



Deermound Dog Park Expansion

DESKTOP ENVIRONMENTAL SCREENING REPORT

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NE-13-052-23-W4M
2024-10-18, 6:17:23 p.m.

Table of Contents

1 - Project Setting	3
Municipalities	3
Treaty Boundaries	3
Green/White Areas	3
Natural Subregions	3
Disclaimer	3
2 - Summary of Environmental Issues and Requirements	5
3 - Wetlands	8
Alberta Merged Wetland Inventory	8
Wetland Types	9
<i>Fen</i>	9
<i>Swamp</i>	9
<i>Marsh</i>	10
<i>Shallow Open Water</i>	10
Alberta Biodiversity Monitoring Institute Wetland Inventory	10
Setbacks	10
Municipal	10
Master Schedule of Standards and Conditions	10
Regulatory Requirements	11
4 - Watercourses and Fish Habitat	13
Watercourse Inventory	13
Fish and Fish Habitat	13
Critical Habitat	13
Setbacks	13
Regulatory Requirements	14
5 - Wildlife	16
Wildlife Sensitive Layers	16
Sensitive Raptors	16
Sharp-Tailed Grouse	17
Prior to Construction	17
Regulatory Requirements	18
6 - Rare Element Occurrences and Endangered and Threatened Rare Plant Range	19
Rare Element Occurrences	19
Endangered and Threatened Plant Range	20

Regulatory Requirements	20
7 - Historical Resources	21
Listing of Historic Resources	21
Regulatory Requirements	21
8 - Environmentally Significant Areas	23
Environmentally Significant Areas Results	23
9 - References	24

Section 1 - Project Setting

1.1 Municipalities

The Project is located within the geo-administrative boundary of STRATHCONA COUNTY.

1.2 Treaty Boundaries

The Project is located within the boundary of Treaty 6 (1876).

1.3 Green/White Areas

Green areas are generally indicative of forested or non-forested crown land, white areas are generally indicative of private agricultural land or settled land (AEP, 2023). It is recommended to run a titles search once the final project location has been determined. Searches can be done at the following website:

<https://www.alberta.ca/search-surface-public-land-and-crown-mineral-disposition-and-activities>

Green/White Area Results:

White Area

1.4 Natural Subregions

Natural subregions are mapped ecological units which are characterized by climate, vegetation, and elevation (Natural Regions Committee, 2006).

Natural Subregions Results:

Central Parkland

It includes all or parts of Alberta's three largest cities, and arches north from Calgary through Edmonton and east to the Alberta–Saskatchewan border. The dominant landforms include rolling till plains and hummocky uplands. Almost all the area is cultivated, and only about 5% of the Central Parkland Natural Subregion remains in native vegetation with a mosaic of Aspen (*Populus tremuloides*) and prairie vegetation occurring in remnant native parkland areas.

Orthic Black Chernozems are associated with grasslands and open woodlands. Solonetzic soils occupy about 15% of the central plain, with a further 20 to 30% of soils having Solonetzic characteristics. Thickness of the humus layers ranges from 15 cm at the southern limits of the Natural Subregion, to about 30 cm in the north. Forested areas commonly have Orthic Dark Grey Chernozemic and Dark Gray Luvisolic soils. Humic and Orthic Gleysols are the most common soil types associated with wetlands.

Wetlands cover about 10% of the Central Parkland Natural Subregion.

1.5 Disclaimer

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1.5.1 Wetlands

Alberta Merged Wetland Inventory

The Alberta Merged Wetland Inventory is a generalized merger of numerous other wetland inventories

that use different source data from varying years, methodologies, and classifications. As a result, there is considerable variation in the accuracy and level of detail found in these data sources. There is no guarantee that the information provided by this inventory is correct, accurate or free from error. The information provided has not been field confirmed. This inventory has not been developed with the intention of replacing site-specific or local information.

Alberta Biodiversity Monitoring Institute Wetland Inventory

There is no guarantee that the information provided by this inventory is complete, accurate, error free, or up to date. The information provided is based on as is and as available data. There is no guarantee that the information provided is suitable for an individual's purpose. The level of accuracy varies, and some smaller sized wetlands have been missed. The information provided has not been field confirmed.

1.5.2 Watercourses

There is no guarantee that the information provided by this inventory is complete, accurate, error free, or up to date. The information provided is based on as is and as available data. The information provided has not been field confirmed.

1.5.3 Plants and Wildlife

It should be noted that the results of any database searches only identify species of conservation concern (plant or wildlife) that have been previously recorded. The results of these searches should not be used as a conclusion on the presence or absence of species of conservation concern.

1.5.4 Master Schedule of Standards and Conditions

The Master Schedule of Standards and Conditions provides procedural standards, mitigation measures, and setbacks for specific environmental features depending on the type of disposition or activity being proposed on Crown land. Many of these same standards and conditions are recommended to be applied to proposed projects located on private land as Best Management Practices.

Section 2 - Summary Environmental Issues and Requirements

DISCLAIMER: The following environmental features can impact Project timelines – please see Sections 3 to 8 for detailed requirements. This is a desktop assessment only using provincially available data, and it is recommended to engage an environmental professional to confirm mitigation measures and timelines.

