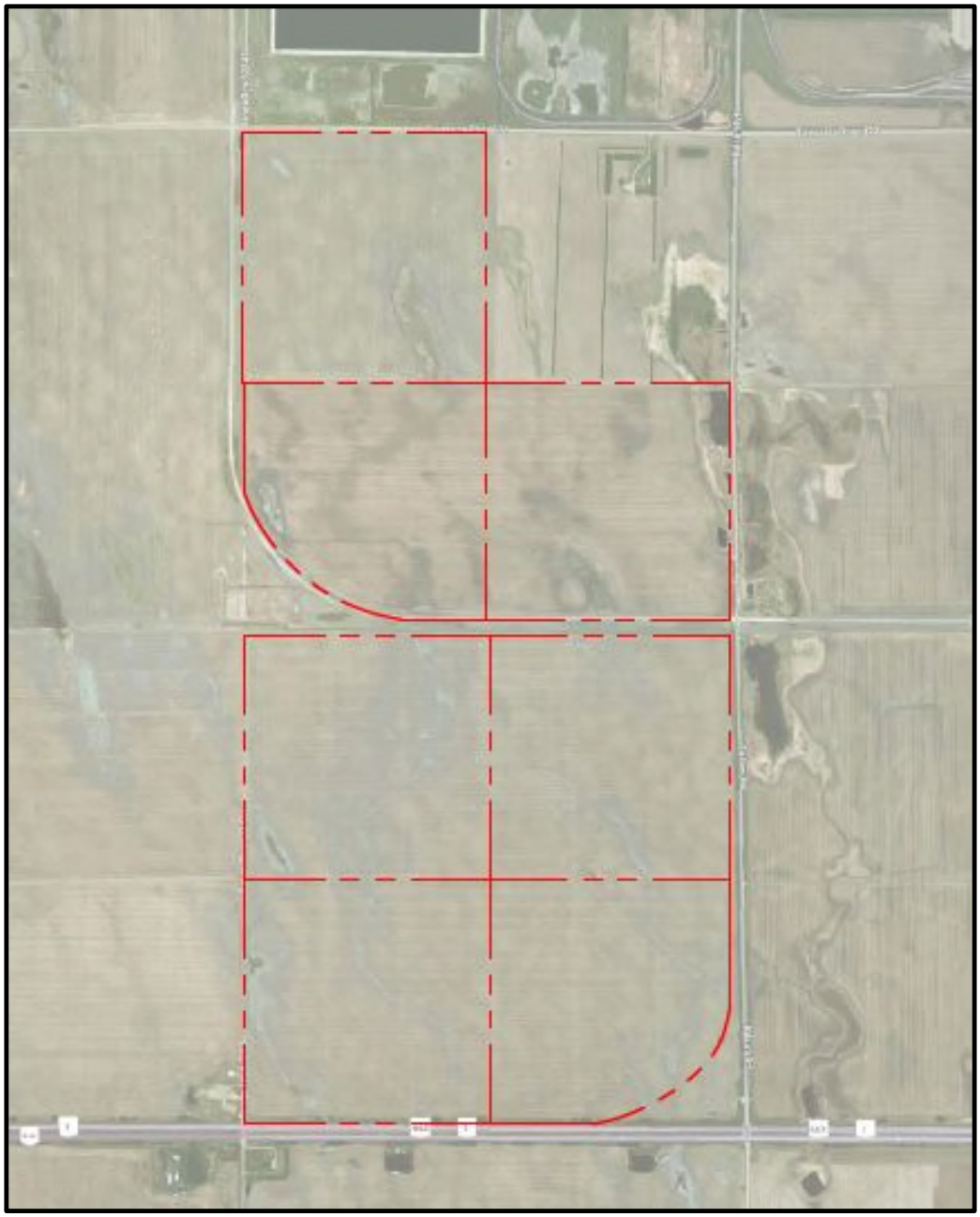


PROJECT: **Belle Plaine Refinery**

PREPARED FOR: **Saskatchewan Ministry of Environment – Environmental Assessment Branch**

PINTER & ASSOCIATES LTD

PINTER & ASSOCIATES LTD

27 May 2024 File: 23-3155-1

Environmental Assessment & Stewardship Branch
Saskatchewan Ministry of Environment
4th Floor, 3211 Albert Street
Regina, SK S4S 5W6

Subject: Revised Terms of Reference
Belle Plaine Refinery, Northwest of Belle Plaine, SK

Please find attached the Revised Terms of Reference for a proposed refinery and solar farm approximately 4 kilometres northwest of Belle Plaine, SK.

Eaglesledge Energy Limited (ELE) has decided to opt-into the formal environmental assessment process and to self-declare that the Project is considered a Development. The Terms of Reference (TOR) will provide a guide for the Environmental Impact Assessment (EIA). The TOR is neither exhaustive nor restrictive. It is anticipated that concerns other than those identified within the TOR could arise during the completion of the EIA.

If you have any questions, concerns, or require further information, please call the undersigned at (306) 244-1710.

Yours Sincerely,
PINTER & Associates Ltd.

Jessica Cutter, M.Sc.
Manager of Environmental Services

h:\2) projects\3155 eaglesledge refinery\3155-1 tor rev1\3155-1 ele revised tor 27 may24.docx

710A-48th Street East
Saskatoon, SK S7K 5B4
Email: pintermain@pinter.ca
Ph: 306 244-1710
Fx: 306 933-4986

Belle Plaine Refinery
Revised Terms of Reference

Prepared For:
EAGLESLEDGE ENERGY LTD
404-999 CANADA PLACE
VANCOUVER, BC
V6C 3E2

Prepared By:
PINTER & Associates Ltd.

27 May 2024
File: 23-3155-1

PINTER & ASSOCIATES LTD

Glossary of Terms and Abbreviations

AQMG	Air Quality Modelling Guideline
AER	Alberta Energy Regulator
bpd	Barrels Per Day
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CEAA	Canadian Environmental Assessment Act
CCTV	Closed-Circuit Television
CCUS	Carbon Capture, Utilization, and Storage
CO	Carbon Monoxide
DCS	Directed Control System
EAB	Environmental Assessment Branch
ECCC	Environment and Climate Change Canada
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
FSIN	Federation of Sovereign Indigenous Nations
GAPS	Global Asset Protection Services
GIS	Geographic Information System
GPAZ	Great Plains Air Zone
GHG	Greenhouse Gas
ISC	Indigenous Services Canada
Km	Kilometres
LSA	Local Study Area
MOE	Saskatchewan Ministry of Environment
NGO	Non-Governmental Organizations
PPE	Personal Protective Equipment
PHCs	Petroleum Hydrocarbons
RSA	Regional Study Area
RM	Rural Municipality
EA	Environmental Assessment
SEARP	Saskatchewan Environmental Assessment Review Panel
SSA	Site Study Area
SAR	Species at Risk
SARA	Species at Risk Act
The Project	Eaglesledge Refinery Project
TOR	Terms of Reference
TSP	Total Suspended Particulate
UTM	Universal Transverse Mercator
VC	Valued Component
VOC	Volatile Organic Compounds

Table of Contents

1.0 EXECUTIVE SUMMARY

Eaglesledge Energy Ltd. (ELE) focuses on the development of renewable energy and petrochemical projects. ELE is proposing to construct a 30,000 barrels per day (bpd) refinery facility, 125 megawatt (MW) solar farm, and a railyard located in southern Saskatchewan (the Project). The Project will be located on the following surface parcels located approximately 4 kilometres (km) northwest of the village of Belle Plaine in the Rural Municipality (RM) of Pense, Saskatchewan:

- 102699748
- 102686542
- 102699759
- 203552748
- 102696666
- 202874508
- 202874463

ELE has self-declared that the Project is defined as a development, therefore a Provincial Environmental Impact Assessment (EIA) is required. The findings of the EIA will be presented in a written Environmental Impact Statement (EIS). This document was developed in accordance with the *Guidelines for the Terms of Reference and Environmental Impact Statement – November 2021*.

The anticipated key potential environmental impacts of the proposed Project include releases to air, groundwater, and soil. The EIS will contain detailed information regarding the modelled and measured effects, mitigation measures, and potential residual effects, and a cumulative effects assessment for existing and known proposed facilities within the Project area.

2.0 INTRODUCTION

2.1. THE PROPONENT

The proponent is identified as:

Eaglesledge Energy Ltd.

Contact: Boris Weiss, Chief Executive Officer

Ph: 604-202-3601, boris@eaglesledge.com

Additional information to be detailed in the EIS will include:

- Business number
- Corporate management structure
- Any environmental standards and certifications
- Key personnel, contractors, sub-contractors, and their qualifications

2.2. DEVELOPMENT JUSTIFICATION

There are currently 17 refineries located in Canada. Refineries convert crude oil into petroleum products that are used to produce essential materials such as transportation fuel, fuel for heating, fuels for generating electricity, and components that are used to fabricate plastics. The inclusion of the solar farm component contributes to the reduction of the impact of the refinery's energy use.

The societal benefits of the proposed development include providing employment opportunities to local community members and development opportunities to local businesses. Saskatchewan and Canada will also benefit from the export of the products refined at the ELE refinery.

ELE is actively engaging with Indigenous communities within the province, including Ochapowace Nation. The inclusion of Indigenous communities in the planning and execution of the development will foster leadership and capacity building opportunities within the communities and for Indigenous peoples.

2.3. LAND CONTROLS

ELE has acquired or is in the process of acquiring the Project parcels. The Rural Municipality (RM) of Pense, No. 160 will have authority over land use management, development policies, zoning regulations and development permits. ELE will work closely with the RM of Pense in moving this project forward.

2.4. REGULATORY REQUIREMENTS

2.4.1. Provincial and Federal Assessment Legislation

2.4.1.1. 2.4.1.1 Federal Impact Assessment

The Impact Assessment Act (FIAA) outlines a process for assessing the impacts of major projects and projects carried out on federal lands or outside Canada.

Projects that are subject to the *FIAA* are described in the *Physical Activities Regulations* (the Project List).

ELE is proposing to construct a refinery capable of processing 30,000 barrels per day, or 4,769 cubic metres (m^3) per day. It is not anticipated that the development will require an approval pursuant to the *FIAA* as the output of the proposed refinery falls below the applicable criteria in the Project List: new oil refineries that have an input capacity of 10,000 m^3 per day or more. ELE acknowledges that any future expansion that increases the output to 10,000 m^3 per day or greater will be designated as a project subject to the *FIAA*.

The proposed rail yard area (400 acres; 162 hectares) exceeds the threshold of 50 hectares for the construction of a new railway yard within the *Physical Activities Regulations*, which triggers *FIAA*. It will be determined if a full FIAA is required for the rail development.

2.4.1.2. 2.4.1.1 Provincial Environmental Assessment

ELE has self-declared the proposed Project to be a development under section 2(d) of *The Environmental Assessment Act*, accepting the requirement to undergo an Environmental Impact Assessment.

ELE is committed to conduct an EIA and prepare and submit a draft EIS to the Ministry of Environment (MOE) and the Saskatchewan Environmental Assessment Review Panel (SEARP) for technical review.

2.4.2. Other Legislation, Guidance, or Constitutional Requirements

The following tables present a list of potentially applicable federal, provincial, and municipal acts and regulations. ELE recognizes that other legislation may apply and will be the responsibility of ELE to comply with all applicable legislation throughout the life-cycle of the Project.

Federal	Regulation
Fisheries Act	Deposit Out of the Normal Course of Events Notification Regulations
	Wastewater System Effluent Regulations
Canada Oil and Gas Operations Act	Operation Regulations
Canadian Environmental Protection Act	Environmental Emergencies Regulations
	Federal Halocarbon Regulations
	Greenhouse Gas Reporting Regulations
Transportation of Dangerous Goods Act	Transportation of Dangerous Goods Regulations
Canadian Navigable Waters Act	No specific regulations related to this act
Species at Risk Act	No specific regulations related to this act
Migratory Birds Convention Act	Migratory Birds Regulations
Explosive Act	Explosive Regulations
Hazardous Products Act	Hazardous Products Regulations

Provincial	Regulation
The Environmental Assessment Act	No specific regulations related to this act
The Environmental Management and Protection Act, 2010	The Environmental Management and Protection (Saskatchewan Environmental Code Adoption) Regulations
	The Waterworks and Sewage Works Regulations
	The Hazardous Substances and Waste Dangerous Goods Regulations
	The Municipal Refuse Management Regulations
The Wildlife Act, 1998	The Wildlife Regulations
	The Wild Species at Risk Regulations
The Fisheries (Saskatchewan Act), 2020	The Fisheries Regulations
The Water Security Agency Act	The Water Security Agency Regulations
	Ground Water Regulations
The Wildfire Act	The Wildfire Regulations
The Provincial Lands Act, 2016	The Crown Resource Land Regulations
	Provincial Lands Regulations
The Heritage Property Act	The Heritage Property Regulations
The Planning and Development Act, 2007	The Subdivision Regulations
	The Statement of Provincial Interest Regulations
The Pest Control Act	The Pests Declarations Regulations
The Pest Control Products (Saskatchewan) Act	The Pest Control Products Regulations, 2015
The Weed Control Act	The Weed Control Regulations
The Radiation Health and Safety Act	The Radiation Health and Safety Regulations
The Management and Reduction of Greenhouse Gases Amendment Act	The Management and Reduction of Greenhouse Gases (General and Reporting) Regulations
	The Management and Reduction of Greenhouse Gases (Standards and Compliance) Regulations
The Northern Municipalities Act	The Northern Municipalities Regulations
The Saskatchewan Employment Act	Occupational Health and Safety Regulations, 2020
	The Minimum Wage Regulations
	The Employment Standards Regulations
	The Labour Relations (Supervisory Employees) Regulations
	Employer's COVID-19 Emergency Regulations
The Boiler and Pressure Vessel Act	The Boiler and Pressure Vessel Regulations
The Technical Safety Authority of Saskatchewan Act	No specific regulations related to this act
The Electrical Inspection Act	The Electrical Inspection Regulations
The Gas Inspection Act	The Gas Inspection Regulations
The Public Health Act	Disease Control Regulations
The Northern Saskatchewan Economic Development Act	No specific regulations related to this act
The Surface Rights Acquisition and Compensation Act	The Surface Rights Acquisition and Compensation Regulations
The Reclaimed Industrial Sites Act	The Reclaimed Industrial Sites Regulations
The Oil and Gas Conservation Act	Greenhouse Gas Emission Regulations
	Oil and Gas Production Regulations
	Unit Operation Regulations
The Pipelines Act, 1988	Operation of Pipelines Regulations

