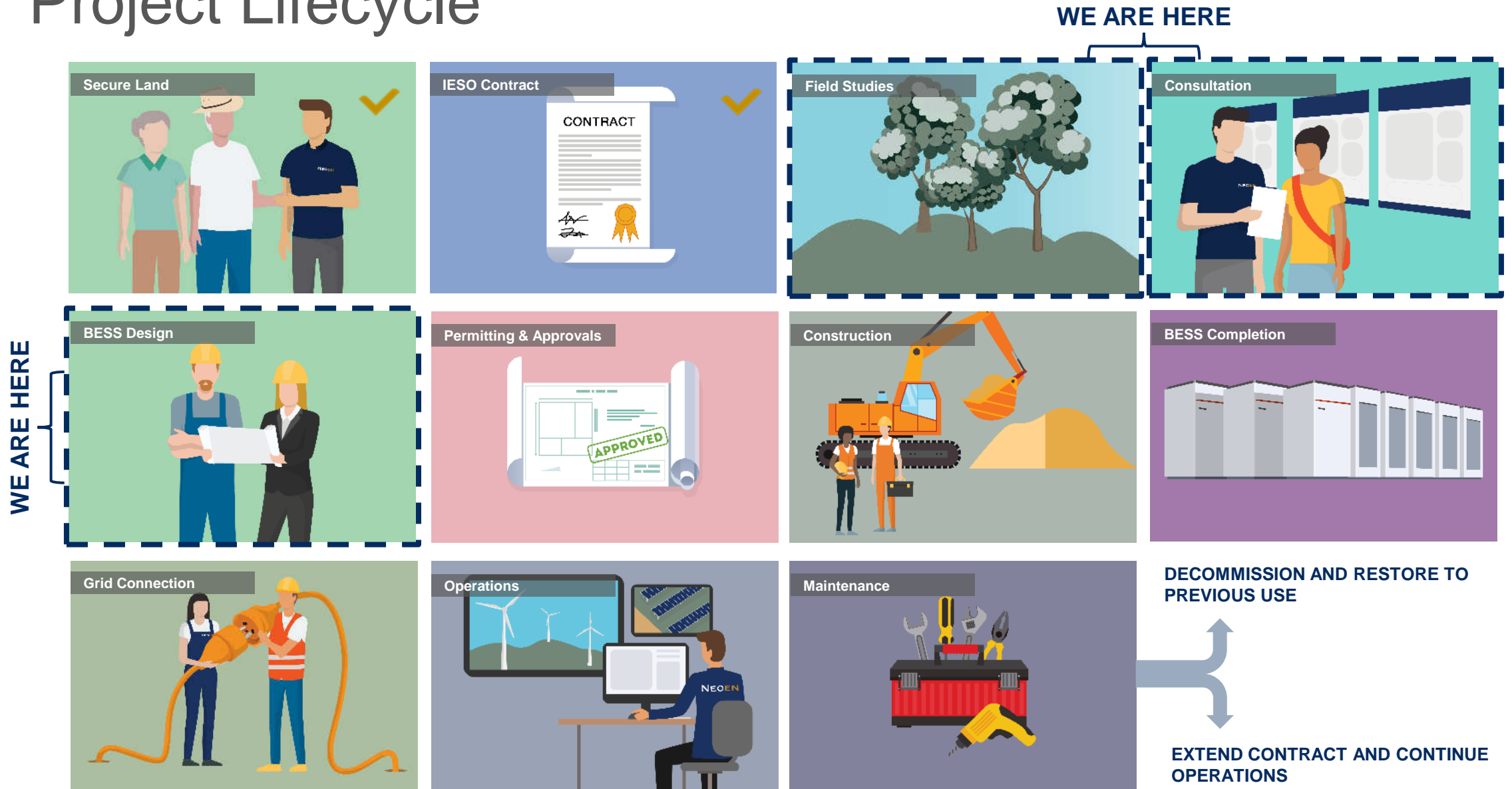




# Development Process



# Project Lifecycle





# Target Project Timeline

	'24	2025				2026				2027			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Development													
Consultation													
Permitting & and Approvals													
Construction													
Community Engagement													
Operations													



# Project Permits and Approvals

- Class Environmental Assessment (EA) for Transmission Facilities
  - Aquatic Habitat Assessment
  - Ecological Land Classification and Vegetation Surveys
  - Breeding Bird Surveys
  - Breeding Amphibian Surveys
  - Bat Habitat Assessment (Maternity Roost Surveys)
  - Noise Impact Assessment
  - Archaeological Assessment
  - Agricultural Impact Assessment
- Environmental Compliance Approval for Stormwater
- Species-at-Risk\*
- Environmental Activity Sector Registration (noise)
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan\*
- Ontario Endangered Species Act Sec.17 approval\*
- Regulation 41/24 Approval from Grey Sauble Conservation Authority

\* TO BE CONFIRMED

# Consultation

- Consultation for Tara BESS is underway.
- Neoen will consult Rightsholders, stakeholders, landowners and occupants in the immediate vicinity, and the broader community.
- We invite feedback via the following channels:
  - Phone: (416) 312-0057
  - Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
  - Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
  - Mail: 319-150 King Street West, Toronto, ON M5H 1J9
  - Request a 1-on-1 meeting
  - Public open house – January 21, 2025
  - Public open house – Spring 2025 (date TBC)



# BESS Safety



# BESS Safety

- BESS are designed to prevent the following potential hazards:
  - **Thermal runaway** is an exothermic reaction whereby damaged battery cells release energy in the form of abnormal heat, which can propagate and result in smoke, fire, or combustion. Thermal runaway can occur from an internal short circuit, external short circuit, external fire, and BESS degradation.
  - **Spill events**, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.
- BESS hazard events are infrequent and prevented by rigorous design mitigation, thorough maintenance and monitoring, and stringent safety protocols, including:
  - Active protection, such as on-site water sprinkler and hydrant systems
  - Passive protection, such as use of fire barriers and non-combustible oils
  - Facility systems and security
- Hazards events are managed by preparedness and rapid response.
- Neoen has engaged Arran-Elderslie's Fire Department on the Tara BESS project.

# Community Benefits





# Community Benefits

- Neoen believes that the communities it works in should share in the benefits of its projects.
- Consultation for Tara BESS will inform a community benefits plan that may include vendor opportunities, employment and skills training, Indigenous-specific benefits or opportunities, environmental initiatives, sponsorship, donations, or art installations.



Contact Us



# We want to hear from you!



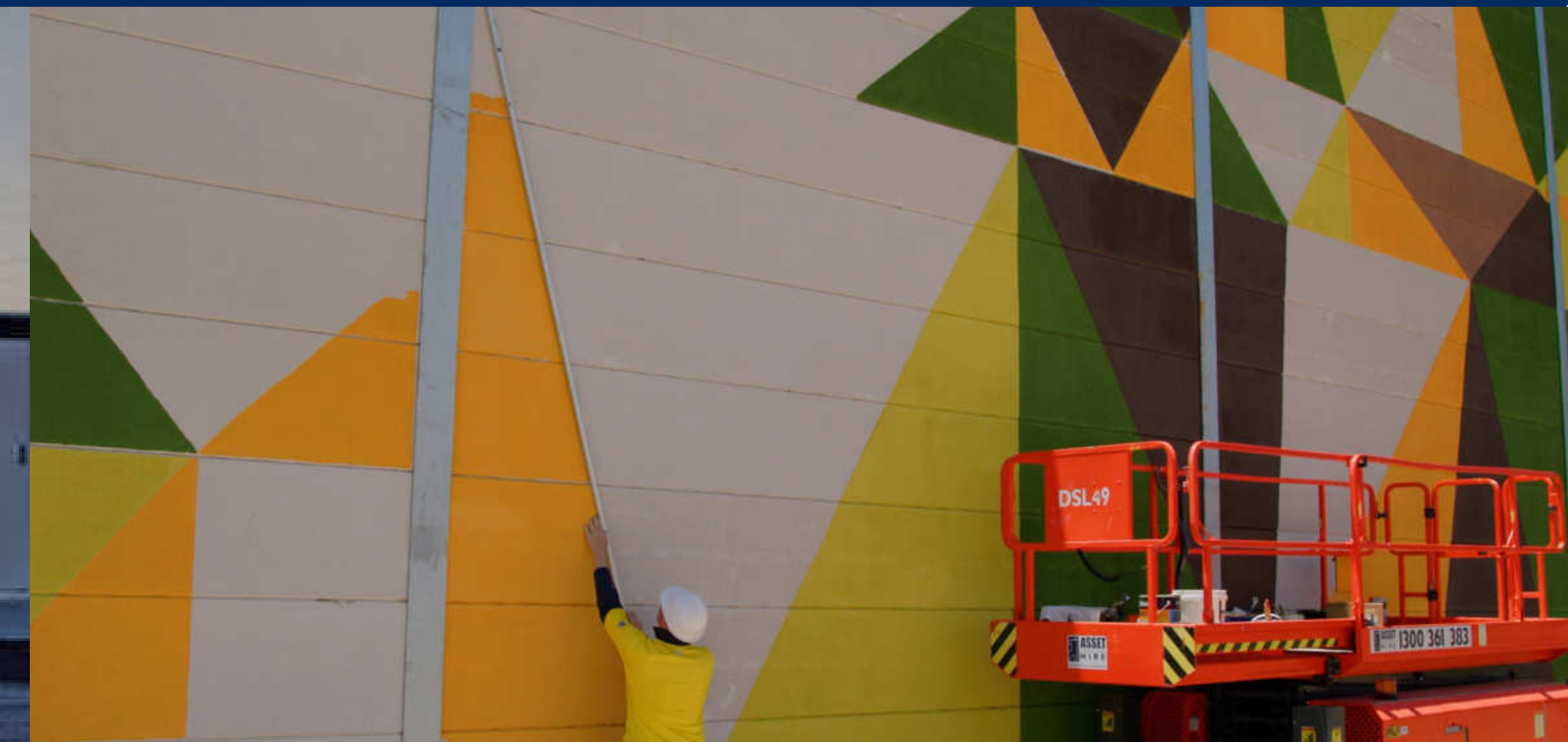
**Mario De Agüero**  
Senior Project Manager,  
Tara BESS  
[mario.deaguero@neoen.com](mailto:mario.deaguero@neoen.com)  
(647) 455-0877



**Brittany Morrison**  
Manager, Communication,  
Engagement & Stakeholder  
Relations  
[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)  
(416) 312-0057

- 319-150 King Street West, Toronto, Ontario M5H 1J9
- [www.neoen.com](http://www.neoen.com)
- [www.tarabattery.ca](http://www.tarabattery.ca)





Neoen is a leading independent power producer of exclusively renewable energy, including solar and wind power, and battery energy storage.

We have a portfolio capacity of 8.7-gigawatts (GW) in operation or under construction across four continents. Our develop-to-own strategy means that we are around for the long-term.

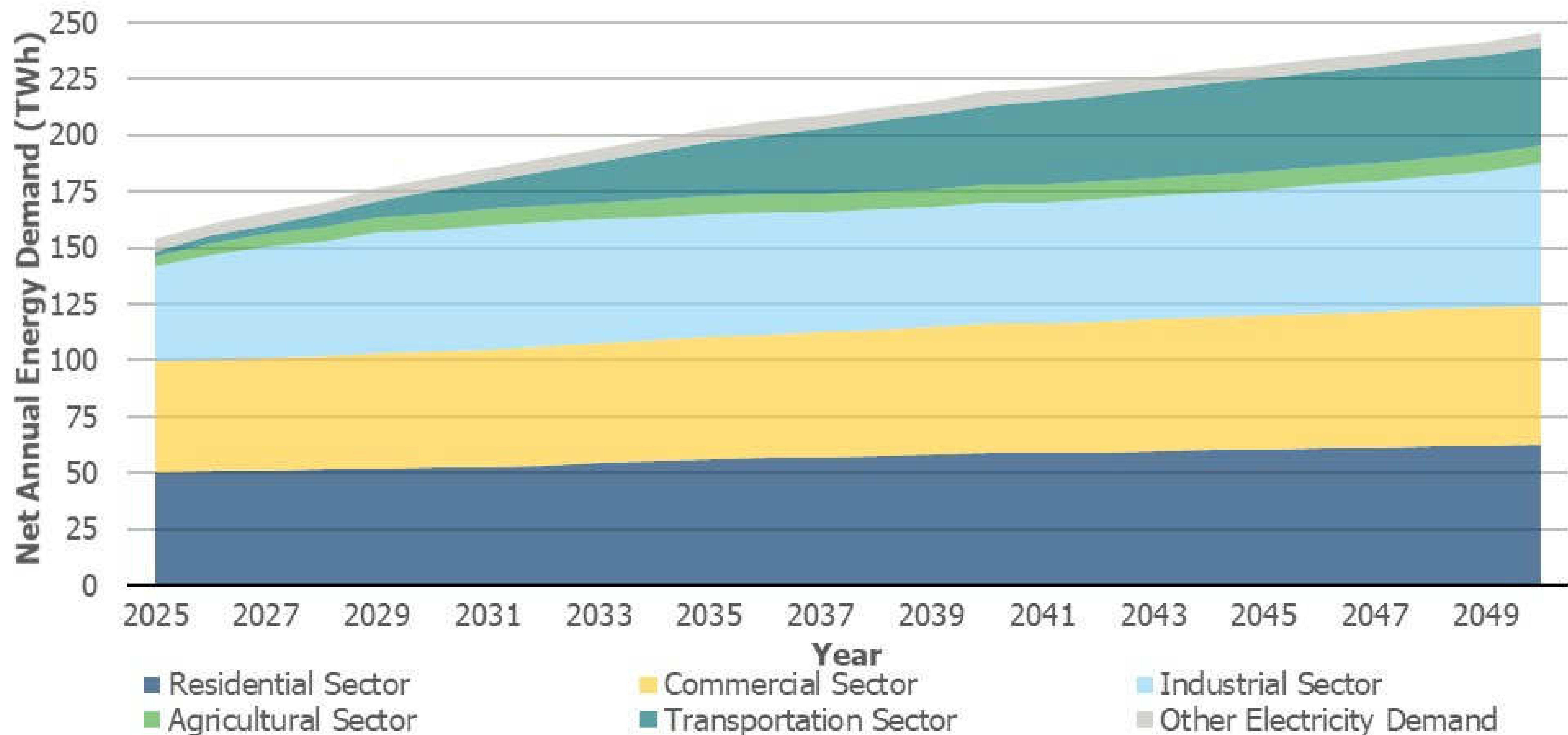
Neoen has an active solar plant, Fox Coulee Solar Farm, in Starland County, Alberta, and several projects in development in Canada.





- The Tara BESS project, formerly Grey Owl Storage, was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 battery energy storage system (BESS) contracts awarded in LT1, collectively totaling 1,784 MW, to help meet Ontario's projected energy needs by 2050.
- Under the contract, Neoen will receive payment from IESO in exchange for providing 400 MW of capacity, per the rate set-out in Neoen's bid.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

**Figure 2 | Annual Energy Demand**



IESO'S ANNUAL PLANNING OUTLOOK: ONTARIO'S ELECTRICITY SYSTEM NEEDS: 2025-2050 (MARCH 2024)



- A battery energy storage system (BESS) stores (or “charges”) electricity in batteries and later discharges it to an electrical grid.
- Typically, BESS charge overnight when demand is low and discharge when demand rises.
- A BESS can standalone or accompany a renewable technology, like wind or solar power.
- In addition to energy storage, BESS can provide ancillary services such as frequency and voltage support, and virtual inertia.
- Energy storage supports the transition from fossil fuels by maximizing the usefulness of energy produced from renewable sources.

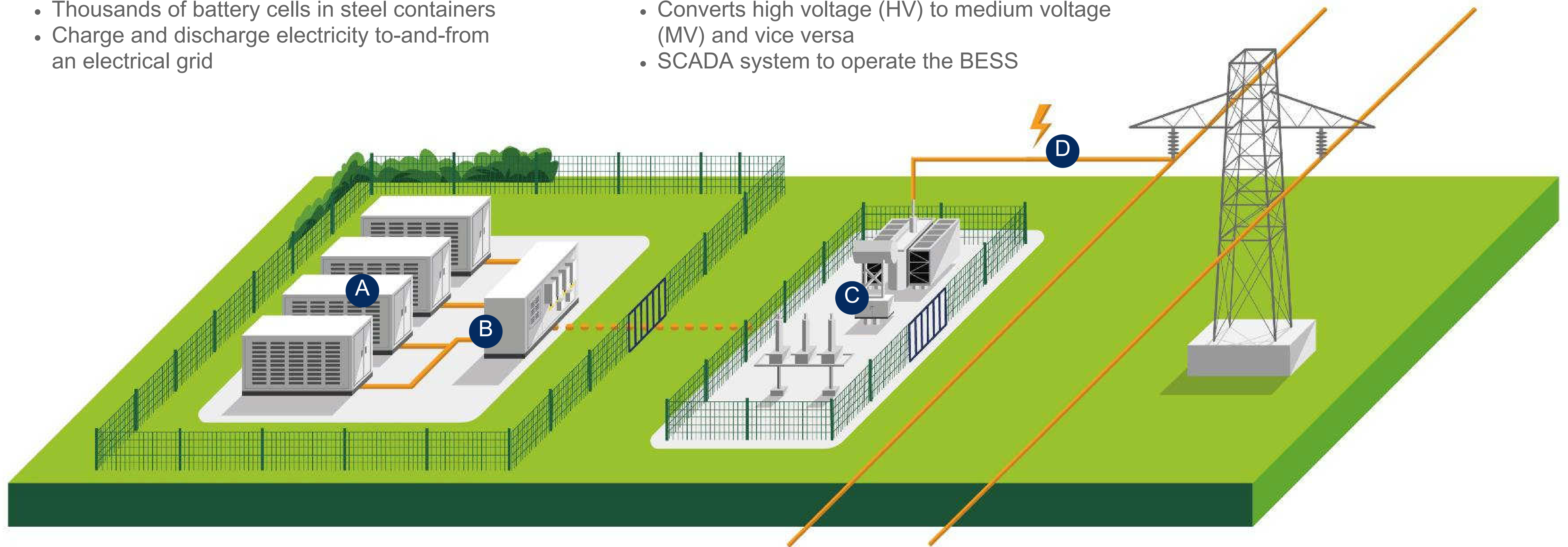
# TARA BATTERY How a BESS Works

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS



## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

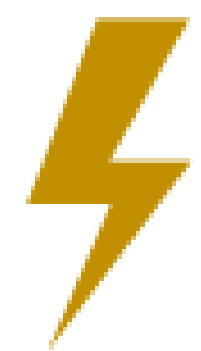
## D - Transmission Lines

- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid





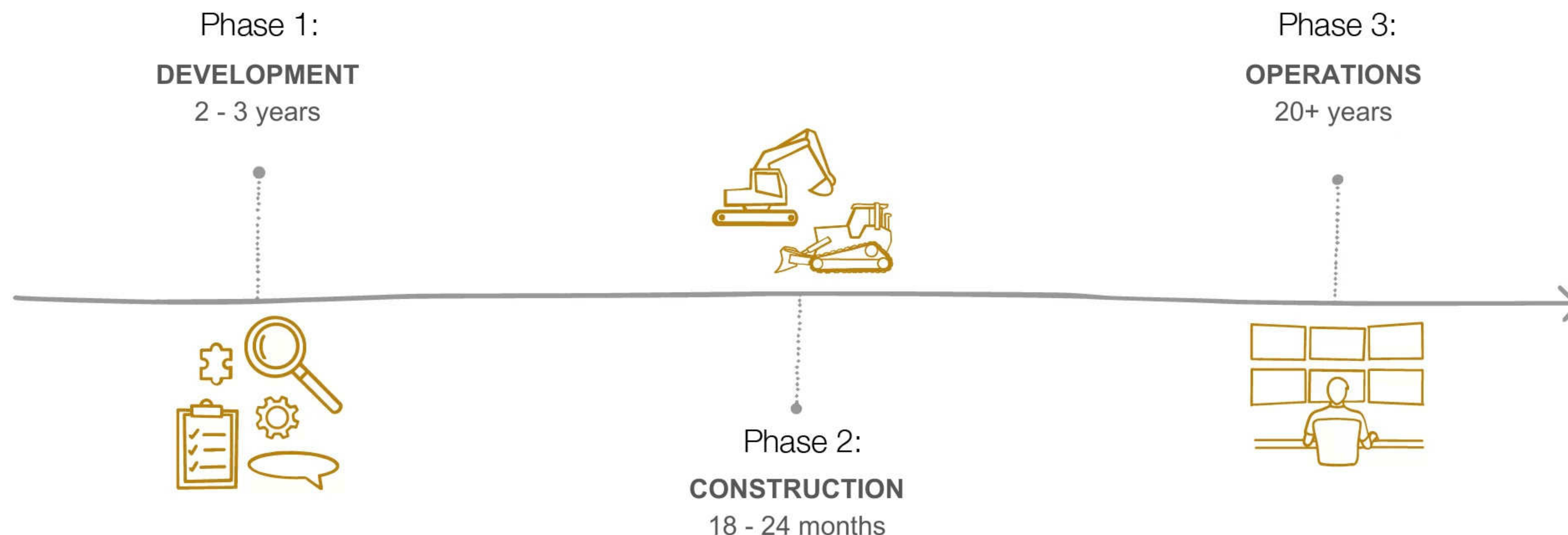
Tara BESS is a standalone battery energy storage system proposed for development on 39 Concession Road 4, southeast of the Village of Tara.



Tara BESS will provide 400 MW of power, a capacity equal to the daily energy consumption of approximately 64,000 households in Ontario.

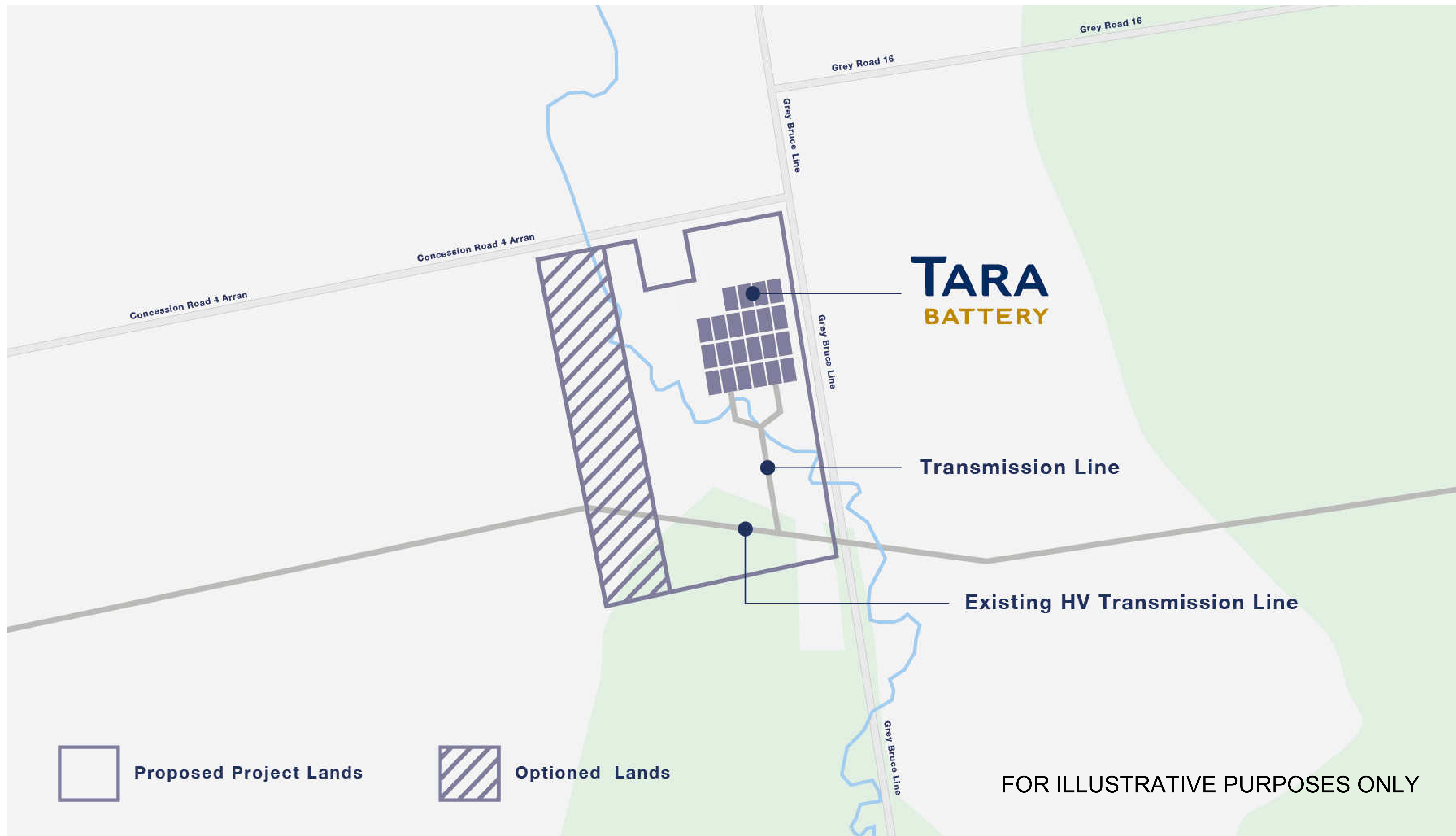


Tara BESS will occupy a footprint of approximately 20-acres at-grade, excluding transmission structures, and stormwater ditches, plus ~400-metres of overhead transmission line. Tara BESS will connect to the existing 230-kilovolt (kV) high voltage line to the south.





# TARA BATTERY Project Location



**Why here?** The proposed site satisfies the conditions necessary to develop a BESS, including regional need, land owner willingness, proximity to transmission, flat terrain, construction feasibility, and site accessibility.



# TARA BATTERY Proposed Layout

1. Site access road
2. Acoustic barrier wall on berm with vegetation (8m)\*
3. Stormwater ditches
4. Overflow and sediment filtration pond
5. SCADA building, water storage and pump system
6. 420 lithium-ion battery containers with acoustic barrier walls
7. Substation, including three high-voltage transformers (two operational, one back-up), breakers and switching equipment
8. ~400-metres of overhead transmission line and transmission structures


For safety, the site will be enclosed by permanent fencing and will include lighting and security cameras.



\*FACILITY-BASED NOISE MITIGATION MEASURES ARE BEING EXPLORED AND MAY REPLACE THE 8M ACOUSTIC BARRIER WALL.



- Tara BESS is subject to the Ministry of Environment, Conservation and Parks' (MECP) Class Environmental Assessment for Minor Transmission Facilities (Class EA) process, in accordance with the Ontario Environmental Assessment Act.
- Notice of Commencement of the Class EA process for Tara BESS was initiated on November 25, 2024.
- Feedback received will be entered into a public consultation record that form part of Neoen's Class EA submission.
- A Notice of Completion will be filed once the Class EA studies are complete in Q1 2025, then Neoen's submission will be available for public comment for 30 days following Notice of Completion.




## Notice of Commencement: Class Environmental Assessment for Transmission Facilities

Published: November 25, 2024

Neoen is initiating a Class Environmental Assessment for Transmission Facilities (Class EA for TF) for Tara BESS, a battery energy storage system (BESS) proposed for development in the Municipality of Arran-Elderslie.

### About the Project

Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600-megawatt hour (MWh) capacity standalone battery energy storage system (BESS) proposed for development in the Municipality of Arran-Elderslie, approximately 5-kilometres southeast of the Village of Tara. The project was awarded a 20-year contract by Ontario's Independent Electricity System Operator (IESO), through IESO's "long-term 1" (LT1) RFP procurement. Tara BESS is one of ten energy storage contracts awarded in the LT1 procurement to meet Ontario's growing electricity needs. Tara BESS is proposed to store and discharge electricity to Ontario's grid, adding up to 400 MW of capacity. Neoen Ontario BESS Inc. (Neoen) is leading development of Tara BESS.



The map illustrates the proposed project lands (indicated by a blue outline) and the BESS buildable area (indicated by a blue grid). It also shows the transmission lines and the existing HV transmission line. The map includes labels for 'BESS Buildable Area', 'Transmission Line', and 'Existing HV Transmission Line'. A legend indicates 'Proposed Project Lands'.

### Study Area

Tara BESS is proposed for development on private lands located at 39 Concession Road 4, Tara, Ontario (the pictured "proposed project lands").

Tara BESS is expected to occupy a footprint of approximately 20 acres at-grade, plus approximately 450 metres of overhead transmission line and approximately five (5) steel structures to hold the transmission lines.

Tara BESS is proposed to connect to Hydro One's existing 230-kilovolt high voltage transmission line to the south of the proposed project lands.

The pictured "buildable area" represents the potential BESS development area. It is not reflective of the proposed BESS layout, and is subject to change. Details of the proposed BESS layout will be provided in a future communication.

### Planning Process

Tara BESS is subject to the Class Environmental Assessment for Transmission Facilities process ([www.hydroone.com/classea](http://www.hydroone.com/classea)) in accordance with the Ontario Environmental Assessment Act. This is a process for electricity transmission-related projects that do not generate electricity. Construction is expected to begin in spring 2026, subject to required permits and approvals.

### About Neoen

Neoen is a leading independent power producer of exclusively renewable energy technologies, including solar and onshore wind power, and energy storage solutions. Neoen has more than 8-gigawatts of power in operation or under construction across 15 countries. Neoen owns and operate its facilities for the long-term. To learn more about Neoen, visit [www.neoen.com](http://www.neoen.com).

### Share Your Feedback


Neoen is committed to meaningful consultation. Your feedback will inform the Class EA for TF process\*.

**To share your feedback, ask questions, or to subscribe to the Tara BESS mailing list, please contact:**

Brittany Morrison  
**Manager, Communication & Engagement**  
[info@tarabattery.ca](mailto:info@tarabattery.ca)  
**(416) 312-0057**

For more information or to share your feedback using our online feedback form, visit [www.tarabattery.ca](http://www.tarabattery.ca).

\*Personal information included in your feedback/question, such as name, address, telephone number and property location, is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential.





- The following studies, surveys and assessments are required for the Tara BESS Class EA submission:

Aquatic Habitat Assessment

Ecological Land Classification and Vegetation Surveys

Breeding Bird Surveys

Breeding Amphibian Surveys

Bat Habitat Assessment (Maternity Roost Surveys)

Noise Impact Assessment

Agricultural Impact Assessment

- In addition, the the Class EA, Tara BESS is subject to the following environmental permit and approval processes:

Environmental Compliance Approval for Stormwater and Noise

Environmental Activity Sector Registration (Noise)

Archaeology Clearance Letter

Approved Soil and Excess Materials Management Plan

Ontario Endangered Species Act Sec.17 permit

Regulation 41/24 Approval from Grey Sauble Conservation Authority

- Municipal development approvals will also be required.



## SPECIES AT-RISK

- Two at-risk avian species were identified on site: Red-headed Woodpecker and Eastern Meadowlark.
- 13 cavity nests were identified, and will be reassessed prior to construction.
- Cavity trees and bat maternity roost habitats will be avoided during construction.



## ARCHAEOLOGY & AGRICULTURE

- Temporary loss of less than 20-acres of agricultural land with current design.
- Crop cultivation and cattle grazing around the BESS facility can continue during operations.
- A field archaeological assessment will be conducted in spring 2025.



- Battery container fans and transformers emit noise - fans cool the batteries when charging during warm conditions, and transformers emit a humming noise.
- Tara BESS must comply with applicable noise regulations.
- A baseline noise study has been conducted to establish ambient noise levels.
- Noise mitigation measures will ensure that ambient noise levels are maintained for surrounding residential receivers during BESS operations.
- An acoustic barrier wall on berm (total height 8-metres) is proposed for the north end of the site, with 6m acoustic barrier walls around the five battery container sections.
- Additional facility-based noise mitigation is being explored, and may replace the acoustic barrier wall on berm.



EXAMPLE  
ACOUSTIC  
BARRIER WALL  
ON BERM



TARA BESS  
SOUND  
EQUIVALENT\*

\*WITH MITIGATION

- Tara BESS is proposed for lands that include a floodplain that flows into the Sauble River.
- A cut-and-fill method, combined with a retention pond, is proposed to mitigate impact to the floodplain.
- The cut-and-fill method will raise the facility so that water can flow freely around it, while stormwater ditches leading to the Sauble River will off-set the BESS footprint.
- An impermeable retention pond will capture and filter water passing through the BESS facility before it enters the external environment.
- The BESS facility will be equipped with drainage and its grade oriented toward the retention pond to ensure that all water passing through the facility enters the retention pond.
- The proposed stormwater management design has been modeled against a 100-year return period, determining a negligible impact to the floodplain.



# TARA BATTERY Project Timeline

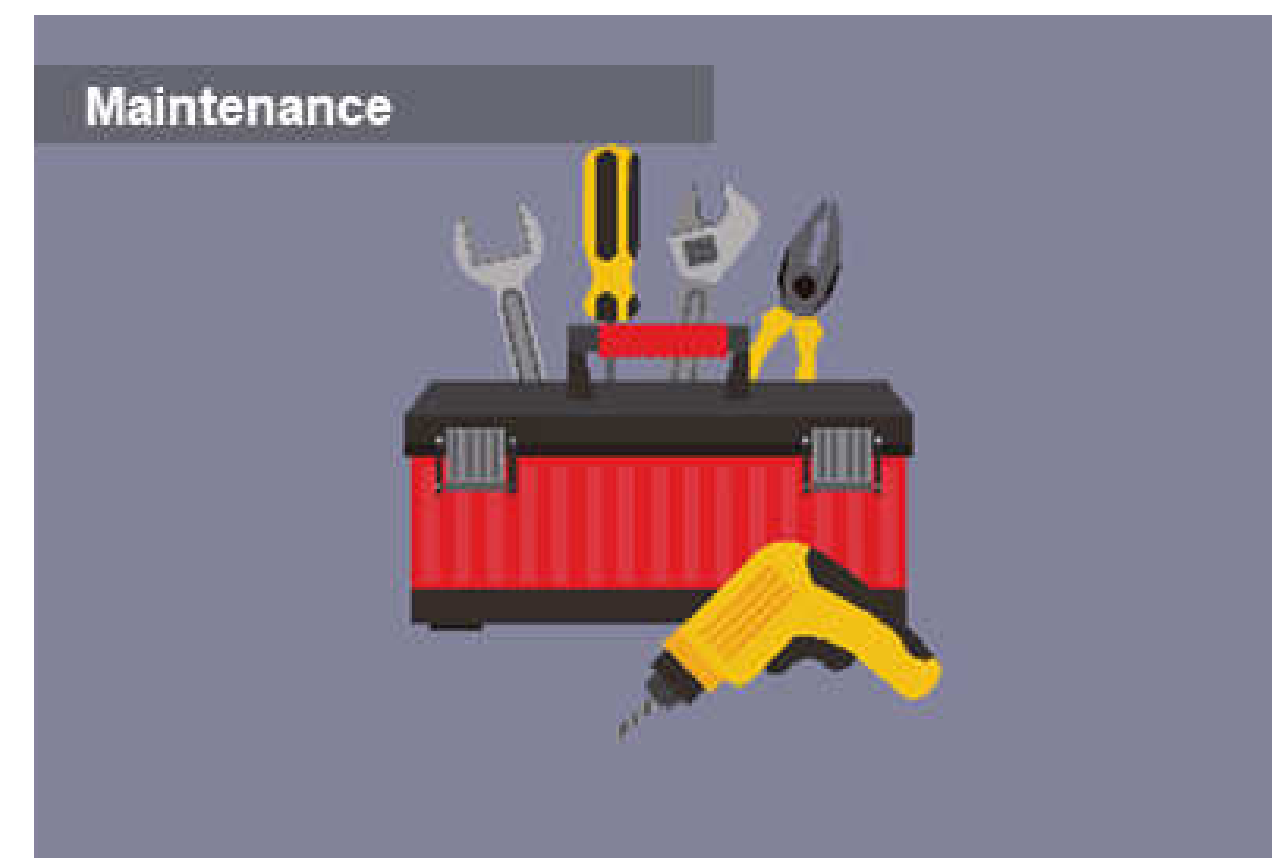
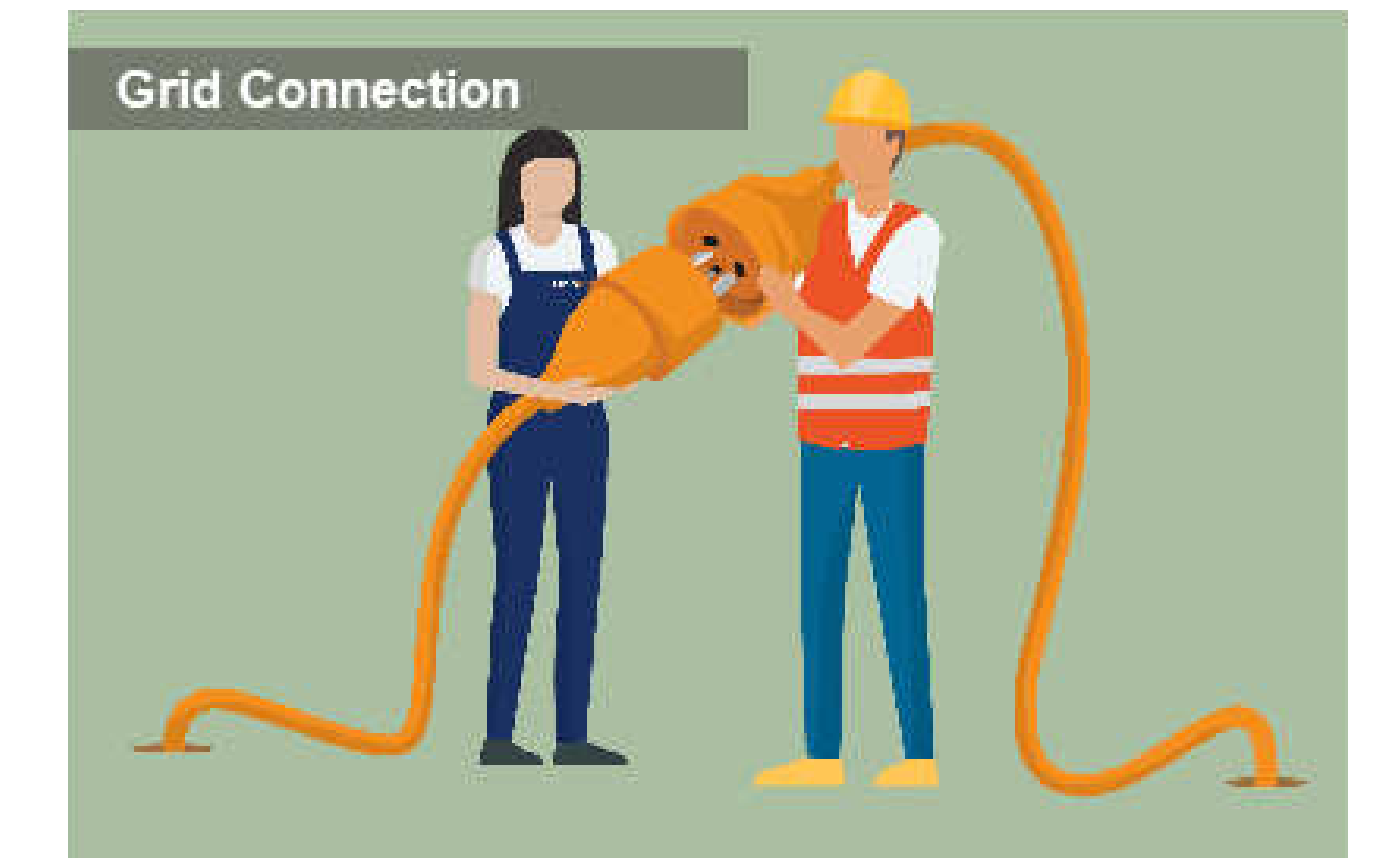
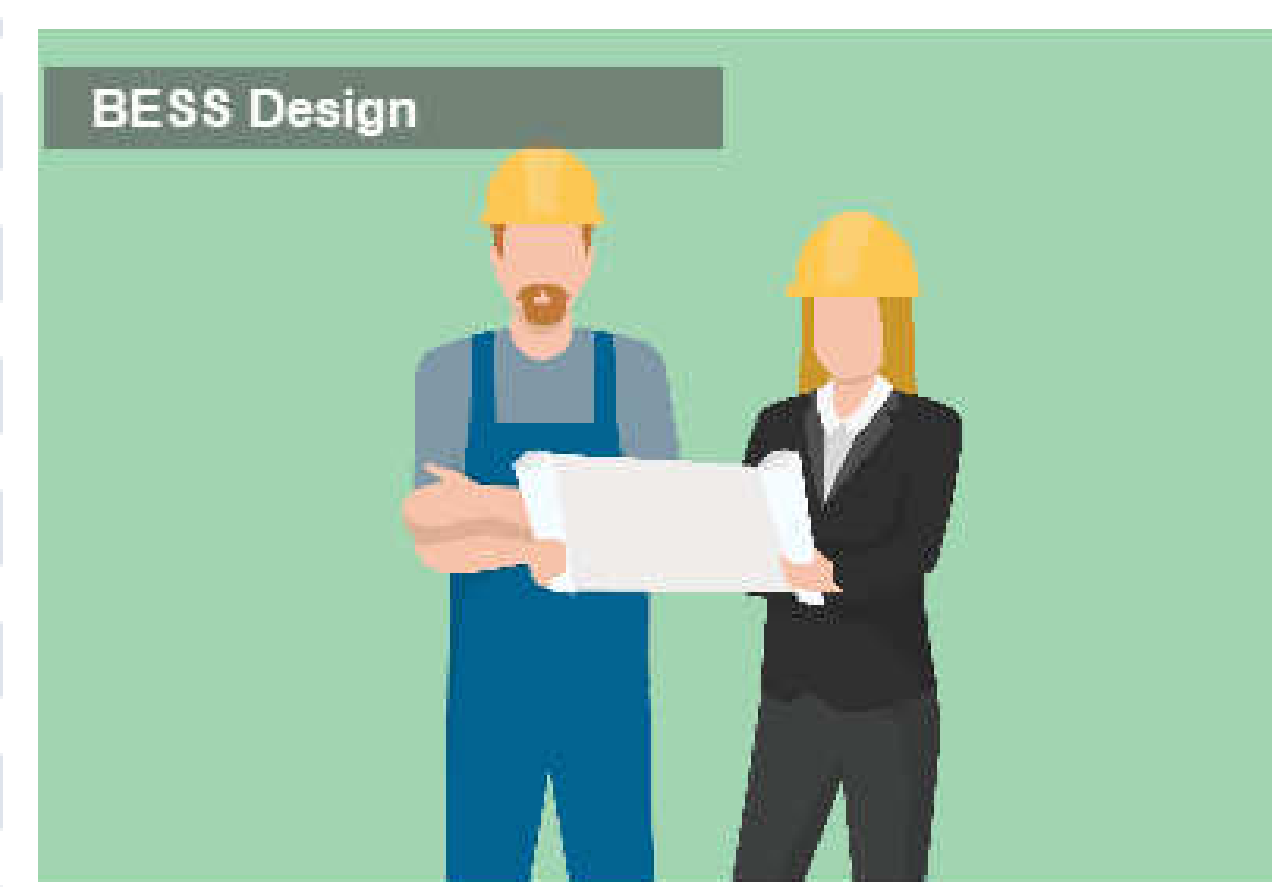
**MAY 2024**  
CONTRACT AWARDED

**Q3 2024 - Q1 2025**  
PROJECT DEVELOPMENT  
COMMUNITY CONSULTATION  
COMMUNITY OPEN HOUSE

**SPRING 2025**  
APPLICATION SUBMISSIONS  
COMMUNITY OPEN HOUSE

**SPRING 2026**  
CONSTRUCTION

**LATE 2027**  
OPERATIONS



----- WE ARE HERE





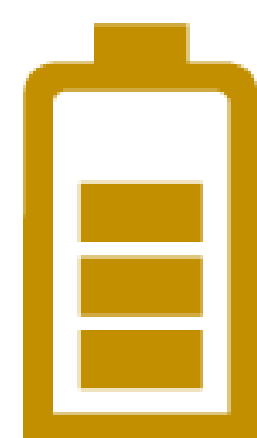
BESS construction typically takes 1.5 years to complete, and includes the following activities:

- Temporary fence installation
- Equipment mobilization
- Temporary storage areas
- Material and soil deliveries (by truck)
- Clearing and grading
- Shallow excavation and pouring of concrete slabs or pile installation
- Hoisting of pre-assembled battery containers and transformers
- Erection of steel structures and transmission lines
- Electrical connection work
- Acoustic barrier wall installation
- Landscaping





\*DIGITAL RENDERING



Tara BESS is expected to complete one charge and discharge cycle per day.

A crew of workers, contracted by Neoen, will operate Tara BESS. Neoen can elect to operate each day or not.



**Did you know that Neoen is a pioneer in battery energy storage?** Neoen delivered the world's first big battery, Victorian Big Battery, located in South Australia.





- The consultation period for Tara BESS began in fall 2024 and will continue through March 2025.
- The Class EA process will have a 30-day public comment period following submission.
- Neoen is consulting Rightsholders, stakeholders, landowners, occupants and residents in the immediate vicinity of the project, and the broader community.
- Feedback gathered during the consultation period will be entered into a public consultation record that will form part of Neoen's development applications, and will inform project design, mitigation measures, and the Tara BESS community benefits plan.



## We want to hear from you!

- Phone: (416) 312-0057
- Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
- Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
- Mail: 319-150 King Street West, Toronto, ON M5H 1J9
- Request a 1-on-1 meeting
- Community Open House – Spring 2025 (date TBC)

- BESS are designed to prevent safety risks, including thermal runaway and spill events.
- Thermal runaway occurs when damaged battery cells heat abnormally, resulting in the possibility of smoke, fire, or combustion.
- Spill events, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.
- Hazard events are rare and are prevented by rigorous safety design, thorough maintenance and monitoring, and stringent safety protocols.
- Tara BESS will incorporate active and passive protections, such as on-site water, use of fire barriers, battery spacing, and the use of non-combustible oils, to mitigate risks.
- Neoen engages local emergency responders in the development of its fire prevention and emergency response plans to ensure capacity to respond, and provides first responder facility training.



- Neoen believes its projects should benefit the communities that host them.
- Tara BESS will provide certain community benefits informed by community consultation.
- Neoen's community benefits framework includes local employment and vendor opportunities, Indigenous-specific benefits, a community fund to sponsor or support clean energy, biodiversity, environmental, cultural, and/or educational initiatives, and artwork.
- Community benefits for Tara BESS will come as early as commencement of construction.



**Tell us what you think!** Share your thoughts on what the Tara BESS community benefits plan should include under each framework area.





OPEN HOUSE



Tuesday, January 21, 2025

Tara Bess Open House 12pm - 2pm

	Name	e-mail	tel #
1)	CHRIS HERBERT	CHERBERT@mic ACTINCY.G.	905.616. 8537
2)	John Cookman	JG.Cookman@gmail.com	519 372 6706
3)	Peter Stangor (Councillor)		519-514-1199
4)	Carol M. Miller	cedmiller37@gmail.com	519-934-2143
5)	Frank M. Curdy	fdmccurdy@gmail.com	226-923- <sup>1051</sup> <del>1051</del>
6)	Andrew Groeneveld	agroeneveld@gmail.com	519 378 8078
7)	JACK GROENEVELD		519 374-1048
8)	Kim MacDonald	kmac@gbtel.ca	226-668-3437
9)	MIKE KENDON	michael.kendon@goldthorpe solar.com	905 334 8098
10)	Sandra Herron	herronmt@gmail.com	
* 11)	Jim & Helen Christie		519 372 8813
* 12)	Judi Leonard & George Sipa	judifran@gmail.com	519-934-1905
* 13)	Simon & Leinie de Boer	simondeboer@gbtel.ca	519-934-3494
14)	STEVE HILLS	RR2 TARA ON.	519-934-3043
15)	JEFF HORNING	491 Bruce Rd TARA	519-377-2789
16)	ALEX ALPAGAN	153 RV TARA	519-934-3172
17)	Lorie Alpaugh	Tara	519-934-3172
18)	Ray MacDonald	-1	519-934-2081
19)	DAVE SPERMAN	ALLENFORD, ON	519 270 2763
20)	LARRY CHRISTIE	TARA, ON	519 373 2442
21)	Brad McDowell	Brad.McD@icloud.ca	519 377 5513
22)	Melie Smith		
23)	Thomas Riff	RR2 TARA	

2x unknown adults

Total: 28 attendees

Page 20

	Name	e-mail	tel#
1)	Mike Golbraith	Michael-golbraith@hotmail.com	519-270-6484
2)	Mary Tre Ford	ramtre.ford@bmts.com	519-934-0157
3)	Lori Tuck	tucklorij@hotmail.com	519-934-0333
4)+5)	Lenore + Jeff Sherman		519-934-2912
6)	<del>Walter Santa</del>		519-375-6676
7)	Sam Marta		519-386-4853
8)	Eric Dunn		934-0006
9)	Glen Ackroyd	glen@ackroydshoney.com	
10)	Crystal Gunson		
11)	Bernadette Robertson		
12)+13)	DAVE + JENNIFER TEAFORD		519-220-8125
14)	Mike Brusse	mike@fermaenergy.com	519-432-6623
15)	Lydia MacDonald		519-934-2675
16)	Amy Harrison	amyjharrison@sympatico.ca	226-668-2606
(*) 17)	Dave + Penny McLeod	davepennymcleod@gmail.com	
18)	Terry McKay Deputy Mayor	Township of Chateaufort	
19)	Dave Bryson		
20)	SCOTT MACKAY		
21)	Steve Hammill	Arran Clendish	

22+11 → 33 total

2422

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: J.P. McLeod

Date: Jan 21 2025

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_ E-mail: \_\_\_\_\_

**Please share your feedback on the proposed location of Tara BESS.**

Too close to agricultural land. Also there is a demand for the capacity, i.e. better suited for larger centers.

**Please share your feedback on the BESS design.**

Feel Tara is being used as an experimental facility.

**Please share your feedback on BESS construction.**

Impossible due to swamp land/invert



**Please share your feedback on community benefits.**

Community not gaining anything. Devalue everyone's property  
and expansion plans for Tara and area.

**Other.**

- Fire protection services: strain on volunteer fire department
- Facility won't be staffed 24/7.
- probable leak - runoff - water systems / town of Tara.

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

E-mail: \_\_\_\_\_

**Please share your feedback on the proposed location of Tara BESS.**

TOO CLOSE TO TARA

**Please share your feedback on the BESS design.**

WATER POND IS NOT LARGE ENOUGH TO HOLD  
OR PROCESS WATER FROM THE RAIN STORMS

**Please share your feedback on BESS construction.**

WE NEED THE FARM LAND

**Please share your feedback on community benefits.**

NONE

**Other.**

IF THERE IS A FIRE IT WILL OVERWHELM THE  
FIRE SERVICES

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: \_\_\_\_\_

Date: Jan. 21, 2025

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

E-mail: \_\_\_\_\_

**Please share your feedback on the proposed location of Tara BESS.**

Worried about ~~what~~ when it lights on fire. Noise impacts  
long term effect on people living near it.

~~What happens~~ It it goes up in flames in the middle of  
July when it's 32 out toward it traveling through the fields  
worried about it affecting the cattle industry, farm houses and  
families to close. Pick a place where it further away from town  
**Please share your feedback on the BESS design. and houses**

Worried about it leaking in to farm water supply  
biggest on a condation, we have a lot of different  
temperature changes

**Please share your feedback on BESS construction.**

too wet or a area to contain if any spills and/or  
leaks. etc

**Please share your feedback on community benefits.**

•

•

**Other.**

•

•

•



# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: Mary Telford  
Date: Jan 21 / 25

Name: Mary Telford Phone: 519 934-0157  
Address: Box 111 Tara E-mail: ramtelford@bmts.com

**Please share your feedback on the proposed location of Tara BESS.**

Horrible location - Too close to Sable River

**Please share your feedback on the BESS design.**

Not appropriate for location

**Please share your feedback on BESS construction.**

Terrible!

**Please share your feedback on community benefits.**

*none other than construction jobs*

**Other.**

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: Mike Galbraith  
Date: Jan 21 2025

Name: Mike Galbraith Phone: 519-270-6484  
Address: 447 Sideroad #5 E-mail: Michael-galbraith  
Port Elgin @hotmail.com

**Please share your feedback on the proposed location of Tara BESS.**

Very Poor location  
Prime farmland + EP land

**Please share your feedback on the BESS design.**

**Please share your feedback on BESS construction.**

Please share your feedback on community benefits.

~~Zero~~ ~~benefits~~

Zero benefits when placed on  
Prime Farm land

Other.

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: Brad McDonald  
Date: Jan 21 / 2024

Name: Brad McDonald Phone: 519 377 5513  
Address: 32 Concession 4 E-mail: Brad.mcdonald@gmail.com

**Please share your feedback on the proposed location of Tara BESS.**

I feel that it could be very dangerous  
and irresponsible to build this battery  
storage on or near the Sable River

**Please share your feedback on the BESS design.**

I don't think it will be an issue  
just not on Environmentally Protected  
Ground

**Please share your feedback on BESS construction.**

It can't be profitable to build  
on agricultural land after its burned  
and can't be decommissioned because the  
company either flees the country or  
is bankrupt



**Please share your feedback on community benefits.**

*we need bridges and new road*

**Other.**

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: STEVE HILLS  
Date: JAN 21 2025

Name: Steve Hills Phone: 519-934-3013  
Address: RR 2 TARA ON E-mail: \_\_\_\_\_

Please share your feedback on the proposed location of Tara BESS.

NOT THE IDEAL LOCATION

\* BUT YOU HAVE THE ANSWERS \*

Please share your feedback on the BESS design.

IT IS A BESS <sup>project</sup> MEETING ALL  
CRITERIA

\* YOU HAVE THE ANSWERS \*

Please share your feedback on BESS construction.

COST OF DECOMMISSIONING?  
\* YOU HAVE THE ANSWERS \*  
(SORT OF)

Please share your feedback on community benefits.

YOU WILL GIVE US LOTS OF  
MONEY

\* YOU HAVE ALL THE ANSWERS \*

Other.

I DON'T FEEL THAT YOU  
ARE TELLING US ALL  
THE FACTS ABOUT TARA  
BESS.

\* YOU MAY HAVE ALL THE ANSWERS \*  
BUT ARE THEY HONEST?

I AM NOT AGAINST NEW  
TECHNOLOGY, BUT IN  
MY OPINION FOR THIS  
PROJECT, WE ARE NOT  
BEING TOLD THE WHOLE  
TRUTH.

TARA BESS

TARA

# FEEDBACK FORM

BATTERY

Completed by:

John Coolman

Date:

Name:

John Coolman

Phone:

519 372 6706

Address:

16913 Grey-Bruce Line  
RR#2  
Tara, Ont N0H 2N0

E-mail:

JG.Coolman@gmail.com

Please share your feedback on the proposed location of Tara BESS.

I do not believe for a host of reasons  
that this property should be used as  
a BESS site.

Please share your feedback on the BESS design.

Design wise I encourage as much as  
possible the site be hidden from public  
view.

Please share your feedback on BESS construction.

**Please share your feedback on community benefits.**

Community benefits should be in line with yearly profits - ideally some sort of percentage of the revenue made per year from this site,

**Other.**

2010 SRS Plc  
 2010-2011 & 2011-2012  
 2010-2011 & 2011-2012  
 2010-2011 & 2011-2012

2002057 To leaf with scattered fine dots  
on base of black pharynx with small  
shin 20020 1.

as down as possible. I have agreed  
sitting next Robert for the whole afternoon.



# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: ELMER HERBOW

Date: 2/2/2025

Name: ELMER HERBOW Phone: 579-934-2779

Address: 141 MARIA STREET E-mail: \_\_\_\_\_

**Please share your feedback on the proposed location of Tara BESS.**

I totally disagree with the location of this project. This location is on good farm land which we are not making more. This location is on flood plain, which no one else can build on so why should this be allowed. In 1954 this land was covered with 3 to 4 feet of water, Hurricane Hazel.

**Please share your feedback on BESS construction.**

**Please share your feedback on community benefits.**

\_\_\_\_\_

\_\_\_\_\_

**Other.**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

~~With Sub~~

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: S Herron  
Date: Jan 21 2024

Name: Sandra Herron Phone: 5  
Address: Tara E-mail: herronmlt@gmail.com

**Please share your feedback on the proposed location of Tara BESS.**

- no need to be located next to river (sensitive environment flood plain)
- should be located near bigger community with higher electricity usage and 24/7 fire department

**Please share your feedback on the BESS design.**

- large amount of fill required : doubtful can ever be returned to ~~high~~ productive crop land
- would like to see statistics in decibels for sound released

**Please share your feedback on BESS construction.**

- I would like to see list of all components in battery construction ie metals, acids etc.

OVER

Please share your feedback on community benefits.

no benefits

Other.

Eastern Meadowlark nests on ground. This 20 acres  
will be lost as habitat.

↑ potential

This project is being developed by private company,  
not public. What happens in the case of bankruptcy?  
Will site ever be decommissioned properly?

Plant forest to hide it!

# TARA BESS FEEDBACK FORM

# TARA BATTERY

Completed by: Doris Herron  
Date: January 21, 2025

Name: Doris Herron Phone: 519-934-2779  
Address: 141 Maria St. Taca E-mail: \_\_\_\_\_

**Please share your feedback on the proposed location of Tara BESS.**

I don't agree with any part  
of this project. Look for some place  
on waste land and not near residences

**Please share your feedback on the BESS design.**

This land is on a flood plain which flooded  
during 1957 Hurricane Hazel and was under 3 to 4  
feet water.

**Please share your feedback on BESS construction.**

I believe the construction of such a project  
will do a lot of damage to our roads and beautiful  
countryside that we will not benefit from.



Please share your feedback on community benefits.

I don't believe there are any benefits to the community.

Other.

Good agriculture land on the flood plain should not be converted to a project to produce power for people.

What health concerns are there for residents and their children living close to this project??

I don't believe Aaron Elderslie ~~should~~ Fire Department and the local EMS should have to contend with any ~~potential~~ potential fallout from this project.

**From:** [Brittany Morrison](#)  
**To:** [Janet Galant](#); [manager.energy@saugeenonjibwaynation.ca](mailto:manager.energy@saugeenonjibwaynation.ca); [environmentoffice@saugeenonjibwaynation.ca](mailto:environmentoffice@saugeenonjibwaynation.ca);  
**Subject:** Tara BESS Open House Information Boards  
**Sent:** 2025-01-23 11:13:00 AM

---

Hello Janet and team,

On Tuesday, we held a drop-in community open house at the Tara Community Centre in Arran-Elderslie.

I have [linked](#) of the information boards that were on display at the open house.

As always, we are happy to meet to discuss the material, hear your feedback, and address any questions or concerns you may have.

You'll note that we are also gathering feedback on community benefits. It is important to us that our community benefits plan for Tara BESS is informed by SON.

Please let me know if you SON would like to meet.

Thank very much,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with 'NEO' in blue and 'EN' in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9



Tara BESS Project Update  
Chatsworth Township Council Meeting

*February 5, 2025*

Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities.

# Background

- Tara BESS, formerly Grey Owl Storage, is a **400-megawatt (MW), 1600-megawatt hour (MWh) battery energy storage system (BESS)** proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.
- Awarded a 20-year energy storage contract by the Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's Long-term 1 (LT1) RFP procurement – one of ten BESS contracts awarded in the RFP.
- Tara BESS responds directly to Ontario's growing energy needs and 2050 energy procurement target, by adding grid capacity equivalent to the daily energy consumption of ~64,000 households in Ontario.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.



# About Neoen

- Neoen is a leading independent power producer of exclusively renewable energy, including solar and wind power, and battery energy storage.
- We have a portfolio capacity of 8.7-gigawatts (GW) in operation or under construction across four continents. Our develop-to-own strategy means that we are around for the long-term.
- Neoen has an active solar plant, Fox Coulee Solar Farm, in Starland County, Alberta, and several projects in development in Canada.

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.



# BESS Technology



# What is Battery Energy Storage?

- A battery energy storage system (BESS) stores (or “charges”) electricity in batteries and later discharges it to an electrical grid.
- Typically, BESS charge overnight when demand is low and discharge when demand rises.
- A BESS can standalone or accompany a renewable technology, like wind or solar power.
- In addition to energy storage, BESS can provide ancillary services such as frequency and voltage support, and virtual inertia.
- Energy storage supports the transition from fossil fuels by maximizing the usefulness of energy produced from renewable sources.



# How does a Standalone BESS Work?

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

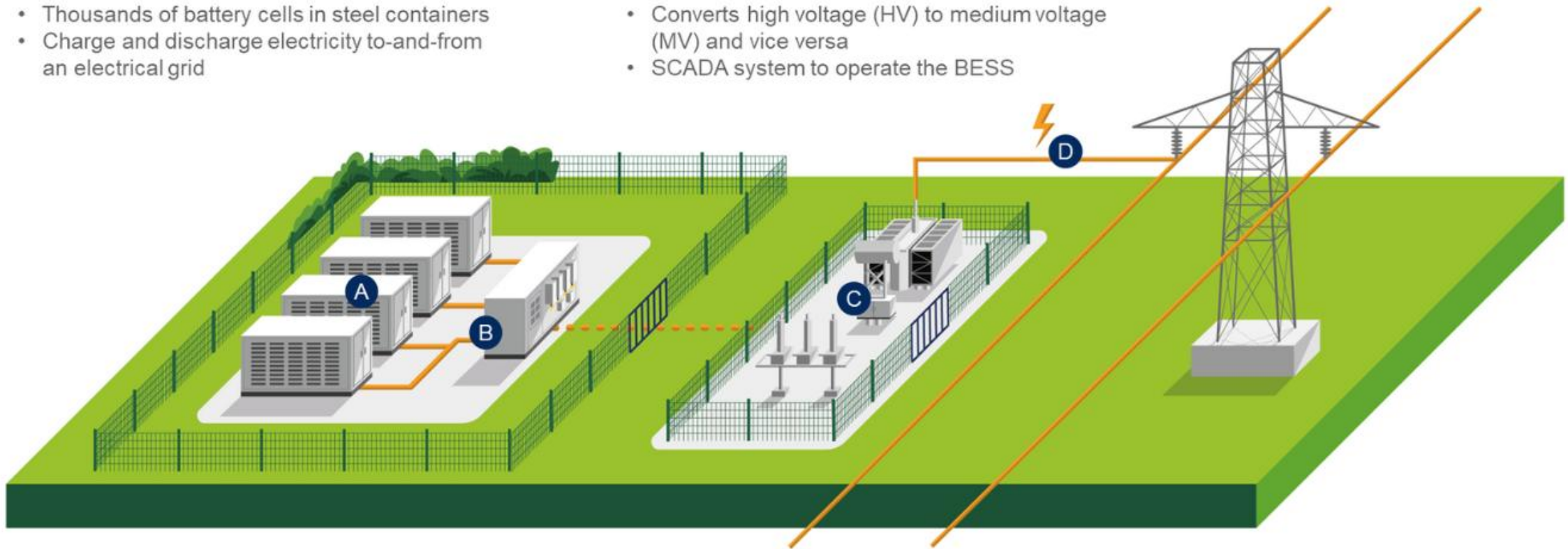
- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS

## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

## D - Transmission Lines

- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid

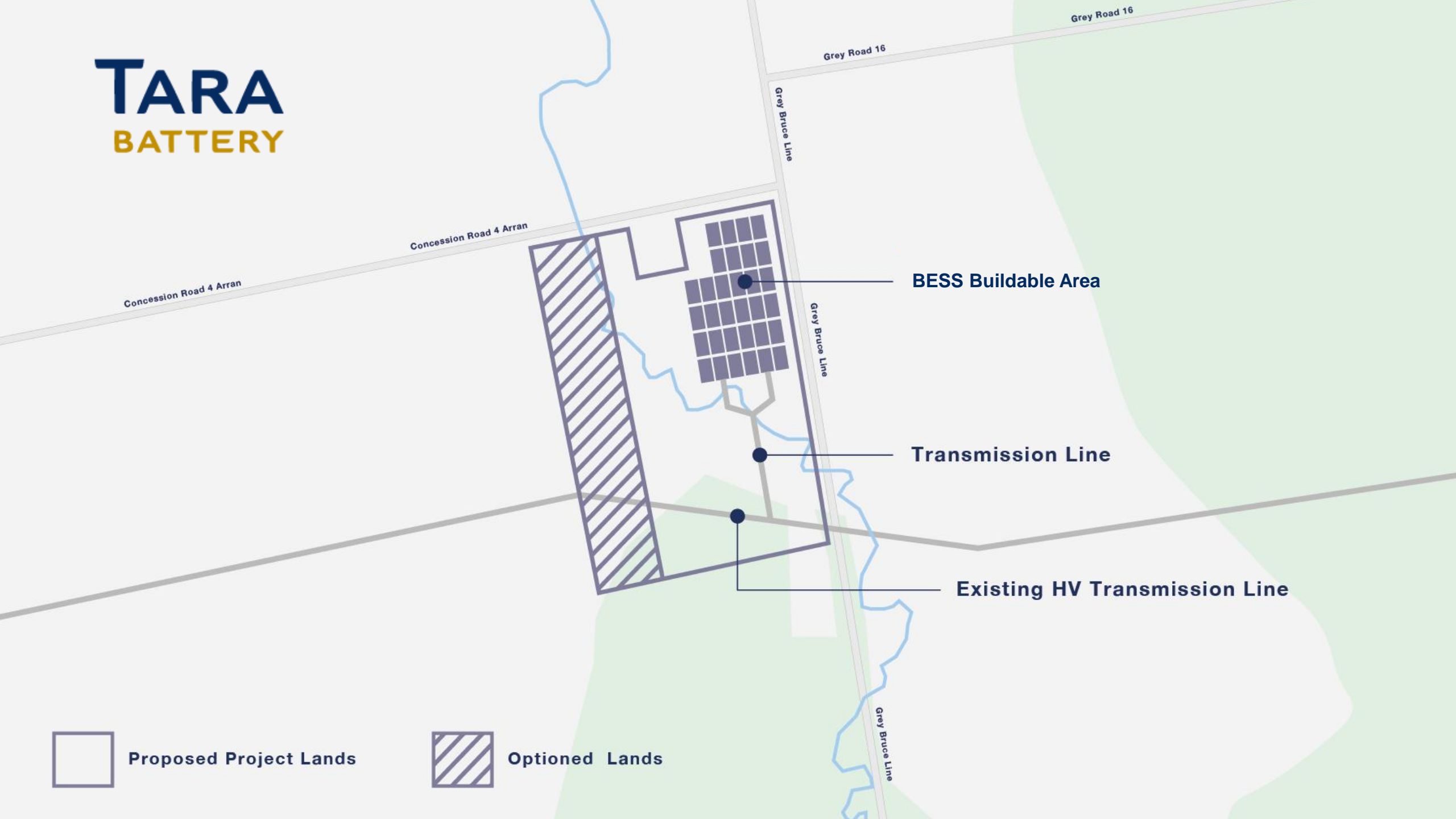


# Tara BESS





# TARA BATTERY



# Tara BESS Preliminary Design



**Standalone BESS facility**



**Capable of providing 400  
MW of power for four  
hours**



**~420 lithium-ion battery  
cell containers**



**3 Transformers  
(1 back-up)**



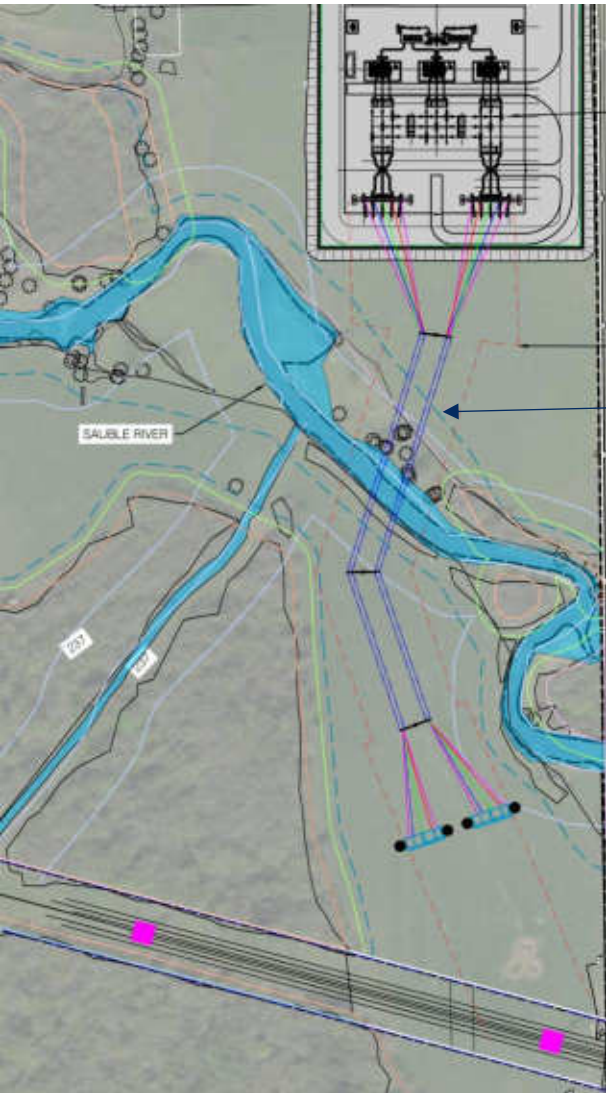
**~20 acres of at-grade  
equipment**



**~400 m of overhead  
transmission line and ~5  
transmission structures**

**This information is preliminary and subject to change.**

# Proposed BESS Layout

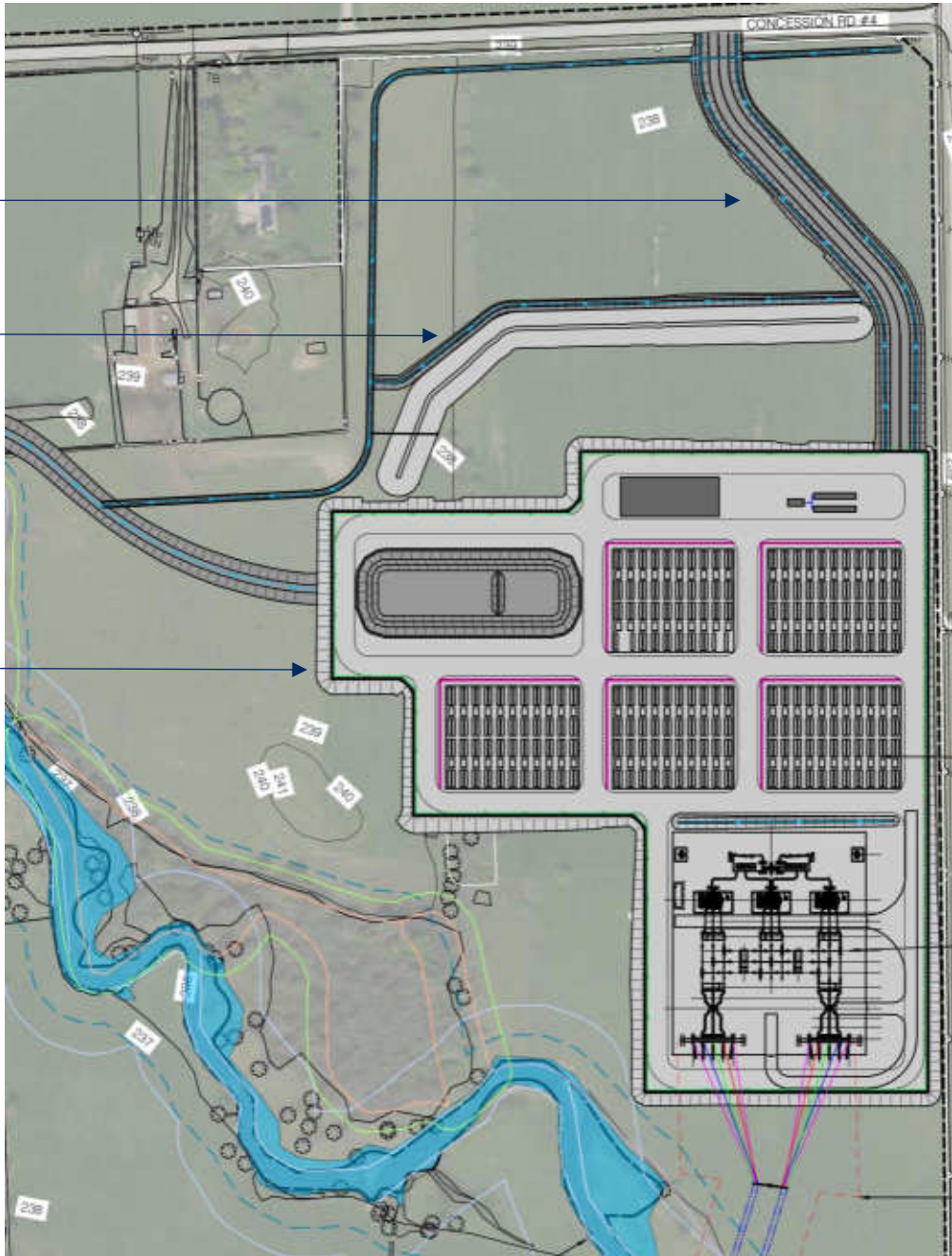


SITE ACCESS ROUTE

ACOUSTIC BARRIER WALL

TRANSMISSION ROUTE

BESS FACILITY

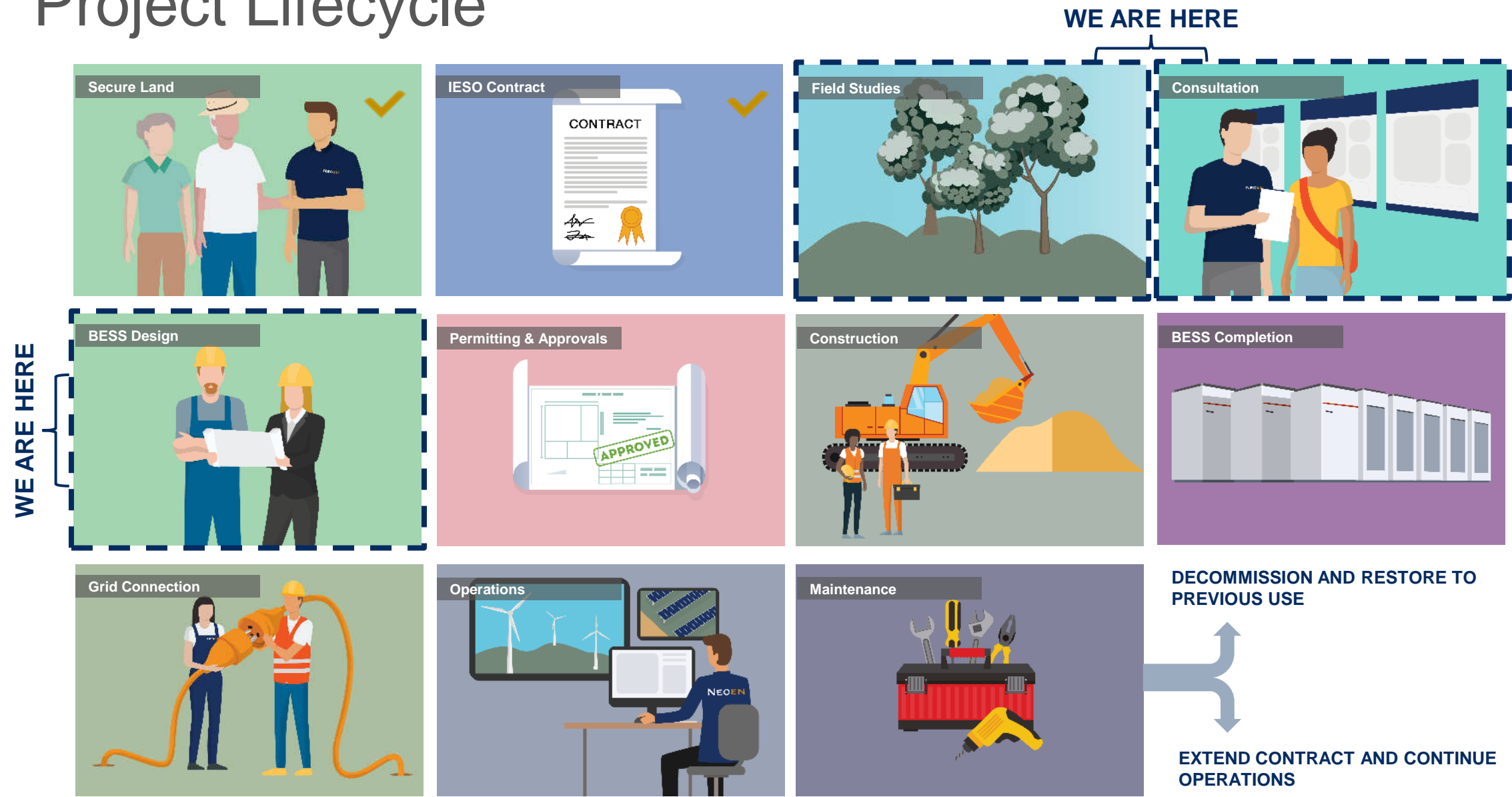


# Development Process





# Project Lifecycle





# Target Project Timeline

	'24	2025				2026				2027			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Project Development													
Consultation													
Permitting & Approvals													
Construction													
Community Engagement													
Operations													



# Project Permits and Approvals

- Class Environmental Assessment (EA) for Transmission Facilities
  - Aquatic Habitat Assessment
  - Ecological Land Classification and Vegetation Surveys
  - Breeding Bird Surveys
  - Breeding Amphibian Surveys
  - Bat Habitat Assessment (Maternity Roost Surveys)
  - Noise Impact Assessment
  - Archaeological Assessment
  - Agricultural Impact Assessment
- Environmental Compliance Approval for Stormwater
- Species-at-Risk\*
- Environmental Activity Sector Registration (noise)
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan\*
- Ontario Endangered Species Act Sec.17 approval\*
- Regulation 41/24 Approval from Grey Sauble Conservation Authority

\* TO BE CONFIRMED

# Consultation

- Consultation for Tara BESS is underway.
- Neoen will consult Rightsholders, stakeholders, landowners and occupants in the immediate vicinity, and the broader community.
- We invite feedback via the following channels:
  - Phone: (416) 312-0057
  - Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
  - Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
  - Mail: 319-150 King Street West, Toronto, ON M5H 1J9
  - Request a 1-on-1 meeting
  - Public open house – January 21, 2025
  - Public open house – Spring 2025 (date TBC)



# BESS Safety



# BESS Safety

- BESS are designed to prevent the following potential hazards:
  - **Thermal runaway** is an exothermic reaction whereby damaged battery cells release energy in the form of abnormal heat, which can propagate and result in smoke, fire, or combustion. Thermal runaway can occur from an internal short circuit, external short circuit, external fire, and BESS degradation.
  - **Spill events**, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.
- BESS hazard events are infrequent and prevented by rigorous design mitigation, thorough maintenance and monitoring, and stringent safety protocols, including:
  - Active protection, such as on-site water sprinkler and hydrant systems
  - Passive protection, such as use of fire barriers and non-combustible oils
  - Facility systems and security
- Hazards events are managed by preparedness and rapid response.
- Neoen has engaged Arran-Elderslie's Fire Department on the Tara BESS project.



