



## **Seven Stars Energy Project Terms of Reference**

**Prepared for:**  
Seven Stars Energy Limited Partnership

Project No. SK3231D | February 2025



**NATURAL RESOURCE SOLUTIONS INC.**

Aquatic, Terrestrial and Wetland Biologists

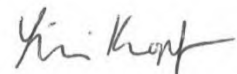
## Seven Stars Energy Project Terms of Reference

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Report submitted on February 5, 2025



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## Executive Summary

Seven Stars Energy Limited Partnership (the Proponent), a wholly owned subsidiary of Enbridge Inc., is proposing to develop the Seven Stars Energy Project (the Project), a 200 megawatt (MW) wind energy project located approximately 5 km southeast of Weyburn, Saskatchewan. The Project will have a capability of 207 MW; however, output will be limited to 200 MW at the point of interconnection. The Project Area is comprised of approximately 80 km<sup>2</sup> of land within the Rural Municipalities of Griffin No. 66 and Weyburn No. 67 being considered for development; however, only a very small fraction of the Project Area will be used for the Project's construction and operational activities. The Project is primarily situated on privately owned lands for which the Proponent holds Option to Lease agreements with the current landowners, with a limited portion of the underground collection system potentially being located within Rural Municipality road allowances. The Proponent anticipates construction will begin in 2026 and the Project will be operational in 2027.

The selection of Valued Components (VCs) that will be considered within the Environmental Impact Statement (EIS) is based on a fulsome consideration of potential impacts on important components of the biophysical, socio-economic, and cultural environments that exist in the areas proposed for Project activities. The preliminary selection of VCs presented within this *Terms of Reference* has been informed through the consideration of ecological importance, societal value, and general sensitivity of the components, as well as through the consideration of expected and potential impacts that may be experienced as a result of specific Project activities. This preliminary consideration has identified seven VCs which will require a comprehensive consideration of potential effects, including flora, wetlands and watercourses, wildlife and wildlife habitat, acoustic environment, socio-economic considerations, archaeological and heritage resources, and land use. This preliminary list of VCs will be considered in the Environmental Impact Assessment (EIA) and EIS as potentially being impacted by the proposed Project activities.

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## 1.0 Introduction

This *Seven Stars Energy Project: Terms of Reference* has been prepared in support of a self-declaration that the proposed activities associated with the Seven Stars Energy Project (the Project) shall be considered a development, as defined by *The Environmental Assessment Act* (Government of Saskatchewan 1980). In accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021), this submission has been prepared to outline the specific studies that will be undertaken and the information to be obtained as part of an Environmental Impact Assessment (EIA) for the Project, as well as to identify how the information will be collected, presented, and evaluated in the Environmental Impact Statement (EIS).

### 1.1 Project Proponent

The Project Proponent is Seven Stars Energy Limited Partnership, a wholly-owned subsidiary of Enbridge Inc. (Enbridge). The Proponent will be responsible for the development, construction, and operations of the Project.

Enbridge has been safely connecting millions of people to the energy they rely on every day, fueling quality of life through its North American natural gas, oil, and renewable power networks and its growing European offshore wind portfolio. Enbridge is investing in modern energy delivery infrastructure to sustain access to secure, affordable energy and building on more than a century of operating conventional energy infrastructure and two decades of experience in renewable power. Headquartered in Calgary, Alberta, Enbridge's common shares trade under the symbol ENB on the Toronto (TSX) and New York (NYSE) stock exchanges. To learn more, visit [enbridge.com](http://enbridge.com).

Contact information for the proponent is provided below:

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### 1.2 Project Justification

The Government of Saskatchewan and the Saskatchewan Power Corporation (SaskPower) have developed policy to reduce greenhouse gas (GHG) emissions, including the reduction of GHG emissions from the electricity sector. A phase-out of coal-fired electricity by 2030 has

been implemented as a target by the Government, and additional generation is required in the province. Once operational, the Project would provide power to the SaskPower electrical grid in alignment with the GHG emission reduction policy and the 2030 target.

Enbridge has entered into a letter of intent with six Indigenous Nations to allow for at least 30% equity ownership in the Project. The Project will also generate significant local socio-economic benefits to the communities within the Rural Municipalities of Griffin No. 66, Weyburn No. 67, and the City of Weyburn, and to numerous local businesses and individuals in local and regional areas surrounding the Project. These benefits include contracting opportunities during the development, construction, and operational phases, employment opportunities, training opportunities in wind energy, property and education tax revenues, leasing revenues, a community benefit fund, and various types of indirect economic benefits from the Project's presence in the area (e.g., demand for various services in town, lodging, restaurants, supplies). The Project is expected to generate an estimated 200 jobs during construction, four to eight permanent jobs during operation, and \$25-30 million in local and provincial education taxes over 30 years.

### 1.3 Land Controls

The Project is almost entirely situated on privately owned lands located within the Rural Municipalities of Griffin No. 66 and Weyburn No. 67 (Map 1), with a limited portion of the underground collection system potentially being located within Rural Municipality road allowances. The Project Area is within Treaty 4 territory and is generally bound by Highway 13 to the north and Highway 39 to the south. The Project has signed land lease agreements with landowners for all lands within the Project Area. Existing right-of-ways for two SaskPower transmission lines bisect the Project Area.

### 1.4 Regulatory Requirements

The consideration of regulatory authority, legislative requirements, and permitting submissions is a function of the proposed activities, geographic location (i.e., municipal jurisdiction), and land ownership of the areas being considered for Project activities. The Project activities discussed in this submission are primarily subject to *The Environmental Assessment Act* (Government of Saskatchewan 1980). The following sections provide an overview of the regulatory processes that will be addressed by the Project.

#### 1.4.1 Provincial and Federal Environmental Assessment Legislation

##### *Provincial Environmental Assessment Act*

The activities proposed in this Terms of Reference are subject to the review and considerations as outlined in *The Environmental Assessment Act* (Government of Saskatchewan 1980). Typically, the process would begin with the submission of a Technical Project Proposal (TPP) which would provide an overview of the Project activities and compare Project specifics to the criteria used by the Saskatchewan Ministry of Environment (ENV) to identify whether the

proposed activities meet the definition of a 'development'. Projects that are considered a 'development' must then submit an EIS in accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021).

The Proponent has opted to self-declare the Seven Stars Energy Project as a 'development' in an effort to expedite the overall review process. Following this approach, a TPP is not required as an initial submission and the Project has prepared this comprehensive Terms of Reference for submission to the ENV's Environmental Assessment Branch.

Following the approval of this Terms of Reference, and the completion of the associated monitoring, assessments, and consultation, an EIS will be prepared and submitted. The ENV will coordinate an interdepartmental review through the Saskatchewan Environmental Assessment Review Panel (SEARP), which undertakes a technical review of the environmental and socio-economic considerations of the Project activities. If the SEARP identifies any areas that lack information or clarity, or statements that the SEARP disagrees with, technical comments and suggestions will be provided to the Proponent for consideration in a revised submission. When a final submission is prepared, ENV will post the document on the government's website to initiate a public review and commenting period.

A final decision on the Project will be made by the Minister of the Environment, which will consider the content of the EIS, technical comments made by the SEARP, and any public submissions made during the commenting period. If the Project is approved, the approval will be subject to terms and conditions that the Proponent must comply with while carrying out the specified activities.

A list of applicable provincial legislation has been provided in Table 1.

#### Federal Impact Assessment Act

As the Project Area is sited almost entirely on privately owned lands, with a limited portion of the underground collection system potentially being located within Rural Municipality road allowances, and the Project does not constitute a designated activity as defined in the *Physical Activities Regulations* under the *Federal Impact Assessment Act*, it is understood that the lands are not subject to a federal impact assessment, review, or approval. A list of other applicable federal legislation has been provided in Table 1.

#### 1.4.2 Overview of Applicable Legislation

Although *The Environmental Assessment Act* (Government of Saskatchewan 1980) is the primary regulation associated with the review and approval of the proposed Project infrastructure and activities, other applicable federal, provincial, and municipal legislation and regulations will inform numerous aspects of Project design and development and will result in other approvals and development permits associated with the proposed activities. Table 1 provides an overview of the applicable legislation and regulations that will be considered through the permitting and approvals phase of the Project.

**Table 1. Overview of Applicable Legislation and Regulatory Authorities**

Legislation	Regulatory Authority	Project Considerations
<b>Federal</b>		
<i>Species at Risk Act (SARA)</i>	Environment and Climate Change Canada (ECCC)	It is prohibited to kill, harm, or harass species listed as Extirpated, Endangered, or Threatened. SARA also protects the residence and/or critical habitats of the same species from damage or destruction. The Project will address any considerations related to SARA and will consider SARA-protected species as species of conservation concern, and as such will consider their occurrences and any associated potential effects of the Project.
<i>Migratory Birds Convention Act (MBCA)</i>	ECCC	The MBCA prohibits any activity that may disrupt active migratory bird nests or result in killing, harming, or harassing migratory birds, their eggs, or nests in all lands where migratory birds breed and nest, unless permitted. The Project will consider potential effects to migratory birds, including the application of appropriate mitigation measures and best management practices for minimizing impacts to migratory birds, as well as monitoring of operational effects for the purpose of determining whether adaptive management is necessary.
<i>Fisheries Act</i>	Fisheries and Oceans Canada (DFO)	The <i>Fisheries Act</i> applies to any project that has the potential to impact waterbodies and watercourses that support commercial, recreational, and Indigenous fisheries. Project activities are not anticipated to occur in areas that have the potential to harm any fish-bearing watercourses.
<i>Aeronautical Act</i> (R.S.C. 1985, c. A-2)  Canadian Aviation Regulations (CARs) Standard 621, Chap. 12	Transport Canada	Transport Canada assesses any structure that may be considered an obstruction to air navigation under the Canadian Aviation Regulations (CARs), and regulates the lighting requirements for wind turbines. The Project will file an Aeronautical Assessment Form for Obstruction Marking and Lighting with the final Project layout to obtain the Aeronautical Obstruction Clearance letter.
Land Use Program	NAV CANADA	NAV CANADA assesses all proposed structures near airports and air navigation infrastructure to ensure navigation safety. The Proponent will file a Land Use Proposal Submission Form for the Project.
<b>Provincial</b>		
<i>Saskatchewan Environmental Assessment Act</i>	ENV	The Saskatchewan <i>Environmental Assessment Act</i> regulates and oversees the assessment of new developments, and their potential effect on the environment. This Terms of Reference has been prepared and is being submitted under jurisdiction of the Saskatchewan <i>Environmental Assessment Act</i> .

Legislation	Regulatory Authority	Project Considerations
<i>Water Security Agency Act</i>	Water Security Agency	The <i>Water Security Agency Act</i> is responsible for the management of provincial water supply and quality within Saskatchewan. Project activities are not expected to alter or create any watercourses. If, during the construction phase, Project activities require the collection and/or use of any surface water to support Project activities (e.g., cement mixing, dust suppression, etc.), any applicable authorizations will be discussed and obtained, as necessary.
<i>The Heritage Property Act</i>	Saskatchewan Ministry for Parks, Culture and Sports (MPCS)	The <i>Heritage Property Act</i> protects and conserves provincial heritage resources and regulates activities that may be harmful to heritage resources. A request for a heritage review will be submitted to the Heritage Conservation Branch (HCB) prior to submitting the EIS. The response from HCB will be provided when available.
<i>Weed Control Act</i>	Saskatchewan Ministry of Agriculture (MOA)	The <i>Weed Control Act</i> classifies weeds into categories that relate to their level of concern, and regulates the control of weeds in the province, with a goal of early detection and eradication of weeds. An assessment of existing and potential weeds will be included within the EIS, including detailed mitigation measures and post-construction monitoring that will be designed to minimize the potential spread of weeds and to take corrective actions if management problems exist after reclamation.
<i>The Wildlife Act</i>	ENV	<i>The Wildlife Act</i> protects sensitive plant and animal species, including their residences, from any harmful action, including killing, harming, disturbance, and collection. Under <i>The Wildlife Act</i> , a research permit is required to conduct species detection surveys and habitat assessments. The EIS will consider the presence of, and potential effects to, species of conservation concern that are confirmed, or are likely present, within the Project Area.
<i>The Wildlife Habitat Protection Act (WHPA)</i>	ENV	The WHPA protects areas of Crown land which have been formally designated as wildlife habitat and ecological lands. The Project does not overlap any such lands and is therefore not subject to the WHPA.
<i>The Environmental Management and Protection Act</i>	ENV	The <i>Environmental Management and Protection Act</i> protects aquatic habitat, including wetlands, watercourses, and waterbodies from development or alterations. The Project will obtain an Aquatic Habitat Protection Permit (AHPP) to permit Project activities that have the potential to affect wetlands and watercourses, if necessary.
<i>Pest Control Act</i>	MOA	The <i>Pest Control Act</i> regulates the prevention, control, and destruction of certain pests (animals, insects, or diseases), as defined by the MOA. The Project will comply with the <i>Pest Control Act</i> , as necessary, including the reporting and control of any observed pests.
<i>The Highways and</i>	Saskatchewan Ministry of	The Act regulates the transportation of loads on provincial roads that exceed typically permitted conditions (e.g., over-