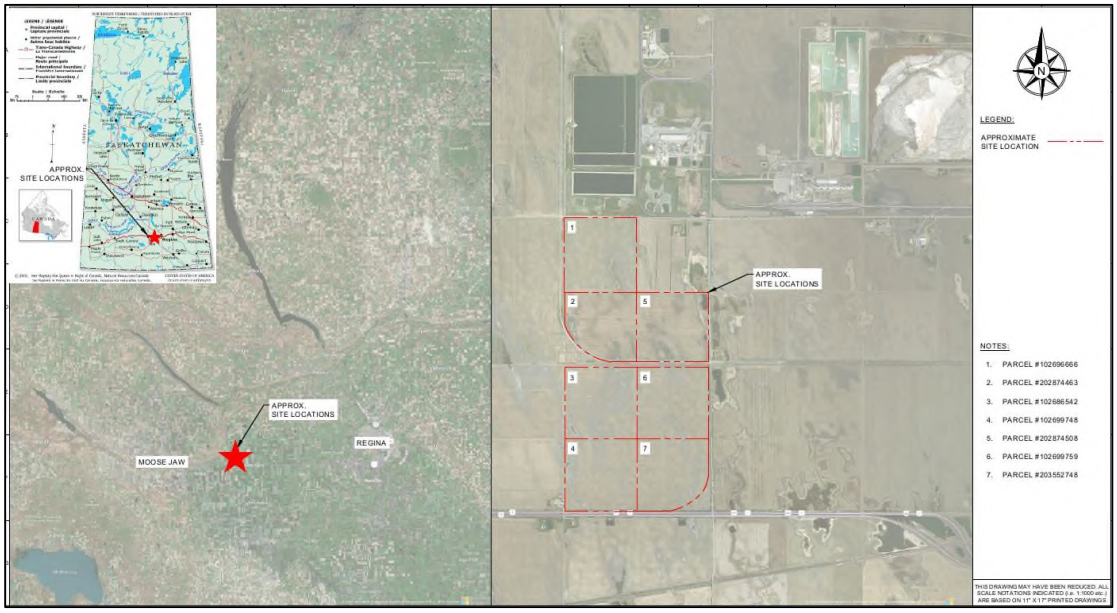
3.0 DEVELOPMENT DESCRIPTION

3.1. SITING

The proposed Project is located in Treaty 4 Territory in southern Saskatchewan.

ELE has secured or is in the process of securing the following surface parcels comprising 1,100 acres of cultivated farmland to house the refinery complex, solar farm, and railyard: 102699748, 102686542, 102699759, 203552748, 102696666, 202874508, and 202874463.

The land is located on NW, SW, and SE 10-17-24-W2M and all of 03-17-24-W2M which are currently zoned agricultural. The site location and parcels are shown in the Figure below.



This land was selected due to the established transportation network (Highway 1 is located south of the Project, Kalium Road is located to the east, and an existing rail line is located to the east and south of 10-17-24-W2M and to the north of 03-17-24-W2M. In addition, the location was sourced with the assistance of the Saskatchewan government along with input from the former Moose Jaw Regina Corridor Committee. The location is in an industrial zone with utilities at site. Utility discussions have confirmed suitable requirements (SaskPower, SaskWater, TransGas) are currently available for this Project.

Additionally, the site is ideally located within 200 km of the Bakken reserve with crude operations in Estevan, and Viking reserves in southern Alberta.

3.2. INFRASTRUCTURE

The principal power supply for the development will be drawn from the provincial electrical grid with operational contributions from the solar farm. SaskPower has confirmed that 10 MW will be available for the refinery. Emergency power back-up will be provided as required and natural gas will be provided through existing pipelines that run east-west through the center of the site.

Water supply for the Project will come from Buffalo Pound Lake through a SaskWater pipeline. SaskWater installed a second line to supply raw water to the Mosaic development and other industry in the area, and confirmed in April 2024 that the existing line has the capacity to supply the Project. Raw water needs are anticipated to be approximately 200 litres per minute.

The Site will have a stormwater pond capable of handling all stormwater within the project footprint. Berms surrounding the Project footprint will direct surface water flows around the property. If water is to be released from the Site, it will be tested to ensure it meets all relevant criteria. Detailed plans will be put in place for any off-site releases.

Any potentially impacted stormwater that falls on process areas will be retained by curbs and surface drains. The water will be conveyed to the wastewater plant. The wastewater plant will be capable of removing petroleum hydrocarbons from surface water which may have come into contact with process units.

Stormwater and wastewater ponds will be designed using industry standard liners and will comply with local, provincial, and federal codes. The EIS will provide full details on water and wastewater provision and management. Disposal methods for stormwater and firewater retention ponds will also be provided.

A preliminary conceptual design of the proposed refinery includes the following process units, each designed as a modular unit:

- Atmospheric Distillation Unit
- Vacuum Distillation Unit
- Light Ends Recovery Unit, including a naphtha stabilizer

- Amine Treaters
- Sour Water Stripper
- 500,000 barrel (79,494 m^3) Tank Farm for crude, intermediate and finished products
- Distillate Hydrotreater
- GasOil Hydrocracker
- Steam Methane Reformer (for hydrogen production)
- Wet Sulfuric Acid Plant or equivalent for sulfur recovery
- Wastewater Treatment Building
- Utilities
- Emergency Generator, and Firewater Pumps (1 electric, and 1 diesel)
- Emergency Flare
- Control Room
- Quality Control Laboratory
- Office Building and Parking
- Electrical Substations
- Firewater Building
- Emergency Power Building
- Stormwater, Wastewater and Firewater Retention Ponds
- Truck and Rail Loading and Unloading for Crude and Refined Products

3.3. ACTIVITIES

3.3.1. General

The Project phases will consist of pre-development, site preparation, construction, operation, decommissioning and reclamation. Pre-development will include all regulatory approvals and detailed engineering for all Project components.

The front-end engineering design will be completed in the summer of 2024. The draft EIS is projected to be completed in December 2024. It is anticipated that the regulatory and public review will be completed by mid-August 2025, with Ministerial approval by end of August 2025. Permit applications will be completed concurrently during the EIS development.

3.3.2. Site Preparation and Construction

Proposed key site preparation activities include:

- Geotechnical assessment
- Installation of environmental groundwater monitoring wells
- Clearing and grubbing construction and staging areas
- Establishment of temporary site access roads (if needed)
- Establishment of temporary contractor offices/workshops
- Establishment of non-hazardous solid waste and recycling areas
- Establishment of hazardous storage areas (waste fuel/oil, solid waste)
- Site grading
- Installation of fencing
- Installation of site water management facilities

3.3.3. Operation

Proposed operation activities include:

- Transportation of crude to the site via rail
- Transportation of workers to and from site via roadways
- Workforce health and safety
- Management, storage, and handling of on-site waste
- Crude oil processing/refining
- Stormwater, wastewater, and solid waste management

Operation activities will also include the development of a Site Operations and Management Plan, an Environmental Management System, and an Environmental Protection Plan (EPP).

3.3.4. Decommissioning and Reclamation

The lifespan of the Project's structural components will vary depending on the use and composition of each component, but through maintenance, the useful life for this facility without major upgrades is estimated to be approximately 50 years. At the end of this timeframe, the Project fate may follow several paths that could include either carrying on with new or repaired components, or full decommissioning. In the event of full decommissioning, appropriate decommissioning plans, environmental protection plans, and other required documents will need to be created in consultation

with appropriate regulatory authorities. Detailed plans for decommissioning, reclamation, abandonment, and a financial assurance assessment will be developed with regulatory agencies and will be subject to periodic review during operations. However, descriptions of key elements of these plans will be described in the EIS.

As the regulatory requirements for decommissioning a refinery may change between the approval of the Project and the decommissioning date, the EIS will provide a general framework including a reclamation plan to restore the lands impacted by the Project back to their pre-construction state. Conceptual decommissioning plans for the Project will be described in the EIS, including:

- Decommissioning objectives;
- Preferred procedures for decommissioning;
- Alternative procedures for decommissioning site facilities;
- Decommissioning, reclamation, and closure of all related works and surface disturbance;
- Identification of acceptable post-operation land-use options for the Project site;
- Post-operational landforms and hydrology;
- Environmental impact mitigation and reclamation measures;
- Proposed monitoring to determine if species will re-occupy the site; and
- Proposed contingency measures.

Details of the proposed preliminary reclamation program will be provided in the EIS, along with the identification of operation procedures which may optimize post-operational reclamation and closure requirements. It is noted that all disturbed sites should be reclaimed as soon as possible after disturbance.

3.3.5. Institutional Control

Proposed criteria for closing the Project and associated infrastructure will be set forward in the EIS. Commitments for monitoring decommissioning success prior to final closure will be laid out according to applicable legislation. Financial assurances as per relevant legislation will be discussed.

3.4. INPUTS AND OUTPUTS

3.4.1. Products

Crude oil will be transported to the refinery facility at a rate of approximately 30 to 40 railcars per day. The finished product will be transported off-site using railcars and

trucks. The refinery is slated at 30,000 bpd and the solar component will be a 125 MW facility.

3.4.2. Resource Use

The raw material supply for the Project will be light sweet crude, primarily from the Bakken formation. Water supply for the Project will come from Buffalo Pound Lake through a SaskWater pipeline. Raw water needs are anticipated to be approximately 200 litres per minute. The refinery will generate its own power through the solar yard and ELE has been in consultation with SaskPower regarding importing power from the provincial grid. Based on engagement with TransGas, the natural gas requirements of the facility can be fulfilled.

3.4.3. By-Products, Reagents, and Emissions

Preliminary estimates for Greenhouse Gas (GHG) emissions are approximately 200,000 tons per year. The majority of this will be carbon dioxide. Best industry practices and use of cutting-edge technologies will keep this number as low as practically possible. Hydrocarbon waste will be conveyed to a common flare stack and incinerated. ELE is aiming for 90 to 95% efficiency when removing hydrocarbons once the carbon capture, utilization, and storage (CCUS) system is installed and operational. The CCUS technology assessment and due diligence is underway. A detailed air impact assessment including GHGs will be included within the EIS.

ELE is currently looking for local companies to handle the supply of waste hazardous materials, however large volumes of materials are not anticipated. Spent catalyst will be hauled away by the company retained to change the catalyst.

Non-hazardous solid waste generated during construction and operation of the facility will be collected on-site and transported by a contractor to a licensed solid waste facility. Recyclable materials will be collected and recycled where possible.

3.4.4. Sensory Outputs

The Project is expected to generate localized vibration, noise, glare, and potential olfactory outputs on surface. Mitigative measures including appropriate personal protective equipment (PPE) will be in place to minimize these outputs.

3.5. ALTERNATIVE MEANS OF CARRYING OUT THE DEVELOPMENT

Within the EIS, the following information will be provided with respect to Project alternatives with regards to the location, technological, transportation, and environmental components of the Project:

- Brief description of proposed Project alternatives;
- Key issues in the consideration and evaluation of Project alternatives;
- Analysis of the Project alternatives that are technically and economically feasible; and
- Justification of the preferred alternative will be discussed in detail.

4.0 INTEREST-BASED ENGAGEMENT PLAN

4.1. PUBLIC INVOLVEMENT

A plan for soliciting public input and using knowledge of the local environment during the EIA will be an important part of the EA process. Stakeholders, including landowners, community associations, RMs, First Nations and Métis communities, businesses, and special interest groups, will be invited to provide ELE with their comments, questions, and concerns about the proposed Project through community meetings, including open houses in the RM of Pense, letters to stakeholders, a website, and telephone conversations. ELE will evaluate and incorporate stakeholder feedback on potential issues, interests, and concerns related to the Project.

The results of the public involvement will be fully documented in the EIS, along with mitigation measures to address the public's concerns. An electronic excel spreadsheet containing a stakeholder engagement contact list of interested persons or organizations that wish to be notified directly by the Ministry for the formal 30 day public review period will be submitted with the EIS.

Project information will be made available on a Project website, and feedback will be solicited at a Project-specific email address. The website will provide updates on upcoming Project events and milestones, including opportunities for formal public comments and engagement events as they are scheduled.

4.1.1. Stakeholder Identification

An initial contact list of potentially interested parties will be compiled based on the following parameters:

- Individual neighbours (landowners and leaseholders) within 30 km of the Project
- Mosaic
- Yara Canada
- Industrial neighbours within 30 km of the Project
- All RMs within 30 km of the Project
- All villages, hamlets, and towns within 30 km of the Project

- The cities of Moose Jaw, Saskatoon, and Regina
- Non-Government Organizations (NGOs)
- Government ministries and organizations
- Economic development groups

The plan is to begin with this preliminary list and expand as needed, based on initial results and discussions with the MOE.

4.1.2. Consultation Objectives

The objectives of the public, First Nations and Métis consultation plan are to:

- Provide timely and accurate information to facilitate a clear understanding of the Project and any potential environmental impacts;
- Receive questions, concerns and input regarding any potential adverse effects that may result from the Project;
- Gather first-hand knowledge and information on traditional land use and valued components (VCs) within the Project area;
- Inform communities how their input influenced planning, design, and mitigation decisions; and
- Any indication of community acceptance, disapproval, or public interest in the Project will be documented in the EIS.

4.1.3. Preliminary Meetings and Consultation

Many stakeholders have been contacted over the past six years. A summary of some of the preliminary consultation can be found in Table 1. This list is not exhaustive.