# Community Benefits



# Community Benefits

- Neoen believes that the communities it works in should share in the benefits of its projects.
- Consultation for Tara BESS will inform a community benefits plan that may include vendor opportunities, employment and skills training, Indigenous-specific benefits or opportunities, environmental initiatives, sponsorship, donations, or art installations.



Contact Us





# We want to hear from you!



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Engagement & Stakeholder  
Relations  
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- 319-150 King Street West, Toronto, Ontario M5H 1J9
- [www.neoen.com](http://www.neoen.com)
- [www.tarabattery.ca](http://www.tarabattery.ca)



## Tara BESS Project Update – GBTTCC Meeting #2

*February 14, 2025*



Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities. We recognize and respect the relationship these communities share with the land and waters where we work.

# Background

- The Tara BESS project, formerly Grey Owl Storage, was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 battery energy storage system (BESS) contracts awarded in LT1, collectively totaling 1,784 MW, to help meet Ontario's projected energy needs by 2050.
- Under the contract, Neoen will receive payment from IESO in exchange for providing 400 MW of capacity, per the rate set-out in Neoen's bid.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# About Neoen

- Neoen is a leading independent power producer of exclusively renewable energy.
- Portfolio capacity of 8.7-gigawatts (GW) in operation or under construction across fourteen countries.
- Develop-to-own strategy.
- Neoen has an active solar plant, Fox Coulee Solar Farm, in Starland County, Alberta, and several projects in development in Canada.

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93 MWp in Starland County, Alberta.



# BESS Technology





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- In addition to energy storage, BESS can provide ancillary services such as frequency and voltage support, and virtual inertia.
- Energy storage supports the transition from fossil fuels by maximizing the usefulness of energy produced from renewable sources.



# How a BESS Works?

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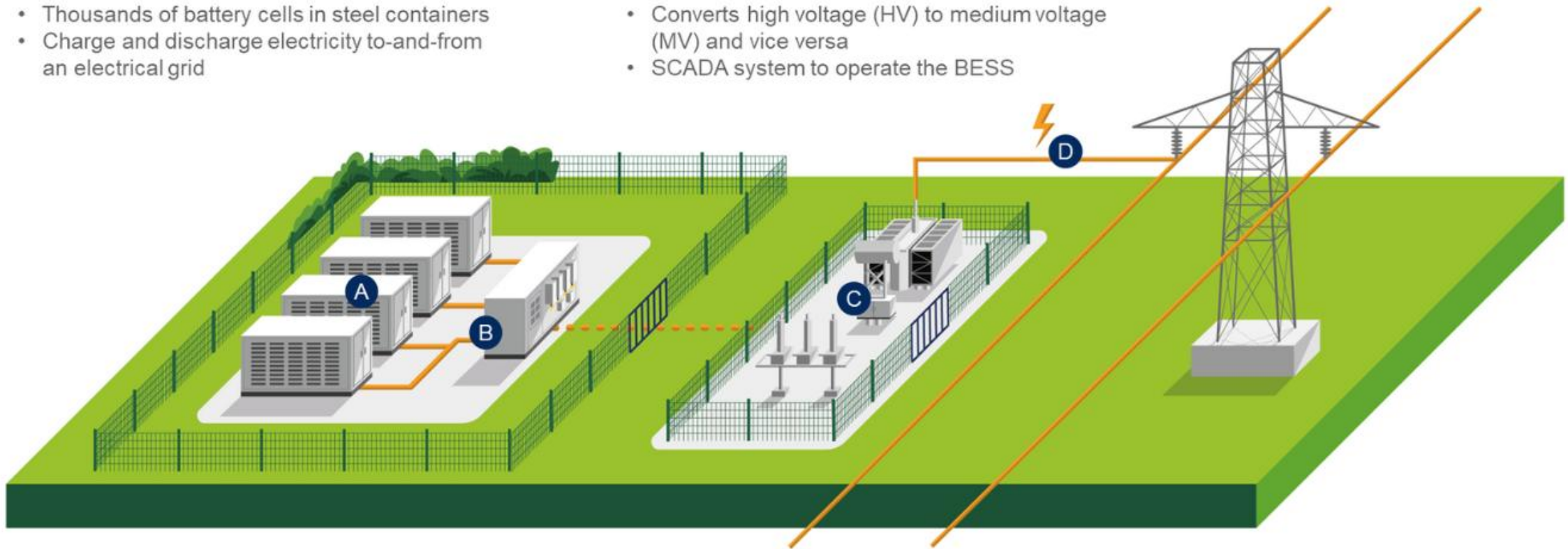
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# Tara BESS





Tobermory



Lake Huron

Owen Sound



Arran-Elderslie



**TARA**  
BATTERY



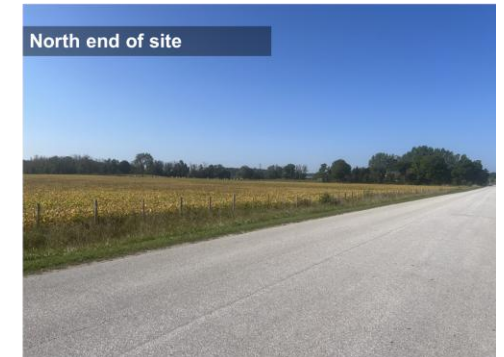
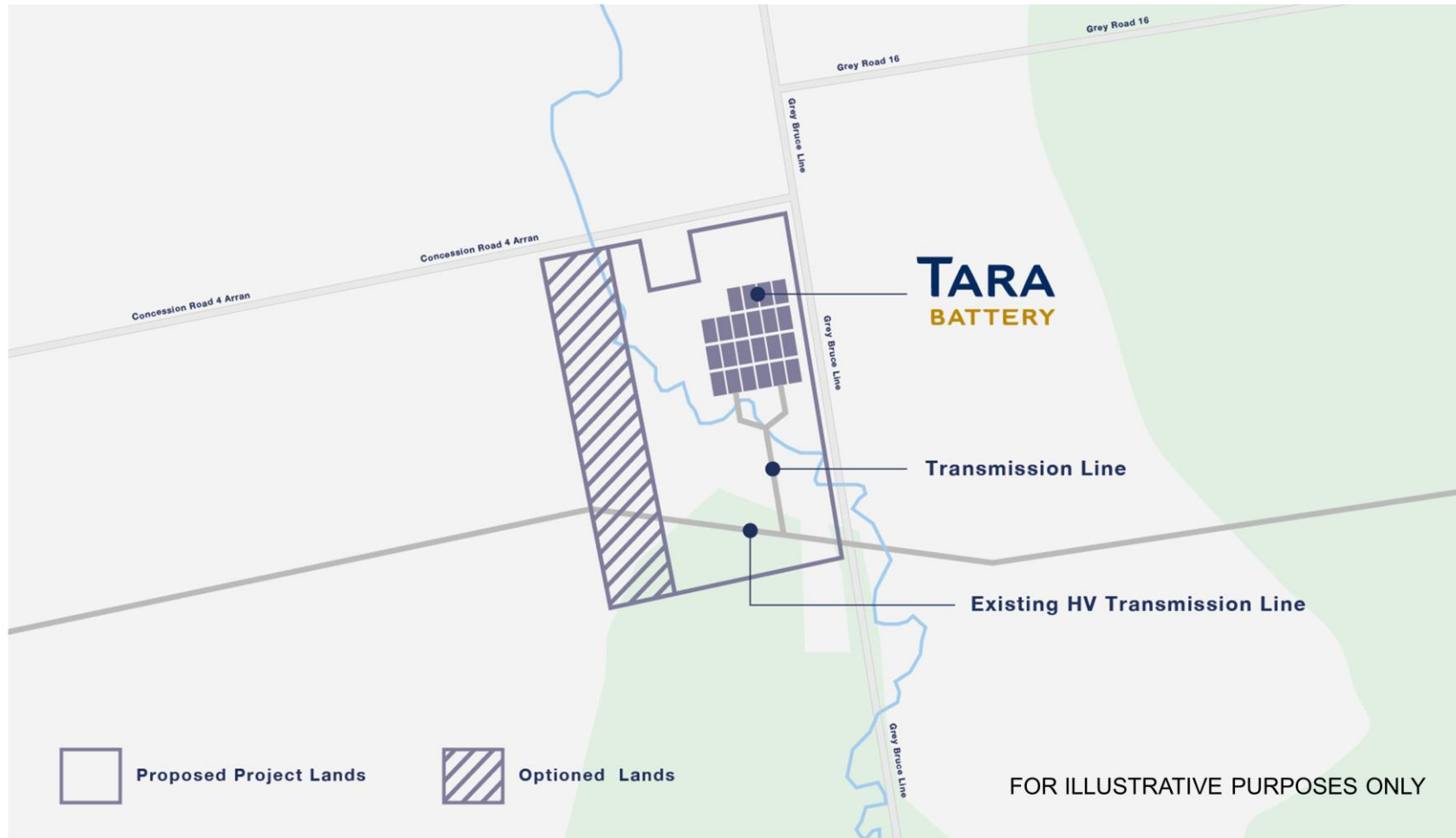
Hanover

Barrie



Lake Simcoe

# Proposed Project Lands



**Why here?** The proposed site satisfies the conditions necessary to develop a BESS, including regional need, land owner willingness, proximity to transmission, flat terrain, construction feasibility, and site accessibility.

# About Tara BESS



**Standalone BESS facility**



**Capable of providing 400  
MW of power for four  
hours**



**~420 lithium-ion battery  
cell containers**



**3 Transformers  
(1 back-up)**



**~20 acres of at-grade  
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**~400 m of overhead  
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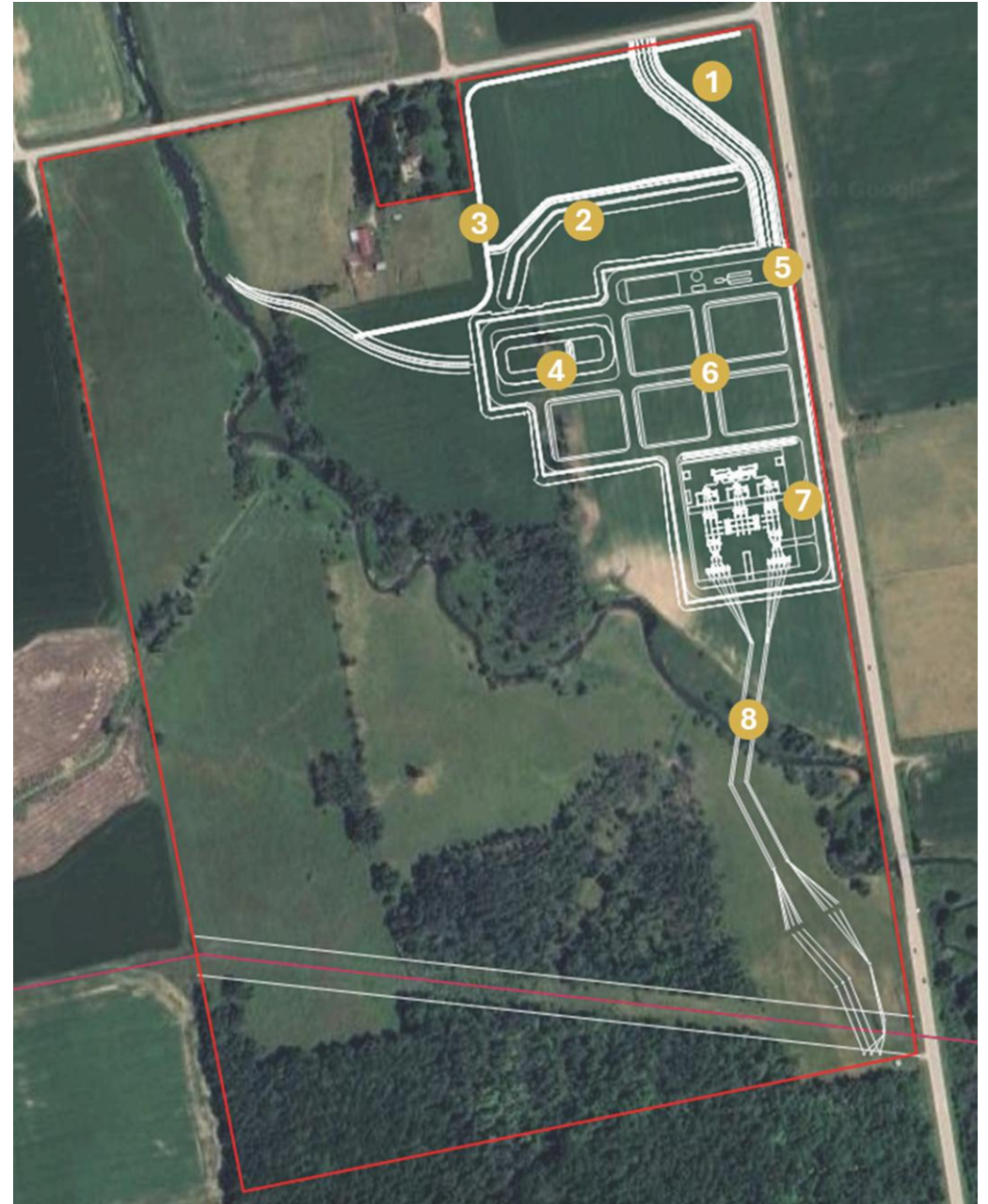
**Information is approximate and subject to change.**



# Tara BESS Proposed Layout

1. Site access road
2. Acoustic barrier wall on berm with vegetation (8m)\*
3. Stormwater ditches
4. Retention pond
5. SCADA building, water storage and pump system
6. 420 lithium-ion battery containers with acoustic barrier walls
7. Substation, including three high-voltage transformers (two operational, one back-up), breakers and switching equipment
8. ~400-metres of overhead transmission line and transmission structures

At completion, the site will be enclosed by permanent fencing and will include lighting and security cameras.



Environmental



# Stormwater Management

- Parts of the proposed project lands are a floodplain that flows into the Sauble River.
- A cut-and-fill method, combined with a retention pond, is proposed to mitigate impact to the floodplain.
- The cut-and-fill method will raise the facility so that water can flow freely around it, while stormwater ditches leading to the Sauble River will off-set the BESS footprint.
- An impermeable retention pond will capture and filter water passing through the BESS facility before it enters the external environment.
- The BESS facility will be equipped with drainage and its grade oriented toward the retention pond to ensure that all water passing through the facility enters the retention pond.
- The proposed stormwater management design has been modeled against a 100-year return period, determining a negligible impact to the floodplain.
- Neoen's stormwater management plan was submitted to the Grey Sauble Conservation Authority in February 2025.

# Environmental Assessment

- Tara BESS is subject to the Ministry of Environment, Conservation and Parks' (MECP) **Class Environmental Assessment for Minor Transmission Facilities** (Class EA) process, in accordance with the Ontario Environmental Assessment Act.
- Notice of Commencement of the Class EA process for Tara BESS was initiated on November 25, 2024.
- Feedback received between Notice of Commencement and Notice of Completion will be entered into a public consultation record that form part of Neoen's Class EA submission.
- A Notice of Completion will be filed once the Class EA studies are complete in Q1 2025, then Neoen's submission will be available for public comment for 30 days following Notice of Completion.

# Environmental Assessment Studies

## Required studies:

- Aquatic Habitat Assessment
- Ecological Land Classification and Vegetation Surveys
- Breeding Bird Surveys
- Breeding Amphibian Surveys
- Bat Habitat Assessment (Maternity Roost Surveys)
- Noise Impact Assessment
- Agricultural Impact Assessment



### SPECIES AT-RISK

- Two at-risk avian species were identified on site: Red-headed Woodpecker and Eastern Meadowlark.
- 13 cavity nests were identified; will be reassessed prior to construction.
- Cavity trees and bat maternity roost habitats will be avoided during construction.



### ARCHAEOLOGY & AGRICULTURE

- Temporary loss of less than 20-acres of agricultural land with current design.
- Crop cultivation and cattle grazing around the BESS facility can continue during operations.
- A field archaeological assessment will be conducted in spring 2025.



# Noise Assessment

- Battery container fans and transformers emit noise - fans cool the batteries when charging during warm conditions, and transformers emit a humming noise.
- Tara BESS must comply with applicable noise regulations.
- A baseline noise study has been conducted to establish ambient noise levels.
- Noise mitigation measures will ensure that ambient noise levels are maintained for surrounding residential receivers during BESS operations.
- An acoustic barrier wall on berm (total height 8-metres) is proposed for the north end of the site, with 6m acoustic barrier walls around the five battery container sections.
- Additional facility-based noise mitigation is being explored and may replace the acoustic barrier wall on berm.



\*WITH MITIGATION

# Other Environmental Permitting Requirements

- Environmental Compliance Approval for Stormwater and Noise
- Environmental Activity Sector Registration (Noise)
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan
- Ontario Endangered Species Act Sec.17 permit
- Regulation 41/24 Approval from Grey Sauble Conservation Authority

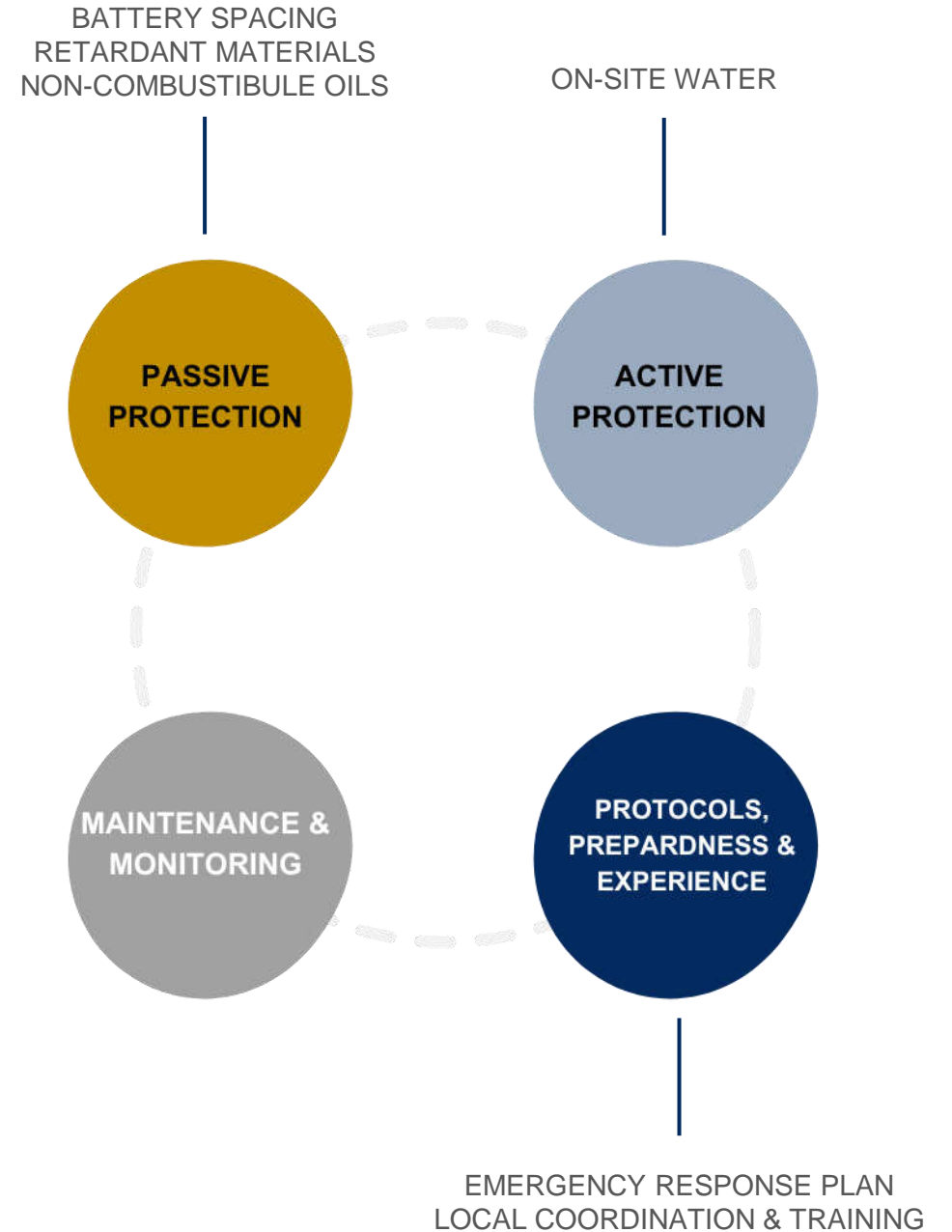
In addition, municipal rezoning and Official Plan Amendment approvals are required.

# BESS Safety



# BESS Safety

- BESS are designed to two primary prevent safety risks, thermal runaway and spill events.
- Thermal runaway occurs when damaged battery cells heat abnormally, resulting in the possibility of smoke, fire, or combustion.
- Spill events, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.
- Hazard events are rare and prevented through a mix of active and passive protection, maintenance and monitoring, and rigorous safety protocols.
- Neoen engages local emergency responders in the development of its fire prevention and emergency response plans to ensure capacity to respond in the event of a hazard event.



# Construction and Operations





# BESS Construction

BESS construction typically takes between 1.5 – 2 years to complete, and includes the following activities:

- Temporary fence installation
- Equipment mobilization
- Temporary storage areas
- Material and soil deliveries (by truck)
- Clearing and grading
- Shallow excavation and pouring of concrete slabs or pile installation
- Hoisting of pre-assembled battery containers and transformers
- Erection of steel structures and transmission lines
- Electrical connection work
- Acoustic barrier wall installation
- Landscaping



# BESS Operations

- Tara BESS is expected to complete one charge and discharge cycle per day.
- A crew of workers, contracted by Neoen, will operate Tara BESS. Neoen can elect to operate each day or not.

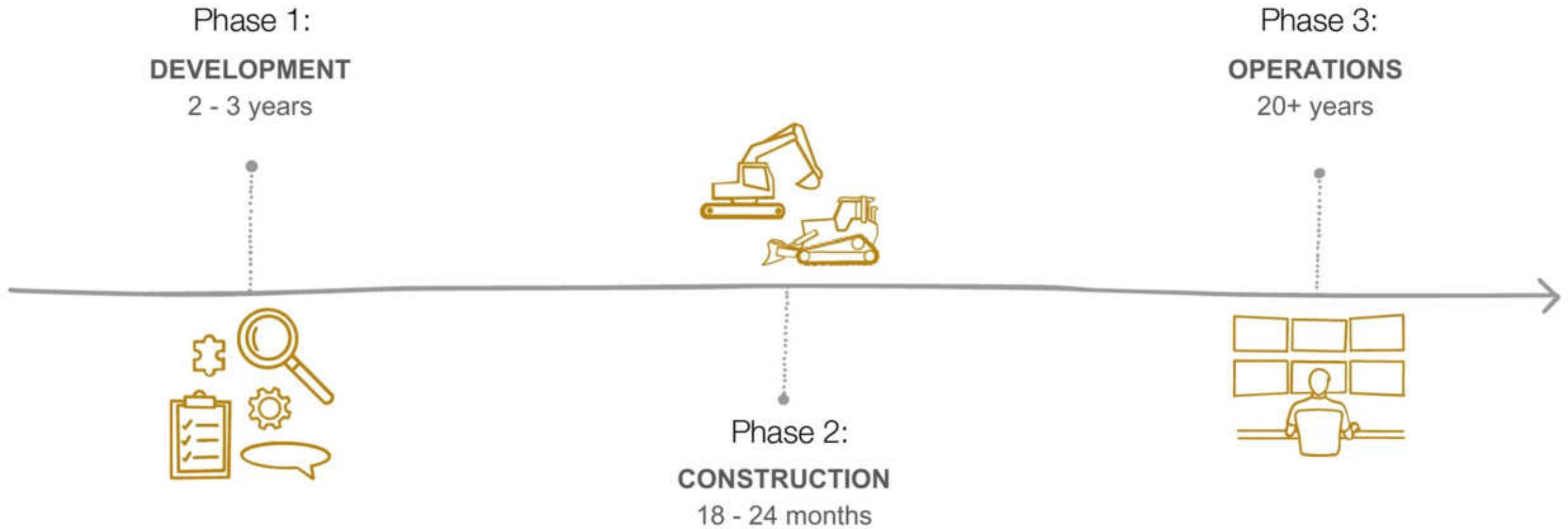




# Development Process



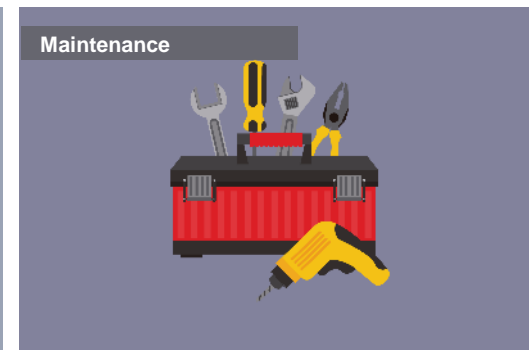
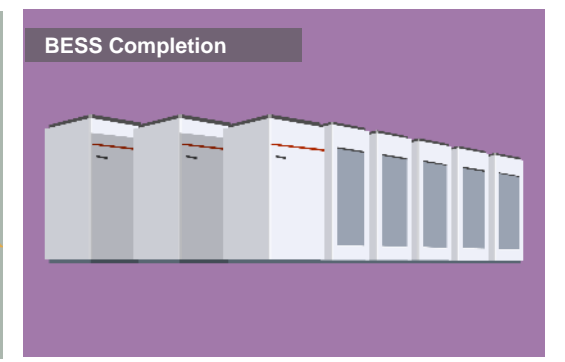
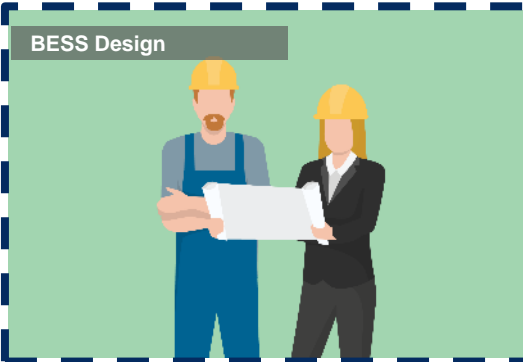
# Project Lifecycle



# Project Stages

WE ARE HERE

WE ARE HERE





# What's Next?

**MAY 2024**

CONTRACT AWARDED

**Q3 2024 - Q1 2025**

PROJECT DEVELOPMENT  
COMMUNITY CONSULTATION  
PERMIT SUBMISSIONS

**SPRING 2025**

PERMIT SUBMISSIONS

**SPRING 2026**

CONSTRUCTION

**LATE 2027**

OPERATIONS

- Neoen to provide stormwater management, natural heritage assessment, and noise assessment reports to GBTTCC.
- GBTTCC to provide any feedback to Neoen in advance of next meeting.
- Environmental Assessment submission will be available online in April/May 2025.
- Next meeting – March 2025 (to be scheduled).
- Open house in Region 7 Communities or participate in an existing event.

# Feedback Channels

- We invite feedback via the following channels:
  - Phone: (416) 312-0057
  - Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
  - Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
  - Mail: 319-150 King Street West, Toronto, ON M5H 1J9



# Community Benefits



# Community Benefits

- Neoen has committed to \$10,000 CAD food security initiative donation to the MNO upon achieving Notice to Proceed (start of construction).
- Additionally, community benefits for Tara BESS may include employment, skills training and vendor opportunities, sponsorship for certain initiatives, and local art.





*Thank you! Merçi! Marsi!*

NEOEN



Meeting	<b>NEOEN-MNO</b> Tara Battery Energy Storage System Project Meeting
Date	Friday, February 14, 2025
Time	13:30-16:00
Location	Virtual - Zoom
Circulate Date	

Attendees:

1. Ethan Roy (**MNO**)
2. Chris Coture (**MNO**)
3. Greg Garratt (**MNO**)
4. Tony (**MNO**)
5. Wendy (**MNO**)
6. Vic and Verna Brunelle (**MNO**)
7. Brittany Morrison (**Neoen**)
8. Nicolas Echesortu (**Neoen**)
9. Alexandra Clarke (ICE)

**Disclaimer:** *The following notes provide a summary of the key discussion points between the Métis Nation of Ontario and Neoen and are not a verbatim transcript.*

NOTES:

**MNO:** Inquiring that the land is not owned, but is leased.

**Neoen:** Confirmed that the land is leased.

**MNO:** How high will the facility be raised?

**Neoen:** About 3 meters because there is a requirement to have a 1% slope.

**MNO:** Where will the fill come from?

**Neoen:** the existing property.

**MNO:** Why does the facility need to be beside a main line? There are many hydro lines around. Does this have to do with selling power?

**Neoen:** It is a matter of available capacity on the lines, which is determined by Hydro One in Ontario. Hydro One determines what is the best way to connect. For this volume and scale of project, it is better to connect to a transmission line and not a distribution line. Transmission lines have larger voltage.

**MNO:** Inquired if it is more economical to purchase power from transmission or distribution lines?

**Neoen:** If you are a large consumer, then it is cheaper to connect to transmission lines, if you are a small consumer, then distribution lines.

**MNO:** Inquired if the property on which Tara Bess will be located will allow for future expansion.

**Neoen:** No, the contract only allows for a standalone BESS with IESO.

**MNO:** Inquired how long is the project?

**Neoen:** The contract with IESO is for 20 years. The contract with IESO and the landowner is for 20 years. If there is no extension, then Neoen will decommission the facility and return it to the best of Neoen's ability to the original state, which is in this case is grazing lands for cattle.

**MNO:** In the decommissioning, is most of the material recyclable?

**Neoen:** Materials like steel are recyclable. It is difficult to say if the materials in the battery will be recyclable in 20 years.

**MNO:** Are the battery cells recyclable now?

**Neoen:** No. There is a requirement for a certain volume of batteries before they can be recycled. Tesla is the supplier of the battery cells. If any of the battery cells go bad, they are returned to Tesla.

**MNO:** So Tesla is the supplier of these batteries?

**Neoen:** Yes, Neoen is considering Tesla as the supplier of the batteries. This is currently the largest battery being procured by the ISEO to date.

**MNO:** Is Neoen a shareholder company? Or private owner?

**Neoen:** Neoen is publicly traded. The majority of shares have been recently purchased by Brookfield.

**MNO:** Neoen is stating that Lithium-Ion Batteries are not recyclable, but the Canadian government website says that they are 95% recyclable.

**Neoen:** We are very careful about this, because we currently do not have a contact where to send them. So Neoen ensures that Tesla themselves takes care of any batteries and returns them to the suppliers for recycling. Neoen is hopeful that eventually there will be services who can effectively recycle rechargeable batteries such as these. Neoen will seek to recycle any components and materials that can be recycled.

**MNO** shared a link regarding recycling rechargeable batteries:

<https://renewablesassociation.ca/wp-content/uploads/2025/01/CanREA-factsheet-Recycling-batteries.pdf>

**MNO:** Have you ever had fires in other countries?

**Neoen:** Yes, there has been a fire in another country on a battery of comparable size to this one.

**MNO:** What is the worst scenario? A chemical spill? Fire?

**Neoen:** With any event, you want to prevent ex. A spill from spreading. We feel that we have prevented spills and fire propagation through the design. If a fire or spill were ever to happen, there are several safeguards on site in place to address issues. There is also an emergency response plan, which incorporates the local emergency services.

**MNO:** Do we have access to feedback from other sites. For example, how the sites fit within the communities that was chose. And any reports for follow-up to any events such as a fire.

**Neoen:** Neoen can show some examples of other sites. In terms of how it fits in, it is a combination of the permits and approvals and the proximity to surroundings. In the case of Tara Bess, there is consideration for strategically placed vegetation, noise walls and art.

**MNO:** Are there any impacts to agriculture known? For example, if farmers continue to farm after the fact. Also any consideration for traffic?

**Neoen:** In terms of agriculture, the impact is temporary loss of farmland. In regards to Tara BESS, the surrounding crops are soy for export, the also does cattle grazing on the site.

**MNO:** MNO clarified that they were referring to contamination of food.

**Neoen:** There are mitigation measures such as the retention pond to prevent contamination.

**MNO:** Any concerns with traffic?

**Neoen:** During construction there will be some traffic control. But after the construction, there will be few people on site as it is a pretty self-sufficient facility. There are additional access routes proposed onto the site from the surrounding concessions.

**MNO:** Is there opportunity for **MNO** to become a small partner in this venture or acquire a percentage share of ownership?

**Neoen:** There will be an IPP, however, joint venture or ownership opportunities are not being considered. There will be opportunities for capacity building and supplier opportunities.

**Commented [A1]:** @Brittany, you have a really nice way of saying this, but I didn't quite capture it.

**Neoen** offered to attend any **MNO** event with information and a booth in lieu of a community open house.

**MNO:** MNO shared that the most significant event in the area is the summer fish fry in the summer.

**Neoen:** Neoen confirmed that they could attend and host a booth, and the money that Neoen would have spent on an open house can go towards the event.

**MNO:** Confirmed that Ethan (MNO) can forward information on this.

**MNO:** Affirming that the consultation agreement has been signed. So the review of the reports will be covered. There is also an opportunity for a site tour, preferably when there is not 5ft of snow on the ground.

**Neoen:** Affirmed that Neoen will support a site tour, as well an independent open house, or a booth at an existing event.

**MNO:** Inquired if **Neoen** pulling hydro out of the transmission lines affect nearby hydro customers?

**Neoen:** Neoen responded that pulling hydro out of the transmission lines does not affect nearby hydro customers; if anything, the BESS, in theory, should make electricity cheaper for energy users. How soon savings will be realized, this is unknown.

**MNO:** Inquired if most of the materials, including the batteries manufactures in Canada.

**Neoen:** Responded that most of the materials, including batteries are not going to be manufactured in Canada.

**MNO:** Inquired if there anything that is manufactured in Canada that will be used.

**Neoen:** Responded that all the discussions and current political climate with the USA are very relevant to the project (referring to the US imposed tariffs and uncertainty in the market). Canadian Steel may be used. Most of the components are not fabricated in Canada. Most likely that the BESS will be assembled in China. Neoen will do their best to procure supply and service locally. Neoen is open to any recommendations for suppliers of products and services. Neoen will have a plan for community benefits, including sponsorship for certain initiatives and capacity building.

**MNO:** Affirmed that **MNO** (Ethan) will share information from **MNO** to **Neoen** regarding **MNO's** history and presence in the region.

**Neoen:** Inquiring if **MNO** has any supplier or service partnerships in the region?

**MNO:** Responded that there are some partnerships for catering. **MNO** is working on a business directory. There is interest in supporting local member businesses in starting off, but there may not be anything on an industrial scale.

**Neoen:** Neoen stated that they do not build themselves, a contractor will do the building. If there are any Indigenous businesses, Neoen will try to put those into the contract requirements along with any specific targets. It would be very helpful to have contact and

business information, along with a description of any supplies and services they supply, if this information could be supplied earlier rather than later.

**MNO:** Inquired how many staff would work on site when it is fully operational.

**Neoen:** Between 2-10 to operate once it is fully operational.

**MNO:** MNO would appreciate information from the company that can be passed on to MNO contractors and people, along with the timelines.

**Neoen:** Neoen can circulate guidelines on the types of roles the project will need filled, as well as construction needs and timelines.

**MNO:** Would like to consider involving their youth artisans.

**Neoen:** Looking for ensure that the site will be inconspicuous, but perhaps another more appropriate location.

**MNO:** Will there be tree removals?

**Neoen:** There may be a few at a very southern location there may be a few tree removals, but there will be very minimal tree removals.

**MNO** would be interested in possibly taking the lumber to help with member heating costs.

**Commented [AC2]:** @Brittany: This note is for you/Neoen only - but if there is wood that is suitable for firewood, you have to have it carefully inspected for pests and disease. The whole "don't move firewood" thing, we would want to minimize risk of being responsible for being a vector for the spread.

#### **Action Items:**

- 1) Neoen to put together a document(s) that describes anticipated subcontracting and employment opportunities. This document should include estimated timelines.
- 2) Neoen to confirm the number of tree removals, species, and sizes, and what will be done with the felled trees.



### Neoen Tara BESS Working Group – Meeting 1 - Notes

<b>Date &amp; Time:</b>	Friday February 28, 2025
<b>Meeting Topic:</b>	Storm Water Management & Floodplain
<b>Location:</b>	Virtual – Microsoft Teams
<b>Circulation:</b>	March 7, 2025

**Attendees:**

#	Name	Organization	Role
1	Brittany Morrison	Neoen	Manager, Engagement & Stakeholder Relations
2	Mario de Agüero	Neoen	Senior Project Manager – Tara BESS
3	Nico Echesortu	Neoen	Construction Manager
4	Benoît Pinot	Neoen	Province Director
5	Foster Karcha	BBA	
6	Vincent Brunelle	BBA	
7	Vincent Clément	BBA	
8	Scott Robertson	Montrose Environmental	
9	Shari Muscat	Montrose Environmental	
10	Gillian Smith	MHBC Planning	
11	Alexandra Clarke	Indigenous Community Engagement	
12	Jenn Burnett	Bruce County	Senior Planner
13	Ryan Errington	Bruce County	Engineering Manager
14	Emily Dance	Arran-Elderslie	CAO
15	Steve Tiernan	Arran-Elderslie	Fire Chief
16	Liz Buckton	Grey County	Senior Policy Planner
17	Mike Givens	Chatsworth	Fire Chief
18	Ian Eriksen	GSCA	Manager, Engineering Services

## Opening Remarks

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1. **Purpose of the Working Group:** To dig deeper into the topics and issues that are of interest to the stakeholders and to clarify any information that requires clarification.
2. **Mario de Agüero** and **Brittany Morrison** will continue to be the main contacts for the Tara BESS project.
3. If any attendees are unable to attend a meeting and would like to send an alternate, please advise Brittany and Mario.

*Tara BESS SWM & Floodplain Presentation from Neoen (presented by Brittany Morrison)*

## Meeting Summary

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### 1. Backflow Prevention Considerations

- **Grey Sauble Conservation Authority (GSCA)** asked if backflow prevention was considered in the design.
- **Neoen** confirmed that each outflow pipe has a closure to prevent water from flowing back in. A control mechanism closes when external water levels exceed the pond's water level.
- **GSCA** inquired whether the design considers the **100-year flood line**.
- **Neoen** clarified that the pond is for emergency overflow. A **100-year flood event was not considered**, but an **overflow spillway is included**.
- **GSCA** noted that storm sewers are at least **1m below the 100-year flood line**.
- **Neoen** responded that the **emergency spillway is lower than the manholes**.
- **Neoen** asked if GSCA observes seasonal **elevated water levels**.
- **GSCA confirmed** that water levels rise seasonally and may persist due to the **slow-moving Sauble River**. The **100-year storm and floodplain considerations** are relevant for GSCA assessments.

### 2. Policy and Approval Considerations

- **GSCA** stated that the **proposal does not align with current GSCA policies**.
- **Neoen** asked if **exceptions could be made** under **Section 28** of the policy.
- **GSCA** clarified that the policy **does not allow for this**, and staff **cannot approve projects that do not comply**. However, the **Board may review the case** upon submission of formal comments.
- **Neoen** asked if **building the entire facility above the 100-year flood line** would meet policy intent.

- **GSCA** stated that the **Provincial Policy Statement prohibits building in hazardous areas**. As the **majority of the property is classified as hazardous**, the **Conservation Authority would not issue permits** for non-compliant projects.

### 3. Permitting Process for Entrances and Access Roads

- **Neoen** inquired about the permitting process for the **primary and secondary entrances** under **O. Reg. 41/24**, as fill is required for access road construction.
- **Bruce County** clarified that **Bruce County issues entrance permits** and that initial **sightlines appear acceptable**, but further review is needed.
- **Action Item:**
  - **Ian Erickson (GSCA)** to consult **Mac Plews (GSCA)** on required **authorizations/permissions** for primary and secondary entrances.
  - **Neoen** to request the **entrance permit process** from **Scott**.
- **GSCA** asked if a **culvert** is planned for the County Road entrance.
- **Neoen confirmed** that culverts will be included for both entrances to maintain water flow. However, this is **not yet reflected on the design presentation**.
- **GSCA** asked if **native material from the site** will be used as fill.
- **Neoen confirmed** that **local native material** will be utilized for **site elevation adjustments**.
- **Neoen requested Ryan** to provide details on the **road permit application process**.
- **Bruce County** to send over **road permit applications**.
- **Bruce County** clarified that **entrance permits are separate from site project approvals** and will be issued after site permits are granted to **align with approved site uses**.

### 4. Future Meetings & Next Steps

- **Neoen** asked if any **additional topics** should be proposed for future meetings—**no new submissions were received**.
- **Next Meeting:** Friday March 14 – Fire Prevention & Emergency Response

## Action Items

#	Description	Status
1	<b>Ian Erickson (GSCA)</b> to consult <b>Mac Plews (GSCA)</b> regarding the <b>permitting process and required authorizations/permissions</b> for the primary and secondary entrances. <ul style="list-style-type: none"><li>• <b>Mac Plews (GSCA)</b> to provide a response to the project regarding the permitting process.</li></ul>	
2	<b>Neoen</b> to request the <b>entrance permit process</b> from <b>Scott (Arran-Elderslie)</b> .	Complete
3	<b>Ryan (Bruce County)</b> to send over <b>road permit applications</b> to Neoen.	Authorization request sent by Neoen.
4	Neoen to share presentation in advance of next meeting.	Complete
5	Neoen to circulate meeting minutes.	Complete



## Tara BESS Working Group – SWM & Floodplain

*February 28, 2025*



Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities. We recognize and respect the relationship these communities share with the land and waters where we work.

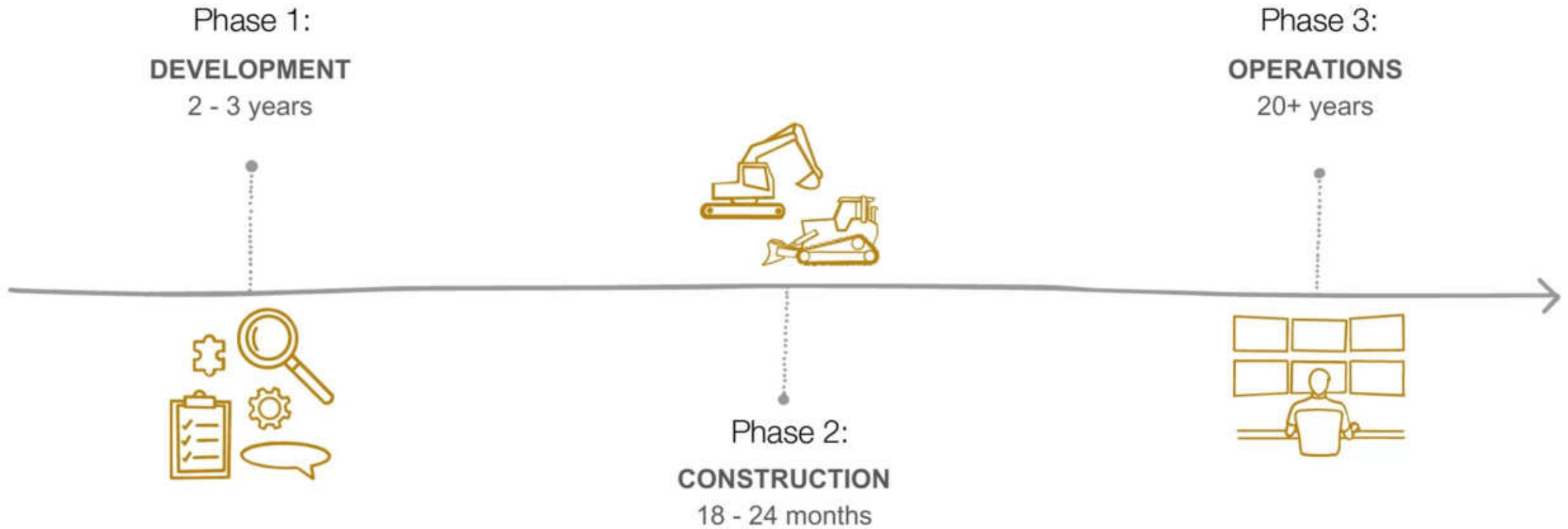
# Tara BESS



# Background

- Tara BESS, formerly Grey Owl Storage, was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 battery energy storage system (BESS) contracts awarded in LT1, collectively totaling 1,784 MW, to help meet Ontario's projected energy needs by 2050.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# Project Lifecycle



# Timeline



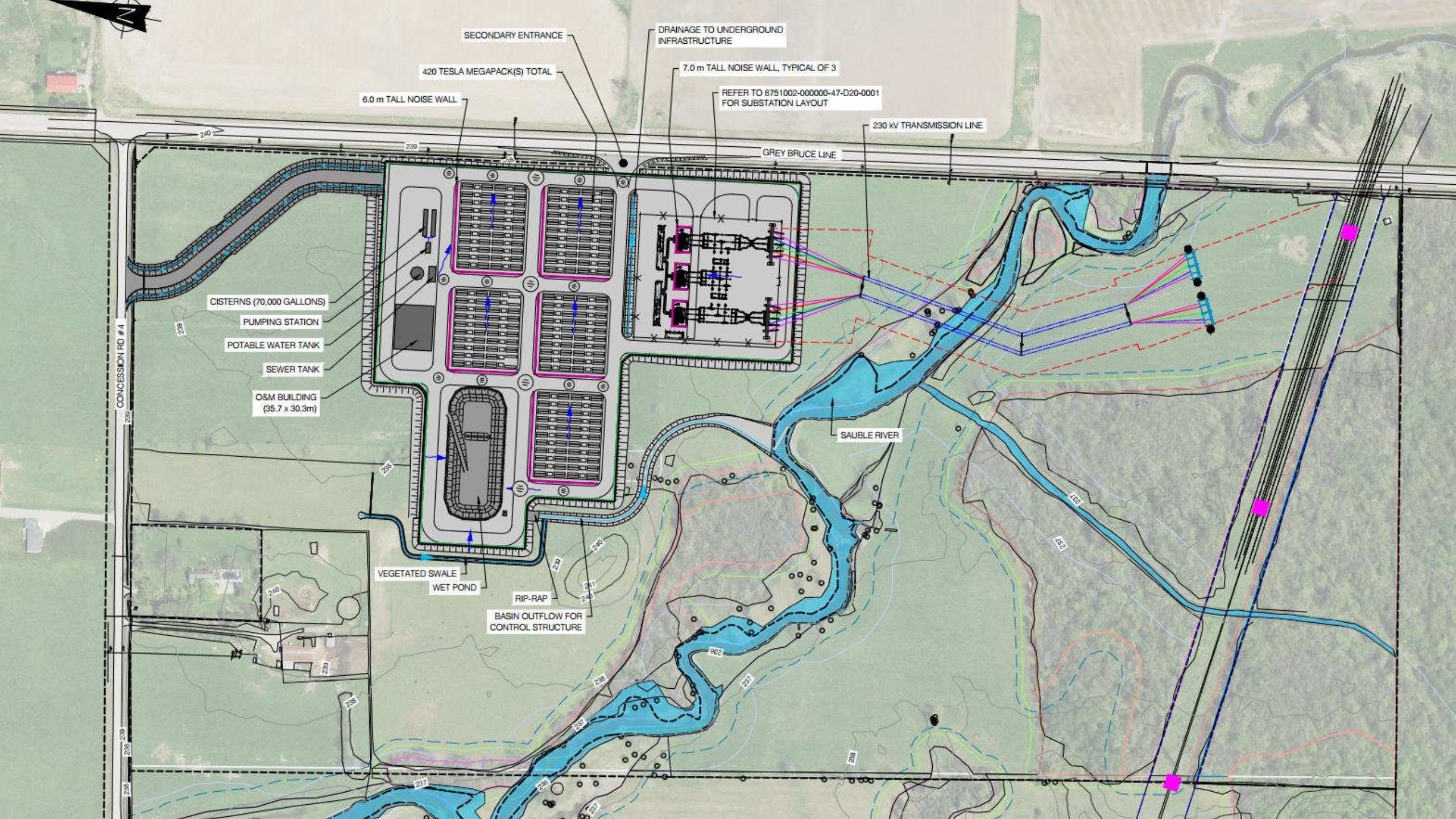
Permit	Authority	Target Timeline
Conservation Authority Approval	Grey Sauble Conservation Authority (GSCA)	Submitted Feb 4 <sup>th</sup> , 2025.
Official Plan Amendment	Bruce County	Week of March 3
Zoning By-law amendment	Municipality of Arran-Elderslie (through Bruce County)	Week of March 3
Class EA for Transmission Facilities	MECP	April 18, 2025 (Notice of Completion)
Environment Compliance Approval (ECA)	MECP	April 2025
Archeology Clearance Letter	MCM	April 2025



# Proposed Project Lands







SECONDARY ENTRANCE

DRAINAGE TO UNDERGROUND  
INFRASTRUCTURE

420 TESLA MEGAPACK(S) TOTAL

7.0 m TALL NOISE WALL, TYPICAL OF 3

REFER TO 8751002-000000-47-D20-0001  
FOR SUBSTATION LAYOUT

6.0 m TALL NOISE WALL

230 kV TRANSMISSION LINE

GREY BRUCE LINE

CISTERNS (70,000 GALLONS)

PUMPING STATION

POTABLE WATER TANK

SEWER TANK

O&M BUILDING  
(35.7 x 30.3m)

SAUBLE RIVER

VEGETATED SWALE  
WET POND

RIP-RAP

BASIN OUTFLOW FOR  
CONTROL STRUCTURE

CONCESSION RD #4



# Layout Labels Defined

Label	Description
Basin Outflow for Control Structure	Outflow of filtered water from the wet pond to Sauble River
Cisterns	At-grade water storage
Drainage to Underground Infrastructure	Drain to subsurface stormwater management system
Megapacks	420 battery containers
Noise Wall (6m)	Acoustic barrier walls around the north and west sides of the five battery container sections
Noise Wall (7m)	Acoustic barrier walls around the north part of the three high voltage substation transformers
O & M Building	Operations and maintenance building (site office)
Potable Water Tank	Water to service site office
Primary Entrance	Gravel road site access off Concession Road 4
Pumping Station	At-grade water pumping system
Rip-Rap	Stone retention wall between the wet pond and basin outflow
Secondary Entrance	Gravel road access off Grey Bruce Line
Sewer Tank	Sewer tank to service site office
Vegetated Swale	Vegetated ditch channeling water to Sable River via the basin outflow
Wet Pond	Impermeable retention pond with filtration system consisting of a forebay and main pond separated by an earthen fill berm

## LEGEND

EXISTING GRADE CONTOUR	
DITCH FLOW DIRECTION DITCH	
CULVERT	
PROPERTY BOUNDARY (TULLOCH SURVEY)	
BATTERY NOISE WALL (6.0 m TALL)	
SURFACE WATER DRAINAGE	
FENCE	
BATTERY GROUP (4 BATTERIES, 1 TRANSFORMER)	
WETLANDS	
WATERCOURSE BUFFER 30 m	
WETLANDS BUFFER 15 m	
WOODLANDS BUFFER 10 m	
POTENTIAL SIGNIFICANT WILDLIFE HABITAT	
EASTERN MEADOWLARK HABITAT	
POTENTIAL MATERNITY ROOST HABITAT FOR LITTLE BROWN MYOTIS	
CAVITY TREES	
ECOLOGICAL COMMUNITIES	
HYDRO POLE	
HYDRO POLE ANCHOR	
WATERCOURSE	
LIMIT OF FORESTED AREA	
TREE/SHRUB	
EXISTING FENCE GATE	

# Overview



# Overview

- On February 4, 2025, Neoen submitted its Regulation 41/24 Conservation Authorities Act (Prohibited Activities, Exemptions and Permits) permit application to the Grey Sauble Conservation Authority (GSCA).
- Key application components for Tara BESS include Stormwater Management Report, Floodplain Assessment and Erosion and Sediment Control Plan.
- The application and its contents were prepared in collaboration with Neoen's consultants, Montrose Environmental (formerly Matrix) and BBA.
- Neoen is preparing additions to its submission per GSCA request:
  - An existing conditions elevation plan with .25 m contours.
  - A proposed conditions elevation plan (or multiple plans) with grading for all proposed works across the entire project area, including the proposed cut areas, including the driveways and entrances.
  - Development activity is identified within the Right of Way of Concession Rd 4 and Grey Bruce Line. Authorization is required from the owners of these ROWs...Please provide authorization from the owners of the ROWs.



# Regulation 41/24 Conservation Authorities Act

- Section 28.1(1) of the Conservation Authorities Act states that a conservation authority may issue a permit for an activity that would otherwise be prohibited under Section 28, provided that:
  - The activity is not likely to affect the control of flooding, erosion, dynamic beaches, or unstable soil or bedrock.
  - The activity does not create conditions that might jeopardize public health or safety, or cause property damage in the event of a natural hazard.
  - The activity satisfies any additional requirements set out in regulations.

# Stormwater Management



# Stormwater Management (SMW)

- Proposed design adheres to the Ministry of Environment, Conservation and Parks (MECP) Stormwater Management Planning and Design Manual and legislative provisions.
- Proposed design includes:
  - A **surface runoff management system** comprised of site grading, vegetated ditches, subsurface storm sewers and drainage directed to the retention pond.
  - A **retention pond** (also referred to as wet pond) complete with filtration, discharge orifices, and a control valve that allows water to flow into the Sauble River and limits flows to less than pre-BESS development flow rates.
- Proposed design goals:
  - Water quantity control – outflows less than pre-BESS development flow rates.
  - Water quality control – to meet the requirement of removal of suspended solids and water treatment before leaving the site.
  - Erosion control – to mitigate erosion.

STRUCTURE REFER TO DRAWING 000-41-001-0002 FOR DETAILS

300 mm Ø RCP CLASS V

750 mm Ø RCP CLASS V

900 mm Ø RCP CLASS V OUTLET EL.: 237.28 m

900 mm Ø RCP CLASS V OUTLET EL.: 237.28 m

450 mm Ø RCP CLASS V

750 mm Ø RCP CLASS V

600 mm Ø RCP CLASS V

750 mm Ø RCP CLASS V

1200 mm Ø MAINTENANCE HOLE TYPICAL OF 4

750 mm Ø RCP CLASS V

525 mm Ø RCP CLASS V

450 mm Ø RCP CLASS V

900 mm Ø MAINTENANCE HOLE TYPICAL OF 12

SAUBLE RIVER

INV.: 237.35

INV.: 237.70

INV.: 237.01

INV.: 238.15

INV.: 240.01

INV.: 237.41

INV.: 239.26

INV.: 238.79

INV.: 237.96

INV.: 240.60

INV.: 238.14

INV.: 238.21

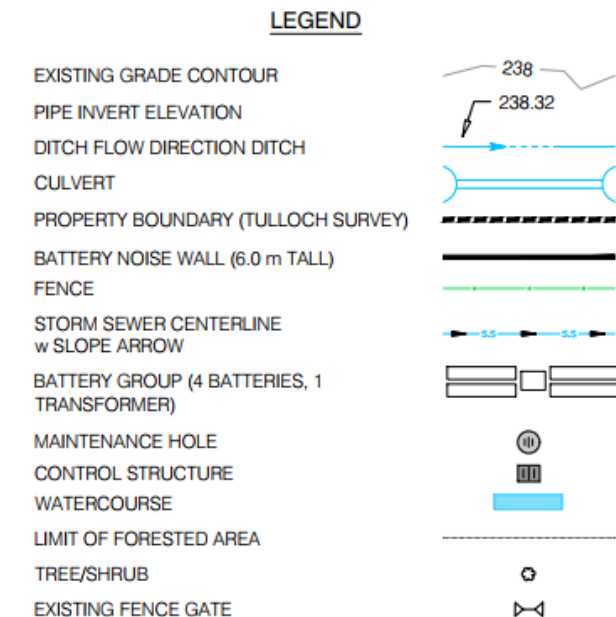
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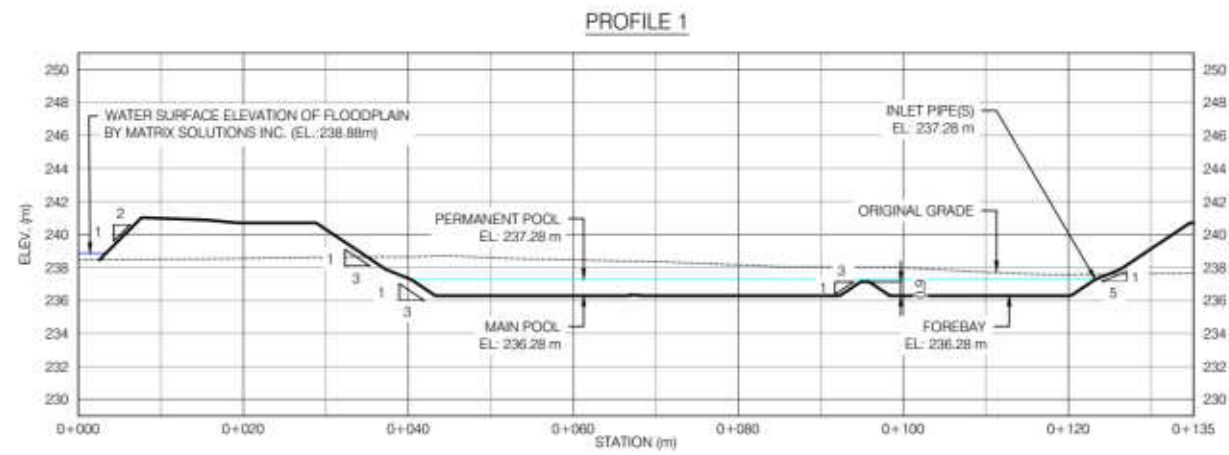
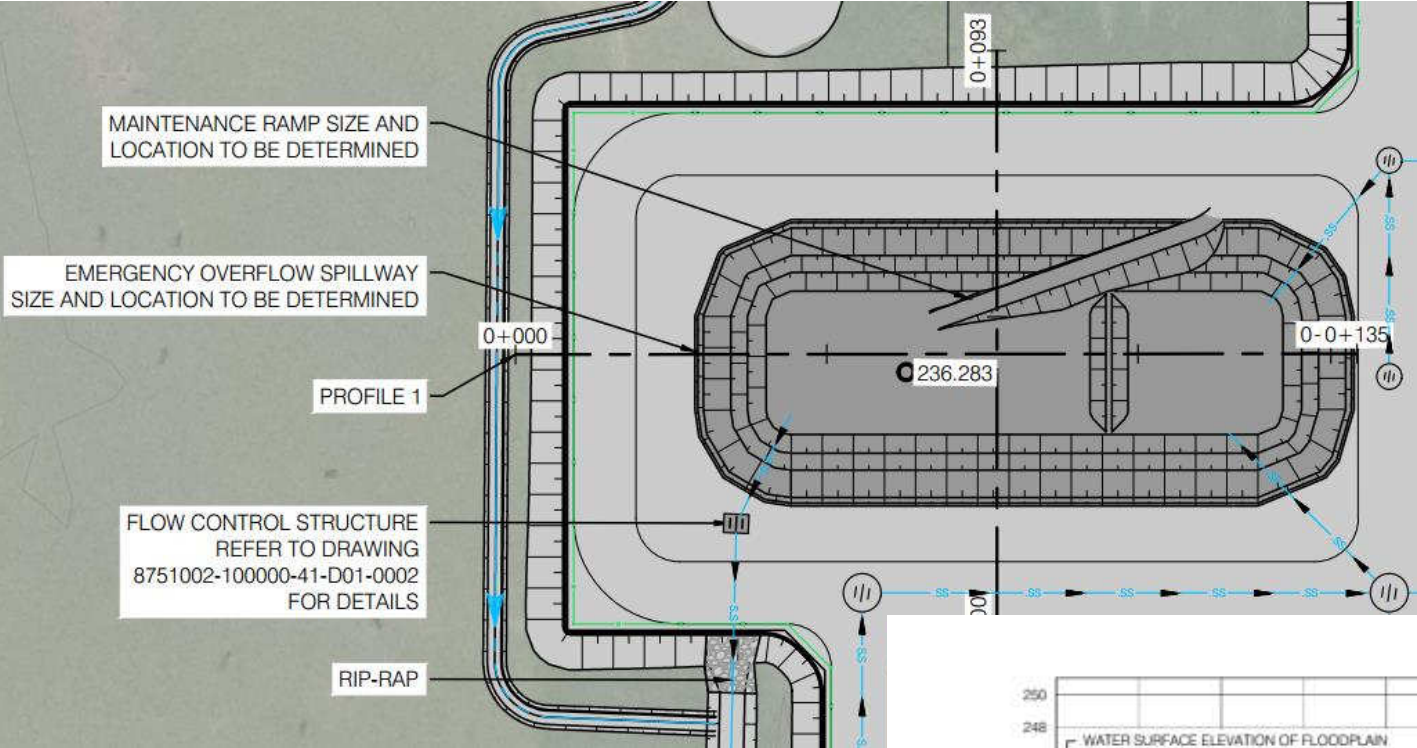
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INV.: 238.55





# Retention Pond



FINAL GRADE		238.50	240.98	238.55	240.70	238.62	240.31	238.65	237.34	238.59	236.28	238.46	236.26	238.35	236.26	238.16	236.26	238.04	236.26	237.99	236.26	237.72	236.26	237.56	236.26	237.63	236.12	237.64	240.70
ORIGINAL GRADE	238.45																												



# Floodplain



# Floodplain Assessment

- Parts of the project lands are a designated Environmentally Protected due to floodplain (natural hazard).
- A cut-and-fill method will raise the facility so that water can flow freely around it, combined with surface runoff management and retention pond will mitigate impact to the floodplain.
- Neoen obtained updated flood data (last study completed 1979) to assess impact; assessment considers use of fill from adjacent property.
- Assessment indicated negligible impact to flood elevation from proposed BESS development.