Legislation	Regulatory Authority	Project Considerations
<i>Transportation Act</i>	Highways and Infrastructure (MHI)	sized, overweight, etc.). The Project will obtain the necessary permits required for the transportation of heavy machinery (e.g., cranes) and Project components (e.g., turbine blades, tower segments, etc.). Utility Permits, Approach Permits and Roadside Development Permits will also be requested, as necessary.
<i>The Dangerous Goods Transportation Act</i>	MHI	The <i>Dangerous Goods Transportation Act</i> regulates the transportation of designated dangerous goods. The Project is not currently anticipating a need to transport any dangerous goods; however, an Exemption Permit will be obtained if transportation of dangerous goods is deemed necessary.
<i>The Saskatchewan Farm Security Act</i>	Farm Land Security Board	The <i>Saskatchewan Farm Security Act</i> states that a non-Canadian-owned entity must receive an exemption order from the Farm Land Security Board to legally hold, or acquire, an aggregate land holding exceeding 10 acres. The Project has acquired the necessary exemption order.
<i>The Power Corporation Act</i>	Saskatchewan Power Corporation (SaskPower)	SaskPower has the exclusive right to supply, transmit, distribute, and sell electrical energy within Saskatchewan. The Proponent will work with SaskPower to take the necessary steps for the Project to be connected to the grid.
<i>The Electrical Inspection Act</i>	Various	Various regulations and requirements exist relating to the supply of electricity, wiring, and/or connection to an existing distribution system. The Project will obtain all necessary authorizations and permits associated with the <i>Electrical Inspection Act</i> .
<i>The Saskatchewan Employment Act</i>	Occupational Health and Safety Division	The Proponent and Project will comply with Occupational Health and Safety Regulations, 2020, S. 15.1 Reg 10.
<b>Municipal</b>		
<i>The Planning and Development Act</i>	Rural Municipalities	The <i>Planning and Development Act</i> allows Rural Municipalities to regulate development and control land use within their community(ies). The Proponent will consult with the Rural Municipalities of Griffin No. 66 and Weyburn No. 67, and will apply for zoning bylaw amendment and/or development permits, as needed, and in accordance with provisions in the applicable land-use by-laws.
<i>The Municipalities Act</i>	Rural Municipalities	<i>The Municipalities Act</i> regulates, in part, the use of municipal roads and may determine that a Road Use Agreement is required, based on the proposed Project activities. The Proponent will consult with the Rural Municipalities of Griffin No. 66 and Weyburn No. 67 and will implement a Road Use Agreement for the Project, if required.

## 2.0 Project Description

Located approximately 5 km southeast of Weyburn, Saskatchewan and within Treaty 4 territory, the Seven Stars Energy Project is a 200 MW wind energy project being proposed by Seven Stars Energy Limited Partnership, a wholly owned subsidiary of Enbridge Inc. The Project will have a capability of 207 MW; however, output will be limited to 200 MW at the point of interconnection. Once operational, electricity generated by the Project would be sold to the SaskPower electrical grid. Enbridge has entered into a letter of intent with six Indigenous Nations to allow for at least 30% equity ownership in the Project.

An anticipated schedule of Project activities is provided in Section 2.3.1. This Project description provides an overview of the Project siting, infrastructure, and phases, all of which inform the consideration of potential environmental effects. A detailed description has been provided in the following sections.

The Project Area is comprised of approximately 80 km<sup>2</sup> of land within the Rural Municipalities of Griffin No. 66 and Weyburn No. 67 being considered for development; however, only a very small fraction of the Project Area will be used for the Project's construction and operational activities. The Project is primarily situated on privately owned lands for which the Proponent holds Option to Lease agreements with the current landowners, with a limited portion of the underground collection system potentially being located within Rural Municipality road allowances. An overview of the Project Area is shown on Map 1.

### 2.1 Project Siting

The optimized design process has begun, with the gathering of relevant environmental and land use data on the Project Area from provincial and federal sources, as well as from available mapping from the local Rural Municipalities. This includes cadastral information, landownership mapping, and publicly available layers with information on native prairie, wetlands, watercourses, heritage sensitive areas, oil and gas wells, and communication systems. Aerial imagery may also be purchased to complete Geographic Information System (GIS) layers. For each of these applicable site features, an activity setback will be applied to ensure that turbines or other infrastructure will be located at an acceptable distance from each feature, as applicable. Setbacks will be based on regulation (either local or provincial, as relevant) or Enbridge best practices, with the intent of avoiding or minimizing potential effects. Once applicable features and setbacks are identified, the data will be used to create a constraints map that will inform the proposed project layout.

Field surveys were conducted in 2024 to validate and refine the constraints map information and proposed layout. These field validation exercises included surveys of wildlife, wildlife habitat, native prairie (and other native habitats), wetlands, watercourses, and confirmation of inhabited dwellings or buildings, etc.

The overall approach to Project design has been and will continue to be to avoid environmentally sensitive areas to the extent possible, according to best practices and/or provincial guidelines.

## 2.2 Project Components

Project infrastructure will include wind turbines, access roads, a Project substation, collector lines, an operations and maintenance building, a temporary laydown area, and permanent meteorological (MET) towers, as described in the following sections. These components will be installed by the Proponent.

The Project substation will be connected to the SaskPower owned transmission system located within the Project Area. SaskPower will be responsible for this connection.

### Wind Turbines

Each turbine will include a tower foundation, tower, three rotor blades, a hub/nacelle, and a built-in transformer. Turbine foundations will consist of an appropriately sized concrete spread-footing foundation with re-bar reinforcement, subsurface preparation, and a concrete pedestal where the turbine tower connects to the foundation. The excavation for construction of the foundation will be backfilled after the concrete pour of the foundation and pedestal is completed. It is expected to take two to three weeks to excavate, construct, and backfill each turbine foundation.

### Collector System & Junction Boxes

Power generated by the turbines will be conveyed to the Project substation through an underground collection system, which will consist of 34.5kV standard utility cable and a fiber optic communication cable buried to a minimum depth of approximately 1m as per the Canadian Electrical Code. The underground collection system will be located primarily on private lands with a limited portion located within Rural Municipality road allowances. Surface disturbance will be temporary.

Underground cables will be registered with SASK One-Call once construction is complete and final as-built drawings are available, as required by Saskatchewan regulations.

Above-ground junction boxes will be installed as needed to connect segments of the underground collection line system to the Project's substation.

### Project Substation and Operations & Maintenance Building

The Project substation will consist primarily of electrical equipment, including one main power transformer, high and medium voltage circuit breakers, disconnect switches, and a control building. The location of the Project substation will be chosen to optimize Project energy yield production and minimize electrical losses, and considering the minimization of potential effects to land use and natural features. The operations and maintenance building may be located in close proximity to the substation and will primarily consist of an electrical room, workshop, supervisory control and data acquisition (SCADA) room, parts room, conference room, and office spaces.

### Access Roads

The Project will use existing public roads to access the Project Area to the extent possible. The Proponent will upgrade public roads as required to enable safe transportation of turbine sections and other Project equipment and components. New access roads on private land will also be required to access each of the turbine locations. Turbine access roads will be wider during construction to accommodate larger equipment (e.g., crane and turbine component deliveries), but will be reduced to an operational width following construction. Temporary crane paths will, to the extent possible, follow the existing public roads, access roads, or collection system right-of-way, or will be moved overland in areas of cultivation.

### Temporary Laydown Area

A temporary laydown area will be used during construction to securely store materials, tools, and equipment during construction, and to accommodate temporary contractor site office trailers. Upon construction completion, this laydown area will be reclaimed in compliance with best practices and in consultation with the landowner.

### Permanent Meteorological Towers

The Project will require the construction of two permanent MET towers to collect wind and weather data during the operations phase of the Project. The MET towers are anticipated to be sited entirely on cultivated lands within the Project Area, avoiding environmentally sensitive features, including all native habitats, and taking into consideration any applicable setbacks. The disturbance during construction will include excavation for a concrete foundation at the MET tower base and for guy wire anchors (if required). MET towers will be located on the site for the duration of the operational phase of the Project. These towers are expected to be in the range of 60-120m in total height.

## 2.3 Project Activities

### 2.3.1 Proposed Schedule

Pending receipt of the required regulatory approvals, construction of the Project is planned to begin in 2026, with operations commencing in 2027. The anticipated Project construction schedule is outlined in Table 2. This schedule accounts for contingency in the timeline, which may result from potential delay in equipment arrival and/or adverse weather conditions. If regulatory approval is substantially delayed, this may impact the timeline for construction.

**Table 2. Proposed Project Schedule**

Activity	Period
Consultation and Engagement	Ongoing – Throughout Schedule
Terms of Reference Submission	Q1 2025
Terms of Reference Approval	Anticipated Q1 2025
Biophysical, Socio-economic, and Cultural Baseline Studies	Q1-Q4 2024
EIS Preparation and Submission	Q2-Q3 2025

Activity	Period
EIS Review and Approval	Anticipated Q1 2026
Other Federal, Provincial, Municipal Permits Review and Approval	Anticipated Q1 2026
Construction Start (earliest possible)	Q2 2026
Commercial Operation Date	2027
Clean-up and reclamation of temporary disturbance areas	2026-2028

### 2.3.2 Site Preparation and Construction Phase

Typical construction equipment to be used for the Project includes tracked bulldozers, excavators, cranes, and assorted trucks. Ready-mix concrete trucks will haul concrete to the site. Various large truck and trailer combinations will transport the turbine components to the site. Typically, two to three cranes will be used to erect each turbine. Additional vehicles will be used, when necessary, for personnel and small equipment transport to, from, and within the Project Area. Following the construction of permanent facilities, areas not containing permanent facilities or operational access roads will be reclaimed according to provincial regulations and in consultation with the landowner. Table 3 provides a description of the construction phase by component and construction activity.

**Table 3. Description of Project Construction Activities**

Component / Activity	Description
Access Road Construction	Permanent access roads will be built using tracked bulldozers and graders to clear vegetation, and strip topsoil and subsoil, as required. Proper soil handling and management and erosion control measures will be implemented during construction of the permanent access roads and temporary construction roads. Culverts will be installed as needed to facilitate surface water drainage. When Project construction is complete, topsoil and any subsoils will be replaced in separate lifts on recontoured disturbed areas or stored on site for future reclamation purposes.  Additional temporary access roads may be located on private land to deliver large turbine components and move cranes between sites to avoid dismantling and reassembly. Topsoil may be left in place except under limiting soil conditions. These temporary roads will be preferentially sited on annually cultivated land. These areas will be tilled following construction to alleviate compaction.
Delivery of Equipment	Equipment will be delivered by truck and trailer as needed throughout the construction phase and will be stored as necessary at the temporary laydown yard and turbine pads. A Traffic Management Plan will be developed using Saskatchewan Transportation standards to limit traffic disturbance.
Temporary Laydown Yard	A temporary laydown yard will be constructed to provide a secure location for managing and storing materials, tools, and equipment during construction and to accommodate the temporary contractor site office trailers. As required, proper soil handling and management and erosion control measures will be incorporated into the construction of the temporary laydown yard.
Turbine Sites	During construction, there will be temporary workspaces at each turbine location for storage of turbine components (i.e., nacelle, blades, towers, hub). The turbine sites will be prepared using equipment, such as graders, compacters, tracked bulldozers,