Table 1 Summary of In-Person Meetings to Date

Interested Party	Attendees	Meeting Summary
Saskatchewan Ministry of the Economy	Laurie Pushor	Introduction of project, discuss process, reviewed project area and recorded comments
	Ed Dancsok	
	Gavin Conacher	
	Bill Spring	
	Peter Gosselin	
	Kirk Westgard	
	Rick Musleh	

Table 1 Summary of In-Person Meetings to Date

Interested Party	Attendees	Meeting Summary
Moose Jaw/Regina Corridor Committee	Dale Heenan Tom Lemon	Introduction of project, discuss process, reviewed project area and recorded comments
SaskEnergy/TransGas	Dan Parent Barry Ell Mitch Carlson Tanya Lang	Introduction of project, discuss gas supply, reviewed project area and recorded comments
SaskPower	Candice Dilschneider Rhea Brown Bradyn Parisian Gary Belanger Jim Harris Dinesh Dhungana	Introduction of project, discuss process, reviewed power supply issues and recorded comments
Federated Co-operatives Limited	Cal Fichter	Introduction of project, discuss potential for diesel off-take
City of Moose Jaw	Deb Thorn	Introduction of project, discuss labour/housing needs
Saskatchewan Ministry of Environment	Sharla Hordenchuk Craig Abernethy Ash Olesen Brady Pollock	Introduction of project, discuss process, reviewed project area and recorded comments
Ministry of Highways and Infrastructure	Andrew Liu Doug Kelly	Introduction of project, discuss traffic concerns and needs
SaskWater & Water Security Agency	Randy Avery Nish Prasad Jeff Hovdebo Clinton Molde	Introduction of project, discuss process, reviewed project area and recorded comments
Global Transportation Hub	Rhonda Ekstrom	Introduction of project, discuss process, reviewed project area and recorded comments

5.0 FIRST NATION AND MÉTIS CONSULTATION PLAN

5.1. FIRST NATIONS AND MÉTIS ENGAGEMENT

ELE has been in communication with the Federation of Sovereign Indigenous Nations (FSIN) and the development of a partnership with Ochapowace First Nation as an equity and operating partner has been confirmed.

5.1.1. List of First Nation and Métis Communities

No First Nations communities were identified within 30 km of the Project, however First Nation communities such as Zagime Anishinabek First Nation, Cowessess First Nation, Nekaneet Cree Nation, and Piapot First Nation will be consulted due to their presence in the Regina area.

The Western Region 3 of Métis Nation-Saskatchewan will also be consulted. This preliminary list will be expanded as needed, based on the results of initial engagement activities. Any information the MOE or Indigenous Services Canada (ISC) has related to potential traditional land use in the area will be solicited and incorporated into the list of contacted First Nations.

5.1.2. Consultation Process and Methods

Consultation with the preliminary list of First Nations and Métis communities will proceed in the following manner:

- Letters describing the proposed Project and indicating ELE's willingness to consult with their community to obtain input on potential Project effects to Treaty Rights, will be sent to each of the communities. The letter will also enquire if, and how, their community wishes to be consulted. Letters will be followed up with phone calls or in-person meetings with the Chief (and council) in order to receive feedback which will be used to initiate the process.
- Once the preferred manner of consultation has been communicated, consultations will be scheduled at a convenient time for the communities.
- Preliminary discussions between ELE and potentially affected First Nation and Métis communities will focus on:

- Areas (if any) of the community's traditional territory that are located inside the regional study area;
- Treaty or Aboriginal rights and traditional uses, which arise in connection with the proposed development, and the potential impacts on these rights and uses;
- Actions that could be taken or measures that could be used in the design and/or operation of the proposed development that would assist in avoiding or reducing potential impacts to Treaty or Aboriginal rights and traditional uses within a community's traditional territory;
- Any other environmental impacts of concern; and
- Potential employment opportunities connected to the Project will also be discussed.

5.1.3. Record Maintenance and Reporting

The EIS will include all documented communication from stakeholders regarding engagement activities. A comprehensive list of all parties invited to engagement activities will be compiled and attendance sign-in sheets will be used to track attendance at public meetings. Questionnaires will be developed in order to solicit feedback and provide opportunity for follow-up activities. A database containing updated contact information from the interested parties will be updated regularly and provided if necessary. A list of interested parties wishing to be notified by the MOE of the formal 30-day review period will be submitted with the EIA. An engagement database containing all concerns, comments, questions, advice, traditional land and resource use, and current land and resource use will be maintained for further consideration or action, if necessary.

6.0 EIA BOUNDARIES

6.1. SPATIAL BOUNDARIES

The spatial boundaries will reflect the geographic extent to which the Project's environmental effects may occur. These boundaries may vary somewhat for each valued component (VC). All relevant components of the environment, including people, biota, land, water, air, and other aspects of the natural and human environment will be considered when establishing spatial boundaries. Spatial boundaries within the EIS will include the following:

- **Site Study Area (SSA)/Project Footprint** – This includes the area where construction and operation take place, as well as areas or structures that are being decommissioned or abandoned.
- **Local Study Area (LSA)** – This includes the area outside the SSA boundary where there is a reasonable potential for direct environmental impacts from the Project.
- **Regional Study Area (RSA)** – This includes the area where there is reasonable potential for residual effects to interact with cumulative impacts from the Project.

6.2. TEMPORAL BOUNDARIES

The temporal boundaries defined in the EIS will indicate the period of time when the Project-specific and cumulative impacts will be considered. These boundaries will consider the construction, operation, and decommissioning phases of the Project.

7.0 EXISTING ENVIRONMENT

7.1. GENERAL REQUIREMENTS

Details regarding baseline information and collection methods/timeframes are provided in Section 9.0. The local Project environment is disturbed regularly by cultivated farmland and adjoining properties are occupied by industry (Yara and Mosaic).

7.2. BIOPHYSICAL

7.2.1. Topography and Soils

The Site is located within the Rouleau Soil Association. The Rouleau Association consists of the Gleysolic soils developed on fine textured alluvial deposits (Ellis, et al., 1965). The Rouleau parent material is alluvial heavy clay, which is dark to very dark gray in colour, slightly to moderately calcareous, and often gleied (Ellis, et al., 1965). The major portions of the Rouleau soils occur on nearly level to flat alluvial plains which are slightly to imperfectly drained (Ellis, et al., 1965). The Rouleau soil shrinks when dry and large cracks form which are sometimes three feet deep and two to four inches wide (Ellis, et al., 1965). The granular soils fall through these cracks. When moistened by rain or floods, the heavy clay swells and expands, closing the cracks or fissures. The dominant surface texture of Rouleau soils is heavy clay (Ellis, et al., 1965).

7.2.2. Flora

The development site is located in the Mixed Moist Grassland. Where it exists, native vegetation includes spear grass and wheatgrass, deciduous shrubs including buckbrush, chokecherry, wolf willow, and Saskatoon. Scrubby aspen, willow cottonwood, and box elder can also be found to a limited extent. However, the majority of the area is occupied by cultivated farmland, therefore sensitive habitats and culturally sensitive plants are not anticipated to occur within the development area.

7.2.3. Fauna

The Project is located in the Regina-Moose Jaw wildlife management zone. Waterfowl, white tailed deer, pronghorn antelope, ground squirrel, coyote, mule deer, moose, and rabbit are common in the area. Regardless of the heavy agricultural use of the area, sensitive wildlife resource populations could be present at the development site.

7.2.4. Species of Conservation Concern

A Project Screening Report was generated on 24 May 2024 using the HABISask Hunting, Angling and Biodiversity Information online database (HABISask, 2024). The screening includes historic records of rare and endangered species, critical habitat zones, important migratory land, and protected and conserved areas located within 1,000 m of the Site. Three rare and endangered bird species had historic records of occurrence within a 1,000 m radius of the Site, and include the following: Barn Swallow, Bank Swallow, and Burrowing Owl.

The Barn Swallow is listed as a threatened species in the Species at Risk Act in 2011 (COSEWIC, 2011). The Barn Swallow has become closely associated with human rural settlements. This species has experienced very large declines that began inexplicably in the mid-to late 1980s in Canada. Its Canadian distribution and abundance may still be greater than prior to European settlement, owing to the species' ability to adapt to nesting in a variety of artificial structures such as barns and bridges (COSEWIC, 2011). The magnitude and geographic extent of the decline are cause for conservation concern.

The Bank Swallow is listed as a threatened species in the Species at Risk Act in 2017 (COSEWIC, 2017). The Bank Swallow is an aerial insectivorous bird that nests in colonies on steep bank faces along waterbodies and human-made habitats (COSEWIC, 2017). The species predominantly winters in the Southern Cone Grasslands of Chile, Argentina, Paraguay, and Uruguay. In Canada, the Bank Swallow population has shown severe long-term declines, with slower declines in recent years. The most likely threats to the Bank Swallow are the broad-scale ecosystem modifications, including pesticide use, in the breeding, migration, and wintering areas of the species resulting in less abundant invertebrate prey (COSEWIC, 2017). The loss of natural nesting sites and a reduction in prey availability, as a result of climate change, may create further pressure on the species (COSEWIC, 2017). The Bank Swallow can be found throughout the Belle Plaine area.

The Burrowing Owl has been designated as threatened since 1979 and was re-designated to endangered and confirmed in 2017. The Burrowing Owl has suffered ongoing large declines across much of its North American range (COSEWIC, 2018). The Canadian population was reduced by 90% from 1990 to 2000, and by a further 64% between 2005 and 2015. The loss of grassland habitat and suitable burrows has

been compounded by a reduction in prey populations and concurrent increases in predation, vehicle collisions, expansion of renewable energy, and severe weather events (COSEWIC, 2018). Burrowing Owls prefer sparsely vegetated grasslands with burrows excavated by black-tailed Prairie Dogs, American badger, coyotes, foxes, and ground squirrels (COSEWIC, 2018). Foraging habitat is generally in and around nesting sites during the day, and forage at night in areas with denser grasses and forbs (COSEWIC, 2018). The HABISask report generated is presented in Appendix A.

7.2.5. Surface Water

A tributary of the Moose Jaw River is located approximately 6 km west of the Project site. Stony Beach Lake is located approximately 8.2 km north of the Project site and Buffalo Pound Lake is located approximately 15 km northwest of the Project site. Water supply for the Project will come from Buffalo Pound Lake through an existing SaskWater pipeline.

7.2.6. Groundwater

The regional hydrostratigraphy surrounding the site consists of:

- Regina Clay, which is often oxidized and fractured;
- Floral Formation, consisting of oxidized and fractured clay till with our without upper and lower Floral Formation intertill deposits (aquifers);
- Fractured Bearpaw shale (oxidized); and,
- Intact Bearpaw shale.

At the Project location, the Regina aquifer may occur as an upper and lower sand unit separated by a layer of clay till. The Judith River Formation is encountered across the entire Regina 72I area with limited exceptions and the sediments of this formation form the Judith River Aquifer (MDH, 2013).

7.2.7. Geology and Geochemistry

The development site is underlain by the Lower Floral (glacial till) and Bearpaw (silt and clay) formations. A groundwater vulnerability index provides a measure of the susceptibility of a groundwater source to contamination. The Lower Floral formation

has a moderate groundwater vulnerability index value and the Bearpaw formation has a low groundwater vulnerability index value.

7.2.8. Atmospheric and Sensory Environment

The Project area consists of semiarid moisture conditions with a mean annual temperature of approximately 2.5°C. Mean annual precipitation ranges from 350 to 400 millimetres.

7.3. SOCIAL, ECONOMIC AND HEALTH

The Project site is located within the RM of Pense. The village of Belle Plaine is located approximately 4 km southeast of the Project site. The hamlet of Stony Beach is located 6 km northeast of the Project Site. The city of Moose Jaw is located 17 km southwest and the city of Regina is located 35 km east of the site.

The Project is anticipated to have positive overall impacts to the local area given the jobs that will be created by the development and operation of the facility. Increased traffic on local roads will be mitigated by the use of rail to transport crude and products to and from the site.

7.4. ARCHEOLOGY AND HERITAGE

Project land locations were entered into an online screening tool provided by the Saskatchewan Government, which includes a database of quarter sections that have been reviewed for heritage sensitivity. All relevant quarter sections were identified as being not heritage sensitive. The heritage screening report is presented in Appendix B.

7.5. FIRST NATIONS AND MÉTIS LAND USE

The Project is located within Treaty 4 Territory and within the Western Region 3 of Métis Nation-Saskatchewan. Piapot First Nation, Zagime Anishinabek First Nation, Ochapowace Nation, Ocean Man First Nation, Cowessess First Nation, Muskowekwan First Nation, and Nekaneet Cree Nation are all identified within a 100 km radius of the Project site. The Project site is privately owned and does not contain unoccupied Crown Lands.

8.0 VALUED COMPONENTS

8.1. SELECTION OF VALUED COMPONENTS

Valued Components (VCs) are important aspects of the socio-economic and ecological environments which are considered important from legal, scientific, cultural, economic, or aesthetic value. VCs considered during the EIS must have the potential to interact with the Project and be susceptible to change as a result of Project-related activities.

The effects assessment identifies how Project-related impacts potentially interact with the VCs, outlines mitigation/monitoring measures to reduce or eliminate effects and discusses the significance of residual effects that may occur after mitigation measures have been implemented. Mitigation measures will be developed based on best practices that are known to reduce impact and on standard operating procedures developed by regulatory agencies and industry.

In order to assess the interaction of the Project with the environment and potential impacts on the VCs, a pathways analysis will be completed. Each pathway will be evaluated to determine if the design of the Project and/or mitigation and/or monitoring could remove the pathway or limit any potential effect to the VCs. Each pathway will be categorized in the EIS as follows:

•No linkage – the pathway was removed through Project design features, and/or construction scheduling, and/or mitigation measures, and/or monitoring. In some cases, VCs can be removed from consideration prior to the EIA.

•Secondary – the pathway could result in minor environmental change but would have a negligible residual effect on a VC(s).

•Primary – the pathway is likely to result in a measurable environmental change that could result in residual effects on a VC.

The selection of VCs depends on a number of factors, including:

- An understanding of potential interactions between the Project and environment, and potential environmental effects based on observations from similar projects in Western Canada;

- An understanding of the sensitivity of the environment to disturbances which are typical for this type of project;
- Experience with the implementation and design of practical mitigation strategies by the Project team;
- Input from regulators; and
- Public and First Nation concerns that will be identified during the engagement activities.

The MOE guidelines suggest a detailed, though not comprehensive, list of biophysical and socio-economic VCs should be considered. Those suggestions have been used to guide the selection of VCs.

The biophysical VCs to be considered in the EIS are:

- Air Quality, including odour
- Noise
- Vegetation and Wetlands
- Wildlife and Wildlife Habitat
- Hydrology
- Groundwater
- Terrain and Soils
- Solar Glare

The socio-economic VCs to be considered in the EIS are:

- Land Use and Management, including aesthetics
- Socio-Economics
    - employment and economy, community services and infrastructure (including transportation)

During the VC selection process, seven VCs were considered but not included. In some cases, it was concluded that the potential environmental effects would be negligible and could be addressed with industry standard mitigation measures. In other cases, the VCs will be addressed through the consideration of interactions with other VCs. The VCs which will not be considered in the EIS are:

- Geology – Foundations for the infrastructure involved in the Project are not expected to adversely affect the geology of the Project area. Foundation designs will be based on detailed geotechnical evaluations, and industry best practices and standard mitigation measures will ensure geology is not affected.
- Aquatic Ecology – There are no fisheries resources in the SSA, and Project effects on fish or fish habitat are not expected. Therefore, aquatic ecology is not considered a VC for the Project at this time.
- Historical and Heritage Resources – No heritage sensitive lands are known to occur within or near the Project area. The heritage screening report is presented in Appendix B.
- Traditional Land Use – As a result of the existing agricultural and rail activities at the Site, traditional land use has not been flagged as a concern during preliminary investigations and will not be included in the EIS unless the Public and First Nation engagement process leads to different information.