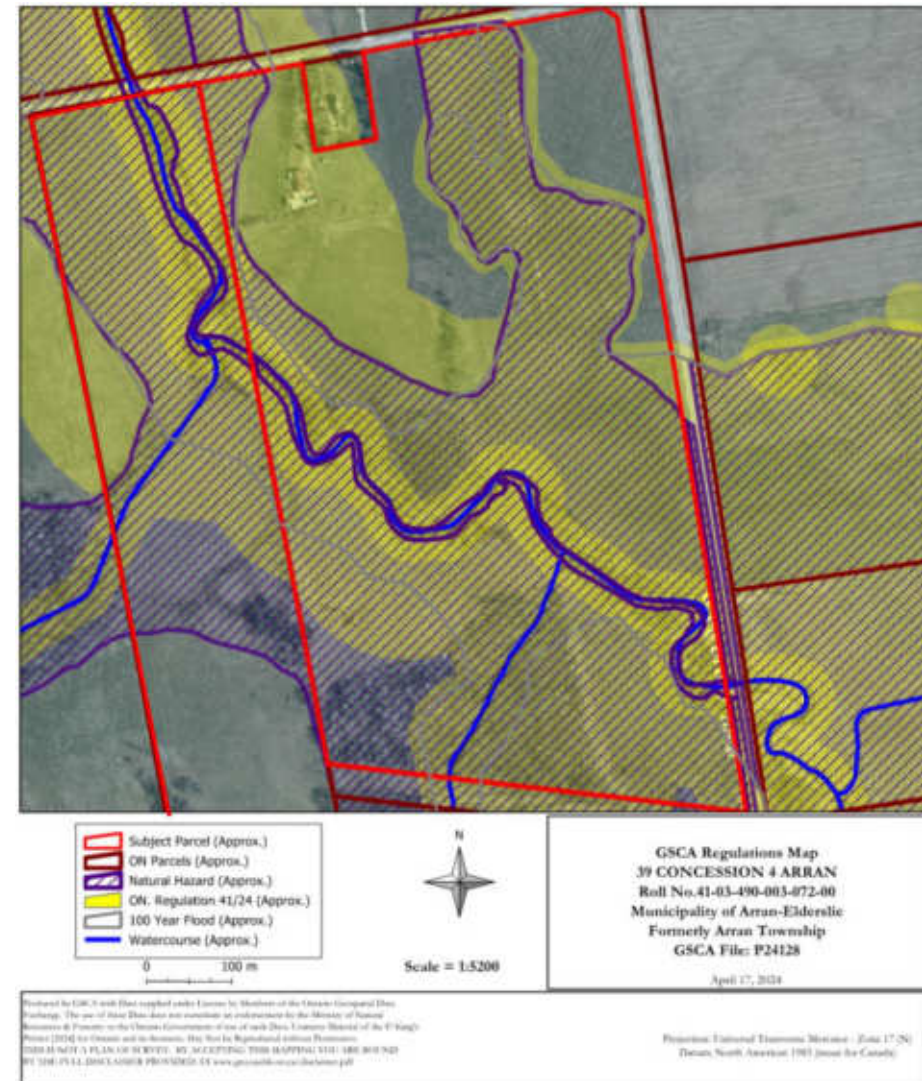
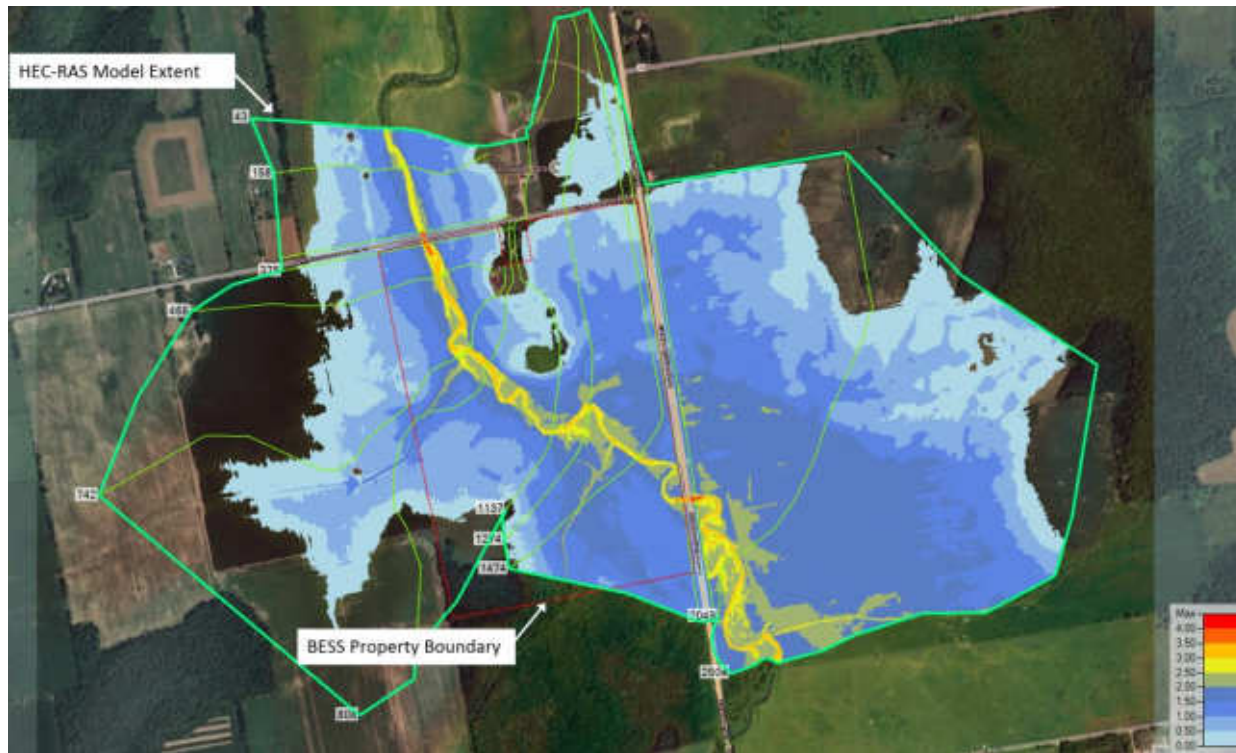


FIGURE 2 Regulated Area Mapping Provided by GSCA Pre-Consultation

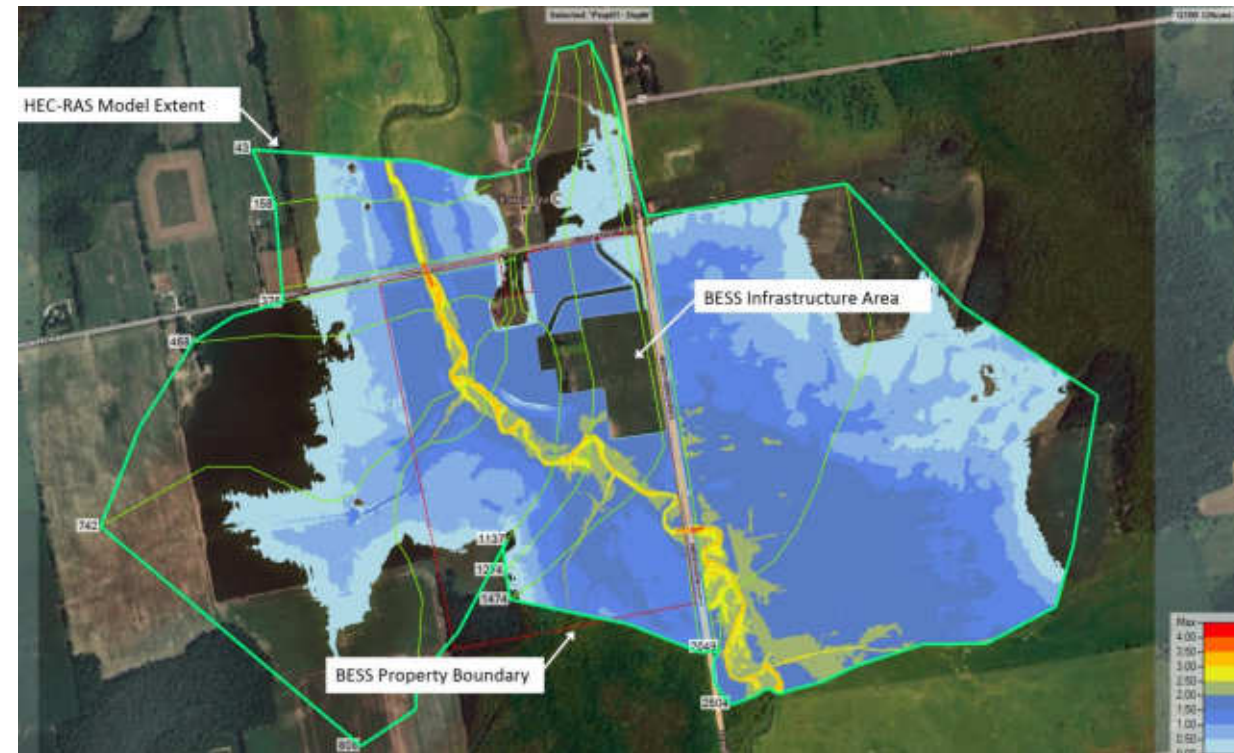


# Floodplain Assessment – Before and After

BEFORE BESS DEVELOPMENT



AFTER BESS DEVELOPMENT



# Erosion and Sediment Control



# Erosion and Sediment Control (ESC)

- Remove all sediment, mud, and construction debris that may accumulate in drainage system or ROW.
- Comply with GSCA's guidelines.
- Prevent petroleum debris from entering watercourses.
- Prevent stockpile erosion.
- Use of silt fencing/dust control.
- Mitigate drainage impacts.
- Weekly inspections.
- Avoid construction during high volume rain events (>20mm in 24 hours).
- Repair of damaged ESC measures within 48 hours.



# Discussion



# Discussion Topics

1. GSCA has requested that Neoen obtain *authorization from the owners of the ROWs* for ROW works and provide it to GSCA as part of its Reg. 41/24 application.
  - a) Neoen is not proposing cut works in the ROW, is this still required?
  - b) If so, is it correct that Arran-Elderslie is the ROW owner of Concession Rd 4, and Bruce County of Grey Bruce Line?
  - c) What is required to obtain the respective authorizations?
2. What are the permitting processes for the proposed primary and secondary entrances?

### Neoen Tara BESS Working Group – Meeting 2 - Notes

<b>Date &amp; Time:</b>	March 14, 2025
<b>Meeting Topic:</b>	Fire Prevention and Emergency Response
<b>Location:</b>	Virtual – Microsoft Teams
<b>Circulation:</b>	March 27, 2025

#### Attendees

#	Name	Organization	Role
1	Brittany Morrison	Neoen	Manager, Engagement & Stakeholder Relations
2	Mario de Agüero	Neoen	Senior Project Manager – Tara BESS
3	Nicolas Echesortu	Neoen	Construction Manager
4	Benoît Pinot	Neoen	Province Director
5	Vincent Brunelle	BBA	
6	Vincent Clément	BBA	
7	Alexandra Clarke	Indigenous Community Engagement	
8	Jenn Burnett	Bruce County	Senior Planner
9	Steve Tiernan	Arran-Elderslie	Fire Chief
10	Liz Buckton	Grey County	Senior Policy Planner
11	Mike Givens	Township of Chatsworth	Fire Chief
12	Greg Symons	GSCA	Manager, Engineering Services
13	Christine Fraser-McDonald	Arran-Elderslie	Clerk
14	Dalton Carey	Bruce County	Engineering Technologist
15	Krista Miller	Bruce County	Emergency Management Services
16	MacLean Plewes	Grey Sauble Conservation Authority	Manager of Environmental Planning

17	Ray Lux	Bruce County	Emergency Management Coordinator
18	Amuk Sandhu	BBA	

## Review of Action Items from Previous Meeting

#	Description	Status
1	<b>Ian Erickson (GSCA)</b> to consult <b>Mac Plews (GSCA)</b> regarding the <b>permitting process and required authorizations/permissions</b> for the primary and secondary entrances. <ul style="list-style-type: none"><li>• <b>Mac Plews (GSCA)</b> to provide a response to the project regarding the permitting process.</li></ul>	A separate meeting was held regarding this, this item is considered closed.
2	<b>Neoen</b> to request the <b>entrance permit process</b> from <b>Scott</b> .	Neoen sent the request and discussed this with Emily Dance.
3	<b>Ryan (Bruce County)</b> to send over <b>road permit applications</b> to Neoen.	Neoen will share to Mac and the Team, what they spoke to Bruce and Arran Elderslie on this topic.
4	Neoen to share presentation in advance of next meeting.	Completed. There has been 1 additional slide added, an updated version of the deck will circulated post meeting. <b>Attendees requested that decks be circulated further in advance of the meeting moving forward.</b>
5	Neoen to circulate meeting minutes.	Completed

*Tara BESS SWM & Floodplain Presentation from Neoen (presented by Brittany Morrison)*

## Meeting Summary

1. The current plan includes a 10 m wide gravel road. You will not be able to drive a truck between the batteries within a cluster, but you can drive between each groups of clusters. Overall, the road widths are 10m.
  - a. Action Items:
    - i. The Project team to confirm the space between each battery.
    - ii. The Project Team to confirm the load rating of each road.
    - iii. The Project Team to confirm the space between each battery cluster.



- b. Attendees confirmed that they agree that the turning radius being based on the following dimensions of a fire truck are acceptable:

### 3.3 Fire/emergency truck

A fire/emergency truck is being used as a control vehicle. Fire/emergency trucks are assumed to have access to all site areas including the substation area and battery unit area.

Dimensions for the pumper fire truck are based on the Civil 3D vehicles tracking modeling (see the table and the figure below):

Table 4: Pumper fire truck dimensions

Length (m)	Width (m)	Height (m)	Minimum body ground clearance (m)	Track width (m)	Lock-to-lock time (s)	Max wheel angle
12.192	2.489	2.561	0.2	2.489	5	45°

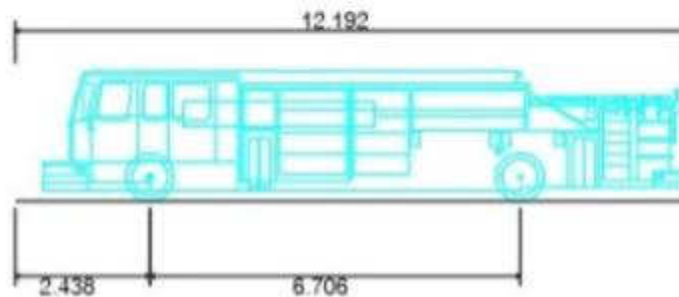


Figure 5: Pumper fire truck dimensions

2. The Working Group inquired if the control room will have it's own stand-alone fire suppression system in the event that there is a fire in the control room.
  - a. Neoen confirmed that, yes there is a stand-alone fire suppression system in the control room that is specific to the type of gas and technology in the control room.
3. The Working Group inquired: on a single container, assuming full capacity, in regards to fire and thermal runaway, what is the expected burn time?
  - a. Neoen shared that the 2022 Tesla test resulted in a burn time of 6 hours.
4. The Cells in the containers are expected to be **Lithium Ion Phosphate**.
5. Arran-Elderslie stated that Hydrogen Cyanide, Sulfur Dioxide, Hydrogen Fluoride and other gasses may also be released in the event of a fire. **Arran-Elderslie requests that these also be mentioned, especially at public engagements to ensure there is full transparency.** Neoen affirmed that the intent is to be transparent and that all potential gases that may be released will be included in the report.
6. The project is most likely to proceed with TESLA as a supplier for the batteries.
7. The project clarified that the container is designed in a way to contain the electrolyte fluid, coolant and other fluids within the container. This is independent of the drainage facility. Outside of the module, the drainage for the entire facility
  - a. The entire facility will be raised above the 100 year flood level, so all the batteries and other infrastructure will not be flooded in the event of flooding. Water will be diverted into a holding pond. There is also backflow prevention in the pipes which prevent the water from going the wrong way.

8. The Working Group inquired how often a single cell failure may occur with batteries, and how often does failure impact the entire module.
  - a. Battery technology is changing and evolving rapidly and companies that provide this technology are always working to be at the cutting edge. Neoen has experienced 1 thermal runaway event that did not consume the entire rack, and it stopped at the tray level.
9. In 2022 Tesla conducted an 8-hour test. The most important takeaway of the Tesla test is that there was no adjacent propagation with the surrounding containers. The controlled test resulted in a fire that burned for approximately 6 hours. No water was used as part of the test to cool the surrounding area or infrastructure. Since this test, there may have been upgrades to the technology. Tesla is the supplier the Project is most likely to go with, more specifics are expected to become available when a supplier is confirmed.
10. The inverters and battery containers of the Tesla Megapacks are combined, which is different from many other setups.
11. The Lithium-ion Phosphate chemistry is the preferred chemistry for Neoen and the one that they intend to use.
12. The Working Group inquired if the overpressure vents are electric driven and if they use their own stored energy supply to open the vents.
  - a. Neoen responded that there is no activation of the vent. Once the temperature rises above a certain level it triggers an ignition to prevent gas from building up in the unit.
13. The water storage on site is shown above surface, but Neoen is still working on the design and examining if it would be better above or belowground. Arran-Elderslie suggest examining underground water storage to protect for potential water freezing due to cold weather.
14. Arran-Elderslie affirmed that their fire department will not be putting water on a burning container. They may put water on the surrounding area, but they will not put water on a burning container.
15. **Neoen to provide details on the disposal of any spilled refrigerant, coolant etc.**
16. The Working Group inquired from an Emergency standpoint, about the distance of the closest residences, what the evacuation radius is and cited possible toxins in the air, adverse impacts of smoke and physical danger.
  - a. The closest house is 300m (this is on the south side) from the BESS site.
  - b. The Municipality of Arran Elderslie will be requesting an advanced air monitoring system that can be moved around. **If the specs can be provided to Neoen for any air monitoring device the Arran-Elderslie fire department deems necessary, that is appreciated so that it can be put into the emergency response agreement.**
  - c. Neoen recommends that the local fire department have their own air monitoring device to inform their decisions.
  - d. A radius has not been determined to date.
17. The Working Group inquired on if there any modelling on evacuation systems similar to this? Neoen responded that it is something that is agreed upon with the local fire department. Bruce

County would prefer if a radius would be determined beforehand, in order to identify an area that should be evacuated immediately in the event of an emergency.

18. The Working Group raised that on days with heavy fog and high humidity, this affects how fires burn and smoke travels. High humidity may cause smoke to linger, and this should be discussed as a factor. Neoen agreed that these factors should be considered.
19. Regarding evacuation and safety, the Working Group would like to see more tangible actions reflected in the Emergency Response Plan.
20. Bruce County is interested in more information regarding how contaminated water is contained and prevented from flowing into the watershed. Bruce County is also interested in the disposal plans for contaminated water and spills. Grey County also expressed interest in having this information compiled into one place for future discussion. Neoen has shared high level information regarding these measures at the open house, additional information is available on the project website. **Neoen to provide additional information regarding protective and preventative measures that are put in place to prevent contaminants from contaminating the watershed.**
21. Arran-Elderslie requests that any materials unloading happen on Concession 4 and not the Grey Bruce Line due to the amount of traffic on the Grey Bruce Line. Neoen did mention that from one side, the Sauble River is a challenge logistically. The Arran-Elderslie Fire Department encouraged utilizing Concession 4 as much as possible.

## Action Items

#	Description	Status
1	<ul style="list-style-type: none"><li>• <b>Neoen</b> to confirm the space between each battery.</li><li>• <b>Neoen</b> to confirm the load rating of each road.</li><li>• <b>Neoen</b> to confirm the space between each battery cluster.</li></ul>	To be provided in Neoen's municipal planning application.
2	<b>Neoen</b> to provide details on the disposal of any spilled refrigerant, coolant etc.	To be provided in Neoen's municipal planning application.
3	The <b>Municipality of Arran-Elderslie</b> to provide Neoen with any specs or models for an acceptable air monitoring device so that it can be put into the emergency response plan.	
4	Neoen to provide additional information regarding protective and preventative measures that are put in place to prevent contaminants from contaminating the watershed.	To be provided in Neoen's municipal planning application.

## Requests and Recommendations

- 1) Neoen to circulate decks further ahead of meetings.
- 2) Arran-Elderslie requests that all potential gasses that may be released in the event of a thermal run-away event be specified and mentioned, especially at public engagements to ensure there is full transparency.
- 3) Arran-Elderslie requests that any materials unloading happen on Concession 4 and not the Grey Bruce Line.



## Tara BESS Working Group – Fire Prevention & Emergency Response

*March 14, 2025*



Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities. We recognize and respect the relationship these communities share with the land and waters where we work.

# Agenda

- Tara BESS
- Understanding BESS Fire Risks
- Tara BESS Fire Protection
- Safety, Preparedness and Training
- Discussion

# Tara BESS



# Background

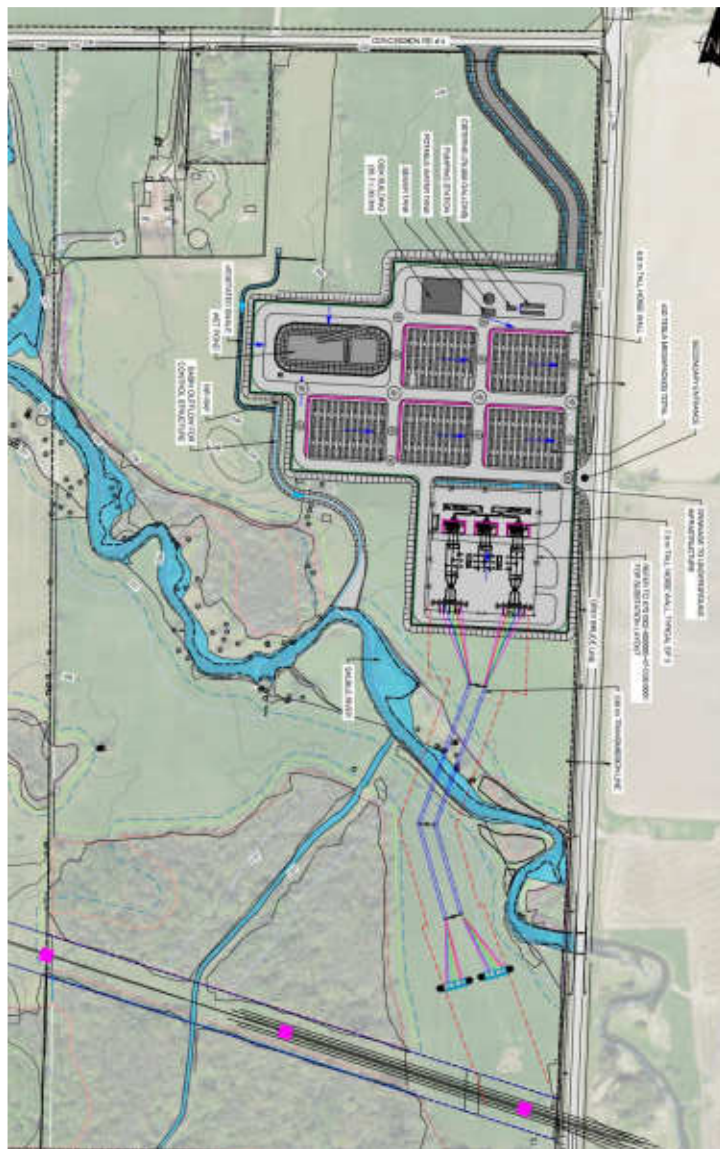
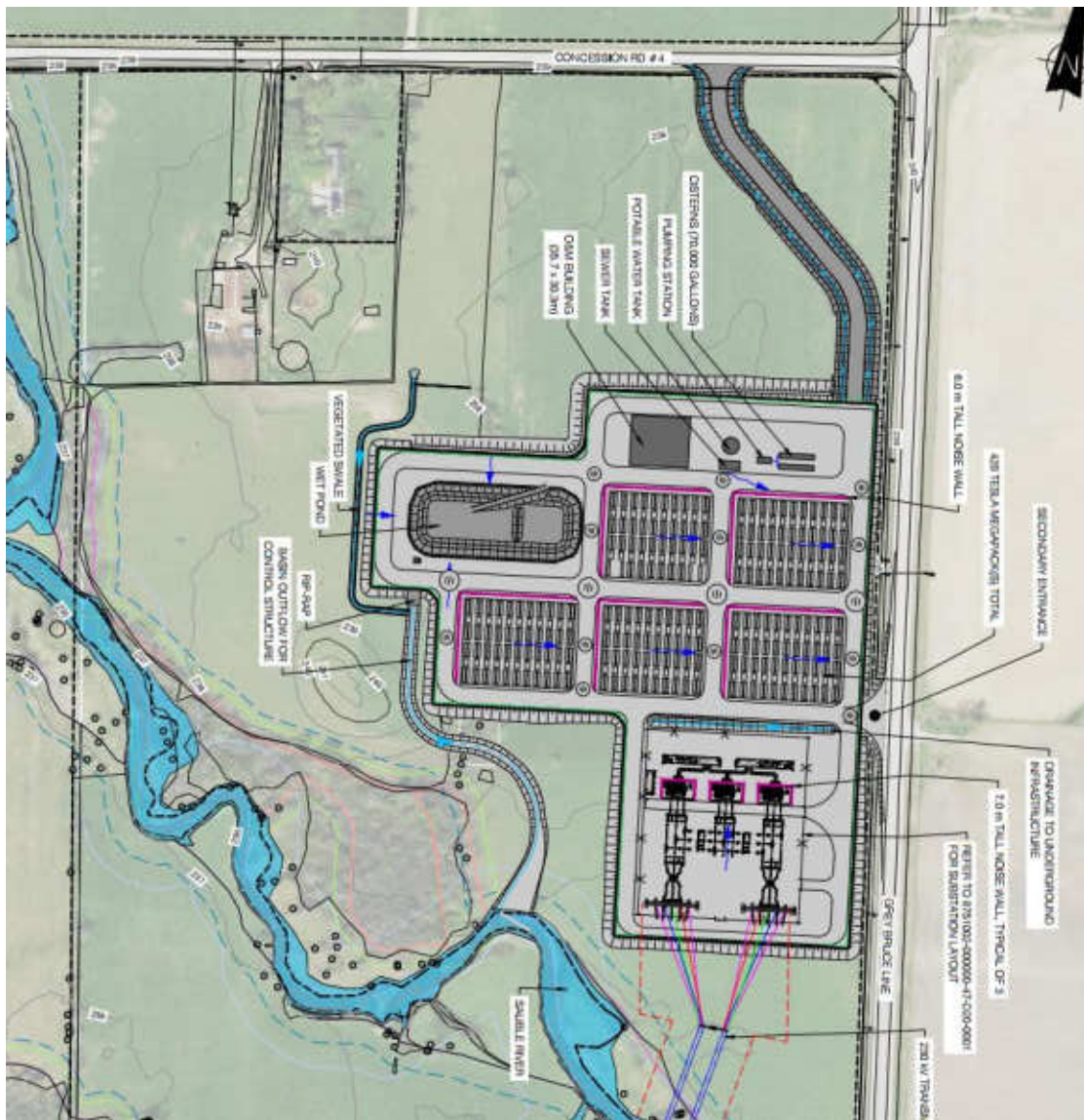
- Tara BESS, formerly Grey Owl Storage, was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 battery energy storage system (BESS) contracts awarded in LT1, collectively totaling 1,784 MW, to help meet Ontario's projected energy needs by 2050.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# Proposed Project Lands





# Proposed Layout



# Layout Labels Defined

Label	Description
Basin Outflow for Control Structure	Outflow of filtered water from the wet pond to Sauble River
Cisterns	At-grade water storage
Drainage to Underground Infrastructure	Drain to subsurface stormwater management system
Megapacks	420 battery containers
Noise Wall (6m)	Acoustic barrier walls around the north and west sides of the five battery container sections
Noise Wall (7m)	Acoustic barrier walls around the north part of the three high voltage substation transformers
O & M Building	Operations and maintenance building (site office)
Potable Water Tank	Water to service site office
Primary Entrance	Gravel road site access off Concession Road 4
Pumping Station	At-grade water pumping system
Rip-Rap	Stone retention wall between the wet pond and basin outflow
Secondary Entrance	Gravel road access off Grey Bruce Line
Sewer Tank	Sewer tank to service site office
Vegetated Swale	Vegetated ditch channeling water to Sable River via the basin outflow
Wet Pond	Impermeable retention pond with filtration system consisting of a forebay and main pond separated by an earthen fill berm

## LEGEND

EXISTING GRADE CONTOUR	
DITCH FLOW DIRECTION DITCH	
CULVERT	
PROPERTY BOUNDARY (TULLOCH SURVEY)	
BATTERY NOISE WALL (6.0 m TALL)	
SURFACE WATER DRAINAGE	
FENCE	
BATTERY GROUP (4 BATTERIES, 1 TRANSFORMER)	
WETLANDS	
WATERCOURSE BUFFER 30 m	
WETLANDS BUFFER 15 m	
WOODLANDS BUFFER 10 m	
POTENTIAL SIGNIFICANT WILDLIFE HABITAT	
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HYDRO POLE	
HYDRO POLE ANCHOR	
WATERCOURSE	
LIMIT OF FORESTED AREA	
TREE/SHRUB	
EXISTING FENCE GATE	

# BESS Fire Risks





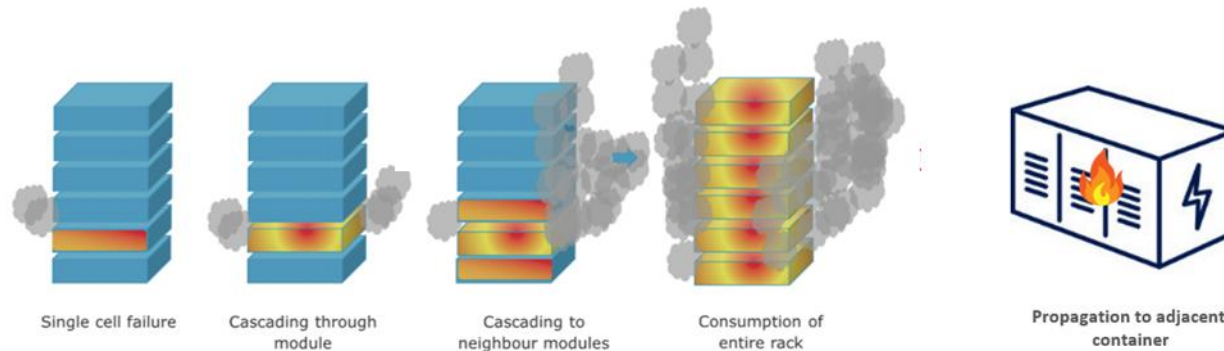
# Understanding Risk of Fire in BESS Facility

- BESS components and associated fire risk:
  - **Battery Containers** – thermal runaway is an exothermic reaction whereby damaged battery cells heat abnormally, possibly resulting in smoke or fire within a battery container(s).
  - **Transformers** – voltage converting components of the substation can overheat or malfunction, possibly resulting in fire.
  - **Control Room** – contains infrastructure to isolate, operate and monitor the BESS and to communicate between BESS subsystems which could experience electrical faults leading to fire.
- BESS-related fire events are rare and prevented by rigorous design, thorough maintenance, 24/7 monitoring, and stringent safety protocols.
- The duration and severity of a BESS fire event depends on container design, capacity, lithium cell design, and the amount of energy stored at the time of the event.
- The NFPA 855 standard, developed by the National Fire Protection Association, provides detailed guidelines for the installation of stationary energy storage systems to mitigate associated hazards.

# Thermal Runaway Event

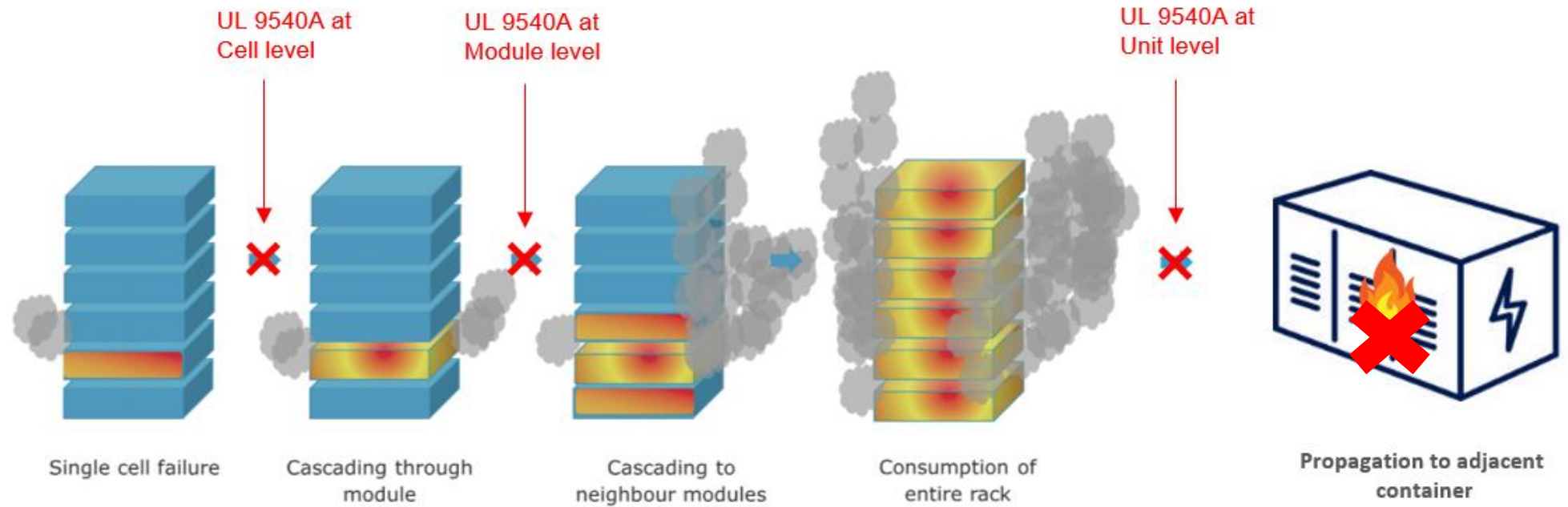
- Thermal runaway is a chemical reaction; fires resulting from thermal runaway do not respond to conventional firefighting measures that remove oxygen, such as fire extinguishers.
- In addition to fire, a thermal runaway event can result in:
  - Possible release of gases, such as carbon dioxide and carbon monoxide.
  - Liquid spillage, including coolant and electrolyte liquid.
    - Electrolyte liquid is quickly transformed into gas making a spill is unlikely.
    - Spills are directed into the BESS drainage system and stored for safe disposal.

## Thermal Runaway Propagation Scenario





# Large-scale Fire Test - 2022

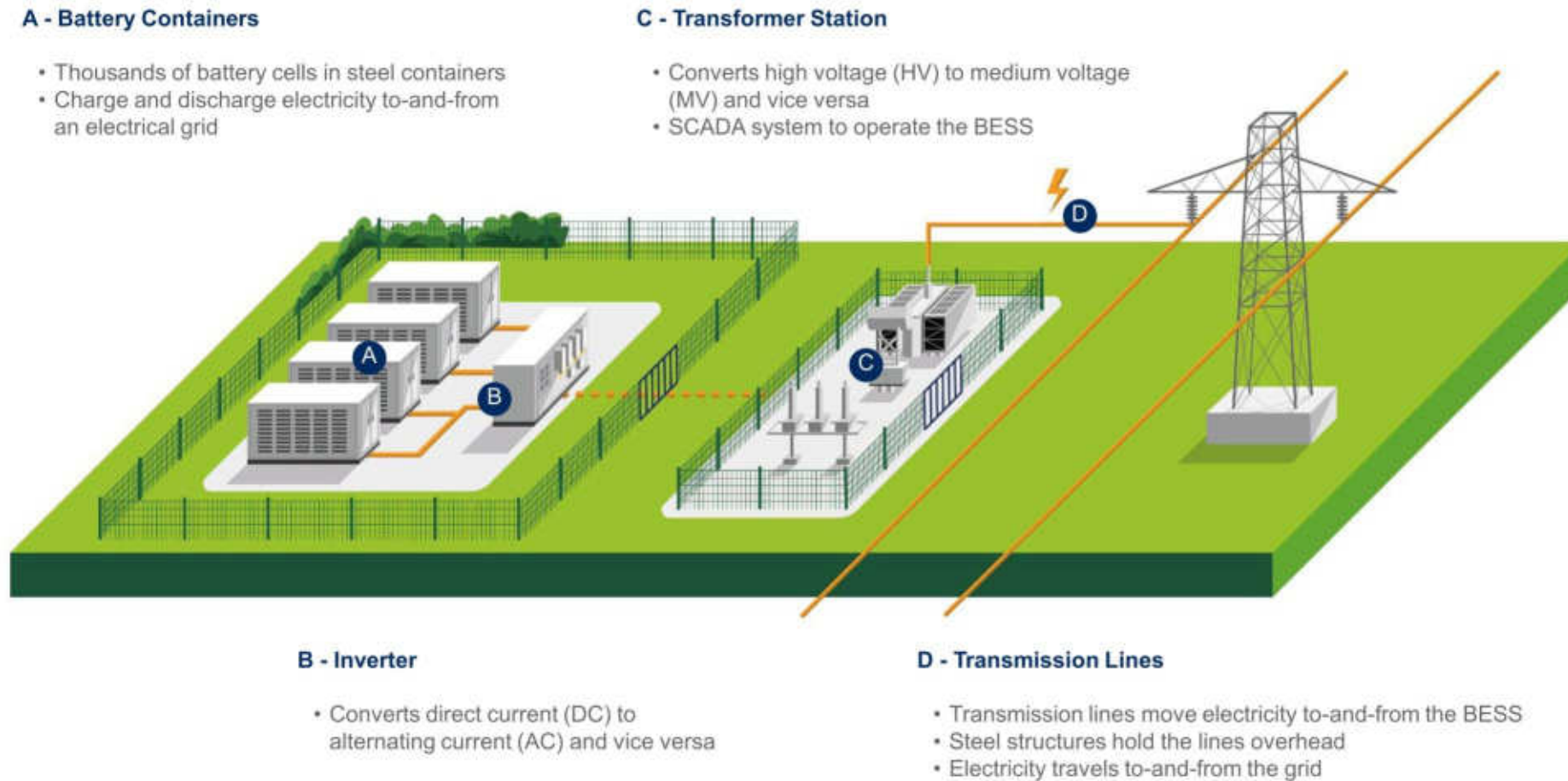


OUTCOME: NO PROPOGATION TO ADJACENT CONTAINER

# Substation Fire Event

- A substation contains high voltage electrical equipment, including transformers, circuits, breakers and switches.
- A substation fire may occur due to electrical faults, an unattended oil spill, or external factors such as lightning or tree contact with transmission lines.

# Typical BESS Layout



**Note: Tara BESS is likely to use combined battery cell and inverter containers.**

# Tara BESS Fire Protection



# Layers of Safety

## **Passive Protection**

Design-based measures intended to mitigate fire events, propagation, and other fire-associated hazards.

## **Safety, Preparedness & Training**

Activities, tools, and processes intended to prevent fire events, and, in case of a fire event, to ensure preparedness and minimize impact.

## **Active Protection**

Measures intended to respond to a fire event.



# Passive Protection Measures – Battery Containers

Measure	Description
Lithium-ion Phosphate Battery Cell Chemistry	The optimal chemistry for BESS because they provide several layers of thermal insulation compared other chemistries.
Fire-resistant Insulation	Fire-resistant insulation inside of battery containers.
Container Spacing	Spacing between battery containers to prevent fire.
Explosion Prevention	Overpressure vents and/or use of gas ignitors to prevent explosion.
Lightning Protection System	System to mitigate the risk of fire from possible lightning strike.

- Tara BESS is likely to use Tesla MEGAPACK 2XL batteries, which complies with the following standards:
  - UL 1642 (cell-level certification)
  - UL 1973 and IEC 62619 (battery module-level certification)
  - UL 9540, IEC 62933-5-2, IEC 62109-1 (system-level certification)
  - UL 1741, CSA C22.2 #107.1 (power electronics)
  - UL 1998 and IEC 60730 Annex H (functional safety of software)
  - IEC 61000-6-2, and EN 55011 (EMC)
  - UN 38.3 (transportation, self-certified)
  - IEEE 693 (seismic safety)
  - UL 9540A (large-scale fire testing)
  - Major installation codes for ESS, including NFPA 855, IFC 2018 and 2021, and NEC 2020

# Active Protection Measures – Battery Containers

Category	Measure	Description
Primary	Let burning container(s) burn	Controlled burn with focus on human and environmental safety.
Primary	Containment Basin	Gravity-fed basin at the base of the container to capture possible refrigerant leaks.
Primary	Gutter System	Redirects possible leaked coolant away from battery cells and contains it.
Secondary	On-site, subsurface water storage with pump	<ol style="list-style-type: none"> <li>1. To cool surrounding containers with water to prevent propagation.</li> <li>2. To cool surrounding ground cover/vegetation with water to prevent ignition.</li> </ol>
Tertiary	On-site, subsurface water storage with pump	<ol style="list-style-type: none"> <li>1. To cool burning container(s) with water: <ol style="list-style-type: none"> <li>a. May extend burn time</li> <li>b. Potential gases will remain lower to the ground delaying dispersion</li> <li>c. Risk of water contamination</li> </ol> </li> </ol>

# Passive Protection Measures – Substation

- Transformer exposure protection, including a 2-hour fire barrier between high voltage transformers and other equipment.
- Use of non-combustible oils where possible.
- Relevant code and industry standard compliance.
- Lightning protection system.

# Active Protection Measures – Substation

- Spill containment trays.
- On-site water for fire suppression and cooling of surrounding equipment and vegetation.
- CO<sub>2</sub>/Nitrogen-based fire suppression.

# Safety, Preparedness & Training





# Safety, Preparedness & Training

Category	Measure	Description
Monitoring	BESS Monitoring & Alert System	24/7 monitoring and alert system that includes temperature sensors that can detect thermal runaway and will trigger an alert system if detected.
	CCTV Monitoring	24/7 site surveillance.
Study	Air Dispersion Model	An elective study to identify a gas particle dispersion radius and inform evacuation measures.
Plans & Protocols	Fire Protection Plan	Details passive and active fire protection measures.
	Emergency Response Plan	Details how emergencies are managed on-site.
	Hazard Monitoring Plan	Details potential hazards and how hazards are monitored.
	Site Safety Protocol	Details site-specific safety measures, such as PPE requirements, evacuation plan, hazards, rules, etc.
	Notification Protocol	Incident notification process.
Training	Site-orientation	Site-specific training, including implementation of the safety protocol. <b>Neoen will provide site-specific orientation to local first responders.</b>
	Emergency Response/Drills	Emergency Response Plan familiarization and planned incident drills, such as fire and evacuation drill. <b>Neoen will engage first responders in planned drills and Emergency Response Plan familiarization and updates.</b>

# Emergency Response Plan

- Identification of Neoen's Emergency Response Team.
- Identification of third-party emergency response contacts.
- Identification of protocols and procedures
- Types of emergencies
- Responding to emergencies
- Training and exercises
- Emergency notification protocol
- Post-emergency notification and communication
- Media relations

# Discussion



**From:** [Brittany Morrison](#)  
**To:** [Janet Galant](#)  
**Subject:** Tara BESS Project Update  
**Attachments:** [Tara BESS Project Update - Saugeen Ojibway Nation - March 18 2025.pdf](#)  
**Sent:** 2025-03-18 4:04:00 PM

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Hi Janet,

Further to our recent e-mail exchange, attached please find a Tara BESS project update.

We would be very grateful for the opportunity to meet with Chief Ritchie and Chief Nadjiwon as well as the Saugeen Ojibway Nation Environment and Energy teams. Do you have any update on a potential meeting?

I have included a list of 'next steps', including scheduling of the stage 2 archaeology site walk and discussing a community benefits agreement for Saugeen Ojibway Nation.

I hope to hear from you soon.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9



## Tara BESS Project Update – Saugeen Ojibway Nation

*March 18, 2025*



Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. We recognize these communities as the traditional custodians and respect their relationship to the land and waters where we work.

# Background

- The Tara BESS project, formerly Grey Owl Storage, was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 battery energy storage system (BESS) contracts awarded in LT1, collectively totaling 1,784 MW, to help meet Ontario's projected energy needs by 2050.
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- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

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- Portfolio capacity of 8.7-gigawatts (GW) in operation or under construction across fourteen countries.
- Develop-to-own strategy.
- Neoen has an active solar plant, Fox Coulee Solar Farm, in Starland County, Alberta, and several projects in development in Canada.

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.



# BESS Technology





# What is Battery Energy Storage?

- A battery energy storage system (BESS) stores (or “charges”) electricity in batteries and later discharges it to an electrical grid.
- Typically, BESS charge overnight when demand is low and discharge when demand rises.
- A BESS can standalone or accompany a renewable technology, like wind or solar power.
- In addition to energy storage, BESS can provide ancillary services such as frequency and voltage support, and virtual inertia.
- Energy storage supports the transition from fossil fuels by maximizing the usefulness of energy produced from renewable sources.



# How a BESS Works?

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

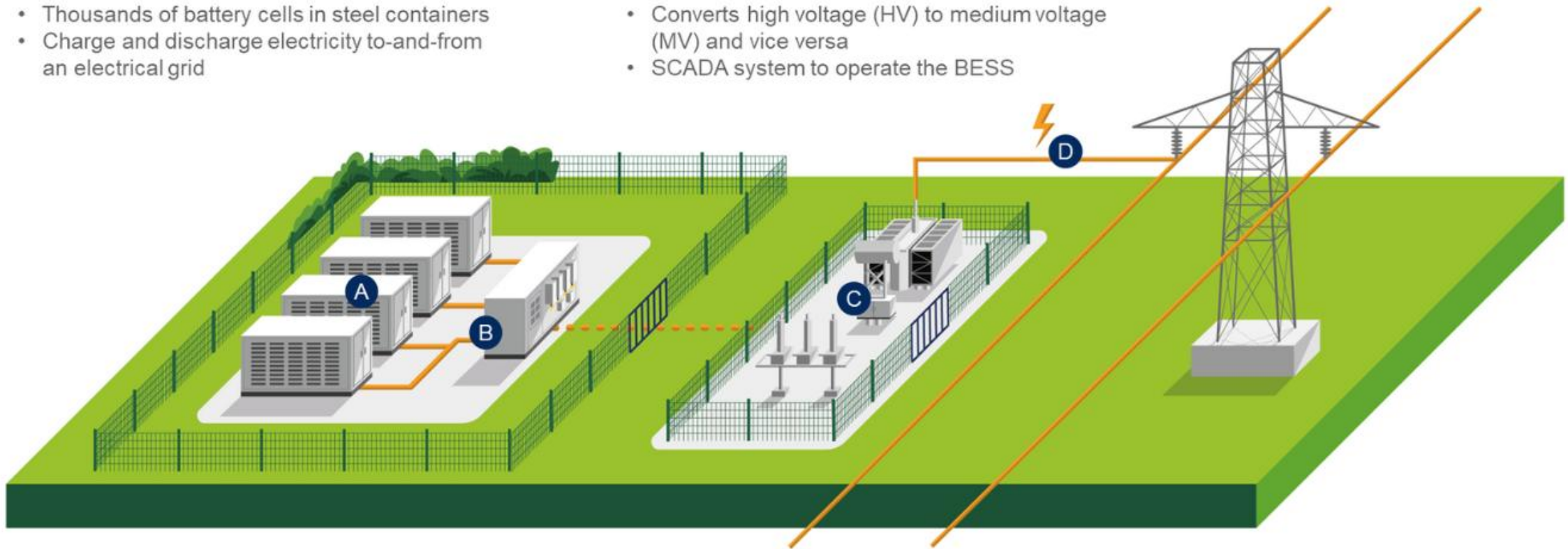
- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS

## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

## D - Transmission Lines

- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid



*Note: inverters are likely to be built into battery containers for Tara BESS.*

# Tara BESS





Tobermory

Lake Huron

Owen Sound

Arran-Elderslie

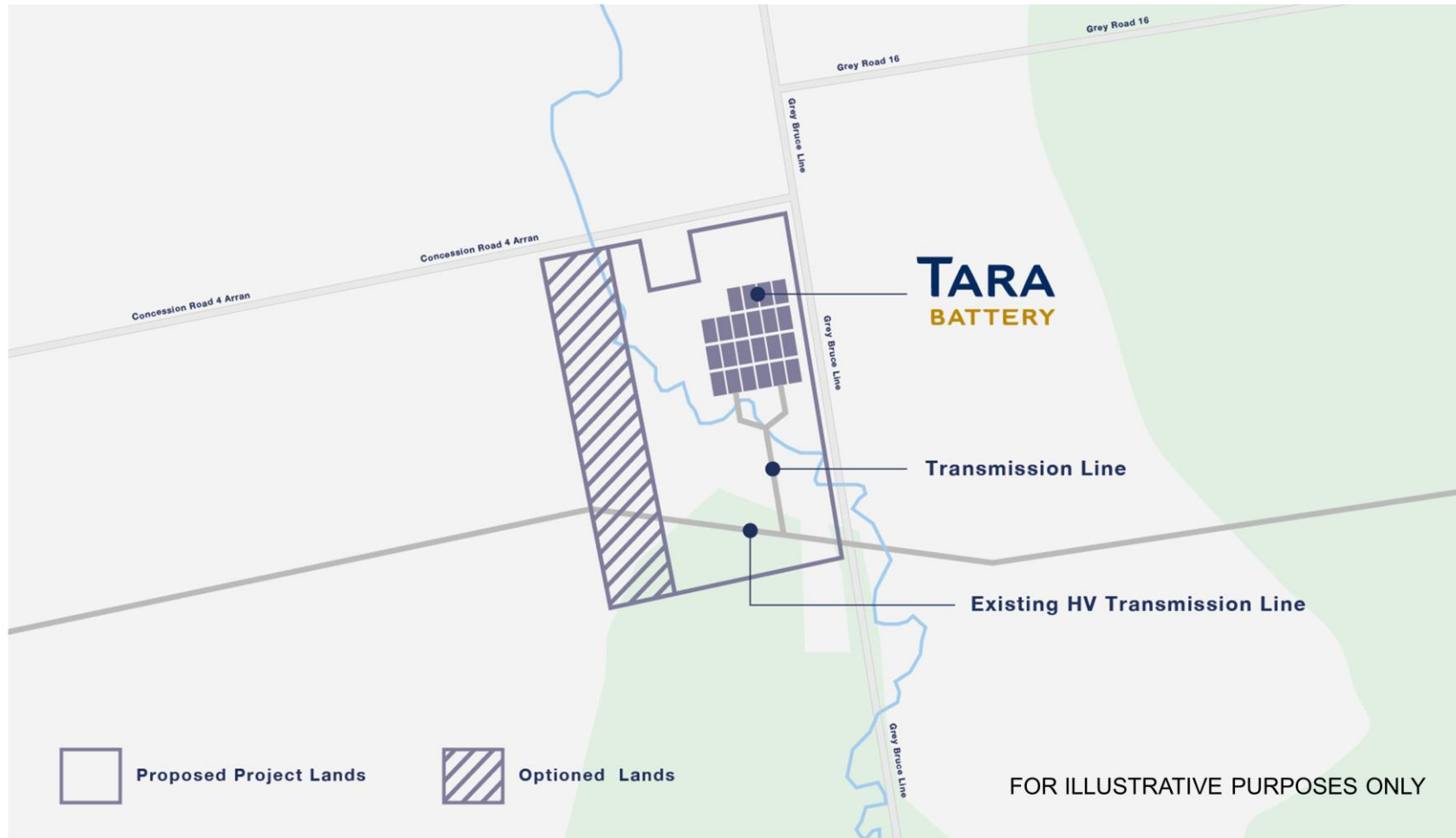
Hanover

**TARA**  
BATTERY

Barrie

Lake Simcoe

# Proposed Project Lands



**Why here?** The proposed site satisfies the conditions necessary to develop a BESS, including regional need, land owner willingness, proximity to transmission, flat terrain, construction feasibility, and site accessibility.

# About Tara BESS



**Standalone BESS facility**



**Capable of providing 400  
MW of power for four  
hours**



**~420 lithium-ion battery  
cell containers**



**3 Transformers  
(1 back-up)**



**~20 acres of at-grade  
equipment**

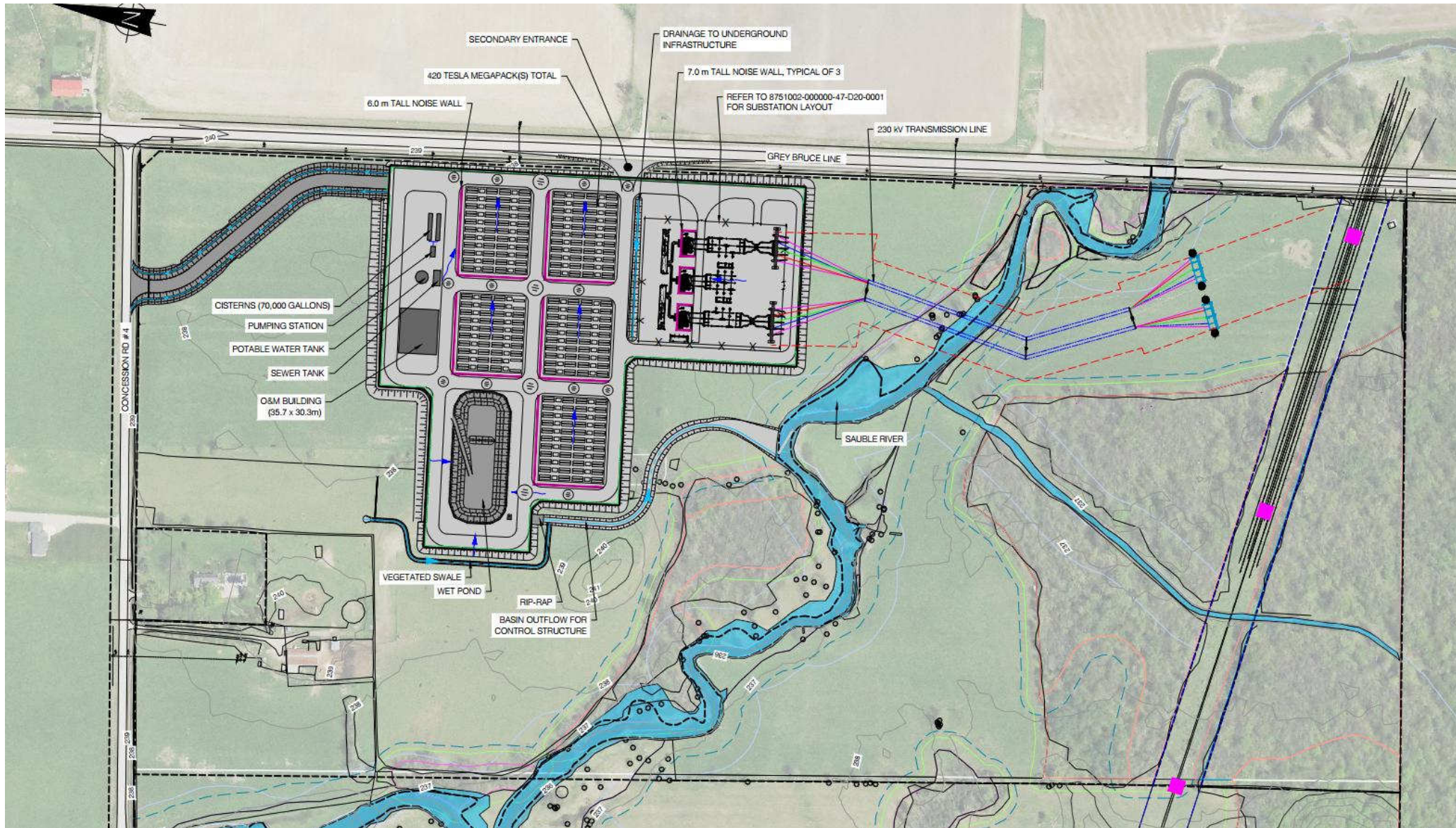


**~400 m of overhead  
transmission line and ~5  
transmission structures**

**Information is approximate and subject to change.**



# Proposed Project Layout



# Layout Labels Defined

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HYDRO POLE	
HYDRO POLE ANCHOR	
WATERCOURSE	
LIMIT OF FORESTED AREA	
TREE/SHRUB	
EXISTING FENCE GATE	



Environmental



# Stormwater Management and Flooding

- Parts of the proposed project lands are a designated floodplain.
- A cut-and-fill method, combined with a surface run-off management system and retention pond, is proposed to mitigate impact to the floodplain:
  - The **cut-and-fill method** will raise the facility so that water can flow freely around it, while stormwater ditches leading to the Sauble River will off-set the BESS footprint.
  - A **surface run-off management system** comprised of site grading, vegetated ditches, subsurface storm sewers and drainage directed to the retention pond.
  - A **retention pond** (also referred to as wet pond) complete with separator, discharge orifices, and a control valve that allows water to flow into the Sauble River and limits flows to less than pre-BESS development flow rates.
- The proposed design protects water quality, quantity, and provides erosion control.
- No negligible impact to floodplain or stormwater when modeled against 100-year return events.

# Environmental Assessment

- Tara BESS is subject to the Ministry of Environment, Conservation and Parks' (MECP) **Class Environmental Assessment for Minor Transmission Facilities** (Class EA) process, in accordance with the Ontario Environmental Assessment Act.
- Notice of Commencement of the Class EA process for Tara BESS was initiated on November 25, 2024; a copy of the notice was provided to Saugeen Ojibway Nation (SON) Environment Office on November 25, 2024.
- Feedback received between Notice of Commencement and Notice of Completion will be entered into a public consultation record that will form part of Neoen's Class EA submission.
- A Notice of Completion will be filed once the Class EA studies are complete in early Q2 2025, then Neoen's submission will be available for public comment for 30 days following Notice of Completion.



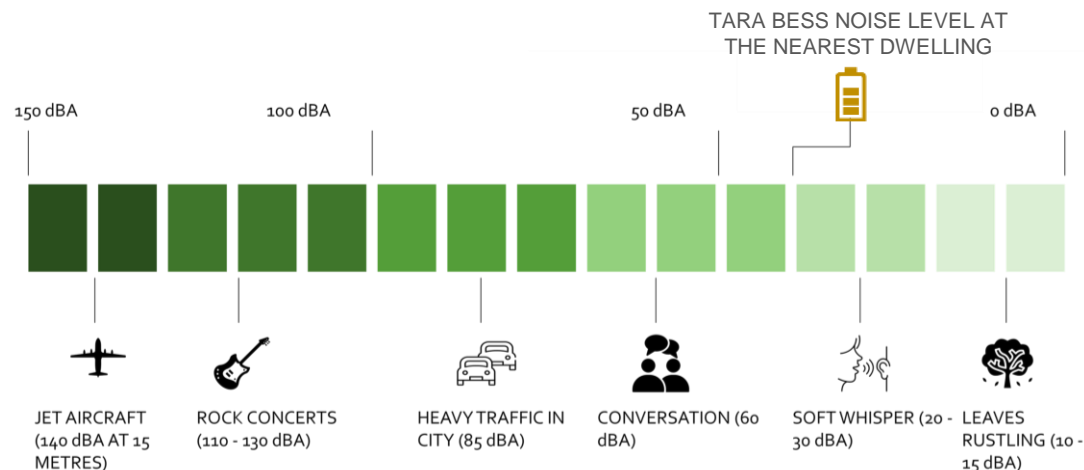
# Environmental Assessment Studies

## **Required studies:**

- Aquatic Habitat Assessment
- Ecological Land Classification and Vegetation Surveys
- Breeding Bird Surveys
- Breeding Amphibian Surveys
- Bat Habitat Assessment (Maternity Roost Surveys)
- Noise Impact Assessment
- Agricultural Impact Assessment

# Noise Assessment

- Battery container fans and transformers emit noise - fans cool the batteries when charging during warm conditions, and transformers emit a humming noise.
- Tara BESS must comply with applicable noise regulations.
- A baseline noise study has been conducted to establish ambient noise levels.
- Noise mitigation measures will ensure that ambient noise levels are maintained for surrounding residential receivers during BESS operations.
- Acoustic barrier walls are proposed for the north and west sides of the five battery container sections, as well as around the north part of the high-voltage transformers in the substation.



# Other Environmental Permitting Requirements

- Environmental Compliance Approval for Stormwater and Noise
- Environmental Activity Sector Registration (Noise)
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan
- Ontario Endangered Species Act Sec.17 permit
- Regulation 41/24 Approval from Grey Sauble Conservation Authority

Additionally, rezoning and Official Plan Amendment approval are required.

# BESS Safety



# BESS Safety

- BESS hazard risks include:
  - **Battery Container Fire** – thermal runaway occurs when damaged battery cells heat abnormally, resulting in the possibility of smoke, fire, and release of gases.
  - **Spills** – including refrigerant, coolant, and oil spills, can result from equipment malfunctions, fire, or blunt force to BESS components.
  - **Substation Fire** – voltage converting components, such as transformers, in the substation as well as transmission lines can overheat, malfunction or be damaged by external sources resulting in fire.
  - **Control Room Fire** – contains infrastructure to isolate, operate and monitor the BESS and to communicate between BESS subsystems which could experience electrical faults leading to fire.
- Hazard events are rare and prevented through rigorous design, a mix of active and passive protection, maintenance and 24/7 monitoring, and rigorous safety protocols.
- Tara BESS will comply with code and with NFPA 855 standard, developed by the National Fire Protection Association which provides detailed guidelines for the installation of stationary energy storage systems to mitigate associated hazards.
- Neoen has engaged local fire departments in the development of its fire protection, hazard monitoring, and emergency response plans.

## LAYERS OF SAFETY

### Passive Protection

Design-based measures intended to mitigate fire events, propagation, and other fire-associated hazards.

### Safety, Preparedness & Training

Activities, tools, and processes intended to prevent hazards, and, in case of a hazard event, to ensure preparedness and minimize impact.

### Active Protection

Measures intended to respond to a hazard event.



# Construction and Operations



# BESS Construction

BESS construction typically takes between 1.5 – 2 years to complete, and includes the following activities:

- Temporary fence installation
- Equipment mobilization
- Temporary storage areas
- Material and soil deliveries (by truck)
- Clearing and grading
- Shallow excavation and pouring of concrete slabs or pile installation
- Hoisting of pre-assembled battery containers and transformers
- Erection of steel structures and transmission lines
- Electrical connection work
- Acoustic barrier wall installation
- Landscaping





# BESS Operations

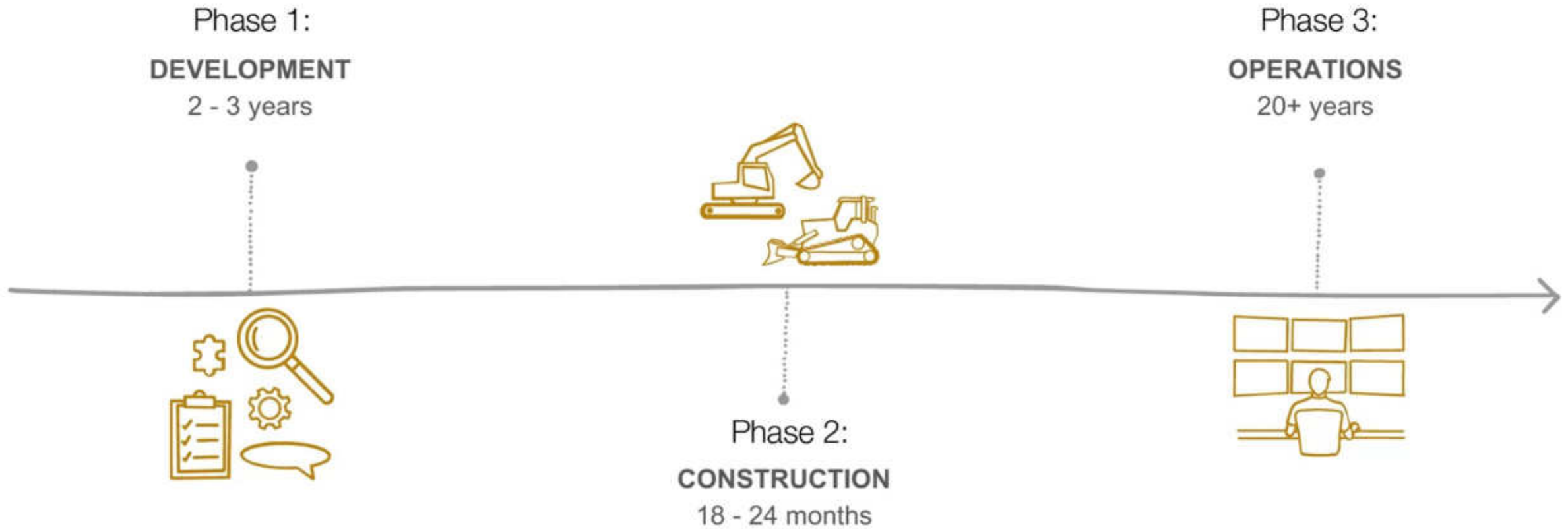
- Tara BESS is expected to complete one charge and discharge cycle per day.
- A crew of workers, contracted by Neoen, will operate Tara BESS. Neoen can elect to operate each day or not.



# Development Timelines



# Project Lifecycle

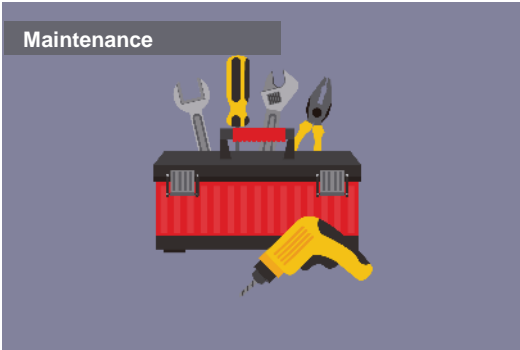
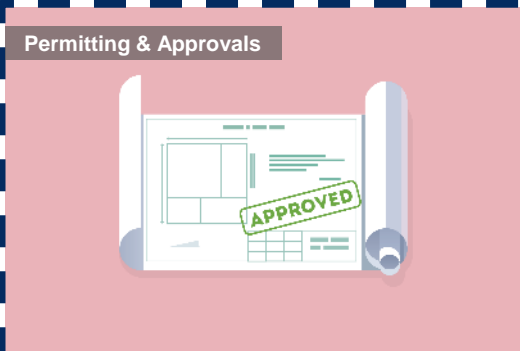




# Project Stages

WE ARE HERE

WE ARE HERE



# Project Timeline and Feedback

**MAY 2024**  
CONTRACT AWARDED

**Q3 2024 - Q1 2025**  
PROJECT DEVELOPMENT  
COMMUNITY CONSULTATION  
PERMIT SUBMISSIONS

**SPRING 2025**  
PERMIT SUBMISSIONS

**SPRING 2026**  
CONSTRUCTION

**LATE 2027**  
OPERATIONS



We invite community feedback via the following channels:

- Phone: (416) 312-0057
- Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
- Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
- Mail: 319-150 King Street West, Toronto, ON M5H 1J9

# Community Benefits





# Community Benefits

- Neoen believes that its projects should benefit the communities that host them.
- Community benefits for Tara BESS will include:
  - A community benefits fund to support initiatives aligned with Neoen's community benefits framework, including clean energy, biodiversity, environmental, cultural, social and/or educational initiatives, with proposals reviewed by a committee comprised of local representatives and Neoen.
  - Rightsholder-specific benefits.
  - A local art initiative.
- Additionally, Tara BESS will generate employment, skills training and supplier opportunities.
- Community benefits for Tara BESS will come into effect as early as construction.



# Next Steps





# Next Steps

- Neoen would like to meet with the Saugeen Ojibway Nation to:
  - Establish relations
  - Provide a detailed overview of the Tara BESS project
  - Obtain feedback
  - Discuss capacity-building opportunities (jobs, skills training, supplier opportunities)
  - Discuss a community benefits agreement for Saugeen Ojibway Nation
  - Coordinate a Stage 2 Archaeology site walk (expected April/May 2025)
- Neoen will provide its natural heritage assessment report and reasonable capacity funding to review the report if requested.



Tara BESS Project Update  
Ministry of Economic Development, Job Creation and Trade  
*March 19, 2025*

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- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# Investment

- Tara BESS represents a \$650 M investment in Ontario's energy sector.
- ~250 jobs at peak construction.
- ~10 full-time jobs at operations.
- Local spending targets – **to be confirmed**.
- \$100K+ in community benefits annually – **total to be confirmed**.



Tobermory



Lake Huron

Owen Sound



Arran-Elderslie



**TARA**  
BATTERY

Barrie



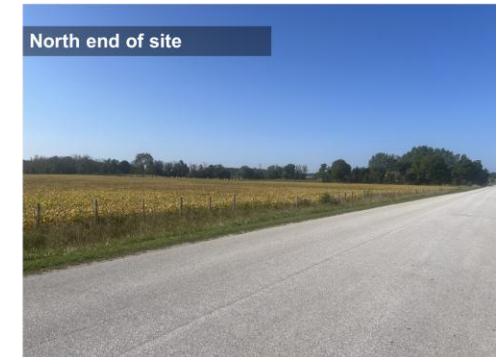
Lake Simcoe

Hanover





# Proposed Project Lands



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# About Tara BESS



**Standalone BESS facility**



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MW of power for four  
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**~420 lithium-ion battery  
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**3 Transformers  
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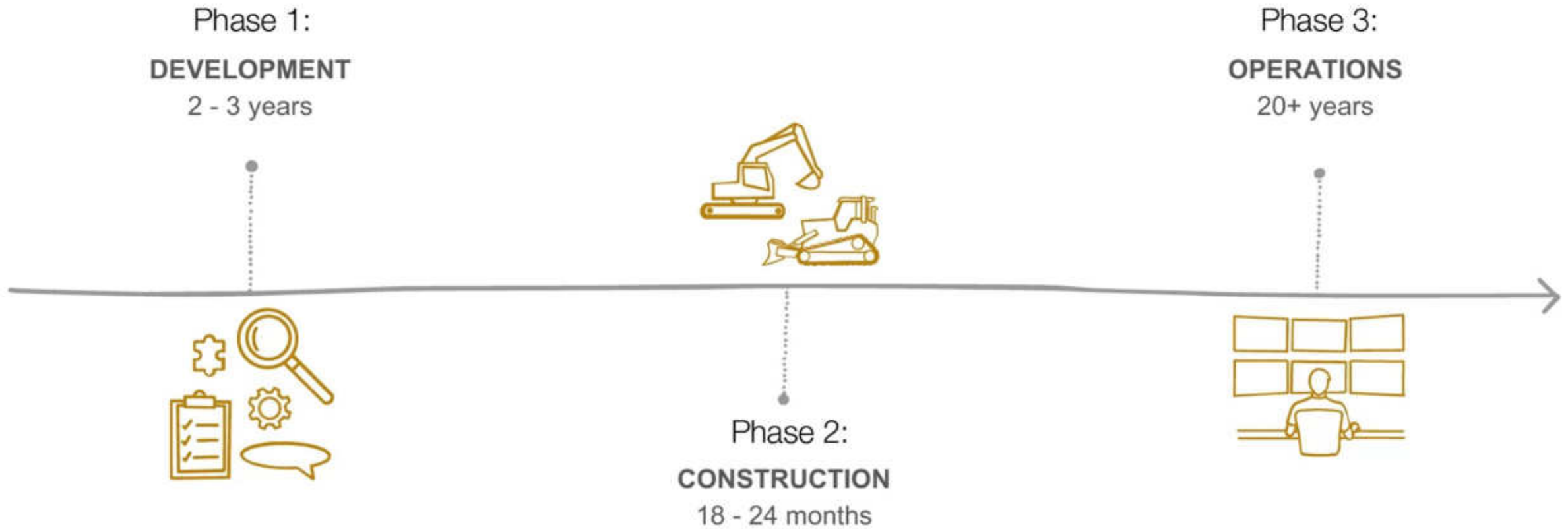


**~20 acres of at-grade  
equipment**



**~400 m of overhead  
transmission line and ~5  
transmission structures**

# Project Lifecycle



# Project Timeline

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- Brookfield Renewable became Neoen's majority owner on December 27, 2024

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.





# Neoen in Canada

- Neoen has been active in Canada since 2022, operating in Ontario, Alberta, and Saskatchewan.
- Neoen's head office for the Americas is based in Toronto, Ontario, where it employs 12 people full-time.
- Neoen has a regional office in Alberta with five full-time employees.
- Neoen's momentum in the Ontario market is building:
  - Anticipated growth to ~20 full-time employees in the Toronto office by end of 2025.
  - Developing BESS, solar and wind projects across the province to participate in future IESO RFPs and to help Ontario meet its growing electricity demand.

**From:** [Brittany Morrison](#)  
**To:** [Ethan Roy](#)  
**Subject:** Consultation Meeting Follow-up and Next Steps  
**Attachments:** [2025-02-15 MNO Meeting Virtual NEOEN.docx](#); [Tara BESS Project Update - GBTTCC - Feb 14 2025.pdf](#); [P359-0144-2025\\_24Feb2025\\_RE\\_St12\\_TaraBESS.pdf](#); [2024-01-28\\_Tara BESS Natural Heritage Assessment\\_224130\\_FINAL.pdf](#);  
**Sent:** 2025-03-21 12:52:00 PM

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Hi Ethan,

I hope you are well.

I realized that I have not yet circulated the minutes of our last meeting. My apologies. See attached – minutes and corresponding presentation.

There are two action items—we are still working through the first item, but I think the attached report will address part of the species. We should have an update on required tree removals in the next two weeks and will address all actions by or in our next meeting.

The Natural Heritage Assessment and Stage 1 Archaeological Assessment for Tara BESS are attached. Further to our Contribution Agreement, if GBTTCC wishes to obtain a consultant to review these reports, Neoen will provide capacity funding for you to do so, as set out under the agreement.

We expect to conduct the Stage 2 archaeology site walk in late April or May. Does GBTTCC wish to send a representative? If so, can you provide a few dates in the last week of April or in May that work?

For our third meeting, is there a time in the first part of April that works for the GBTTCC? We will have some minor design updates to share and an update on permitting. It would be helpful to have any additional feedback from GBTTCC in advance of the meeting, so that we can address it and ensure it is captured in our consultation report.

For our next meeting, Neoen intends to share the community benefit structure for Tara BESS, which includes Rightsholder benefits. Is this something that we should discuss with you and Mary prior to the broader group? If so, I will arrange a call for us to discuss.

Finally, any update on an event within Region 7 that the group would like for Neoen to support and attend in lieu of an open house, if that is still the group's preference?

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "N" and "E" are blue, and the "O" and "E" are orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

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**Cc:** [sfn@saugeen.org](mailto:sfn@saugeen.org); [sao@nawash.ca](mailto:sao@nawash.ca);  
**Subject:** Tara BESS Reports  
**Attachments:** [Tara BESS Natural Heritage Assessment.pdf](#); [Stage 1 Archaeological Assessment - Tara BESS.pdf](#); [Tara BESS Project Update - Saugeen Ojibway Nation - March 18 2025.pdf](#);  
**Sent:** 2025-03-25 6:09:00 PM

---

Hello Saugeen Ojibway Nation,

Attached please find the Natural Heritage Assessment and the Stage 1 Archaeological Assessment for the Tara BESS project.

Further to my previous e-mails, Neoen is happy to provide capacity funding for the Saugeen Ojibway Nation to review these reports. Please let us know if capacity funding is needed, and whether you have any questions or feedback on the report contents.