Component / Activity	Description
	and hoes. Proper soil handling and management and erosion control measures will be incorporated into construction and reclamation activities. After turbine assembly, stripped or excavated subsoil and topsoil will be replaced and/or stored, as appropriate.
Foundations	<p>The turbine foundation will consist of a typical concrete mat or gravity footing design. The foundation excavation will be backfilled after the concrete foundation is poured. Excess backfill materials will be redistributed on-site, transported to other areas of the Project for use as fill, or disposed of off-site. On-site storage of excess backfill materials may occur in consultation with, and only as directed and approved by, landowners.</p> <p>No excess soils will be transported off-site or to other landowners' properties without the authorization and consent of both the source and receiving landowners.</p>
Turbine Assembly and Installation	Turbine towers are typically delivered in three to four sections that are assembled on-site and erected onto the foundation by crane. The nacelle, with the hub attached, is lifted onto the tower by crane. Each blade is then installed separately above ground using a crane to lift the blade to the hub. This "blade-by-blade" installation is standard practice for larger-rotor turbines now available. Blade installation technique may vary between different manufacturer requirements.
Collector System	<p>The preferred method of installation for the underground cables will be the ploughing technique, using a single cut tooth that splits the earth apart to allow for installation of the cables, warning tape, and sand bedding, as required.</p> <p>Horizontal directional drilling (HDD) will be used where necessary to install underground cables beneath existing buried utilities and roads.</p> <p>Industry-standard trenching methods may be used if the above techniques are not feasible. In this case, topsoil from the trench area will be stripped and stored separately from subsoil to prevent admixing. The trench will be backfilled, compacted, and recontoured to facilitate surface drainage. A trench crown with drainage breaks will be constructed to allow for subsidence. Topsoil will be replaced over top of the backfilled trench.</p>
Project Substation	The substation site will be prepared using equipment such as graders, compacters, tracked bulldozers, and hoes. Proper soil handling and management and erosion control measures will be incorporated into construction and reclamation activities. Stripped or excavated subsoil and topsoil will be replaced and/or stored, as appropriate. The Project substation site will be excavated to allow for the installation of a ground grid and concrete foundations. The final grade of the Project substation will consist of gravel or rock that provides an insulating barrier to electric shock during an electrical fault. The Project substation equipment will be mounted on the concrete and/or pile foundations. All metal components of the Project substation will be connected to the ground grid. The substation will be fenced for safety and to prevent unauthorized access.
Operations and Maintenance Building	The operations and maintenance site will be prepared using equipment such as graders, compacters, tracked bulldozers, and hoes. Proper soil handling and management and erosion control measures will be incorporated into construction and reclamation activities. Stripped or excavated subsoil and topsoil will be replaced and/or stored, as appropriate.

Component / Activity	Description
Permanent Meteorological Tower	Proper soil handling and management and erosion control measures will be incorporated into construction and reclamation activities. Stripped or excavated subsoil and topsoil will be replaced and/or stored, as appropriate.
Gates and Fencing	The turbine sites or access roads will not be fenced or gated, unless required by government agency and/or requested by landowners. The Project substation and operations and maintenance building sites will be fenced to limit uncontrolled access and for public safety.
Parking Areas	The primary construction and operations parking areas will be located at the operations and maintenance building and at the laydown yard(s).
Clean-Up and Reclamation	Garbage and debris will be collected and disposed of at an approved location. All construction equipment and vehicles will be removed from the construction area following the completion of construction. Where applicable, compacted soils will be de-compacted and stripped soils will be replaced on re-contoured surfaces at the temporary workspaces and laydown yard.
Wind Turbine Commissioning	Turbine commissioning will occur once the wind turbines have been mechanically completed and inspected, and when SaskPower is ready to accept grid interconnection. Commissioning involves testing and inspection of electrical, mechanical, communications, and control function operability.

### 2.3.3 Operations Phase

The Proponent will select a wind turbine model that will operate automatically and will be monitored and controlled through a remote SCADA system. Modern wind turbines are designed to require minimal on-going maintenance. Due to the mechanical nature of the components, general maintenance activities, such as changing of oil in the gearbox and hydraulic systems, will be performed regularly throughout the wind turbine's life span.

Wastes generated from the operation facilities/servicing areas will be stored appropriately and disposed of at a licensed facility. Domestic water and wastewater from the Operations and Maintenance Building will be transported on and offsite or sourced and treated on site in accordance with applicable regulations.

Vegetation management will occur as needed on disturbed areas throughout the life of the Project.

A stormwater management plan will be designed and the appropriate permits will be acquired prior to construction.

### 2.3.4 Decommissioning and Reclamation Phase

The Project is expected to have an economic life of 30 years. Near the end of the Project's lifespan, the Proponent will evaluate the feasibility of repowering or decommissioning the Project.

Decommissioning will include removal of all above-ground infrastructure. Below-ground infrastructure such as turbine foundations and pilings will be removed to an appropriate depth below grade. Connection lines will be de-energized and terminated at connection points. Infrastructure materials and waste products will be refurbished, recycled, or disposed of at a licensed facility. Upon decommissioning, the Proponent will remediate and reclaim the disturbed areas as required by the applicable legislation and in consultation with the landowner. A conceptual decommissioning and reclamation plan will be provided in the EIS.

## 2.4 Development Alternatives

Enbridge has been actively pursuing opportunities for renewable energy development in Western Canada and beyond, considering several potential sites before the decision to purchase this wind development project in Q2 2024. A multi-criteria analysis was used to conduct due diligence on the Project site to determine its potential, which included the following key criteria:

- A viable wind or solar resource throughout a sufficiently large project area;
- Available transmission capacity with an affordable interconnection cost at a nearby transmission line or substation on the provincial SaskPower grid;
- Supportive landowners interested in entering into a leasing agreement with the project proponent; and
- A sufficiently large land base that is located outside of Wind Turbine Avoidance Zones, in accordance with the *Wildlife Siting Guidelines for Saskatchewan Wind Energy Projects* (ENV 2019), and with few environmentally sensitive areas.

An analysis by Enbridge, with input from numerous technical specialists that have been involved throughout the consideration of the purchase of this Project, has determined that the Project Area, as presented in this Terms of Reference, provides the most optimal location and meets all of the criteria above.

Following the identification of an optimal Project Area, the consideration of development alternatives will continue on an infrastructure level. As described above (Section 2.1), the consideration of development alternatives relative to infrastructure placement will include consideration of anthropogenic and natural siting that reflect a combination of firm restrictions and preferred and/or recommended setbacks. These design considerations will be used to refine the development plan until a viable Project design is achieved, which will be presented within the EIS submission.

### 3.0 Interest-based Engagement

Consultation and engagement are at the forefront of the Proponent's development approach. The objective of the Proponent's interest-based engagement program is to build trust, credibility, and respectful relationships with all stakeholders and Indigenous Groups that may be directly and/or adversely affected by, or interested in, the Project. More specifically, the primary objectives of engagement are as follows:

- Identify stakeholders and Indigenous Groups that may be directly and/or adversely affected by, or interested in, the Project;
- Provide Project information to help understand the Project, its potential impacts and benefits;
- Provide opportunities to engage in meaningful dialogue;
- Identify and understand the concerns and questions of stakeholders and Indigenous Groups;
- Incorporate feedback into Project development and design, where feasible; and
- Develop mitigation strategies and open lines for communication to address the concerns and feedback, as appropriate.

To meet these objectives, the Proponent plans to continue engagement with stakeholders and Indigenous Nations, Governments, and Groups throughout the development and construction phases of the Project. The interest-based engagement program may include (but is not limited to) the following tools and activities:

- *Information distribution:* Project-specific information will be shared in a variety of formats and venues, and may include a Project website, newsletters, and emails;
- *General mail-out to stakeholders and area Indigenous groups:* A consultation package will be mailed out to all stakeholders and area Indigenous groups, which may include an informational brochure summarizing general Project information, an overview of Project development work, summary of environmental and wildlife studies, public consultation information, an introduction to the Proponent, a Project schedule, and/or a map of the Project area;
- *Direct consultation campaign:* The Proponent or its representatives may visit residents within the vicinity of the Project area, as an opportunity to communicate directly with local residents and to receive feedback on the Project;
- *Open house meeting:* The Proponent will hold at least one open house meeting to provide an opportunity for interested parties to meet and speak directly with Project representatives and subject matter experts, ask questions, voice any concerns, and join in the conversation with other community members. This event may be advertised through mailed invitations, newspaper ads, and/or local social media pages, where possible;
- *Meetings with stakeholder and Indigenous groups and communities:* Information packages will be mailed and/or e-mailed to stakeholder and Indigenous groups and communities identified for notification, including First Nations and Métis communities, and

meetings will be held with interested stakeholder and Indigenous groups to provide an opportunity for each group or community to express any interests or concerns related to the Project; and

- *Follow-up consultation:* In addition to the efforts listed above, follow-up by phone calls, emails, and/or further attempts to meet in person will be undertaken in an effort to ensure that all stakeholders and Indigenous groups are contacted, communicated with directly, and/or otherwise notified of the Project.

The Proponent is committed to keeping an open dialogue with all stakeholders and Indigenous groups, including First Nations and the Métis Regions, throughout each phase of the Project. The following is a preliminary list of the categories of Project stakeholders and Indigenous groups to be engaged in the consultation process for the Project, considering the Project location:

- Occupants, residents, and landowners within the vicinity of the Project Area;
- Relevant federal and provincial ministries and agencies, including (but not limited to) the Saskatchewan Ministry of Environment (ENV), the Saskatchewan Ministry of Highways, and the Saskatchewan Heritage Conservation Branch (HCB);
- Rural Municipalities of Griffin No. 66, Weyburn No. 67, and the City of Weyburn;
- First Nations with reserve lands within the vicinity of the Project Area;
- Métis Region where the Project is located;
- Indigenous Nations who are expected to have an ownership interest in the Project;
- First responders in the immediate area, including the Weyburn Fire Department;
- Officials managing the local Weyburn Airport;
- Various non-governmental organizations (NGOs) with known interests and/or activities in the vicinity of the Project Area; and
- Any other identified stakeholders, including self-identified stakeholders and those recommended during other consultation processes.

The list of Project stakeholders and Indigenous groups is considered a “living” document, with additions and/or corrections as required when new information arises. The stakeholder list will be updated on an ongoing basis as the Project progresses through the regulatory review process and consultation is expected to continue throughout the life of the Project.

The Proponent is committed to voluntary engagement with First Nations and Métis communities, as outlined within the *Proponent Handbook: Voluntary Engagement with First Nation and Métis Communities to Inform Government’s Duty to Consult Process* (Government of Saskatchewan 2024b). The Proponent has notified First Nations with reserve land within 50km of the Project and the Métis Region in which the Project falls within, specifically:

- Flying Dust First Nation;
- Métis Nation – Saskatchewan Eastern Region 3; and
- Ocean Man First Nation.

Enbridge has also engaged with two additional First Nations who have expressed an interest in the Project but whose reserve land is not within 50km of the Project, specifically:

- Piapot First Nation; and
- Pheasant Rump Nakota First Nation.

The goal of the Indigenous engagement is to share Project information and understand and address concerns raised by the First Nations and Métis Region about the Project.

In addition to the Indigenous engagement included above, the Proponent will continue to share the Project updates with the Indigenous Nations expected to have an ownership interest in the Project, specifically:

- Cowessess First Nation;
- George Gordon First Nation;
- Kahkewistahaw First Nation;
- Métis Nation-Saskatchewan;
- Pasqua First Nation; and
- White Bear First Nations.

The EIS will document all consultation activities in a communication log, including dates, places, participants, nature of communication, key topics addressed and outcomes.

#### **4.0 First Nations and Métis Consultation Plan**

Given that almost the entire Project is located on privately owned lands, with only a small portion of the underground collection system potentially being within municipal road allowances, and the nearest First Nation reserve is located approximately 25km northeast of the Project, the Project is not expected to adversely affect First Nation or Métis rights. Nonetheless, as outlined in previous sections, the Proponent is committed to engagement with First Nations and Métis communities in proximity to the Project, understanding any concerns, and providing information in its EIS regarding such engagement.

## 5.0 Environmental Impact Assessment Boundaries

The identification of Project boundaries is a necessary component of a comprehensive assessment of potential impacts that may occur as a result of proposed activities. These boundaries are typically considered relative to the spatial boundary of the Project (i.e., the general area(s) for which impacts may be incurred) or the temporal boundary of the Project (i.e., the timeline and/or duration for which impacts may be incurred). Relative to the specific Project activities proposed in this submission, the spatial and temporal boundaries have been defined in the following sections.