9.0 METHODOLOGY

The methods employed to conduct the EA of the Project are outlined in this section and will be described in detail within the EIS. The EA will generally follow the methodological framework laid out by Barnes, *et. al.,* (2000) and will be consistent with the provincial EA process. The structured approach will:

- Follow an integrated approach to the assessment of Project-related and cumulative environmental effects;
- Focus on areas and issues with increased environmental and socio-economic risk;
- Consider applicable provincial and federal regulatory requirements related to the assessment of environmental effects. Specific consideration of the requirements of the MOE and the scope of the EIA as defined in the TOR will be given;
- Consider issues raised by the general public, First Nations persons, and other stakeholders during consultation and engagement activities; and
- Integrate engineering design and programs for mitigation and monitoring into a comprehensive environmental management and planning process.

The EA methods used in preparation of the EIS will address both Project-specific and cumulative environmental effects. Each VC will be assessed using a standardized methodological framework and documented with standard tables and matrices to simplify the evaluation process.

The EIS will define the waste or by-products that will be generated by the refinery and will discuss the best methods to manage the by-products.

All baseline study methodologies for the EIS work will meet or exceed MOE's standards and requirements. Permits, as necessary, will be obtained prior to fieldwork and results will be reported as per MOE requirements.

9.1. PROJECT APPROACH

9.1.1. Vegetation Assessment

Vegetation surveys will be conducted to document the occurrence of protected and weedy vascular plants in the Project area. These surveys will include two site visits to account for seasonal variability in plant emergence in Saskatchewan (June and late

summer). Transects are the required sampling unit for vegetation surveys as outlined by MOE rare plant protocols (MOE 2021). Locations for transect surveys will be determined based upon habitat stratification in advance of field surveys. Habitat stratification will be based on satellite imagery, ecosite data, and soil database search results. Vegetation surveys will take place on foot, with two team members walking transects of a set width, length, and distance sufficient to cover 3-5% of the area of each habitat strata found in the Project footprint (MOE 2021). All plants within the transects will be identified to the species level, if possible. Waypoints and supplementary information will be recorded for all rare plant occurrences. For all prohibited, noxious, and nusiance weeds, detailed information will be collected including a Universal Transverse Mercator (UTM) location, legal land location, habitat, number of plants or patch size. Photographs and notes will be recorded regarding the location of rare plants and weeds.

The original Project footprint considered in approximately 2016 was located 1.6 kms to the east of the current footprint. A spring survey was completed in June 2017, and a second survey was completed in early September 2018 on the former footprint. No rare plants were identified within the former Project footprint. Several rare plants were identified within the LSA.

9.1.2. Wetlands and Waterbodies Assessment

A wetland survey was completed within the LSA in the spring of 2017 to identify the wetland type, including habitat potential for wildlife, flora, and rare and endangered species. The wetland classification method is consistent with the Canadian wetland classification system (Warner and Rubec, Eds., 1997) and is based on the protocols described by Stewart and Kantrud (1971), CWS and USFWS (1987), and Ducks Unlimited Canada (2005). The wetlands are characterized by plant community structure and assemblage, and permanency of water.

9.1.3. Amphibian Surveys

There are two amphibian species with associated activity restriction guidelines that may be present in the Project area: Canadian toad (*Anaxyrus hemiophrys*) and northern leopard frog (*Lithobates pipiens*) (MOE 2015, SARPR). Amphibian surveys will be completed only in the SSA where there is high potential for amphibian species. Determination of the study area will be completed by reviewing soil maps and wetland locations identified during desktop screening efforts.

To determine amphibian species occupancy and diversity, three rounds of amphibian auditory surveys will be conducted using ARUs between April 20 and June 10, 2024. Auditory amphibian surveys will be conducted in accordance with the ENV SDSP 1.0 Amphibian Auditory Surveys April 2020 – Update (ENV 2020). ARUs will be deployed in areas of suitable breeding habitat (i.e., wetlands that are deemed to provide suitable breeding habitat for amphibians) within the Project footprint plus a 500 m buffer. The ARUs will be deployed for one night each round at each wetland, with one 5-minute recording reviewed per round to identify amphibian species that are present. During deployment and retrieval of ARUs, visual amphibian surveys will be conducted at the wetlands where the ARUs are deployed.

Visual amphibian surveys will be conducted in addition to auditory surveys in accordance with the ENV SDSP 2.0 Amphibian Visual Surveys (2020). The purpose of the visual survey is to determine amphibian species occupancy and diversity of amphibian species that may not be readily detected through auditory surveys (e.g., western tiger salamander, amphibian egg masses, and amphibian tadpoles). Visual amphibian surveys will consist of three site visits spaced one to two weeks apart between May and September.

9.1.4. Breeding Bird Point Count Survey

Breeding bird surveys (BBS) will be completed to determine species occupancy, abundance, and richness of diurnal bird species by habitat type. The BBS will be completed in accordance with the ENV SDSP 9.0 Grassland Birds Surveys April 2020 – Update Protocol (ENV 2020). Two site visits will be completed from late May/early June to early July, with surveys spaced 7 to 10 days apart. Survey points will be located in representative habitat types within a 1 km buffer surrounding the Project.

9.1.5. Targeted Species Surveys

Based on our understanding of the region in which the Project is located and known historical and recently documented wildlife species of conservation concern (SOCC) sightings, the following targeted species surveys will be completed:

- Burrowing owl – as per the ENV SDSP 5.0 Burrowing Owl Survey Protocol. April 2020 (ENV, 2020), three rounds of surveys will be completed from May 15 to June 30, 2024. Where applicable, burrowing owl surveys will be completed in conjunction with breeding bird surveys. The surveys will consist of point-counts supplemented with timed call playback periods, with survey

locations spaced 800 m apart to avoid double-counting individual birds. At each survey point, a three-minute passive survey will be completed, followed by a three-minute call playback period (which consists of 30 seconds of calling followed by 30 seconds of silence) and followed by a second one-minute passive scan.

- Short-eared owl – as outlined in the ENV SDSP 6.0 Short-eared Owl Surveys. April 2020 (ENV, 2020), three site visits will be completed in late May and June 2024, during the peak of the breeding season, and will be completed in conjunction with common nighthawk surveys. The survey will consist of point-count observations, with survey stations spaced 800 m apart to avoid double-counting individual birds. When short-eared owls are detected, field personnel will record the location of each observation, number of birds observed, habitat type, and any observed breeding activities. Each observation location will be revisited during subsequent site visits and a behavioural observation survey will be completed to assess whether the owl is breeding and determine the likely location of their nest; and
- Common nighthawk - as per the ENV SDSP 15.0 Common Nighthawk Surveys. April 2020 (ENV, 2020), two site visits will be completed in June 2024 and will occur in conjunction with the proposed short-eared owl surveys. The common nighthawk surveys will consist of point-count observations supplemented with timed call playback periods, with survey stations spaced 800 m apart to avoid double-counting individual birds. At each survey station, three-minute passive observations will be recorded, followed by a three-minute call playback period, which consists of 30 seconds of calling followed by 30 seconds of silence, while scanning the landscape and listening for signs of common nighthawks.

9.1.6. Migratory Bird Surveys

9.1.6.1. Spring Water Bird Surveys

Spring migration surveys (three rounds) will be completed based on the Alberta Energy and Parks (AEP 2020) Bird Migration Survey Protocol. Each survey round will include both an early morning and afternoon/dusk sampling of targeted point-count locations and stopover-count survey locations will be conducted during the migration period in spring 2024. One survey round will be conducted during each of the following bird migration periods: early (April 20 – April 25), Mid (April 30 – May 6) and late (May 10 – May 15), for a total of three survey rounds.

9.1.6.2. Fall Migration Survey

Fall bird migration surveys (three rounds) will be completed based on the AEP (2020) *Bird Migration Survey Protocol*. Each survey round will include both an early morning and afternoon/dusk sampling of the same point-count locations and stopover-count survey locations surveyed during the spring migration surveys. The 2024 fall migration surveys will be conducted during the following bird migration periods: early (August 15–September 30), mid (September 15–October 30) and late (October 15–November 15).

9.1.7. Environmental Effects Analyses

The EIS will include anticipated effects to vegetation and wetlands with an emphasis on changes in land cover, plant species diversity, and changes in the function of wetlands. The likelihood of significant adverse residual effects will be examined and will consider proposed mitigation measures to avoid effects of the Project on vegetation and wetlands.

9.2. IMPACT ASSESSMENT

9.2.1. Project-Specific Impact Assessment

Project-specific impacts on all VCs will be evaluated in the local study area by identifying the magnitude of each impact, the geographic extent, the duration, frequency, reversibility, and likelihood of occurrence for the construction, operation, decommissioning, and reclamation phases of the proposed Project. The resiliency of the local environment will also be discussed.

Large volumes of crude oil and refined fuel will be handled and stored on the Site over a long period of time. Emergency Response Plans will be developed within the EIS to address potential spills or discharges.

9.2.2. Impacts of the Environment on the Project

Impacts of the environment on the Project will be assessed. Specifically, the impact of severe weather events (i.e., wind, rain, snow), climate change, forest fires, etc., on the Project will be considered, as well as the implications for the VCs in the area.

9.3. IMPACT MITIGATION AND MONITORING

Within the EIS, a detailed discussion of the mitigation measures that will be implemented to address possible Project-specific and cumulative impacts on each VC

identified will be presented. Contingency plans will be presented and any adverse impacts resulting from the Project that cannot be mitigated will be explained. Proposed monitoring programs and methods for measuring mitigation effectiveness will be discussed. Monitoring will include, but is not limited to:

- Construction and operation
- Evaluating the success of mitigation
- Confirming or refuting anticipated impacts in the EIS
- Evaluating the effectiveness in addressing public issues and concerns; and
- Evaluating the effectiveness in addressing Aboriginal issues and concerns

All monitoring commitments will be addressed in the commitments register, discussed in Section 17.1.

9.4. RESIDUAL IMPACTS

Potential environmental effects of the Project on biophysical and socio-economic conditions will be identified and assessed after mitigation measures have been implemented. Information presented will include an assessment of the magnitude, geographic extent, duration and frequency, reversibility, and likelihood of occurrence. Conclusions will be provided in the EIS, based on the above analysis of the potential residual effects and their significance.

10.0 EFFECTS ASSESSMENT

10.1. PREDICTED CHANGES TO THE ENVIRONMENT

A summary table of the VCs, associated spatial boundaries, and significance criteria is provided below.

Valued Component	Spatial Boundaries	Significance Criteria
Vegetation and Wetlands	• SSA: Project footprint • LSA and RSA: Project footprint plus 1 km radius	• Predicted effects on viability of a plant species • Predicted effects resulting in permanent loss of wetlands
Wildlife and Wildlife Habitat	• SSA: Project footprint • LSA: Project footprint plus 1 km radius • RSA: Project Footprint plus 15 km radius	• Predicted effects on the mortality risk of a species • Predicted effects that could change habitat
Terrain and Soils	• SSA: Project footprint • RSA/LSA: n/a	• Predicted changes to soil quality and quantity in SSA
Noise	• SSA: Project footprint • LSA: Project footprint plus 3 km radius • RSA: n/a	• Predicted changes in noise compared to existing conditions and guidelines
Air Quality	• SSA: Project footprint • LSA: Project footprint plus 10 km radius • RSA: Project footprint plus 30 to 50 km	• Predicted changes in air quality compared to baseline study that frequently exceeds air-quality objective or standard
Solar Glare	• SSA: Project footprint • LSA: TBD following desktop study • RSA: n/a	• Predicted visual impacts to transportation and residents
Hydrogeology	• SSA: Project footprint • LSA: Project footprint plus 1.6 km radius • RSA: n/a	• Predicted changes in groundwater quality when compared to baseline assessment
Hydrology	• SSA: Project footprint • LSA: Project footprint plus 1.6 km radius • RSA: n/a	• Predicted effects on surface water quality • Predicted flooding of adjacent land(s)
Employment and Economy	• SSA: n/a • LSA: 50 km radius • RSA: Province of Saskatchewan	• Predicted positive or adverse effects on employment or economy if distinguishable from baseline trends
Community Services and Infrastructure	• Not yet defined	• Predicted exceedance of existing capacity • Predicted decrease in service quality

Valued Component	Spatial Boundaries	Significance Criteria
Land Use Management	• SSA: Project footprint • LSA: Project footprint plus 1 km radius • RSA: Project footprint plus 5 km radius	• Non-compliance with established plans, policies, or bylaws

The following sections outline the approach that will be used to measure the environmental changes resulting from each phase of the development along with the assessment of effects on the identified VCs.

10.2. VEGETATION AND WETLANDS

This VC is defined as the specific land cover types within the spatial boundaries of the Project, along with the individual plant species at risk (SAR).

10.2.1. Spatial Boundaries

The SSA for this VC will be the Project footprint, the LSA will be the footprint plus a 1 km radius. The surrounding land is similar to the Project footprint for a significant distance, therefore an RSA of 1 km is appropriate for this VC. Indirect impacts to vegetation and wetlands are not anticipated.

10.2.2. Significance Criteria

Within the EIS, significant adverse effects of the Project on vegetation and wetlands will include effects that could compromise the viability of a plant species within the RSA. Consideration will be given to effects that may be inconsistent with provincial or federal legislation. Effects that may result in permanent loss of wetlands will also be considered significant.

10.2.3. Baseline Study Details

In order to assess the potential for significant adverse environmental effects, a desktop evaluation supported by field studies will be completed to establish a baseline. Baseline study methodologies will meet or exceed the minimum standards of the MOE. Permits, as necessary, will be obtained prior to fieldwork and results will be reported as per MOE requirements. Field surveys will be completed in accordance with *Species Detection Survey Protocol: 20.0 Rare Vascular Plant* (Government of Saskatchewan, 2021).