We will conduct a Stage 2 Archaeology site walk some time in April or early May. If you would like to send a representative to participate, please let us know, and we will arrange a time in the planned window that works best for you.

Also, attached is a copy of the Tara BESS project update we recently shared with you through Janet Galant.

As always, we would be grateful for the opportunity to meet with the Saugeen Ojibway Nation. We remain available at your convenience.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

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# STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

## ORIGINAL REPORT

Date: 24 February 2025

Project #: LHC0459

PIF: P359-0144-2025

**LHC Heritage Planning & Archaeology Inc.**

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## EXECUTIVE SUMMARY

*The Executive Summary only provides key points from the report. The reader should examine the complete report including background, results, as well as limitations.*

LHC was retained by BBA Engineering Ltd. to prepare a Stage 1 Archaeological Assessment (AA) for the Tara Battery Energy Storage System (Tara BESS) project on 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, now the Municipality of Arran-Elderslie, Bruce County, Ontario (Figure 1). The Stage 1 AA is in support of an Official Plan Amendment application to Bruce County.

The Study Area is an irregularly shaped, 66-hectare lot to the southwest of the intersection of Concession 4 Arran and the Grey-Bruce Line. It is composed of the east half of Lot 35 Concession 4 and three individual parcels of land on Lot 36 Concession 4. The east half of Lot 35 Concession 4 consists of 50-acres of land first issued through a Crown Patent to Charles Thompson in 1889. The 1867 Bruce County Directory however indicates the lot was occupied by a Michael Canton and William Herron prior to the patent. This property has a mixture of cultivated fields, pastureland and woodlot. The Sauble River passes through its northeast corner. The lot subsequently changed hands several times throughout the 20<sup>th</sup> century. The individual parcels of Lot 36 Concession 4 are the property municipally known as 39 Concession 4 Arran (the largest remaining portion of the original 120 acre Crown lot), which is a rural farmstead with a mixture of cultivated fields, pastureland and woodlot, bisected by the Sauble River; the Hydro One electric transmission line corridor; and the parcel bounded by the Hydro One electric transmission line corridor and the southeast concession border, which is woodlot. Lot 36 Concession 4 consists of 120-acres of land first issued through a Crown Patent to William Broddy in 1872. The 1867 Bruce County Directory however indicates the lot was occupied by a John Noonan prior to the patent. The lot subsequently changed hands frequently until the early 20<sup>th</sup> century, after which it remained in one family until the 1970s.

The background research determined that the Study Area has high archaeological potential for Indigenous archaeological material based on proximity to water sources for drinking, fishing and travel, and resource-rich environments such as associated wetlands. There is also high potential for historic Euro-Canadian archaeological material associated with the first generation of settlement in Arran Township based on the same proximity to resources, to historic roads, and from the documentary record. The optional property inspection was not conducted for the Stage 1 AA because of inadequate winter weather conditions and therefore no portion of the Study Area is reduced in potential due to factors such as extensive modern disturbance as these could not be visually confirmed.

This assessment has provided the basis for the following recommendations:

- Stage 2 Archaeological Assessment is to be completed for all areas to be impacted by the planned changes identified as having archaeological potential (Figure 13). This includes the final footprint of the BESS facility as well as all areas of impact for access

routes, stockpiling, transmission line construction, floodplain compensation excavations, etc. (Figure 4 and Figure 5).

The Stage 2 AA is to consist of a Pedestrian Survey of all cultivated fields (Section 2.1.1, MCM 2011) and a Test Pit Survey at 5m intervals of all areas that cannot be ploughed (Section 2.1.2, MCM 2011);

- Should deeply buried archaeological materials be encountered during construction, all work will cease, and a professionally licensed archaeologist will be consulted to assess the cultural heritage value and significance of any such archaeological deposits.

It is requested that MCM enter this report into the Ontario Public Register of Archaeological Reports.

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# 1 INTRODUCTION

## 1.1 PROJECT CONTEXT

LHC Heritage Planning & Archaeology Inc. (LHC) was retained by BBA Engineering Ltd. to prepare a Stage 1 Archaeological Assessment (AA) for the Tara Battery Energy Storage System (Tara BESS) project on 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, now the Municipality of Arran-Elderslie, Bruce County, Ontario (Figure 1 and Figure 4). The Stage 1 AA is in support of an application to Bruce County for an Official Plan Amendment.

The Stage 1 AA was prepared by Ben Daub, Ruth Macdougall (P359), and Christienne Uchiyama (P376) in compliance with the *Ontario Heritage Act R.S.O. 1990, Chapter O.18 (OHA)* as per the Ministry of Citizenship and Multiculturalism (MCM) 2011 *Standards and Guidelines for Consultant Archaeologists (S&Gs)*. Due to timing constraints for the Stage 1 submission to the planning authorities, the optional property inspection under Standard 1.2 of the S&Gs (MCM 2011) was not undertaken and this is acknowledged in the conclusions and recommendations.

The Study Area is an irregularly shaped, 66-hectare lot to the southwest of the intersection of Concession 4 Arran and the Grey-Bruce Line (Figure 2, Figure 3). It comprises Part Lot 36 Concession 4, including the property municipally known as 39 Concession 4 Arran, the Hydro One electric transmission line corridor (no civic address) and the portion of the lot south of the hydro corridor (also no civic address), and Part Lot 35 Concession 4 (east half). The geographic Township of Sullivan, now Municipality of Chatsworth, in Grey County is on the opposite side of the Grey-Bruce Line.

The proposed Tara BESS project includes the installation of the battery system with access road and its connection to the existing Hydro One grid (Figure 4). Additional construction impacts include a floodplain compensation plan to offset the encroachment of the BESS and access road into the floodplain. This plan will entail the excavation of between 0.1 and 2.0 m of subsoil on the northern and eastern sides of the Sauble River on Lots 35 and 36, with the topsoil removed, stockpiled, and then replaced to allow agricultural activities to resume. The plan is still in the approval phase with the Grey Sauble Conservation Authority. Figure 5 indicates the proposed areas of impact.

## 1.2 STAGE 1 ARCHAEOLOGICAL ASSESSMENT OBJECTIVE

The purpose of a Stage 1 AA is to provide information about the land use history and present conditions of the Study Area, to identify registered archaeological sites within or adjacent to the Study Area, to document previous archaeological research along the corridor and to evaluate the Study Area's archaeological potential. This Stage 1 AA involves research into the geography, topography, and history of the Study Area. The study examines previous archaeological fieldwork conducted on or near the property as well as the Study Area's current conditions.

Where archaeological potential is identified by a Stage 1 AA, a Stage 2 AA is recommended. The purpose of a Stage 2 AA is to determine whether the Study Area contains archaeological resources through on-site survey (generally systematic pedestrian survey of ploughed fields or test pit survey).

### 1.3 METHODOLOGY

The Stage 1 AA has been completed in accordance with the 2011 S&Gs.

**Background Research** for a Stage 1 AA involves, but is not limited to, reviews of: the geographic context and topographical features of a property; pre-European contact cultural context of the area; post-European settlement land use history and ownership records (e.g., government land records, historical maps, topographic maps, and aerial imagery); and existing registered archaeological sites within a 1 km radius of the Study Area (based on the MCM's Archaeological Sites Database) and previous archaeological fieldwork in the vicinity.

**Optional Property Inspection** is intended to assess, first-hand, the topographic and geographic context of the property and to identify any features of archaeological potential or modern disturbance. The property inspection may also identify areas that might affect further archaeological assessment strategies (if further work is warranted). The property inspection must be undertaken when weather conditions permit, and visibility is good. The optional property inspection has not been conducted as part of this Stage 1 AA because of inadequate winter weather conditions.

**Analysis/Evaluation** of archaeological potential is based on evidence collected during background research and current conditions observed during the optional property inspection. The optional property inspection has not been conducted as part of this Stage 1 AA because of inadequate winter weather conditions.

## 2 HISTORICAL CONTEXT

### 2.1 INDIGENOUS LAND USE

Southern Ontario became open to settlement following the final retreat of the Laurentide Ice Sheet, which had covered much of the Great Lakes area until 12,000 B.P. The retreat of the glacier produced glacial meltwater ponding, resulting in glacial lakes including Lake Duluth and Lake Algonquin, which comprised the area of an overlarge Lake Superior, Lake Michigan, and Lake Huron. Around 9,500 B.P., the glacier depressed earth's crust to the north of modern-day Lake Superior which resulted in the drainage of the lower Great Lakes. Lake Minong (Superior), Lake Chippewa (Michigan), and Lake Stanley (Huron) were present following this drainage, though at a much lower water level than present-day. Lake Superior was largely separated from Lake Michigan and Lake Huron around 2,100 B.P. as ongoing isostatic rebound raised the St. Mary's Rapids (Lakehead Region Conservation Authority n.d.). Glacial Lakes Algonquin (11,000-10,500 BP), Nipissing (5,000 B.P.), and Algoma (3,800-2,500 B.P.) all provided habitable shorelines within Bruce County (Lewis et al 2008, FAC 2024).

It should be noted that historical documentation related to the location and movement of Indigenous peoples in present-day Southern Ontario is based on the documentary record of the experiences and biases of early European explorers, traders, and settlers. This record provides only a brief account of the long and varied occupation and use of the area by various Indigenous groups known, through oral histories and the archaeological record, to have been highly mobile over vast territories which transcend prevailing modern understandings of geographical boundaries.

A summary of the cultural sequence of Southern Ontario is provided in Table 1.

#### 2.1.1 PALAEO PERIOD (11000 – 9500 B.P.)

The earliest human occupation of Southern Ontario dates to 11,000 B.P. These early populations consisted of small groups of hunter gatherers who ranged long distances, relying on caribou and other resources available in spruce dominated forests. Identified as the Paleo Indian period, the lithic assemblages are characterized by lanceolate shaped points with a channel or flute extending from the base. Three "phases" for the Early Paleo period, Gainey, Barnes, and Crowfield, are distinguished by stylistic variations in the fluted points.

Evidence suggests that populations in the latter half of the Paleo period, though still covering large areas, were more restricted in their movements, suggesting that food resources were more readily available. These hunters made smaller non-fluted points produced from a broader range of lithic materials.

Table 1 Pre and Post Contact overview of Southern Ontario

Period	Date (B.P.)	Phases/Complexes	Diagnostic	Subsistence	Rep. Sites
Paleo <sup>1</sup> 11,000-9,500					
Early	11,000 - 10,400	Gainey Barnes Crowfield	Fluted Points; Use of Collingwood and Onondaga Cherts	Highly mobile Hunter- Gatherers	
Late	10,400 - 9,500	Holcombe Hi-Lo Lanceolate Points	Half-moon shaped, thin  Thick with slight ear flaring  Parallel flaked lanceolate points	Mobile Hunter- Gatherers	Allen Point <sup>7</sup> Gordon Island <sup>8</sup> Thompsons Island <sup>8</sup>
Archaic <sup>2</sup> 9,500 – 2,800 Notched Points; Ground Stone Tools					
Early	9,500 – 8,000	Side-Notched Corner Notched Bifurcate	Haldimand Chert serrated edges  Dovetail Points	Hunter- Gatherers within smaller territories	Ottawa South, Bancroft <sup>9</sup>
Middle	8,000 – 4,500	Middle Archaic I Middle Archaic II Laurentian Archaic	Stemmed Points (e.g., Kirk, Stanely); netsinkers; banner stones  Otter Creek Side Notched  Brewerton Corner Notched;	Evidence of Regional “cultural” trading networks	East Sugar Island  Brophy’s Point



Period	Date (B.P.)	Phases/Complexes	Diagnostic	Subsistence	Rep. Sites
			Use of Copper; Polished stone tools		
Late	4,500 – 2,800	Narrow Point Broad Point Small Point	Lamoka; Normanskill Points  Genesee; Adder Orchard (coarse grain material)  Crawford Knoll; Inness; Hind	Upland site locations  Glacial Kame Burials	Collins Bay <sup>10</sup>  Armstrong Site <sup>11</sup>
Woodland 2,800 – 500 Ceramics Introduced					
Early <sup>3</sup>	2,800-2,400	Meadowood Middlesex	Adena Blades; Grit tempered Cord Impressed ceramics;		York Site Pike Farm <sup>12</sup>
Middle	2,400-1,600	Point Peninsula Sandbanks/Princess Point (Transition)	Conical Based grit tempered ceramics with dentate and pseudo scallop impressions	Hunter-gatherers' seasonal sites concentrated on major waterways	Belle Island <sup>13</sup> Johnson's Point <sup>14</sup> Foster <sup>15</sup>
Late <sup>4</sup>	1,600-400	Early <sup>5</sup> Pickering Algonquin/Ojibway Middle <sup>6</sup> Middleport Algonquin/Ojibway	Paddle and Anvil ceramics with collars.  Increased predominance of bone tool tech.	Introduction of horticulture, corn beans and squash	Kingston Outer Station <sup>16</sup> Arbour Ridge <sup>17</sup> Gan 1218

Period	Date (B.P.)	Phases/Complexes	Diagnostic	Subsistence	Rep. Sites
		Late Algonquin/Ojibway Huron St. Lawrence Iroquois			
Contact 400 - 150					
	400	Algonquin	Long Established in Ottawa Valley		Ganneious <sup>19</sup>
	400	French	Champlain 1613		Fort Frontenac
	350	Mississauga	Ojibway settlement of southern Ontario by 1701		
	250	English			

1 (Ellis & Deller 1990); 2 (Ellis et al 1990); 3 (Spence et al. 1990); 4 (Smith 1990); 5 (Williamson 1990); 6 (Dodd et al 1990); 7 (Heritage Quest 2000); 8 (Wright 2004); 9 (Fox & Pilon 2015); 10 (Ritchie 1980); 11 (CARF 1988); 12 (Spence 1967); 13 (CARF 1989); 14 (Abacus 2016); 15 (Daechsel 1985); 16 (Heritage Quest 1999); 17 (Adams 2003); 18 (Golder 2016); 19 (Adams 1986).

### 2.1.2 ARCHAIC PERIOD (9500 – 2800 B.P.)

Although largely arbitrary, the Archaic period is initially distinguished by the appearance of notched projectile points and the use of ground stone utilized in the production of heavy “wood working” tools. At the outset of this period forests were dominated by pine and approached present day conditions of mixed deciduous forests by 5,000 B.P. Water levels in the lower Great Lakes continued to rise through the first half of the Archaic with present day levels reached between 7,000 and 5,000 B.P. Throughout this period populations continued to hunt, gather, and fish.

Within the Early Archaic period three “phases” have been recognized, again distinguished by projectile point types: side notched, corner notched and bifurcate. Serrated edges are unique to projectile points made during the Early Archaic. Evidence suggests that the seasonal

movement of extended family units were becoming increasingly regionalized, encompassing smaller territories as food resources became more abundant.

The Middle Archaic, encompassing several millennia, has been divided into two sub periods, Middle Archaic I and II. It is represented in Eastern Ontario by the Laurentian Archaic exhibiting cultural affinities with contemporaneous populations to the east, including New York State, and Atlantic Canada. Associated with the Middle Archaic I are stemmed points such as Kirk and Stanley along with the introduction of net sinkers and banner stones, the former, offering evidence for the increasing importance of fishing. Middle Archaic II included the production of side and corner notched points (Otter Creek and Brewerton). Laurentian Archaic sites have produced artifacts manufactured from copper originating from the north shore of Lake Superior in addition to ground stone projectile points, gouges, adzes, and plummets (Watson 1982).

Three phases, Narrow Point, Broad Point, and Small Point have been identified for the Late Archaic Period. By this time there is increasing evidence to suggest the further regionalization of populations in Southern Ontario. An example is the increased utilization of local lithic materials including quartz, and other silicates in the production of projectile points and other tools in Eastern Ontario, contrasting with the almost exclusive use of cherts such as Onondaga, Selkirk, and Kettle Point in Southwestern Ontario.

### **2.1.3 WOODLAND PERIOD (2800 – 400 B.P.)**

The Woodland period is demarcated by the appearance of ceramics. The first ceramics produced in Southern Ontario consisted of thick walled, grit tempered vessels with exterior cord marked impressions, referred to as Vinette 1. Although few Early Woodland occupation sites have been excavated in Southern Ontario, of those that have been investigated, the presence of ceramics was not ubiquitous (Jackson 1980; Parker 1997), suggesting that Early Woodland populations “eased” into the usage of this new technology which did not become fully integrated until the Middle Woodland period.

Two complexes, Middlesex and Meadowood, are recognized as part of the Early Woodland period. The Meadowood is thought to have emerged from the Glacial Kame Burial complex of the Late Archaic. Associated artifacts included polished stone birds, gorgets, pipe bowls, along with other materials. The use of “exotic” cherts for the production of medium to large Ovate shaped blades known as Adena are also a feature of this complex. Medium sized, parallel projectile points with a distinctive side notched and principally manufactured from Onondaga chert are also characteristic of the Early Woodland.

By the Middle Woodland period, circa 2,400 B.P., there was a recognizable increase in the population of Southern Ontario. Several recognized complexes or traditions in Ontario appear at this time indicating the further regionalization of groups within the province. These include Point Peninsula through much of Southeastern and Southcentral Ontario, Saugeen and Couture in Southwestern Ontario and Laurel in Northern Ontario.

Middle Woodland populations continued to hunt, gather, and fish, with smaller extended family units congregating in the late summer and early fall. These populations continue to participate in extensive trade networks. They are distinguished archaeologically by grit tempered, coil manufactured, conical based ceramics with variety of dentate stamp impressions including pseudo scallop shell stamp decoration.

Circa 1,400 B.P. cultigens are introduced into Southern Ontario. In Southwestern Ontario there is a shift in settlement patterns, with the location of permanent and semi-permanent sites in riverine locations (e.g., Grand River valley). There is less evidence for this shift in Eastern Ontario. Across much of the province there appears to be a universal ceramic horizon characterized by the production of fine tempered, globular shaped ceramic vessels with cord wrapped stick impressions along with punctates (circular depressions) and bosses (raised surfaces). Identified as Princess Point, based on the type of site excavated at the western end of Lake Ontario, this transitional period has been distinguished in Eastern Ontario as Sandbanks (Daechsel & Wright 1993).

The Late Woodland period is defined in Southern Ontario by the increased reliance on cultigens and the associated transition to permanent village sites. Three phases identified as Early, Middle and Late Iroquoian/Late Woodland have been distinguished in the literature. These villages consisting of cabins and longhouses were often palisaded. Ceramic vessel forms included larger globular shaped pots, often with collars and later with castellations. While much of Southern Ontario moved towards horticulture and semi-permanent and permanent villages, there remained largely hunting and gathering populations along the Ottawa Valley and in the Georgian Bay regions throughout the Late Woodland period.

#### 2.1.4 CONTACT

While there may have been the appearance of European goods originating from the Basque fishing activities in the 16<sup>th</sup> century off the coast of Labrador it was not until the beginning of the 17<sup>th</sup> century that permanent European settlements were established in northeastern North America resulting in rapid changes in Indigenous populations influenced by trade, warfare, and disease. The Huron Wendat who, by the mid-17<sup>th</sup> century, had occupied areas around Lake Simcoe and along the south end of Georgian Bay, were dispersed by the Iroquois from south of Lake Ontario. The Attawandaron (Neutral), at the west end of Lake Ontario, were similarly displaced by 1650 and the St. Lawrence Iroquois, encountered by Cartier at Hochelaga (Montreal), had completely disappeared by the time of Champlain's arrival to the region at the beginning of the 17<sup>th</sup> century.

Samuel de Champlain documented his numerous interactions with Indigenous peoples in the Ottawa Valley during visits in 1613 and 1615. At the time, an extensive, complex network of trade existed with various culturally distinct peoples around the Ottawa Valley (Pilon 2005). Early European documentation reveals three Algonquin cultural groups within the Ottawa Valley region: the Matouweskaroni, Onontchataronon, and the Weskarini (Heidenreich & Wright 1987). During the same early 17<sup>th</sup> century period, Jesuit Missionaries Jean de Brébeuf

and Francesco-Giuseppe Bressani, as well as Champlain, wrote that the "Bruce Peninsula at that time was the home territory of the Algonquin-speaking Odawa" (Fitzgerald in FAC 2023).

European activity in Southern Ontario during the 17<sup>th</sup> century was principally limited to fur trade. Fort Frontenac was located at the confluence of Lake Ontario and the St. Lawrence River in present day Kingston. By this time, the Iroquois had established seven villages along the north of Lake Ontario including Ganarakas at the present-day site of Port Hope (Adams 1986). In the Niagara Peninsula, the Attawandaron were initially succeeded by the Seneca who controlled the Niagara River. The Odawa and Ojibway allied together against the Iroquois. Early in the 18<sup>th</sup> century the Ojibway successfully pushed south from Georgian Bay, occupying all Southern Ontario (Schmalz 1987).

Following the defeat of the French in the Seven Years War the British issued a Royal Proclamation in 1763 to administer the territories, including Canada, which had been won. The Proclamation established the Appalachian Mountains as the boundary between the Indian and Colonial lands and in doing so recognized the rights of Indigenous populations to their lands (Calloway 2018). The Royal Proclamation was the basis upon which lands were ceded to the Crown for compensation through treaties and/or land acquisitions. In the area south of Georgian Bay many of these treaties took place in the 19<sup>th</sup> century, including Treaty 29, the Huron Tract Purchase (1833), Treaty 45 ½, the Saugeen Tract Purchase (1836), Treaty 18, the Nottawasaga Purchase (1818), Treaty 16, the Lake Simcoe Purchase (1815), Treaty 72, the Saugeen Peninsula Treaty (1854), and Treaty 82 (1857).

## 2.2 INDIGENOUS CONTEXT

### 2.2.1 SAUGEEN OJIBWAY NATION CONTEXT

The Study Area is located within the Treaty and traditional territory of the Saugeen Ojibway Nation.

The Saugeen Ojibway Nation (SON) includes the Chippewas of Nawash Unceded First Nation and the Chippewas of Saugeen First Nation. SON's traditional territory (Saukiing Anishnaabekiing) includes all of Bruce and Grey Counties, including the Saugeen Peninsula, and extends south of Goderich (Huron County) and Arthur (Wellington County) and east of Alliston and Collingwood (Simcoe County) (SON 2022).

The Saugeen Ojibway territory remained unceded at the turn of the 19<sup>th</sup> century, and by the mid-1830s it was the largest such tract in Southern Ontario (Surtees 1994). Ojibway settlements at the mouth of the Saugeen River in present day Southampton and at Nawash (Nawash), present day Owen Sound, were documented during that period (FAC 2013, McMullen 1997 in FAC 2024). However, with the continuing expansion of settlement in Southern Ontario pressure was brought to bear on the British Crown to open up the lands south of Georgian Bay (Surtees 1994).



## 2.2.2 TREATIES

The Study Area is located on land included in the Saugeen Tract Purchase (Treaty 45½). The Saugeen Tract Purchase covered approximately 1.5 million acres of land and was part of the Bond Head Purchases. The treaty was signed on 9 August 1836 in Manitowaning (Government of Ontario 2024).

Additional treaties include the Half-Mile Strip (1851) for a road allowance from Lake Huron to Owen Sound (this includes the northern edge of Arran Township), the Saugeen Peninsula Treaty #72(1854), Newash Village (1857), Colpoy's Bay (1861), Saugeen Fishing Islands (1885), and additional road allowances through Saugeen (1899) (Canada 1891, ATHS 1982, FAC 2024).

The SON territory today consists of the village of Neyashingaming at Cape Croker (Chippewas of Nawash Unceded First Nation) and Saugeen (Chippewas of Saugeen First Nation), Chief's Point on Lake Huron, and hunting grounds in the interior of the Bruce Peninsula (SON Environment Office 2022).

The Saugeen Ojibway Nation continues to be stewards of their traditional territory, with an interest and involvement in a range of development and environmental matters (e.g., land use, resource extraction, energy production, archaeological studies) (SON Environment Office 2022). As a result of this involvement, in 2011, the SON produced their own standards for archaeological work within their traditional territory: *Conducting Archaeology within the Traditional Territory of the Saugeen Ojibway Nation: Process and Standards for Approval Authorities, Development Proponents and Consultant Archaeologists*.

## 2.3 SURVEY AND EARLY EURO-CANADIAN SETTLEMENT

### 2.3.1 BRUCE COUNTY HISTORY

Euro-Canadian exploration of what would become Bruce County first occurred in 1844, when the Saugeen River was mapped from Garafraxa Road to its outlet on Lake Huron by Casimir S. Gzowski. The first survey was conducted by Charles Rankin in 1846, when he ran a line from Owen Sound to the mouth of the Saugeen River. Shortly thereafter, between 1847-1848, the first land petitions from Euro-Canadian settlers were filed to the Crown Lands Department; however, land had yet to be opened for settlement. Upper Canada was facing considerable population growth around this time. Between 1842 and 1848, the population grew from 480,055 to 723,332. This growth, in part, prompted plans to allow settlement in the forthcoming Bruce County. On 19 April 1847, an Order-in-Council was passed to open the land for development. Alex Wilkinson, Provincial Land Surveyor, conducted a survey at the order of D. B. Papineau, the Commissioner of Crown Lands. Wilkinson's first survey established the Wawanosh Road, which extended southeast to the Townships of Mornington and Maryborough. Wilkinson then drew a line to Lake Huron, creating the first concessions in the Townships of Huron and Kinloss. Wilkinson was then ordered to survey the eastern shore of

Lake Huron to the extent of two townships. Wilkinson claimed to the Crown Lands Department that the land in the area could continue to be surveyed. This ultimately led to the survey of seventeen additional townships, including eleven in Bruce County, four in Huron County, and two in Perth County (Robertson 1906).

To facilitate settlement in the newly surveyed townships, a colonization road was constructed from Simcoe County to the mouth of the Penetangore River. The first formal Euro-Canadian settlement in Bruce County occurred at the mouth of the Penetangore River in Kincardine (then known as 'Penetangore') in the summer of 1848. The town plot of Kincardine was surveyed in 1849 by A.P. Brough, Provincial Land Surveyor. Huron, Brant, Greenock, and Southampton were also initially settled in the late 1840s. Rapid settlement was likely due to the issuance of free land grants so long as the land patentee cleared twelve acres of land and constructed a dwelling measuring no less than 18' by 12' in the first four years after acquiring the land.

An Act of Parliament on 30 May 1849 formally created the Counties of Huron, Perth, and Bruce. Bruce County was composed of the Townships of Arran, Brant, Bruce, Carrick, Culross, Elderslie, Greenock, Huron, Kincardine, Kinloss, and Saugeen. The area north of the Townships of Arran and Saugeen between Lake Huron and Georgian Bay was also annexed shortly thereafter. At the time, the Counties of Huron, Perth, and Bruce were united.

Surveying of townships was ongoing during the 1850s. Brant and Kincardine were surveyed in 1850; Arran, Elderslie, Huron, Saugeen, the west part of Bruce along with the town plot of Southampton were surveyed in 1851; and the east part of Bruce, Carrick, Culross, Kinloss, and Greenock were surveyed in 1852. On 21 September 1853, a general by-law was passed that organized Bruce County's Townships into the United Townships of Kincardine; Bruce and Kinloss; the Township of Huron; the United Townships of Brant and Carrick; the United Townships of Greenock and Culross; the Township of Saugeen; and, the United Townships of Arran and Elderslie. By 1855, Kincardine and Bruce, Brant and Carrick, Greenock and Culross, and Arran and Elderslie were separated. In addition, the Townships of Amabel and Albermarle and the town plot of Alma were surveyed. In 1856, the Townships of Eastnor and Lindsay, and the town plot of Wiarton and Paisley were surveyed. St. Edmunds was surveyed in 1857 (Robertson 1906).

In 1853, Perth County separated from Bruce and Huron, and in 1856, Bruce and Huron separated. The latter separation was not immediate, largely due to the challenge in establishing a county town in Bruce.

Considerable development occurred in Bruce County during the 1850s. Post offices were opened in Kincardine and Southampton; several colonization roads were built including Durham Road, Elora Road, and Woolwich and Huron Road, along with the construction of local roads; and other municipal works including the establishment of the Division Court were developed. Upper Canada was in a time a general wealth, owing to the Reciprocity Treaty and the Crimean War; however, this was not largely felt in Bruce County due to labour scarcity and cost. Such scarcities led to several colonization road contracts being rescinded.

In 1858, Kincardine was incorporated as the first village in the county. From then on, it was called 'Kincardine' as opposed to 'Penetangore'. It had a population of 837 at the time. Southampton would also be incorporated as a village in 1858. In June of 1858 a railway was opened to Goderich, permitting daily mail delivery to Kincardine. In 1860, the first grammar school in Bruce County was opened in Kincardine. Southampton also attempted to secure a similar grammar school; however, it was not realized.

On 15 September 1865, Walkerton was officially declared Bruce County's county town. On 31 December 1866, the Counties of Bruce and Huron were officially separated by proclamation of the Governor General. In 1868, a post office was opened in Wiarton and electric telegraph first reached Bruce County.

In the 1870s, several settlements were incorporated as villages, including Walkerton in 1871, Tiverton in 1878, and Chesley in 1879 (Robertson 1906). The village of Tara, in Arran Township, was incorporated in 1881 (Miller 1980).

Railway development also reached Bruce County by the 1870s, first with the Wellington, Grey and Bruce Railway (WG&B) which reached Southampton on 7 December 1872. A branch of the WG&B reached Kincardine in 1874. Also in 1874, a branch of the Toronto, Grey and Bruce Railway (TG&B) reached Teeswater. The WG&B was acquired by the Great Western Railway and in 1882, it became part of the Grand Trunk system. Also in 1882, the Stratford & Huron Railway reached Chesley and Wiarton. This railway was also amalgamated with the Grant Trunk system as part of the Grand Trunk, Georgian Bay & Lake Erie Railway. In 1887, the Canadian Pacific Railway, using the Toronto, Grey and Bruce Charter, constructed a new railway spur into Wingham from Teeswater. Several additional railways were also considered during the latter twenty-years of the 19<sup>th</sup> century, including an electric railway with terminals in Port Perry, Goderich, and Meaford; however, few were constructed.

In 1896, an Act was passed to reduce the number of county councilors. At a meeting on 29 June 1896, the number of councilors was reduced from 44 to 18 – two for each of the county's nine divisions. One of the first major social challenges faced by the newly formed council was the construction of a House of Refuge, an idea raised as early as 1881. Walkerton was selected as the location for this facility, and it opened in January 1900. The county also established a Children's Aid Society to improve the condition of all neglected and dependent children at the turn of the 20<sup>th</sup> century. In 1903, the County of Bruce General Hospital Trust and Walkerton was completed, with the first patient being accepted on 27 September. At the time, the population in Bruce County was decreasing. The emigration of young people to larger urban centres and cities was one of the main reasons for this (Robertson 1906).

Bruce County's economy is largely supported by the agricultural sector, notably through livestock, cash crops, and fruit and vegetable farming. Commercial power generation – Bruce Power, which first opened in 1960 – is another contributor along with the seasonal tourism industry. In 2021, Bruce County had a population of around 73,400 (Statistics Canada 2023a).

### 2.3.2 ARRAN TOWNSHIP HISTORY

The first known Euro-Canadian settler in Arran Township was Henry Boyle, who settled before the survey on what would come to be known as Lot 21 Concession A in 1850. Arran Township was surveyed shortly thereafter in the summer of 1851 by Goerge Gould for Charles Rankin, Provincial Land Surveyor. Arran Township was surveyed alongside Elderslie Township and Saugeen Township, along with part of Bruce Township and Huron Township that had not previously been surveyed, in preparation of an anticipated influx of Euro-Canadian Settlers. The northern limit of Arran Township had been further expanded by a half mile, known as the Half-Mile Strip, after this swath was ceded to the Crown by the Saugeen Ojibway in 1851 (ATHS 1982, Schmalz 1977). The sale of township land officially began on 30 July 1852 and included both the original survey lots and the northern Half-Mile Concession (Robertson 1906, ATHS 1982). Arran Township is historically bordered on the south by Elderslie Township, on the west by Saugeen Township, on the north by the Saugeen Indian Reserve No 29 and by Amabel Township, and on the east by Derby and Sullivan Townships in Grey County, with Keppel Township joining at its northeast corner.

Gould and Richard Berford, who was a member of the surveying team, were among the first to acquire land following the survey. Gould, along with his companion J.W. Linton, settled in Invermay, and Beford, along with his companion John Hamilton, settled in Tara. Both parties were interested in capitalizing on the waterpower provided by the Sauble River. Around sixteen additional settlers also took ownership of land in Arran Township in the early 1850s. Additional settlement was facilitated by the construction of the Saugeen and Owen Sound Road in 1852 and the Elora and Saugeen Road in 1854.

Taxes in Arran Township were first levied in 1853, when a total of £55 6s 9d was collected. That same year, two post offices were opened, including one in Burgoyne called 'West Arran' and one in Invermay called 'Arran'. At the time Invermay, Arkwright, and Tara were the main settlements in the Township. The first of these settlements to be surveyed into village lots was Tara, which was preliminarily surveyed by Richard Berford in 1854. Several additional surveys followed, including in May 1858 (Lot 31-32 Concession 8), November 1858 (Lot 31-32 Concession 9), March 1859 (Lot 30 Concession 8), and November 1860 (Lot 29-30 Concession 8). During this period two stores, a sawmill, a gristmill, a fanning mill, a foundry, and an agriculture implement works had been established. In addition to Tara, Invermay also developed during this period. It was surveyed into village lots in 1855 and by 1857, a small business centre had been formed which included a sawmill and grist mill built and operated by Luke Gardiner. Settlement and development were also happening in other parts of the Township. A new post office in Arkwright, near the centre of the township, was also opened in 1857 (Robertson 1906).

In the heart of the Queen's Bush, Arran Township had many sawmills within close proximity to each other, the early settlers taking advantage of the streams and rivers to mill their own timber, and their descendants continuing the process well into the 20<sup>th</sup> century (ATHS 1982).

Between 1853 and 1861, several changes occurred to Arran Township's municipal structure. In 1853, Arran Township was united with Elderslie Township with the two then known as the United Townships of Arran and Elderslie. Arran was selected as the senior township. Richard Berford was elected as the first reeve, Archibald Ray was the clerk, and the councilors were Henry Esplen, William Hunt, Thomas Woodsides, and Edward Sparling. In 1856, Arran Township and Elderslie Township were separated, and in 1857 Arran Township was united with Amabel Township by law for municipal purposes. In 1858, Albermarle Township was united with Arran and Amabel. Albermarle was subsequently removed from the union in 1860. On 1 January 1861, Arran and Amabel were separated, leaving Arran Township as an independent township.

Arran Township's population reached 2,551 by 1861, a significant increase from 1852 when the population was 149. The population increased to 3780 by 1871 followed by a decrease to 3,512 by 1881, 2,913 by 1891, and 2,562 by 1901. Arran Township and Elderslie Township were once again united on 1 January 1999 and are now known as the Municipality of Arran-Elderslie (Robertson 1906). The population of the Municipality of Arran-Elderslie was 6,913 as of 2021 (Statistics Canada 2023b). Its agricultural sector continues to dominate the local economy.

## 2.4 STUDY AREA SPECIFIC HISTORY

### 2.4.1 LOT 35 CONCESSION 4 (EAST HALF) HISTORY

Table 2 below included a transcription of relevant Land Registry Abstract Index (LRAI) transactions from the Lot 35 Concession 4's Crown Patent through to the early 20<sup>th</sup> century. Additional abstracts associated with municipal works (i.e., construction of the hydro corridor) are included through the 20<sup>th</sup> century.

Table 2. Summary of Land Registry Transactions – Arran Township, Lot 35 Concession 4\*

Date	Owner	Comment	Instrument
19 October 1869	Samuel Herron	Crown Patent, 100 acres (west half).	Patent
10 May 1889	Charles Thompson	Crown Patent, 50 acres (east half)	Patent
6 February 1892	Charles Henry Thompson	From Charles Thompson, 50 acres. Registered 2 June	Will 5219
23 March 1892	William A. Gerolamy (mortgage grantee)	From Charles Henry Thompson, 50 acres. Consideration of \$726.50. Registered 23 June 1892.	Mortgage 5258



Date	Owner	Comment	Instrument
<b>3 August 1917</b>	Isaac G. Bowles and Harvey M. Merrian, executors of William A. Gerolamy (plaintiffs)	From Charles H. Thomson (defendant)., 50 acres. Registered 4 August 1917. Likely related to previous mortgage.	Cert 9033
<b>21 May 1926</b>	Thomas Dealy	From Isaac G. Bowles and Harvey M. Merrian, executors of William H. Gerolamy, 50 acres. Consideration of \$2,200.00. Registered 15 June 1926.	Grant 10198
<b>15 March 1950</b>	[redacted]	From Thomas and Mary M. Dealy, 50 acres. Consideration of \$2,150. Registered 21 March 1950.	Grant 12669
<b>12 February 1973</b>	n/a (no change)	Reference plan of part lot & showing Part E ½ being Part 2. Registered 14 March 1973.	Reference Plan 3R-1150
<b>23 June 1975</b>	n/a (no change)	Reference plan of part lot & showing Part 1. Registered 21 July 1975.	Reference Plan 3R-300
<b>[illegible] April 1976</b>	n/a (no change)	Plan of expropriation by Ontario Hydro showing Part 1. Registered 10 April 1976.	Plan 960

\* (Land Registry Office 03 (Bruce)).

The first formal mapping showing Lot 35 Concession 4 is C. Rankin's 1851 Plan of Arran (Figure 6). This plan depicts lots and concessions, watercourses and lakes, and indicates the number of acres per lot, with Lot 35 Concession 4 shown as a 100-ac parcel. Rankin's field notes from his 1851 survey, where he is surveying the road allowances and determining lot locations, state the following for the conditions of the 4<sup>th</sup> Concession road at Lot 35:

Maple, beech & elm – large timber, at 15°, hem[lock], cedar, beech, and balsam, at 15°54 to 16°44 cross the AuSable flowing northerly, muddy bottom, then flat with timber as before, 20° post (Rankin 1851a: 73).

Rankin's 1855 Map of the Counties of Grey and Bruce sets the township within the county perspective. This map does not depict the name of an owner or tenant or any buildings on the property. The property is bordered by a roadway on its northwest side and the Sauble River passes diagonally through the property's northeast corner.

The first people associated with Lot 35 Concession 4 were Michael Canton and William Herron, who appeared as owners of the property in Bruce County's 1867 directory (Rooklidge 1867). Canton and Herron's occupancy predates the Crown Patent for the land, which was issued separately for its east and west halves. The Crown Patent for the west half of the property (listed as 100 acres, likely in error) was issued to Samuel Herron on 19 October 1869 (LRO 03 Arran Twp LRAI [LRO 03] n.d. Lot 35 Con 4 Patent). Herron sold the west 50-ac of the property to Christopher J. Crowe on 27 April 1871 (LRO 03 n.d. Instr. 1335).

The directory from 1876 identifies Charles J. Crowe and Charles Thompson Sr. as independent freeholders of the property's two halves (Brownell 1876). Christopher J. Crowe's ownership is corroborated in the 1878 Tax Assessment Roll for the Municipality of Arran, which lists him as the owner of the west half of Lot 35 Concession 4 along with William Crowe and James Herron. The 1878 Tax Assessment Roll also corroborates the Thompson family's association with the property, citing that the east half of Lot 35 Concession 4 was owned by John KcKinnon Thompson, Charles Thompson's son. Members of the Thompson family – Charles and Charles Henry – also owned Lot 34 Concession 5 at the time (Family Search n.d.[A]).

The following directory from 1880 only associates Christopher J. Crowe with the property, identifying that he owned 50 acres of the land and was a farmer (Evans 1880). The 1880 Tax Assessment Roll corroborates Crowe's ownership and continues to associate John KcKinnon Thompson with the property (Family Search n.d.[B]). H. Belden & Co.'s map of the Township of Arran from 1880 shows Lot 35 Concession 4 in generally the same condition as C. Rankin's 1855 map. No owner or tenant or buildings are depicted (Figure 7). The Union Publishing Co.'s Farmers' and Business Directory for 1886-1887 identifies John Thompson as the property's freeholder (Union Publishing Co. 1887). Tax Assessment Rolls from 1888 do not list Lot 35 Concession 4. John Thompson and Charles H. Thomson are, however, identified as the owners of the nearby west and east halves of Lot 34 Concession 5 (Family Search n.d.[C]).

The Crown Patent for the east half of the property (listed as 50 acres) was issued to Charles Thompson – likely the same Charles Thompson identified in the 1876 directory – on 10 May 1889 (LRO 03 n.d. Patent). A review of Census records indicates that Charles Thompson was a farmer born in England around 1819 (Library and Archives Canada [LAC] n.d. [A]). Despite his known ownership of the property from LRAI records, Thompson is not associated with the property in the Union Publishing Co.'s Farmers' and Business Directory for 1889 (Union Publishing Co. 1889). In 1891, Thompson was farmer, aged 69, married to Mary (45) (LAC n.d. [B]). Mary Thompson was Charles Thompson's second wife. His first wife, Catherine, with whom he had several children including David, Charles H., George, Mary Ann, and John M., died in 1884 (Archives of Ontario n.d. [A]; LAC n.d. [A]).

In 1892, Charles Thompson died, and the east half of Lot 35 Concession 4 was willed to his son, Charles Henry Thompson (Archives of Ontario n.d.[B]; LRO 03 n.d. Instr. 5219). Shortly after taking ownership of the property, Thompson acquired a \$726.50 mortgage from William A. Gerolamy (LRO 03 n.d. Instr. 5258). Charles Henry Thompson was born to Charles Thompson and Catherine Thompson on 17 June 1848 in Makhanda (formerly Grahamstown),

South Africa (Find a Grave Index n.d.). In 1891, Thompson was a farmer aged 42, married to Mary Ann with five children, Jessie (15), Charles (12), William (10), Catherine (8), and Walter (4) (LAC n.d.[C]). The Union Publishing Co.'s Farmers' and Business Directory for 1892 does not associate either Charles Thompson or Charles Henry Thompson with the property (Union Publishing Co. 1892). The 1894 Tax Assessment Roll confirms that Charles H. Thompson owned the property. At the time, 40-ac had been cleared, and the property was worth \$1,100.00 (Family Search n.d.[D]).

Subsequent maps and directories do not associate Charles Henry Thompson with the property, despite his known ownership from LRAI and Tax Assessment records. A map of Arran Township from 1899 depicts 'P. Cunningham' as the owner or tenant of the east half of Lot 35 Concession 4 (ATHS 1982), the Union Publishing Co.'s Farmers' and Business Directory for 1901 identifies Andrew Freeborn as the property's freeholder (Union Publishing Co. 1901), and the Union Publishing Co.'s Farmers' and Business Directory for 1910 identifies Thomas Dolphin as a tenant and John Watson as a freeholder of the property (Union Publishing Co. 1910).

Although not specifically clear how through LRAI records, legal action taken by Isaac G. Bowles and Harvey M. Merrian, executors of William A. Gerolamy (plaintiffs), against Charles H. Thompson and Mary Ann Thompson (defendants) on 3 August 1917 resulted in the former parties' ownership of the property (LRO 03 n.d. Instr. 9033). The property was subsequently sold to Thomas Dealy on 21 May 1926 for \$2,200.00 (LRO 03 n.d. Instr. 10198).

A 1938 aerial photograph shows Lot 35 Concession 4 as an undeveloped lot. Most of the property appears to be covered by crops, while the river is surrounded by pasture and a woodlot is located along the southeast property line (Figure 8). On 23 June 1975, a Reference Plan – Plan 3R-1150– was prepared for the property (LRO 03 n.d. Plan 3R-1150). Aerial imagery and National Topographic System (NTS) maps from throughout the mid- to late 20<sup>th</sup> century and early 21<sup>st</sup> century continue to show the property as undeveloped with crop, pasture, and woodlot (Figure 8 and Figure 9).

## **2.4.2 LOT 36 CONCESSION 4 HISTORY**

Table 3 below included a transcription of relevant LRAI transactions from the Lot 36 Concession 4's Crown Patent through to the early 20<sup>th</sup> century. Additional abstracts associated with municipal works (i.e., construction of the hydro corridor) are included through the 20<sup>th</sup> century.

Table 3. Summary of Land Registry Transactions – Arran Township, Lot 36 Concession 4\*

Date	Owner	Comment	Instrument
28 October 1872	William Broddy	Crown Patent, 120 acres. Registered 19 October 1880.	Patent 3170
5 October 1880	William H. Vernon	From William Broddy et ux., 120 acres. Registered 19 October 1880.	Bargain & Sale 3171
18 November 1887	William F. Betts	From William H. Vernon, 120 acres. Registered 1 December 1887.	Bargain & Sale 4461
15 April 1897	Charles William Speer	From Mary Maria Betts, executrix of William F. Betts, 120 acres. Registered 1 May 1897.	Bargain & Sale 5799
9 August 1897	William Thomson	From Charles William Speer, 120 acres. Registered 12 August 1897.	Bargain & Sale 5873
1 April 1898	Joseph Watson	From William Thomson et ux., 120 acres. Registered 9 April 1898.	Bargain & Sale 5963
1 August 1902	John Watson Jr.	From Joseph Watson et ux., 120 acres. Registered 12 January 1903.	Bargain & Sale 6802
1 April 1907	Daniel G. McMullen	From John Watson Jr. et ux., 120 acres. Consideration of \$5,600.00. Registered 16 April 1907.	Bargain & Sale 7644
30 March 1970	[redacted]	From [redacted]. Estate of [redacted]. <sup>1</sup> Unidentified acreage. Consideration of \$5.00. Registered 4 May 1970.	Grant 76333
8 December 1970	The Municipal Corporation of the Township of Arran	From [redacted], east 10 feet. Consideration of \$150.00. Registered 21 December 1970.	Grant 81657
12 February 1973	n/a (no change)	Reference plan showing part of lot being Part 2. Registered 14 March 1973	Reference Plan 3R-300
30 October 1972	The Director, The Veteran's Land Act	From [redacted], lot less east 10 feet. Consideration of \$17,703.00. Registered 1 May 1973.	Grant 103305

<sup>1</sup> It is not clear in Land Registry documentation when the property was acquired by Raymond E. McMullen.

Date	Owner	Comment	Instrument
23 June 1975	n/a (no change)	Reference plan of part lot & showing Part 1. Registered 21 July 1975.	Reference Plan 3R-1151
31 [illegible] 1976	n/a (no change)	Plan of expropriation by Ontario Hydro showing Part 1. Registered 10 April 1976.	[illegible] 857
14 December 1976	n/a (no change)	Reference plan of part of lot showing Parts 1, 2, & 3. Registered 16 January 1977.	Reference Plan 3R-1688
7 February 1977	Ontario Hydro	From the Director, the Veteran's Land Act, parts 1, 2, & 3 on Ref. Plan 3R-1688 [illegible] right of way over part 2. Consideration of \$1.00. Registered 6 April 1977.	Grant 145348
5 May 1978	n/a (no change)	Reference plan of part of lot, showing part 1. Registered 26 May 1978.	Reference Plan 3R-2152
23 December 2004	n/a (no change)	The Corporation of the County of Bruce. To designate pt Lt 36 con 4 as in 81651 as part of Grey-Bruce line and to consent to the transfer of jurisdiction of said highway to the corporation of The County of Bruce. Registered 23 December 2004.	By-Law 32-04

\* (Land Registry Office 03 (Bruce)).

#### 2.4.2.1 LOT 36 CONCESSION 4 (LOT/CONCESSION HISTORY)

The first formal mapping showing Lot 36 Concession 4 is C. Rankin's 1851 Plan of Arran (Figure 6). This plan depicts lots and concessions, watercourses and lakes, and indicates the number of acres per lot, with Lot 36 Concession 4 shown as a 120-ac parcel. Rankin's field notes from his 1851 survey, where he is surveying the road allowances and determining lot locations, state the following for the conditions of the 4<sup>th</sup> Concession road at Lot 36:

Hem[lock], cedar, maple, elm of (?) large timbers, good soil, at 8° rolling surface, at 12° flat, at 18° cross a neck of swale connecting larger ones on right & left, at 25° the allowance for road between Arran & Derby" (Rankin 1851a: 73).

Due to the survey being the road allowance, the Sauble River is not mentioned under Lot 36 as it crosses the 4<sup>th</sup> Concession on Lot 35, where Rankin notes "...cross the AuSable flowing northerly, muddy bottom, then flat with timber..." (Rankin 1851a: 73).



Rankin's 1855 Map of the Counties of Grey and Bruce sets the township within the county perspective. This map does not depict the name of an owner or tenant or any buildings on the property. The property is bordered by roadways on its northeast and northwest sides and the Sauble River passes diagonally through the property from its northwest to its southeast corner.

The first person associated with Lot 36 Concession 4 was John Noonan, who appeared as the property's owner in Bruce County's 1867 directory (Rooklidge 1867). Noonan's occupancy predates the Crown Patent for the land, which was issued on 28 October 1872 to William Broddy (LRO 03 n.d. Lot 36 Con 4 Patent). The following directories from 1876 and 1880 identify that Edward Shain, a farmer, leased the entire 120-acre property (Brownell 1876; Evans 1880). On 5 October 1880, Broddy sold the property to William H. Vernon (LRO 03 n.d. Instr. 3171).

A review of the Census records and Tax Assessment Rolls indicate that William Harrison Vernon was a sawmiller and farmer, born in 1853/54, who goes by either W.H. or by Harrison (LAC n.d. [D and H] and Family Search n.d. [E, F and G]). In 1881, Harrison was a young farmer, aged 27, married to Mary (25) with two young children, James Wesley (2) and Jessie E (7 months), who had 30 cleared acres on Lot 36, Concession 4. The 1886-1887 directory identifies Harrison Vernon as the property's freeholder (Union Publishing Co. 1887). The 1889 Tax Assessment Roll lists W.H. Vernon as working at a sawmill on part of Lot 33, Concession 7 Arran, approximately two miles north on the Sauble River, and by 1899 he had been joined in this endeavour by his son, J.W..

H. Belden & Co.'s map of the Township of Arran from 1880 shows Lot 36 Concession 4 in generally the same condition as C. Rankin's 1855 map. No owner or tenant or buildings are depicted (Figure 7). Interestingly, the Grey-Bruce Line road which borders the eastern edge of the Study Area was not completed in a straight line along that section at that time, a jog into neighbouring Sullivan Township for an easier crossing of the Sauble River being indicated jogging east just north of the river crossing the County Line on Lot 36 Concession 4 and rejoining the Line road at Concession 2. The road was straightened to its current alignment between 1880 and 1938 (see Figure 8).

William H. Vernon sold Lot 36, Concession 4 to William Betts, a farmer, on 18 November 1887 (LAC n.d.[E]; LRO 03 n.d. Instr. 4431). Betts' ownership is corroborated in the 1889 and 1892 directories of Bruce County, which identify him as the property's freeholder (Union Publishing Co. 1889). Mary Maria Betts, the executrix of William Betts' will, sold the property to Charles William Speer on 15 April 1897 (LRO 03 n.d. Instr. 5799). Speer's ownership ended on 9 August 1897, when he sold the lot to William Thomson (LRO 03 n.d. 5873). Thomson subsequently sold the property to Joseph Watson, who was a farmer, on 1 April 1898 (LAC n.d.[F]; LRO 03 n.d. Instr. 5963).

Joseph Watson had arrived in Arran Township as a young child with his family in 1856, his parents John and Mary purchasing 400 acres (ATHS 1982). Joseph and his wife Mary later inherited Lot 26 Concession 3, and raised their family including sons John, James and William

(LRO 03, ATHS 1982). Joseph also had an elder brother, John Jr. It is probable, therefore, that the John Watson Jr. noted in subsequent mapping and the land record abstract as the occupant/owner of Lot 36 is either Joseph's brother or son, both of whom were farming in Arran Township in 1901 (LAC n.d.[G] and[I]). A map of Arran Township from 1899 depicts John Watson Jr. as the property owner of Lot 36, Concession 4 (ATHS 1982), and the 1901 directory identifies John Watson Jr. as the property's freeholder (Union Publishing Co. 1901). This does not directly align with land registry abstracts; however, John Watson Jr. did acquire the property on 1 August 1902 (LRO 03 n.d. Instr. 6802).

On 1 August 1907, John Watson Jr. sold the property to Daniel McMullen for \$5,600.00 (LRO 03 n.d. Instr. 7644). McMullen's ownership is corroborated in the 1910 directory, which identifies him as the property's freeholder (Union Publishing Co. 1910). The McMullen family retained ownership of the property until the early 1970s.

A 1938 aerial photograph shows Lot 36, Concession 4 with a number of structures including house, barn and outbuildings, fronting Concession 4 (Figure 8). The fields north of the Sauble River appear to be in crops, while south of the river is a mix of pasture and woodlot.

The 1946 NTS map showing the property depicts two buildings, a house and a barn, located near Concession 4 Arran between Grey Bruce Line to the east and the Sauble River to the west. The house is located closer to the road and the barn is more deeply setback to the south of the house (Figure 9). The NTS map from 1952 depicts no major discernable changes to the property (Figure 9). The 1954 aerial photograph (Figure 8) has poor resolution, however it appears that additional structures may be present west of the house, and that some of the southern fields may be in crop instead of pasture.

On 8 December 1970, the east 10 feet of Lot 36 Concession 4 was granted to the Municipal Corporation of the Township of Arran (LRO 03 n.d. Instr. 81657). On 12 February 1973, a Reference Plan – Plan 3R-300 – was prepared for the property (LRO 03 n.d. Plan 3R-300). Despite these alterations to the property, the 1973 NTS map does not depict any major discernable changes (Figure 9). On 30 October 1972 (registered 1 May 1973), the property described as 'lot less E 10 ft...' was granted to the director of the Veteran's Land Act for \$17,703.00 (LRO 03 n.d. Instr. 103305).

On 23 June 1975, a second Reference Plan – Plan 3R-1151 – was prepared for the property (LRO 03 n.d. Plan 3R-1151). Shortly thereafter in 1976 (illegible date) Ontario Hydro expropriated an unidentified section of the property (LRO 03 n.d. Instr. 957). On 14 December 1976, a third Reference Plan – Plan 3R-1688 – was prepared (LRO 03 n.d. Plan 3R-1688). An aerial photograph from 1976 shows areas of disturbance around the farmstead location suggestive of demolition activities, and only two structures evident (Figure 8). The hydro corridor is not yet present.

On 7 February 1977, the director of the Veteran's Land Act granted part of the property, described as 'Parts 1, 2 & 3 on Ref. Plan 3R-1688 [illegible] right of way over part 2', to Ontario Hydro (LRO 03 n.d. Instr. 145348). Shortly thereafter, on 1 May 1978, the director of the

Veteran's Land Act granted the remainder of the property to new owners (LRO 03 n.d. Instr. 158691). A topographic map from 1978 depicts no major discernable changes to the property (Figure 9).

The owners of Lot 36 Concession 4 partitioned the property into two separate lots. On 16 May 1978, they sold the smaller section – now known as 37 Concession 4 Arran – to new owners and on 17 May 1978, they sold the larger section – now known as 39 Concession 4 Arran and consisting of the Study Area – to a new owner (LRO 03 n.d. Instr. 158702; Instr. 158705). The majority of the early 20<sup>th</sup> century farmstead structure locations were within the parcel retained as 39 Concession 4 Arran.

#### **2.4.2.2 39 CONCESSION 4 ARRAN (MUNICIPAL ADDRESS HISTORY)**

The ownership of the Study Area at 39 Concession 4 Arran changed several times in the latter three decades of the 20<sup>th</sup> century. The 1993 NTS map shows an electric transmission line corridor extending across the southern portion of the original Crown lot (Figure 9). The subsequent 2000 NTS map depicts no major discernable changes to the property (Figure 9).

On 23 December 2004, the Corporation of the County of Bruce passed By-law 32-04 'to designate pt Lt 36 con 4 as in 81651 as part of Grey-Bruce line and to consent to the transfer of jurisdiction of said highway to the corporation of the County of Bruce' (LRO 03 n.d. Instr. 391462).

The 2006 air photo (Figure 8) showing the property at 39 Concession 4 Arran shows a barn, shed, and five outbuildings that are each accessed from the lot's unpaved driveway. Mature deciduous and/or coniferous trees extend along both sides of the driveway. Much of this lot has been cleared; however, there are large sections densely populated with mature deciduous and coniferous trees. The bank of the Sauble River is particularly populated with trees. The electric transmission line corridor across the southern portion of the Study Area is also visible.

By 2010, the shed on 39 Concession 4 Arran had been demolished (Figure 8). The 2015 and 2020 air photos showing the property show that no major discernable changes were made to the property (Figure 8).

### 3 ARCHAEOLOGICAL CONTEXT

#### 3.1 EXISTING CONDITIONS

The Study Area is situated within an overall historic landscape that would have been appropriate for resource procurement and habitation by both Indigenous and Euro-Canadian people.

The individual lots comprising the Study Area are generally rural farmland (Figure 2, Figure 3). The east half of Lot 35 Concession 4 is a mixture of cultivated fields, pastureland, and woodlot. The property municipally known as 39 Concession 4 Arran is farmland, bisected on a diagonal by the Sauble River. North of the river are cultivated fields, with farm structures in the northwest fronting Concession 4. South of the river – including the Hydro One electric transmission line corridor and parcel bounded by the Hydro One electric transmission line corridor and the southeast concession border – are open fields (cultivated and/or pasture) and woodlot. The majority of the woodlot is marsh or swamp, and a tributary of the Sauble River flows through it to meet the river within the Study Area (Figure 2). The Study Area is low-lying, relatively level ground on the eastern half of the property, rising up on the western side.

#### 3.2 ENVIRONMENT

The Study Area is located within the Arran Drumlin Field physiographic region of Southern Ontario (Chapman & Putnam 1984 and 2007). The Arran Drumlin Field is a drumlinized till plain that covers much of Arran Township as well as parts of neighbouring Keppel, Amabel and Derby Townships. The drumlin field is a result of glacial action, the drumlins aligned southwest/northeast indicating the direction of the receding ice sheet, as are a handful of eskers in the southeast corner of the region. Occasional till moraines cross east to west and patches of clay plains are present in the lower areas of the region (Chapman & Putnam 2007). The central portion of the Study Area is on an esker while the eastern and western portions are on clay plains (Figure 10). A sand and gravel pit on the same esker north of the Study Area demonstrates current resource extraction activities on these types of landforms. The underlying bedrock is Lower Silurian Guelph Formation, a formation comprised of sandstone, shale, dolostone and siltstone of the (OGS 2011).

The quaternary geology of this area is also a result of the glaciers. The Study Area is primarily within a region of Elma Till with its eastern boundary abutting glaciolacustrine deposits (Figure 11). Elma Till is a sandy silt to silt matrix, moderately stony and calcareous (OGS 2000).

The soils of the Study Area consist of Chesley silty clay loam, Burford loam, muck, and bottom land (Figure 12). Chesley silty clay loam is characterized by topsoil consisting of very dark grey (10YR3/1) silty clay loam that has a firm consistency and is stonefree; over a layer of grey (10YR6/2) silty clay that is mottled, massive, hard, stone free, and very plastic when wet; over a layer of grey (10YR6/2) clay that is mottled, has a blocky structure, is stonefree, and is very plastic when wet. The use of Chesley soils is generally restricted to pasture or some hay crops unless drainage is improved (Hoffman & Richards 1954:45). Burford loam is characterized by

very dark grey (7.5YR3/10) loam topsoil that is granular in structure and has very few stones; over yellowish-brown (10YR5/4) loam that is weakly platy, friable, and with few stones; over dark reddish brown (5YR3/3) clay loam with a nuciform structure, that is sticky and hard; over calcerous, well sorted gravel (Hoffman & Richards 1954:51). Muck is composed of black, well decomposed organic materials over decomposed organic materials with woody residues, over clay, till sand or bedrock (Hoffman & Richards 1954:61). Bottom land is low lying soil along stream courses that are subject to periodic flooding. It is characterized by a dark-coloured surface with glei subsoil. It is often used as pastureland (Hoffman & Richards 1954:62). Well-draining soils were preferred habitation locations for both pre-contact Indigenous and early settlers.

Chert, a siliceous stone, was a primary resource used by pre-contact Indigenous peoples for making tools, and proximity to a chert source increases archaeological potential. The closest known source is an outcropping of Fossil Hill chert of the Amabel Formation approximately 15 kilometres northeast of the Study Area.

Distance to water is considered a primary factor in determining archaeological potential, anything within 300 metres of a water source being considered high potential in the *Standards and Guidelines* (MCM 2011). The Sauble River flows through the middle of the Study Area, and associated swamp/marshland is found along its banks and around two tributaries that flow into it from the south and southwest (Figure 2). Seasonal streams flowing off the esker into the river may also be present (Figure 8). The river rises in the wetlands near Desboro, Grey County, southeast of the Study Area, and meanders northwest to enter Lake Huron at Sauble Beach. It has a broad watershed including much of Arran, Amabel and Keppel Townships. The Sauble River would have provided Indigenous peoples with a resource rich environment hunting and gathering. It was also a source of power for the Euro-Canadian settlers who set up mills on its banks.

The Study Area is within the Great Lakes – St. Lawrence Forest region, comprised primarily of deciduous hardwoods (e.g., maple, oak), with conifers such as pine, cedar and hemlock (MNR 2025). This type of forest provides a diverse array of resources. The vicinity of the Study Area itself was historically a dense forest of mature maple, beech and elm, with cedar and hemlock in the wetter locations (Rankin 1851b).

### 3.3 REGISTERED ARCHAEOLOGICAL SITES

A review of the Ontario Archaeological Sites Database module indicates that there are no registered archaeological site(s) within a 1-km radius of the Study Area. This result reflects more on the limited number of formal assessments within this vicinity rather than on a lack of archaeological site potential.

### 3.4 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS

A review of records available within the PastPortal System, managed by the MCM, identified no previous archaeological assessments within or 50 metres adjacent to the Study Area.



Search terms used included: Lot 36, Concession 4, geographic Arran Township, Bruce County; Bruce County, Hydro; Bruce County, Municipality of Arran-Elderslie; Bruce County, geographic Arran Township; Grey County, geographic Sullivan Township; and Grey-Bruce Line.

### **3.5 CULTURAL HERITAGE RESOURCES**

Per Section 1.3 and 1.4 of the S&Gs, property listed on a municipal register or designated under the *Ontario Heritage Act* or that is a federal, provincial, or municipal historic landmark or site, is indicative of archaeological potential. There are no listed or designated properties within 300 m of the Study Area in the Municipality of Arran-Elderslie or the Township of Chatsworth, which includes geographic Sullivan Township, (Grey County).

### **3.6 CEMETERIES**

Early Euro-Canadian settlements, including cemeteries are indicators of archaeological potential (Section 1.3.1 S&Gs). There are no formal cemeteries or known record of burial within or adjacent to the Study Area.

## **4 FIELD METHODS**

The optional property inspection under Standard 1.2 of the S&Gs (MCM 2011) was not included in this study and as a result no fieldwork was undertaken for this Stage 1 AA.

## 5 ARCHAEOLOGICAL POTENTIAL

The following features or characteristics are indicative of archaeological potential (based on MCM 2011):

- Previously identified archaeological sites within close proximity;
- Water sources, including:
  - Primary water sources (i.e., lakes, rivers, streams, and creeks); ✓
  - Secondary water sources (i.e., intermittent streams and creeks, marshes, swamps, springs); and, ✓
  - Past water sources (i.e., glacial shorelines, relic water courses, former lakes, marshes, or beaches);
- Elevated topography; ✓
- Pockets of well-drained sandy soil;
- Distinctive land formations;
- Access to raw materials or resources; ✓
- Areas of early Euro-Canadian settlement or early historical transportation routes; ✓
- Properties listed on municipal heritage inventories or registers; and,
- Places identified by local historians or oral tradition as being possible archaeological sites.

In instances where there is archeological potential, that potential may have been removed or disturbed by extensive and deep land alterations. Activities causing extensive and deep land alterations might include major landscaping involving grading, building footprints or sewage and infrastructure development. It is possible for disturbances to have removed archaeological potential for part or all of a property.

The Study Area has high archaeological potential due to a number of factors including the Sauble River, its tributaries and wetlands, the proximity to early settlement roads (Concession 4 and the section of the Grey-Bruce Line north of the river), and documented activity within the first generation of Euro-Canadian settlement.

Features indicating archaeological potential are summarized in Table 3.

### 5.1 PHYSICAL FEATURES OF LOW OR NO ARCHAEOLOGICAL POTENTIAL

The Study Area was evaluated for features indicating that archaeological potential has been removed as described in Section 1.3.2 of the S&Gs. Extensive or major disturbances may include but are not limited to quarrying, major landscaping involving grading below topsoil, building footprints, or sewage and infrastructure development. Minor disturbances such as agricultural cultivation, gardening, minor grading, and landscaping do not necessarily affect archaeological potential. Deeply buried archaeological resources may also be unaffected by

any disturbance and may not be identified through background research or property site inspections.

Aerial images from the last quarter of the 20<sup>th</sup> century indicate potential extensive disturbance in the vicinity of the farmstead, however this could not be corroborated by a property inspection. Likewise, the marshy woodlot in the southern portion may have reduced potential which would need to be confirmed during the Stage 2 AA.

## 5.2 PREVIOUS CLEARANCES OR OUTSTANDING WORK

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered or have artifacts removed from them, except by a person holding an archaeological license.

No portions of the Study Area have been subject to previous archaeological assessment.

Table 4. Features of Archaeological Potential

Features and characteristics indicating archaeological potential	Yes	No	Unknown /other
Registered archaeological site(s) within 300m of property		X	
<b>Physical Features</b>			
Potable water/watercourse within 300m of property	X		
Primary water source (e.g., lake, river)	X		
Secondary water source (e.g., stream, swamp, marsh, spring)	X		
Past water source		X	
Distinctive topographical features on property		X	
Pockets of sandy soil in a clay or rocky area on property		X	
Distinctive landforms on property		X	
<b>Cultural Features</b>			
Known burial or cemetery site on or adjacent to property		X	
Food or scarce resource harvest area on property	X		
Indications of early Euro-Canadian settlement within 300m of property	X		
Early historic transportation routes within 100m of property	X		

Features and characteristics indicating archaeological potential	Yes	No	Unknown /other
<b>Property-specific Information</b>			
Property is included on Municipal Register under the <i>Ontario Heritage Act</i>		X	
Local knowledge of archaeological potential of property		X	
Recent (post-1960) and extensive ground disturbance			X



## 6 ANALYSIS & CONCLUSIONS

The background research determined that the Study Area as a whole has high archaeological potential for Indigenous archaeological material based on proximity to water sources for drinking, fishing and travel, and resource-rich environments such as associated wetlands. There is also high potential for historic Euro-Canadian archaeological material associated with the first generation of settlement in Arran Township based on the same proximity to resources and to historic roads (Concession 4 and a portion of the Grey-Bruce Line). Documentary history indicates that Lot 35 Concession 4 may have been inhabited by Michael Canton and William Herron, and Lot 36 Concession 4 may have been inhabited by John Noonan, by the late 1860s despite the patents for these lots being issued in 1889 and 1872, respectively.

There is the possibility of extensive modern disturbance circa 1970s in the vicinity of the farmstead at 39 Concession 4 Arran (Lot 36 Concession 4). Portions of the Hydro One corridor may also exhibit signs of previous disturbance upon inspection. It is also possible that the marshy woodlot in the southern portion of the Study Area and sections along the banks of the Sauble River may be considered permanently wet thereby reducing potential. However, as a property inspection was not completed for this study, the potential for these areas cannot be reduced and, at this juncture, the entire Study Area is considered high potential requiring further assessment (Figure 13).

## 7 RECOMMENDATIONS

This assessment has provided the basis for the following recommendations:

- Stage 2 Archaeological Assessment is to be completed for all areas to be impacted by the planned changes identified as having archaeological potential (Figure 13). This includes the final footprint of the BESS facility as well as all areas of impact for access routes, stockpiling, transmission line construction, floodplain compensation excavations, etc. (Figure 4 and Figure 5).

The Stage 2 AA is to consist of a Pedestrian Survey of all cultivated fields (Section 2.1.1, MCM 2011) and a Test Pit Survey at 5m intervals of all areas that cannot be ploughed (Section 2.1.2, MCM 2011);

- Should deeply buried archaeological materials be encountered during construction, all work will cease, and a professionally licensed archaeologist will be consulted to assess the cultural heritage value and significance of any such archaeological deposits.

It is requested that MCM enter this report into the Ontario Public Register of Archaeological Reports.

## 8 ADVICE ON COMPLIANCE AND LEGISLATION

This report is submitted to the Minister of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act, R.S.O. 1990, c O.18*. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection, and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such a time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

The *Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33* requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Public and Business Service Delivery.

## 9 CLOSURE

This report has been prepared for BBA Engineering Ltd. on behalf of Neoen Ontario BESS 1 Inc. Any use of this report by a third party is the responsibility of said third party.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain deeply buried archaeological resources. In the event that unexpected, deeply buried archaeological resources are encountered advice on compliance with legislation outlined in Section 8 should be followed.

In the event that such a discovery should occur, the undersigned will be available to answer any questions you may have.

## 10 SIGNATURE

Sincerely,



Christienne Uchiyama  
Principal, Manager of Heritage Consulting Services  
LHC Heritage Planning & Archaeology Inc.



Ruth Macdougall  
Senior Archaeologist  
LHC Heritage Planning & Archaeology Inc.



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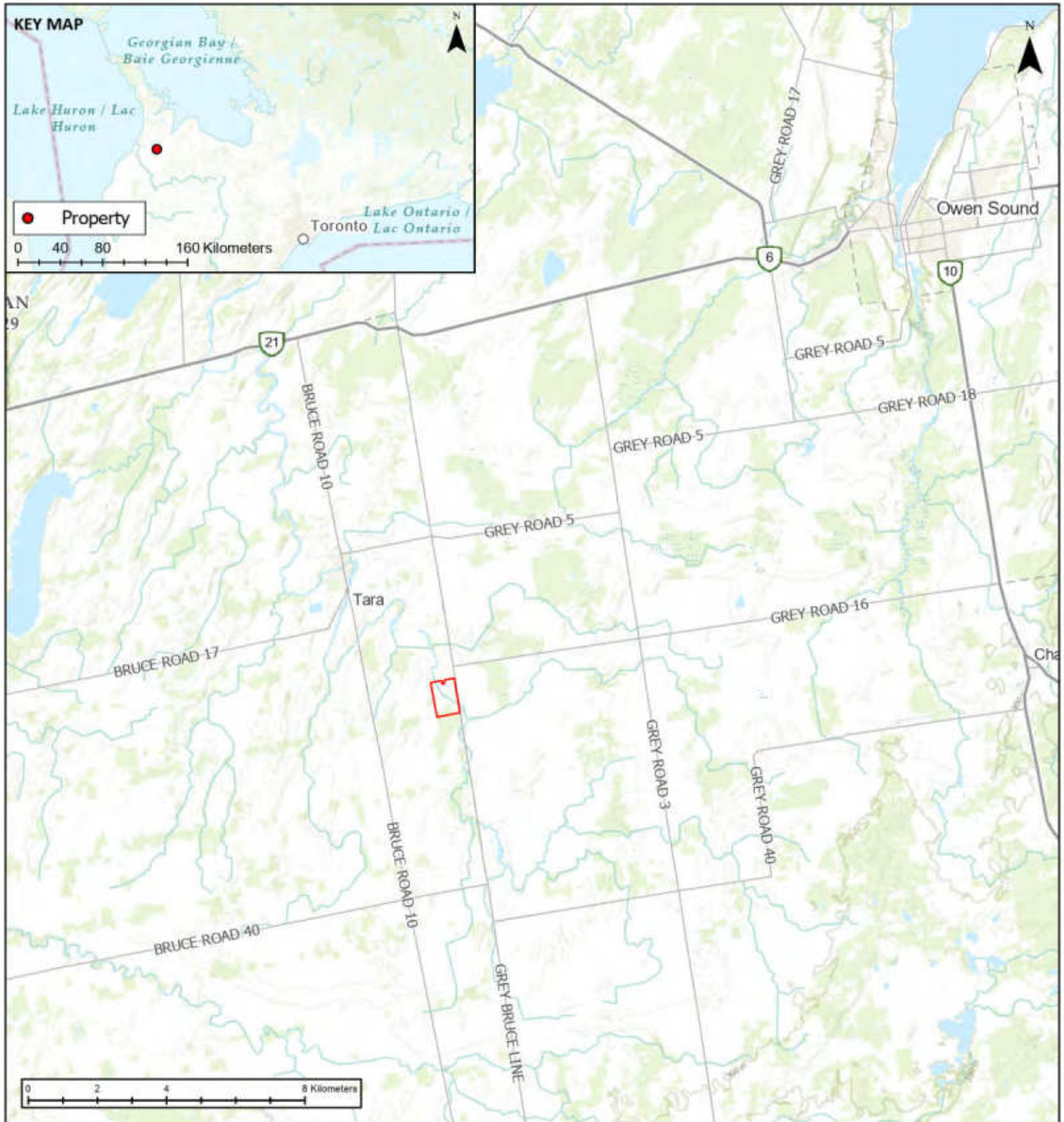
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## 12 FIGURES



## Legend

Study Area

NOTE(S) 1. All locations are approximate.  
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## TITLE Location of the Study Area

CLIENT  
BBA Engineering Ltd.