### 5.1 Spatial Boundaries

Spatial boundaries are established to identify the area(s) within which Project activities may result in negative effects on an identified Valued Component (VC). In most cases, the types of impacts may result in direct or indirect effects, which are often experienced at different spatial scales from proposed activities. As such, several spatial boundary definitions are typically used in the assessment of negative effects that may occur as a result of Project activities. Relative to the Project activities outlined in this Terms of Reference, the following four spatial boundaries have been considered:

- *Operational Footprint (Footprint)*: The area within which surficial infrastructure will be sited and left in place for the duration of Project activities. This may include the turbine pad, operational access road width, substation, and operations and maintenance building;
- *Construction Disturbance Area (CDA)*: The area within which all Project activities are expected to occur, including (but not limited to) site preparation, construction, operation, and decommissioning. This includes all ground-based activities, as well as those above ground (e.g., turbine blades) and below ground (e.g., horizontal drilling);
- *Local Study Area (LSA)*: The area beyond the CDA where there is a reasonable potential to experience direct environmental effects as a result of the proposed Project activities. For the purposes of this submission, the LSA has been defined as the CDA and all areas within 1km of the CDA; and
- *Regional Study Area (RSA)*: The area beyond the CDA where there is a reasonable potential to experience indirect and/or cumulative environmental effects as a result of the proposed Project activities. For the purposes of this submission, the RSA has been defined as the CDA and all areas within 5km of the CDA.

### 5.2 Temporal Boundaries

Temporal boundaries are established to identify the approximate timeline or duration for which a negative effect to a VC may occur. Depending on specific Project activities, this may result in a single temporal boundary (i.e., Project life) or, if there are notable changes in Project activities within the overall Project life, may warrant several temporal boundaries to clearly identify

periods of potential risk. In consideration of the specific Project activities presented in this Terms of Reference, the following four temporal boundaries have been considered:

- *Project Life*: The entire duration of the Project activities, which is considered to be approximately 32 years inclusive of a two-year construction and 30-year operating period;
- *Site Preparation and Construction*: The period of site preparation and construction, which is expected to occur over a period of approximately two years;
- *Operations*: The Project is expected to be operational for the period of time defined by the PPA that may be signed with SaskPower. It is possible that the Project could continue operating after the defined duration of the PPA; however, an additional period of time is not included in this analysis given the uncertainty of this occurring; and
- *Decommissioning and Reclamation*: Following the completion of the operational phase of the Project, decommissioning and reclamation are expected to occur over a period of approximately two years, although the specific duration of this phase will be driven by the extent and/or success of reclamation activities.

## 6.0 Valued Component Selection

In accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021), the EIA will be structured to consider, assess, and describe potential effects related to important environmental components. This process follows a well-defined methodology to identify these environmental components and assess them relative to Project activities in order to determine whether there are any expected significant effects on the environment.

The selection of VCs is based on a fulsome consideration of potential impacts on important components of the biophysical, socio-economic, and cultural environments that exist in the areas proposed for Project activities. The preliminary selection of VCs presented below has been informed through the consideration of ecological importance, societal value, and general sensitivity of the components, as well as through the consideration of expected and potential impacts that may be experienced as a result of specific Project activities.

The preliminary list of VCs identified below will be considered in the EIA as potentially being impacted by the proposed Project activities. A brief description of the potential for the Project to impact each VC and rationale for the decision to include or exclude the VC from further consideration in this assessment are also provided (Table 4).

**Table 4. Preliminary Valued Component Selection Rationale**

Valued Component	Potential for Project Interaction with Valued Component	Carried Forward (Y/N)
<b>Biophysical Environment</b>		
Topography and Soils	Any potential changes to topography and soils are expected to be negligible and localized. This determination is based on the localized Project footprint, the limited need for site grading, the implementation of industry best practices, and the implementation of a reclamation strategy.	No
Flora	Proposed activities have the potential to result in damage to and/or loss of existing vegetation communities and the associated plant species.	Yes
Wetlands and Watercourses	Wetlands of varying sizes, classifications, and overall environmental value are present throughout the general Project Area. Proposed activities may have the potential to result in damage and/or removal of wetland habitat. Although typical siting and construction practices associated with the installation of Project infrastructure, including minimal and localized grading, are unlikely to result in negative effects on surface water or hydrology, there is the potential for Project infrastructure to cross watercourses, which could result in damage or alteration.	Yes
Fish and Fish Habitat	Proposed activities are not expected to result in adverse effects to fish or fish habitat. This determination is based on the implementation of industry best practices and mitigation measures,	No

Valued Component	Potential for Project Interaction with Valued Component	Carried Forward (Y/N)
	and in consideration of the highly localized and temporary nature of Project activities which may interact with fish or fish habitat.	
Wildlife and Wildlife Habitat <ul style="list-style-type: none"> <li>• Birds</li> <li>• Bats</li> <li>• Amphibians</li> <li>• Other Wildlife</li> <li>• Species of Conservation Concern</li> </ul>	Proposed activities have the potential to result in damage to, or loss of, existing wildlife habitat, and the operation of the Project has the potential to result in direct mortality to wildlife. In consideration of the comprehensive field investigations that have been completed, this VC will be sub-divided into several categories within the discussion of existing conditions (Section 7.0) to provide a robust understanding of wildlife use and available habitat, which will inform the effects assessment.	Yes
Groundwater	Any potential changes to groundwater are expected to be negligible and localized. This determination is based on the implementation of industry best practices and in consideration of the highly localized and temporary nature of Project activities which may interact with groundwater resources. Consideration of groundwater resources, as it relates to wetland function, will be included under the <i>Wetlands and Watercourses</i> VC as a potential change in water balance.	No
Geology and Geochemistry	Any potential changes to geology or geochemistry are expected to be negligible and localized. This determination considers that site-specific geotechnical assessments will be carried out to inform the design and dimensions of the turbine foundations, and also reflects the highly localized foundation installations and the implementation of industry best practices.	No
Climate and Meteorology	There are no anticipated adverse effects to climate and meteorology. One of the primary purposes of the Project is to provide renewable energy to offset the current reliance on fossil fuels for energy production.	No
Air Quality	Any potential changes to air quality (mainly due to dust and vehicle/equipment emissions) are expected to be negligible, temporary, and localized. This determination considers the implementation of best management practices and the localized and temporary nature of Project activities, particularly in consideration of other ongoing activities (e.g., regional traffic, agricultural practices, etc.) that contribute to baseline effects to air quality.	No
Acoustic Environment	Proposed activities have the potential to result in impacts to the acoustic environment, due to noise generated by vehicles and machinery during construction and decommissioning, and turbines during operations.	Yes
<b>Socio-Economic and Cultural Environment</b>		
Socio-economic Considerations <ul style="list-style-type: none"> <li>• Employment and Economy</li> </ul>	Proposed activities have the potential to result in positive impacts to various socio-economic considerations. This VC will be sub-divided into several categories within the existing conditions discussion in the EIS to provide a robust understanding of existing socio-economic conditions, in order to fully inform the effects assessment.	Yes

Valued Component	Potential for Project Interaction with Valued Component	Carried Forward (Y/N)
<ul style="list-style-type: none"> <li>Community Services and Infrastructure</li> </ul>		
Archaeological and Heritage Resources	There is potential for heritage resources to be impacted by the Project, as a result of ground disturbance. The potential for adverse effects is expected to be avoided due to the anticipated location of the Project activities; however, a request for assessment will be sent to the Heritage Conservation Branch (HCB).	Yes
Land Use	Proposed activities have the potential to result in impacts to land use, although any potential effects are expected to be minimal given the small amount of land that will be used by the Project for all related Project activities.	Yes
First Nations and Métis Land Use	The Project is primarily located on privately owned lands, with a small portion of the underground collection system potentially being within municipal road allowances, and no First Nations or Métis land use has been identified within the Project Area at this time. Planned engagement with First Nations and Métis communities may provide additional information on this environmental component. Should First Nations and Métis land use be identified as occurring within the LSA, this component will be considered in the EIS as a valued component.	No

As outlined in this preliminary and conservative assessment of potential impacts to environmental components, several VCs have been identified as requiring a comprehensive assessment in order to identify the potential scope and magnitude of possible impacts resulting from Project activities, including consideration given to potential cumulative effects. An adaptive approach will be taken to the identification of VCs, and as additional baseline information is collected through the EIA process, the list of VCs will be revised or refined, as necessary.

For each of the VCs identified as requiring further assessment in Table 4, a detailed consideration of baseline conditions, potential impacts, proposed mitigation measures, and resulting residual and cumulative effects (if applicable) will be detailed within the EIS.

## 7.0 Biophysical Existing Environment

The following sections provide an overview of the biophysical existing conditions within the Project Area, including consideration of flora, wetlands and watercourses, wildlife and wildlife habitat, and acoustic environment.

### 7.1 Flora

Land cover categories used for classifying the general land use within the Project Area were adapted from a combination of Agriculture and Agri-foods Canada (2021) and the Alberta Wetland Classification System (Government of Alberta 2015a). The Project Area has a total area of 8,102ha, of which 4,721ha (58.3%) is currently used for annual crop and hay production. Pasture/forages and grassland account for the next most common land uses, consisting of 1,945ha (24.0%) and 1,082ha (13.4%) of the Project Area, respectively. Relatively small proportions of urban/developed areas (173ha; 2.1%), water (68ha; 0.8%), exposed land/barren (54ha; 0.7%), wetland (52ha; 0.6%), fallow (6ha; 0.1%), and broadleaf (1ha; 0.01%) are also found within the Project Area.

Preliminary mapping of land use, as assessed by Saskatchewan Digital Land Cover (SDLC; Government of Saskatchewan 2023), has been reviewed using aerial imagery to refine the land cover within the Project Area. Confirmation of landcover within the Project Area began with a specific assessment of all areas that were identified as native prairie by SDLC and Agriculture and Agri-Food Canada (AAFC) layers. Based on various visual cues (e.g., presence of hay bales, heavily used cattle trails or visible cattle, cultivation, disturbance, etc.), landcover polygons have been adjusted to reflect actual or highly probable landcover classifications. This updated land use mapping, as revised using aerial imagery, has maintained a conservative approach, such that any areas that may not be ruled out as native habitats have been conservatively classified as potential native habitats, and have been identified as requiring additional field assessments. The results of this aerial imagery assessment have been used for subsequent selection of habitat strata for rare vascular plant transects, site-specific wetland delineations, and the selection of several wildlife monitoring stations.

A preliminary desktop assessment of the potential occurrence of rare vascular plants in the Project Area was completed using the HABISask interactive mapping tool (Table 5; Government of Saskatchewan 2024a). Rare vascular plants are considered to be those species listed under the *Tracked Taxa List: Vascular Plants* (SKCDC 2024a).

**Table 5. Rare and Endangered Vascular Plant Species within the Vicinity of the Project Area**

Common Name	Scientific Name	S-Rank <sup>1</sup>	COSEWIC Status	SARA Schedule 1
Bushy Cinquefoil	<i>Potentilla supina ssp. paradoxa</i>	S3	--	--
Least Mousetail	<i>Myosurus minimus</i>	S3	--	--
Sawatch Knotweed	<i>Polygonum sawatchense ssp. sawatchense</i>	S1	--	--

Common Name	Scientific Name	S-Rank <sup>1</sup>	COSEWIC Status	SARA Schedule 1
Tumble Grass	<i>Schedonnardus paniculatus</i>	S3	--	--

<sup>1</sup> SKCDC 2024a

An assessment of rare vascular plants was conducted in 2024 in accordance with the *Species Detection Survey Protocol 20.0 - Vascular Plants* (Government of Saskatchewan 2021) and included two seasonal field assessments to observe plant species within both the early and late growing season to reflect differing flowering and fruiting timings to ensure plants are exhibiting identifiable characteristics during at least one of the surveys.

The presence of noxious weeds or invasive plant species was documented during the rare vascular plant surveys described above, and also incidentally noted during other field surveys, such as wetland delineations and land use mapping.

## 7.2 Wetlands and Watercourses

Wetlands are lands that are saturated with water for long enough to promote the development of water-altered soils and the growth of water-tolerant vegetation. Wetlands are diverse and productive ecosystems that are important on the landscape and support watershed health by protecting water quality, providing water storage and infiltration, creating barriers that promote flood energy dissipation, and providing habitat for numerous species of wildlife, fish, and plants. Lands within the Project Area that have been identified as wetland on the Agriculture and Agri-Food Canada (AAFC; 2021) mapping layer comprise 52.28ha or 0.65% of the total Project Area.