10.3. WILDLIFE AND WILDLIFE HABITAT

This VC includes a wide range of wildlife species along with their habitats that have the potential or are known to occur within the SSA, LSA, or RSA. Wildlife and wildlife habitat are recognized as having aesthetic, economic, and recreational importance in Canada (Filion, et al., 1993). Wildlife and wildlife habitat are protected by legislation at both the provincial and federal levels.

10.3.1. Spatial Boundaries

The SSA for this VC will be the Project footprint, the LSA will be the footprint plus a 1 km radius, while the RSA will be the footprint plus a 15 km radius.

10.3.2. Significance Criteria

Within the EIS, significant adverse effects of the Project on wildlife and wildlife habitat will include effects that could change the mortality risk of a wildlife species within the RSA, or a change in habitat. The EIS will define measurable parameters for these effects.

10.3.3. Baseline Study Details

In order to assess the potential for significant adverse environmental effects, a desktop evaluation in support of field studies will be completed to establish baseline conditions. Baseline study methodologies will meet or exceed the minimum standards of the MOE. Permits, as necessary, will be obtained prior to fieldwork and results will be reported as per MOE requirements.

10.3.4. Wildlife Surveys

Wildlife surveys will focus on detecting and documenting wildlife such as amphibians, reptiles, birds, migratory birds, and mammals within the LSA and RSA for the Project. Some species at risk may be added to the surveys after desktop screening is completed.

10.3.5. Environmental Effects Analyses

The EIS will include anticipated effects to wildlife and wildlife habitat with an emphasis on changes in wildlife habitat, mortality risk, and wildlife movement patterns attributable to the Project. The likelihood of significant adverse residual effects will be determined and will consider proposed mitigation measures to avoid effects of the Project on wildlife and wildlife habitat.

10.4. TERRAIN AND SOILS

10.4.1. Spatial Boundaries

The SSA for this VC will be the Project footprint, the larger area of the RSA and LSA will not be assessed because terrain and soils will not be disturbed outside the Project footprint.

10.4.2. Significance Criteria

Within the EIS, industry standard methods and guidance will be used to establish significant adverse effects of the Project on the terrain and soils. The EIS will define measurable parameters for these effects.

10.4.3. Baseline Study Details

In order to assess the potential for significant adverse environmental effects, a desktop evaluation including soil mapping will be completed to assist with management of soils during all Project phases.

10.4.4. Environmental Effects Analyses

The potential effects to terrain and soils will be assessed. These may include changes to the landscape, soil removal and potential contamination from petroleum hydrocarbons. Mitigation measures will be proposed where appropriate.

10.5. NOISE (ACOUSTIC ENVIRONMENT)

10.5.1. Spatial Boundaries

The SSA for this VC will be the Project footprint, the LSA will be the footprint plus a 3 km radius. The larger area of the RSA will not be assessed because the noise will be attenuated by distance.

10.5.2. Significance Criteria

Within the EIS, methods and guidance from the Alberta Energy Regulator (AER) Directive 038 will be used to establish significant adverse effects of the Project on the acoustic environment. The EIS will define measurable parameters for these effects.

AER Directive 038 requires that noise be assessed cumulatively so that noise from all energy-related activities (other oil and gas or power) be considered along with the proposed Project sites when comparing predicted noise levels at dwelling receptors. Based on an initial review, there are other energy related facilities that will need to be

included in the cumulative assessment. The Yara and Mosaic facilities will also be included. The cumulative assessment approach defined in AER Directive 038 would need to include nearby industrial activities and ambient sound level to establish potential noise effects at residences.

10.5.3. Baseline Study Details

A review of historical baseline data will be conducted in advance of additional noise measurements. The data review, along with discussions with proponent staff and members of other study disciplines, will allow the identification of noise sensitive receptors in the area of the proposed Project, and identify if Ambient Sound Levels (ASLs) have been measured at the receptor.

For critical receptors where recent noise surveys do not establish representative Comprehensive Sound Levels (CSLs, i.e., ambient + existing energy sector noise), continuous 24-hour long-term sound level measurements will be conducted in accordance with AER Directive 038. A noise field survey will only be required if the existing data review reveals that recent noise surveys do not reasonably define the existing CSLs at the critical nearby receptors.

10.5.4. Environmental Effects Analyses

Noise impacts from the Project will be predicted using noise modelling software. Predicted noise impacts from the Project as well as existing adjacent facilities will be cumulatively compared to the applicable permissible sound level (PSL) according to AER Directive 038 for each dwelling. Mitigation recommendations will be provided to comply with AER Directive 038 requirements, as needed. Residual impacts will be assessed based on magnitude, geographic extent, duration, frequency, reversibility, and likelihood of occurrence for the construction, operation, decommissioning, and reclamation phases. The assessment will also provide comparison to Health Canada's (HC) Guidance for Evaluating Human Impact in Noise Assessment (HC, 2017) and consideration for municipal noise bylaws as applicable. One round of modelling is assumed to prove compliance.

Low frequency noise will also be evaluated per AER Directive 038. Noise impact from construction activities will be reviewed and recommendations on follow up noise monitoring will be outlined.

10.6. AIR QUALITY

This VC includes the potential effects of the Project on air quality. Air quality is a measure of the presence and quantity of constituents in ambient air and includes contaminants and odour in the atmosphere. Changes in air quality could potentially arise from emissions resulting from the Project. An emission inventory and source characterization will be completed.

An Air Impact Assessment will also be included to assess greenhouse gas (GHG) emissions of the Project. The overall air quality assessment will adhere to the Saskatchewan Air Quality Modelling Guideline (AQMG, MOE 2012) or any more recent guidelines published in the interim. The refinery will adhere to all applicable national and/or provincial GHG emission reporting standards. Methods for GHG calculations will be discussed in the EIS. All scope 1 GHG emission sources will be discussed.

10.6.1. Spatial Boundaries

The SSA will be considered for direct effects to the environment and employees while the LSA will be the footprint plus a 10 km radius. The larger area of the RSA will include potential receptors within a 30-50 km radius that may have indirect effects. The size of the study areas will be finalized following review and discussions with the MOE. The EIS will include a cumulative effects assessment on the presence and quality of constituents in ambient air, including contaminants and odour in the atmosphere.

10.6.2. Significance Criteria

Within the EIS, methods and guidance from the MOE in the Industrial Source (Air Quality) Chapter of the Saskatchewan Environmental Code (MOE, 2015) will be used to establish significance criteria for all parameters of potential concern. A significant adverse environmental effect is a Project-related ground level concentration plus conservative background level that frequently exceeds the air quality objective or standard. “Frequently” meaning once per week for 1-hour objectives and once per month for 24-hour objectives.

10.6.3. Baseline Study Details

In order to assess the potential for significant adverse environmental effects, desktop evaluation and computer modelling will be completed. Baseline information will be

obtained from The Great Plains Air Zone (GPAZ) Association. GPAZ has air quality monitoring stations near Regina. Air modelling will be completed using AERMOD, the dispersion model preferred by the MOE. Nearby sources will be included to determine potential cumulative effects.

At minimum, the modelling work will include:

- Total Suspended Particulate (TSP)
- Particulates under 10 microns (PM10)
- Particulates under 2.5 microns (PM2.5)
- Nitrogen Oxides
- Carbon Monoxide
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)
- Volatile Organic Compounds (VOCs)
- Hydrogen Sulfide (H_2S)
- Sulfur Dioxide (SO_2)
- Ammonia (NH_3)
- The effects of a full plant shutdown resulting in vessel depressurization and release
- The effects of a sulfur plant shutdown and the release of excess sulfur

Odour modelling will be carried out based on Saskatchewan guidelines which are based on one-hour standards. The primary odour constituents will include H_2S and SO_2. The model will deliver isopleths of expected odour levels resulting from the facility and a summary table with results compared to applicable standards. All inputs and conversions will be available for review by MOE.

Baseline conditions for climate will be established using data from the nearest Environment and Climate Change Canada (ECCC) weather station at the Regina International airport.

10.6.4. Environmental Effects Analyses

For the impact assessment, baseline conditions, industry best practices and planned mitigation will be considered. The predicted emission levels from Project activities

will be added to the measured ambient data to calculate the cumulative Project effects. The residual impacts after mitigation will be assessed based on magnitude, geographic extent, duration, frequency, reversibility, and likelihood of occurrence for the construction, operation, decommissioning and reclamation phases. Monitoring programs will be identified where needed, and monitoring programs to assess air quality impacts and mitigation strategies will be described in an Environmental Protection Plan for air emissions.

10.7. SOLAR GLARE

This VC includes the potential effects of the solar portion of the Project, specifically evaluating the potential for any dwelling, roadways, or flight paths to experience glare.

10.7.1. Spatial Boundaries

The SSA will be the Project footprint, and the LSA will be determined following the preliminary desktop portion of the assessment. Receptors within 800 m from the boundary of a project and aerodromes within 4 km of the boundary of a solar project are considered for solar glare assessments (AUC, 2024). There will not be residual effects due to solar glare, therefore an RSA for this VC will not be considered.

10.7.2. Significance Criteria

Modelling will be completed using the Forge Solar Glare Gauge Solar Glare Hazard Assessment Tool. In the absence of any definitive criteria, glare impacts would be evaluated against generally accepted criteria used for similar projects in Alberta and Canada, such as those outlined by Transport Canada and the United States Federal Aviation Administration.

10.7.3. Baseline Study Details

The scope of work would entail the following: information and verification of the photovoltaic array locations, manufacturers, and glare characteristics; identification and verification of receptors, transportation routes and aerodromes within the relevant reference distances; predictive modelling of the Project to determine the type and duration of glare experienced at the assessment locations.

In the absence of local guidelines, a visual simulation will be conducted in accordance with regulations in place in Alberta (Alberta Transportation, 2021). A wind study will be conducted to determine the 1 in 50-year hourly wind pressure, extreme wind directionality, estimation of the amount of downtime on an annual basis due to the array

being in stow/neutral position, and an assessment of terrain exposure and topography with reference to recommendations of applicable codes.

10.7.4. Environmental Effects Analyses

For the impact assessment, industry best practices and planned mitigation will be considered. Impacts of solar glare potential for any dwelling, roadways, or flight paths will be reported, along with the trigger wind speed for the array to go in stow.

10.8. HYDROGEOLOGY

This VC includes the potential effects of the Project on shallow groundwater. Although best industry practices and standard mitigation should prevent effects to groundwater, changes in water quality could potentially arise from leaks or spills of petroleum hydrocarbons (PHCs) within the SSA.

The Project is not anticipated to affect groundwater flows, recharge functions or the quantity of local water supply wells with the use of best industry practices and standard mitigation techniques. The local and regional groundwater flow direction and the horizontal and vertical gradients will be assessed within the study area. A predictive groundwater transport model will be developed as part of the EIS to understand potential impacts on groundwater and the receiving environment. Since the Regina aquifer may occur as an upper and lower sand unit separated by a layer of clay till in the Belle Plaine area, it will be necessary to characterize the hydraulic properties, water level and chemistry of both the upper and lower sand units. The characterization of the groundwater chemistry along the boundary between the site study area (SSA) and other nearby industrial sites will be completed, as subsurface features at the Site may interact with these surrounding industrial activities.

10.8.1. Spatial Boundaries

The SSA will be the site footprint, the LSA will be the footprint plus a 1.6 km radius. The larger area of the RSA will not be considered unless the LSA and RSA studies indicate potential for concern. The ultimate size of the study areas will be finalized following discussions with the MOE.

10.8.2. Significance Criteria

Within the EIS, methods and guidance from the MOE in the Saskatchewan Environmental Quality Guidelines (MOE, 2024) will be used to establish significance criteria for all parameters of potential concern. A significant adverse environmental

effect is a Project-related groundwater concentration that exceeds the applicable groundwater quality objective or standard after consideration of baseline conditions.

10.8.3. Baseline Study Details

In order to assess the potential for significant adverse environmental effects, a desktop evaluation of all groundwater withdrawal wells within the LSA will be completed. Baseline information will be obtained by installing groundwater monitoring wells around the perimeter of the SSA. The screen depths for the monitoring wells will be determined based on the desktop evaluation and observations made during drilling.

Baseline conditions for PHCs, metals, salinity, and nutrients will be obtained from these wells prior to construction. These wells will be monitored on a regular basis throughout the lifespan of the Project.

10.8.4. Environmental Effects Analyses

For the impact assessment, baseline conditions, industry best practices and planned mitigation will be considered. The residual impacts, if any after mitigation will be assessed based on magnitude, geographic extent, duration, frequency, reversibility, and likelihood of occurrence for the construction, operation, decommissioning and reclamation phases. Monitoring programs will be identified where needed, and monitoring programs to assess groundwater quality impacts and mitigation strategies will be recommended.

10.9. HYDROLOGY

This VC includes the potential effects of the Project on surface water, drainage patterns, infiltration, and runoff. The Project is likely to have an interaction with hydrology because surface water flows will be diverted around the Project and the Project will retain any surface water within the footprint.

The proposed water source for the Project is Buffalo Pound Lake. In preliminary discussions with SaskWater, they have indicated that environmental aspects of a potential new pipeline or drawdown of Buffalo Pound Lake have been preemptively addressed.

Watershed balance modelling will be completed to evaluate the changes of land use and land cover and changes to drainage features. The model will consider relevant hydrological variables for present day and future development conditions, along with

future trends in climatic variables. A rainfall runoff storage model will also be executed.

10.9.1. Spatial Boundaries

The SSA will be the Project footprint, the LSA will be the footprint plus a 1.6 km radius. The larger area of the RSA will not be considered unless the LSA and RSA studies indicate potential for concern.

10.9.2. Significance Criteria

Within the EIS, methods and guidance from the MOE in the Saskatchewan Environmental Quality Guidelines (MOE, 2024) will be used to establish significance criteria for all parameters of potential concern. A significant adverse environmental effect is a Project-related surface water concentration that exceeds the applicable surface water quality objective or standard. Flooding of adjacent land(s) could also be considered a significant adverse environmental effect.

10.9.3. Baseline Study Details

In order to assess the potential for significant adverse environmental effects, a desktop evaluation of Project plans, topographical data, and modelling results within the LSA will be completed. Baseline information will be obtained by obtaining topographical information from both the SSA and the LSA.

Baseline conditions for surface water quality will be obtained from at least two waterbodies nearest the Project footprint on each of the four sides of the footprint. Sampling parameters will include PHCs, metals, detailed salinity, and routine water analysis.