PIF  
P359-0144-2025

PROJECT  
Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

PROJECT NO. LHC0459

**LHC**  
HERITAGE PLANNING  
& ARCHAEOLOGY

YYYY-MM-DD

2025-02-13

FIGURE #

1



## Legend

Study Area

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### REFERENCE(S)

1. <a href="<LINK>https://www.ontario.ca/page/open-government-licence-ontario/<LINK>">Open Government Licence - Ontario</a>, Maxiar

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## TITLE General Topography of the Study Area

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PROJECT  
Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

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FIGURE #

2





### Legend

Study Area

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TITLE  
**Current Conditions of the Study Area**

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 P359-0144-2025

PROJECT PROJECT NO. LHC0459  
 Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

**LHC**  
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 & ARCHAEOLOGY

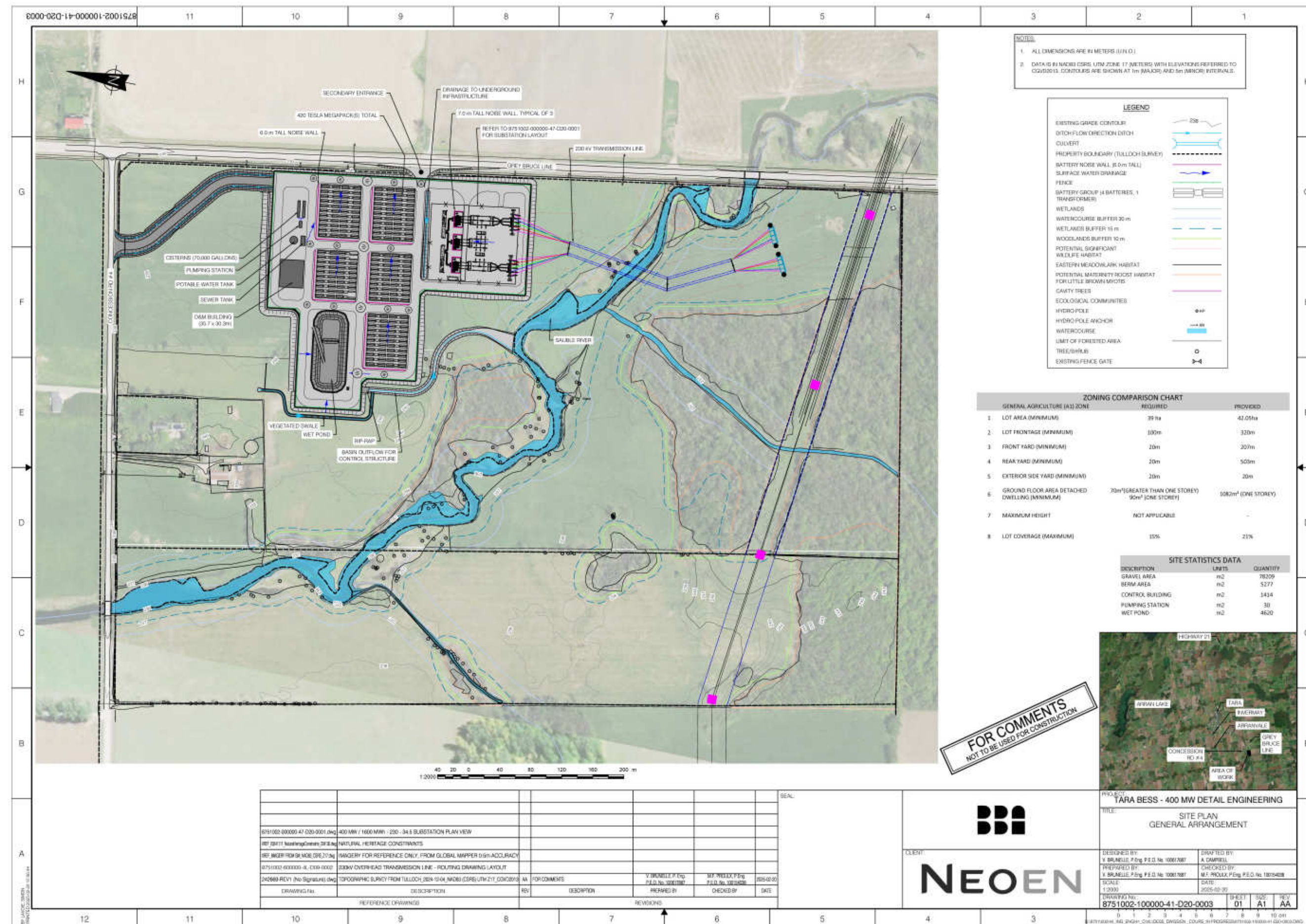
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2025-02-13

FIGURE #

**3**

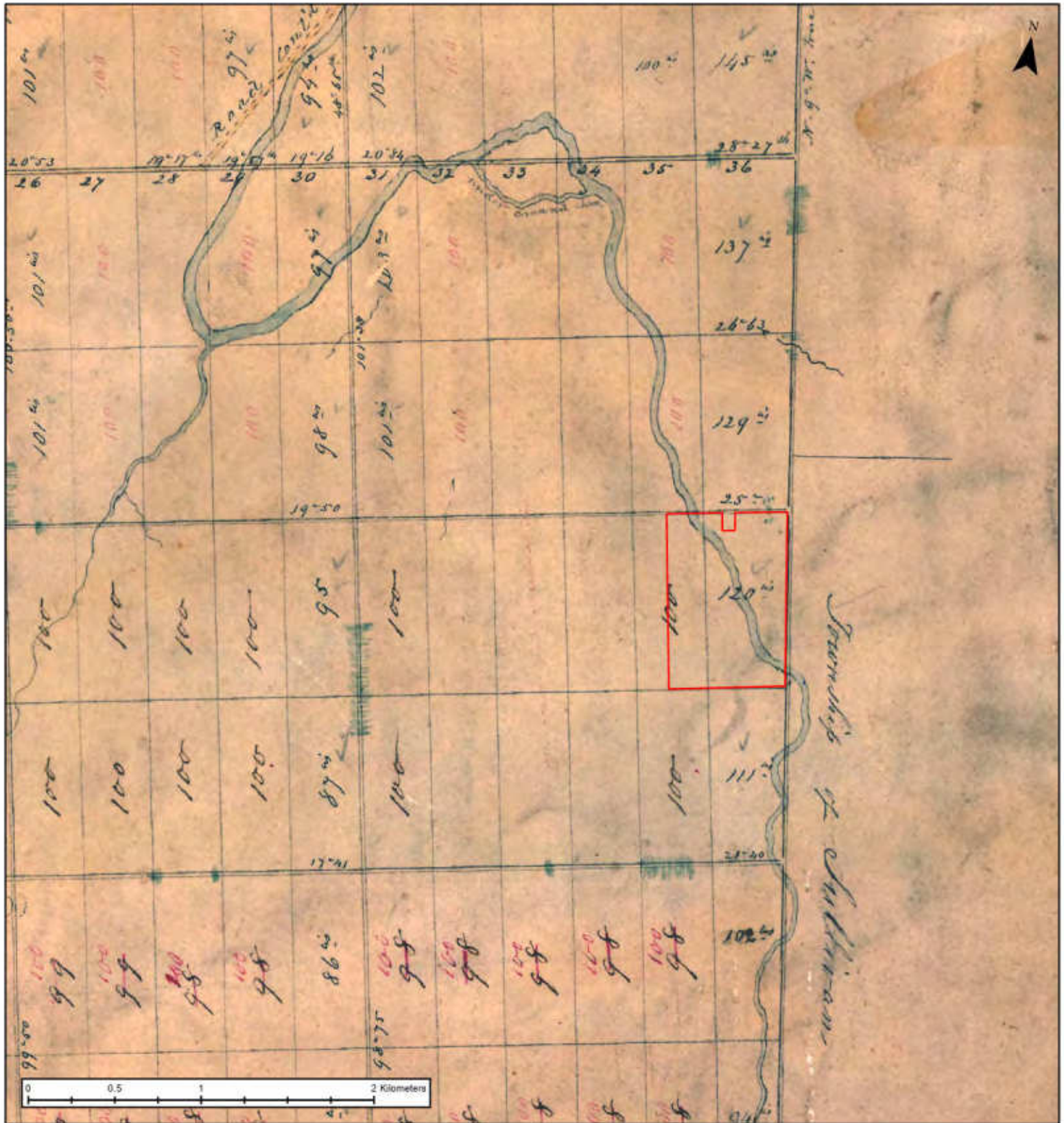












## Legend



Study Area

NOTE(S) 1. All locations are approximate.

REFERENCE(S)

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## TITLE

Plan of Arran Township, 1851 (Rankin)

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## PIF

P359-0144-2025

## PROJECT

Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

PROJECT NO. LHC0459



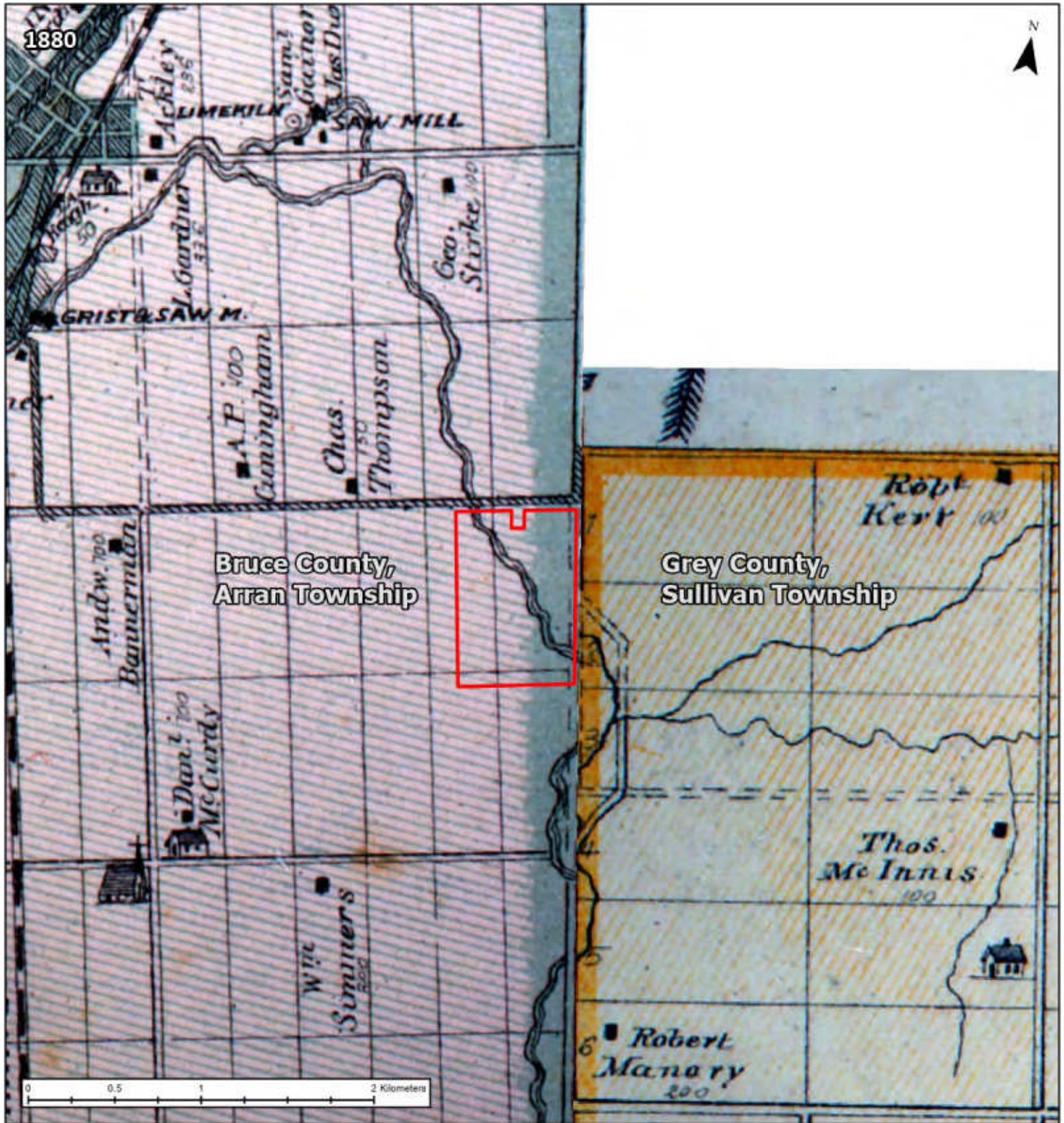
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2025-02-18

FIGURE #

6





## Legend

Study Area

NOTE(S) 1. All locations are approximate.

### REFERENCE(S)

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**TITLE**  
Arran Township, Bruce County, 1880 (Belden)

**CLIENT**  
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**PIF**  
P359-0144-2025

**PROJECT**  
Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

**PROJECT NO.** LHC0459

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HERITAGE PLANNING  
& ARCHAEOLOGY

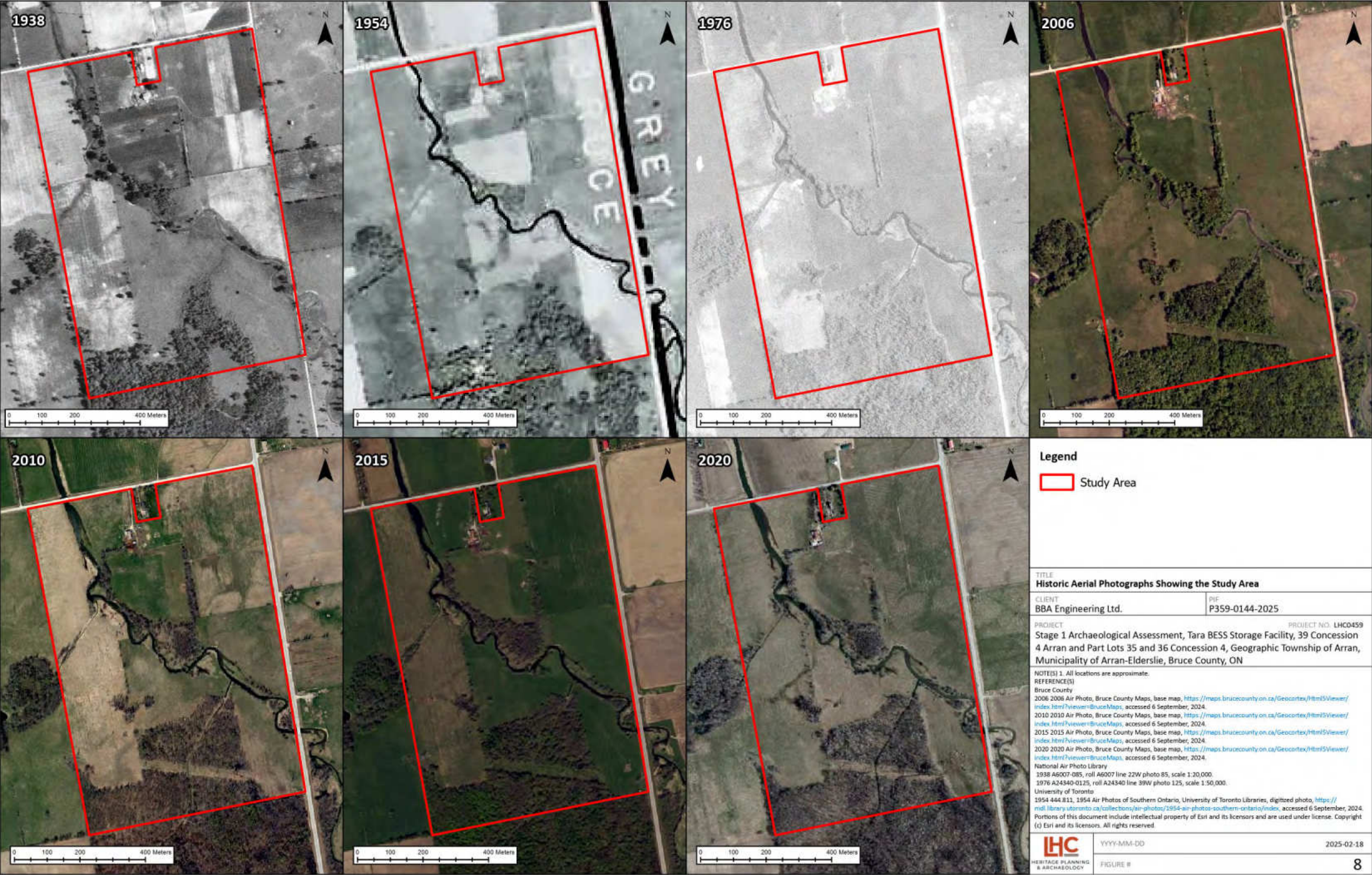
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**FIGURE #**

7



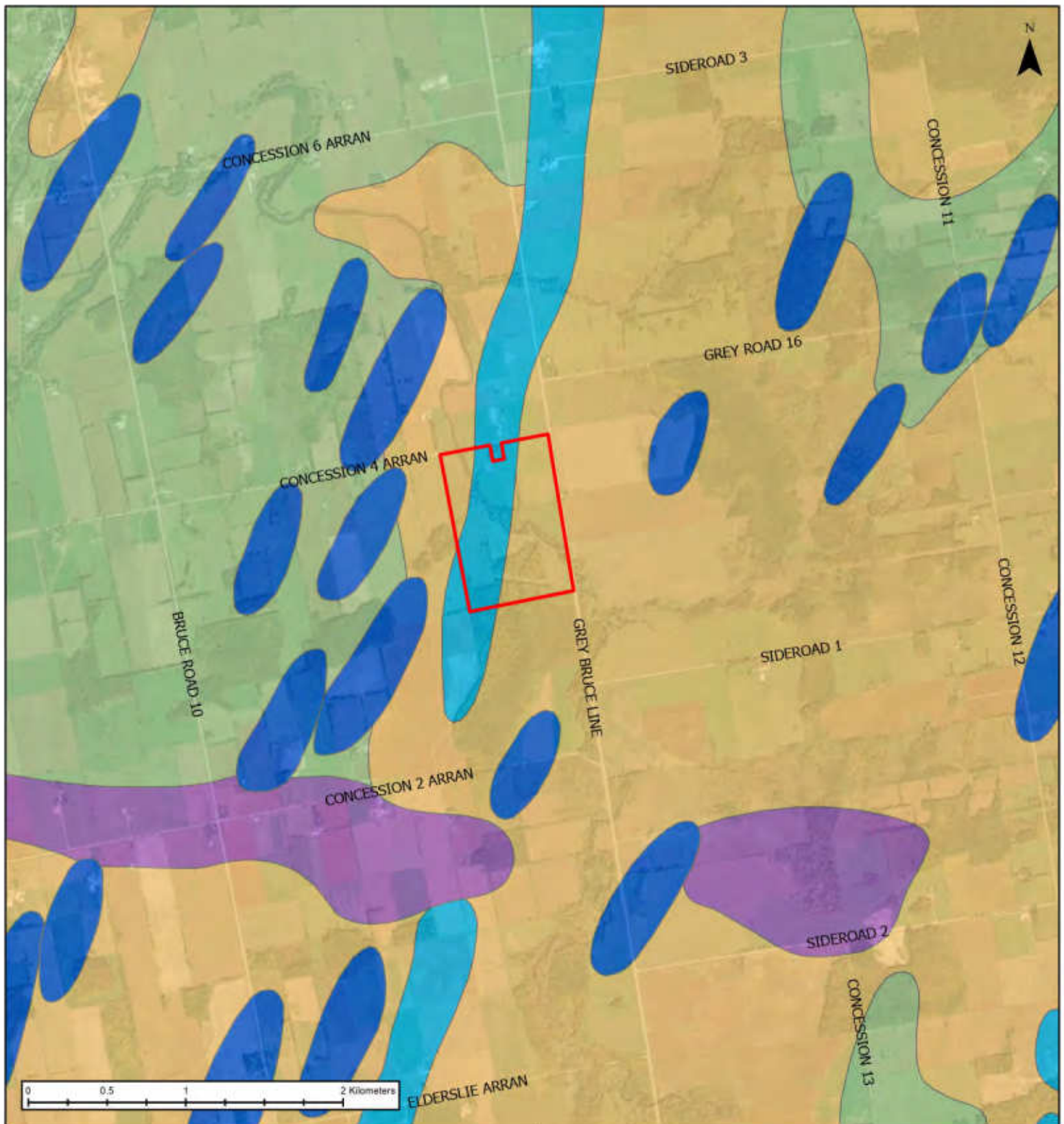






TITLE Historic Topographic Maps Showing the Study Area	
CLIENT BBA Engineering Ltd.	
PIF P359-0144-2025	
PROJECT Stage 1 Archaeological Assessment, Tara BESS Storage Facility39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON	PROJECT NO. LHC0459
<b>Legend</b> <div><div></div> Study Area</div>	
NOTE(S) 1. All locations are approximate. REFERENCE(S) Department of National Defence 1946 Port Elgin (Ontario), scale 1:63,360, Scholars Geoportal, digitized map, <a href="https://geo.scholarsportal.info/rr/details/_uri@HTDP63360KD41A05-A06_1946TIFF&amp;_add=true_nozoom=true">https://geo.scholarsportal.info/rr/details/_uri@HTDP63360KD41A05-A06_1946TIFF&amp;_add=true_nozoom=true</a> , accessed 21 August, 2024. Natural Resources Canada 1952 Port Elgin, scale 1:50,000, Scholars Geoportal, digitized map, <a href="https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1952ed2mceTIFF&amp;_add=true_nozoom=true">https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1952ed2mceTIFF&amp;_add=true_nozoom=true</a> , accessed 21 August, 2024. 1973 Chelsey (Ontario), scale 1:50,000, Scholars Geoportal, digitized map, <a href="https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1973ed2mceTIFF&amp;_add=true_nozoom=true">https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1973ed2mceTIFF&amp;_add=true_nozoom=true</a> , accessed 21 August, 2024. 1978 Chelsey (Ontario), scale 1:50,000, Scholars Geoportal, digitized map, <a href="https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1978ed3mceTIFF&amp;_add=true_nozoom=true">https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1978ed3mceTIFF&amp;_add=true_nozoom=true</a> , accessed 21 August, 2024. 1993 Chelsey (Ontario), scale 1:50,000, Scholars Geoportal, digitized map, <a href="https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1993ed4mceTIFF&amp;_add=true_nozoom=true">https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_1993ed4mceTIFF&amp;_add=true_nozoom=true</a> , accessed 21 August, 2024. 2000 Chelsey (Ontario), scale 1:50,000, Scholars Geoportal, digitized map, <a href="https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_2000ed5TIFF&amp;_add=true_nozoom=true">https://geo.scholarsportal.info/rr/details/_uri@NTSSOKD41A06_2000ed5TIFF&amp;_add=true_nozoom=true</a> , accessed 21 August, 2024. Portions of this document include intellectual property of Esri and its licensors and are used under license. Copyright (c) Esri and its licensors. All rights reserved.	
<b>LHC</b> HERITAGE PLANNING & ARCHAEOLOGY	YYYY-MM-DD 2025-02-18  FIGURE # 9





## Legend

- |   |   |
|---|---|
| <span style="border: 2px solid red; display: inline-block; width: 20px; height: 10px;"></span> Study Area     | <span style="background-color: cyan; display: inline-block; width: 20px; height: 10px;"></span> Eskers                          |
| <span style="background-color: orange; display: inline-block; width: 20px; height: 10px;"></span> Clay Plains | <span style="background-color: purple; display: inline-block; width: 20px; height: 10px;"></span> Till Moraines                 |
| <span style="background-color: blue; display: inline-block; width: 20px; height: 10px;"></span> Drumlins      | <span style="background-color: lightgreen; display: inline-block; width: 20px; height: 10px;"></span> Till Plains (Drumlinized) |

NOTE(S) 1. All locations are approximate.

REFERENCE(S) 1. Maxar

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## TITLE Physiography of the Study Area

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### PROJECT

PROJECT NO. LHC0459

Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

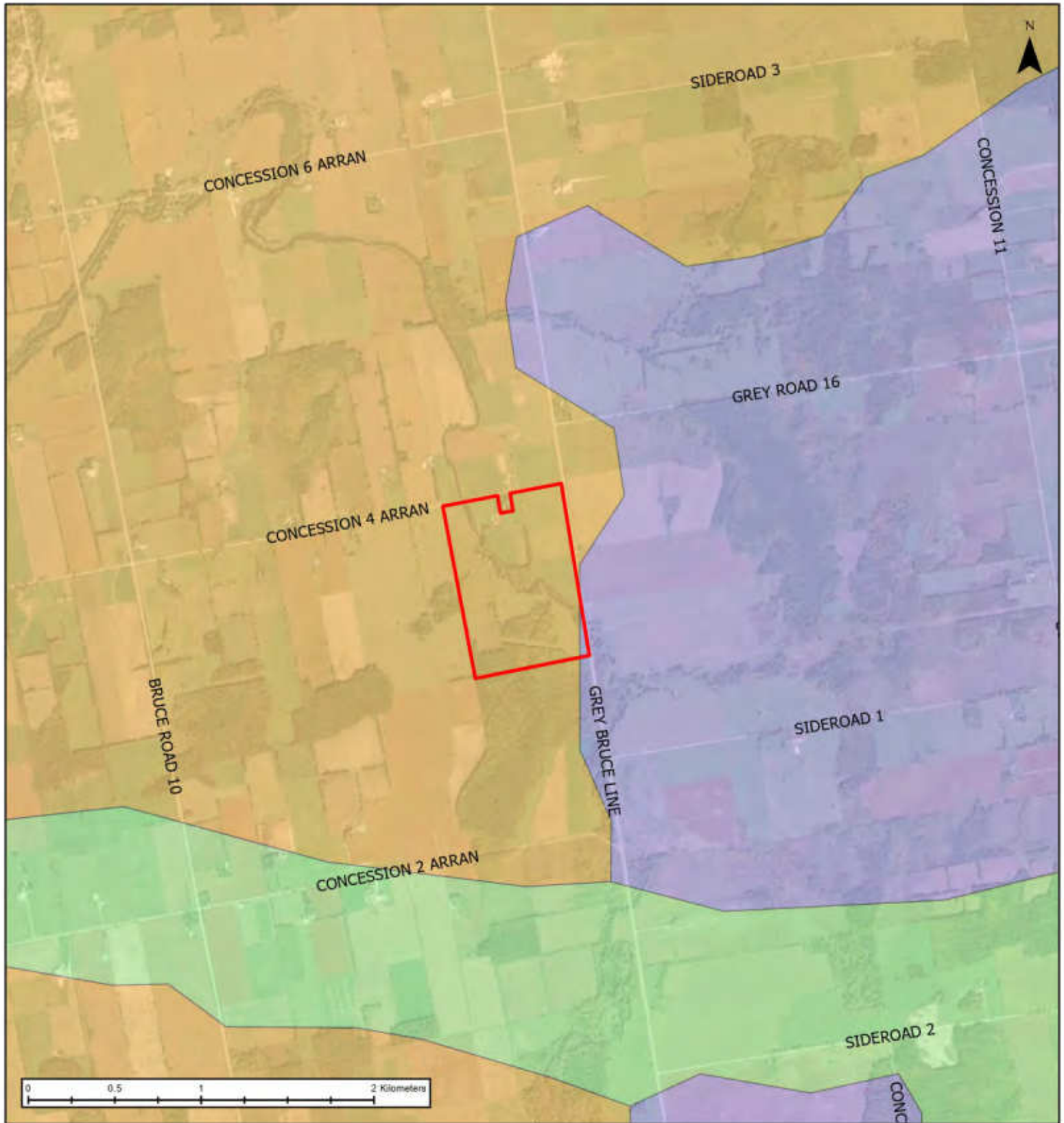


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FIGURE #

10



## Legend

- |  |   |
|--|---|
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| <span style="background-color: #ffcc99; display: inline-block; width: 20px; height: 10px; vertical-align: middle;"></span> Elma Till | <span style="background-color: #90ee90; display: inline-block; width: 20px; height: 10px; vertical-align: middle;"></span> Glaciofluvial ice-contact deposits |

NOTE(S) 1. All locations are approximate.

REFERENCE(S) 1. Maxar

Geology Ontario

2000 Quaternary Geology (Seamless Coverage of the Province of Ontario), Geology Ontario, GIS Data, <https://www.geologyontario.mines.gov.on.ca/publication/eds014-rev>, accessed 24 January, 2025.

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## TITLE

**Quaternary Geology of the Study Area**

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PROJECT NO. LHC0459



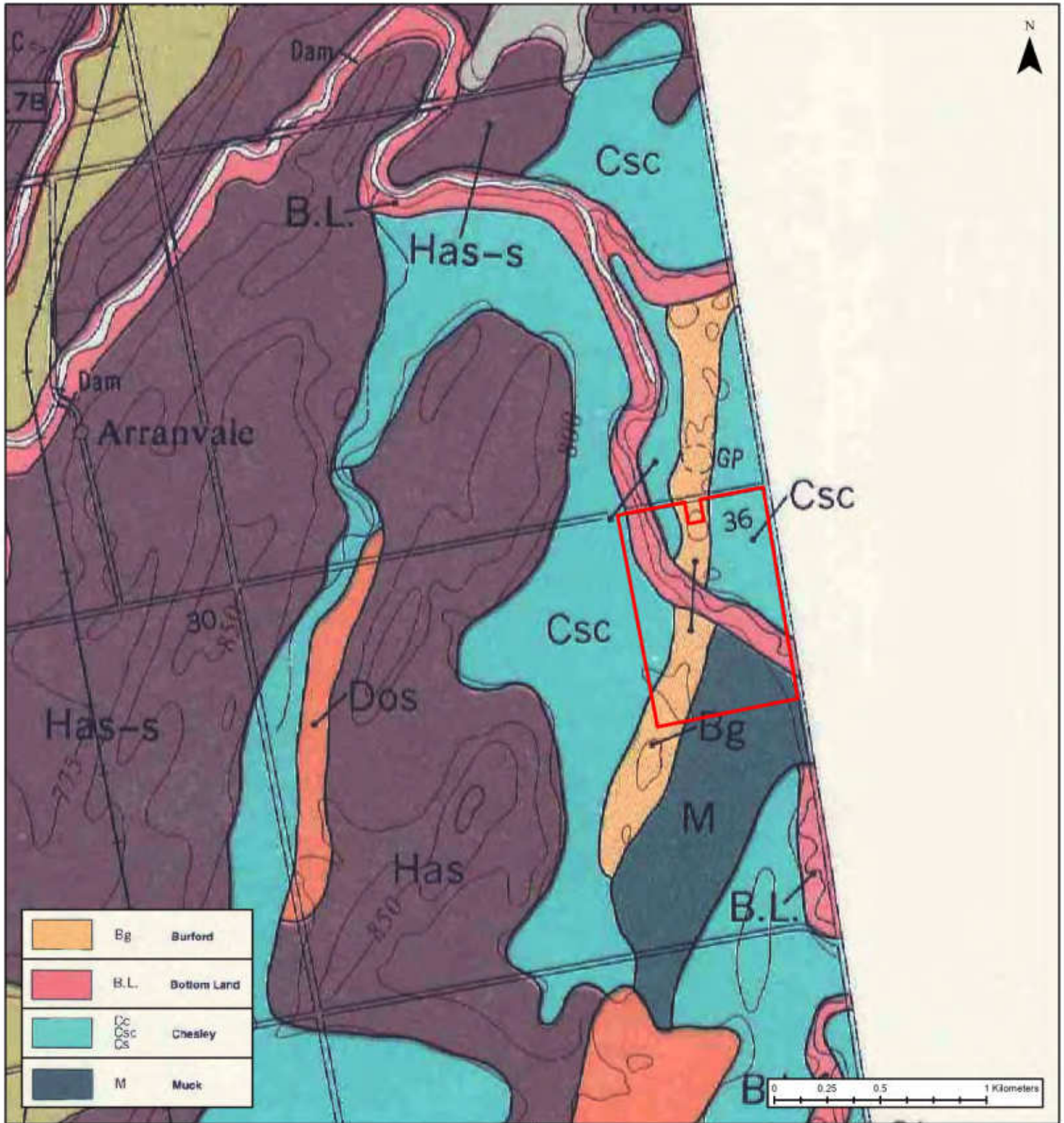
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FIGURE #

2025-02-18

**11**





Bg	Burford
B.L.	Bottom Land
Csc	Chesley
M	Muck

## Legend

Study Area

NOTE(S) 1. All locations are approximate.  
 REFERENCE(S)  
 Canada Department of Agriculture and the Ontario Agricultural College  
 1983 Soils of Bruce County South Sheet Ontario (Soil Survey Report No. 16), scale 1:63,360, Soil Survey of Bruce County, digitized map, <https://sis.agr.gc.ca/canisis/publications/surveys/on/on16/index.html>, accessed 27 August, 2024.  
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## TITLE Soils of the Study Area

CLIENT  
BBA Engineering Ltd.

PIF  
P359-0144-2025

## PROJECT

PROJECT NO. LHC0459

Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON



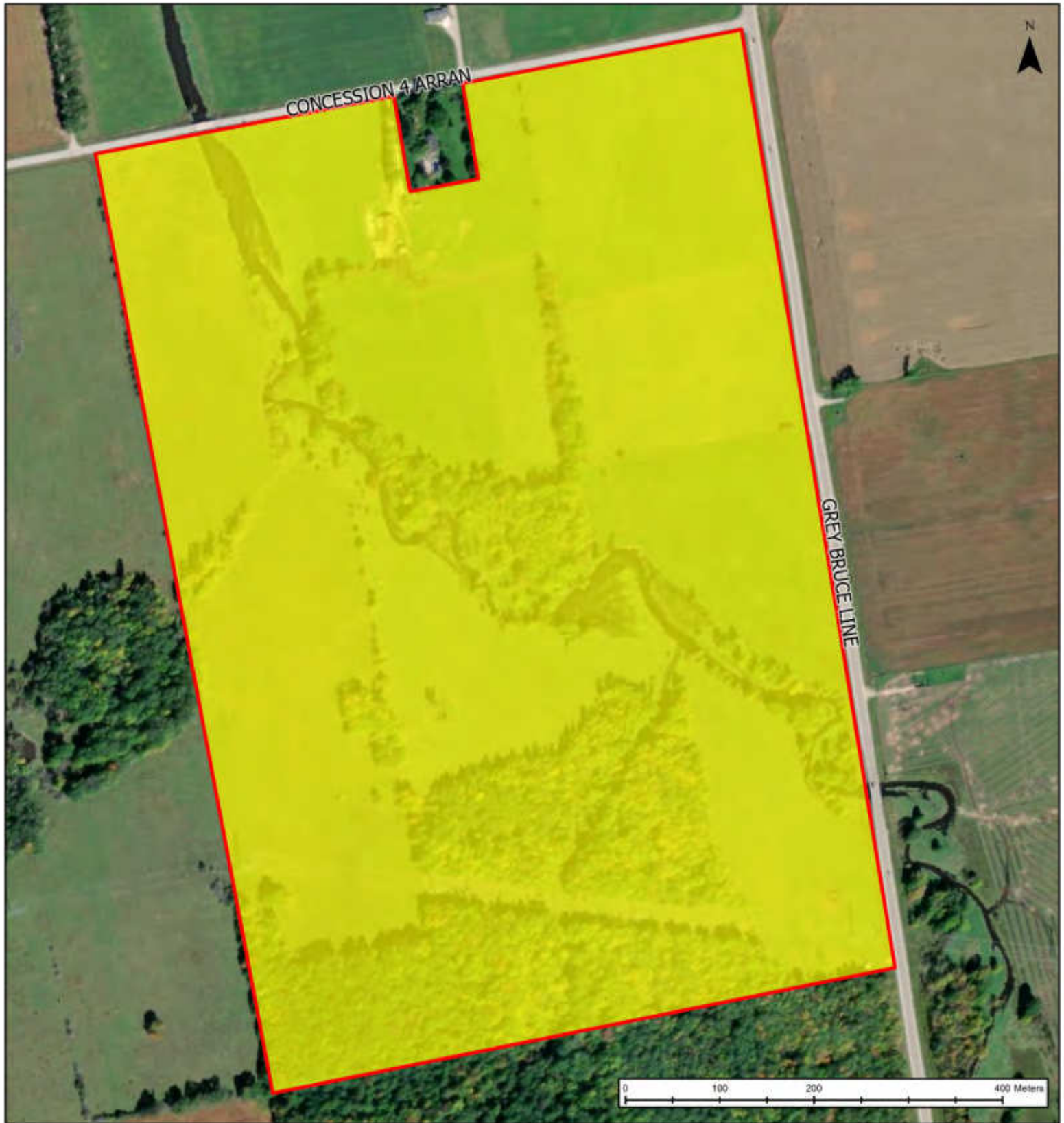
YYYY-MM-DD

2025-02-18

FIGURE #

12





## Legend

- Study Area
- Area of High Archaeological Potential, Further Work Recommended

NOTE(S) 1. All locations are approximate.  
 REFERENCE(S) 1. Maxar.  
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## TITLE Archaeological Potential of the Study Area

CLIENT  
BBA Engineering Ltd.

PIF  
P359-0144-2025

PROJECT  
Stage 1 Archaeological Assessment, Tara BESS Storage Facility, 39 Concession 4 Arran and Part Lots 35 and 36 Concession 4, Geographic Township of Arran, Municipality of Arran-Elderslie, Bruce County, ON

PROJECT NO. LHC0459



YYYY-MM-DD

2025-02-18

FIGURE #

13

# Tara Battery Energy Storage System (BESS) Class EA Natural Environment Report - Existing Conditions and Constraints Assessment

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*Prepared For:*

**BBA Engineering Ltd.**

*Prepared By:*

**Beacon Environmental Limited**

*Date:*

**2025-01-28**

*Project:*

**224130**

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**BEACON**  
ENVIRONMENTAL

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GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT



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- Appendix A. Vascular Plant Species List
- Appendix B. Breeding Bird Species List
- Appendix C. Significant Wildlife Habitat Assessment

## Report Versions Issued

Version	Date	Revisions
1.	October 2024	Draft to client
2.	November 2024	Final to client

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# 1. Introduction

Beacon Environmental Limited (Beacon) has been retained by BBA Engineering Ltd. to prepare a Natural Environment Report for a Class Environmental Assessment (Class EA) in support of a proposed Battery Energy Storage System (BESS) facility located at 39 Concession 4 Arran in the Municipality of Arran–Elderslie, Bruce County. The study area for this project also included the adjacent property to the west with no civic address. The two parcels are hereafter referred to as the subject properties. The location of the subject properties is illustrated in **Figure 1**.

The subject properties are approximately 66 hectares in size and is used for agricultural purposes. The subject property is traversed by the Sauble River and two tributaries and supports natural heritage features including woodlands and wetlands.

The purpose of this report is to identify and characterize the natural heritage and hydrological features on the subject properties through a background review and field investigations and provide a summary of constraints related to the natural heritage features on the subject properties to inform the location and layout of the BESS facility and associated infrastructure (e.g. power lines) in a way that avoids or minimizes impacts on natural features and their ecological functions.

## 2. Methodology

### 2.1 Background Review

Beacon conducted a background review of information sources and policy documents related to the subject properties including, but not limited to:

- Provincial Planning Statement (2024);
- Bruce County Official Plan;
- Provincially Tracked Species Layer from Land Information Ontario (LIO);
- Ontario Breeding Bird Atlas;
- Ontario Reptile and Amphibian Atlas;
- Natural Heritage Information Centre (NHIC) Data via the Make-A-Map application;
- Species at risk range maps <https://www.ontario.ca/environment-and-energy/species-risk-ontario-list>;
- High Resolution aerial photography of the property (Google Earth, Bruce County on-line mapping);
- Natural and physical feature layers from LIO—these geospatial layers include wetlands (provincially significant and un-evaluated wetlands), and watercourses with thermal regime;
- Local Area Municipality schedules and any associated online mapping; and
- Conservation Authority mapping (e.g., regulated areas, wetlands, etc.);
- Significant Wildlife Habitat for Ecoregion 6E.

## 2.2 Field Investigations

Field investigations undertaken by Beacon to delineate and characterize the natural heritage and hydrological features on the subject properties included Ecological Land Classification (ELC), flora inventories, breeding bird surveys, breeding amphibian surveys, aquatic habitat assessment, and bat habitat and acoustic assessment. The dates of surveys are summarized in Table 1.

**Table 1. Dates of Field Investigation**

Field Investigation	Dates
Breeding Bird Surveys	June 6 and July 4, 2024
Ecological Land Classification and Flora	June 6 & 14, July 4, August 8 2024
Aquatic Habitat Assessment	June 19 and August 15, 2024
Breeding Amphibian Surveys	June 14 and July 2, 2024
Bat Acoustic Monitoring	June 19 – August 15, 2024
Woodpecker Nest Cavity Search	August 8 and October 2, 2024

### 2.2.1 Aquatic Habitat Assessment

An aquatic habitat assessment of the watercourses was undertaken on June 19 and August 15, 2024 by a Beacon aquatic ecologist to identify and assess watercourse characteristics that provide habitat for fish, as outlined in the federal *Fisheries Act*. The habitat assessment details the characteristics and major physical attributes of the water body. The habitat assessment takes into consideration a variety of details including both flow characteristics and land influences, such as:

- Surrounding land use – classifies potential pollution sources and adjacent land use that may affect the water body;
- Riparian zone and canopy cover – a healthy riparian zone consists of vegetation characterized by trees, shrubs, grasses and herbaceous plants. These plants help buffer the water body from runoff, provide shade and create habitat for fish and insects;
- Stream banks – characteristics assessed include signs of erosion and bank scouring, undercut banks, evidence of the normal water mark and high water mark which indicate the water level fluctuation;
- In-stream characteristics – details include substrate type (i.e. silt, gravel, cobble), aquatic vegetation, small and large woody debris. All of these in-stream characteristics provide habitat and cover for fish species and benthic macroinvertebrates, which are an important food source for fish;
- Stream morphology – this includes the wetted width of the active channel and average wetted depth as well as a description of the stream morphology:
  - Runs – typically deep, fast moving water with little to no turbulence;
  - Riffles – shallow, fast moving water typically running over rocks. Riffles provide areas of high oxygenated waters;
  - Flats – low flowing water with a smooth un-agitated surface;
  - Pools – deep pockets of slow moving water that provide ideal refuge habitat for fish; and

- General water characteristics – water colour and clarity, presence and description of algae, and description of flow.

Stream physical conditions were inspected and documented with photographs.

### 2.2.2 Ecological Land Classification and Flora Surveys

Vegetation surveys of the subject properties were conducted on June 6, June 14, July 4, and August 8, 2024. Ecological communities were mapped and described following the protocols of the ELC System for Southern Ontario (Lee *et al.* 1998). This involved delineating distinct ecological communities on aerial photos of the property and recording pertinent information on the vegetation composition and structure and other notable attributes.

Floristic inventories were also completed in conjunction with ELC surveys to document spring and summer flora. A list of all vascular plant species was compiled for each ecological community.

### 2.2.3 Breeding Bird Surveys

Two early morning breeding bird surveys were undertaken on June 6 and July 4, 2024, to determine what species of birds are breeding or nesting on or adjacent to the subject properties. The breeding bird community was surveyed using a roving type survey by an experienced bird biologist, with all parts of the property walked to within 50 m and all birds heard or observed and showing some inclination toward breeding recorded as breeding species. The lands represent a small survey area and can be walked such that all singing birds can be heard or observed and recorded. A summary of the survey details is included in **Table 2**.

**Table 2. 2024 Breeding Bird Survey Details**

Details	Survey Round 1	Survey Round 2
<b>Date:</b>	June 6, 2024	July 4, 2024
<b>Time</b>	6:30 – 9:30	6:40 – 9:45
<b>Temp (°C):</b>	15	18
<b>Wind (Beaufort):</b>	2	2
<b>Cloud cover (%):</b>	100	60
<b>Precipitation</b>	Scattered showers (surveys paused while raining)	None

### 2.2.4 Woodpecker Nest Cavity Search

Searches for Red-headed Woodpecker nesting cavities were conducted on August 8 and October 2, 2024 in areas where potential impacts may occur. All trees within these areas were visually assessed for the presence of woodpecker nest cavities or any other cavity features with the potential to support nesting woodpeckers. For any cavities discovered, a GPS point was taken along with photographs and notes on the cavity and tree characteristics.



### 2.2.5 Breeding Amphibian Surveys

Nocturnal amphibian call surveys were conducted to assess habitat for frogs and toads on the subject properties. Surveys were conducted using the point count method according to the Marsh Monitoring Protocol (Birds Canada 2008) whereby the surveyor stands at a set point for a minimum three-minute period and records all calling frog/toad species and their call levels. Some frogs breed earlier in the spring, while others breeding later; therefore, per the Marsh Monitoring Protocol, three surveys are typically required between April and July to document the full suite of amphibians in an area. Surveys were conducted on June 14 and July 2, 2024. Due to the timing of project initiation, it was not possible to conduct an early spring survey; however, based on observed site conditions, potential breeding habitat for early spring frogs was noted. Survey details are summarized in **Table 3**. On June 14, 2023, three (3) survey points were established on the subject properties to listen for calling frogs/toads from potentially suitable breeding habitat (i.e. areas containing slow moving or standing water). And additional survey point was added on July 2, 2024 for the western parcel, which was added to the project scope following the first survey.

The approximate locations of calling anurans were noted on a standard MMP data sheet and chorus activity for each species was assigned a call code as follows:

- Code 0: No calls;
- Code 1: Individual calls do not overlap and calling individuals can be discretely counted;
- Code 2: Calls of individuals sometimes overlap, but numbers of individuals can still be estimated; and
- Code 3: Overlap among calls seems continuous (full chorus), and a count estimate is impossible.

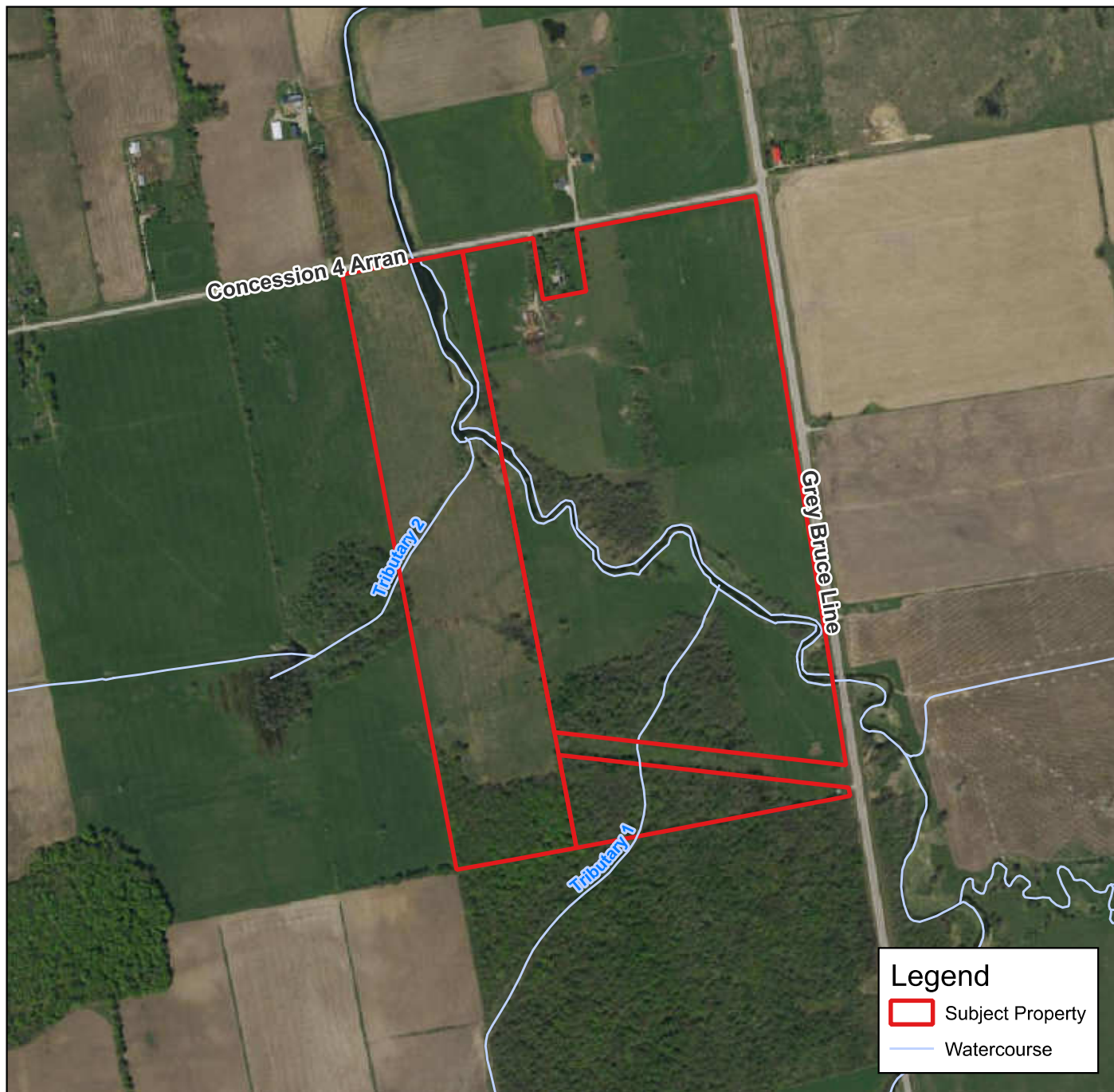
**Table 3. 2024 Amphibian Survey Details**



Details	Survey Round 1	Survey Round 2
<b>Date:</b>	June 14, 2024	July 2, 2024
<b>Time</b>	21:30-22:00	21:45 – 22:40
<b>Temp (°C):</b>	20	20
<b>Wind (Beaufort):</b>	0	0
<b>Cloud cover (%):</b>	0	100
<b>Precipitation</b>	None	Drizzle

### 2.2.6 Bat Habitat Assessment

There are currently four species of bats listed as endangered on the Species at Risk list under the Ontario *Endangered Species Act* (ESA). A bat habitat assessment was undertaken in accordance with the Ministry of the Environment, Conservation and Parks (MECP) 'Species at Risk Bats Survey Note 2022' and "Maternity Roost Surveys" guidelines for woodlands within the subject properties.

As per Step 1 of the MECP protocol "Maternity Roost Surveys" any coniferous, deciduous or mixed wooded ecosite that include trees at least 10 cm diameter at breast height (DBH) are considered candidate maternity roost habitat.



Site Location		Figure 1
Tara BESS		
		Project: 224130 Last Revised: December 2024
Client: BBA Engineering Ltd.		Prepared by: BD Checked by: SM
	1:10,000	Inset Map: 1:70,000
Contains information licensed under the Open Government License—Ontario Orthoimagery Baselayer: FBS SWOOP (2015)		

The second step in identifying bat habitat is a “snag” tree survey to determine if any trees with wooded ecosites have characteristics that make them suitable for maternity roosting for Little Brown and Northern Myotis (e.g. cracks, loose bark, cavities, etc.), or any oaks or maples are present, which are favoured by Tri-colored Bat. This step is typically completed during “leaf off” season (late fall-early spring). Due to the timing of project initiation (June 2024), this step was skipped and Beacon proceeded to step 3.

Step 3 is acoustic monitoring which involves setting up electronic bat detectors, which record bat calls. The calls are then analysed to identify the species of bats in the area, as bats species vocalize at different frequencies. Following the MECP protocol, this deployment period provided at least ten nights of data recorded under suitable weather conditions (air temp  $\geq 10^{\circ}\text{C}$ , low winds, and minimal precipitation). Detectors were deployed in four woodland communities on the subject properties (**Figure 2**). The monitoring locations were selected based on potential impacts of the project and the range of the acoustic monitor.

At each of the acoustic monitoring locations an SM4BAT passive monitor equipped with a SMM-U1 or SMM-U2 ultrasonic microphone was installed. Microphones were oriented to optimize the echolocation detections. Each monitor was programmed to record during triggered events each night for a period of six hours beginning at sunset. A 12dB gain setting, was selected based on the SMM-U1 or SMM-U2 microphone and the surrounding habitat and proximity to potential roost trees. The unit was programmed to record in full spectrum with a 256 kHz sample rate. The high pass filter was set to 16 kHz to eliminate low frequency noise but to still capture the lowest frequency bat calls (i.e., Hoary Bat [*Lasiurus cinereus*] for the study area). The trigger level was set to +18SNR with a 0.5 second minimum call duration trigger. All files were recorded as full spectrum in .WAV format.

Recordings from each of the four monitors were analyzed using Kaleidoscope Pro software. A combination of auto-identification and manual analysis was applied to call files to make species determinations. All unclassified files (No ID Files) were manually reviewed for call frequency to determine if unclassified calls fell within the 40 kHz Myotis species and Tri-Colored Bat range. If the call did not fall within the approximate 40 kHz range, it was not analyzed further as it is likely not an endangered species of bat. Furthermore, a random selection of noise files was reviewed to ensure that the batch filters functioned as intended.

## 3. Findings

### 3.1 Aquatic Habitat Assessment

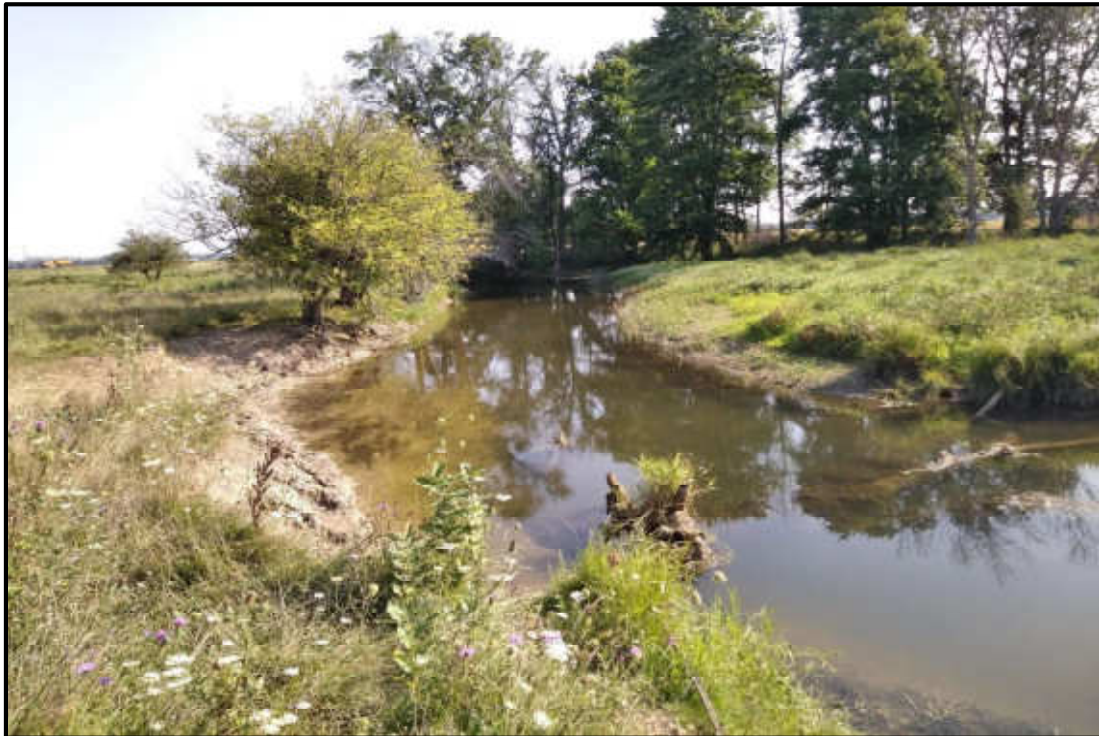
The subject properties are within the Sauble River Watershed of Lake Huron. The main branch of the Sauble River entered the property under the Grey Bruce Line bridge within the southeastern portion of the subject properties, meandering in a northwest direction before exiting under the Concession Road 4 bridge (**Figure 2**). The river is identified as having a coldwater thermal regime (MNRF, 2010). Two tributaries originated off property and entered the south and west boundaries, respectively, flowing northward across the property to join the Sauble River (**Figure 2**).



## **Sauble River**

The river flows through a small valley feature within the agricultural landscape of the subject properties (**Photograph 1**). Stream morphology consisted of a mix of pools, runs, and riffles, offering diverse habitat conditions suitable for fish spawning, feeding, and refuge. The fish community is historically known to include species such as Central Mudminnow (*Umbra limi*), Creek Chub (*Semotilus atromaculatus*), Johnny Darter (*Etheostoma nigrum*), Least Darter (*Etheostoma microperca*), Northern Pike (*Esox lucius*), Pumpkinseed (*Lepomis gibbosus*), Rainbow Darter (*Etheostoma caeruleum*), Rock Bass (*Ambloplites rupestris*), and Spotfin Shiner (*Cyprinella spiloptera*) (OMNR 1996). Based on DFO, mapping, there are no aquatic species at risk records for the Sauble River.

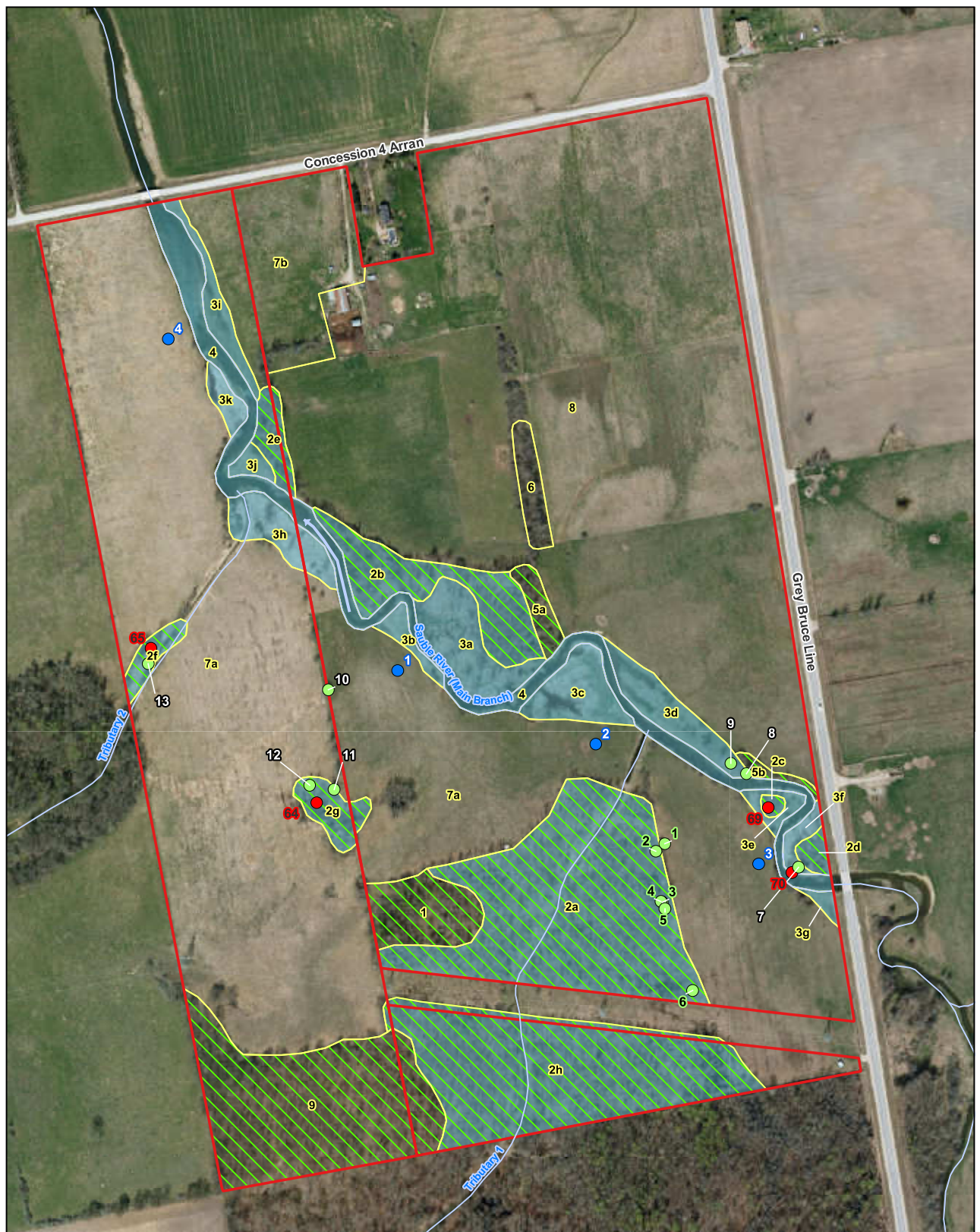
The substrate was predominantly composed of sand and silt, which supported an abundance of emergent and submergent vegetation throughout the river. Undercut banks and woody debris were abundant and provided ample in-stream cover, enhancing habitat complexity. Canopy cover along the river was limited, provided only by sporadic trees. The majority of the river remained unshaded due to the agricultural use of the surrounding lands. The wetted width of the watercourse ranged from 5 to 12 m, with wetted depths ranging from as shallow as 0.5 m in some riffles to deeper than 1.4 m in some pools.



**Photograph 1. The main branch of the Sauble River, facing upstream (August 15, 2024)**

## **Tributary 1**

Tributary 1 entered the subject property through the southern boundary via the hydro corridor, flowing northward to its confluence with the Sauble River.



### Legend

- Subject Property
- Ecological Communities
- Watercourse
- Flow Direction
- Wetland (Beacon 2024)
- Woodland (Beacon 2024)
- Acoustic Detector Locations
- Cavity Tree Locations
- Amphibian Survey Locations

ID	Code	Wetland Communities
3	MAM2-2	Reed-canal Grass Mineral Meadow Marsh
2	SWD2-2	Green Ash Mineral Deciduous Swamp
		<b>Aquatic Communities</b>
4	SAS1-1	Pondweed Submerged Shallow Aquatic (Sauble River)
		<b>Forest Communities</b>
9	FOD5-7	Dry - Fresh Sugar Maple - Black Cherry Deciduous Forest
1	FOD8-1	Fresh - Moist Poplar Deciduous Forest
		<b>Cultural Communities</b>
5	CUW1	Mineral Cultural Woodland
		<b>Other Communities</b>
7	AG (Hay)	Agricultural Hay Crop
8	AG (Row Crop)	Agricultural Row Crop
6	HE	Hedgerow

### Existing Conditions

### Figure 2

Tara BESS



Project: 224130

Last Revised: January 2025

Client: BBA Engineering Ltd.

Prepared by: BD  
Checked by: SM



1:3,800

0

80

160 m

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Orthomage Basemap: FBS SWOOP (2015)



Much of the tributary is confined within a dense, deciduous swamp (SWD2-2) with abundant emergent vegetation protruding from the watercourse (**Photograph 2**). At a farm equipment crossing, the riparian zone transitions to agricultural land, where a damaged corrugated steel pipe (CSP) culvert remained in the watercourse. Watercress (*Nasturtium officinale*) was present throughout the tributary, suggesting a coolwater input within the tributary.

Due to the abundance of vegetation, the tributary exhibited minimal morphological variation, with a consistent flat profile. For the exception of the farm crossing, aquatic vegetation provided full shading to the tributary. The wetted width ranged from 1 to 2 m, and the wetted depth from 0.2 to 0.4 m. Substrates consisted of equal parts sand, silt, and clay. No fish were observed during the survey, likely due to the dense vegetation impeding passage. However, as no barriers were identified at the confluence with the Sauble River, fish are presumed to have access to the tributary during favourable conditions.



**Photograph 2. Tributary 1 at the farm equipment crossing, facing downstream (June 19, 2024).**

## **Tributary 2**

Tributary 2 entered the subject properties through the east boundary from the adjacent agricultural field, flowing northward to its confluence with the Sauble River. It entered the property within a small valley feature, with substrate primarily consisting of sand, silt, and clay (**Photograph 3**). The riparian zone transitioned from deciduous swamp (SWD2-2) to agricultural land near a farm equipment crossing, where the tributary passed through a 0.56 m CSP culvert.

The tributary exhibited a consistent run morphology, with little variation in its channel pattern. The feature appears to have been channelized/straightened in the past to accommodate the existing agricultural land use. Wetted widths ranged from 0.5 to 1.75 m, and the wetted depth from 0.10 and 0.25 m. Emergent vegetation was present within the tributary, with watercress (*Nasturtium officinale*) present in the lower section, indicating a coolwater input to the tributary. Canopy cover along the tributary was limited, provided only by sporadic trees. The majority of the river remained unshaded due to the agricultural use of the surrounding lands. The tributary supports an abundance of fishes and frogs which were visible during the assessment.



**Photograph 3.** Tributary 2 as it flowed through the agricultural field, facing upstream (June 19, 2024).

### 3.2 Ecological Land Classification

The subject properties are comprised primarily of agricultural lands (row crops and pasture), as well as deciduous swamp, deciduous forest, and meadow marsh. ELC communities are illustrated in **Figure 2** and described below.

#### **ELC Unit 1: Fresh-Moist Poplar Deciduous Forest (FOD8-1)**

This forest community is dominated by Trembling Aspen (*Populus tremuloides*) with lesser amounts of White Elm (*Ulmus americana*), Sugar Maple (*Acer saccharum*), and Black Cherry (*Prunus serotina*). The subcanopy and understory consists of hawthorn (*Crataegus* spp.), White Elm, Choke Cherry (*Prunus virginiana*), and Alternate-leaved Dogwood (*Cornus alternifolia*).

Dominant ground covers include Urban Avens (*Geum urbanum*), Orchard Grass (*Dactylis glomerata*), Graceful Sedge (*Carex gracillima*), and Herb Robert (*Geranium robertianum*).

### **ELC Unit 2: Green Ash Mineral Deciduous Swamp (SWD2-2)**

Most of the wooded areas on the subject properties are occupied by Green Ash (*Fraxinus pennsylvanica*) swamp. The canopy layer is dominated by Green Ash, with smaller amounts of American Elm, Balsam Poplar (*Populus balsamifera*), Trembling Aspen and Red Maple (*Acer rubrum*). The Green Ash are generally declining or dead as a result of Emerald Ash Borer infestation. There are relatively few sub-canopy trees or shrubs, likely due to cattle grazing (within units south of the Sauble River), while the ground layer is more diverse and dominated by sedges, Fowl Bluegrass (*Poa palustris*), Reed Canary Grass, Sensitive Fern (*Onoclea sensibilis*), and other wetland forbs and graminoids.

### **ELC Unit 3: Reed Canary Grass Mineral Meadow Marsh (MAM2-2)**

There are areas of marsh at several different points along the watercourse that are dominated by Reed Canary Grass, with smaller amounts of other wetland plants such as sedge (*Carex* spp.), Spotted Joe-pye-weed (*Eutrochium maculatum*), Swamp Milkweed (*Asclepias incarnata*), Water Smartweed (*Persicaria amphibium*), and other wetland plants.

### **ELC Unit 4: Pondweed Submerged Shallow Aquatic (SAS1-1)**

This ELC unit corresponds with the Sauble River, which is slow-moving and shallow in most areas, providing habitat for aquatic plants such as pondweeds (*Potamogeton* spp), Variegated Pond-lily (*Nuphar variagatum*), and Water Smartweed.

### **ELC Unit 5: Cultural Woodland (CUW1)**

There are several more disturbed areas of cultural woodland (units 5a and 5b) within the subject properties, which are dominated by hawthorns (*Crataegus* spp.) with a more open canopy of Green Ash. Dominant ground covers are Urban Avens (*Geum urbanum*), Canada anemone (*Anemonastrum canadense*), Graceful Sedge, and pasture grasses.

### **ELC Unit 6: Hedgerow (HE)**

The hedgerow consists of dead or declining ash tree with some Wild Red Raspberry (*Rubus ideaus* ssp. *strigosus*). Dominant ground covers are typical of old field meadows, including non-native grasses (*Dactylis glomerata*, *Lolium pratense*, *Bromus inermis*, *Phalaris arundinacea*), Tall Goldenrod (*Solidago altissima*), Tall Buttercup (*Ranunculus acris*), and Hedge Bedstraw (*Gallium mollugo*).

### **ELC Unit 7: Agriculture – Pasture**

Large areas of the subject properties are occupied by cattle pastures, primarily south of Sauble River Pasture grasses like Tall Ryegrass (*Lolium pratensis*) and Orchard Grass) are the dominant vegetation cover in most areas, with occurrences of Common Buttercup (*Ranunculus acris*), Woolly Sedge (*Carex pellita*), Red Clover (*Trifolium pratensis*), Bird's Foot Trefoil (*Lotus corniculatus*) and Prickly Sedge (*Carex spicata*). other common components. There are scattered trees and shrubs in some areas, such as hawthorns and Green Ash.

### **ELC Unit 8: Agriculture – Row Crop**

Several crop fields are present on the subject properties which were planted in soybeans and wheat.

### **ELC Unit 9: Dry-Fresh Sugar Maple-Black Cherry Deciduous Forest (FOD5-7)**

There is an area of upland forest to the southwest corner of the subject property. This forest is dominated by mature Sugar Maple and Black Cherry in the canopy. Due to grazing by cattle, smaller trees and shrubs are nearly absent, and the sparse groundcover is dominated by Garlic Mustard and Broad-leaved Enchanter's Nightshade (*Circaea canadensis*).

## **3.3 Flora**

A total of 167 species of vascular plants were observed during field investigations. A full list is provided in **Appendix A**. All species observed are ranked as provincially common (S4 or S5) and are not SAR.

Four species observed are considered rare in southern Bruce County based on the Owen Sound Field Naturalists *Vascular Plant List of Bruce and Grey Counties* (2021), including:

- Pale Sedge (*Carex pallescens*), uncommon in moister areas of pastures (ELC unit 7a);
- Tall Mannagrass (*Glyceria grandis*), uncommon in marshes along the watercourse (ELC unit 3c and 3e);
- Shining Ladies' Tresses (*Spiranthes lucida*), a few individuals seen in pastures adjacent to the watercourse (ELC unit 7a); and
- Long-leaved Starwort (*Stellaria longifolia*), rarely encountered in swamps and moister areas of pastures (ELC unit 2a and 7a).

## **3.4 Breeding Bird Surveys**

65 species of birds were observed on or adjacent to the subject properties during breeding bird surveys. A full list and summary of species observed is provided in **Appendix B**.



Four of the species observed do not have suitable breeding/nesting habitat present in the subject properties (Great Blue Heron (*Ardea herodias*), Great Egret (*Ardea alba*), Herring Gull (*Larus argentatus*), Ring-billed Gull (*Larus delawarensis*)), but the remainder are likely to be nesting on or adjacent to the subject properties.

By far the most common species observed was Red-winged Blackbird (*Agelaius phoeniceus*), with up to 24 separate territories/pairs observed. Other species observed in relatively large numbers include other species with generalised habitat preferences: Song Sparrow (*Melospiza melodia*), Common Grackle (*Quiscalus quiscula*) and European Starling (*Sturnus vulgaris*).