As Saskatchewan does not have established wetland delineation standards, wetland identification methods have been adapted from the Alberta Wetland Identification and Delineation Directive (Government of Alberta 2015b). As air photo and satellite images of reasonable quality are available for the Project Area, an approach has been taken to first undertake desktop delineations of wetlands and watercourses, followed by site-specific field verification.

A preliminary identification of the potential wetlands and watercourses within the Project Area, including their approximate delineation, has been carried out through an analysis of air photos, satellite imagery, and reference to GIS layers. While many of the local wetlands experience recurring disturbance from ongoing agricultural activities, most also have relatively clear ecological boundaries and obvious wetland indicators.

Following this initial assessment, selected wetlands and watercourses were visited for verification of their identification, classification, and delineation. Wetland field assessments were completed, in part, through targeted field investigations of a sub-sample of the wetlands that were identified during the desktop assessment, to verify ecological boundaries and to assign a classification. The field wetland assessment was designed to validate 100% of the wetlands that appear to overlap with the Project CDA, and to assess a minimum of 10% of the wetlands that occur within 100m of, but that do not overlap, the Project CDA.

During the field assessments, hydrologic, topographic, and vegetation characteristics, such as the presence and distribution of water tolerant vegetation species, were used as the main indicators of wetland conditions and boundaries, as described in the Alberta Wetland Identification and Delineation Directive. If a wetland identified in the desktop assessment was confirmed to be present, the desktop wetland delineation was compared with the observed field boundaries with a handheld GPS unit, and either accepted or adjusted based on the actual delineation. Any revised wetland boundaries were incorporated into the updated wetland inventory. Each feature was assigned a unique identifier and photographed.

Lands within the Project Area that have been identified as water on the AAFC (2021) mapping layer comprise 67.96ha or 0.84% of the total Project Area. Watercourses were assessed in the field concurrently with wetland and land use assessments. For each identified watercourse, the feature was classified into one of three categories:

- Ephemeral draw; no defined bed or banks with seasonal surface water;
- Intermittent watercourse; defined streambed and/or banks with seasonal surface water; or
- Permanent watercourse; defined streambed and/or banks with permanent surface water.

### 7.3 Wildlife and Wildlife Habitat

Publicly available information relating to previously confirmed wildlife records and wildlife activity has been reviewed from provincial and federal databases, publicly maintained databases, and literature sources. In addition, satellite imagery and habitat availability have been considered in relation to the potential for congregational activity within the Project Area. The following is a non-inclusive list of data sources that have been (or will be) reviewed:

- Saskatchewan Conservation Data Centre (SKCDC) wildlife database;
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC) status reports; and
- Species at Risk Public Registry recovery strategies and action plans.

An initial search of the SKCDC database that was conducted for an area of at least 1km surrounding the Project Area identified 11 bird and one mammal species of conservation concern with confirmed historical records from within the Project Area. In addition to confirmed records, eight bird, two herpetofauna, and one insect species of conservation concern have been identified as being expected to occur within this geographic region of the province (Government of Saskatchewan 2024a), despite no confirmed records in the SKCDC database (Table 6).

**Table 6. Rare and Endangered Wildlife Species within the Vicinity of the Project Area**

Common Name	Scientific Name	S-Rank <sup>1</sup>	COSEWIC Status	SARA Schedule 1
<b>Birds</b>				
<b>Historical Species</b>				
Baird's Sparrow	<i>Centronyx bairdii</i>	S4B	Special Concern	Special Concern

Common Name	Scientific Name	S-Rank <sup>1</sup>	COSEWIC Status	SARA Schedule 1
Barn Swallow	<i>Hirundo rustica</i>	S4B	Special Concern	Threatened
Bobolink	<i>Dilochonxy orizivorus</i>	S5B	Special Concern	Threatened
Burrowing Owl	<i>Athene cunicularia</i>	S2B	Endangered	Endangered
Chestnut-collared Longspur	<i>Calcarius ornatus</i>	S3B	Endangered	Endangered
Common Nighthawk	<i>Chordeiles minor</i>	S4B	Special Concern	Special Concern
Ferruginous Hawk	<i>Buteo regalis</i>	S3B	Special Concern	Threatened
Loggerhead Shrike	<i>Lanius ludovicianus excubitorides</i>	S3B	Threatened	Threatened
Piping Plover	<i>Charadrius melodus circumcinctus</i>	S3B	Endangered	Endangered
Sprague's Pipit	<i>Anthus spragueii</i>	S3B	Threatened	Threatened
Whooping Crane	<i>Grus americana</i>	SXB, S1M	Endangered	Endangered
<b>Expected Species</b>				
Bank Swallow	<i>Riparia riparia</i>	S4B, S5M	Threatened	Threatened
Golden Eagle	<i>Aquila chrysaetos</i>	S3B, S3N, S4M	Not at Risk	--
Horned Grebe	<i>Podiceps auritus</i>	S4B	Special Concern	Special Concern
Long-billed Curlew	<i>Numenius americanus</i>	S3B	Threatened	Special Concern
Northern Harrier	<i>Circus hudsonius</i>	S4B	Not at Risk	--
Prairie Falcon	<i>Falco mexicanus</i>	S3B, S3N	Not at Risk	--
Red Knot	<i>Calidris canutus rufa</i>	S2M	Endangered	Endangered
Short-eared Owl	<i>Asio flammeus</i>	S3B, S2N	Threatened	Special Concern
<b>Herpetofauna</b>				
<b>Expected Species</b>				
Northern Leopard Frog	<i>Lithobates pipiens</i>	S3	Special Concern	Special Concern
Smooth Greensnake	<i>Opheodrys vernalis</i>	S4	--	--
<b>Other Wildlife</b>				
<b>Historical Species</b>				
American Badger	<i>Taxidea taxus taxus</i>	S3	Special Concern	Special Concern
<b>Expected Species</b>				
Monarch	<i>Danaus plexippus plexippus</i>	S2B, SNRM	Endangered	Endangered

<sup>1</sup> SKCDC 2024b, SKCDC 2024d

No Species at Risk critical habitat has been identified within the Project Area in the HABISask Project Screening Report.

In order to characterize the existing conditions relating to wildlife activity, including breeding, migration, nesting, and other general use of the Project Area, land use mapping has been completed to identify potentially important habitat features and any areas of preferred habitat. Comprehensive studies have been completed throughout the general Project Area, with

particular emphasis on the Project CDA and native habitats that have the potential to overlap, or occur in close proximity to, the proposed activities. Where applicable, all studies followed provincial guidelines established or otherwise relied upon by the Government of Saskatchewan. Detailed monitoring methods have been outlined below.

- Bird migration surveys have been conducted within the Project Area to document relative habitat use, species diversity, and general abundance of migratory birds that are using the general Project area as a migratory pathway and/or as a stopover habitat during migration. Since no specific provincial protocol exists for migratory bird surveys in Saskatchewan, surveys have been designed to follow the protocol described in the *Wildlife Directive for Alberta Wind Energy Projects* (AEP 2018) and Alberta's *Bird Migration Survey Protocol* (AEP 2020). The Proponent completed fall bird migration surveys in August – November 2023 and spring bird migration surveys in March – May 2024.
- In consideration of the Project location, which occurs within the general range of Sharp-tailed Grouse (*Tympanuchus phasianellus*), and with suitable habitat present within the surrounding landscape, targeted surveys have been conducted to identify the presence of any potential lek sites within the Project Area. Surveys were conducted in accordance with the *Species Detection Survey Protocol for Sharp-tailed Grouse* (ENV 2020c) during suitable weather conditions, such as relatively low winds and no precipitation, in April – May 2024.
- Grassland breeding bird surveys have been conducted to assess the relative abundance of locally breeding species using habitats present within the Project Area. Although the focus of these surveys is to identify species that rely on grassland habitats, as they may be more susceptible to habitat loss and/or disturbance from proposed activities, monitoring stations were selected to provide coverage of all available habitat types to allow the comparison of bird use within various habitats within the Project Area. Grassland breeding bird surveys were conducted in accordance with the *Species Detection Survey Protocol for Grassland Bird Surveys* (ENV 2020f) in May – June 2024.
- Call playback surveys have been conducted to document the presence of Burrowing Owls (*Athene cunicularia*), including the targeted detection of any potential active burrows within the Project Area. Surveys were carried out in accordance with the *Species Detection Survey Protocol for Burrowing Owls* (ENV 2020b) in May – June 2024.
- Targeted surveys for Short-eared Owl (*Asio flammeus*) have been conducted to identify any potential areas of species use within the Project Area, including to identify any potential nest sites and estimate the number of individuals, if any. Surveys were conducted in accordance with the *Species Detection Survey Protocol for Short-eared Owl* (ENV 2020d) in May – June 2024.
- Call playback surveys have been conducted to identify the potential presence of Common Nighthawk (*Chordeiles minor*) within the Project Area following the *Species Detection Survey Protocol for Common Nighthawk* (ENV 2020e) in May – June 2024.

- Area searches have been conducted to document the presence of raptor nests or raptor activity that may suggest the presence of nearby nesting. These area searches were conducted within 1km of the Project CDA by undertaking driving transects and stopping frequently to scan the area for suitable trees and potential nesting locations in June 2024. In addition to formally conducted raptor nest searches, biologists recorded any potential raptor nest sites during all other surveys, which allowed for comprehensive assessments of the Project Area during different times of year and from different vantage points.
- Acoustic bat migration surveys have been conducted in accordance with the *Wildlife Directive for Alberta Wind Energy Projects* (AEP 2018), as referenced by the *Plant and Wildlife Pre-Construction Surveys for Renewable Energy Projects* (ENV 2018b). Following these guidelines, acoustic bat monitoring has been conducted during the periods of spring migration (May 1 to May 31) and summer/fall migration (July 15 to October 15) in 2024. NRSI completed a partial season of fall bat migration monitoring at the Project from mid-August – October 15, 2023 to gain preliminary information on bat activity; however, a full fall season of bat monitoring has been conducted in 2024.
- Amphibian auditory surveys have been conducted within the Project to identify important habitats or landscape features that are being used by local amphibian populations, with a specific emphasis on identifying sensitive amphibian species. Habitat assessments and amphibian survey protocol followed the *Species Detection Survey Protocol for Amphibian Auditory Surveys* (ENV 2020a) in April – May 2024.

The presence of species of conservation concern is an important consideration relative to proposed activities, since these species often have low or declining populations, are particularly susceptible to certain types of disturbances, and/or are an indicator of sensitive or otherwise important habitat features. For the purposes of the EIS, species of conservation concern will be any species meeting at least one of the following criteria:

- Federal Species at Risk (i.e., Endangered, Threatened, or Special Concern);
- Provincial species listed as Endangered, Threatened, or Vulnerable (Government of Saskatchewan 1998);
- Species with a provincial breeding status of S3 or lower (SKCDC 2024c); and/or
- Species listed in the *Saskatchewan Activity Restriction Guidelines for Sensitive Species* (Government of Saskatchewan 2017).

#### 7.4 Acoustic Environment

Project activities have the potential to affect the acoustic environment, specifically as it relates to construction and installation activities, as well as in proximity to turbine and substation locations during the operations phase. While ENV has not formally issued guidelines for the assessment of noise impacts from wind energy projects, recent applications in Saskatchewan have typically followed the Alberta Utilities Commission (AUC) Rule 012: *Noise Control* (AUC 2021). This guideline is used widely in Alberta, which has similar acoustic environment, terrain, land uses, population distribution, and general demographics to Saskatchewan. The guidelines also

represent one of the most stringent noise guidelines in North America as it relates to wind energy projects.

Based on information obtained from publicly available sources and site visits, the RSA is sparsely populated, with dwellings interspersed within and around the Project Area. Communities located in proximity to the Project Area include the City of Weyburn (approximately 5km from the Project Area), the hamlet of Hume (approximately 1km from the Project Area), the hamlet of North Weyburn (approximately 5km from the Project Area), and the locality of Ralph (adjacent to the Project Area). Ambient sound levels within the Project Area and on adjacent lands are typical of rural agricultural settings, with sound originating from residential activities, agricultural activities (e.g., tractors and other machinery), livestock, vehicle traffic, the Weyburn Airport, and natural ambient noise (e.g., wind through vegetation, birds, etc.).

The EIS will characterize the existing acoustic environment at the Project, in accordance with the AUC Rule 012: *Noise Control* (AUC 2021), including the determination of existing ambient sound levels for the Project.

## 8.0 Socio-Economic and Cultural Existing Environment

The following sections provide an overview of the socio-economic and cultural existing conditions within the Project Area, including socio-economic considerations, archaeological and heritage resources, land use, and First Nations and Métis land use.