10.9.4. Environmental Effects Analyses

For the impact assessment, baseline conditions, industry best practices and planned mitigation will be considered. The residual impacts, if any after mitigation will be assessed based on magnitude, geographic extent, duration, frequency, reversibility, and likelihood of occurrence for the construction, operation, decommissioning and reclamation phases. Monitoring programs will be identified where needed, and monitoring programs to assess surface water quality impacts and mitigation strategies will be recommended.

10.10. EMPLOYMENT AND ECONOMY

This VC is related to the labour and materials required for the Project which may have beneficial or harmful effects on the economy on a local and/or provincial scale. The Project will require both labour and materials through construction, operation, and decommissioning. The Project will employ approximately 160 people once fully operational.

10.10.1. Spatial Boundaries

Spatial boundaries used to assess effects include an LSA that will include the adjacent Rural Municipalities (RMs) and communities within a 50 km radius of the Site. This area was selected as it is anticipated to encompass the majority of providers of labour, services, and materials for the Project. The RSA will include the province as a reference for economic and employment effects. The SSA is too small and focused for this type of comparison and will not be included in the assessment.

10.10.2. Significance Criteria

Within the EIS, significant adverse or positive effects of the Project on employment and economy will only be presented if they are deemed to be distinguishable from baseline trends and conditions. For potential adverse effects, potential mitigation steps will be outlined.

10.10.3. Environmental Effects Analyses

Anticipated changes in the regional labour force, regional businesses, municipal and provincial government finances, and provincial economy will be assessed in detail. The discussion will be framed in relation to baseline information gathered from publicly available information.

10.11. COMMUNITY SERVICES AND INFRASTRUCTURE

This VC is defined as services provided by government and local communities such as roads and emergency medical services within the spatial boundaries of the Project. Transportation issues will be considered under this VC. A traffic impact assessment will be prepared as part of the EIS for both road and rail traffic. At present, it is thought that crude oil will come to the Site via rail, while refined products will be outbound by both truck and rail. Kalium Road appears to be optimal for main access, but the traffic impact assessment in the EIS may recommend additional access. Alternatives for transport will be discussed in the EIS.

10.11.1. Spatial Boundaries

Spatial boundaries for this VC are not clearly defined at this point but will be in the EIS. There will only be one spatial boundary defined by the area in which the Project activities will make use of local infrastructure and services. Emergency services, road maintenance and other community services and infrastructure issues will be addressed.

10.11.2. Significance Criteria

Within the EIS, significant adverse effects of the Project on community services and infrastructure will be defined by an exceedance of existing capacity or a substantial decrease in the quality of service provided within the community that cannot be mitigated with current or anticipated mitigation measures.

10.11.3. Environmental Effects Analyses

Baseline conditions within the spatial boundaries of the Project will be analyzed using existing public resources. Predicted effects of the Project in relation to baseline conditions will be discussed at minimum in the following areas: changes in infrastructure or services and changes in transportation infrastructure.

10.12. LAND USE AND MANAGEMENT

This VC is defined as the public and private use of land for commercial and recreational purposes. It includes the aesthetics of the landscape. The Project will result in changes that affect the land use and management within the spatial boundaries of the Project.

10.12.1. Spatial Boundaries

The SSA for this VC will be the Project footprint. Due to the presence of established industry and in the area, the LSA will be limited to the footprint plus a 1 km radius. No national, provincial, or regional parks or recreation sites were identified in the vicinity of the Project, therefore the RSA will be limited to the footprint plus a 5 km radius.

10.12.2. Significance Criteria

Within the EIS, significant adverse effects of the Project on land use management will be defined by non-compliance with established land use plans, policies, or bylaws. A change or disruption that degrades or restricts land use to a point where compensation is impossible will also be considered an adverse effect.

10.12.3. Environmental Effects Analyses

Baseline conditions within the spatial boundaries of the Project will be analyzed using existing public resources. Predicted effects of the Project in relation to baseline conditions will be discussed where adverse effects of the Project remain after consideration of mitigation measures to reduce or avoid effects (i.e., a residual effect occurs).

10.13. CUMULATIVE EFFECTS ASSESSMENT

A cumulative effects analysis examines the anticipated residual impacts of the Project in conjunction with other past, present, and/or reasonably foreseeable future projects or activities in the area. The EIS will include an assessment that will describe the net cumulative impacts of the Project, mitigation strategies, and monitoring. The cumulative effects assessment will include projects that are occurring within 10 km of the Project site. These sites include the Yara and Mosaic facilities located to the north of the proposed Project site. The focus on the cumulative effects assessment will be air quality, traffic, and water withdrawal from Buffalo Pound.

A discussion as to how other developments in the area might influence the Project or its potential impacts on the VCs will be provided in the EIS. Potential short-term and long-term cumulative effects in the regional study area will be described.

11.0 CONSULTATION REPORT – EFFECTS ON FIRST NATION AND MÉTIS COMMUNITIES

ELE is committed to adhering to the First Nation and Métis Consultation Plan presented in Section 5.0 and the applicable subsections. Feedback collected during the consultation activities will be vital to assessing and mitigating the potential effects of the Project on the rights of Indigenous and Métis peoples and their communities, culture, and traditional land usages.

12.0 POTENTIAL ACCIDENTS AND MALFUNCTIONS

The EIS will identify potential major accidents or malfunctions as well as associated mitigation strategies. It is anticipated that the major accidents and malfunctions considered for the assessment include:

- Fuel spills during transportation
- Refinery storage tank leaks or failures
- Containment system failures
- Electrical fires
- Explosions
- Surface water and groundwater contamination
- Inadvertent atmospheric releases
- Vehicle/equipment accidents (humans, wildlife, release of contaminants into the environment)
- Contact with overhead and buried utilities during development, assessment, and maintenance

The facility will house a control room whereby all facets of the plant will be monitored principally using a Directed Control System (DCS) which will enable the operator to monitor any part of the process system. Closed-circuit television (CCTV) cameras will allow for real-time monitoring. A firefighting system will be designed and installed that complies with local, provincial, and federal fire codes. Both the DCS and firefighting system will be designed using an issued area classification drawing that is signed by a professional engineer and lays out the process hazardous areas of the plant. Operations manuals will lay out how to shut the entire plant or specific areas down in an emergency situation.

ELE is also using the Global Asset Protection Services (GAPS) layout and spacing recommendations for new oil and chemical facilities within the facility design. The GAPS recommendations include spacing and layouts to minimize congested areas which can result in extensive losses and damage in the event of fires or explosions.

13.0 ANCILLARY PROJECTS

Ancillary projects that could potentially be constructed in connection with the Project are:

- SaskWater distribution line
- SaskPower distribution line
- SaskEnergy distribution lines
- Carbon capture collection and distribution line
- Fibre optic communications line (provided not yet determined)

14.0 EFFECTS OF THE ENVIRONMENT ON THE DEVELOPMENT

The potential effects of the environment on the Project include high winds, fires, tornadoes, heavy rain/snow, severe drought, flooding, and extreme temperatures. These events have the potential to disrupt all phases of the Project, including the assessment and monitoring activities on the site, construction of the Project, the operation of the facility, transportation of crude and finished products, and the overall wellbeing of workers at the site.

The flood plain assessment will consider a 1:100-year runoff event. The 1:100-year runoff event will be defined in accordance with industry best-practice and may include the following scenarios:

- 100-year precipitation event: A rainfall-only scenario that considers conventional Intensity-Density-Frequency data applied using an appropriate rainfall hyetograph and routed through the catchment area.
- 100-year snowmelt event: A coupled rainfall-snowmelt scenario that may be comprised of one of the following:
    - 100-year snowpack accumulation with an average spring rainfall event.
    - Average snowpack accumulation with a 100-year spring rainfall event.

The intent will be to define the extents of flood inundation in the pre- and post-development scenarios.

The EIA will assess and discuss how the potential effects of the environment may impact the construction and the operation of the Project, as well as the consequences of these impacts. Mitigation measures and contingency plans will be presented in the EIA.

15.0 MONITORING

Monitoring programs will be established during all Project phases, including decommissioning, to determine that unexpected changes to VCs are known and that all regulatory requirements and environmental commitments are met during the lifecycle of the Project.

ELE is committed to monitoring groundwater, surface water, soil, and air conditions during all Project phases. Groundwater monitoring programs will include depth to groundwater as well as groundwater contaminant assessments, including PHCs and routine parameters. The reporting obligations to relevant regulators and stakeholders during development, operation, and decommissioning will be met or exceeded.

Additional monitoring program information to be included in the EIS will include plans to verify the predicted impacts on VCs and their response to mitigation and reclamation activities. Adaptation measures to inform secondary mitigation plans will be included. The EIS will include monitoring program parameters, protocols, analyses, and schedules along with the timing and format for reporting monitoring results.

16.0 SUMMARY AND CONCLUSIONS

The summary and conclusions section included in the EIS will summarize the key technical findings of the EIA with a focus on the positive and adverse impacts to the VCs, traditional land uses, and Treaty and Aboriginal rights.

The information will likely be presented in tabular format that includes mitigations and accommodations for adversely impacted VCs (if any) and the cumulative effects of the Project. This section will also summarize the significance of residual effects and their impact on local communities, including First Nation and Métis communities.

17.0 CONDITIONS MANAGEMENT

17.1. COMMITMENTS REGISTER

The EIS will provide a detailed commitments register, as well as a plan for reporting and follow-up activities. The register will include mitigation commitments on the part of the proponent. Specific monitoring commitments will be included.

The commitment register will be built as an Excel spreadsheet, as presented in the November 2021 TOR and EIS guidance document. Each commitment will be presented in a way that ensures conformance is not subjective. Commitments will be specific, measurable, achievable, and reportable. Appropriate existing or developed guidelines will be used in determining tolerances for commitments. Guidance materials will be available to personnel responsible for implementing a commitment and to auditors and/or government agencies. Commitments in the register will be organized by VCs and will include those scoped out of the EIS if they were scoped out based on a commitment to mitigation.

17.2. REPORTING AND FOLLOW-UP

The appropriate government agencies will receive annual reports which describe progress made in meeting the commitments required by each agency.

17.2.1. Reporting to the EA Branch

Reporting on the terms and conditions of the ministerial approval will be submitted to the EA branch in an annual report. The report will provide a description of the progress made on meeting each condition under the "Condition in Approval" column of the commitments register. The annual report will be submitted by October 1st of each year, for the number of years specified in the ministerial approval letter.

17.2.2. Reporting to Other Government Agencies

Annual reporting and follow-up of commitments for regulatory requirements of other government agencies will be discussed with the appropriate agencies.

17.2.3. Content of the Report

Annual reports will be brief and will only include details regarding models, monitoring, or other data when necessary to indicate the status of a commitment, however all information will be available upon request. The body of the annual report will:

- Describe any significant accidents or spills and the responses that were taken;
- Indicate how effectively commitments are being met;
- Describe any malfunctions, including impacts of the environment on the Project that may prevent commitments from being met;
- Describe any preventative actions where a commitment is at risk of not being met;
- Describe any approved corrective actions where a commitment has not, or cannot be met;
- Justify the reasons for any commitment that might not be, or has not been met; and;
- Provide an assessment, where appropriate, on whether the commitment is sufficiently addressing the intended environmental protection or mitigation objective.

The commitments register will be updated by indicating the status of each commitment, and summarizing preventative and corrective actions and other comments. The updated commitments register will be included with each annual report. In certain cases, adaptive actions may be required where a commitment has been met but does not result in the environmental outcomes stated in the EIS.

18.0 QUALIFIED PERSONS CREDENTIALS

The following table presents the credentials of the known key personnel that will be involved in the EIA.

Personnel and Credentials	**Expected EIS Contribution/Expertise**
Bennet Awume, P.Eng.	Hydrogeology/Senior Review/Resource Management
Candace Bell, M.Sc., PMP	Senior Air Specialist
Jessica Cutter, M.Sc.	Site Assessment/Toxicology
Nalinda Dissanayake, M.Sc., P.Eng.	Geotechnical Lead
Ryan Danks, P.Eng.	Solar Glare Lead
Cameron Jackson, M.Sc., P.Biol.	Senior EA Advisor
Nyamaa Jalbuu, P.Eng.	Civil Engineering Lead
Jyotsna Kashyap, M.Sc.	Air Quality Lead
Daniel Kremer, M.Sc., P.Eng.	Noise Lead
Mary Ann Middleton, Ph.D.	Hydrology/Hydrogeology Lead
Lawrence Pinter, P.Eng.	Senior Technical Resource
Jeremi Skeleton, Dip Nat Res	Wildlife Lead
Susan Skinner, M.Sc.	EA Project Manager
Wade Sumners, M.Sc., P.Biol.	EA and Vegetation/Wetland Lead
Ty Van Camp, P.Eng.	Site Assessment/Site Remediation
Susan Skinner, M.Sc.	EA Project Manager

19.0 REFERENCES

Alberta Transportation. 2021. Assessment requirements for solar development near provincial highways.

Alberta Utilities Commission. 2024. Rule 007. Applications for power plants, substations, transmission lines, industrial system designations, hydro developments and gas utility pipelines.

Barnes, J L, M Stephenson and L H Davey. 2000. An integrated approach to cumulative environmental effects assessment, meeting the requirements of the CEAA.

Bibby, C.J, N.D. Burgess, D.A. Hill, and S.H. Mustoe. 2000. Bird census techniques, 2nd Edition. Academic Press, London.

Canadian Wildlife Service (CWS). 2007. Recommended protocols for monitoring impacts of wind turbines on birds. April 2007. Available online at: https://publications.gc.ca/site/eng/458437/publication.html

COSEWIC. 2011. COSEWIC assessment and status report on the Barn Swallow Hirundo rustica in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. Ix + 37 pp. Available online at: https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_barn_swallow_0911_eng.pdf

COSEWIC. 2013. COSEWIC assessment and status report on the Bank Swallow Riparia riparia in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. Ix + 37 pp. Available online at: https://species-registry.canada.ca/index-en.html#/species/1233-894

COSEWIC. 2018. COSEWIC assessment and status report on the Burrowing Owl Athene cunicularia in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. Ix + 37 pp. Available online at: https://species-registry.canada.ca/index-en.html#/species/20-21

Ducks Unlimited Canada. 2005. SpATS – Spatial and temporal variation in nesting success of prairie ducks, 2005 procedures manual, 4th edition (revised). Institute for Wetland and Waterfowl Research, Stonewall, Manitoba.