Given the diversity of habitats on site, many species specialised in specific habitats were also observed, including species of forests (Brown Creeper (*Certhia americana*), Ovenbird (*Seiurus aurocapilla*), Hairy Woodpecker (*Dryobates villosus*)), grasslands (Eastern Meadowlark (*Sturnella magna*), Savannah Sparrow (*Passerculus sandwichensis*), American Kestrel (*Falco sparverius*)), wetlands and waterbodies (Spotted Sandpiper (*Actitis macularius*), Swamp Sparrow (*Melospiza georgiana*), Wood Duck (*Aix sponsa*)), and open woodlands (Red-headed Woodpecker (*Melanerpes erythrocephalus*), Yellow-throated Vireo (*Vireo flavifrons*)).

Two species observed are listed as Threatened or Endangered under the ESA: Eastern Meadowlark and Red-headed Woodpecker. These species are discussed further in **Section 4.4**. Two additional species are listed as Special Concern: Barn Swallow (*Hirundo rustica*) and Eastern Wood-pewee (*Contopus virens*). Special Concern species do not receive habitat protection under the ESA.

Ten of the species observed are considered to be area-sensitive species. These species typically require large areas of suitable habitat for sustainable populations, though sometimes can be found in smaller habitat patches. The majority of area sensitive species observed on or adjacent to the subject properties are associated with the woodlands and treed swamp communities, including:

- Hairy Woodpecker;
- Pileated Woodpecker (*Dryocopus pileatus*) located off-site to the south);
- Least Flycatcher (*Empidonax minimus*);
- White-breasted Nuthatch (*Sitta carolinensis*);
- Brown Creeper (*Certhia americana*);
- Blue-gray Gnatcatcher (*Polioptila caerulea*);
- Yellow-throated Vireo;
- American Redstart (*Setophaga ruticilla*);
- Ovenbird; and
- Savannah Sparrow.

Targeted surveys for woodpecker nest cavities were also completed, discussed in section 4.5.2 below.

### 3.5 Breeding Amphibian Surveys

The only frog species heard calling during nocturnal call surveys was Green Frog (*Lithobates clamitans*), which was heard from all surveys stations along the length of the Sauble River through the subject properties. Green Frog tadpoles were also noted incidentally in Tributary 2 at multiple locations over the course of other field investigations.



As discussed in **Section 2.2.4**, due to the timing of project initiation, the early spring amphibian calling surveys could not be completed, however, based on observed site conditions and incidental observation, potential breeding habitat for early spring frogs was noted.

Northern Leopard Frog (*Lithobates pipeins*), which breed earlier in the spring, were observed within the pasture south of the Sauble River during daytime surveys. It is assumed the Northern Leopard Frog would use the Sauble River and adjacent wetlands for breeding.

Treed swamp communities within the subject properties were dry at the time of surveys; however, there is potential habitat for Wood Frog (*Lithobates sylvaticus*) and Spring Peeper (*Pseudacris crucifer*), which breed earlier in the spring when conditions are typically wetter.

**Table 4. Amphibian Survey Results**

Location (see Fig. 2)	Survey Date	
	June 14, 2024	July 2, 2024
1	GRFR 1(6)	GRFR 1(1)
2	GRFR 1(2)	GRFR 1 (4)
3	GRFR 1 (3)	0
4	0	0 (on-site) GRFR (calling from river north of property)

GRFR – Green Frog

Code 0: No calls;

Code 1: Individual calls do not overlap and calling individuals can be counted (number of calls indicated in parentheses)

### 3.6 Bat Habitat Assessment

Detectors were installed from June 19 to August 15, 2024, with a recording window of 6 hours after sunset. Although all data was analysed, data during the 12 nights of recording in June is of primary relevance to determine bat roosting habitat.

Among the four acoustic monitoring locations, seven bat species were documented within the subject properties: Big Brown Bat (*Eptesicus fuscus*), Eastern Red Bat (*Lasiurus borealis*), Hoary Bat (*Lasiurus cinereus*), Silver-haired Bat (*Lasionycteris noctivagans*), Eastern Small-footed Myotis (*Myotis leibii*), Little Brown Myotis (*Myotis lucifugus*) and Tri-colored Bat (*Perimyotis subflavus*). Additionally, unidentified Myotis species were recorded. As the call spectrograms of all three Myotis species have overlapping characteristics, it can sometimes be difficult to differentiate between them. The results of the acoustic analysis are summarized in **Table 5 and Table 6**, listing the total number of detections of each species over the monitoring period.

Of the species recorded in June, three are listed as endangered under the ESA: Little Brown Myotis, Eastern Small-footed Myotis, and Tri-colored Bat. The recordings of the regulated species were further analyzed to determine if they aligned with roost emergence times (8:30 pm to 10:30 pm) (**Table 5**).

**Table 5. Acoustic Monitoring Results\***

Detector #	ELC Community	Big Brown Bat	Eastern Red Bat	Hoary Bat	Silver-haired Bat	Eastern Small-footed Myotis	Little Brown Myotis	Myotis Species	Tri-colored Bat	Total
Number of Calls Recorded										
64	2g	1166		602	323	644	4	454		<b>3193</b>
65	2f	3203	19	990	396	170	5969	2478	177	<b>13402</b>
69	2c	888	1	709	125	3	290	33		<b>2049</b>
70	2d	737	3	405	626	1				<b>1772</b>
<b>Total</b>		<b>5994</b>	<b>23</b>	<b>2706</b>	<b>1470</b>	<b>818</b>	<b>6263</b>	<b>2965</b>	<b>177</b>	<b>20416</b>

\*Non-SAR bat files represent auto-identification only and have not been manually reviewed whereas SAR bat files have been manually reviewed to make species determinations.

**Table 6. Regulated Bat Species Calls During Roost Emergence Timing in June\***

Detector #	Date	Number of Eastern Small-Footed Myotis Calls	Number of Little Brown Myotis Calls
<b>64</b>	6/20/2024		1
	6/26/2024	2	
	6/28/2024	1	
	6/30/2024	1	
<b>65</b>	6/21/2024		1
	6/23/2024		26
	6/24/2024		6
	6/25/2024		4
	6/26/2024		6
	6/27/2024		1
	6/28/2024	1	87
	6/29/2024		51
	6/30/2024		10
<b>69</b>	6/19/2024		1
	6/22/2024		26
	6/23/2024		6
	6/24/2024		2
	6/25/2024	1	4
	6/26/2024		9
	6/27/2024		7
	6/28/2024		34
	6/29/2024		2
	6/30/2024		42

Detector #	Date	Number of Eastern Small-Footed Myotis Calls	Number of Little Brown Myotis Calls
Total		6	326

\*The number of call files does not represent the number of bats as multiple calls can be recorded from a single bat.

The 177 Tri-colored bat calls recorded on detector 65 occurred outside of the roost emergence period and after the June monitoring period; therefore, although there may be potentially suitable roost habitat, the species is likely to be foraging in the area but not using maternity roosts in the vicinity of the monitoring locations.

A total of six (6) Eastern Small-Footed Myotis calls were recorded during roost emergence times over the 12-day monitoring period. These calls were spread across three different monitors, with the most calls occurring on monitor 64 (ELC unit 2g in the western portion of the property). It is unlikely that this species is roosting on the site as its habitat preference for roosting is rocky outcrops, which are absent from the subject properties.

Little Brown Myotis was recorded during roost emergence times (**Table 6**). A total of 326 Little Brown Myotis calls were recorded during roost emergence times over the 12-day monitoring period.

These calls were recorded over 12 separate nights and spread across three different monitors with most calls occurring on monitors 65 (ELC unit 2f) and 69 (ELC unit 2c/5b). On nights with multiple recordings, the calls were recorded within a few minutes of each other suggesting that either one or a few individuals were active in the area and calling repeatedly during this time. Although these calls were spread over two detectors and over 12 separate nights, the elevated level of activity captured on these detectors suggests that the woodlands in the vicinity of these two detectors may provide a maternity roosting function for Little Brown Myotis. Based on the lower number of Little Brown Myotis calls recorded on detector 64 during the roost emergence timing in June, it suggests that ELC unit 2g does not provide maternity roost habitat for Little Brown Myotis but contributes to general habitat.

## 4. Constraints Assessment

In order to guide the location and layout of the project, a constraints assessment was undertaken to identify sensitive or significant ecological and hydrological features that should be avoided, where possible. While impact avoidance is considered the primary method for environmental protection, it is also recognized that constrained areas cannot always be avoided and that other methods exist that can mitigate potential adverse impacts on the environment.

The constraints assessment took into consideration the significance of the natural heritage features within the subject properties and applicable policies of the Bruce County Official Plan.

## 4.1 Wetlands

Unevaluated wetlands have been identified by MNRF on the subject properties. Wetland limits on the subject properties were confirmed and delineated during field investigations as illustrated in **Figure 3**. MNRF typically maps wetlands at a high level based on desktop analysis; therefore, it is common that wetland boundaries get verified and refined based on site specific field investigations. Wetlands are generally recognized for their ecological and hydrological functions. The Bruce County Official Plan has policies for the protection of PSW and Locally Significant Wetlands (LSW). The wetlands have not been designated PSW by MNRF, but may qualify as LSW, though no criteria for assessing local significance are provided in the Official Plan. The Bruce County Official Plan states that development that may have a significant impact on LSW may require the preparation of an EIS to ensure that the ecological function of the lands are not negatively impacted.

The Grey Sauble Conservation Authority (GSCA) regulates activities that are proposed within or adjacent to natural hazards, including wetlands. Based on the GSCA's regulation, lands within 30 m of wetlands are regulated. For most activities, a permit is required to ensure there will not be impacts on the control of flooding, erosion, or unstable soil.

Wetlands within the subject properties may also be considered potential Significant Wildlife Habitat (SWH), a function which is discussed further in **Section 4.4**.

Generally, new development and infrastructure should be directed away from wetlands, and the application of a buffer to wetlands is a typical mitigation tool that is utilized to protect wetland features and their functions from development and site alteration on adjacent lands.

An appropriate buffer width depends on consideration of the sensitivity of the feature requiring protection and the type/nature of the proposed adjacent land use, as well as consideration of policies that may prescribe buffers of a certain size. The Bruce County Official Plan does not have specific buffer requirements for wetlands. Given that BESS is a relatively passive land use, in Beacon's opinion a 15 m buffer (naturalized buffer, in combination with other mitigation measures) is recommended to avoid potential impacts of the proposed BESS facility, as illustrated in **Figure 3**. Other mitigation measures may include a Noise Mitigation Plan to minimize the effects of noise from the facility on wildlife habits that cannot be fully mitigated with buffer. If a wetland feature or buffer cannot be avoided, then additional mitigation or enhancement measures may be required to minimize impacts. Provision of the 15 m buffer to the wetlands will also maintain habitat for turtle nesting and terrestrial crayfish, which were observed within the existing agricultural field along the north edge of the wetland associated with the Sauble River.

## 4.2 Woodlands

There are several forest and woodland communities on the subject properties. According to the Bruce County Official Plan, woodlands over 40 ha are considered Significant Woodlands. The woodlands on the subject properties are smaller than 40 ha, thus would not be considered Significant Woodlands.

The majority of the woodlands with the subject properties are treed swamps which also qualify as wetlands. Wetland constraints are summarized in **Section 4.1**. Additionally, the woodlands represent potential SWH (**Section 4.4**) and habitat for endangered species (**Section 4.5**).

As discussed in **Section 4.1**, a 15 m buffer was recommended to the wetlands, which includes the majority of the woodlands (treed swamps) within the subject properties. A 10 m buffer is recommended for other woodland (FOD and CUW) features.

### 4.3 Watercourses and Fish Habitat

The Sauble River, which crosses the subject properties, is classified by MNRF as coldwater fish habitat.

The two tributaries to the Sauble River have an unknown thermal regime; however, indicators such as the presence of watercress in both tributaries is suggestive a cool or coldwater thermal regime.

A best management practice for protection of coldwater fish habitat is to provide a 30 m buffer to the edge of the watercourse. This is based on MNRF guidelines (1994) and is consistent with the policies of Bruce County. A 30 m buffer to the watercourses on the subject properties are illustrated in **Figure 3**.

Fish habitat is regulated by DFO under the federal *Fisheries Act*. If the project will result harmful alteration, disruption, or destruction (HADD) of fish habitat, then a Fisheries Act authorization would be required. DFO interprets HADD as any temporary or permanent change to fish habitat that directly or indirectly impairs the habitat's capacity to support one or more life processes of fish. Potential impacts of the project of fish habitat will need to be assessed. If potential impacts cannot be sufficiently mitigated, then a *Fisheries Act* authorization from DFO will be required.

### 4.4 Significant Wildlife Habitat

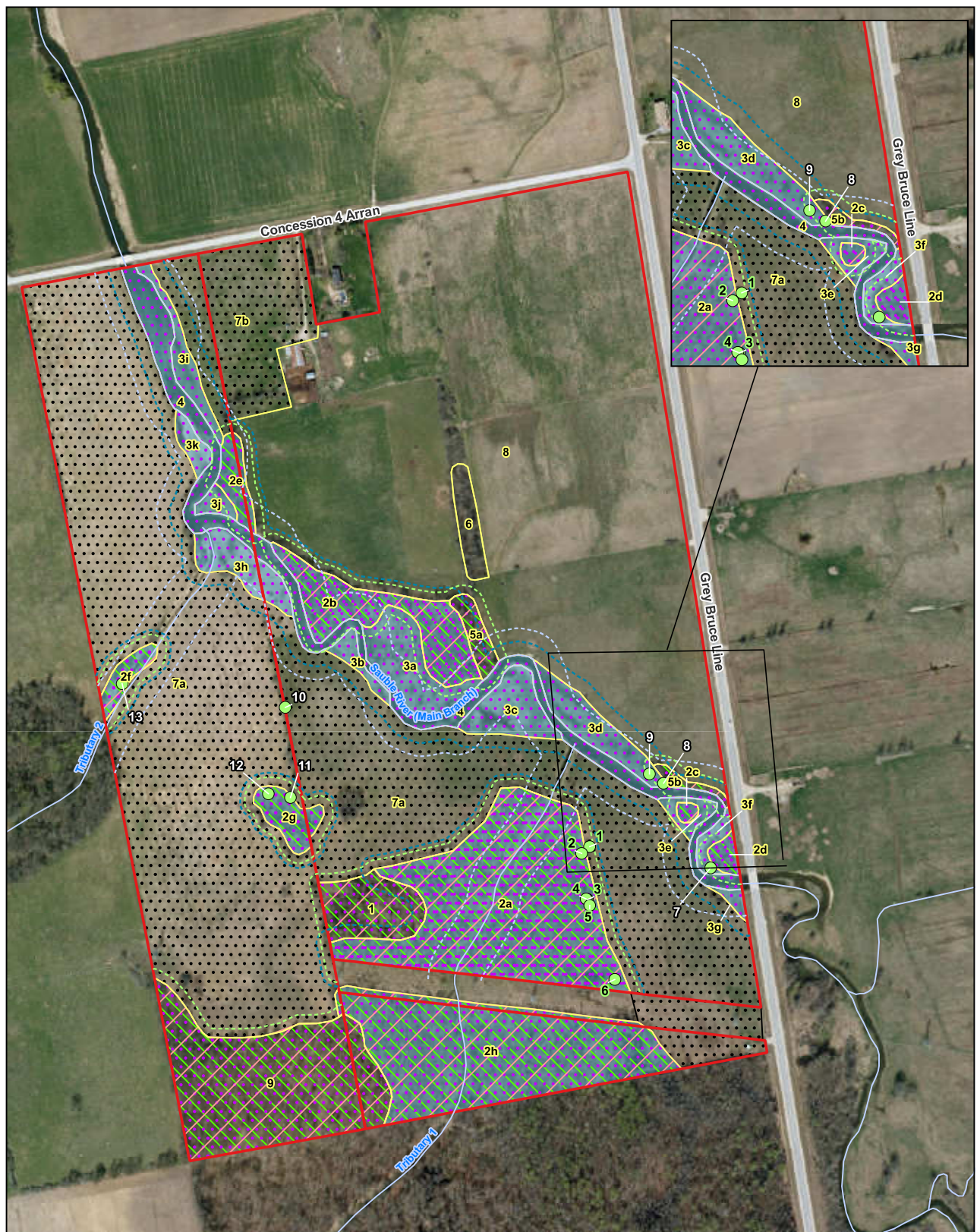
According to the *Significant Wildlife Habitat Technical Guidelines* (MNR 2000), there are four main categories of Significant Wildlife Habitat:

- Seasonal Concentration Areas of Animals;
- Rare Vegetation Communities or Specialized Habitat for Wildlife;
- Habitat for Species of Conservation Concern; and
- Animal Movement Corridors.

Within each of these categories, there are multiple types of SWH, each intended to capture a specialized type of habitat that may or may not be captured by other existing feature-based categories (e.g., significant wetlands, significant woodlands). The *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (MNRF 2015) was used to screen for potential SWH (**Appendix C**). Based on the screening, there is potential for the following types of SWH to occur on the subject properties:

- Bat maternity colonies (forest and treed swamp communities – ELC units 1, 2, and 9);
- Habitat for Species of Conservation Concern;
  - Eastern Wood Pewee (ELC Units 1, 2a, 9);
  - Snapping Turtle (Sauble River and adjacent wetlands – ELC units 3 and 4);
- Turtle Wintering Area (Sauble River, ELC unit 4); and
- Amphibian Breeding Habitat (ELC units 2, 3, 4).





### Legend

- Subject Property
- Ecological Communities
- Constraints**
  - Watercourse
  - 30 m Watercourse Buffer
  - Wetland (Beacon 2024)
  - 15 m Wetland Buffer
  - Woodland (Beacon 2024)
  - 10 m Woodland Buffer
  - Cavity Tree Locations
  - Potential Significant Wildlife Habitat
  - Eastern Meadowlark Habitat
  - Potential Maternity Roost Habitat for Little Brown Myotis

ID	Code	Wetland Communities
3	MAM2-2	Reed-canal Grass Mineral Meadow Marsh
2	SWD2-2	Green Ash Mineral Deciduous Swamp
<b>Aquatic Communities</b>		
4	SAS1-1	Pondweed Submerged Shallow Aquatic (Sauble River)
<b>Forest Communities</b>		
9	FOD5-7	Dry - Fresh Sugar Maple - Black Cherry Deciduous Forest
1	FOD8-1	Fresh - Moist Poplar Deciduous Forest
<b>Cultural Communities</b>		
5	CUW1	Mineral Cultural Woodland
<b>Other Communities</b>		
7	AG (Hay)	Agricultural Hay Crop
8	AG (Row Crop)	Agricultural Row Crop
6	HE	Hedgerow

### Natural Heritage Constraints

### Figure 3

Tara BESS



Project: 224130

Last Revised: January 2025

Client: BBA Engineering Ltd.

Prepared by: BD  
Checked by: SM



1:4,200

0

90

180 m

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Orthomography Basemap: FBS SWOOP (2015)

Potential SWH is associated within the majority of woodlands and wetlands on the subject properties.

It is the policy of Bruce County that no development except for essential municipally owned infrastructure shall be permitted within areas of significant wildlife habitat; therefore, SWH would be considered a high constraint. Note that Beacon has identified potential SWH on the basis of criteria suggested by MNRF. Ultimately, it is the planning authority's responsibility to confirm what constitutes SWH and how it should be protected.

## 4.5 Endangered and Threatened Species

Threatened and endangered species and their habitats are protected under the ESA. On private lands, the federal *Species at Risk Act* (SARA) also applies to at risk fish and birds. Generally, SARA applies to birds on private lands to the same extent as the *Migratory Birds Convention Act* (MBCA). The MBCA protects the nests, eggs, and young of most bird species, but does apply when birds have left a nest and are not actively rearing their young, and in most situations, SARA applies the same way for at risk birds on non-Federal lands. The exception to this is when a species occupies a "residence". Residence is currently interpreted as something that can be reused for nesting (e.g., a tree cavity, chimney). For birds that occupy such residences (e.g. Chimney Swift), SARA regulates the residence regardless of whether birds are actively nesting. Cavity trees of at-risk woodpecker species may qualify as a residence.

If an activity will result in harm to threatened or endangered species or their habitats, then an ESA authorization (typically a permit) must be obtained from MECP, and in some cases, a SARA permit from DFO or Environment and Climate Change Canada (ECCC).

A screening for habitat of threatened or endangered species is included in **Table 7**. The screening is based on species records within approximately 5 km of the subject properties from various databases and background documents (see **Section 3**). No records of threatened or endangered fish, molluscs, reptiles, or amphibians were identified in this screening. Existing conditions on the property were assessed to determine if suitable habitat for threatened or endangered species is present based on knowledge of the habitat preferences and natural history of the species.

**Table 7. Background Review Records of Endangered and Threatened Species in Vicinity of Subject Properties**

Species	Status on SARO List*	Status under Species at Risk Act	Were Species and/or Habitat Documented during on-site Assessment?
<b>Vascular Plants</b>			
<b>Butternut,</b> <i>Juglans cinerea</i>	END	END	Potential habitat exists within the subject properties; however; a targeted search for Butternut was conducted and no Butternut were found to be present within the subject lands.
<b>Black Ash,</b> <i>Fraxinus nigra</i>	END	THR	Potential habitat exists with the subject properties; however, a targeted search for Black Ash was conducted within the swamps where potentially suitable habitat is present, and the species was not observed.
<b>Birds</b>			
<b>Bank Swallow,</b> <i>Riparia riparia</i>	THR	THR	Small areas of potentially suitable bank habitat present but neither the species nor nest burrows were observed during surveys.
<b>Bobolink,</b> <i>Dolichonyx oryzivorus</i>	THR	THR	Pasture lands within the subject properties represent potentially suitable habitat; however, the species was not observed during field investigations
<b>Cerulean Warbler,</b> <i>Setophaga cerulea</i>	THR	END	Potentially suitable habitat is present in forested areas, but the species was not recorded during field investigations.
<b>Chimney Swift,</b> <i>Chaetura pelagica</i>	THR	THR	Suitable habitat was not identified on the subject properties. These birds typically nest in uncapped vertical chimney columns. No foraging individuals were observed during field investigations
<b>Eastern Meadowlark,</b> <i>Sturnella magna</i>	THR	THR	The species was confirmed breeding during field investigations in suitable habitat (pastures) on the subject properties. See further discussion below.
<b>Mammals</b>			
<b>Endangered Bats</b>	END	END	Suitable maternity roost habitat for endangered bat species is present in the woodland and treed swamp communities. Based on the acoustic monitoring, the property is



Species	Status on SARO List*	Status under Species at Risk Act	Were Species and/or Habitat Documented during on-site Assessment?
<b>Little Brown Myotis, <i>Myotis lucifugus</i></b>  <b>Northern Myotis, <i>Myotis septentrionalis</i></b>  <b>Tri-colored Bat, <i>Perimyotis subflavus</i></b>  <b>Eastern Small-footed Myotis, <i>Myotis leibii</i></b>			utilized as general habitat for Eastern Small-footed Myotis, Tri-colored Bat, and Little Brown Myotis, and likely maternity roost habitat for Little Brown Myotis. While Eastern Small Footed Myotis and Tri-colored bat are not suspected of roosting in the vicinity of the acoustic monitoring location, potential maternity roost habitat exists in the forests/treed swamps that were not monitored.
Species at Risk in Ontario List (SARO): END – Endangered; THR – Threatened.			

Field surveys confirmed the presence of five threatened or endangered species on the subject properties including:

- Eastern Meadowlark;
- Red-headed Woodpecker;
- Tri-colored Bat;
- Little Brown Myotis; and
- Eastern Small-footed Myotis.

#### 4.5.1 Eastern Meadowlark

Eastern Meadowlark is listed as Threatened under the ESA and receives habitat protection. During field investigations, Eastern Meadowlarks were observed throughout the pastures on the subject properties, as well as on several adjacent properties, with at least five singing males present. While the exact nest locations were not observed, the presence and behaviour of the species in suitable nesting habitat. Beacon takes the conservative position that any species present during the breeding season, in suitable habitat and showing any disposition towards breeding (e.g., song, pair), be considered breeding.

The entire pasture area (ELC unit 7a and 7b) is considered habitat for Eastern Meadowlark. Bobolink was not observed but has the potential to occur in the same areas, as habitat conditions are suitable

Under Ontario Regulation 830/21, removal of Eastern Meadowlark and Bobolink habitat for non-agricultural activities (e.g. development, infrastructure, resource management, etc.) is permitted under a conditional exemption, which requires creating or enhancing an equivalent or greater area of habitat elsewhere (typically within the same ecoregion as the existing habitat) or paying into a species conversation fund administered by the province.

For the latter option, the charge is based on the total area of habitat that is damaged or destroyed and the land value within the municipality (determined by the province).

#### **4.5.2 Red-headed Woodpecker**

Records for Red-headed Woodpecker, a provincially and federally listed endangered species, did not come up in the initial background screening. However, it was observed towards the western and southwestern portions of the subject properties and is presumed to be nesting in this area; though the exact nesting site was not confirmed. The patchwork of wooded areas within the subject properties represent potentially suitable habitat.

Red-headed Woodpeckers breed in a range of habitats including woodlands, groves of dead or dying trees, river bottoms, recent clearings, swamps, orchards, parks, farmland, grasslands with scattered trees, forest edges, and roadsides. They typically nest in dead trees or dead parts of live trees and excavate their own nests, but occasionally use natural cavities.

Generally, the woodlands and tree swamps within the subject property represent potentially suitable nesting habitat (ELC units 1, 2 5, and 9). The majority of the woodlands and treed swamps were not surveyed for potential nesting trees; however, based on Beacon's understanding of the potential routes and footprints of the various project components, several areas were reviewed to screen for potentially suitable cavity trees. Based on this survey, 13 cavity trees were identified as potentially suitable. These trees are illustrated in **Figures 2 and 3** and summarized in **Table 8**. Two woodpecker nest holes were identified, but the specific species of woodpecker that made them cannot be identified. The majority of cavities observed were not created by woodpeckers, but rather broken branches (knotholes) or other types of damage. While Redheaded Woodpecker typically excavate their own nests, usage of natural cavities cannot be ruled out without additional surveys.

Red-headed Woodpecker was observed in the western part of the subject properties and is considered to be nesting on or in the vicinity of the subject properties. However, a precise nesting location was not confirmed (it is difficult to locate actual active nest holes). If the potential nesting trees identified in Figure 3 and/or other woodland habitats with the potential for nesting (ELC units 1, 2, 5, and 9) will be removed by the project, then consultation with MECP and ECCC will be required. As nest trees may be considered a "residence" under SARA, ECCC needs to be consulted to ensure compliance with SARA. Further study to confirm actual Red-headed Woodpecker nesting in 2025 will likely be required, unless all possible nesting trees can be protected. Appropriate protection or mitigations measures will depend on the type of activity or site alteration that is proposed in the vicinity of the trees and may include protections zones and/or timing restriction on construction activity if nesting is confirmed.



**Table 8. Summary of Cavity Trees**

Tree #	Species	# of Cavities	Type	DBH <sup>1</sup> (cm)	Feature Height (m)	Tree Height (m)	Decay Class <sup>2</sup>
1	Trembling Aspen ( <i>Populus tremuloides</i> )	2	Cavity	34	5-10	10-15	2
2	Trembling Aspen ( <i>Populus tremuloides</i> )	1	Cavity	33	0-15	10-15	3
3	Trembling Aspen ( <i>Populus tremuloides</i> )	1	Knot hole	40	5-10	10-15	2
4	Trembling Aspen ( <i>Populus tremuloides</i> )	1	Woodpecker hole	43	5-10	10-15	2
5	Trembling Aspen ( <i>Populus tremuloides</i> )	1	Cavity	38	5-10	10-15	2
6	Trembling Aspen ( <i>Populus tremuloides</i> )	1	Cavity	35	5-10	10-15	2
8	Green Ash ( <i>Fraxinus pennsylvanica</i> )	2	Cavity, Woodpecker hole	50,50	5-15	15-20	1
9	Green Ash ( <i>Fraxinus pennsylvanica</i> )	2	Cavity	50	5-15	10-15	3
13	Green Ash ( <i>Fraxinus pennsylvanica</i> )	1	Cavity	50,30, 30	5-15	10-15	1
7	Green Ash ( <i>Fraxinus pennsylvanica</i> )	1	Cavity	75	5-10	10-15	1
10	Green Ash ( <i>Fraxinus pennsylvanica</i> )	1	Cavity	75	10-15	15-20	1
11	Poplar species ( <i>Populus species</i> )	10	Woodpecker hole	50	10-15	10-15	6
12	Poplar species ( <i>Populus species</i> )	2	Cavity	45	1-5	10-15	3

<sup>1</sup>Trunk diameter measured at breast height (1.4 m above grade)

<sup>2</sup> 1=Healthy live tree; 2=Declining live tree; 3=Very recently dead tree; 4=Recently dead tree; 5=Older dead tree; 6=Very old dead tree

### 4.5.3 Endangered Bats

Currently four species of bats are listed as endangered under the ESA, three of which have been identified on the subject properties. These species generally make use of forested areas, including treed swamps, for maternity roosting (raising their young); therefore, the swamp, forest and woodland communities mapped within the subject properties represent potential habitat for these species.

The majority of the woodlands/treed swamps were not surveyed for bats; however, based on Beacon's understanding of the potential routes and footprints of the various project components, acoustic monitoring was conducted in several locations. These locations included ELC units 2c, 2d, 2f, and 2g (**Figure 2**).

As discussed in **Section 3.1.5**, based on the results of acoustic monitoring, the property provides general habitat (e.g. foraging, flyover, etc.) for Tri-colored Bat, Eastern Small-footed Myotis, and Little Brown Myotis. In addition, based on the number and timing of calls, woodlands in the vicinity of detector 65 (ELC Unit 2f) and 69 (ELC units 2c/5b) may provide a maternity roosting function for Little Brown Myotis. The larger woodlands/treed swamps (ELC units 1, 2a, 2b, 5a, 9), which were not surveyed in detail, should also be considered potential maternity roost habitat for endangered bats.

Tree removals from within these areas may have impacts on maternity roost habitat for endangered bats. If such activities cannot be avoided, then consultation with MECP will be required to ensure the project is in compliance with the ESA. In Beacon's experience, if an activity will result in the removal a small number of snag trees but not impair the function of a woodland for supporting bat life processes, then an Overall Benefits Permit may not be required, provided the trees are removed between November 30 and March 31 (outside the active bat roosting period). If, in MECP's opinion, the activity will have adverse effects on maternity roost habitat for endangered bats, then an Overall Benefits Permit would be required. The permit is a legally binding agreement that specifies mitigation measures and beneficial actions (e.g. habitat restoration) that are required to demonstrate a net benefit to the species affected by an activity.

## 5. Conclusion

This Natural Environment Report summarizes the existing conditions on the subject properties with respect to natural heritage and hydrological features and identifies constraints based on the sensitivity significance, ecological functions of the features and consideration of applicable federal, provincial and municipal policies and regulations to inform the location and layout of the Tara BESS project.

Natural heritage features identified on the subject properties include woodlands, wetlands, fish habitat, potential SWH, and habitat for threatened and endangered species. It is recommended that the BESS project components avoid or minimize impacts on these features and associated buffers. Where impact avoidance is not feasible, then depending on the nature and extent of the disturbance, additional mitigation measures may be required. Project conflicts with habitats of threatened or endangered species will require authorization from the relevant authority in accordance with applicable federal and provincial legislation (ESA, possibly SARA).

Additional constraints associated with natural hazards (e.g. flooding and erosion) are not addressed in this report. It is understood that the proponent is aware of the natural hazard considerations and has a retained an engineering firm to assist in that regard.

The Class EA will require an assessment of impacts on the natural environment and mitigation recommendations to avoid, minimize, or off-set impacts.

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# Appendix A

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## Vascular Plant Species List



# Appendix A

## Vascular Plant Species List

Scientific Name	Common Name	Family	Conservation Status	
			Provincial <sup>1</sup>	Local <sup>2</sup>
<i>Acer rubrum</i>	Red Maple	Aceraceae	S5	
<i>Acer saccharum</i>	Sugar Maple	Aceraceae	S5	
<i>Acer x freemanii</i>	( <i>Acer rubrum</i> X <i>Acer saccharinum</i> )	Aceraceae	SNA	
<i>Actaea rubra</i>	Red Baneberry	Ranunculaceae	S5	
<i>Agrimonia gryposepala</i>	Hooked Agrimony	Rosaceae	S5	
<i>Alliaria petiolata</i>	Garlic Mustard	Brassicaceae	SE5	
<i>Allium tricoccum</i>	Wild Leek	Liliaceae	S4	
<i>Ambrosia artemisiifolia</i>	Common Ragweed	Asteraceae	S5	
<i>Amelanchier sp.</i>	Serviceberry species	Rosaceae		
<i>Anemonastrum canadense</i>	Canada Anemone	Ranunculaceae	S5	
<i>Arctium lappa</i>	Great Burdock	Asteraceae	SE5	
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	Araceae	S5	
<i>Asclepias incarnata</i>	Swamp Milkweed	Apocynaceae	S5	
<i>Asclepias syriaca</i>	Common Milkweed	Apocynaceae	S5	
<i>Bidens cernua</i>	Nodding Beggarticks	Asteraceae	S5	
<i>Bidens connata</i>	Purple-stemmed Beggarticks	Asteraceae	S4?	
<i>Bidens frondosa</i>	Devil's Beggarticks	Asteraceae	S5	
<i>Bromus inermis</i>	Smooth Brome	Poaceae	SE5	
<i>Caltha palustris</i>	Yellow Marsh Marigold	Ranunculaceae	S5	
<i>Carex arctata</i>	Drooping Woodland Sedge	Cyperaceae	S5	
<i>Carex crinita</i>	Fringed Sedge	Cyperaceae	S5	
<i>Carex cristatella</i>	Crested Sedge	Cyperaceae	S5	
<i>Carex deweyana</i>	Dewey's Sedge	Cyperaceae	S5	
<i>Carex gracillima</i>	Graceful Sedge	Cyperaceae	S5	
<i>Carex granularis</i>	Limestone Meadow Sedge	Cyperaceae	S5	
<i>Carex intumescens</i>	Bladder Sedge	Cyperaceae	S5	
<i>Carex lacustris</i>	Lake Sedge	Cyperaceae	S5	
<i>Carex lupulina</i>	Hop Sedge	Cyperaceae	S5	
<i>Carex pallescens</i>	Pale Sedge	Cyperaceae	S4	Rare
<i>Carex pellita</i>	Woolly Sedge	Cyperaceae	S5	
<i>Carex projecta</i>	Necklace Sedge	Cyperaceae	S5	
<i>Carex radiata</i>	Eastern Star Sedge	Cyperaceae	S5	
<i>Carex retrorsa</i>	Retorse Sedge	Cyperaceae	S5	

Scientific Name	Common Name	Family	Conservation Status	
			Provincial <sup>1</sup>	Local <sup>2</sup>
<i>Carex rosea</i>	Rosy Sedge	Cyperaceae	S5	
<i>Carex spicata</i>	Spiked Sedge	Cyperaceae	SE5	
<i>Carex stipata</i>	Awl-fruited Sedge	Cyperaceae	S5	
<i>Carex stricta</i>	Tussock Sedge	Cyperaceae	S5	
<i>Carex tenera</i>	Tender Sedge	Cyperaceae	S5	
<i>Carex vulpinoidea</i>	Fox Sedge	Cyperaceae	S5	
<i>Carpinus caroliniana</i>	Blue-beech	Betulaceae	S5	
<i>Caulophyllum</i> sp.	Blue Cohosh	Berberidaceae		
<i>Centaurea jacea</i>	Brown Knapweed	Asteraceae	SE5	
<i>Chelone glabra</i>	White Turtlehead	Scrophulariaceae	S5	
<i>Cicuta maculata</i>	Spotted Water-hemlock	Apiaceae	S5	
<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade	Onagraceae	S5	
<i>Cirsium arvense</i>	Canada Thistle	Asteraceae	SE5	
<i>Cirsium vulgare</i>	Bull Thistle	Asteraceae	SE5	
<i>Clematis virginiana</i>	Virginia Clematis	Ranunculaceae	S5	
<i>Clinopodium vulgare</i>	Wild Basil	Lamiaceae	S5	
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	Cornaceae	S5	
<i>Cornus sericea</i>	Red-osier Dogwood	Cornaceae	S5	
<i>Crataegus</i> sp.	Hawthorn species	Rosaceae		
<i>Dactylis glomerata</i>	Orchard Grass	Poaceae	SE5	
<i>Daucus carota</i>	Wild Carrot	Apiaceae	SE5	
<i>Dianthus armeria</i>	Deptford Pink	Caryophyllaceae	SE5	
<i>Dryopteris cristata</i>	Crested Wood Fern	Dryopteridaceae	S5	
<i>Echinocystis lobata</i>	Wild Cucumber	Cucurbitaceae	S5	
<i>Eleocharis</i> sp.	Spikerush species	Cyperaceae		
<i>Elymus virginicus</i>	Virginia Wildrye	Poaceae	S5	
<i>Endotropis alnifolia</i>	Alder-leaved Buckthorn	Rhamnaceae	S5	
<i>Epilobium hirsutum</i>	Hairy Willowherb	Onagraceae	SE5	
<i>Equisetum arvense</i>	Field Horsetail	Equisetaceae	S5	
<i>Eragrostis minor</i>	Little Lovegrass	Poaceae	SE5	
<i>Erigeron annuus</i>	Annual Fleabane	Asteraceae	S5	
<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	Asteraceae	S5	
<i>Erigeron strigosus</i>	Rough Fleabane	Asteraceae	S5	
<i>Eupatorium perfoliatum</i>	Common Boneset	Asteraceae	S5	
<i>Euphorbia maculata</i>	Spotted Spurge	Euphorbiaceae	SE5	
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	Asteraceae	S5	
<i>Eutrochium maculatum</i>	Spotted Joe Pye Weed	Asteraceae	S5	
<i>Fragaria vesca</i>	Woodland Strawberry	Rosaceae	S5	

Scientific Name	Common Name	Family	Conservation Status	
			Provincial <sup>1</sup>	Local <sup>2</sup>
<i>Fraxinus americana</i>	White Ash	Oleaceae	S4	
<i>Fraxinus pennsylvanica</i>	Red Ash	Oleaceae	S4	
<i>Galium palustre</i>	Common Marsh Bedstraw	Rubiaceae	S5	
<i>Geranium robertianum</i>	Herb-Robert	Geraniaceae	S5	
<i>Geum urbanum</i>	Wood Avens	Rosaceae	SE3	
<i>Glyceria grandis</i>	Tall Mannagrass	Poaceae	S5	Rare
<i>Glyceria striata</i>	Fowl Mannagrass	Poaceae	S5	
<i>Impatiens capensis</i>	Spotted Jewelweed	Balsaminaceae	S5	
<i>Iris versicolor</i>	Harlequin Blue Flag	Iridaceae	S5	
<i>Juncus dudleyi</i>	Dudley's Rush	Juncaceae	S5	
<i>Juncus effusus</i>	Soft Rush	Juncaceae	S5	
<i>Juncus inflexus</i>	Incurved Rush	Juncaceae	SE1	
<i>Laportea canadensis</i>	Canada Wood Nettle	Urticaceae	S5	
<i>Leonurus cardiaca</i>	Common Motherwort	Lamiaceae	SE5	
<i>Leucanthemum vulgare</i>	Oxeye Daisy	Asteraceae	SE5	
<i>Lobelia cardinalis</i>	Cardinal Flower	Campanulaceae	S5	
<i>Lolium arundinaceum</i>	Tall Ryegrass	Poaceae	SE5	
<i>Lycopus sp.</i>	Horehound species	Lamiaceae		
<i>Lysimachia ciliata</i>	Fringed Yellow Loosestrife	Primulaceae	S5	
<i>Lysimachia thyrsiflora</i>	Tufted Yellow Loosestrife	Primulaceae	S5	
<i>Maianthemum stellatum</i>	Star-flowered False Solomon's Seal	Liliaceae	S5	
<i>Matteuccia struthiopteris</i>	Ostrich Fern	Dryopteridaceae	S5	
<i>Medicago lupulina</i>	Black Medick	Fabaceae	SE5	
<i>Menispermum canadense</i>	Canada Moonseed	Menispermaceae	S4	
<i>Mentha canadensis</i>	Canada Mint	Lamiaceae	S5	
<i>Nasturtium officinale</i>	Watercress	Brassicaceae	SE	
<i>Nuphar variegata</i>	Variegated Pond-lily	Nymphaeaceae	S5	
<i>Onoclea sensibilis</i>	Sensitive Fern	Dryopteridaceae	S5	
<i>Ostrya virginiana</i>	Eastern Hop-hornbeam	Betulaceae	S5	
<i>Oxalis stricta</i>	Upright Yellow Wood-sorrel	Oxalidaceae	S5	
<i>Panicum capillare</i>	Common Panicgrass	Poaceae	S5	
<i>Parthenocissus vitacea</i>	Thicket Creeper	Vitaceae	S5	
<i>Persicaria amphibia</i>	Water Smartweed	Polygonaceae	S5	
<i>Persicaria maculosa</i>	Spotted Lady's-thumb	Polygonaceae	SE5	
<i>Persicaria punctata</i>	Dotted Smartweed	Polygonaceae	S5	
<i>Phalaris arundinacea</i>	Reed Canarygrass	Poaceae	S5	
<i>Phleum pratense</i>	Common Timothy	Poaceae	SE5	
<i>Pilea pumila</i>	Dwarf Clearweed	Urticaceae	S5	

Scientific Name	Common Name	Family	Conservation Status	
			Provincial <sup>1</sup>	Local <sup>2</sup>
<i>Plantago lanceolata</i>	English Plantain	Plantaginaceae	SE5	
<i>Plantago major</i>	Common Plantain	Plantaginaceae	SE5	
<i>Plantago rugelii</i>	Rugel's Plantain	Plantaginaceae	S5	
<i>Poa palustris</i>	Fowl Bluegrass	Poaceae	S5	
<i>Poa pratensis</i>	Kentucky Bluegrass	Poaceae	S5	
<i>Populus balsamifera</i>	Balsam Poplar	Salicaceae	S5	
<i>Populus tremuloides</i>	Trembling Aspen	Salicaceae	S5	
<i>Prunella vulgaris</i>	Common Self-heal	Lamiaceae	S5	
<i>Prunus serotina</i>	Black Cherry	Rosaceae	S5	
<i>Prunus virginiana</i> var. <i>virginiana</i>	Chokecherry	Rosaceae	S5	
<i>Quercus macrocarpa</i>	Bur Oak	Fagaceae	S5	
<i>Ranunculus acris</i>	Common Buttercup	Ranunculaceae	SE5	
<i>Ranunculus caricetorum</i>	Northern Swamp Buttercup	Ranunculaceae	S5	
<i>Rhamnus cathartica</i>	European Buckthorn	Rhamnaceae	SE5	
<i>Ribes americanum</i>	American Black Currant	Grossulariaceae	S5	
<i>Ribes triste</i>	Swamp Red Currant	Grossulariaceae	S5	
<i>Rubus idaeus</i> ssp. <i>strigosus</i>	North American Red Raspberry	Rosaceae	S5	
<i>Rubus pubescens</i>	Dwarf Raspberry	Rosaceae	S5	
<i>Rumex crispus</i>	Curled Dock	Polygonaceae	SE5	
<i>Rumex obtusifolius</i>	Bitter Dock	Polygonaceae	SE5	
<i>Sagittaria latifolia</i>	Broad-leaved Arrowhead	Alismataceae	S5	
<i>Salix eriocephala</i>	Cottony Willow	Salicaceae	S5	
<i>Schoenoplectus tabernaemontani</i>	Soft-stemmed Bulrush	Cyperaceae	S5	
<i>Scirpus atrovirens</i>	Dark-green Bulrush	Cyperaceae	S5	
<i>Scirpus pendulus</i>	Hanging Bulrush	Cyperaceae	S5	
<i>Scutellaria galericulata</i>	Marsh Skullcap	Lamiaceae	S5	
<i>Sisyrinchium montanum</i>	Strict Blue-eyed-grass	Iridaceae	S5	
<i>Sium suave</i>	Common Water-parsnip	Apiaceae	S5	
<i>Smilax herbacea</i>	Herbaceous Carrionflower	Smilacaceae	S4?	
<i>Solanum dulcamara</i>	Bittersweet Nightshade	Solanaceae	SE5	
<i>Solidago altissima</i>	Tall Goldenrod	Asteraceae	S5	
<i>Solidago gigantea</i>	Giant Goldenrod	Asteraceae	S5	
<i>Spiraea alba</i>	White Meadowsweet	Rosaceae	S5	
<i>Spiranthes lucida</i>	Shining Ladies'-tresses	Orchidaceae	S4	Rare
<i>Stellaria longifolia</i>	Long-leaved Starwort	Caryophyllaceae	S5	Rare
<i>Symphyotrichum lanceolatum</i> ssp. <i>lanceolatum</i>	Eastern Panicked Aster	Asteraceae	S5	
<i>Symphyotrichum lateriflorum</i>	Calico Aster	Asteraceae	S5	

Scientific Name	Common Name	Family	Conservation Status	
			Provincial <sup>1</sup>	Local <sup>2</sup>
<i>Symphyotrichum novae-angliae</i>	New England Aster	Asteraceae	S5	
<i>Symphyotrichum pilosum</i>	Old Field Aster	Asteraceae	S5	
<i>Symphyotrichum puniceum</i>	Purple-stemmed Aster	Asteraceae	S5	
<i>Taraxacum officinale</i>	Common Dandelion	Asteraceae	SE5	
<i>Thalictrum pubescens</i>	Tall Meadow-rue	Ranunculaceae	S5	
<i>Tilia americana</i>	Basswood	Tiliaceae	S5	
<i>Toxicodendron radicans</i> var. <i>rydbergii</i>	Western Poison Ivy	Anacardiaceae	S5	
<i>Trifolium pratense</i>	Red Clover	Fabaceae	SE5	
<i>Trifolium repens</i>	White Clover	Fabaceae	SE5	
<i>Trillium erectum</i>	Red Trillium	Liliaceae	S5	
<i>Typha latifolia</i>	Broad-leaved Cattail	Typhaceae	S5	
<i>Ulmus americana</i>	White Elm	Ulmaceae	S5	
<i>Urtica dioica</i> ssp. <i>gracilis</i>	Slender Stinging Nettle	Urticaceae	S5	
<i>Verbascum thapsus</i>	Common Mullein	Scrophulariaceae	SE5	
<i>Verbena hastata</i>	Blue Vervain	Verbenaceae	S5	
<i>Veronica anagallis-aquatica</i>	Water Speedwell	Scrophulariaceae	SE	
<i>Viburnum lentago</i>	Nannyberry	Caprifoliaceae	S5	
<i>Vicia cracca</i>	Tufted Vetch	Fabaceae	SE5	
<i>Viola</i> sp.	Violet species			
<i>Vitis riparia</i>	Riverbank Grape	Vitaceae	S5	

<sup>1</sup>NHIC S-Rank: S4=Apparently Secure; S5=Secure; SE=Exotic

<sup>2</sup>Status from the Vascular Plant List for Bruce and Grey Counties (Owen Sound Field Naturalists 2023)



## Appendix B



### Breeding Bird Species List

## Appendix B

### Breeding Bird Species List

Common Name	Scientific Name	COSEWIC <sup>1</sup>	COSSARO <sup>2</sup>	S-Rank <sup>3</sup>	Area-sensitive <sup>4</sup>	Number of Pairs
American Crow	<i>Corvus brachyrhynchos</i>			S5		4
American Goldfinch	<i>Spinus tristis</i>			S5		4
American Kestrel	<i>Falco sparverius</i>			S4		1
American Redstart	<i>Setophaga ruticilla</i>			S5	A	2
American Robin	<i>Turdus migratorius</i>			S5		3
American Woodcock	<i>Scolopax minor</i>			S4		1
Baltimore Oriole	<i>Icterus galbula</i>			S4		2
Barn Swallow	<i>Hirundo rustica</i>	Special Concern	Special Concern	S4		1
Belted Kingfisher	<i>Ceryle alcyon</i>			S4		2
Black-capped Chickadee	<i>Poecile atricapillus</i>			S5		1
Blue Jay	<i>Cyanocitta cristata</i>			S5		2
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>			S4	A	1
Brown Creeper	<i>Certhia americana</i>			S5	A	1
Brown Thrasher	<i>Toxostoma rufum</i>			S4		1
Brown-headed Cowbird	<i>Molothrus ater</i>			S4		3
Canada Goose	<i>Branta canadensis</i>			S5		2
Cedar Waxwing	<i>Bombycilla cedrorum</i>			S5		3
Chipping Sparrow	<i>Spizella passerina</i>			S5		2
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>			S4		5
Common Grackle	<i>Quiscalus quiscula</i>			S5		6
Common Raven	<i>Corvus corax</i>			S5		1
Common Yellowthroat	<i>Geothlypis trichas</i>			S5		4
Downy Woodpecker	<i>Dryobates pubescens</i>			S5		1
Eastern Bluebird	<i>Sialia sialis</i>			S5		1
Eastern Kingbird	<i>Tyrannus tyrannus</i>			S4		3
Eastern Meadowlark	<i>Sturnella magna</i>	Threatened	Threatened	S4	A	5

Common Name	Scientific Name	COSEWIC <sup>1</sup>	COSSARO <sup>2</sup>	S-Rank <sup>3</sup>	Area-sensitive <sup>4</sup>	Number of Pairs
Eastern Wood-pewee	<i>Contopus virens</i>	Special Concern	Special Concern	S4		5
European Starling	<i>Sturnus vulgaris</i>			SE		6
Gray Catbird	<i>Dumetella carolinensis</i>			S4		2
Great Blue Heron	<i>Ardea herodias</i>			S4		Foraging/Fly-over
Great Crested Flycatcher	<i>Myiarchus crinitus</i>			S4		4
Great Egret	<i>Ardea albus</i>			S2		Foraging/Fly-over
Hairy Woodpecker	<i>Dryobates villosus</i>			S5	A	2
Herring Gull	<i>Larus argentatus</i>			S5		Foraging/Fly-over
Horned Lark	<i>Eremophila alpestris</i>			S5		1
House Wren	<i>Troglodytes aedon</i>			S5		3
Indigo Bunting	<i>Passerina cyanea</i>			S4		2
Killdeer	<i>Charadrius vociferus</i>			S5		3
Least Flycatcher	<i>Empidonax minimus</i>			S4	A	2
Mallard	<i>Anas platyrhynchos</i>			S5		1
Mourning Dove	<i>Zenaida macroura</i>			S5		1
Mourning Warbler	<i>Geothlypis philadelphia</i>			S4		1
Northern Flicker	<i>Colaptes auratus</i>			S4		3
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>			S4		1
Ovenbird	<i>Seiurus aurocapillus</i>			S4	A	1
Pileated Woodpecker	<i>Dryocopus pileatus</i>			S5	A	1
Red-eyed Vireo	<i>Vireo olivaceus</i>			S5		3
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Threatened	Endangered	S3		1
Red-winged Blackbird	<i>Agelaius phoeniceus</i>			S4		24
Ring-billed Gull	<i>Larus delawarensis</i>			S5		Foraging/Fly-over
Rock Pigeon	<i>Columba livia</i>			SNA		2
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>			S4		1
Savannah Sparrow	<i>Passerculus sandwichensis</i>			S4	A	5
Song Sparrow	<i>Melospiza melodia</i>			S5		8
Spotted Sandpiper	<i>Actitis macularia</i>			S5		1
Swamp Sparrow	<i>Melospiza georgiana</i>			S5		1
Turkey Vulture	<i>Cathartes aura</i>			S5		1
Warbling Vireo	<i>Vireo gilvus</i>			S5		5

Common Name	Scientific Name	COSEWIC <sup>1</sup>	COSSARO <sup>2</sup>	S-Rank <sup>3</sup>	Area-sensitive <sup>4</sup>	Number of Pairs
White-breasted Nuthatch	<i>Sitta carolinensis</i>			S5	A	1
Wild Turkey	<i>Meleagris gallopavo</i>			S5		1
Willow Flycatcher	<i>Empidonax traillii</i>			S5		1
Wood Duck	<i>Aix sponsa</i>			S5		1
Yellow Warbler	<i>Setophaga petechia</i>			S5		5
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>			S5	A	1
Yellow-throated Vireo	<i>Vireo flavifrons</i>			S4	A	1

<sup>1</sup>Committee on the Status of Endangered Wildlife in Canada

<sup>2</sup>Committee on the Status of Species at Risk in Ontario

<sup>3</sup>Provincial Conservation Status (NHIC): S5=Secure; S4=Apparently Secure

<sup>4</sup>Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide (Appendix G). 151 p plus appendices.

# Appendix C



## Significant Wildlife Habitat Assessment



## Appendix C

### Significant Wildlife Habitat (SWH) Assessment

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>Seasonal Concentration Areas</b>			
<b>1. Waterfowl Stopover and Staging Areas (Terrestrial)</b>			
American Black Duck Wood Duck Mallard Northern Pintail Gadwall Blue-winged Teal Green-winged Teal American Wigeon Northern Shoveler	CUM1 CUT1 Plus evidence of annual spring flooding from melt water or run-off within these Ecosites.	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Fields with sheet water during Spring (mid-March to May)</li> </ul> <p><i>Suggested Criteria</i> Studies carried out and verified presence of an annual concentration of any listed species.</p>	Suitable habitat is not present.
<b>2. Waterfowl Stopover and Staging Areas (Aquatic)</b>			
Canada Goose Cackling Goose Snow Goose American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lesser Scaup Greater Scaup Long-tailed duck Surf Scoter White-winged Scoter Black Scoter Ring-necked duck Common Goldeneye Bufflehead Redhead Ruddy Duck Red-breasted Merganser Brant Canvasback	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration;</li> <li>Sewage treatment ponds and storm water ponds do not qualify as SWH, however a reservoir managed as a large wetland or pond/lake does qualify; and</li> <li>These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water).</li> </ul> <p><i>Suggested Criteria</i> Studies carried out and verified presence of:</p> <ul style="list-style-type: none"> <li>Aggregations of 100 or more of listed species for 7 days, results in &gt; 700 waterfowl use days;</li> <li>Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH; and</li> <li>Wetland area and shorelines associated with sites identified within the Significant Wildlife Habitat Technical Guide (SWHTG) (MNR 2000) Appendix K are SWH.</li> </ul>	Small areas of suitable habitat are present, but the area of habitat present is insufficient to support the quantity of waterfowl required to qualify as significant.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>3. Shorebird Migratory Stopover Area</b>			
Greater Yellowlegs Lesser Yellowlegs Marbled Godwit Hudsonian Godwit Black-bellied Plover American Golden-Plover Semipalmated Plover Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1 SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats; and</li> <li>Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH.</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>Presence of 3 or more of listed species and &gt; 1000 shorebird use days during spring or fall migration period (shorebird use days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period);</li> <li>Whimbrel stop briefly (&lt;24hrs) during spring migration, any site with &gt;100 Whimbrel used for 3 years or more is significant;</li> <li>The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100 m radius area.</li> </ul>	Suitable habitat is not present.
<b>4. Raptor Wintering Area</b>			
Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl Short-eared Owl Bald Eagle	<p><u>Hawks/Owls:</u> Combination of ELC Community Series; need to have present one Community Series from each land class;</p> <p>Forest: FOD, FOM, FOC.</p> <p>Upland: CUM, CUT, CUS, CUW.</p> <p><u>Bald Eagle:</u> Forest Community Series: FOD, FOM, FOC, SWD, SWM, or SWC on shoreline areas adjacent to large rivers to adjacent to lakes with open water (hunting area).</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors; and</li> <li>Raptor wintering (hawk/owl) sites need to be &gt; 20 ha with a combination of forest and upland.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm the use of these habitats by:</p> <ul style="list-style-type: none"> <li>One or more Short-eared Owls or; One of more Bald Eagles or at least 10 individuals and two listed hawk/owl species; and</li> <li>To be significant a site must be used regularly (3 in 5 years) for a minimum of 20 days by the above number of birds.</li> </ul> <p>The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area</p>	The suggested combination of field and woodland ecosites is not present. Concentrations of raptors not observed during spring and summer field investigations.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>5. Bat Hibernacula</b>			
Big Brown Bat Tri-colored Bat	Bat Hibernacula may be in the Ecosites: CCR1 CCR2 CCA1 CCA2	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Hibernacula may be found in caves, mine shafts, underground foundations and Karsts .</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>All sites with confirmed hibernating bats are SWH; and</li> <li>The area includes 200m radius around the entrance of the hibernaculum for most development types and for wind farms.</li> </ul> <p>(Note: buildings are not to be considered SWH)</p>	No suitable habitat.
<b>6. Bat Maternity Colonies</b>			
Big Brown Bat Silver-haired Bat	<p>Maternity Colonies considered for SWH are found in forested Ecosites.</p> <p>All ELC Ecosites in ELC Community Series: FOD FOM SWD SWM</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH);</li> <li>Maternity colonies located in mature deciduous or mixed forest stands with &gt;10/ha large diameter (&gt;25cm dbh) wildlife trees;</li> <li>Female bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2; and</li> <li>Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred.</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>Maternity colonies with confirmed use by; <ul style="list-style-type: none"> <li>&gt;10 Big Brown Bats</li> <li>&gt;5 Adult Female Silver-haired Bats</li> </ul> </li> </ul> <p>The area of the habitat includes the entire woodland or the forest stand ELC ecosite or an ecoelement containing the maternity colonies</p>	Potentially suitable habitat associated with forest and treed swamps
<b>7. Turtle Wintering Areas</b>			
Midland Painted Turtle Northern Map Turtle Snapping Turtle	<p>Snapping and Midland Painted Turtles: ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO.</p> <p>Northern Map Turtles: Open Water areas such as deeper rivers, or streams and lakes with</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates;</li> <li>Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen; and</li> <li>Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.</li> </ul>	Potentially suitable habitat associated with Sauble River. Snapping Turtles present on subject properties.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
	current can also be used as over-wintering habitat.	<p><b>Suggested Criteria</b></p> <ul style="list-style-type: none"> <li>• Presence of 5 over-wintering Midland Painted Turtles is significant;</li> <li>• One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant; and</li> <li>• The mapped ELC ecosite area with the over wintering turtles is the SWH.</li> </ul> <p>If the hibernation site is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH</p>	
<b>8. Reptile Hibernaculum</b>			
Eastern Gartersnake Northern Water Snake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake Milksnake Eastern Ribbonsnake Five-lined Skink	<p>For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Tock Barren, Crevice, Cave and Alvar may be directly related to these habitats.</p> <p>Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator.</p> <p>For Five-lined Skink, ELC Community Series of FOD and FOM and ecosite: FOC1 and FOC3.</p>	<p><b>Suitable Habitat</b></p> <ul style="list-style-type: none"> <li>• For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural locations;</li> <li>• The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying Candidate SWH;</li> <li>• Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost;</li> <li>• Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover; and</li> <li>• For five-lined Skink, Community Series FOD and FOM, and FOC1 and FOC3 should be considered. They prefer mixed forests with rock outcrop openings with cover rock overlaying granite bedrock with fissures.</li> </ul> <p><b>Suggested Criteria</b> Studies confirming:</p> <ul style="list-style-type: none"> <li>• Presence of snake hibernacula used by a minimum of five individuals of a snake sp. Or; individuals of two or more snake spp; and</li> <li>• Congregations of a minimum of five individuals of a snake sp. Or; individuals of two or more snake spp. Near potential hibernacula (e.g., foundation or rocky slope) on sunny warm days in spring.</li> </ul>	This type of habitat is difficult to identify and confirm. Eastern Gartersnake observed on subject properties, no evidence of hibernacula observed.
<b>9. Colonially-Nesting Bird Breeding Habitat (Bank and Cliff)</b>			
Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	Eroding banks, sandy hills, steep slopes and sand piles. Cliff faces, bridge abutments, silos and barns.	<p><b>Suitable Habitat</b></p> <ul style="list-style-type: none"> <li>• Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area;</li> <li>• Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such</li> </ul>	No suitable habitat.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
	Habitat found in the following ecosites: CUM1 CLO1 CUT1 CLS1 CUS1 CLT1 BLO1 BLS1 BLT1	as berms, embankments, soil or aggregate stockpiles; and <ul style="list-style-type: none"> <li>Does not include a licensed/permitted Mineral Aggregate Operation.</li> </ul> <p><i>Suggested Criteria</i> Studies confirming:</p> <ul style="list-style-type: none"> <li>Presence of 1 or more nesting sites with 8 or more cliff swallow pairs or 50 Bank Swallow and/or Rough-winged Swallow pairs during the breeding season.</li> </ul> <p>A colony identified as SWH will include a 50m radius habitat area from the peripheral nests</p>	
<b>10. Colonially-Nesting Bird Breeding Habitat (Tree/Shrubs)</b>			
Great Blue Heron Black-crowned Night-Heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	<i>Suitable Habitat</i> <ul style="list-style-type: none"> <li>Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used; and</li> <li>Most nests in trees are 11 to 15 m from ground, near the top of the tree.</li> </ul> <p><i>Suggested Criteria</i> Studies confirming:</p> <ul style="list-style-type: none"> <li>Presence of 2 or more active nests of Great Blue Heron or other listed species.</li> </ul> <p>The habitat extends from the edge of the colony and a minimum 300m radius or extent of the forest ecosite containing the colony or any island &lt;15.0 ha with a colony is the SWH</p>	Potentially suitable habitat present, but no nests or nesting colonies observed during field investigations.
<b>11. Colonially-Nesting Bird Breeding Habitat (Ground)</b>			
Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island to peninsula (natural or artificial) with a lake or larger river.  Close proximity or watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird).  MAM1-6 MAS1-3 CUM CUT CUS	<i>Suitable Habitat</i> <ul style="list-style-type: none"> <li>Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas; and</li> <li>Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands.</li> </ul> <p><i>Suggested Criteria</i> Studies confirming:</p> <ul style="list-style-type: none"> <li>Presence of &gt;25 active nests for Herring Gulls or Ring-billed Gulls, &gt;5 active nests for Common Tern or &gt;2 active nests for Caspian Tern;</li> <li>Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant;</li> <li>Presence of 5 or more pairs for Brewer's Blackbird; and</li> <li>The edge of the colony and a minimum 150m area of habitat, or the extent of the ELC ecosites containing the colony or any island &lt;3.0ha with a colony is the SWH.</li> </ul>	No suitable habitat



Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities			Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>12. Migratory Butterfly Stopover Areas</b>				
Painted Red Admiral Monarch	Lady	<p>Combination of ELC Community Series; need to have present one Community Series from each land class:</p> <p><u>Field:</u> CUM CUT CUS</p> <p><u>Forest:</u> FOC FOD COM CUP</p> <p>A candidate site will have a history of butterflies being observed.</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario or Lake Erie;</li> <li>The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south;</li> <li>The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat; and</li> <li>Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct). MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. ; and</li> <li>Numbers of butterflies can range from 100-500/day - significant variation can occur between years and multiple years of sampling should occur.</li> </ul> <p>MUD of &gt;5000 or &gt;3000 with the presence of Painted Ladies or Red Admirals is to be considered significant</p>	Habitat suitability criteria not met.
<b>13. Landbird Migratory Stopover Areas</b>				
All migratory songbirds		<p>All Ecosites associated with the ELC Community Series;</p> <p>FOC FOM FOD SWC SWM SWD</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Woodlots &gt;10 ha in size and within 5 km of Lake Ontario and Lake Erie;</li> <li>If multiple woodlands are located along the shoreline those Woodlands &lt;2 km from Lake Erie or Ontario are more significant;</li> <li>Sites have a variety of habitats; forest, grassland and wetland complexes;</li> <li>The largest sites are more significant; and</li> <li>Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5km of Lake Ontario are Candidate SWH.</li> </ul>	Habitat suitability criteria not met.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
		<p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>Use of the woodlot by &gt;200 birds/day and with &gt;35 species with at least 10 bird spp. recorded on at least 5 different survey dates.</li> </ul> <p>This abundance and diversity of migrant bird species is considered above average and significant</p>	
<b>14. Deer Yarding Areas</b>			
White-tailed Deer	<p><i>Note: MNRF to determine this habitat.</i></p> <p>ELC Community Series providing a thermal cover component for a deer yard would include: FOD, FOC, SWM and SWC.</p> <p>Or ELC Ecosites: CUP2, CUP3, FOD3 and CUT</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. Deer establish traditional use areas with two areas called Stratum I and Stratum II;</li> <li>Stratum II covers entire winter yard and is usually in FOD or FOM (or agricultural lands) where browsing can occur. Deer move here in early winter, and will continue to stay here until snow depths reach about 30 cm; and</li> <li>Stratum I is the core of a deer yard, and is found within the Stratum II, and is critical for deer survival in areas where winter is severe. It is primarily coniferous trees with a canopy cover of at least 60%.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>Snow depth and temperature or the greatest influence on deer use of winter yards. Snow depths of &gt;40 cm for more than 60 days are minimum criteria for a deer yard to be considered as SWH; and</li> <li>Deer management is an MNRF responsibility, and they field investigations (by aircraft over a series of winters to establish boundaries of Stratum I and II. Deer yarding areas considered significant will be mapped by MNRF.</li> </ul> <p>If SWH is determined for deer wintering area or if a proposed development is within Stratum II yard areas, then movement corridors are to be considered</p>	This type of habitat has not been identified by MNRF on or adjacent to property.
<b>15. Deer Winter Congregation Areas</b>			
White-tailed Deer	<p>All Forested Ecosites with these ELC Community Series:</p> <p>FOC FOM FOD SWC SWM SWD</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Woodlots &gt;100 ha in size. Woodlots &lt;100 ha may be considered significant based on MNRF studies or assessment;</li> <li>Deer movement during winter in Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands;</li> <li>Large woodlots &gt; 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha; and</li> </ul>	This type of habitat has not been identified by MNRF on or adjacent to property.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
	Conifer Plantations much smaller than 50 ha may also be used.	<ul style="list-style-type: none"> <li>Woodlots with high densities of deer due to artificial feeding are not significant.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF; and</li> <li>Use of the woodlot by white-tailed deer will be determined by MNRF, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNRF.</li> </ul> <p>If SWH is determined for deer wintering area or if a proposed development is within Stratum II yard areas, then movement corridors are to be considered</p>	
<b>Rare Vegetation Communities</b>			
<b>16. Cliffs and Talus Slopes</b>			
ELC Communities: TAO, TAS, TAT, CLO, CLS, CLT		<ul style="list-style-type: none"> <li>A Cliff is vertical to near vertical bedrock &gt;3m in height;</li> <li>A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris; and</li> <li>Most cliff and talus slopes occur along the Niagara Escarpment.</li> </ul>	Does not occur on the subject properties
<b>17. Sand Barren</b>			
ELC Communities: SBO1, SBS1, BT1		<ul style="list-style-type: none"> <li>Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion;</li> <li>Usually located within other types of natural habitat such as forest or savannah; and</li> <li>Vegetation can vary from patchy and barren to tree covered but less than 60%</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>A sand barren area &gt;0.5ha in size;</li> <li>Site must not be dominated by exotic or introduced species (&lt;50% vegetative cover exotics).</li> </ul>	Does not occur on the subject properties
<b>18. Alvar</b>			
Field studies identify four of the five Alvar indicator species within ELC communities: ALO1, ALS, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2		<ul style="list-style-type: none"> <li>An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil;</li> <li>The hydrology of alvars is complex, with alternating periods of inundation and drought;</li> <li>Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plant;</li> </ul>	Does not occur on the subject properties

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities	Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
	<ul style="list-style-type: none"> <li>• Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animal species ; and</li> <li>• Vegetation cover varies from patchy to barren with a less than 60% tree cover.</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>• An Alvar site &gt; 0.5 ha in size;</li> <li>• Five indicator species specific to alvars within Ecoregion 6E: 1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema brachiatum;</li> <li>• Site must not be dominated by exotic or introduced species (&lt;50% vegetative cover exotics); and</li> <li>• The Alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses.</li> </ul>	
<b>19. Old Growth Forest</b> ELC Communities: FOD FOC FOM SWD SWC SWM	<ul style="list-style-type: none"> <li>• Old-growth forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris.</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>• Woodland area is &gt;30 ha with at least 10 ha of interior habitat;</li> <li>• If dominant trees species of the ecosite are &gt;140 years old, then stand is SWH;</li> <li>• The forested area containing the old growth characteristics will have experienced no recognizable forestry activities (cut stumps will not be present); and</li> <li>• The area of forest ecosites combined or an eco-element within an ecosite that contain the old growth characteristics is the SWH.</li> </ul>	Habitat suitability criteria not met.
<b>20. Savannah</b> ELC Communities: TPS1 TPS2 TPW1 TPW2 CUS2	<ul style="list-style-type: none"> <li>• A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60%.</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>• No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH;</li> <li>• Field studies confirm one or more of the Prairie indicator species listed in Appendix N should be present. Note: Savannah plant spp. list from Ecoregion 6E should be used; and</li> </ul>	Does not occur on the Subject properties

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities	Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
	<ul style="list-style-type: none"> <li>Site must not be dominated by exotic or introduced species (&lt;50% vegetative cover exotics).</li> </ul>	
<b>21. Tallgrass Prairie</b> ELC Communities: TPO1 TPO2	<ul style="list-style-type: none"> <li>A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has &lt; 25% tree cover; and</li> <li>In ecoregion 6E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in the Toronto area (north of Lake Ontario).</li> </ul> <p><i>Suggested Criteria</i></p> <ul style="list-style-type: none"> <li>No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH;</li> <li>ELC communities TPO1, TPO2;</li> <li>Field studies confirm one or more of the Prairie indicator species listed in Appendix N in SWHTG (MNRF 2000) should be present. Prairie plant spp. list from Ecoregion 6E should be used; and</li> <li>Site must not be dominated by exotic or introduced species (&lt;50% vegetative cover exotics).</li> </ul>	Does not occur on the Subject properties
<b>22. Other Rare Vegetation Communities</b>	<ul style="list-style-type: none"> <li>Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG (MNRF 2000);</li> <li>Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps;</li> <li>ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in SWHTG (MNRF 2000) Appendix M; and</li> <li>The MNRF/NHIC will have up to date listing for rare vegetation communities.</li> </ul>	Does not occur on the Subject properties
<b>Specialized Habitat for Species</b>		
<b>23. Waterfowl Nesting Area</b>		



Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	<p>All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH:</p> <p>MAS1, MAS2, MAS3            SAS1, SAM1, SAF1            MAM1, MAM2, MAM3,            MAM4, MAM5, MAM6            SWT1, SWT2, SWD1,            SWD2, SWD3, SWD4</p> <p>Note: Includes adjacency to Provincially Significant Wetlands</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>A waterfowl nesting area extends 120 m from a wetland (&gt; 0.5 ha) or a wetland (&gt;0.5 ha) with small wetlands (&lt;0.5ha) within 120m or a cluster of 3 or more small (&lt;0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur; and</li> <li>Upland areas should be at least 120m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests.</li> </ul> <p><i>Suggested Criteria</i>            Studies confirm:</p> <ul style="list-style-type: none"> <li>Presence of 3 or more nesting pairs for listed species excluding Mallards, or presence of 10 or more nesting pairs for listed species including Mallards; and</li> <li>Any active nesting site of an American Black Duck is considered significant.</li> </ul> <p>Wood Ducks and Hooded Mergansers utilize large diameter trees (&gt;40 cm dbh) in woodlands for cavity nest sites</p>	<p>Small numbers of Mallard and Wood Duck observed and likely to be nesting on subject properties. Observed numbers insufficient to qualify as significant.</p>
<b>24. Bald Eagle and Osprey Nesting, Foraging and Perching Habitat</b>			
Osprey Bald Eagle	<p>ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas - rivers, lakes, ponds and wetlands.</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water;</li> <li>Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy; and</li> <li>Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).</li> </ul> <p><i>Suggested Criteria Studies confirm the use of these nests by:</i></p> <ul style="list-style-type: none"> <li>One or more active Osprey or Bald Eagle nests in an area;</li> <li>Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH;</li> <li>For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH <sup>ccvii</sup>, maintaining undisturbed shorelines with large trees within this area is important; and</li> <li>For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800m is dependent on site lines from the nest to the development and inclusion of perching and foraging habitat.</li> </ul>	<p>Potentially suitable habitat associated with woodlands/swamps adjacent to the Sauble River. However, Osprey and Bald Eagle were absent during breeding bird surveys, and no stick nests observed.</p>

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
		To be significant a site must be used annually. When found inactive, the site must be known to be inactive for >3 years or suspected of not being used for >5 years before being considered not significant	
<b>25. Woodland Raptor Nesting Habitat</b>			
Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	May be found in all forested ELC Ecosites.  May also be found in: SWC SWM SWD CUP3	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>All natural or conifer plantation woodland/forest stands combined &gt;30ha or with &gt;4 ha of interior habitat; interior habitat determined with a 200 m buffer;</li> <li>Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore island; and</li> <li>In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>Presence of 1 or more active nests from species list is considered significant;</li> <li>Red-shouldered Hawk and Northern Goshawk – a 400m radius around the nest or 28 ha of suitable habitat is the SWH. (the 28 ha habitat area would be applied where optimal habitat is irregularly shaped around the nest);</li> <li>Barred Owl – a 200m radius around the nest is the SWH; and</li> <li>Broad-winged Hawk and Coopers Hawk, – a 100m radius around the nest is the SWH.</li> </ul> <p>Sharp-Shinned Hawk – a 50m radius around the nest is the SWH</p>	Habitat suitability criteria not met. None of the listed species were observed.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>26. Turtle Nesting Areas</b>			
Midland Painted Turtle Northern Map Turtle Snapping Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100 m) to within the following Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals;</li> <li>For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas;</li> <li>Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH; and</li> <li>Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>Presence of 5 or more nesting Midland Painted Turtles;</li> <li>One or more Northern Map Turtle or Snapping Turtle nesting; and</li> <li>The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100m around the nesting area dependant on slope, riparian vegetation and adjacent land use is the SWH.</li> </ul> <p>Travel routes from wetland to nesting area are to be considered within the SWH</p>	Snapping turtles observed in the Sauble River and adjacent agricultural fields. Exposed mineral soils near the Sauble River within the subject properties are limited to the crop fields north of the river, where several Snapping Turtles were observed nesting. Turtle nests are unlikely to be successful in this active crop field, and the agricultural field is not considered SWH.
<b>27. Seeps and Springs</b>			
Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	Seeps and springs are areas where ground water comes to the surface. Often, they are found within headwater areas within forested habitats. Any forested Ecosite within headwater areas of a stream could have seeps/springs.	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Any forested area (with &lt;25% meadow/field/pasture) within the headwaters of a stream or river system (could contain a seep or spring - areas where ground water comes to the surface);</li> <li>Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species; and</li> <li>The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat.</li> </ul> <p><i>Suggested Criteria</i> Studies confirm:</p> <ul style="list-style-type: none"> <li>Presence of a site with 2 or more seeps/springs should be considered SWH.</li> </ul> <p>The area of an ELC forest ecosite containing the seeps/springs is the SWH</p>	No seeps or springs were observed on the subject properties.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>28. Amphibian Breeding Habitat (Woodland)</b>			
Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog	<p>All Ecosites associated within these ELC Community Series: FOC, FOM, FOD, SWC, SWM, SWD</p> <p>Breeding pools within the woodland or the shortest distance from the forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>• Presence of a wetland, pond, or woodland pool within or adjacent (within 120m) to a woodland (no minimum size);</li> <li>• Some small wetlands may not be mapped and may be important breeding pools for amphibians; and</li> <li>• Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat.</li> </ul> <p><i>Suggested Criteria</i>            Studies confirm:            Presence of breeding population of 1 or more of the listed salamander species or 2 or more of the listed frog species with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3</p>	Potentially suitable habitat associated with swamp wetlands.
<b>29. Amphibian Breeding Habitat (Wetland)</b>			
Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	<p>Classes SW, MA, FE, BO, OA and SA.</p> <p>Typically, these wetland Ecosites will be isolated &gt;120 m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bullfrog) may be adjacent to woodland.</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>• Wetlands &gt;500 m<sup>2</sup> (about 25 m diameter) supporting high species diversity are significant;</li> <li>• Some small or ephemeral habitats may not be identified on MNRF mapping and could be important amphibian breeding habitats;</li> <li>• Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators; and</li> <li>• Bullfrogs require permanent water bodies with abundant emergent vegetation.</li> </ul> <p><i>Suggested Criteria</i>            Studies confirm:  <ul style="list-style-type: none"> <li>• Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog or toad species and with at least 20 individuals (adults, juveniles, eggs/larval masses) or 2 or more of the listed frog species with Call Level Codes of 3.</li> </ul>           The ELC ecosite wetland area and the shoreline are the SWH</p>	Potentially suitable habitat associated with Sauble River and wetlands.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>30. Woodland Area-Sensitive Bird Breeding Habitat</b>			
Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Cerulean Warbler Canada Warbler	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD	<b>Suitable Habitat</b> <ul style="list-style-type: none"> <li>Habitats where interior forest breeding birds are breeding;</li> <li>Typically large mature (&gt;60 yrs old) forest stands or woodlots &gt;30 ha; and</li> <li>Interior forest habitat is at least 200 m from forest edge habitat.</li> </ul> <b>Suggested Criteria</b> Studies confirm: <ul style="list-style-type: none"> <li>Presence of nesting or breeding pairs of 3 or more of the listed wildlife species.</li> </ul> Any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH	Woodlands are less than 30 ha. Yellow-bellied Sapsucker and Ovenbird observed during field investigations and are presumed to be nesting, but 3 species are required to qualify as significant.
<b>Habitat for Species of Conservation Concern</b>			
<b>31. Marsh Bird Breeding Habitat</b>			
American Bittern Virginia Rail Sora  Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Sandhill Crane Green Heron Trumpeter Swan Black Tern Yellow Rail	MAM 1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1  For Green Heron: All SW, MA and CUM1 sites.	<b>Suitable Habitat</b> <ul style="list-style-type: none"> <li>Nesting occurs in wetlands;</li> <li>All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present; and</li> <li>For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water.</li> </ul> <b>Suggested Criteria</b> Studies confirm: <ul style="list-style-type: none"> <li>Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 4 or more of the listed species;</li> <li>Note: any wetland with breeding of 1 or more Trumpeter Swans, Black Terns or Yellow Rail is SWH; and</li> <li>Area of the ELC ecosite is the SWH.</li> </ul>	Suitable habitat not present.
<b>32. Open Country Bird Breeding Habitat</b>			
Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow Short-eared Owl	CUM1 CUM2	<b>Suitable Habitat</b> <ul style="list-style-type: none"> <li>Large grassland areas (includes natural and cultural fields and meadows) &gt;30 ha;</li> <li>Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years);</li> <li>Grassland sites considered significant should have a history of longevity, either abandoned fields, mature</li> </ul>	Savannah Sparrow was documented on the subject properties associated with the agricultural fields. However, suggested criteria are not met as two of the listed species are required to qualify as significant and agricultural fields do not qualify regardless of the number.



Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
		<p>hayfields and pasturelands that are at least 5 years or older; and</p> <ul style="list-style-type: none"> <li>The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species.</li> </ul> <p><i>Suggested Criteria</i> Field Studies confirm:</p> <ul style="list-style-type: none"> <li>Presence of nesting or breeding of 2 or more of the listed species; and</li> <li>A field with 1 or more breeding Short-eared Owls is to be considered SWH.</li> </ul> <p>The area of SWH is the contiguous ELC ecosite field areas</p>	
<b>33. Shrub/Early Successional Bird Breeding Habitat</b>			
<p><u>Indicator Species:</u> Brown Thrasher Clay-coloured Sparrow</p> <p><u>Common Species:</u> Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher</p> <p><u>Special Concern:</u> Yellow-breasted Chat Golden-winged Warbler</p>	<p>CUT1 CUT2 CUS1 CUS2 CUW1 CUW2</p> <p>Patches of shrub ecosites can be complexed into a larger habitat for some bird species.</p>	<p><i>Suitable Habitat</i></p> <ul style="list-style-type: none"> <li>Large natural field areas succeeding to shrub and thicket habitats &gt;10ha in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years);</li> <li>Shrub thicket habitats (&gt;10 ha) are most likely to support and sustain a diversity of these species; and</li> <li>Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands.</li> </ul> <p><i>Suggested Criteria</i> Field Studies confirm:</p> <ul style="list-style-type: none"> <li>Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species; and</li> <li>A habitat with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as Significant Wildlife Habitat.</li> </ul> <p>The area of the SWH is the contiguous ELC ecosite field/thicket area</p>	No suitable habitat.

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities		Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>34. Terrestrial Crayfish</b>			
Chimney or Digger Crayfish ( <i>Fallicambarus fodiens</i> ) Devil Crawfish or Meadow Crayfish ( <i>Cambarus Diogenes</i> )	MAM1, MAM2, MAM3, MAM4, MAM5, MAM6 MAS1, MAS2, MAS3 SWD, SWT, SWM  CUM1 within inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.	<p><b>Suitable Habitat</b></p> <ul style="list-style-type: none"> <li>Wet meadow and edges of shallow marshes (no minimum size) identified should be surveyed for terrestrial crayfish;</li> <li>Constructs burrows in marshes, mudflats, meadows; the ground can't be too moist;</li> <li>Can often be found far from water; and</li> <li>Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels; usually the soil is not too moist so that the tunnel is well formed.</li> </ul> <p><b>Suggested Criteria</b> Studies Confirm:</p> <ul style="list-style-type: none"> <li>Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable marsh meadow or terrestrial sites.</li> </ul> <p>Area of ELC Ecosite polygon is the SWH</p>	Observed at corner of agricultural field north of the Sauble River, however, agricultural fields are not candidate SWH.
<b>35. Special Concern and Rare Wildlife Species</b>			
		<ul style="list-style-type: none"> <li>All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species;</li> <li>When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially rare species; and</li> <li>Linking candidate habitat on the site needs to be completed to ELC Ecosites.</li> </ul> <p><b>Suggested Criteria</b> Studies confirm:</p> <ul style="list-style-type: none"> <li>Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable;</li> <li>Habitat form and function needs to be assessed from the assessment of ELC vegetation types and an area of significant habitat that protects the rare or special concern species identified;</li> <li>The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH; this must be delineated through detailed field studies; and</li> <li>The habitat needs be easily mapped and cover an important life stage component for a species (e.g. specific nesting habitat or foraging habitat).</li> </ul>	<p>Special Concern species observed:</p> <ul style="list-style-type: none"> <li>Eastern Wood-pewee</li> <li>Barn Swallow (foraging only)</li> <li>Snapping Turtle (Sauble River and adjacent wetlands)</li> </ul> <p>Provincially rare species (S3):</p> <ul style="list-style-type: none"> <li>Chimney or Digger Crayfish (<i>Fallicambarus fodiens</i>) in agricultural field – not SWH</li> </ul>

Wildlife Habitat Category and Associated Species and Ecological Land Classification (ELC) Communities	Provincial Guidance for SWH in Ecoregion 6E*	Application to the Subject Lands and Study Area
<b>Animal Movement Corridors</b>		
<b>36. Amphibian Movement Corridors</b>		
Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	<ul style="list-style-type: none"> <li>• Amphibian movement corridors should only be identified as SWH where a confirmed or Candidate SWH has been identified by MNRFP or the planning authority;</li> <li>• Movement corridors between breeding habitat and summer habitat;</li> <li>• Movement corridors must be considered when amphibian breeding habitat is confirmed as SWH;</li> <li>• Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites;</li> <li>• Corridors should consist of native vegetation, with several layers of vegetation;</li> <li>• Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant;</li> <li>• Corridors should be at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps &lt;20 m ; and</li> <li>• Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat.</li> </ul>	The Sauble River corridor could facilitate movement of amphibians. The property has not been identified as such by MNRFP.
<b>37. Deer Movement Corridors</b>		
White-tailed Deer	<ul style="list-style-type: none"> <li>• Deer movement corridors should only be identified as SWH where a confirmed or Candidate SWH has been identified by MNRFP or the planning authority;</li> <li>• Corridors follow riparian areas, woodlots, areas of physical geography (ravines or ridges);</li> <li>• Field Studies must be conducted at the time of year when species are expected to be migrating or moving to and from winter concentration areas;</li> <li>• Corridors that lead deer to wintering habitat should be unbroken by roads or residential areas; and</li> <li>• Corridors should be at least 200 m wide with gaps less than 20 m, and if following a riparian area, there must be at least 15 m of vegetation on both sides of the waterway.</li> </ul>	. The property has not been identified as such by MNRFP.

### Neoen Tara BESS Working Group – Meeting 3 - Notes

<b>Date &amp; Time:</b>	March 28, 2025
<b>Meeting Topic:</b>	Traffic Management & Decommissioning
<b>Location:</b>	Virtual – Microsoft Teams
<b>Circulation:</b>	April 10, 2025

#### Attendees

#	Name	Organization	Role
1	Brittany Morrison	Neoen	Manager, Engagement & Stakeholder Relations
2	Mario de Agüero	Neoen	Senior Project Manager – Tara BESS
3	Benoît Pinot	Neoen	
4	Foster Karcha	BBA	
5	Vincent Clément	BBA	
6	Yohan Santerre	BBA	
7	Alexandra Clarke	Indigenous Community Engagement	
8	Steve Tiernan	Municipality of Arran-Elderslie	Fire Chief
9	Christine Fraser-McDonald	Municipality of Arran-Elderslie	Clerk
10	Scott McLeod	Municipality of Arran-Elderslie	Manager of Public Works
11	Emily Dance	Municipality of Arran-Elderslie	CAO
12	Claire Dodds	Bruce County	Commissioner of Community Development
13	Jenn Burnett	Bruce County	Senior Planner
14	Liz Buckton	Grey County	Senior Policy Planner

15	Ryan Errington	Engineering Manager	Bruce County
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### Review of Action Items from Previous Meeting

#	Description	Status
1	<ul style="list-style-type: none"> <li>• <b>Neoen</b> to confirm the space between each battery.</li> <li>• <b>Neoen</b> to confirm the load rating of each road.</li> <li>• <b>Neoen</b> to confirm the space between each battery cluster.</li> </ul>	To be provided in Neoen's municipal planning application. <b>A minimum 2.5 m spacing distance will be respected on the north and south sides of containers, and minimum 1.8 m spacing on the east and west sides of containers.</b>
2	<b>Neoen</b> to provide details on the disposal of any spilled refrigerant, coolant etc.	To be provided in Neoen's municipal planning application. <b>Provided in Comprehensive Safety Plan.</b>
3	The <b>Municipality of Arran-Elderslie</b> to provide Neoen with any specs or models for an acceptable air monitoring device so that it can be put into the emergency response agreement.	Ongoing.
4	Neoen to provide additional information regarding protective and preventative measures that are put in place to prevent contaminants from contaminating the watershed.	To be provided in Neoen's municipal planning application. <b>Provided in Comprehensive Safety Plan.</b>

### Meeting Summary

#### Review of Previous Action Items

1. There is 1.83m between the N and S ends, and 2.5m between the individual battery containers E to W. There are 5 battery clusters and the space between the clusters is 5m which is the entire road width.
2. Neoen has decided to put together a comprehensive safety plan document. This document is anticipated to be circulated on Monday, March 21, 2025 and will be circulated separately from the municipal planning application to everyone on the call.



3. The Municipality of Arran-Elderslie is still determining the specs and models acceptable for air monitoring devices, and will send information to 9 Neoen when available.

***Tara BESS Traffic Management & Decommissioning Presentation from Neoen***  
*(presented by Brittany Morrison)*

1. Regarding the access road off concession 4, attendees inquired where the cut and fill come from. In recent weeks the area highlighted on slide 12 for cut and fill was submerged in water. How will the removal of fill impact flooding on that site?
  - Neoen shared that the flood storage capacity is anticipated to remain the same based on the current design. More information on this is in the floodplain report analysis which is part of the submission to the conservation authority and the municipal planning application. The Floodplain report analysis will show how the floodplain capacity is maintained. The area to the west of the river would be flooded in the event of a flood event. Once the work occurs, this area will be at slightly lower elevation, but not lower than the channel elevation; this means that it may remain flooded for a longer period of time.
2. The image at the top right of slide 12 is not an access point.
  - Neoen inquired if there is a process to make this an access point.
  - The Municipality of Arran-Elderslie advises that there is a process and permit that would need to be applied for to turn this into an access point.
3. Bruce County advised that WSIB, Traffic Control Plan, Encroachment Permit, Entrance Permit and other would be required prior to the work happening off Concession Road 4 and Grey Bruce Line.
4. The Municipality of Arran Elderslie advises that Concession Road 4 cannot be a haul road. **The Municipality advises that they would need to review hauling plans. Neoen advises that they are opening to looking at changes to the type of hauling vehicles if needed.**
5. Neoen is interested in a load restriction calendar for Concession 4.
  - The Municipality of Arran Elderslie advises that load restrictions are posted and available, however the Municipality has the ability to impose additional restrictions at any time if they find that their roads are being damaged.
6. **The Municipality of Arran Elderslie Information regarding the load rating of the site roads is requested. Neoen to provide when available.**
7. The Municipality's entrance permits can be found on the Municipalities website, as well as fees, deposits etc.
8. The Municipality holds a deposit on the roadways due to hauling. The deposit is used if the roads are damaged and the company does not fix the damage.
9. Regarding the moving permits and load restrictions, information is available on the County website through a portal.
  - The Municipality advises they would likely follow through with what the County does.
  - Bruce County advises that applications be submitted a minimum of 3 weeks in advance.
10. Traffic control plans from Neoen need to confirm to Ontario Traffic Manual (OTM) Book 7.
11. Bruce County Advises a pre-condition study for Grey Bruce Line prior to the truck movements and hauling. The County will do a pre and post-condition assessment on the roads and asphalt.

- The Municipality advises that they would likely do a pre and post-condition assessment of the asphalt as well.
12. Inert components that may remain after decommissioning would be non-reactive materials that will not leech chemicals into the ground such as concrete. These materials can be safely left on site. **Neoen to check how far down inert materials may be left.**
  13. Bruce County would like to know how much decommissioning is anticipated to cost.
    - Neoen shared that there is some cost recovery available during the decommissioning.
  14. In the event that Neoen is no longer the project owner in the future during decommissioning, then the creditor would take control of the project and be responsible for the decommissioning.
  15. Neoen expects to know if the contract with IESO will be extended beyond the current 20 year contract, approximately around 3 years prior to the end of the current contract.
  16. Neoen is not aware of any requirements from IESO to return the land back to a state capable of food production. Upon decommissioning, Neoen will work with the landowner to return the land to suitable, and as close to pre-project site conditions as possible.
  17. The Decommissioning plan will be submitted by Neoen as part of the Municipal Planning Application.
  18. Neoen would be happy to meet with the Grey Traffic Department if needed.

#### Action Items

#	Description	Status
1	When available, Municipality of Arran-Elderslie to review hauling plans for Concession Road 4. Neoen to review feedback and determine if the type of hauling vehicles planned should be adjusted.	
2	Neoen to provide load ratings for the on-site roads when available to the Municipality of Arran-Elderslie.	<b>Internal road load rating will be determined by crane size, but at a minimum will be sufficient to accommodate emergency vehicles.</b>
3	Regarding decommissioning, Neoen to check how far down inert materials can be left on site.	<b>Concrete foundations for transmission poles will be approximately 1.5 metres below grade.</b>



## Tara BESS Working Group – Traffic Management & Decommissioning

*March 28, 2025*

Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities. We recognize and respect the relationship these communities share with the land and waters where we work.



# Agenda

- Tara BESS
- Tara BESS Traffic Conditions
- Traffic Study
- Discussion
- Decommissioning

# Tara BESS



# Background

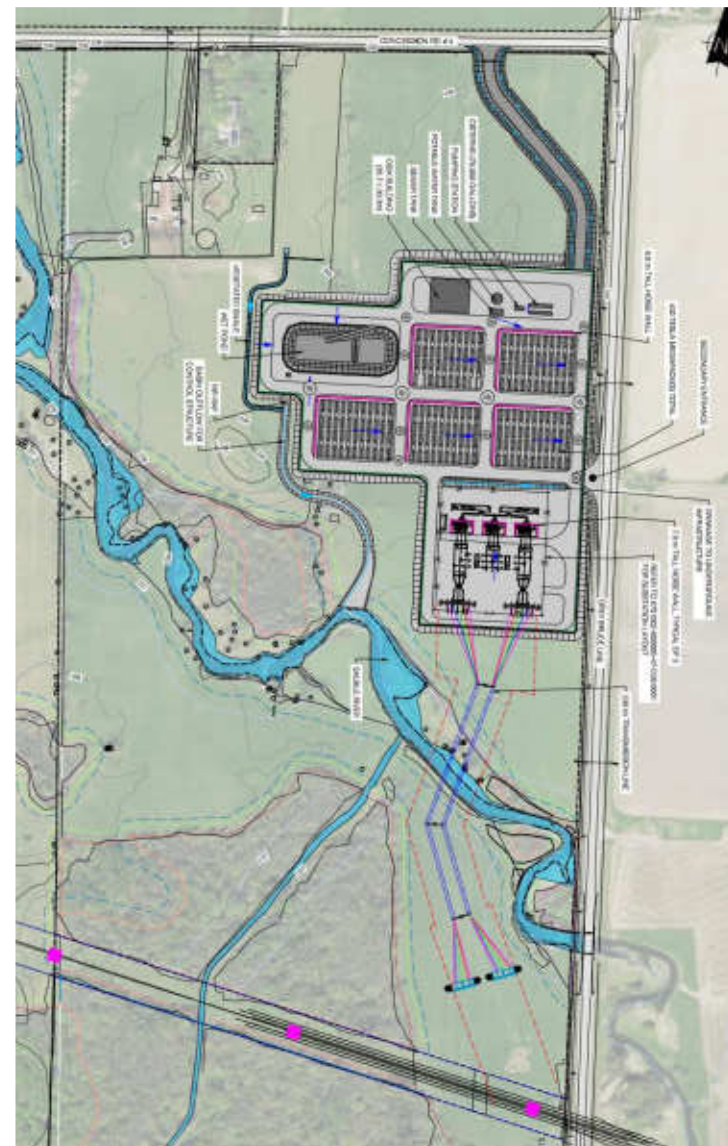
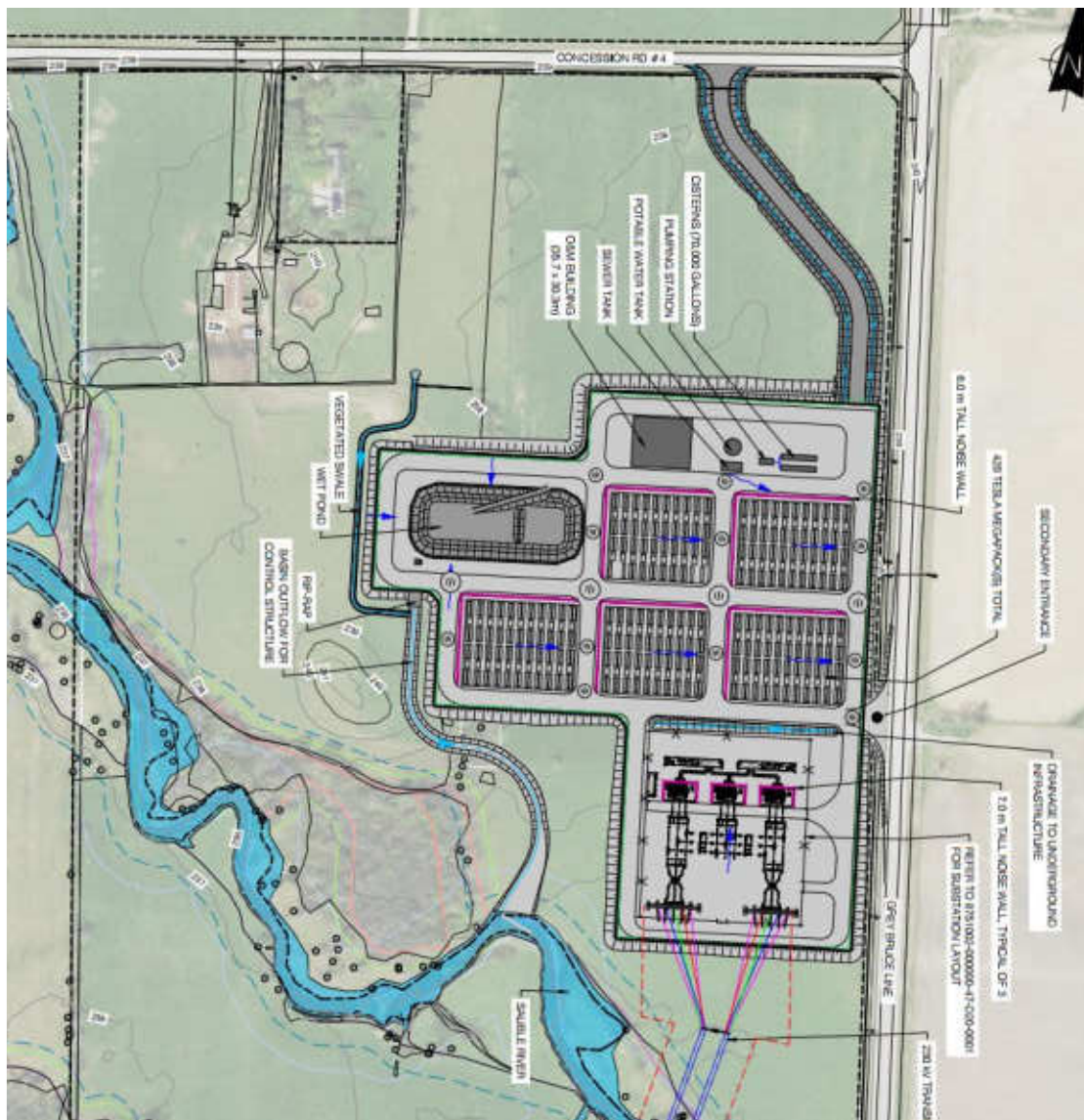
- Tara BESS, formerly Grey Owl Storage, was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 battery energy storage system (BESS) contracts awarded in LT1, collectively totaling 1,784 MW, to help meet Ontario's projected energy needs by 2050.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

# Proposed Project Lands





# Proposed Layout





# Layout Labels Defined

Label	Description
Basin Outflow for Control Structure	Outflow of filtered water from the wet pond to Sauble River
Cisterns	At-grade water storage
Drainage to Underground Infrastructure	Drain to subsurface stormwater management system
Megapacks	420 battery containers
Noise Wall (6m)	Acoustic barrier walls around the north and west sides of the five battery container sections
Noise Wall (7m)	Acoustic barrier walls around the north part of the three high voltage substation transformers
O & M Building	Operations and maintenance building (site office)
Potable Water Tank	Water to service site office
Primary Entrance	Gravel road site access off Concession Road 4
Pumping Station	At-grade water pumping system
Rip-Rap	Stone retention wall between the wet pond and basin outflow
Secondary Entrance	Gravel road access off Grey Bruce Line
Sewer Tank	Sewer tank to service site office
Vegetated Swale	Vegetated ditch channeling water to Sable River via the basin outflow
Wet Pond	Impermeable retention pond with filtration system consisting of a forebay and main pond separated by an earthen fill berm

## LEGEND

EXISTING GRADE CONTOUR	
DITCH FLOW DIRECTION DITCH	
CULVERT	
PROPERTY BOUNDARY (TULLOCH SURVEY)	
BATTERY NOISE WALL (6.0 m TALL)	
SURFACE WATER DRAINAGE	
FENCE	
BATTERY GROUP (4 BATTERIES, 1 TRANSFORMER)	
WETLANDS	
WATERCOURSE BUFFER 30 m	
WETLANDS BUFFER 15 m	
WOODLANDS BUFFER 10 m	
POTENTIAL SIGNIFICANT WILDLIFE HABITAT	
EASTERN MEADOWLARK HABITAT	
POTENTIAL MATERNITY ROOST HABITAT FOR LITTLE BROWN MYOTIS	
CAVITY TREES	
ECOLOGICAL COMMUNITIES	
HYDRO POLE	
HYDRO POLE ANCHOR	
WATERCOURSE	
LIMIT OF FORESTED AREA	
TREE/SHRUB	
EXISTING FENCE GATE	

# Tara BESS Traffic Conditions



# Traffic Conditions

- There are three traffic condition periods for Tara BESS:
  - **Pre-construction**– existing condition site access.
  - **Construction** – site access, road occupancy, and haul routes during construction
  - **Permanent (post-construction)** – permanent site access.
- Neoen will include its proposal for permanent site access in its planning application.
- Neoen will apply for construction conditions through the appropriate municipal processes.

Pre-construction



# Existing Site Access

- The existing three (3) site access points are needed in the pre-construction phase to facilitate studies.
- The Sauble River cannot be crossed.
- Use of the road shoulder may be required for short-term parking (site visits).



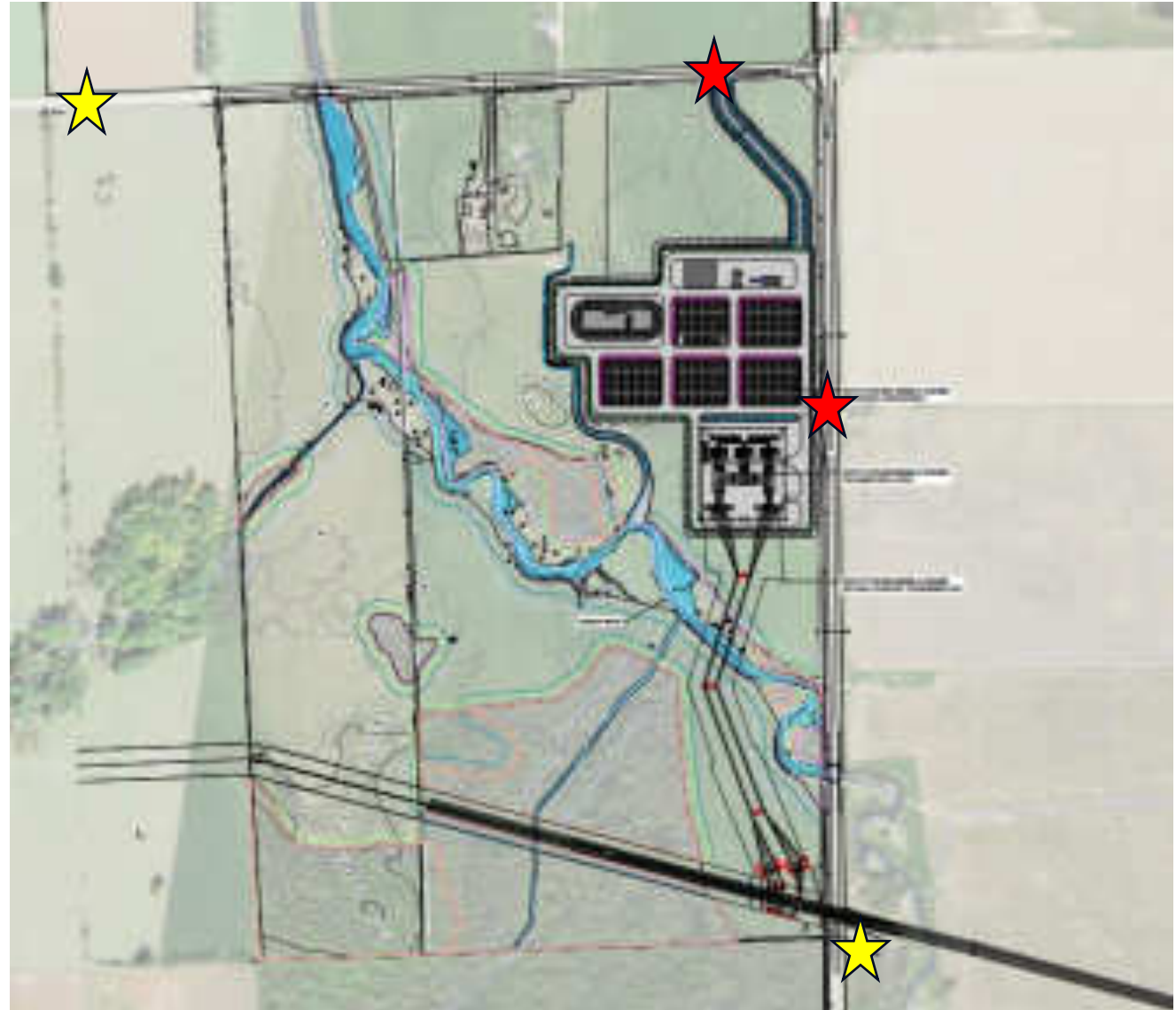


# Construction



# Proposed Construction Site Access

- During construction the four (4) site access points will be required:
  - Access points denoted by a yellow star are existing and needed temporarily for construction.
    - The most southerly star will remain an access point for Hydro One, the existing transmission line owner, and for possible maintenance purposes.
  - Access points denoted by red star are not existing and needed for construction and permanent site access.
- The new access point proposed for Concession Road 4 is intended to be a primary access point for construction.
- The new access point proposed for Grey Bruce Line is intended to be a secondary access point for construction reserved emergency vehicles and instances where the primary access point is not suitable.

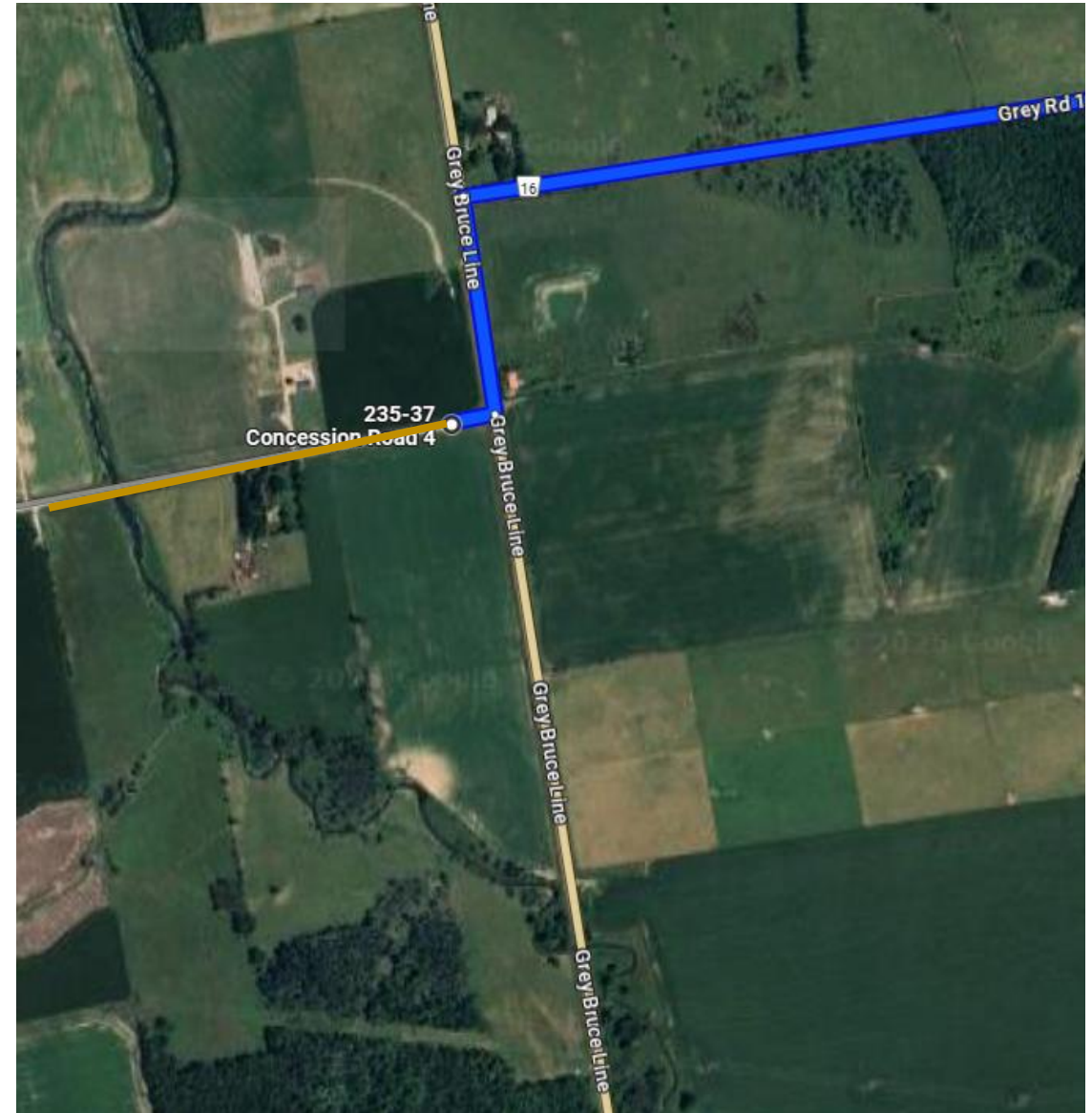


# Short-term Road Occupancy Needs

- Short-term road occupancy is anticipated on both Concession Road 4 and Grey Bruce Line to construct the primary and secondary site entrances.
- Neoen would like to construct these entrance as early as possible to facilitate construction activities.

# Proposed Haul Routes

- The haul routes likely to be proposed include:
  - Grey Road 16 (WB) → Grey Bruce Line (SB) → Concession Road 4 (WB) (in blue)
  - Concession Road 4 (EB) → Grey Bruce Line (NB) → Grey Road 16 (EB) (in blue)
  - Concession Road 4 (WB and EB) between the existing and proposed site access point (in yellow) – for fill hauling purposes only



# Deliveries and Haul Routes

- At peak construction (~6 months), we anticipate the Tara BESS site could receive up to 100 deliveries per day.
- Deliveries will include:
  - Equipment including office trailers, excavators, graders, dump trucks, portable washrooms, cranes, and cable pulling equipment.
  - BESS and substation components, including transformers, switchgear, battery containers, cable reels, cable terminals, transmission structures, beams, gantries.
  - Fill for cut-and-fill, access roads, etc.
  - Concrete and rebar.
  - Trees, shrubs, and other landscaping material.
- In addition to deliveries, worker vehicles will enter/exit and park on-site each day (up to ~100 vehicles daily).
- Deliveries will be received within the project site.
- No road shoulder parking.
- Neoen and its contractors will obey load restrictions – need load restriction calendar



# Traffic Volumes for Site-to-Site Fill Hauling

- The amount of material that needs to be excavated on the west side of the river is 19,100 cubic meters (m<sup>3</sup>)
- Assuming a standard, 12-wheel truck with a capacity of 20m<sup>3</sup> and 1.25 of expansion factor, a total of 1174 truckloads are anticipated.

# Construction of Entrances and Internal Roads

## **A. Site Preparation**

- Clearing and Grubbing – removal of vegetation and topsoil
- Earthworks and Grading – excavate and level the land to provide a stable base

## **B. Subgrade Preparation**

- Compaction of parent material to ensure stability.
- Add geotextile fabric for reinforcement in weak soils, if necessary.

## **C. Base Layer Construction**

- Install a granular base (e.g., Granular A or B, per provincial standards).
- Use crushed rock or gravel for a stable foundation.
- Compact the material using vibratory rollers.

## **D. Drainage & Culvert Installation**

- Install culverts and ditches at low points to prevent water pooling.
- Ensure compliance with Ontario Stormwater Management Planning and Design Manual.

## **E. Final Road Surface**

Permanent



# Proposed Permanent Condition

- Two (2) permanent site access points are required:
  - Primary access on Concession Rd 4
  - Secondary access on Grey Bruce Line
- At operations, site access is expected to be up to 10 vehicles per day.
- Secondary access is reserved for emergency vehicles and activities that must be performed from the secondary access.



# Traffic Study





# Traffic Study Concession Road 4

- A geometric traffic study was undertaken by Neoen to verify that the Concession Road 4 access point is sufficient to accommodate a pumper fire truck.

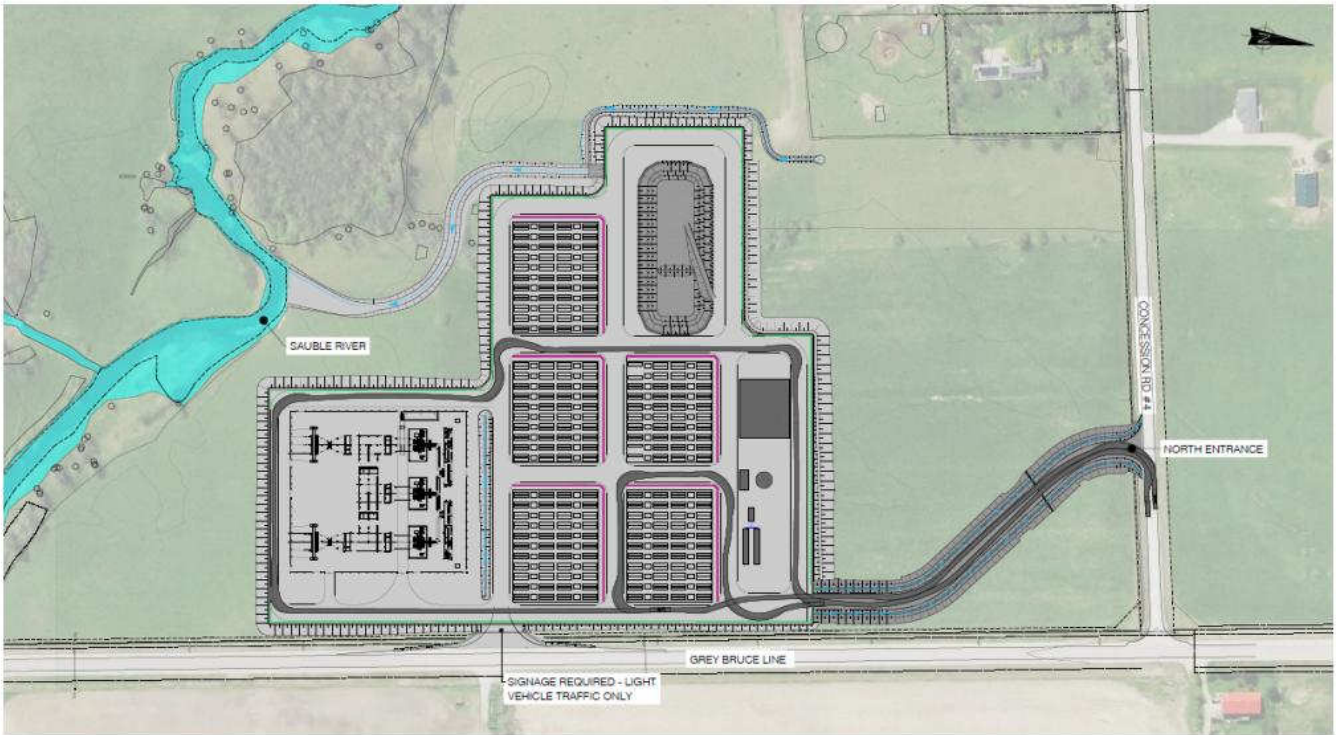


Figure 8: Navigation of a fire/emergency truck on site

Table 6: Pumper fire truck dimensions

Length (m)	Width (m)	Height (m)	Minimum body ground clearance (m)	Track width (m)	Lock-to-lock time (s)	Max wheel angle
12.192	2.489	2.361	0.2	2.489	5	45°

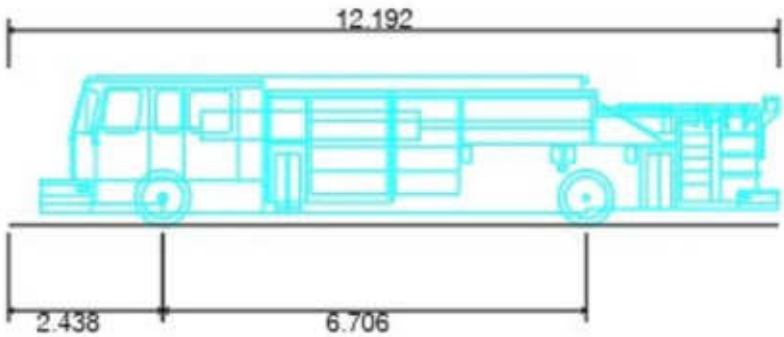


Figure 5: Pumper fire truck dimensions

# Traffic Study Concession Rd 4

- A geometric traffic study was undertaken by Neoen to verify that the Concession Road 4 access point is sufficient to accommodate a WB-21 truck.

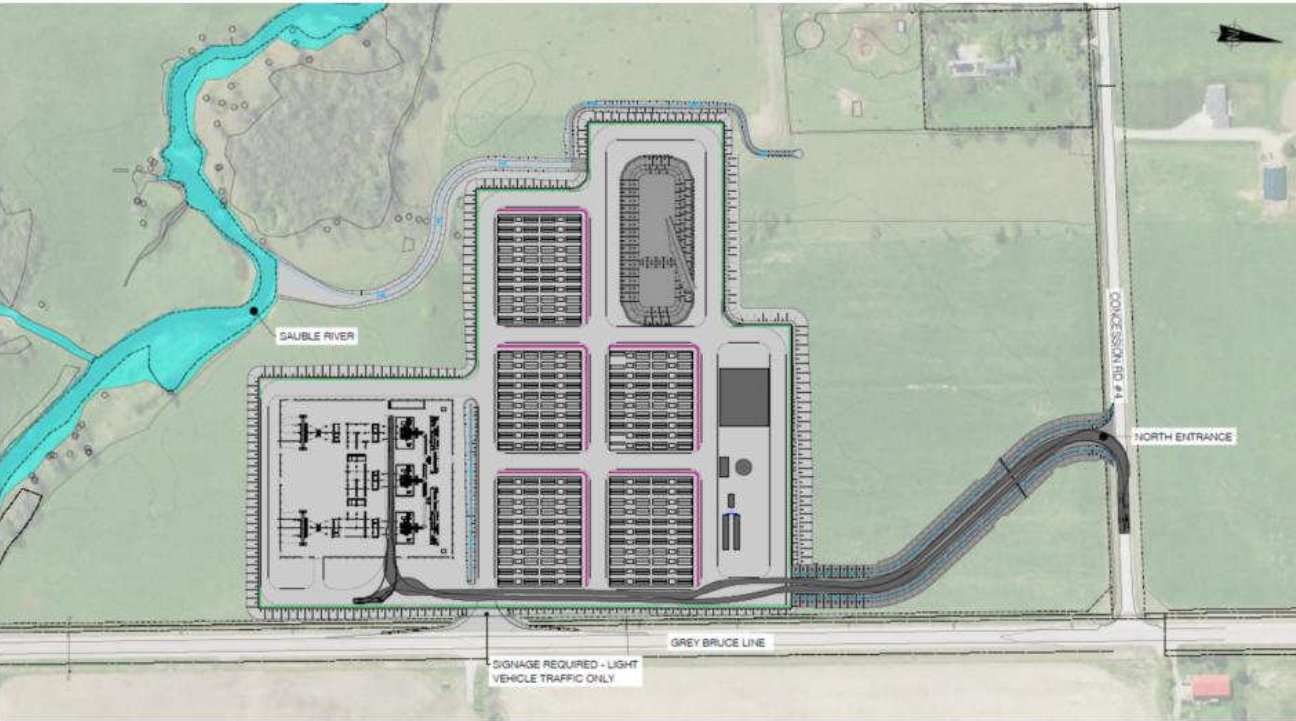


Figure 6: Navigation of a WB-21 truck on site

Table 4: WB-21 truck dimensions

Length (m)	Width (m)	Height (m)	Minimum body ground clearance (m)	Track width (m)	Lock-to-lock time (s)	Curb to curb turning radius (m)
25	2.6	3.73	0.4535	2.6	4	15

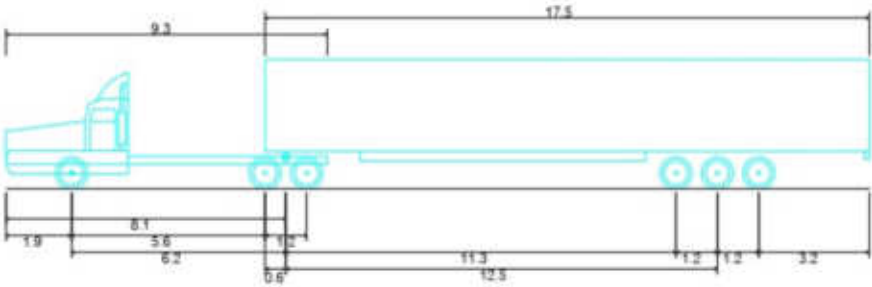


Figure 3: WB-21 truck dimensions

# Traffic Study Grey-Bruce Line

- A geometric traffic study was undertaken to ensure the Grey Bruce Line access point is sufficient to accommodate a pumper fire truck.
- This is a secondary entrance with no active in/out traffic anticipated and a maximum speed limit of 15 kph was determined.

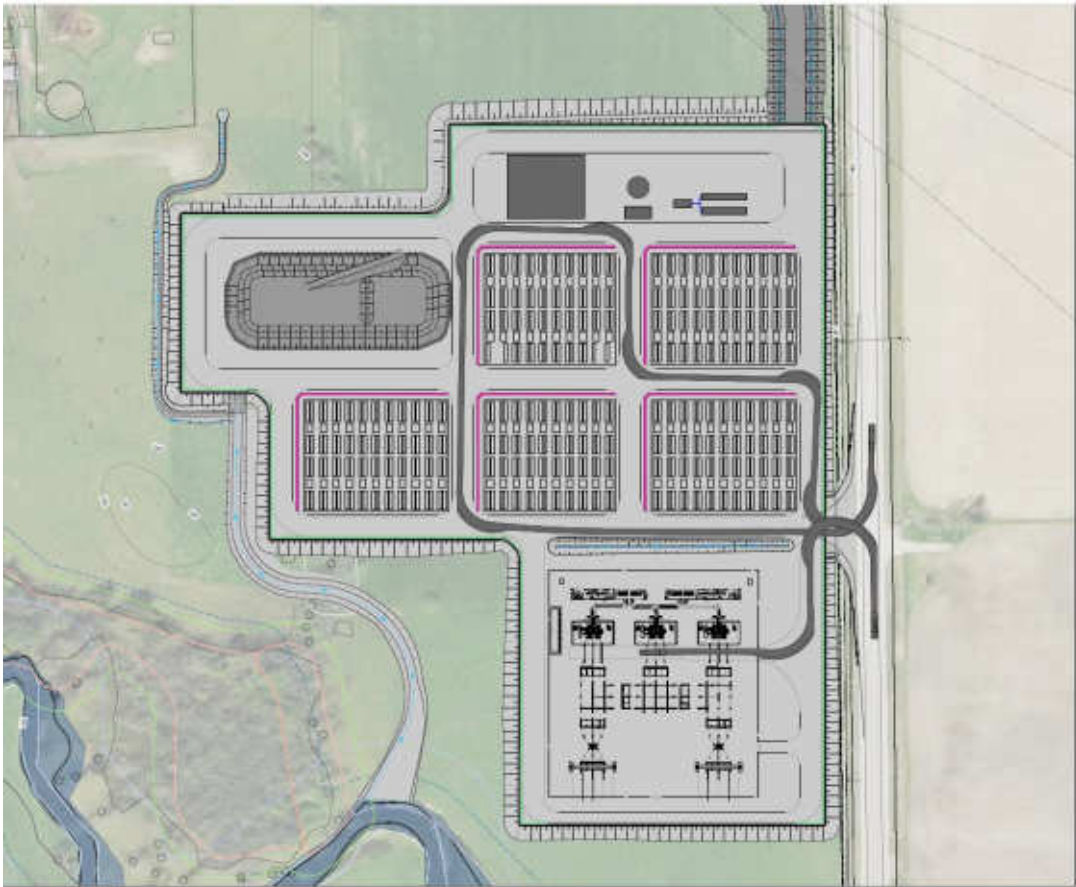


Table 6: Pumper fire truck dimensions

Length (m)	Width (m)	Height (m)	Minimum body ground clearance (m)	Track width (m)	Lock-to-lock time (s)	Max wheel angle
12.192	2.489	2.361	0.2	2.489	5	45°

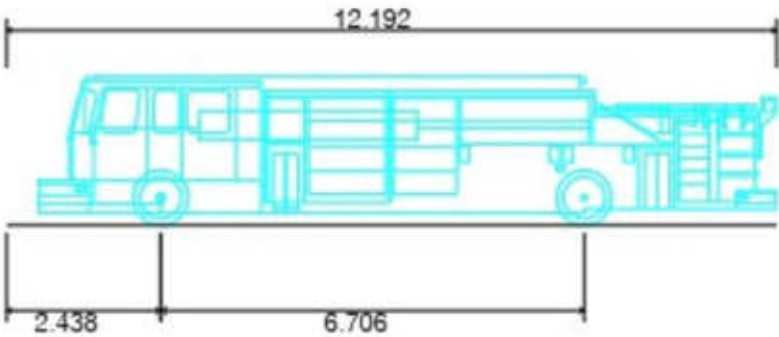


Figure 5: Pumper fire truck dimensions

# Discussion

- What are the load restrictions on Concession Road 4, Grey Road 16, and Grey Bruce Line?
- Traffic Management Plan processes for Arran-Elderslie and Bruce County.
- Entrance permitting processes for Arran-Elderslie and Bruce County.



# Decommissioning





# Overview

- Tara BESS was awarded a 20-year energy storage contract by the IESO.
- A Preliminary Decommissioning Plan (PDP) has been prepared detailing Neoen's plans for removal the BESS components at the end of the facility's lifecycle and subsequent reclamation of the host land.
- Decommissioning obligations are established in Neoen's lease agreement with the host landowner, under which Neoen is required to remove all facility components and restore the lands to a reasonable condition and equivalent use (agriculture), to be completed within an 18-month period.
- Should Neoen dissolve or the project be sold, Neoen's decommissioning obligations will be assumed by its creditors or the new project owner, respectively.

# Decommissioning Phasing

1. De-energization, including disconnecting the system, confirmation of low-charge state, and lock-out tag-out of transmission connections.
2. Neoen will complete a Phase 1 Environmental Site Assessment (Phase 1 ESA) in accordance with Ontario Regulation 153/04 (O. Reg. 134/04) or applicable regulations at the time.
  - If areas of concern are identified, a Phase 2 ESA will be initiated, with soil and/or groundwater sampling will be completed in accordance with O. Reg. 134/04.
3. Removal of BESS components, including:
  - Recycling of recyclable BESS components that can be reasonably recycled at the time of decommissioning.
  - Disposal of non-recyclable components.
4. Back-filling, decompaction, and recontouring of subsurface soil.
5. Restoration of any stockpiled topsoil from the project construction phase.
6. Seeding and crop cover activities.

# Components to be Decommissioned

- Battery containers
- BESS foundation\*
- High voltage transformers and other substation equipment
- Medium voltage transformers
- Transmission structures and transmission lines
- Substation
- Gravel pad and internal roads
- Surface runoff management system
- Retention pond
- Perimeter fencing
- Buildings
- Noise walls
- Vegetation?

\*Where demolishing inert foundation components can be safely maintained, they will be.



Tara BESS Project Briefing  
MPP Paul Vickers

*April 7, 2025*

Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands are also the historic homelands of the Métis Nation of Ontario Region 7 Communities. We recognize these communities as the traditional custodians and respect their relationship to the land and waters where we work.



# Background

- Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600 MW hours (MWh) battery energy storage system proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.
- Tara BESS was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 energy storage projects awarded a contract in LT1, collectively totaling 1,784 MW, to help meet Ontario's growing energy needs.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.



Tobermory

Lake Huron

Owen Sound

Arran-Elderslie

Hanover

**TARA**  
BATTERY

Barrie

Lake Simcoe

# Project Benefits

- Tara BESS is expected to deliver more than \$2M in community benefits over the course of operations, including:
  - A **Community Benefits Fund** to support local clean energy, biodiversity, environmental, arts & cultural, social and educational initiatives.
  - Neighbour and Rightsholder benefits.
  - A local art initiative.
- Additionally, Tara BESS will generate local employment, skills training and supplier opportunities.
- Municipal tax revenues, grid stability, etc.





# About Neoen

- Neoen is a leading independent power producer of exclusively renewable energy.
- Global portfolio capacity of 8.9-gigawatts (GW) in operation or under construction across 14 countries, including 18 BESS projects.
- Develop-to-own strategy.
- Neoen has an active solar plant, Fox Coulee Solar Farm, in Starland County, Alberta, and several projects in development in Canada.

## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.



# About Tara BESS



**Standalone BESS facility**



**Capable of providing 400  
MW of power for four  
hours**



**~420 lithium-ion battery  
cell containers**



**3 Transformers  
(1 back-up)**



**~20 acres of at-grade  
equipment**



**~400 m of overhead  
transmission line and ~5  
transmission structures**

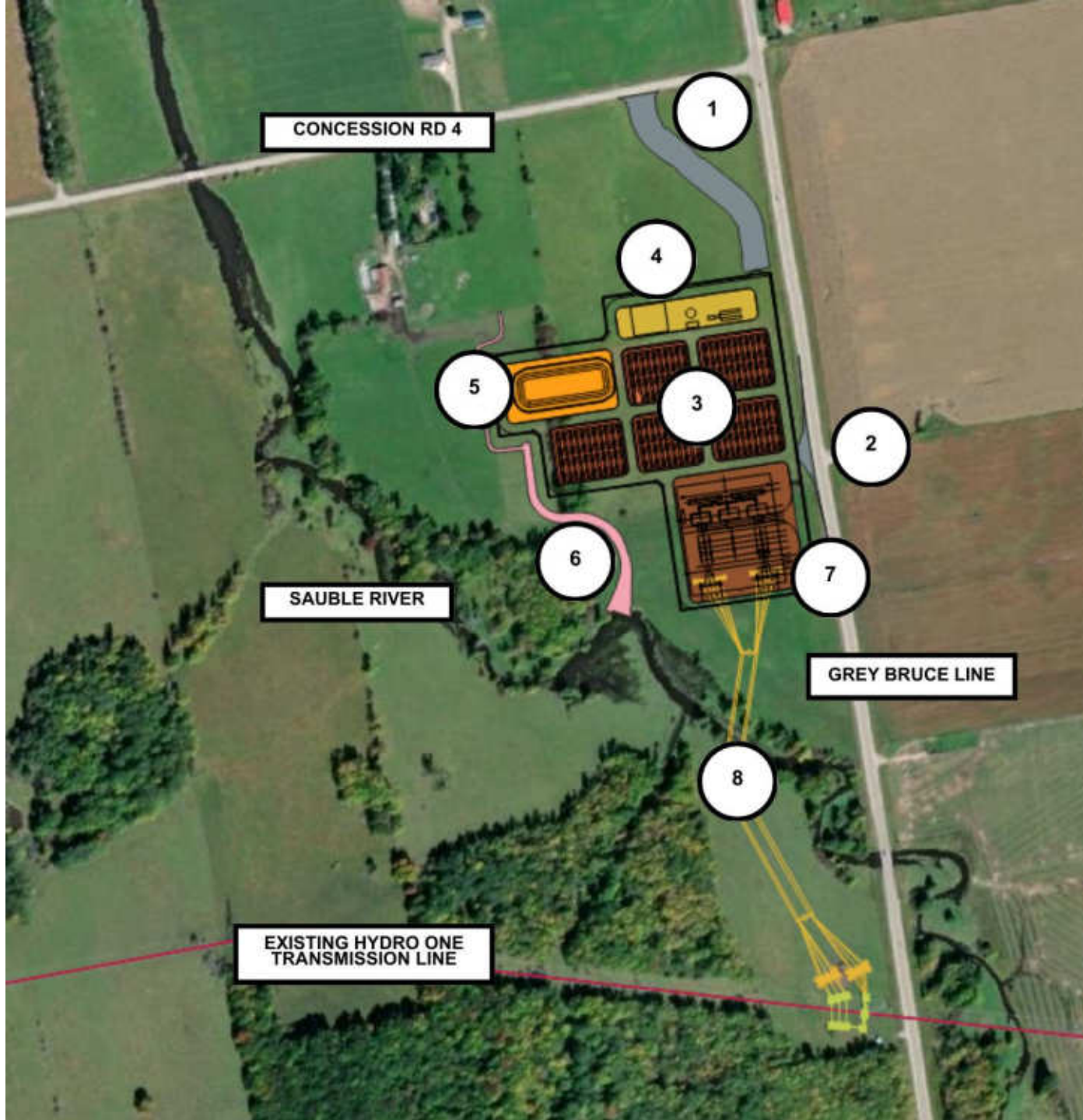
**Information is approximate and subject to change.**



# TARA BESS PROPOSED LAYOUT

1. Primary Entrance
2. Secondary Entrance
3. Battery Containers w/ Acoustic Barrier Walls
4. Operations & Maintenance Buildings
5. Stormwater Management Pond
6. Drainage
7. 230 kV Substation
8. 230 kV Transmission Line and Structures

Note: the 8-metre acoustic barrier wall previously shown along the north side of the facility is no longer proposed.



# Project Timeline and Feedback

## **MAY 2024**

CONTRACT AWARDED

## **Q3 2024 - Q1 2025**

PROJECT DEVELOPMENT  
COMMUNITY CONSULTATION  
PERMIT SUBMISSIONS

## **SPRING 2025**

PERMIT SUBMISSIONS

## **SPRING 2026**

CONSTRUCTION

## **LATE 2027**

OPERATIONS

We invite community feedback via the following channels:

- Phone: (416) 312-0057
- Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
- Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
- Mail: 319-150 King Street West, Toronto, ON M5H 1J9



# Grey Sauble Conservation Authority Approval

- Tara BESS is proposed for lands with a designated floodplain and is subject to approval by Grey Sauble Conservation Authority.
- A cut-and-fill method, combined with a surface run-off management system and retention pond, is proposed to mitigate impact to the floodplain:
  - The **cut-and-fill method** will raise the facility so that water can flow freely around it, while stormwater ditches leading to the Sauble River will off-set the BESS footprint.
  - A **surface run-off management system** comprised of site grading, vegetated ditches, subsurface storm sewers and drainage directed to the retention pond.
  - A **retention pond** (also referred to as wet pond) complete with separator, discharge orifices, and a control valve that allows water to flow into the Sauble River and limits flows to less than pre-BESS development flow rates.
- The proposed design protects water quality, quantity, and provides erosion control.
- No impact to floodplain or stormwater when modeled against 100-year return events.
- **Application completion expected spring 2025.**

# Class Environmental Assessment

- Tara BESS is subject to the Ministry of Environment, Conservation and Parks' (MECP) **Class Environmental Assessment for Minor Transmission Facilities** (Class EA) process, in accordance with the Ontario Environmental Assessment Act.
- Notice of Commencement of the Class EA process for Tara BESS was initiated on November 25, 2024.
- Feedback received between Notice of Commencement and Notice of Completion will be entered into a public consultation record that will form part of Neoen's Class EA submission.
- Notice of Completion expected to be issued in **mid-April 2025**, followed by a 30-day public comment period.

## Required studies:

- Aquatic Habitat Assessment
- Ecological Land Classification and Vegetation Surveys
- Breeding Bird Surveys
- Breeding Amphibian Surveys
- Bat Habitat Assessment (Maternity Roost Surveys)
- Noise Impact Assessment
- Agricultural Impact Assessment



# Other Permit and Approval Requirements

- Official Plan Amendment and Re-zoning (Bruce County/Arran Elderslie) – **applied April 3, 2025**
- Environmental Compliance Approval for Stormwater and Noise
- Environmental Activity Sector Registration
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan
- Ontario Endangered Species Act Sec.17 permit
- Duty to Consult Sufficiency Letter



# How a BESS Works?

## A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

## C - Transformer Station

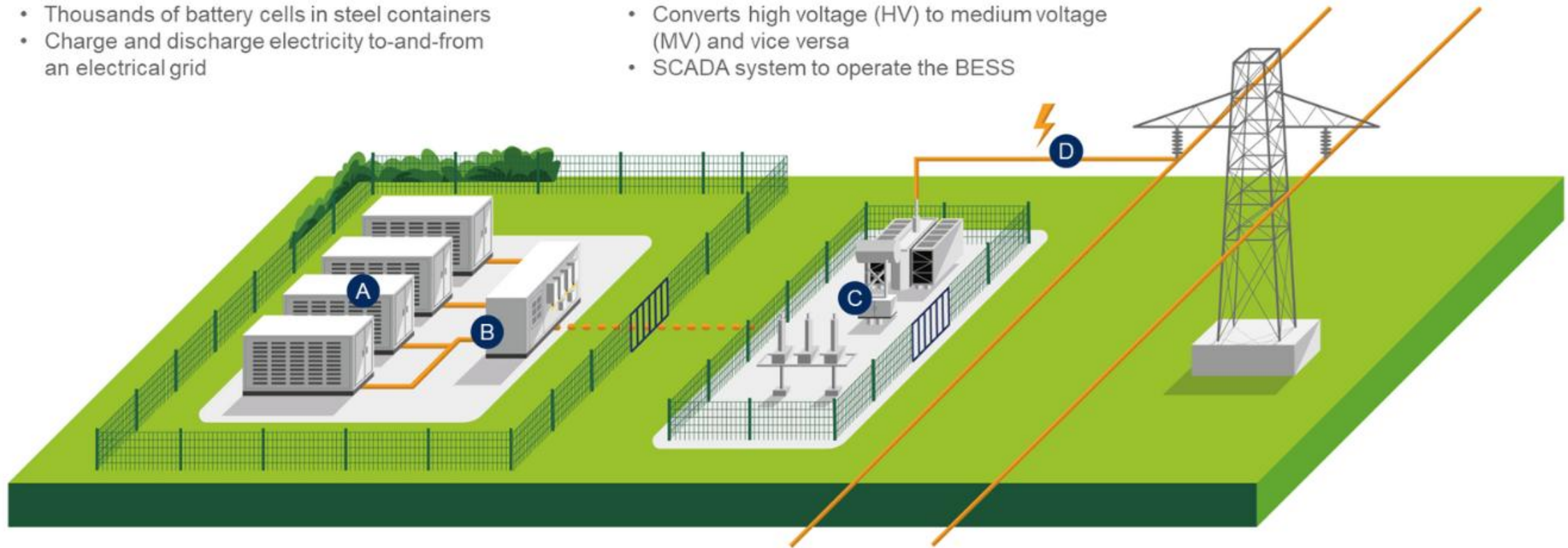
- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS

## B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

## D - Transmission Lines

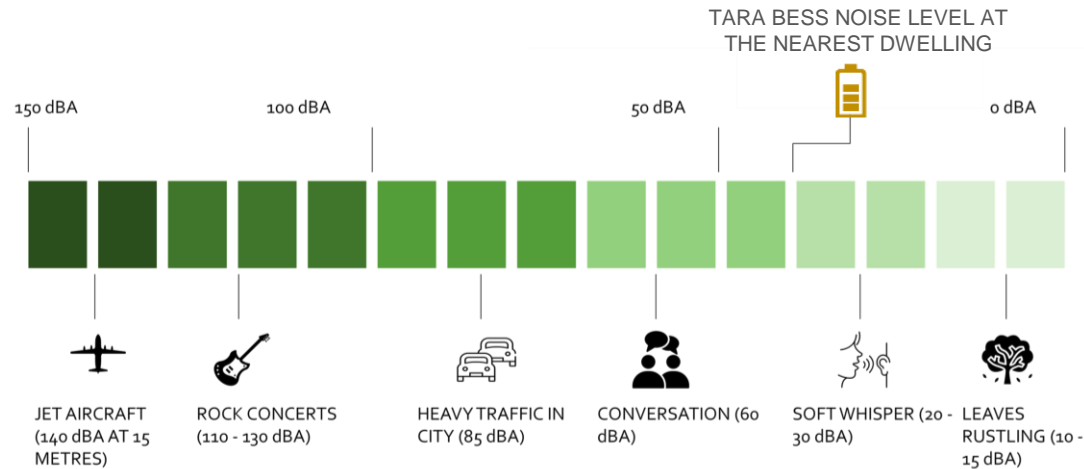
- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid



*Note: inverters are likely to be built into battery containers for Tara BESS.*

# Noise Assessment

- Tara BESS must comply with applicable noise regulations.
- A baseline noise study has been conducted to establish ambient noise levels.
- Noise mitigation measures will ensure that ambient noise levels are maintained for surrounding residential receivers during BESS operations.
- Acoustic barrier walls are proposed for the north and west sides of the five battery container sections, as well as around the north part of the high-voltage transformers in the substation.



# BESS Safety

- Tara BESS is designed to prevent or mitigate hazards including, flooding, fire, and contamination.
- Hazard events are rare and prevented through rigorous design, a mix of active and passive protection, maintenance, 24/7 monitoring, and safety protocols.
- Neoen has prepared a comprehensive safety plan outlining protection measures and incident response protocols.
- Neoen commenced a stakeholder working group to discuss and gather feedback on key topics, including a meeting on safety with local fire and emergency response personnel.

## LAYERS OF SAFETY

### **Passive Protection**

Design-based measures intended to mitigate fire events, propagation, and other fire-associated hazards.

### **Safety, Preparedness & Training**

Activities, tools, and processes intended to prevent hazards, and, in case of a hazard event, to ensure preparedness and minimize impact.

### **Active Protection**

Measures intended to respond to a hazard event.

# BESS Construction

BESS construction typically takes between 1.5 – 2 years to complete, and includes the following activities:

- Temporary fence installation
- Equipment mobilization
- Temporary storage areas
- Material and soil deliveries (by truck)
- Clearing and grading
- Shallow excavation and pouring of concrete slabs or pile installation
- Hoisting of pre-assembled battery containers and transformers
- Erection of steel structures and transmission lines
- Electrical connection work
- Acoustic barrier wall installation
- Landscaping





# BESS Operations

- Tara BESS is expected to complete one charge and discharge cycle per day.
- A crew of workers, contracted by Neoen, will operate Tara BESS. Neoen can elect to operate each day or not.





**From:** [Brittany Morrison](#)  
**To:** [edance@arran-elderslie.ca](mailto:edance@arran-elderslie.ca)  
**Subject:** Project Update Notice  
**Attachments:** [Project Update - Tara BESS - April 7 25.pdf](#)  
**Sent:** 2025-04-07 10:28:00 AM

---

Hi Emily,

Please see attached project update we are issuing to the community today.

It includes the most up to date layout and a reminder that the Class EA process is nearing completion (for folks who have not yet provided feedback).

It will be uploaded to the project website.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Jenn Burnett](#)  
**Subject:** Project Update Notice  
**Attachments:** [Project Update - Tara BESS - April 7 25.pdf](#)  
**Sent:** 2025-04-07 10:27:00 AM

---

Hi Jenn,

Please see attached project update we are issuing to the community today.

It includes the most up to date layout and a reminder that the Class EA process is nearing completion (for folks who have not yet provided feedback).

It will be uploaded to the project website.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Janet Galant](#); [sfn@saugeen.org](mailto:sfn@saugeen.org); [sao@nawash.ca](mailto:sao@nawash.ca);  
**Subject:** Tara BESS Project Update Notice  
**Attachments:** [Final - Notice - Project Update - Tara BESS - Corrected April 15 25.pdf](#)  
**Sent:** 2025-04-15 4:49:00 PM

---

Hello,

Please see attached project update notice for the Tara BESS project.

As always, we welcome any feedback or questions the Saugeen Ojibway Nation may have, and we remain available to meet, should you wish.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with 'NEO' in blue and 'EN' in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Mary MacDougall](#)  
**Subject:** Tara BESS Project Update Notice  
**Attachments:** [Final - Notice - Project Update - Tara BESS - Corrected April 15 25.pdf](#)  
**Sent:** 2025-04-15 4:50:00 PM

---

Hello Mary,

Please see attached project update notice for the Tara BESS project.

As always, we welcome any feedback or questions the GBTTCC may have.