### 8.1 Socio-economic Considerations

Project activities will occur within a small area, but as with most large development projects, some socio-economic effects may be experienced at a regional scale. As such, the socio-economic assessment will consider different spatial boundaries to best reflect the corresponding geography of potential effects. For the purposes of this consideration, the LSA will include the Rural Municipalities of Griffin No. 66 and Weyburn No. 67, within which the Project is located, as well as the nearby City of Weyburn. The RSA will be defined by the Canadian census economic region of Census Division (CD) No. 1.

As described above, the Project is located within the Rural Municipalities of Griffin No. 66 (population 430; 156 private dwellings) and Weyburn No. 67 (population 1,103; 392 private dwellings; Statistics Canada 2023). Communities located in proximity to the Project Area include the City of Weyburn (population 11,019; 4,655 private dwellings; approximately 5km from the Project Area), the hamlets of Hume (approximately 1km from the Project Area) and North Weyburn (approximately 5km from the Project Area), and the locality of Ralph (adjacent to the Project Area; Statistics Canada 2023).

The City of Weyburn provides general amenities within the vicinity of the Project Area, including health care facilities and services, pharmacies, schools, rental accommodations, and restaurants. The Project is located in the Sun Country Health Region, which includes many hospitals, clinics, and other services throughout the region. The Weyburn General Hospital, located within the City of Weyburn, is the nearest emergency medical service provider to the Project Area. The Weyburn Fire Department, also located within the City of Weyburn, is the nearest fire department to the Project Area. The Weyburn Airport, located northeast of the City of Weyburn, is the nearest airport to the Project, at a distance of approximately 5km from the Project Area.

The EIS will describe the existing conditions of community services that may be impacted by the Project, current levels of employment, income, and education that may be affected by the Project, and the potential for Project activities to put increased demand on local infrastructure and services.

### 8.2 Archaeological and Heritage Resources

A preliminary review of heritage resources was conducted using the publicly available Developers' Online Screening Tool in January 2025 (Government of Saskatchewan 2025). Based on the screening results, a portion of the Project Area overlaps with heritage sensitive lands; however, the CDA is anticipated to be located almost exclusively in agricultural fields,

which are considered to be previously disturbed areas and therefore limit the potential to impact heritage resources.

Seven municipal heritage properties and two provincial heritage properties are also located within the City of Weyburn.

A request for review will be submitted to the Heritage Conservation Branch (HCB) for further heritage screening. The results of screening by the HCB, and any further assessment of impacts to heritage resources, will be provided in the EIS.

### 8.3 Land Use

Lands within the Project Area are predominantly used for agricultural purposes, and agriculture is the primary land use within all spatial boundaries of the Project. The LSA is generally divided into quarter sections, most of which are either uninhabited or are occupied by the owner of the land. In general, the Project Area and LSA are sparsely populated, with a population density of 0.5 people per square kilometre in the Rural Municipality of Griffin No. 66 and 1.4 people per square kilometre in the Rural Municipality of Weyburn No. 67.

Other land uses within the Project Area and the LSA include (but are not limited to) the following:

- *Transmission infrastructure:* SaskPower owns and operates two transmission lines that overlap with the Project Area;
- *Railway infrastructure:* Canadian Pacific Railway (CP) operates a rail line that overlaps with the Project Area, running parallel to Highway 39;
- *Oil and gas:* Numerous wells are present within the Project Area and LSA;
- *Conservation lands:* Several quarter sections of land within the LSA have a registered conservation easement; however, these do not overlap with the Project Area, in accordance with the *Wildlife Siting Guidelines for Saskatchewan Wind Energy Projects* (ENV 2019); and
- *Wildlife Habitat Protection lands:* Lands protected under *The Wildlife Habitat Protection Act* are located within the southern extent of the LSA; however, these do not overlap with the Project Area, in accordance with the *Wildlife Siting Guidelines for Saskatchewan Wind Energy Projects* (ENV 2019).

The EIS will provide more details on, and assessment of impacts to, land use in the LSA.

### 8.4 First Nations and Métis Land Use

The Project is located almost entirely on privately owned lands, with a small portion of the underground collection system potentially being within municipal road allowance. No First Nation Reserve lands, Crown lands (with the exception of municipal road allowances), or First

Nations or Métis land use have been identified within the Project Area at this time. The nearest First Nation reserve lands to the Project is the Ocean Man Indian Reserve No. 69, located approximately 32km northeast of the Project Area. Planned engagement with First Nations and Métis communities, as noted in Section 3.0, may provide additional information on this environmental component. First Nations and Métis communities identified within 100km of the Project Area are as follows:

- Carry the Kettle Nakota First Nation;
- Cowessess First Nation;
- Flying Dust First Nation;
- Kahkewistahaw First Nation;
- Muskowekwan First Nation;
- Ocean Man First Nation;
- Ochapowace First Nation;
- Pheasant Rump Nakota First Nation;
- Piapot First Nation;
- Sakimay First Nation;
- White Bear First Nation; and
- Métis Nation – Saskatchewan (MN-S) – Eastern Region 3.

## 9.0 Effects Assessment

The following sections provide an overview of the approach and parameters that will be utilized for the purposes of identifying, assessing, and mitigating (as necessary) any potential adverse effects that may result from the proposed Project activities discussed within this Terms of Reference. The assessment will be conducted in accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021) to ensure that all aspects of the environment are given fulsome consideration relative to each phase of Project activity, including during the siting of Project infrastructure.

### 9.1 Predicted Changes to the Environment

A detailed effects assessment of the identified biophysical, socio-economic, and cultural VCs will be carried out in accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021). This assessment will consider the proposed Project activities and existing conditions and will incorporate a strong understanding of the potential effect pathways and effective mitigation measures for the construction and operation of wind energy generating facilities, as gained through considerable experience with similar developments. A standardized approach will be used to characterize each potential effect, using the definitions outlined in Table 7 below.

**Table 7. Effects Assessment Terminology and Definitions**

Criteria	Rating	Definition
Magnitude	Negligible	No detectable change is expected, relative to the documented baseline conditions.
	Low	The effect may be detectable but is expected to be within the range of baseline or guideline values, or natural variability range.
	Moderate	The effect is expected to be at or slightly exceed the limits of baseline or guideline conditions but is unlikely to be of management concern.
	High	The effect is expected to exceed the limits of baseline or guideline conditions and may pose a serious risk to the ecosystem component or be of management concern.
Geographic Extent	Footprint	The effect is confined to the limits of the Construction Disturbance Area.
	Local	The effect has the potential to extend beyond the Project footprint but will not extend beyond the Local Study Area (1km).
	Regional	The effect has the potential to extend beyond the Local Study Area (i.e., more than 1km).
Duration	Temporary	The effect is no longer discernible immediately after construction or decommissioning.
	Short-term	The effect lasts less than three years.
	Medium-term	The effect is expected to last more than three years but will be resolved during the Project life.

Criteria	Rating	Definition
	Long-term	The effect persists beyond the defined Project life.
Reversibility	Reversible	The effect is reversible, whether naturally or by way of active efforts to achieve reversibility.
	Irreversible	The effect is not reversible, and although it may diminish over time, it will not completely resolve.
Frequency	Once	The effect occurs once during any given Project phase.
	Sporadic	The effect is unpredictable and expected to occur at irregular and infrequent intervals during any given Project phase.
	Intermittent	The effect is predictable and expected to occur at infrequent intervals during any given Project phase.
	Regular	The effect is predictable and expected to occur at known and regular intervals during any given Project phase.
	Continuous	The effect is expected to occur continuously, with few (if any) reductions in frequency, during any given Project phase.
Direction*	Positive	The effect is expected to result in a real or potential improvement in value or quality, relative to the known baseline conditions.
	Neutral	The effect is not expected to result in a measurable difference in value or quality, relative to the known baseline conditions.
	Negative	The effect is expected to result in a real or potential reduction in value or quality, relative to the known baseline conditions.

\*Only effects with a negative direction will be included in the effects assessment.

## 9.2 Assessment of Effects on Valued Components

The approach to the effects assessment will be based largely on federal guidance (CEAA 2015), which provides detailed guidance in the determination, assessment, and qualification of potential negative effects. The approach that will be taken by this assessment is to first identify all reasonably potential negative effects that may result from the proposed Project activities, without consideration for mitigation measures.

Following a comprehensive assessment of potential negative effects, a detailed description of mitigation and minimization measures and any applicable Best Management Practices (BMPs) will be outlined within the EIS to allow for a detailed consideration of effects that are expected to persist after the implementation of mitigation and minimization measures. Any negative effects that remain possible after all reasonable mitigation measures are considered to be residual effects.

### 9.2.1 Project Impact

A detailed effects assessment of the identified biophysical and socio-economic VCs will be conducted in accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021). This assessment will consider the proposed Project activities,

existing conditions and available socio-economic information, and will be informed by clear and documented evidence of the potential effect pathways and effective mitigation measures for the construction and operation of wind energy generating facilities. An overview of the expected Project impacts to key VCs, as well as the spatial and temporal boundaries that will be used to assess the potential impacts of Project-related changes, is provided in Table 8 below. The list of VCs being considered, as well as potential effects, will continue to be re-evaluated throughout the planning of the Project, with specific emphasis given to the consideration of information collected through ongoing consultation, such as Traditional Knowledge and public information and comments.

**Table 8. Overview of Potential Project Effects on Valued Components**

Valued Component	Expected Potential Project Effects on Valued Component	Spatial and Temporal Boundaries
<b>Biophysical Environment</b>		
Flora	<ul style="list-style-type: none"> <li>• Change in native habitat quantity;</li> <li>• Change in native habitat quality; and</li> <li>• Change in invasive species abundance.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Spatial boundary</i>: Operational Footprint; and</li> <li>• <i>Temporal boundary</i>: Project Life.</li> </ul>
Wetlands and Watercourses	<ul style="list-style-type: none"> <li>• Change in wetland area;</li> <li>• Change to wetland function, and</li> <li>• Changes to water balance.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Spatial boundary</i>: Operational Footprint; and</li> <li>• <i>Temporal boundary</i>: Project Life.</li> </ul>
Wildlife and Wildlife Habitat <ul style="list-style-type: none"> <li>• Birds</li> <li>• Bats</li> <li>• Amphibians</li> <li>• Other Wildlife</li> <li>• Species of Conservation Concern</li> </ul>	<ul style="list-style-type: none"> <li>• Change in habitat quantity;</li> <li>• Change in habitat quality;</li> <li>• Change in habitat use;</li> <li>• Change in mortality risk (general);</li> <li>• Change in mortality risk (birds); and</li> <li>• Change in mortality risk (bats).</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Spatial boundary</i>: RSA; and</li> <li>• <i>Temporal boundary</i>: Project Life.</li> </ul>
Acoustic Environment	<ul style="list-style-type: none"> <li>• Change in environmental noise (construction and decommissioning); and</li> <li>• Change in environmental noise (operations).</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Spatial boundary</i>: LSA; and</li> <li>• <i>Temporal boundary</i>: Project Life.</li> </ul>
<b>Socio-Economic and Cultural Environment</b>		
Socio-economic Considerations <ul style="list-style-type: none"> <li>• Employment and Economy</li> <li>• Community Services and Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Change in local and regional employment;</li> <li>• Change in the local and regional economy; and</li> <li>• Increased need for community services.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Spatial boundary</i>: RSA; and</li> <li>• <i>Temporal boundary</i>: Project Life.</li> </ul>
Archaeological and Heritage Resources	<i>Ground disturbance due to certain construction activities has the potential to affect archaeological and heritage</i>	<ul style="list-style-type: none"> <li>• <i>Spatial boundary</i>: CDA; and</li> <li>• <i>Temporal boundary</i>: Construction Phase.</li> </ul>

Valued Component	Expected Potential Project Effects on Valued Component	Spatial and Temporal Boundaries
	<i>resources, should such resources be present within the CDA. Any potential Project effects on this VC will be determined after receiving the results of heritage screening by the Heritage Conservation Branch (HCB).</i>	
Land Use	<ul style="list-style-type: none"> <li>Reduction of agricultural land.</li> </ul>	<ul style="list-style-type: none"> <li><i>Spatial boundary:</i> Operational Footprint; and</li> <li><i>Temporal boundary:</i> Project Life.</li> </ul>

### 9.2.2 Proposed Mitigation Measures

In consideration of existing conditions, proposed activities, and the potential effects that may arise if activities are left unmitigated, the following generalized mitigation measures are anticipated to be implemented to avoid, mitigate, and/or minimize the potential effects of the Project on the identified VCs. These include the implementation of industry best practices, which generally include standardized mitigation measures that are implemented at most similar developments, regardless of the site-specific characteristics, and which are proven to be effective at minimizing potential effects associated with similar Project activities. More detailed consideration to Project-specific conditions, ongoing study results, and proposed location of the Project CDA will occur within the EIS.