Ellis, J.G., Acton, D.F., Clayton, J.S., 1965. The Soils of the Regina Map Area. Saskatchewan Institute of Pedology Publication S1. Available online at: https://sis.agr.gc.ca/cansis/publications/surveys/sk/sks1/sks1_report.pdf

Filion, F.L., E. DuWors, P. Boxall, P. Bouchard, R. Reid, P.A. Gray, A. Bath, A. Jacquemot and G. Legare. 1993. The importance of wildlife to Canadians: highlights of the 1991 survey. Canadian Wildlife Service, Environment Canada. Ottawa, ON.

Government of Saskatchewan's First Nation and Métis Consultation Policy Framework, June 2010. https://www.saskatchewan.ca/-/media/news-archive/2010/june/15/province-releases-consultation-policy-framework/cpf-final.pdf

Government of Saskatchewan, 2021. 20.0 Vascular Plant Survey Protocol. 2021. Saskatchewan Ministry of Environment, Fish, Wildlife and Lands Branch, Regina, Saskatchewan, Canada

Hamel, P.B, W.P. Smith, D.J. Twedt, J.R. Woehr, E. Morris, J.R. Hamilton, and R.J. Cooper. 1996. A land manager's guide to point counts of birds in the southeast. General Technical Report SO-129. Asheville, NC: USDA Forest Service, Southern Research Station.

McIlvenna Bay Project Revised Technical Proposal and Terms of Reference. September 2022

MDH Engineered Solutions Corp, Hydrogeology Mapping of NTS Mapsheet Regina 72I, May 2013.

Stewart, R.E. and H.A. Kantrud. 1971. Classification of natural ponds and lakes in the glaciated prairie region. Bureau of Sport Fisheries and Wildlife, U.S. Fish and Wildlife Service, Washington, D.C. Resource Publication 92

Ralph, C.J., G.R. Geupel, P. Pyle, T.E. Thomas, D.F. DeSante. 1993. Handbook of field methods for monitoring landbirds. Gen. Tech. Rep. Albany, CA: Pacific Southwest Research Stations, Forest Service, U.S. Department of Agriculture

Saskatchewan Ministry of Environment (MOE). 2012. Saskatchewan Air Quality Modelling Guideline. Available at: http://publications.gov.sk.ca/documents/66/80061-English.pdf

Saskatchewan Ministry of Environment (MOE). 2022. Guidelines for the Terms of Reference and Environmental Impact Statement. Available at: https://www.saskatchewan.ca/business/environmental-protection-and-sustainability/environmental-assessment/does-my-project-need-an-environmental-assessment.

Saskatchewan Ministry of Environment (MOE). 2014a. Amphibian auditory survey protocol, Fish and Wildlife Branch Technical Report No.2014-1.0. 3211 Alberta Street, Regina, Saskatchewan

Saskatchewan Ministry of Environment (MOE). 2014b. Amphibian visual survey protocol. Fish and Wildlife Technical Report No. 2014-2.0. 3211 Alberta Street, Regina, Saskatchewan

Saskatchewan Ministry of Environment (MOE). 2014c. Grassland bird survey protocol. Fish and Wildlife Branch Technical Report No.2014-9. 3211 Alberta Street, Regina, Saskatchewan.

Saskatchewan Ministry of Environment (MOE). 2014d. Snow track survey protocol. Fish and Wildlife Technical Report No. 2014-19. 3211 Alberta Street, Regina, Saskatchewan

Saskatchewan Ministry of Environment (MOE). 2015. Activity restriction guidelines for sensitive species. Ministry of Environment, Fish and Wildlife. Regina, Saskatchewan. https://publications.saskatchewan.ca/#/products/79241

Saskatchewan Environmental Code 2015. Available at https://publications.saskatchewan.ca/#/categories/69

Saskatchewan Ministry of Environment (MOE). 2021. Species Detection Survey Protocol: 20.0 Vascular Plant. June 2021 Update. Fish, Wildlife and Lands Branch. Regina, Saskatchewan. https://publications.saskatchewan.ca/#/products/79238

Saskatchewan Ministry of Environment (MOE). 2024. Saskatchewan Environmental Quality Guidelines. Available at https://environment-quality-guides.saskatchewan.ca/.

Species At Risk Public Registry (SARPR). Public registry. Environment Canada, Ottawa, Ontario. Available online at: https://www.registrelep-sararegistry.gc.ca/species/schedules_e.cfm?id=1.

Stantec Blue Hill Wind Energy Project Terms of Reference. 2016

Stewart, R.E. and H.A. Kantrud. 1971. Classification of Natural Ponds and Lakes in the Glaciated Prairie Region. Bureau of Sport Fisheries and Wildlife, U.S. Fish and Wildlife Service, Washington, D.C., USA. Resource Publication 92. 57 pp.

United States Fish and Wildlife Service and Canadian Wildlife Service (USFWS and CWS). 1987. Standard operating procedures for aerial waterfowl breeding ground population and habitat surveys in North America; revised. Unpublished report

Warner, B and Rubec, C. 1997. The Canadian Wetland Classification System. National Wetlands Working Group. Waterloo, Ontario.

PINTER & ASSOCIATES LTD

Appendix A

HABISask Screening Report

Project Screening Report

Notes:

Report Generated
05/24/2024

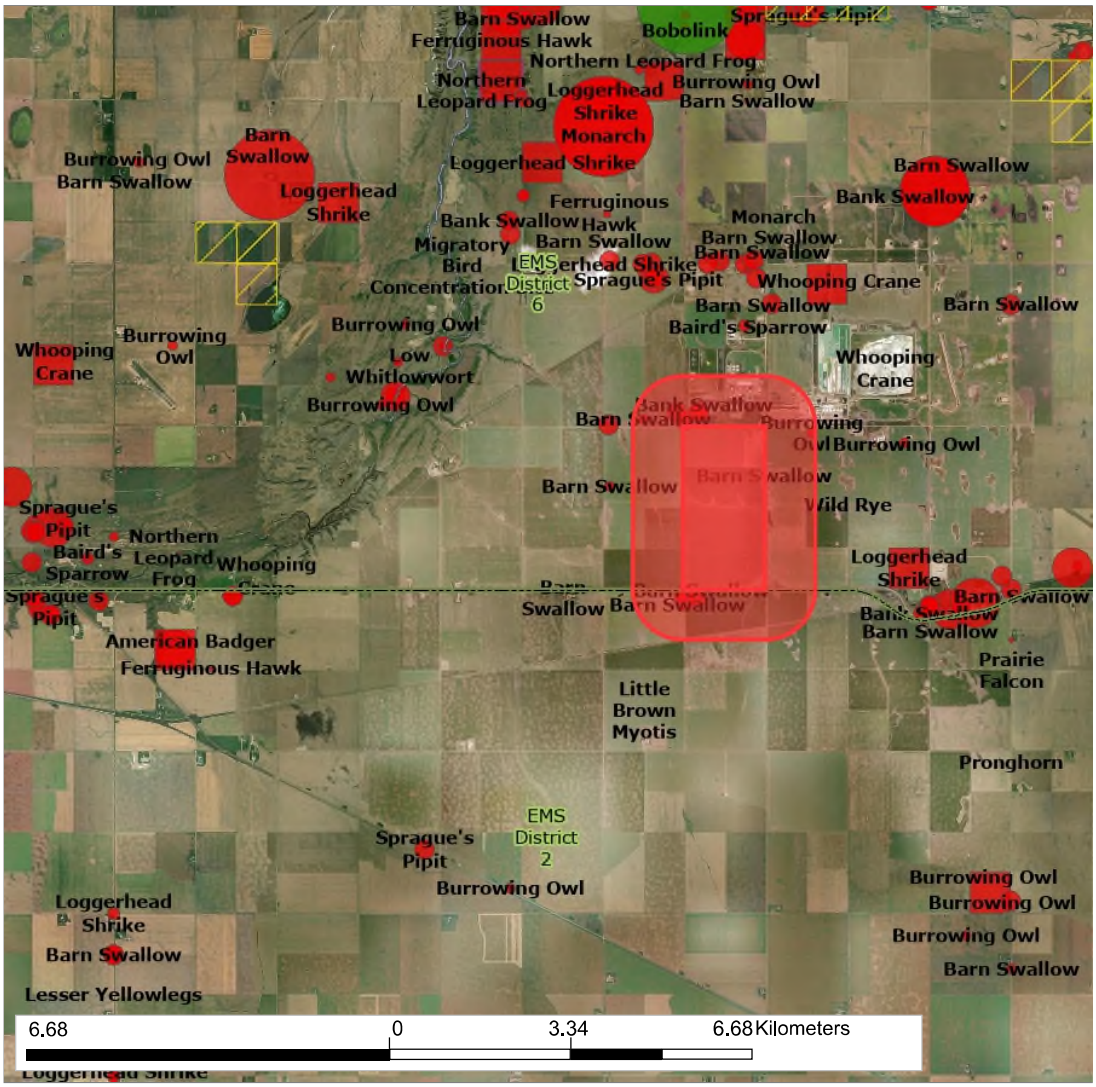
Map Information

Buffer Size:

1 Kilometers

Coordinates:
Lat: 50.41132° N
Lon: -105.22577° W

Area of Interest



Screened Areas:

- Ecological Management Specialists (EMS) District
- Compliance & Field Service (CFS) Area
- Compliance & Field Service (CFS) Region
- Area Fisheries Ecologists Area(s)
- Area Wildlife Ecologist(s)
- Rural Municipality
- First Nation Reserve
- AG Crown Land Management Specialist Districts
- Rare and Endangered Species
- Fish Species
- Woodland Caribou Range
- Species Predictive Models
- Whooping Crane Corridor
- Barren-ground Caribou
- Federal Critical Habitat
- Proposed Critical Habitat
- Wind Energy Avoidance Zones
- Important Natural Areas
- Provincial Parks
- Recreation Sites
- Game Preserves
- RC Game Preserve
- National Wildlife Areas
- Federal Pastures
- Wildlife Habitat Protection Act Lands
- Fish & Wildlife Development Fund Lands
- Migratory Bird Sanctuary
- Wildlife Refuge
- Conservation Easements
- Crown Conservation Easements
- Ecological Reserves
- Ramsar Wetlands
- Reservoir Development Areas
- Representative Areas
- Special Management Areas

Government of Saskatchewan

Project Screening Report

HABISask hunting | angling | biodiversity

Species Likely to be Present

Known Species

"Known" species are species that have known occurrences in the area from the Saskatchewan Conservation Data Centre's Rare and Endangered Species map layer. However, absence of species observation records does not preclude the existence of species in the area of interest. Observations may simply not have been recorded for the given area or may not have yet been entered into the ministry data holdings – new observation records are continuously being discovered. Information accessible through HABISask is not intended to be a definitive statement on the presence, absence or status of a species within a given area, nor as a substitute for onsite surveys.

Rare and Endangered Species

Category: Vertebrate Animal

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations
Bank Swallow	*Riparia riparia*	G5	N4B,N5M	S4B,S5M	Threatened	Threatened	
Barn Swallow	*Hirundo rustica*	G5	N4N5B	S4B	Special Concern	Threatened	
Burrowing Owl	*Athene cunicularia*	G4	N2B	S2B	Endangered	Endangered	Endangered

Expected Species

"Expected" is based on a modelled prediction if a species might occur in areas based upon developed statistical relationships between local and landscape characteristics and species presence. Models utilized by this report have only been created in the prairie ecozone for a selection of species. The boreal plain, boreal shield and taiga shield will not return any expected species results. Models are not a substitute for on the ground surveys to determine species presence.

Species Predictive Models

Category: Vertebrate Animal

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations
American Badger	*Taxidea taxus taxus*	G5T5	N4	S3	Special Concern	Special Concern	
Baird's Sparrow	*Centronyx bairdii*	G4	N4B,N4M	S4B	Special Concern	Special Concern	
Bank Swallow	*Riparia riparia*	G5	N4N5B, N5M	S4B,S5M	Threatened	Threatened	
Bobolink	*Dolichonyx oryzivorus*	G5	N5B, N4N5M	S5B	Special Concern	Threatened	
Burrowing Owl	*Athene cunicularia*	G4	N2B	S2B	Endangered	Endangered	Endangered
Common Nighthawk	*Chordeiles minor*	G5	N4N5B, N5M	S4B	Special Concern	Special Concern	
Ferruginous Hawk	*Buteo regalis*	G4	N3B,N2M	S3B	Special Concern	Threatened	
Golden Eagle	*Aquila chrysaetos*	G5	N4N5B, N4N5N	S3B,S3N, S4M	Not at Risk		
Horned Grebe	*Podiceps auritus*	G5	N5B, N4N5N	S5B	Special Concern	Special Concern	
Lark Bunting	*Calamospiza melanocorys*	G5	N2B	S2B	Threatened	Threatened	
Loggerhead Shrike	*Lanius ludovicianus excubitorides*	G4T4	N3B	S3B	Threatened	Threatened	
Northern Harrier	*Circus hudsonius*	G5	N5B,N4N	S4B	Not at Risk		
Northern Leopard Frog	*Lithobates pipiens*	G5	N5	S3	Special Concern	Special Concern	
Piping Plover	*Charadrius melodus circumcinctus*	G3T3	N3B	S3B	Endangered	Endangered	Endangered
Prairie Falcon	*Falco mexicanus*	G5	N3B,N4N, N3M	S3B,S3N	Not at Risk		
Short-eared Owl	*Asio flammeus*	G5	N4B,N3N, N4M	S3B,S2N	Threatened	Special Concern	
Sprague's Pipit	*Anthus spragueii*	G3G4	N3N4B	S3B	Threatened	Threatened	

Fish Species by Watershed

All fish species expected to be in any watershed that intersects the area searched are provided and their presence in the direct project area will depend on habitat.