Thank you,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager



[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

### Neoen Tara BESS Working Group – Meeting 4 - Notes

<b>Date &amp; Time:</b>	April 11, 2025
<b>Meeting Topic:</b>	Community Benefits
<b>Location:</b>	Virtual – Microsoft Teams
<b>Circulation:</b>	April 25, 2025

#### Attendees

#	Name	Organization	Role
1	Brittany Morrison	Neoen	Manager, Engagement & Stakeholder Relations
2	Mario de Agüero	Neoen	Senior Project Manager – Tara BESS
3	Nicolas Echesortu	Neoen	
4	Benoît Pinot de Villechenon	Neoen	
5	Vincent Clément	BBA	
6	Alexandra Clarke	Indigenous Community Engagement	
7	Steve Tiernan	Municipality of Arran-Elderslie	Fire Chief
8	Emily Dance	Municipality of Arran-Elderslie	CAO
9	Liz Buckton	Grey County	Senior Policy Planner
10	Ryan Errington	Engineering Manager	Bruce County



## Meeting Summary

---

### *Review of Previous Action Items*

#	Description	Status
1	When available, Municipality of Arran-Elderslie to review hauling plans for Concession Road 4. Neoen to review feedback and determine if the type of hauling vehicles planned should be adjusted. <i>This is in relation to hauling the fill between the two parcels.</i>	<b>2025-04-11</b> <b>Municipality of Arran-Elderslie:</b> No Update Yet
2	Neoen to provide load ratings for the on-site roads when available to the Municipality of Arran-Elderslie.	Internal road load rating will be determined by crane size, but at a minimum will be sufficient to accommodate emergency vehicles. <b>2025-04-11:</b> Neoen expects to have the information regarding the size of crane to be used to be known by the end of May, and this will determine the load rating of the on-site roads.
3	Regarding decommissioning, Neoen to check how far down inert materials can be left on site.	Concrete foundations for transmission poles will be approximately 1.5 metres below grade. <b>2025-04-11:</b> It is still to be determine if they will be left behind or removed during decommissioning.

The **Municipality of Arran-Elderslie** expressed concern regarding Neoen's possible response time to ex. An on-site oil spill. The Municipality hypothesized that it would take Neoen a considerable amount of time to mobilize on site in a timely manner (20-30 minutes). The Municipality would like further discussion with Emily, Steve and Neoen on this matter. *The Municipality will to review the provided materials from Neoen and to respond to the email chain to arrange a meeting.*

## ***Tara BESS Community Benefits Presentation from Neoen***

*(presented by Brittany Morrison)*

1. Neoen described the planned Neighbor Benefit Plan and clarified that it is part of Neoen's best practices and that there is no requirement for them to provide this specific community benefit.
2. There may presently be vacant parcels of land within the radius of the Neighbour Benefit Plan, if these parcels are developed post construction of the facility and/or during operations, will they be eligible for the Neighbor benefit Plan? – Neoen will check internally and provide a response if post-construction builds will be eligible for the Neighbor Benefit Plan.
3. The Municipality of Arran-Elderslie to provide a contact and/or information regarding provision of property tax information.
4. A discussion and agreement would be required with the Municipality regarding community benefits.
  - Arran-Elderslie has a draft policy that is currently under discussion; details cannot be released at this time, however it is the intention of Arran-Elderslie to be able to establish community benefit agreements directly with developers.

### **Action Items**

#	Description	Status
1	The Municipality of Arran-Elderslie and Neoen to meet to discuss response protocol to address Arran-Elderslie's concerns surrounding response timing. Chief Tiernan and team to review the CSP and reply to Brittany Morrison's April 11 e-mail.	On April 15, Chief Tiernan advised that he would meet with Neoen regarding the CSP once Neoen has completed county/municipal regulatory requirements. Meeting to be scheduled at a future date.
2	Neoen to provide a response if post-construction builds will be eligible for the Neighbor Benefit Plan.	Yes, Neoen will extend neighbour benefits to new residential households constructed within the catchment area, except in the case of subdivision construction.
3	The Municipality of Arran-Elderslie to provide a contact and/or information regarding provision of property tax information.	On April 24, CAO Dance advised that Neoen should consult MPAC,

		since the Arran-Elderslie does not have data on what the developed would be assessed at (this would come from MPAC).
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# NEOEN



Tara BESS Working Group #4 – Community Benefits

*April 11, 2025*



# Overview

- Neoen believes that the communities that host its projects should share in the benefits.
- A Community Benefits Framework guides benefit-sharing on Neoen's projects in Canada.
- The Community Benefits Framework is designed to align with Neoen's Sustainability Framework.





# Community Benefits Framework - Canada

- The Community Benefits Framework is centered on five streams: **Community Benefits Fund**, **Rightsholder Benefits**, **Neighbour Benefits**, **Local Art Initiative**, and **Capacity Building**.



## **Community Benefits Fund**

A fund to support local initiatives and projects.



## **Rightsholder Benefits**

Benefits specifically for Rightsholder communities.



## **Neighbour Benefits**

An annual, direct-dollar benefit for occupied households in the immediate project vicinity.



## **Local Art Initiative**

Commissioning of a local art initiative on projects greater than 50 MW.



## **Capacity Building**

Local investment through jobs, skills training, and procurement targets.

# Community Benefits Fund



# Community Benefits Fund (CBF)

- A fund to support local initiatives and projects, including donations.
- Funds are allocated through an open and competitive process led by a Local Advisory Committee (LAC).
- The LAC invites proposals from community members, groups and organizations within an established catchment area and awards funding to one or more proposals.
- Proposals must align with one or more of six eligible focus areas: (1) clean energy, (2) sustainability, (3) biodiversity, (4) arts and culture, (5) social impact, and (6) education.
- The CBF process is set out under a terms of reference.
- The CBF is refreshed each year and commences at the start of operations\*.
- Funded proposals are reported each year in a community benefits report.
- Fund value is determined by project capacity.

\*where operations begin in Q3 or later, the CBF will come into effect in January of the following year.

# Community Benefits Fund – Key Terms

- **Catchment Area** – the host municipality’s boundaries form the catchment area, plus, where applicable, a portion of any neighbouring municipality that immediately borders the project.
- **Local Advisory Committee** – a committee with representation from Neoen and the community, such as the host municipality, a local elected official, community (residents, youth), and a Business Improvement Area (or comparable organization, if applicable), that reviews and awards proposals.
- **Terms of Reference** – the rules and guidelines for how the fund is structured and administered.
- **Eligible Focus Areas** – proposals must align with at least one of the six focus areas:

Focus Area	Examples
Clean Energy	Small-scale community solar projects; EV charging infrastructure; bioenergy projects; renewable powered prototypes.
Sustainability	Carbon reduction, off-set or capture initiatives; recycling initiatives; re-use and repurposing initiatives; community compost; green roof.
Biodiversity	Reforestation or naturalization projects; bee farms; ecosystem protection projects.
Arts and Culture	Cultural events, celebrations, and preservation initiatives; musical or art initiatives; support for local museum or galleries.
Social Impact	Community garden; food drive; anti-poverty donations (food banks, hospitals, shelters); disaster relief, equality initiatives; fitness or sport initiatives.
Education	Skills training; mentoring; scholarships; research and development initiatives.



# Rightsholder Benefits





# Rightsholder Benefits

- Rightsholder benefits provide meaningful and lasting economic, environmental, social, and/or cultural benefits to Rightsholder communities, promote self-determination and demonstrate recognition of Territory.
- Rightsholder benefits are determined in direct consultation with Rightsholders.

# Neighbour Benefits



# Neighbour Benefits

- An annual, direct dollar benefit for households in the immediate project vicinity.
- A tiered approach is used to identify eligible households.
- Only occupied residential households are eligible to receive the neighbour benefit.
- For projects 350 MW or greater:
  - Eligible households within a 1-kilometre block receive an annual benefit of \$5,000 CAD.
  - Eligible households within the 2-kilometre block receive an annual benefit of \$2,500 CAD.
- Neighbour benefits commence at construction and continue through operations.\*
- The neighbour benefit does not require a waiver of rights or release.

\*where constructions begin in Q3 or later, the benefit will be prorated.



# Local Art Initiative



# Local Art Initiative

- On projects greater than 50 MW, Neoen will commission one local art initiative.
- The initiative may be hosted on-site or nearby in the community.
- Examples of possible installations include:
  - Battery container or noise wall mural
  - Standalone installation, such as a sculpture or kinetic art
  - Gallery
- Commissioning is led by Neoen in consultation with the community once the project is approved.
- Opportunities for community participation may include submission of proposals, voting, or group art.
- Art will be commissioned from a local artist or firm.





# Capacity Building



# Capacity Building

- Neoen will endeavour to develop and strengthen host communities' skills, abilities, and resources, through its projects by:
  - Creating local employment opportunities
  - Creating pathways to employment opportunities (skills training)
  - Establishing local procurement targets
- Local hiring targets and associated skills training opportunities will be established once Neoen has identified its Engineering, Procurement, and Construction (EPC) contractor.
  - 'Local' constitutes persons within an established regional area or within the Rightsholder Territory.
- Targets will be embedded in EPC contracts with reporting requirements.
- Local procurement targets will be established once Neoen has identified an EPC contractor.
- Neoen will maintain a register of local suppliers and social enterprises.



# Tara BESS Community Benefits



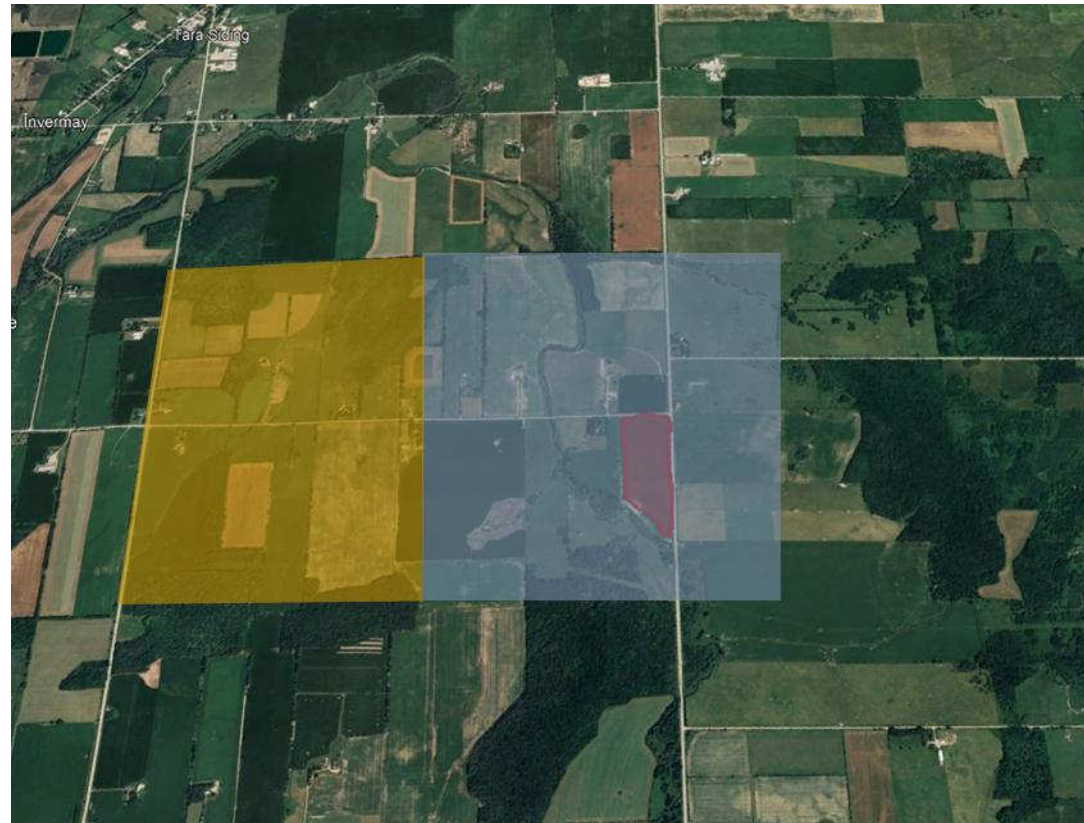
# Tara BESS Community Benefits

- Tara BESS will deliver more than \$3 million in community benefits over the project lifecycle.\*
  - \$100K Community Benefits Fund (annually) will come into effect at operations.
  - \$50K in neighbour benefits (annually) will come into effect at construction.
- Additionally, Tara BESS will generate:
  - Approximately 200 temporary construction jobs.
  - Up to 10 long-term operations jobs.
  - Municipal tax revenues of more than \$1M annually at operations (based on estimated current assessed value).
  - Municipal Community Benefits Charge of up to 4% of land value.

\*not including Rightsholder benefits or the value of capacity building efforts.

# Tara BESS – Neighbour Benefit Structure

- Households in the 1 km block (shown in **blue**) will receive a benefit of \$5,000 CAD, annually.
- Households in the 2 km block (shown in **gold**) will receive a benefit of \$2,500 CAD, annually.





**Ministry of the Environment,  
Conservation and Parks**

**Ministère de l'Environnement,  
de la Protection de la nature  
et des Parcs**

Environmental Assessment  
Branch

Direction des évaluations  
environnementales

1<sup>st</sup> Floor  
135 St. Clair Avenue W  
Toronto ON M4V 1P5  
**Tel.:** 416 314-8001  
**Fax.:** 416 314-8452

Rez-de-chaussée  
135, avenue St. Clair Ouest  
Toronto ON M4V 1P5  
**Tél. :** 416 314-8001  
**Télec. :** 416 314-8452

*Via E-mail Only*

April 15, 2025

Foster Karcha  
Neoen Ontario BESS 1 Inc  
Karcha, Foster [Foster.Karcha@bba.ca](mailto:Foster.Karcha@bba.ca)

**Re: Tara Battery Energy Storage System (BESS)  
Neoen Ontario BESS 1 Inc  
Transmission Class EA  
Project Review Unit Comments – Draft Environmental Study Report**

Dear Foster,

Thank you for providing the ministry with an opportunity to comment on the draft Environmental Study Report (Report/ESR) for the above noted Class Environmental Assessment (EA) project. The Ministry of the Environment, Conservation and Parks (ministry) provides the following comments for your consideration.

**General**

- 1) Please include a description of the decommissioning of the BESS.

**Consultation**

- 2) As per the TF Class EA, Section 3.4: Consultation throughout the Full Class EA Process will be documented to accurately represent planning and decision-making. This will include the schedule of events, methods used to consult, the list of consulted persons, the identification and resolution of concerns, commitments made by the proponent,

and any outstanding concerns. A copy of all notification material will accompany the draft ESR.

- 3) All notices, invites, information materials need to be included in the consultation records. Please provide confirmation / correspondence that stakeholders were provided these notices.
- 4) If there were any comments and or concerns raised by the engaged agencies, stakeholders, the public and/or indigenous communities during the consultation engagement, meetings and open houses, this should be included in the consultation records. The proponents' responses to these comments/ concerns also should be included. If none were received, this should be noted.
- 5) Documentation of the actual correspondences with Indigenous communities should be included in the consultation records.
- 6) It is noted that section 3.0 Engagement Summary of the main ESR report is to be completed at the conclusion of consultation. It is expected that this section will include a summary / description of the consultation that has taken place to date when the notice of completion gets issued and the ESR is posted for viewing.

## **Noise and Vibration**

- 7) UTM coordinates for PORs: Include the UTM coordinates for all Points of Reception (PORs) in the noise report. The UTM coordinates should be included in Table 1 of the noise report. This comment also applies to Table 4 and Table 5.
- 8) UTM coordinates for noise sources: Include the UTM coordinates for all significant noise sources in the noise report.
- 9) Table 6: Include two additional columns; one for sound power level and another for source height above grade.
- 10) CadnaA file: Provide the CadnaA file(s) used for the unmitigated and mitigated model runs.
- 11) CadnaA Sample Calculation: Include a full set of (1/1 Octave Band Centre Frequencies) of sound level calculations at the worst-case point of reception in the noise report.
- 12) Exclusion limits for PORs: The applicable noise limits should be based on the Exclusion Limits for Class 3 Areas (Rural), namely Leq(1h) 45 dBA day, 40 dBA evening and 40 dBA night. The Measured Background Noise (dBA) values in Table 5 are questionable and

thus, should not be used to set the applicable noise limits. The Sound Level Limit (dBA) values in Table 11 to Table 16 need to be revised to show the Exclusion Limits for Class 3 Areas (Rural).

- 13) Significant noise sources: confirm that all significant noise sources were included in the noise model. Provide rationale why the convertors / inverters were not included as noise sources in the modelling. Confirm the Tara BESS equipment contains convertors and inverters.
- 14) Point of Receptors (POR) Assessment: Confirm that all POR within 1,000 metres of the equipment have been assessed.
- 15) Vacant Lots: Vacant lots in all cardinal directions (north, south, east and west) were not assessed in the noise report. Provide confirmation that there are no vacant lots closer and more exposed to the facility than the selected PORs. There are two vacant lots located on the east side of the Tara facility, along Grey Bruce Line. These two vacant lots have to be included as PORs in the noise report. Map 3 and Map 4 (Appendix H) show that the Tara BESS sound level exceed the applicable sound level limits at the vacant lots to the east along Grey Bruce Line.
- 16) POR Summary Table: Include a new Table to document the sound level of each noise source at each POR as well as the distance setback from each source to each POR. This Table should include unmitigated and mitigated sound levels.
- 17) Assessment of all additional equipment: For both documents listed above, the project description states, “a substation with two transformers – in service and a third transformer for redundancy”. Provide the location and noise emissions of the additional third transformer in the noise report.
- 18) Tonal Penalty: It is stated that a 5 dB tonal penalty was applied to both the high voltage transformers (each rated 220 MW) and medium voltage transformer (each rated at 4.8 MVA) sound power levels. Please confirm if a 5 dB tonal penalty was applied to the sound power levels listed in Table 7 and 9.
- 19) Tonality for BESS: The Tara BESS equipment need to be conservatively assumed as a tonal noise source, and therefore, in accordance with Publication NPC-104, a 5 dB tonal penalty should be added to its sound power level. Please confirm if a 5 dB tonal penalty was applied to the sound power levels listed in Table 8.
- 20) Tesla Megapack documentation: Please provide the following documentation referenced in the noise report:
  - a. Tesla Megapack 2 XL - Sound Data – FN03.pptx
  - b. Tesla Megapack 2 XL - SPL Data - FN03.xlsx

- 21) Justification of Table 10 Modelling Parameters: Justify why Operation Conditions 50% and 30% were used for BESS Daytime and Nighttime/Evening respectively.
- 22) Ground Factor (G): Confirm the ground factor used in the noise model. Section 7, Noise model in the noise report states that for Ground Absorption, a Coefficient of  $G = 0.7$  was used, but in Table 10, Model Parameters, Ground Absorption Coefficients of 0, 0.4, and 0.6 were listed.
- 23) Height of Equipment for BESS, Medium Voltage Transformer and High Voltage Transformers: In section 6.1 medium voltage transformer, it is stated that the transformer has a height of 3000 mm. However, in Table 10, the source height is listed as 1.7 metres. The source height must be taken at the top of the physical height of the source, i.e. a source of height of 3 metres for the modelling of the medium voltage transformer.
- 24) Acoustic Assessment Report Checklist: Provide a completed, signed and dated Acoustic Assessment Report Checklist in the noise report :  
<https://forms.mgcs.gov.on.ca/dataset/5356/resource/0aa0bd5f-a5f5-4f13-90c7-55189218cfc8>.
- 25) Rename MOECC to MECP in both Reports: The Ontario Ministry of Environment and Climate Change (MOECC) was renamed few years ago to the Ontario Ministry of Environment, Conservation and Parks (MECP). Please update both the Noise Impact Assessment Report and the Class EA Environmental Study Report by replacing all references to MOECC with MECP.
- 26) High Voltage 220 MW Transformer Substation: The MVA rating of this transformer needs to be included in the noise report.
- 27) Map 1, Map 2, Map 3 and Map 4 (Appendix H): Include two sets of sound level contours, one for a receptor height of 1.5 metres and the other for a receptor height of 4.5 metres above ground level. Label the receptor height used in the maps.

In addition to above noted comments, comments 28, 29 and 30 below need to be addressed when applying for approval under the Environmental Protection Act (EPA):

- 28) Manufacturer specifications for High Voltage 220 MW (? MVA) transformer substation (Qty.2 or 3?): Include a drawing (ONAN/ONAF area and type of cooling) and a guarantee letter for the overall sound power level from the manufacturer and area calculations in the application package.
- 29) Manufacturer specifications for Medium Voltage 4.8 MVA transformers (Qty. 106): Include a drawing (ONAN/ONAF area and type of cooling) and a guarantee letter for the overall sound power level from the manufacturer, in the application package.

- 30) Manufacturer specifications for BESS units Tesla Megapack 2XL (Qty. 420): Include the manufacturer's noise specification for the Battery Energy Storage System (BESS) in the application package. Also, include the guarantee letter for the overall sound power level from the manufacturer, in the application package.

In light of the above, the March 21, 2025 Noise Report needs to be revised to address comments 7 to 27.

### **Species at Risk**

- 31) MECP suggests removing Cougar, Gray Fox, Acadian Flycatcher and Woodland Vole from Table 5-3: List of Species that may occur in the area. These species are unlikely or do not occur in the area.
- 32) The Short Ear Owl is listed as "Threatened" under the ESA. MECP suggests changing it's status listed in Table 5-2 from Special Concern to Threatened.
- 33) Eastern Whip-poor-will has been downlisted to Special Concern. MECP suggests changing the status in Table 5-3 from Threatened to Special Concern.
- 34) Three new species of migratory bats are now listed as Endangered in Ontario: Sliver haired bat, Hoary Bat and Eastern Red Bat. These bats should be considered as part of the assessment moving forward. Suggest including these species in Table 5-3.
- 35) Seven different species of bat were detected through acoustic monitoring, including all 3 of the newly listed bat species. Suggest adding 3 newly listed migratory bat species to SAR observations that have been recorded in the LSA.
- 36) Six species of bats that are currently listed under the ESA as Endangered were detected at the site. Suggest correcting statement to include all bats that are current listed. Acoustic surveys confirmed all three listed species of migratory bats (Eastern red bat, hoary bat, and silver-haired bat). Suggest amending section 5.7.2. to reflect these newly listed species.
- 37) Suggests including all SAR bat species detected on site, as oppose to the only 3 SAR bat species listed on page 82 of the report.
- 38) The Species at Risk Act (SARA) is federal legislation and generally on applies to land under federal jurisdiction (although there are exceptions). The Endangered Species Act (ESA), 2007 applies to all private and public land in Ontario that is under provincial jurisdiction. Suggest changing section 5.8 to reflect which legislation this project will fall under and/or which aspects of the project are being considered under the ESA and SARA respectively.



- 39) There is a variety of different authorization types under the ESA such as conditional exemptions, agreements and permits. The “Overall Benefit Agreement” that is referenced in the first paragraph is probably more properly referred to as an “Overall Benefit Permit”. Suggest changing “Overall Benefit Agreement” to “Overall Benefit Permit”.

- 40) Agree that applying buffers and avoiding tree removal is suitable mitigation for bats. MECP agrees that the few trees that do need to be removed to access the transmission line are not likely to be considered a habitat impact under the ESA, given the details that have been provided so far, and provided that they are removed outside of the bat active season. MECP also agrees that erecting bat roosting boxes would be considered suitable mitigation (for cavity roosting species) for any possible impacts to bats from this project.

Finally, given the lack of scientific literature that supports negative impacts to bats as a result of EMFs from transmission lines, there is no evidence to support that this would be considered an impact under the ESA.

Suggest removing the few trees that need to be removed outside of the bat active season. The active season for bats in Southern Ontario (inclusive of the new migratory species) is: April 1st – November 30th. The document currently says April 1 – November 29. If trees need to be removed inside the active season window, please contact MECP for further guidance.

- 41) Proposed clearing and construction period is inclusive of breeding bird window for Eastern Meadowlark and Bobolink (April 15th – July 31st). In discussions with the client, it appears that there will be no net habitat loss for these species because the BESS footprint is occurring in an agricultural field that has crops that are unsuitable for use by these species and because for the construction of the transmission line, possible impacts to habitat are only expected to occur outside the period that it is being used by these species.

Suggest providing clarity on construction timelines for the transmission line in the context of possible impacts to Eastern Meadowlark and Bobolink, and outlining suitable avoidance and mitigation measures.

Also suggest documenting current/past crop type in BESS footprint

- 42) O. Reg. 830/21 may be an option for temporary impacts to Eastern Meadowlark and Bobolink habitat if these impacts persist beyond a single active season (i.e. if this potential habitat is not available during an active season). Suggest providing clarity on how long and when potential habitat may be impacted for Eastern Meadowlark and Bobolink to be able to provide guidance on avoidance or authorization under O.Reg 830/21 if required.

- 43) Bat timing window in table 9-1 should be corrected to April 1 – Nov 30.

## Surface Water

- 44) Please note that any water extraction over 50,000 L/day will require MECP approval(s) under the Environmental Protection Act and Ontario Water Resource Act, such as a Permit to Take Water (PTTW). Certain water taking activities that have been prescribed by the Water Taking Regulation O. Reg. 63/16 may require registration in the Environmental Activity and Sector Registry instead of a PTTW. Regardless, a PTTW is required if the water-taking exceeds 400,000 litres per day. More information regarding PTTW is accessible online at this link: [www.ontario.ca/page/water-taking-and-transfer-user-guide-clarifications-and-exemptions](http://www.ontario.ca/page/water-taking-and-transfer-user-guide-clarifications-and-exemptions).
- 45) The proponent should communicate with the local Conservation Authority and Fisheries and Oceans Canada (DFO) should modifications to the flood plain in the floodplain compensation area impact any fish habitat within the study area.
- 46) An Erosion and Sediment Control Plan should be developed and implemented during the construction phase of the project.
- 

Thank you for circulating this draft Report for the ministry's consideration. Please document the provision of the draft Report to the ministry as well as this Project Review Unit Comments letter in the final report, and please provide an accompanying response letter to support our review of the final report. A copy of the final Notice should be sent to the ministry's Southwest Region EA notification email account (eanotification.swregion@ontario.ca).

Should you or any members of your project team have any questions regarding the material above, please contact me at [monika.macki@ontario.ca](mailto:monika.macki@ontario.ca).

Sincerely,

*Monika Macki*

Monika Macki  
Environmental Resource Planner / EA Coordinator  
Environmental Assessment Program Support, Environmental Assessment Branch  
Ontario Ministry of the Environment, Conservation and Parks

**From:** [Brittany Morrison](#)  
**To:** [Emily Dance](#)  
**Subject:** Notice of Open House - June 5 2025  
**Attachments:** [Notice of Community Open House - Tara BESS - June 5 25.pdf](#)  
**Sent:** 2025-05-08 5:48:00 PM

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Hi Emily,

Attached is a copy of the open house notice for Tara BESS.

The spring open house is scheduled for Thursday June 5. Like last time, we will host an afternoon and evening session.

Please share with Council.

Thanks,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The logo for NEOEN, with the word in a bold, sans-serif font. The 'N' and 'E' are blue, and the 'O', 'E', and 'N' are orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

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Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Jennifer Burnett](#); [Claire Dodds](#); [Lori Mansfield](#);  
**Subject:** Notice of Open House - June 5 2025  
**Attachments:** [Notice of Community Open House - Tara BESS - June 5 25.pdf](#)  
**Sent:** 2025-05-08 5:54:00 PM

---

Hi Jenn, Claire, and Lori,

Attached is a copy of the open house notice for Tara BESS.

Our spring open house is scheduled for Thursday June 5. Like last time, we will host an afternoon and evening session. The format is drop-in with information boards posted around the room.

We would appreciate if you would share with Council.

Thanks,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

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Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

**From:** [Brittany Morrison](#)  
**To:** [Liz Buckton](#)  
**Subject:** Notice of Open House - June 5 2025  
**Attachments:** [Notice of Community Open House - Tara BESS - June 5 25.pdf](#)  
**Sent:** 2025-05-08 5:56:00 PM

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Hi Liz,

Attached is a copy of the open house notice for Tara BESS.

Our spring open house is scheduled for Thursday June 5. Like last time, we will host an afternoon and evening session. The format is drop-in with information boards posted around the room.

We would appreciate if you would share with Council.

Thanks,

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

---

The logo for NEOEN, with the word in a bold, sans-serif font. The 'N' and 'E' are blue, and the 'O' and 'E' are orange.

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The Joint Chiefs and Councils  
of the Saugeen Ojibway Nation

May 15, 2025

Hon. Todd McCarthy  
Minister of the Environment, Conservation and Parks  
777 Bay Street, 5<sup>th</sup> Floor,  
Toronto, ON M7A 2J3  
Email: [minister.mecp@ontario.ca](mailto:minister.mecp@ontario.ca)

VIA EMAIL

Dear Hon. Todd McCarthy,

**RE: Saugeen Ojibway Nation Concerns with Proposed Tara BESS Project**

---

We are writing to raise serious concerns regarding the proposed Tara battery energy storage system ("**Tara BESS**"), formerly Grey Owl Storage, currently under development in our Territory. Tara BESS is a proposed 400-megawatt, 1600-megawatt hour battery energy storage system being developed by Neoen Ontario BESS 1 Inc., a Canadian subsidiary of French public company Neoen SA ("**Neoen**"). In May 2024, Tara BESS was awarded a 20-year contract by Ontario's Independent Electricity System Operator ("**IESO**") through IESO's Long Term 1 ("**LT1**") procurement.

Tara BESS is subject to the Ministry of Environment, Conservation and Parks' ("**MECP**") Class Environmental Assessment for Minor Transmission Facilities ("**Class EA**"), in accordance with the Ontario *Environmental Assessment Act*. Notice of Commencement of the Class EA for Tara BESS was initiated on November 25, 2024. Notice of Completion is expected this quarter.

The Saugeen Ojibway Nation ("**SON**") and Her Majesty the Queen in Right of Ontario as Represented by the Minister of Energy and Infrastructure (now His Majesty the King in Right of Ontario as Represented by the Minister of Energy and Mines) ("**Ontario**") are parties to a pre-existing, binding agreement, dated January 14, 2010 (the "**Agreement**"). The Agreement establishes a clear process for energy-related project development in Anishnaabekiing—SON's traditional and treaty Territory—including a requirement for Ontario to provide early notice to SON of possible projects and early engagement between SON and energy developers wishing to carry out projects in our Territory. In addition, the Crown must provide notice in writing to energy developers proposing to carry out projects

in Anishnaabeking advising them of the requirement for timely engagement with SON, which will include notice of other SON specific requirements for project development, as set out in the Agreement. Further, the parties anticipated that SON and energy developers would use the early notice to enter into protocol agreements or other arrangements which would effectively address SON concerns.

Most importantly, the Agreement defines an area of special cultural and environmental significance to SON—the area historically known in Treaty records of 1836 as the “Saugeen Peninsula” and now known as the Bruce Peninsula, along with a buffer zone (collectively defined in the Agreement as the “**Peninsula**”). The Agreement acknowledges that SON has expressed special concerns respecting possible energy developments in the Peninsula and recognizes that special provisions and assurances are required to address those concerns.

Through the Agreement, Ontario and SON agreed that before any energy projects proceeded in the Peninsula, a Natural and Cultural Values Study of the Peninsula would be conducted and form the basis for SON’s future engagement with planners and energy developers and would help inform decisions regarding possible projects in the Peninsula. In addition, the Parties agreed to convene to create a SON specific consultation process for all energy development in the Peninsula, which shall consider the findings of the Natural and Cultural Values Study, special measures to mitigate adverse effects or impacts on SON rights, and project development principles which are respectful of SON rights and consistent with the purposes of the Agreement.

**Tara BESS is located in the Peninsula.** None of the clear, carefully negotiated, Crown commitments made in the Agreement were considered or respected regarding Tara BESS’s development. Not only was the Agreement ignored: Tara BESS is the only battery storage project awarded a contract through the LT1 procurement which has zero Indigenous equity participation. All nine other battery storage projects awarded contracts have 50% or greater Indigenous equity ownership. And this despite SON having a long-standing Agreement with Ontario that is specifically designed to promote SON’s participation “in the wealth generated from renewable energy sources.”

SON expects that MECP will not approve Tara BESS’s Class EA or any other environmental permitting requirements before this breach of contract and the honour of the Crown are addressed urgently. It should be understood that regulatory approvals in breach of Crown commitments to SON may be subject to legal challenge.

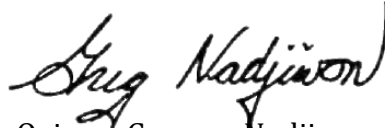
The special cultural and environmental significance of the Peninsula to SON has not changed. The Agreement promotes reconciliation and contains provisions designed to facilitate future energy projects in Anishnaabeking in ways that are respectful of and

accommodate SON rights and provide opportunities for SON to participate in the wealth generated from renewable energy sources. MECP cannot authorize the development of Tara BESS in contravention of the Crown commitments and negotiated and binding terms set out in the Agreement. SON expects that MECP will take no further action on the assessment and authorization of Tara BESS until we have a chance to meet and discuss these issues.

Miigwech,



Ogimaa Conrad Ritchie  
Saugeen First Nation



Ogimaa Gregory Nadjiwon  
Chippewas of Nawash Unceded First Nation

cc: Mario de Agüero, Senior Project Manager, Neoen  
Benoît Pinot de Villechenon, Province Director, Ontario, Neoen  
Brittany Morrison, Communications & Engagement Manager, Neoen

**From:** [Brittany Morrison](#)  
**To:** [scott.mackey@grey.ca](mailto:scott.mackey@grey.ca)  
**Subject:** FW: Notice of Open House - June 5 2025  
**Attachments:** [Notice of Community Open House - Tara BESS - June 5 25.pdf](#); [Final - Notice - Project Update - Tara BESS - Corrected April 15 25.pdf](#);  
**Sent:** 2025-05-08 6:17:00 PM

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Hello Mayor Mackey,

I hope you are well.

I am writing to share a few updates on the Tara BESS project.

We are hosting a second open house for Tara BESS on Thursday June 5, 2025. Like last time, we will host an afternoon and evening session. The format is drop-in with information boards posted around the room.

I have also attached a copy of a recent project information notice we issued.

In February, we convened a multi-stakeholder working group to discuss key topics related to Tara BESS. One session was dedicated to safety and emergency response, and a draft plan was circulated to the participants for feedback. Mike Givens was invited and participated. We will continue to engage Mike as we refine our plans.

I'm not sure that we ever followed up on your question about obtaining an MSR. Yes, an MSR was obtained prior to the bid and was a requirement of the RFP.

On permits, our permit applications to the Grey Sauble Conservation Authority and Bruce County (Official Plan Amendment and Re-zoning) are now complete and under review. Our Class Environmental Assessment is underway.

As always, we are happy to bring another delegation, provide a briefing, or share more information.

Thank you!

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

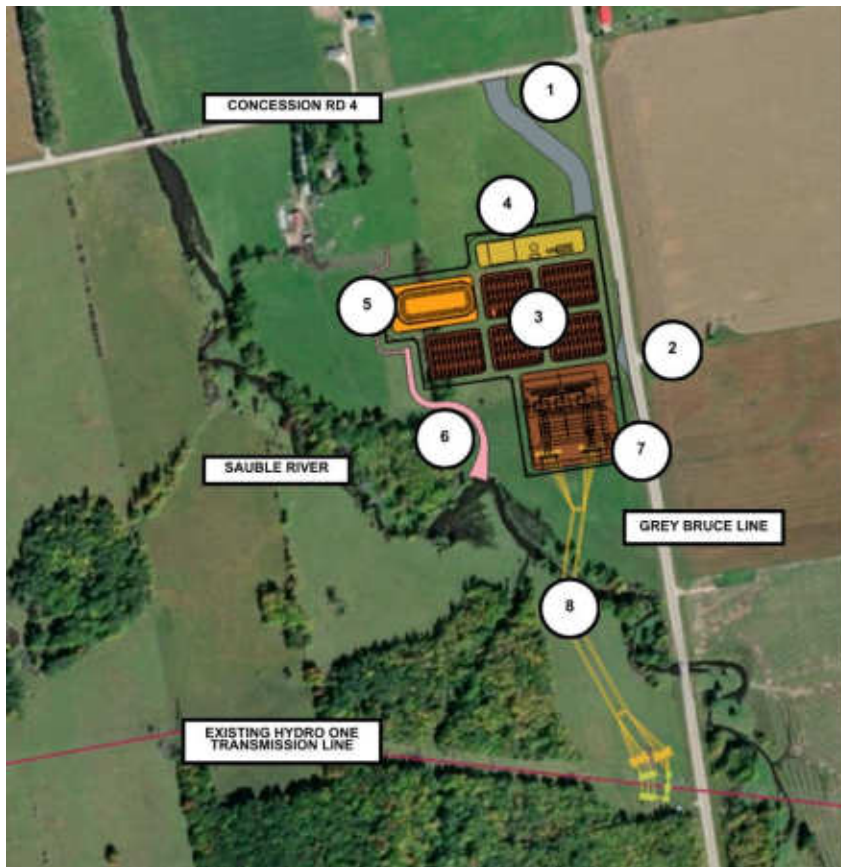
[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

Join us for a community open house on **Thursday June 5, 2025**, at the **Tara Community Centre** (150 Hamilton Street, Tara, ON N0H 2N0), between **12:00 p.m. – 2:00 p.m.** or **6:00 p.m. – 8:00 p.m.** Meet the project team and learn more about the Tara BESS project design, environmental assessment, safety, permitting, and community benefits. Please note that both sessions are drop-in format – there is no presentation. Feedback collected during the open house will be included in a public consultation record that will form part of Neoen’s development applications.

### Project Location and Layout



### TARA BESS PROPOSED LAYOUT

1. Primary Entrance
2. Secondary Entrance
3. Battery Containers w/ Acoustic Barrier Walls
4. Operations & Maintenance Buildings
5. Stormwater Management Pond
6. Drainage
7. 230 kV Substation
8. 230 kV Transmission Line and Structures

**Note:** the 8-metre acoustic barrier wall previously shown along the north side of the facility is no longer proposed.



## About the Project

Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600-megawatt hour (MWh) capacity standalone battery energy storage system (BESS) proposed for development on 39 Concession Road 4 in the Municipality of Arran-Elderslie, approximately 5-kilometres southeast of the Village of Tara. The project was awarded a 20-year contract by Ontario's Independent Electricity System Operator (IESO) in the LT1 RFP procurement. Tara BESS is one of ten energy storage projects awarded a contract in the LT1 procurement to help meet Ontario's growing electricity needs. Tara BESS is proposed to store and discharge electricity directly to Ontario's power grid. Neoen Ontario BESS 1 Inc. (Neoen) is leading development of Tara BESS.

## About Neoen

Neoen is a leading independent power producer of exclusively renewable energy technologies, including solar and onshore wind power, and energy storage solutions. Neoen has a global portfolio capacity of 8.9-gigawatts (GW) in operation or under construction across 14 countries, including 18 battery projects totalling more than 2 GW of capacity. To learn more about Neoen, visit [www.neoen.com](http://www.neoen.com).

## Share Your Feedback\*

To share your feedback, ask questions, schedule a meeting, or to subscribe to the Tara BESS e-mail list, please contact us:

Brittany Morrison  
Manager, Engagement

E-mail: [info@tarabattery.ca](mailto:info@tarabattery.ca)

Phone: (416) 312-0057

Mail: Suite 319 – 150 King Street West, Toronto, ON M5H 1J9

For more information or to share feedback via our online feedback form, visit [www.tarabattery.ca](http://www.tarabattery.ca).

\*Personal information included in your feedback/question, such as name, address, telephone number and property location, is collected, under the authority of Section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As the information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential.

**From:** [Brittany Morrison](#)  
**To:** [Janet Galant](#)  
**Subject:** Community Open House - June 5 2025  
**Attachments:** [Notice of Public Meeting UPDATED v2 Z11 Neoen.pdf](#); [Notice of Public Meeting UPDATED v2 C3 Neoen.pdf](#); [Notice of Community Open House - Tara BESS - June 5 25.pdf](#);  
**Sent:** 2025-05-30 4:30:00 PM

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Hi Janet,

I hope you are well.

Attached you will find a flyer for a community open house for the Tara BESS project scheduled for Thursday June 5, 2025, at the Tara Community Centre. There will be two drop-in sessions, 12-2 PM and 6-8 PM. Like the last one, project staff will be present to answer questions and gather feedback.

Additionally, the Municipality of Arran-Elderslie and Bruce County will host public meetings on July 14 and August 7, respectively, related to planning applications for Tara BESS. I understand the public meetings will form part of the regular Council agendas on those dates.

As always, we would be happy to host a meeting specifically for the Saugeen Ojibway Nation. We remain at your convenience should Chief Ritchie, Chief Nadjiwon, or SON Environment Office staff wish to meet.

Have a great weekend.

**Brittany Morrison**

Communication, Engagement & Stakeholder Relations Manager

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The logo for NEOEN, with the word "NEOEN" in a bold, sans-serif font. The "NEO" is in blue and the "EN" is in orange.

[brittany.morrison@neoen.com](mailto:brittany.morrison@neoen.com)

M. +1 416-312-0057

Suite 319 – 150 King Street West, Toronto, ON M5H 1J9



Municipality of Arran-Elderslie Site Plan Consultation Meeting  
Tara BESS

*May 5, 2025*

# Background

- Tara BESS, formerly Grey Owl Storage, is a 400-megawatt (MW), 1600 MW hours (MWh) battery energy storage system proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.
- Tara BESS was awarded a 20-year energy storage contract by Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's competitive, long-term 1 (LT1) RFP procurement.
- Tara BESS is one of 10 energy storage projects awarded a contract in LT1, collectively totaling 1,784 MW, to help meet Ontario's growing energy needs.
- The contract does not include a provision to expand the BESS or add another renewable technology, such as solar.
- At the end of the contract, IESO may extend Neoen's contract or Tara BESS will be decommissioned.
- Neoen Ontario BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.



# About Neoen

- Neoen is a leading independent power producer of exclusively renewable energy.
- Global portfolio capacity of 8.9-gigawatts (GW) in operation or under construction across 14 countries, including 18 BESS projects.
- Develop-to-own strategy.
- Neoen has an active solar plant, Fox Coulee Solar Farm, in Starland County, Alberta, and several projects in development in Canada.

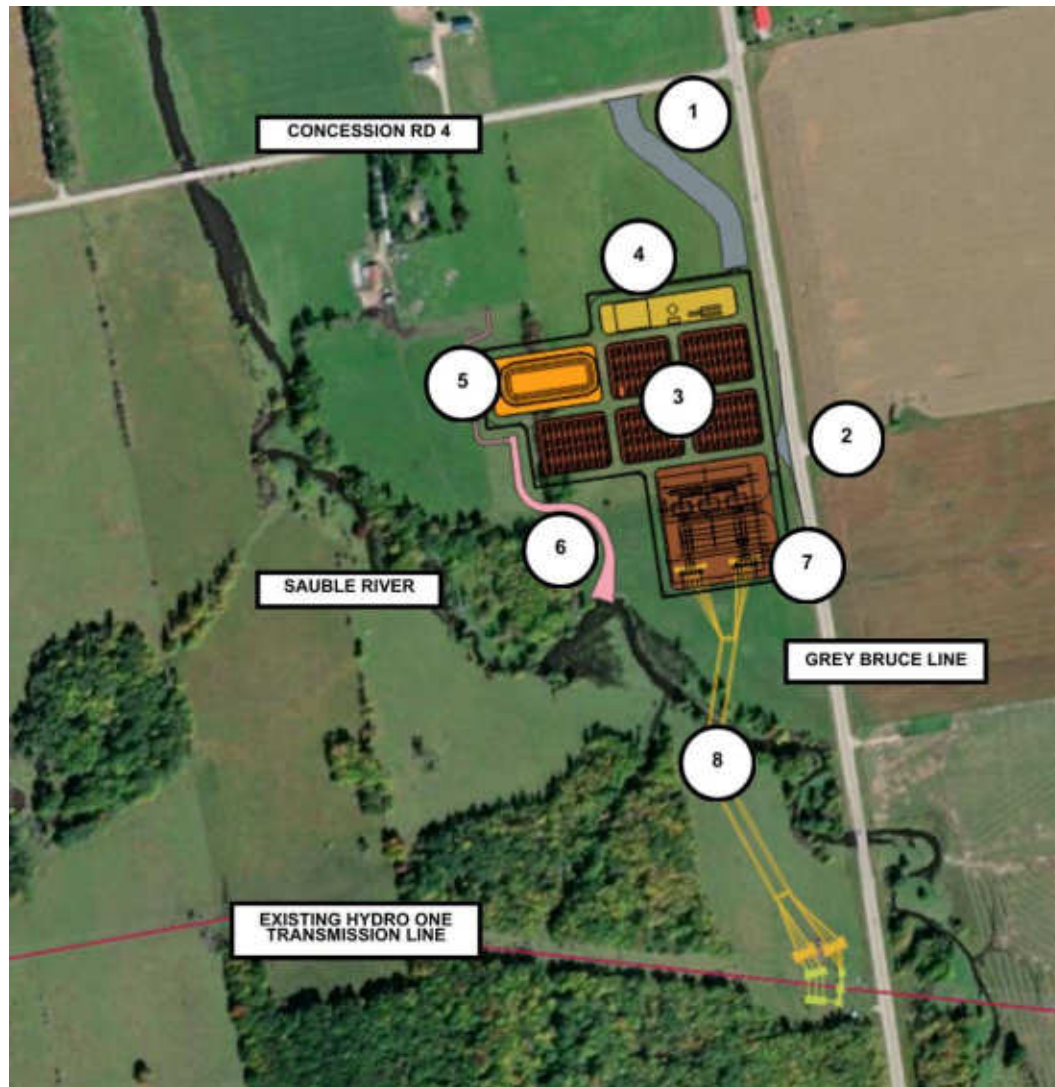
## FOX COULEE SOLAR FARM

93 MWp in Starland County, Alberta.





# Proposed Project Location and Layout



## TARA BESS PROPOSED LAYOUT

1. Primary Entrance
2. Secondary Entrance
3. Battery Containers w/ Acoustic Barrier Walls
4. Operations & Maintenance Buildings
5. Stormwater Management Pond
6. Drainage
7. 230 kV Substation
8. 230 kV Transmission Line and Structures

Note: the 8-metre acoustic barrier wall previously shown along the north side of the facility is no longer proposed.

# Grey Sauble Conservation Authority Approval

- Tara BESS is proposed for lands with a designated floodplain and is subject to approval by Grey Sauble Conservation Authority.
- A cut-and-fill method, combined with a surface run-off management system and retention pond, is proposed to mitigate impact to the floodplain:
  - The **cut-and-fill method** will raise the facility so that water can flow freely around it, while stormwater ditches leading to the Sauble River will off-set the BESS footprint.
  - A **surface run-off management system** comprised of site grading, vegetated ditches, subsurface storm sewers and drainage directed to the retention pond.
  - A **retention pond** (also referred to as wet pond) complete with separator, discharge orifices, and a control valve that allows water to flow into the Sauble River and limits flows to less than pre-BESS development flow rates.
- The proposed design protects water quality, quantity, and provides erosion control.
- No impact to floodplain or stormwater when modeled against 100-year return events.
- **Application complete April 25, 2025.**

# Class Environmental Assessment

- Tara BESS is subject to the Ministry of Environment, Conservation and Parks' (MECP) **Class Environmental Assessment for Minor Transmission Facilities** (Class EA) process, in accordance with the Ontario Environmental Assessment Act.
- Notice of Commencement of the Class EA process for Tara BESS was initiated on November 25, 2024.
- Feedback received between Notice of Commencement and Notice of Completion will be entered into a public consultation record that will form part of Neoen's Class EA submission.
- Notice of Completion expected to be issued in **spring 2025**, followed by a 30-day public comment period.

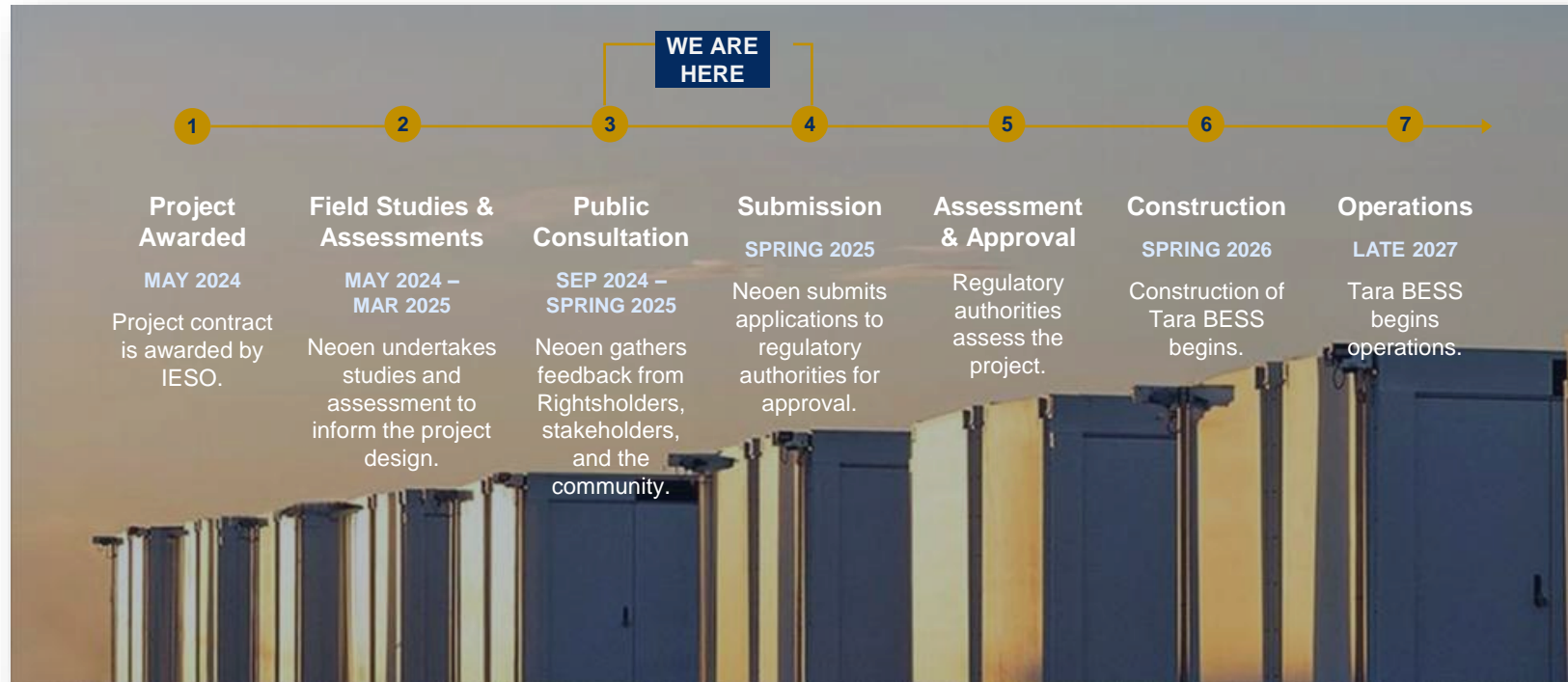
## Required studies:

- Aquatic Habitat Assessment
- Ecological Land Classification and Vegetation Surveys
- Breeding Bird Surveys
- Breeding Amphibian Surveys
- Bat Habitat Assessment (Maternity Roost Surveys)
- Noise Impact Assessment
- Agricultural Impact Assessment

# Other Permit and Approval Requirements

- Official Plan Amendment and Re-zoning (Bruce County/Arran Elderslie) – **applied April 3, 2025**
- Environmental Compliance Approval for Stormwater and Noise
- Environmental Activity Sector Registration
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan
- Ontario Endangered Species Act Sec.17 permit
- Duty to Consult Sufficiency Letter
- Arran-Elderslie BESS Policy (Site Plan) Application

# Project Schedule





# Consultation

- Consultation for Tara BESS began in September 2024.
- Consultation efforts include:
  - Door-to-door canvassing
  - Project mail-outs
  - Landowner meetings
  - Council delegations
  - Stakeholder briefings
  - Multi-stakeholder working group
  - Rightsholder consultation
  - Community open house
  - Project website

We invite community feedback via the following channels:

- Phone: (416) 312-0057
- Email: [info@tarabattery.ca](mailto:info@tarabattery.ca)
- Web: [www.tarabattery.ca](http://www.tarabattery.ca) (via feedback form)
- Mail: 319-150 King Street West, Toronto, ON M5H 1J9



# Project Benefits

- Tara BESS is expected to deliver more than \$2M in community benefits over the course of operations, including:
  - **100K Community Benefits Fund** to support local clean energy, biodiversity, environmental, arts & cultural, social and educational initiatives.
  - Neighbour and Rightsholder benefits.
  - A local art initiative.
- Additionally, Tara BESS will generate local employment, skills training and supplier opportunities.
- Municipal tax revenues, grid stability, etc.



# BESS Construction

BESS construction typically takes between 1.5 – 2 years to complete, and includes the following activities:

- Temporary fence installation
- Equipment mobilization
- Temporary storage areas
- Material and soil deliveries (by truck)
- Clearing and grading
- Shallow excavation and pouring of concrete slabs or pile installation
- Hoisting of pre-assembled battery containers and transformers
- Erection of steel structures and transmission lines
- Electrical connection work
- Acoustic barrier wall installation
- Landscaping





# BESS Operations

- Tara BESS is expected to complete one charge and discharge cycle per day.
- A crew of workers, contracted by Neoen, will operate Tara BESS. Neoen can elect to operate each day or not.



**From:** [Karcha, Foster](#)  
**To:** [Macki, Monika \(MECP\)](#)  
**Cc:** [Day, Jason](#); [Paré, Annabelle](#); [Nicolas Echesortu](#); [Clément, Vincent](#); [Lippert, Emma](#); [Symons, Greg](#); [Benoît Pinot de Villechenon](#); [Brittany Morrison](#);  
**Subject:** Tara BESS Draft ESR - Response to MECP comments  
**Attachments:** [7757017-000000-4E-ALT-0002-R01.pdf](#)  
**Sent:** 2025-05-21 4:54:04 PM

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**EXTERNAL:** Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon, Monika,

Thank you again for providing comments on the Draft Environmental Study Report (ESR), and associated Acoustic Assessment Report (AAR), as well as taking the time to meet with us on May 8, 2025, with your team to further discuss and clarify the comments.

For your records, please find attached is Neoen's formal response to your comments, to confirm our understanding of your comments and our discussion, and document our next steps to issuing the Draft ESR for public comment shortly. Our response to your comments will be documented in the final Draft ESR to be issued for public comment.

Sincerely,

**Foster Karcha**, P.Biol.  
Senior Environmental Professional, Environment



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**BBAconsultants.com**

May 21, 2025

Ms. Monika Macki  
**Ministry of the Environment, Conservation and Parks**  
135 St. Clair Avenue W  
Toronto, Ontario M4V 1P5

**Subject:** Tara BESS Draft ESR – MECP comment response

Dear Ms. Macki,

Thank you for your thorough review and for providing valuable feedback on the *Tara Bess Draft Class EA Environmental Study Report* and the associated *Noise Impact Assessment*, received on April 15, 2025. We appreciated that your team was able to meet with us on May 8, 2025, to discuss your comments in further details.

We have carefully reviewed each of your comments, and our discussion from our meeting. Attached to this letter you will find a table summarizing your comments, and, if appropriate, a response with additional detail to clarify the report or the result of our discussion. We will revise our Environmental Study Report (ESR) and Acoustic Assessment Report (AAR) accordingly, before issuing the draft ESR with the Notice of Completion for public comment.

We trust you will find everything to your satisfaction. Should you require any additional information, do not hesitate to contact the undersigned at your convenience.

Sincerely,

**BBA E&C Inc.**

A handwritten signature in blue ink, appearing to read 'Foster Karcha'.

---

Foster Karcha  
Senior Environmental Professional

A handwritten signature in blue ink, appearing to read 'Vincent Clément'.

---

Vincent Clément  
Lead Environmental Project Manager

FK/VC



Item	Report Section	MECP Comment	Neoen Response
1	2.2	Include a description of the decommissioning of the BESS.	Added a summary of the decommissioning plan to Section 2.2 Major Activities.
2	3	As per the TF Class EA, Section 3.4: Consultation throughout the Full Class EA Process will be documented to accurately represent planning and decision-making. This will include the schedule of events, methods used to consult, the list of consulted persons, the identification and resolution of concerns, commitments made by the proponent, and any outstanding concerns. A copy of all notification material will accompany the draft ESR.	A draft version of our Consultation record was provided to MECP for comment separately. The Draft ESR for the Notice of Completion will include this updated record.
3	3	All notices, invites, information materials need to be included in the consultation records. Please provide confirmation / correspondence that stakeholders were provided these notices.	
4	3	If there were any comments and or concerns raised by the engaged agencies, stakeholders, the public and/or indigenous communities during the consultation engagement, meetings and open houses, this should be included in the consultation records. The proponents' responses to these comments/ concerns also should be included. If none were received, this should be noted.	
5	3	Documentation of the actual correspondences with Indigenous communities should be included in the consultation records.	
6	3	It is noted that section 3.0 Engagement Summary of the main ESR report is to be completed at the conclusion of consultation. It is expected that this section will include a summary / description of the consultation that has taken place to date when the notice of completion gets issued and the ESR is posted for viewing.	



Item	Report Section	MECP Comment	Neoen Response
7	3.2 (NIA), 5.3 (NIA)	UTM coordinates for PORs: Include the UTM coordinates for all Points of Reception (PORs) in the noise report. The UTM coordinates should be included in Table 1 of the noise report. This comment also applies to Table 4 and Table 5.	Accepted.
8	6 (NIA)	UTM coordinates for noise sources: Include the UTM coordinates for all significant noise sources in the noise report.	Accepted.
9	6 (NIA)	Table 6: Include two additional columns; one for sound power level and another for source height above grade.	Accepted.
10	7 (NIA)	CadnaA file: Provide the CadnaA file(s) used for the unmitigated and mitigated model runs.	Accepted.
11	7 (NIA)	CadnaA Sample Calculation: Include a full set of (1/1 Octave Band Centre Frequencies) of sound level calculations at the worst-case point of reception in the noise report.	Accepted.
12	5.3 (NIA), 7.1 (NIA)	Exclusion limits for PORs: The applicable noise limits should be based on the Exclusion Limits for Class 3 Areas (Rural), namely Leq(1h) 45 dBA day, 40 dBA evening and 40 dBA night. The Measured Background Noise (dBA) values in Table 5 are questionable and thus, should not be used to set the applicable noise limits. The Sound Level Limit (dBA) values in Table 11 to Table 16 need to be revised to show the Exclusion Limits for Class 3 Areas (Rural).	Based on the discussion with MECP, the AAR was unclear on how the average hourly value was calculated. Neoen confirms that the lowest hourly Leq value was selected to represent the background sound level in a 48-hour period, not the average over that period. Regardless, excluding the R2 site measurement would not meaningfully impact the results. The AAR will be revised to clarify the on-site measurement and confirm there is no change to impacts of the site.
13	6 (NIA)	Significant noise sources: confirm that all significant noise sources were included in the noise model. Provide rationale why the convertors / inverters were not included as noise sources in the modelling. Confirm the Tara BESS equipment contains convertors and inverters.	The AAR will confirm that all equipment was included in the assessment.
14	3.2 (NIA)	Point of Receptors (POR) Assessment: Confirm that all POR within 1,000 metres of the equipment have been assessed.	Accepted.



Item	Report Section	MECP Comment	Neoen Response
15	General (NIA)	Vacant Lots: Vacant lots in all cardinal directions (north, south, east and west) were not assessed in the noise report. Provide confirmation that there are no vacant lots closer and more exposed to the facility than the selected PORs. There are two vacant lots located on the east side of the Tara facility, along Grey Bruce Line. These two vacant lots have to be included as PORs in the noise report. Map 3 and Map 4 (Appendix H) show that the Tara BESS sound level exceed the applicable sound level limits at the vacant lots to the east along Grey Bruce Line.	The AAR will be revised to include the Vacant Noise Sensitive Lots, (vacant lots) where appropriate. As noted during our discussion, mitigations may be proposed for these vacant lots; however, this mitigation does not need to be installed until a sensitive dwelling or facility is proposed and constructed at the vacant lot.
16	8 (NIA)	POR Summary Table: Include a new Table to document the sound level of each noise source at each POR as well as the distance setback from each source to each POR. This Table should include unmitigated and mitigated sound levels.	Following our discussion MECP clarified that, given the volume of sources, only the closest source in each cardinal direction of the project needs to be provided. The sources should be the 'worst-case' source for each cardinal direction.
17	General (NIA)	Assessment of all additional equipment: For both documents listed above, the project description states, "a substation with two transformers – in service and a third transformer for redundancy". Provide the location and noise emissions of the additional third transformer in the noise report.	Accepted.
18	6.1 & 6.3 (NIA)	Tonal Penalty: It is stated that a 5 dB tonal penalty was applied to both the high voltage transformers (each rated 220 MW) and medium voltage transformer (each rated at 4.8 MVA) sound power levels. Please confirm if a 5 dB tonal penalty was applied to the sound power levels listed in Table 7 and 9.	Accepted.



Item	Report Section	MECP Comment	Neoen Response
19	6.2 (NIA)	<p>Tonality for BESS: The Tara BESS equipment need to be conservatively assumed as a tonal noise source, and therefore, in accordance with Publication NPC-104, a 5 dB tonal penalty should be added to its sound power level. Please confirm if a 5 dB tonal penalty was applied to the sound power levels listed in Table 8.</p>	<p>Following the tonal analysis procedure described in Annex K of ISO 1996-2, a tonal component was initially identified at 630 Hz at 50% fan operation of the BESS equipment. This met the 8 dB prominence condition, suggesting tonal content. However, no tonal components were identified at 30% capacity.</p> <p>Per ISO 1996-2, and consistent with MECP's NPC-104, tonal audibility must be assessed at receptor locations. A receptor-based analysis using one-third-octave band data demonstrated that this component does not meet audibility criteria, and thus a tonal correction is not warranted.</p> <p>NPC-104 permits detailed ISO-based assessments where appropriate. Given the receptor-based analysis and alignment with international best practices, no tonal penalty has been applied for the BESS units.</p> <p>Full calculations and tonal analysis data will be provided in the final Acoustic Assessment Report to support this conclusion</p>
20	General (NIA)	<p>Tesla Megapack documentation: Please provide the following documentation referenced in the noise report:</p> <ul style="list-style-type: none"><li>a. Tesla Megapack 2 XL - Sound Data – FN03.pptx</li><li>b. Tesla Megapack 2 XL - SPL Data - FN03.xlsx"</li></ul>	<p>This can be shared with MECP on a confidential basis.</p>





Item	Report Section	MECP Comment	Neoen Response
21	7 (NIA)	Justification of Table 10 Modelling Parameters: Justify why Operation Conditions 50% and 30% were used for BESS Daytime and Nighttime/Evening respectively.	<p>The primary source of noise produced by a BESS unit is from the cooling fans. The operational conditions selected for Tara BESS are 50% Daytime and 30% Nighttime/Evening. These operational conditions have been confirmed by the manufacturer considering operational requirements and environmental conditions.</p> <p>The operating conditions reflect greater cooling requirements during the day during periods of higher ambient temperature and lower cooling requirements during the evening/nighttime when ambient temperature is lower.</p> <p>The MECP does not prescribe fan load percentages in NPC-300; these values were chosen to ensure that modeled sound levels do not underestimate potential impacts under typical load conditions, while still reflecting viable operational noise mitigations.</p> <p>The AAR will be revised to reflect this additional information.</p>
22	7 (NIA)	Ground Factor (G): Confirm the ground factor used in the noise model. Section 7, Noise model in the noise report states that for Ground Absorption, a Coefficient of $G = 0.7$ was used, but in Table 10, Model Parameters, Ground Absorption Coefficients of 0, 0.4, and 0.6 were listed.	Accepted.



Item	Report Section	MECP Comment	Neoen Response
23	6.1 & 7.0 (NIA)	Height of Equipment for BESS, Medium Voltage Transformer and High Voltage Transformers: In section 6.1 medium voltage transformer, it is stated that the transformer has a height of 3000 mm. However, in Table 10, the source height is listed as 1.7 metres. The source height must be taken at the top of the physical height of the source, i.e. a source of height of 3 metres for the modelling of the medium voltage transformer.	<p>During our discussions with MECP, it was confirmed that the concern with modelling transformer heights was ensuring that the line-of-sight (LoS) to the top of the transformer to nearby receptors was obscured by the noise wall. The current proposed noise walls are sufficiently high to fully block LOS from the top of both the medium voltage and high voltage transformers to all receptors.</p> <p>Additionally, the calculation of the transformer's sound power is based on formulas that incorporate the emissive surface area (determined by the tank height and measurement perimeter), in accordance with IEC and NEMA standards. This calculation method is conservative, meaning it tends to overestimate the sound power to ensure results remain on the safe side during acoustic impact assessments. This modeling choice thus enables a realistic, robust, and precautionary representation of the sound source within the framework of acoustic impact studies.</p> <p>Finally, the heights of medium voltage and high voltage transformers will be corrected in the final AAR.</p>
24	General (NIA)	Acoustic Assessment Report Checklist: Provide a completed, signed and dated Acoustic Assessment Report Checklist in the noise report: <a href="https://forms.mgcs.gov.on.ca/dataset/5356/resource/0aa0bd5f-a5f5-4f13-90c7-55189218cfc8">https://forms.mgcs.gov.on.ca/dataset/5356/resource/0aa0bd5f-a5f5-4f13-90c7-55189218cfc8</a> .	A checklist signed by Neoen and BBA will be included in the final AAR.
25	General	Rename MOECC to MECP in both Reports: The Ontario Ministry of Environment and Climate Change (MOECC) was renamed few years ago to the Ontario Ministry of Environment, Conservation and Parks (MECP). Please update both the Noise Impact Assessment Report and the Class EA Environmental Study Report by replacing all references to MOECC with MECP.	Accepted.
26	General (NIA)	High Voltage 220 MW Transformer Substation: The MVA rating of this transformer needs to be included in the noise report.	Confirmed 220 MVA.



Item	Report Section	MECP Comment	Neoen Response
27	Appendix G & H (NIA)	Map 1, Map 2, Map 3 and Map 4 (Appendix H): Include two sets of sound level contours, one for a receptor height of 1.5 metres and the other for a receptor height of 4.5 metres above ground level. Label the receptor height used in the maps.	Accepted.
28		Manufacturer specifications for High Voltage 220 MW (? MVA) transformer substation (Qty.2 or 3?): Include a drawing (ONAN/ONAF area and type of cooling) and a guarantee letter for the overall sound power level from the manufacturer and area calculations in the application package.	Confirmed that the EASR registration must be updated with these results, once available.
29		Manufacturer specifications for Medium Voltage 4.8 MVA transformers (Qty. 106): Include a drawing (ONAN/ONAF area and type of cooling) and a guarantee letter for the overall sound power level from the manufacturer, in the application package.	Confirmed that the EASR registration must be updated with these results, once available.
30		Manufacturer specifications for BESS units Tesla Megapack 2XL (Qty. 420): Include the manufacturer's noise specification for the Battery Energy Storage System (BESS) in the application package. Also, include the guarantee letter for the overall sound power level from the manufacturer, in the application package.	Confirmed that the EASR registration must be updated with these results, once available.
31	5.8	MECP suggests removing Cougar, Gray Fox, Acadian Flycatcher and Woodland Vole from Table 5-3: List of Species that may occur in the area. These species are unlikely or do not occur in the area.	Accepted
32	5.8	The Short Ear Owl is listed as "Threatened" under the ESA. MECP suggests changing its status listed in Table 5-2 from Special Concern to Threatened.	Accepted
33	5.8	Eastern Whip-poor-will has been downlisted to Special Concern. MECP suggests changing the status in Table 5-3 from Threatened to Special Concern.	Accepted



Item	Report Section	MECP Comment	Neoen Response
34	5.8	Three new species of migratory bats are now listed as Endangered in Ontario: Sliver haired bat, Hoary Bat and Eastern Red Bat. These bats should be considered as part of the assessment moving forward. Suggest including these species in Table 5-3.	Accepted
35	5.8	Seven different species of bat were detected through acoustic monitoring, including all 3 of the newly listed bat species. Suggest adding 3 newly listed migratory bat species to SAR observations that have been recorded in the LSA.	Accepted
36	5.7.2	"Six species of bats that are currently listed under the ESA as Endangered were detected at the site. Suggest correcting statement to include all bats that are current listed.	Accepted
37	6.8.2	Suggests including all SAR bat species detected on site, as oppose to the only 3 SAR bat species listed on page 82 of the report.	Accepted
38	5.8	The Species at Risk Act (SARA) is federal legislation and generally on applies to land under federal jurisdiction (although there are exceptions). The Endangered Species Act (ESA), 2007 applies to all private and public land in Ontario that is under provincial jurisdiction. Suggest changing section 5.8 to reflect which legislation this project will fall under and/or which aspects of the project are being considered under the ESA and SARA respectively.	Accepted
39	5.8	There is a variety of different authorization types under the ESA such as conditional exemptions, agreements and permits. The "Overall Benefit Agreement" that is referenced in the first paragraph is probably more properly referred to as an "Overall Benefit Permit". Suggest changing "Overall Benefit Agreement" to "Overall Benefit Permit".	Accepted



Item	Report Section	MECP Comment	Neoen Response
40	6.7.2	<p>Agree that applying buffers and avoiding tree removal is suitable mitigation for bats. MECP agrees that the few trees that do need to be removed to access the transmission line are not likely to be considered a habitat impact under the ESA, given the details that have been provided so far, and provided that they are removed outside of the bat active season. MECP also agrees that erecting bat roosting boxes would be considered suitable mitigation (for cavity roosting species) for any possible impacts to bats from this project.</p> <p>Finally, given the lack of scientific literature that supports negative impacts to bats as a result of EMFs from transmission lines, there is no evidence to support that this would be considered an impact under the ESA.</p> <p>Suggest removing the few trees that need to be removed outside of the bat active season. The active season for bats in Southern Ontario (inclusive of the new migratory species) is April 1st – November 30th. The document currently says April 1 – November 29. If trees need to be removed inside the active season window, please contact MECP for further guidance.</p>	





Item	Report Section	MECP Comment	Neoen Response
41	6.8.2 & 5.3.1?	<p>Proposed clearing and construction period is inclusive of breeding bird window for Eastern Meadowlark and Bobolink (April 15th – July 31st). In discussions with the client, it appears that there will be no net habitat loss for these species because the BESS footprint is occurring in an agricultural field that has crops that are unsuitable for use by these species and because for the construction of the transmission line, possible impacts to habitat are only expected to occur outside the period that it is being used by these species.</p> <p>Suggest providing clarity on construction timelines for the transmission line in the context of possible impacts to Eastern Meadowlark and Bobolink and outlining suitable avoidance and mitigation measures.</p> <p>Also suggest documenting current/past crop type in BESS footprint</p>	<p>Crop planned this year is soybeans. Construction of the transmission line will be conducted outside of the breeding period where possible.</p>
42	6.8.2	<p>O. Reg. 830/21 may be an option for temporary impacts to Eastern Meadowlark and Bobolink habitat if these impacts persist beyond a single active season (i.e. if this potential habitat is not available during an active season). Suggest providing clarity on how long and when potential habitat may be impacted for Eastern Meadowlark and Bobolink to be able to provide guidance on avoidance or authorization under O. Reg 830/21 if required.</p>	<p>Accepted.</p>
43	9.2	<p>"Bat timing window in table 9-1 should be corrected to April 1 – Nov 30.</p>	<p>Accepted.</p>



Item	Report Section	MECP Comment	Neoen Response
44		Please note that any water extraction over 50,000 L/day will require MECP approval(s) under the Environmental Protection Act and Ontario Water Resource Act, such as a Permit to Take Water (PTTW). Certain water taking activities that have been prescribed by the Water Taking Regulation O. Reg. 63/16 may require registration in the Environmental Activity and Sector Registry instead of a PTTW. Regardless, a PTTW is required if the water-taking exceeds 400,000 litres per day. More information regarding PTTW is accessible online at this link: <a href="http://www.ontario.ca/page/water-taking-and-transfer-user-guide-clarifications-and-exemptions">www.ontario.ca/page/water-taking-and-transfer-user-guide-clarifications-and-exemptions</a> .	No water-taking activities will be required for the Tara BESS project.
45		"The proponent should communicate with the local Conservation Authority and Fisheries and Oceans Canada (DFO) should modifications to the flood plain in the floodplain compensation area impact any fish habitat within the study area.	An application to the Grey Sauble Conservation Authority (GSCA) has been made and is under review. Modifications to the floodplain compensation area are not expected to impact fish habitat within the study area, with the mitigation measures proposed in the ESR.
46	2.2, 6.6, 9.2	An Erosion and Sediment Control Plan should be developed and implemented during the construction phase of the project.	An Erosion and Sediment Control Plan will be developed for the construction phase of the project and will be provided with the Environmental Compliance Approval (ECA) application package.