- If a new and/or previously identified habitat or wildlife observation is documented (or suspected), consider applicable timing windows, setbacks, and/or mitigation measures to minimize potential effects;
- Actual areas of disturbance within the CDA, particularly those requiring vegetation removal and/or soil disturbance, shall be limited to the smallest practical area;
- Restrict Project-related equipment, vehicles, and activity to designated access routes, and within the limits of the CDA, to avoid accidental impacts beyond the defined footprint;
- Inspect and clean all site vehicles and equipment of any soil or vegetation debris before entering or leaving the site;
- Retain qualified personnel to monitor construction activities and the effectiveness of mitigation measures. The extent of monitoring may vary based on type of activities, weather conditions, etc.;
- Salvage and store topsoil separate from subsoil. Implement soil erosion control measures where needed to minimize soil loss and protect surrounding environmental features;
- Contour final grades to accommodate natural surface water flow;
- Keep spill kits on-site, and establish and implement spill prevention and response measures as required;
- Store all waste, including hazardous waste, in designated areas and dispose of waste in accordance with applicable regulations;
- Apply turbine lighting scheme that is compliant and approved by Transport Canada requirements for aviation safety;

- Minimize, down-shield, and/or control lighting of ground infrastructure (i.e., non-turbine) by proximity or motion sensors, where practical; and
- Develop and implement an Adaptive Management Plan (AMP) in accordance with provincial guidance documents.

The implementation of proven avoidance, minimization, and mitigation measures are expected to contribute notably towards the reduction of potential negative effects to the identified VCs. Despite the implementation of proven and effective mitigation measures, it is possible that Project activities will still result in residual effects. The consideration of residual effects is discussed in Section 9.2.3 below.

### 9.2.3 Residual Effects

Residual effects are impacts to VCs that have the potential, or are expected, to persist after all applicable mitigation measures have been applied. Following a standardized approach for assessing residual effects, each potential effect will be characterized using the definitions outlined in Table 7. The significance of a potential residual effect will be evaluated based on the above-listed criteria, but will also consider that each individual criterion may influence the significance decision differently depending on the environmental component under consideration. Generally, the significance of potential residual effects on each VC will be defined as:

- **Significant:** The effect is measurable and results in a change to the VC that will alter its status or integrity beyond an acceptable level; or
- **Not Significant:** The effect is detectable, but is not likely to result in substantial change that will alter the VC status or integrity beyond an acceptable level.

If a potential residual effect is considered significant, the likelihood of that residual effect will be assessed as follows:

- **Unlikely:** The effect is not likely to occur and has rarely been reported for similar projects;
- **Possible:** The effect may occur but is not likely, and has been reported in less the half of similar projects; or
- **Likely:** The effect is likely to occur and has commonly been reported for similar projects.

Anticipated residual effects will be identified as part of the Environmental Impact Assessment for the Project and will be discussed within the EIS.

### 9.3 Cumulative Effects Assessment

In accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021), an assessment of potential cumulative effects will be discussed within the EIS. A cumulative effects assessment is intended to consider the effects of Project activities on environmental and socio-economic components, specifically in relation to other past,

present, or future activities which may have effects on similar VCs, such that an additive (i.e., cumulative) effect may be experienced beyond the impacts of Project activities alone.

Cumulative effects to each VC will be considered to be realized, or potentially realized, if Project activities are determined to have a residual effect and if another past, present, or future activity has the potential to result in a cumulative interaction between the residual effects of the Project and the potential effects of other identified activities within the RSA.

The cumulative effects assessment will use the spatial boundaries described in Section 5.1 above, and will consider each VC that is specifically identified within the EIS as having potentially adverse effects resulting from Project activities. If a potential cumulative effect to a VC is identified, the risk will be described and mitigation measures will be proposed to avoid or minimize the potential for cumulative effects.

## 10.0 Potential Accidents and Malfunctions

As outlined in the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021), unplanned impacts to the Project may occur as a result of human error, equipment failure, and/or acts of nature. The EIS will provide an assessment of accidents and malfunctions that have the potential to occur at wind energy projects and which may result in negative environmental effects, despite their low likelihood and rarity. Based on the nature of the Project, its location, and the experience of the consulting team, the following accidents and malfunctions will be considered as part of the EIS:

- Accidental spills;
- Ice drop and ice throw;
- Turbine equipment failure (blade failure or tower collapse);
- Fire; and
- Vehicle accidents.

A detailed description and assessment of each possible accident and malfunction listed above, any resulting impacts on the environment (including on VCs), and the level of significance of these effects will be provided in the EIS. Mitigation measures to avoid or limit potential adverse effects of each potential accident and malfunction will also be developed. In addition, an overview of a Project-specific Emergency Response Plan will be provided in the EIS, including (but not limited to) consideration of fire response, personal injury response, spill response, and a communications plan outlining methods for notification of local emergency response services, appropriate regulatory agencies, and potentially impacted municipalities and towns.

## 11.0 Ancillary Projects

Ancillary projects are considered to be any additional activities that are directly or indirectly related to the Project, are not specifically addressed in the Project submission(s), but that may have social, economical, and/or environmental implications. Ancillary projects are often activities that are led by other proponents, such as utility companies, provincial ministries, or Rural Municipalities.

Ancillary projects anticipated to be related to the Project at this time are as follows:

- *SaskPower Switching Station:* The Project will interconnect to SaskPower's existing transmission lines within the Rural Municipality of Weyburn; two transmission lines (138kV and 230kV) bisect the Project Area, avoiding the need for new lengthy transmission lines. SaskPower will provide the interconnection (i.e., a small switching station) between the Project substation and the existing 230kV transmission line. Installation of the switching station, as well as associated permitting, will be the responsibility of SaskPower.
- *Municipal Road Upgrades:* A possible ancillary project would be the upgrade of certain segments of public road allowances, which are currently maintained by the local Rural Municipalities. These upgrades, if necessary to accommodate equipment transport to the Project, will be undertaken by the Proponent.

## 12.0 Effects of the Environment on the Project

As part of the environmental effects assessment, it is important to look at potential impacts of the environment on the Project. Possible extreme weather events and subsequent risks have been identified based on publicly available information, and based on prior experience of the consulting team in analysing projects that may be subjected to occasional or frequent weather hazards. A report from the Saskatchewan Research Council (SRC 2018) describes a province-wide risk analysis of natural hazards in Saskatchewan. The report identifies the following natural hazards which could have an effect on the Project:

- Flooding;
- Summer convective storms (tornadoes, high winds, heavy rain, and/or hail);
- Wildfire; and
- Winter storms (freezing rain, high winds, snow, and/or blizzard conditions).

These natural hazards could potentially affect the Project through the following:

- Damage to infrastructure (and a corresponding increase in unexpected maintenance due to storm damage);
- Interruptions to the regular operation and maintenance of wind turbines; and
- Safety risk for Project personnel.

The potential effects of each natural hazard identified above will be assessed within the EIS. The EIS will evaluate the ways in which each possible environmental event listed above may impact the Project, as well as the consequences of any impacts to the Project. Mitigation measures and contingency plans that may be employed to manage any adverse effects of the environment on the Project will also be provided in the EIS.

Approaches to help mitigate potential effects of the environment on the Project will be detailed in a Project-specific Emergency Response Plan (ERP) and may include the following:

- Design, installation, operation and maintenance, and decommissioning will be completed according to applicable industry standards and certifications;
- Select wind turbines designed to automatically shut down when ice load on blades is detected;
- Buildings and infrastructure will comply with provincial and federal building and fire codes;
- Maintain fire prevention and response equipment on-site, including fire extinguishers;
- Provide additional personal protective equipment for workers, as appropriate;
- Develop weather monitoring plan and adjust construction schedule or reschedule maintenance and monitoring activities, as appropriate; and
- Coordination with local emergency responders, when required.

### **13.0 Monitoring Program**

The following monitoring programs are anticipated to be established at the Project as part of the follow-up to the EIA during each phase of development. Specific details pertaining to each monitoring program will be described in the EIS.

Qualified personnel will conduct monitoring during both the construction and decommissioning phases to assess the effectiveness of the implemented mitigation measures, identify any deficiencies, and make any additional recommendations based on the observed results. Details related to the recommended monitoring program will be provided in the Project-specific Environmental Management Plan.

In addition, at least two years of operational monitoring for bird and bat fatality will occur at the Project, in accordance with a Project-specific Adaptive Management Plan. This plan will provide details relating to the monitoring effort, timing, and duration, and will also include an adaptive management framework to adapt Project activities should any of the bird or bat management triggers be exceeded. The development and implementation of this plan will provide further assurance that residual effects can and will be maintained at acceptable levels that do not present management concerns.

## 14.0 Summary and Conclusions

This Terms of Reference has been prepared in accordance with the regulatory requirements and expectations of *The Environmental Assessment Act* (Government of Saskatchewan 1980), as it pertains to the activities associated with the development of the Seven Stars Energy Project, as described above. This Terms of Reference has been prepared by a consulting team of technical experts, on behalf of an experienced and well-respected Proponent, and in accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021), and with consideration of other applicable provincial guidelines, regulations, and recommendations.

The EIS will summarize the key technical findings of the EIA, including a presentation of the impacts for each VC, the proposed mitigation measures, and any expected residual effects after mitigation is implemented.

## 15.0 Conditions Management

The responsible development of the Project, including sufficient avoidance, minimization, and/or mitigation of the potential environmental effects, is in consideration of the successful and effective implementation of the mitigation measures and monitoring programs that will be described within the EIS. Successful implementation generally relies on two important factors: (1) concise organization of Project commitments and (2) effective communication of those commitments to the Project team members responsible for the supervision and implementation of Project activities.

A comprehensive Commitments Register will be prepared and submitted as part of the EIS, detailing the minimization, mitigation, and monitoring commitments that will be made as part of the EIS. The Commitments Register will follow the suggested format provided in Appendix B of the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021) and will be considered a “living” document, as it will be updated as new information becomes available or new commitments are made (e.g., through the municipal permitting process).

The Proponent has an efficient and thorough process of internally tracking Project commitments and communicating with Project team members at several levels within the Project team.

Based on the preparation and maintenance of a “living” Commitments Register, and the experience of the Proponent, there is expected to be an effective process in place to communicate, implement, and monitor the various commitments associated with the EIS, as well as any future commitments that may arise.

## 16.0 Qualified Persons Credentials

The consulting team that will be responsible for undertaking the EIA for the Project are considered to be experts in their respective fields and hold the necessary background, technical knowledge, and have considerable experience working on similar assessments and submissions. In accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement* (ENV 2021), an overview of disciplinary leads, including relevant professional associations, academic qualifications, and comparable practical applications, has been provided in Table 9 below.