Watershed: Moose Jaw River

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations

Watershed: Moose Jaw River

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations
Bigmouth Buffalo	*Ictiobus cyprinellus*	G5	N5	S3	Special Concern	Special Concern	
Brook Stickleback	*Culaea inconstans*	G5	N5	S5			
Brook Trout	*Salvelinus fontinalis*	G5	N5B,N5N, N5M	SNA			
Fathead Minnow	*Pimephales promelas*	G5	N5	S5			
Northern Pike	*Esox lucius*	G5	N5	S5			
Pearl Dace	*Margariscus nachtriebi*	G5	N5	S5			
River Shiner	*Notropis blennius*	G5	N5	S3			
Walleye	*Sander vitreus*	G5	N5	S5			
White Sucker	*Catostomus commersonii*	G5	N5	S4			
Yellow Perch	*Perca flavescens*	G5	N5	S5			

Whooping Crane Corridor 50% Core Area

Whooping Crane Corridor 95% Core Area

Whooping Crane Corridor 75% Core Area

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations

Species with Critical Habitat Present

This dataset displays the geographic areas within which federal Critical Habitat for species at risk listed on Schedule 1 of the federal Species at Risk Act (SARA) occurs in Saskatchewan. Please be aware that not all of the area within these boundaries is necessarily Critical Habitat. To determine if a specific area is Critical Habitat and if your activity might be considered “destruction” of Critical Habitat, other information available in each individual species’ Recovery documents (http://www.sararegistry.gc.ca) need to be considered, including biophysical attributes and activities likely to result in destruction of Critical Habitat.

Note that recovery documents (and therefore Critical Habitat) may be amended from time to time. Species are added as the data becomes ready, which may occur after the recovery document has been posted on the SAR Public Registry. Although HABISask will try to provide the latest data, the SAR Public Registry should always be considered as the official source for Critical Habitat information.

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations
No Critical Habitat found							

Proposed Critical Habitat Present

This section identifies federally proposed critical habitat that is up for consultation as per the information contained within the federal recovery strategies developed under the federal Species at Risk Act (SARA). This information on location of critical habitat is intended for reference by landowners and/or lease holders. Shapefiles or additional maps of critical habitat can be obtained by contacting Environment and Climate Change Canada at ec.leprpn-sarapnr.ec@canada.ca.

Common Name	Scientific Name:	G Rank	N Rank	S Rank	COSEWIC	SARA Status	Wild Species at Risk Regulations
No Critical Habitat found							

Managed Areas

Managed areas are a diverse collection of lands and waters on which the conservation of biodiversity and ecosystem function are among the goals of the land management programs. Each of the unique or sensitive landscapes, within the network of managed areas, have some level of protection or activity restrictions placed on them by legislation, agreement or policy. These lands include provincial and national parks, ecological reserves, wildlife lands, game preserves, conservation easements and other privately held stewardship lands.

Provincial Park
Nothing Found

Game Preserve
Nothing Found

National Wildlife Area
Nothing Found

Wildlife Habitat Protection Act (WHPA)
Nothing Found

Recreation Site
Nothing Found

Road Corridor Game Preserve
Nothing Found

Pasture Boundary
Nothing Found

Fish & Wildlife Development Fund (FWDF)
Nothing Found

Migratory Bird Sanctuary

Nothing Found

Wildlife Refuge

Nothing Found

Conservation Easement

Nothing Found

Crown Conservation Easement

Nothing Found

Ecological Reserve

Nothing Found

Ramsar Wetland

Nothing Found

Reservoir Development Area

Nothing Found

Representative Area Ecological Reserve

Nothing Found

Special Management Area

Nothing Found

Project Screening Report

Rare and Endangered Species Occurrences

The absence of information provided by the Saskatchewan Conservation Data Centre (SKCDC) does not categorically mean the absence of sensitive species or features. The quantity and quality for data collected by the SKCDC are dependent on the research and observations of many individuals and organizations. SKCDC reports summarize the existing natural heritage information, known to the SKCDC, at the time of the request.

SKCDC data should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. The user therefore acknowledges that the absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

Occurrence ID: 6871
First Observation:
Occurrence Class: Vertebrate Animal
Last Observation:
Scientific Name: Athene cunicularia
Common Name: Burrowing Owl
Occurrence Rank: E - Verified extant (viability not assessed)
General Description:
Occurrence Data:
Directions:

Occurrence ID: 9999122047
First Observation: 2019-07-04
Occurrence Class: Vertebrate Animal
Last Observation: 2019-07-04
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: 4 Adult(s) Unknown Sex; (2019)
Occurrence Data:
Directions: 13UDR88.03

Occurrence ID: 9999126063
First Observation: 2019-06-23
Occurrence Class: Vertebrate Animal
Last Observation: 2019-06-23
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: Breeding Bird Status: H; (2019)
Occurrence Data:
Directions: Point Count #7

Occurrence ID: 9999139624
First Observation: 2021-06-13
Occurrence Class: Vertebrate Animal
Last Observation: 2021-06-13
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: 1 Unknown Sex/Age; Breeding Bird Status: Ft; (2021)
Occurrence Data:
Directions:

Occurrence ID: 9999116923
First Observation: 2015-07-14
Occurrence Class: Vertebrate Animal
Last Observation: 2015-07-14
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: Species detected (2015)
Occurrence Data:
Directions: Kalium Road

Occurrence ID: 9999121740 **First Observation:** 2019-06-23
Occurrence Class: Vertebrate Animal **Last Observation:** 2019-06-23
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: 6 Adult(s) Unknown Sex; (2019)
Occurrence Data:
Directions: 13UDR88.07

Occurrence ID: 9999126061 **First Observation:** 2019-06-23
Occurrence Class: Vertebrate Animal **Last Observation:** 2019-06-23
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: 1 Adult(s) Unknown Sex; Breeding Bird Status: H; (2019)
Occurrence Data:
Directions: Treed area by P.C. #3

Occurrence ID: 9999126059 **First Observation:** 2019-06-23
Occurrence Class: Vertebrate Animal **Last Observation:** 2019-06-23
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: 3 Adult(s) Unknown Sex; Breeding Bird Status: H; (2019)
Occurrence Data:
Directions: Square pond by P.C. #7

Occurrence ID: 9999126133 **First Observation:** 2019-07-04
Occurrence Class: Vertebrate Animal **Last Observation:** 2019-07-04
Scientific Name: Hirundo rustica
Common Name: Barn Swallow
Occurrence Rank:
General Description: Breeding Bird Status: H; (2019)
Occurrence Data:
Directions: Point Count 3

Occurrence ID: 9999126326 **First Observation:** 2019-06-23
Occurrence Class: Vertebrate Animal **Last Observation:** 2019-06-23
Scientific Name: Riparia riparia
Common Name: Bank Swallow
Occurrence Rank:
General Description: 6 Adult(s) Unknown Sex; Breeding Bird Status: H; (2019)
Occurrence Data:
Directions: Square pond by P.C. #7

Project Screening Report

Wild Species Research Permitting

A Research Permit is required to detect or observe plants or wildlife for commercial purposes, such as pre-screening surveys to collect baseline data or other activities, or to conduct academic research. Research Permits are not required if you are doing surveys for personal, recreational, educational or other non-commercial purposes. Revisions were made to Section 21 of The Wildlife Act in 2015 and to Section 6.2 of The Wildlife Regulations in 2016.

See the Government of Saskatchewan Wild Species Research Permitting page for more information.

All forms and related information pertaining to Research Permits can be found in the Publications Centre. Be sure to check out the Conservation Standards Terms and Conditions for Research Permits for general, wildlife and research-specific and information submission conditions that pertain to all research permits.

Subscribe to our Mail-out List Subscriptions for updates regarding Species Detection Permits, SKCDC Lists and Ranks, Legislation and Policy and HABISask.

Species Detection Survey Protocols

The Species Detection Survey Protocols are used to detect rare and sensitive species so Activity Restriction Guidelines can be applied. Their use is required by industry/ environmental consultants for proposed or existing commercial activities.

Activity Restriction Guidelines for Sensitive Species

The Activity Restriction Guidelines for Sensitive Species outline restricted activity periods and distance setbacks for rare and sensitive species to assist proponents in minimizing impacts to rare and sensitive species and habitats.

Administrative Areas

District 2	Ecological Management Specialist (EMS) District(s)
District 6	Ecological Management Specialist (EMS) District(s)
Moose Jaw	Compliance and Field Services Area(s)
Swift Current	Compliance and Field Services Region(s)
South East	Area Fisheries Ecologist Area(s)
GRASSLAND REGION	Area Wildlife Ecologist(s)
160 - PENSE	Rural Municipality
Nothing Found	First Nation Reserve
District 10	AG Crown Land Management Specialist District

Contact Us

For more information, please contact our Client Service Office:
Email: centre.inquiry@gov.sk.ca
Tel (toll free in North America): 1-800-567-4224
Tel (Regina): 306-787-2584

Appendix B

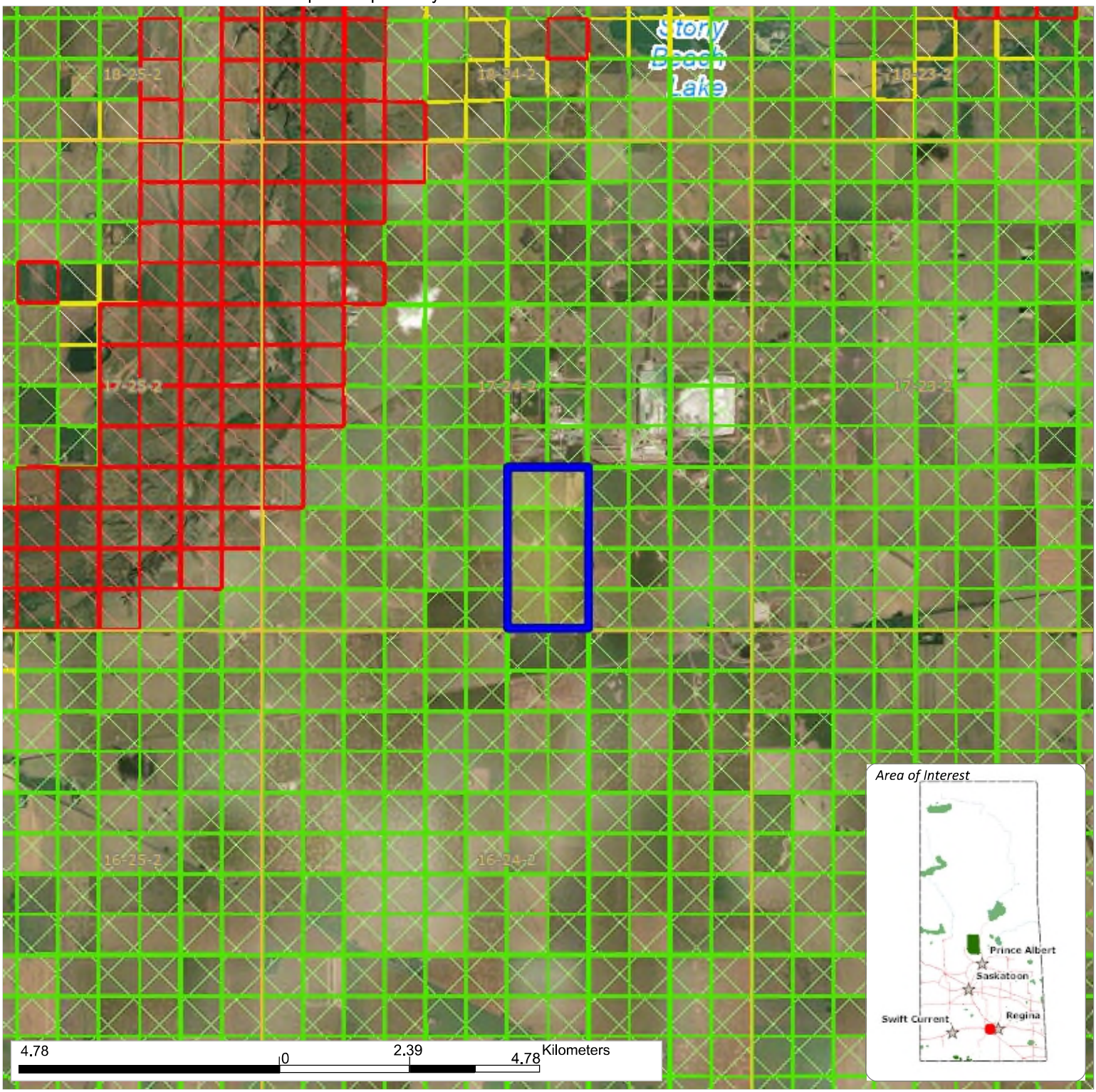
Heritage Screening Report

Heritage Sensitivity Screening Report

Sensitivity: **This selection is Not Heritage Sensitive.**

You have indicated that the development will not be impacting undisturbed land within the road allowance. This development has heritage clearance to proceed. Do not submit this project to the Heritage Conservation Branch. Keep this report for your records.

Report Generated
May/24/2024 1:54 PM



Heritage Sensitivity Screening Report

Parcel Description	Sensitivity	Parcel Description	Sensitivity
SE-10-17-24-2	N	SW-11-17-24-2	N
SW-03-17-24-2	N	NW-10-17-24-2	N
NW-03-17-24-2	N	SW-10-17-24-2	N
SE-03-17-24-2	N	NE-03-17-24-2	N
SW-02-17-24-2	N	NW-11-17-24-2	N
NW-02-17-24-2	N	NE-10-17-24-2	N

Sensitivity Legend:

Y = Heritage Sensitive, C = Conditionally Heritage Sensitive, N = Not Heritage Sensitive, Blank = Heritage Sensitive.

When the parcel description and sensitivity listing is blank, the project is outside of the quarter sections screened for sensitivity. All projects within these areas are automatically heritage sensitive and require review.

If needed, please complete the appropriate referral form and submit the project to the Heritage Conservation Branch for further screening. Project referrals must be accompanied by survey plans. The Screening Report can be saved and/or printed for your records, but does not need to be submitted as part of the referral. https://www.saskatchewan.ca/residents/parks-culture-heritage-and-sport/heritage-conservation-and-commemoration/archaeology/submit-your-land-and-resource-proposal-for-a-heritage-review

Disclaimer:

Attention landowners: The majority of small scale activities that involve improvements to, or maintenance of, private property usually have little or no impact on archaeological heritage resources. Access the Exempt Activities Checklist for Private Landowners to determine if your proposed activity is exempt from archaeological heritage screening using the Developers' Online Screening Tool. If the activity is exempt, please retain a copy (paper or electronic) of the completed Exempt Activities Checklist for Private Landowners for your records. Include the completed checklist with any applications for regulatory approvals or permits that may be required for the proposed activity to confirm that heritage concerns have been addressed.

Exempt Activities Checklist: https://applications.saskatchewan.ca/eachecklist

Contact us:

For more information, please contact the Heritage Conservation Branch:

Email: arms@gov.sk.ca

Tel 306-787-2817.