**Table 9. Disciplinary Leads Responsible for Undertaking the EIA**

Staff Name and Credentials	Project Role and Experience Biography
<p><b>Andrew Ryckman, B.Sc., P.Biol.</b> Senior Biologist Natural Resource Solutions Inc.</p>	<p>Andrew Ryckman will advise on all aspects of the Project and provide guidance related to environmental monitoring and biological studies.</p> <p>Andrew has more than 18 years of experience specifically working on environmental assessments of renewable energy facilities, with focus on the ecological considerations of the proposed activities. He has been involved in the assessments of more than 100 wind projects across Canada, assessing ecological effects in a wide range of project landscapes and habitat types, including foothills, prairies, forested ridges, and coastal regions. He has also been involved in the operational monitoring of more than 60 wind projects, and has provided support in a construction monitoring role for several projects, furthering his hands-on understanding of the potential and realized effects of wind energy developments on ecological components.</p> <p>Andrew has presented on the topic of wind energy and wildlife at national and international conferences, has provided technical support to several regulatory agencies on the development of guidelines specific to wind energy, and has provided expert testimony on the effects of wind energy on wildlife at several hearings.</p>
<p><b>Lillian Knopf, M.Sc.</b> Terrestrial and Wetland Biologist Natural Resource Solutions Inc.</p>	<p>Lillian Knopf supervised the design and collection of site-specific field data and will be responsible for the technical content of the ecological existing conditions and effects assessment of the EIS. She was the lead author of this Terms of Reference and compiled technical input from other disciplinary leads into this report.</p> <p>Lillian has more than 12 years of experience working in the environmental field. She has managed numerous renewable energy projects across Alberta, Saskatchewan, and Ontario, including the coordination and management of wind energy developments in southern Saskatchewan. She has considerable experience designing and implementing biological monitoring programs in accordance with provincial guidelines, during the pre-construction and post-construction phases of renewable energy project development.</p>

Staff Name and Credentials	Project Role and Experience Biography
	<p>Lillian is experienced in project management, developing site-specific monitoring programs, leading wildlife surveys, analyzing data, and assessing potential impacts to wildlife and natural features. She has coordinated a wide range of field investigations, including avian surveys, acoustic bat monitoring programs, herpetofaunal surveys, vegetation inventories, and post-construction fatality monitoring programs.</p>
<p><b>Patrick Deacon, B.E.S.</b> Terrestrial and Wetland Biologist Natural Resource Solutions Inc.</p>	<p>Patrick Deacon will be the disciplinary lead for the wetland and rare vascular plant field surveys and effects assessment for the Project.</p> <p>Patrick is a Terrestrial and Wetland Biologist with more than 15 years of professional experience specializing in vascular plant surveys, vegetation community characterization, ecological restoration, and various wildlife surveys. He regularly conducts mapping and botanical inventories of natural areas and completes impact assessments and environmental management plans. Patrick has acted as a lead surveyor on numerous renewable energy projects in rural and remote locations within Saskatchewan, Alberta, and Ontario. He is adept at air photography interpretation and the designing and application of standardized survey techniques relating to rare plant species and compiling baseline and post-development monitoring data sets for analysis.</p> <p>Patrick is actively involved in various environmental organizations, including the Field Botanists of Ontario (Vice President) and Tallgrass Ontario (Advisor). Patrick has authored several status reports for the Committee on the Status of Endangered Wildlife in Canada, including Kentucky Coffee-tree, Prairie Dock, and Cleland's Evening-primrose, as well as other technical papers.</p>
<p><b>Gabriel Constantin, M.Sc.</b> Director of Environmental and Permitting Services DNV Canada Ltd.</p>	<p>Gabriel Constantin will act as technical advisor of the EIS.</p> <p>Since joining DNV in mid-2012, Gabriel has been involved in several renewable energy mandates in Canada, the U.S., and abroad. He has focused his field of expertise around the environmental and permitting aspects of renewable energy projects, as well as the relevant regulations and energy policies in different jurisdictions. More precisely, Gabriel has significantly contributed in the procurement of renewable energy approvals for multiple wind and solar projects across North America (more than 1,000 MW) by coordinating with stakeholders and agencies at all levels, participating in public open houses, managing subcontractors, and writing the mandatory EIA reports. Moreover, he has significantly contributed to the environmental and social due diligence of various wind and solar projects in the U.S., Canada, Mexico, and other international mandates. His experience also includes project management, environmental impact assessments, due diligence, permitting at various government levels and an array of consultation activities. Gabriel holds an M.Sc. in Geographical Sciences.</p>
<p><b>Frédéric Gagnon, M.Env.</b> Senior Scientist</p>	<p>Frédéric Gagnon will be responsible for the content of the Socio-Economic and Cultural Existing Environment and effects</p>

Staff Name and Credentials	Project Role and Experience Biography
<p>Environmental and Permitting Services DNV Canada Ltd.</p>	<p>assessment of the EIS, as well as the Potential Accidents and Malfunctions section. Frédéric will also be responsible for peer reviewing all sections prepared by DNV colleagues.</p> <p>Frédéric holds a B.Sc. in biology and a Master of Environment in Environmental Impact Assessment from Concordia University. Frédéric joined DNV GL in 2009 with 17 years of experience as a research scientist and technical writer. For the past 14 years, he has specialized in supporting renewable energy projects by addressing environmental and permitting aspects of development and environmental compliance, including by-law analysis, regulatory processes, stakeholder engagement, impact analysis, cumulative impacts, mitigation strategies, post-permit compliance, monitoring, and due diligence. Frédéric has developed specific expertise in the preparation of Environmental and Social Impact Assessments in conformance with the 2020 Equator Principles, IFC Performance Standards, and World Bank EHS Environmental, Health and Safety guidelines. Frédéric has worked on hundreds of wind and solar projects in various jurisdictions within the United States, Canada, and internationally, and has been called upon to testify at public hearings in Quebec on health and safety related to wind energy development, sustainable development, and the environmental assessment process.</p>
<p><b>Michelle Murphy</b> Permitting Project Manager and Team Lead Environmental and Permitting Services DNV Canada Ltd.</p>	<p>Michelle Murphy will be responsible for stakeholder engagement support, as well as the content of the Interest-based Engagement section and First Nations and Métis Consultation Plan, if required.</p> <p>Michelle is a Permitting Project Manager and Team Lead in the Environmental and Permitting Services team at DNV. She has focused her work as the team lead for Renewables in Alberta and Saskatchewan with over 15 years of environmental consulting experience related to regulatory advisement and permitting experience in renewables (wind and solar), energy storage, utilities, oil and gas, and agricultural projects. She has experience managing projects of varying sizes, over multiple years, with multi-disciplinary project teams. She has been involved in projects from initial exploration, site planning and permitting, to construction and reclamation. She is experienced working with Alberta Utilities Commission (AUC) Rule 007, Alberta Energy Regulator (AER), and Water Act under Alberta Environment and Protected Areas (AEPA). Her diverse professional background includes desktop project constraint reviews, general site reconnaissance, field data collection, project site visits with Indigenous stakeholders, and environmental and siting support for open houses. She has a strong understanding of the provincial and federal regulatory requirements to obtain environmental approvals. Michelle participates in the Alberta Bat Working Group, organized by CanREA in 2023, and provided input and discussion among key developers and stakeholders regarding Bat Mitigation options currently available. She is a participating member in the Alberta and Saskatchewan CanREA Caucus meetings.</p>

Staff Name and Credentials	Project Role and Experience Biography
<p><b>Aren Nercessian</b>  Project Siting Engineer  Environmental and Permitting  Services  DNV Canada Ltd.</p>	<p>Aren Nercessian will be responsible for the noise modeling and acoustic assessment of the EIS.</p> <p>Aren has over 13 years of experience as a consultant in the wind industry. He has worked on over 50 pre-construction acoustic modeling reports and analyzed acoustic measurement data for over 10 projects. He is very experienced with sound regulations in several jurisdictions, including Saskatchewan, Alberta, Ontario, Quebec, Oregon, Illinois, Minnesota, Michigan and others. Aren has also performed layout optimizations, shadow flicker assessments, visual simulations, decommissioning studies, and electromagnetic interference risk assessments on over 150 different projects under development, many of which are now operational. Aren has a bachelor degree in mechanical engineering from McGill University in Montreal, Canada.</p>

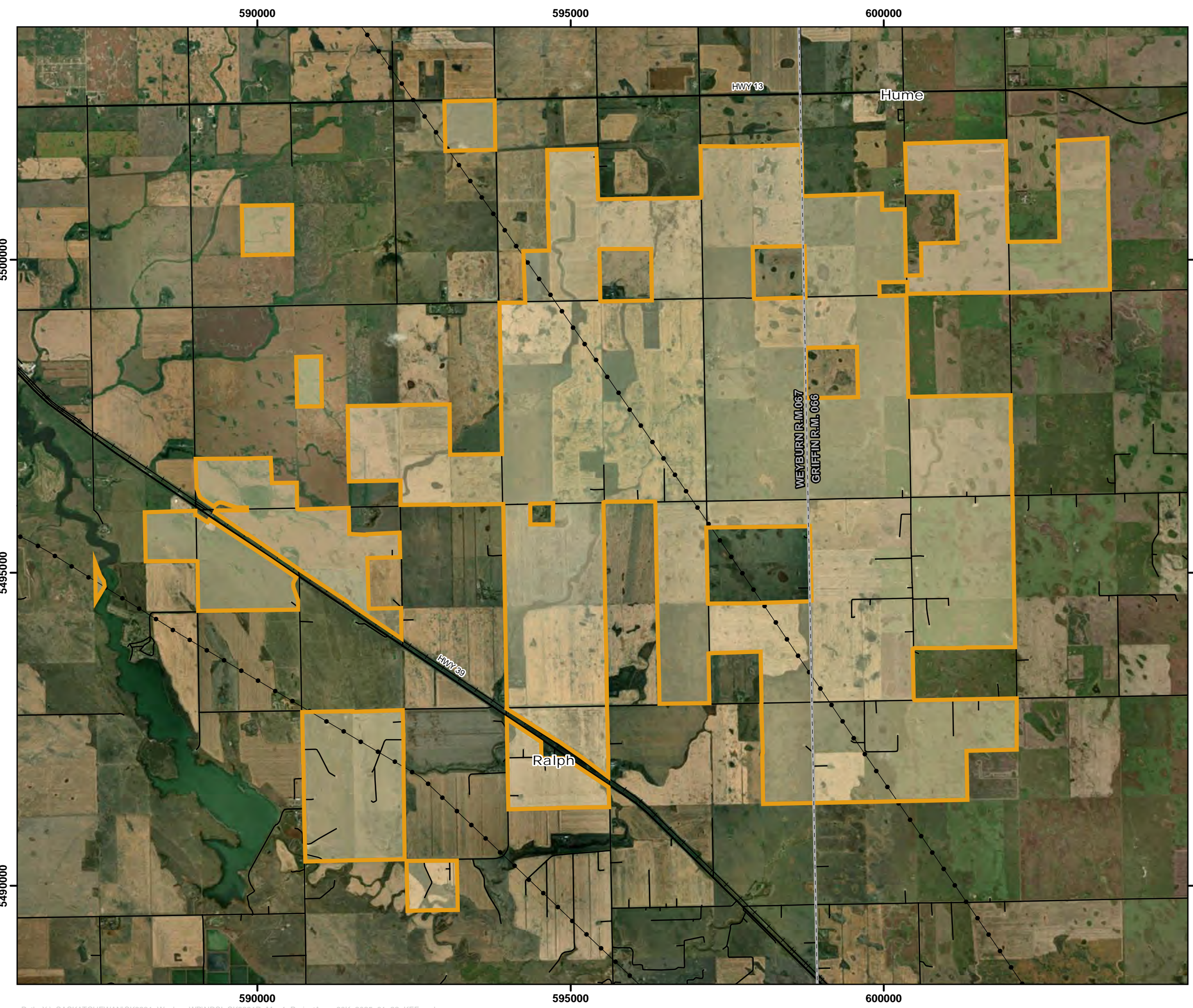
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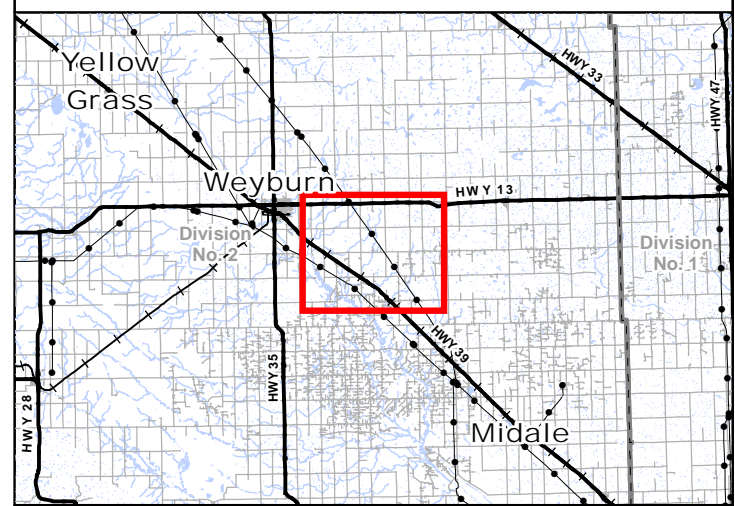
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**Map 1**  
Project Area

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Map 1  
**Seven Stars Energy Project**  
**Project Area**



- Legend**
- Project Area
  - Rural Municipality
  - Power Line
  - Railway
  - Highway
  - Primary Road

**NATURAL RESOURCE SOLUTIONS INC.**  
 Aquatic, Terrestrial and Wetland Biologists



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