Environmental Constraint	Project Interaction	Requirement Summary
Wetlands – Marshes and Open Water	YES	Water Act - Wetland Assessment and Impact Form (WAIF) – For temporary disturbances, low risk permanent disturbances, or new builds (wellsites) with a commitment to reclaim. Water Act – Wetland Assessment and Impact Report (WAIR) – For high-risk permanent disturbances. Code of Practice (COP) Notification and WAIF required for pipelines, watercourse/waterbody crossings, outfall structures, and powerlines. Setbacks may be required. Consult an Authenticating Wetland Professional to confirm requirements. See Section 3 for details.
Wetlands – Swamps, Bogs and Fens	YES	Water Act - Wetland Assessment and Impact Form (WAIF) – For temporary disturbances, low risk permanent disturbances, or new builds (wellsites) with a commitment to reclaim. Water Act – Wetland Assessment and Impact Report (WAIR) – For high-risk permanent disturbances. COP Notification and WAIF required for powerlines. Setbacks may be required. Consult an Authenticating Wetland Professional to confirm requirements. See Section 3 for details.
Watercourses	NO	No anticipated requirements. Consult a Qualified Aquatic Environment Specialist to confirm requirements.
Fish and Fish Habitat	NO	No anticipated requirements. Consult a Qualified Aquatic Environment Specialist to confirm requirements.
Sensitive Amphibian Ranges	NO	No anticipated requirements.

		Consult a Professional Wildlife Biologist to confirm requirements.
Short-horned Lizard Range and Habitat	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Sensitive Snake Habitat and Sensitive Hibernacula Range	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Burrowing Owl Range	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Sensitive Raptors	YES	Species specific surveys may be required. Wildlife sweeps required within 10 days of clearing or construction activity, timing restrictions and setbacks may apply. See Section 5 for details. Consult a Professional Wildlife Biologist to confirm requirements.
Sharp-Tailed Grouse	YES	Species specific surveys may be required. Wildlife surveys must be completed between March 15 and May 15, additional timing restrictions and setbacks may apply. Wildlife sweeps required within 10 days of clearing or construction activity, timing restrictions and setbacks may apply. See Section 5 for details. Consult a Professional Wildlife Biologist to confirm requirements.
Piping Plover	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Greater Sage Grouse	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Trumpeter Swan and Trumpeter Swan Waterbodies	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Colonial Nesting Birds and Waterbodies	NO	No anticipated requirements.

		Consult a Professional Wildlife Biologist to confirm requirements.
Caribou Zones	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Grizzly Bears	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Mountain Goats, Bighorn Sheep	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Swift Fox	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Ords Kangaroo Rat Range	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Key Wildlife and Biodiversity Zone	NO	No anticipated requirements. Consult a Professional Wildlife Biologist to confirm requirements.
Rare Plants/Endangered and Threatened Plants Range	NO	No anticipated requirements. Consult a Professional Vegetation Ecologist to confirm requirements.
Historic Resource Values	YES	Requires an approval under the Historical Resources Act. A Professional Archaeologist should be consulted to confirm requirements. See Section 7 for details.
Environmentally Significant Areas	NO	No anticipated requirements. A Professional Biologist should be consulted to confirm requirements.

Section 3 - Wetlands

This section identifies in detail which quarter sections impact which environmental features and lists the recommendations to go along with each feature. It is recommended that an Authenticating Wetland Professional be consulted to confirm these features.

3.1 Disclaimer

The information provided in this document is meant for planning purposes only. The information provided in this report and the report itself cannot be used for regulatory applications or for construction purposes. AERAS cannot guarantee the accuracy of the information provided. As such, it is highly recommended that an appropriate professional is consulted.

3.1.1 Alberta Merged Wetland Inventory

The Alberta Merged Wetland Inventory is a generalized merger of numerous other wetland inventories that use different source data from varying years, methodologies, and classifications. As a result, there is considerable variation in the accuracy and level of detail found in these data sources. There is no guarantee that the information provided by this inventory is correct, accurate or free from error. The information provided has not been field confirmed. This inventory has not been developed with the intention of replacing site-specific or local information.

3.1.2 Alberta Biodiversity Monitoring Institute Wetland Inventory

There is no guarantee that the information provided by this inventory is complete, accurate, error free, or up to date. The information provided is based on as is and as available data. There is no guarantee that the information provided is suitable for an individual's purpose. The level of accuracy varies, and some smaller sized wetlands have been missed. The information provided has not been field confirmed.

3.2 Alberta Merged Wetland Inventory

The search has identified potentially 71 wetlands within the search area according to the Alberta Merged Wetland Inventory. They are of the following types:

Fen - 7
Marsh - 46
Open Water - 5
Swamp - 13



AMWI Wetlands in NE-13-052-23-W4M

3.2.1 Wetland Types

Fen

- Peatland with surface or subsurface water flow that range from moderately-acidic to basic
- Accumulation of peat (decomposed sedge or brown moss peat)
- Surface is level with the water table, with water flow on the surface and through the subsurface
- Fluctuating water table which may be at, or a few centimeters above or below the surface
- Graminoids, trees and shrubs characterize the vegetation cover

Swamp

- Mineral wetland with water levels near, at or above the ground surface for variable periods during the year
- May have an accumulation of peat up to 40 cm thick (highly decomposed woody peat and organic material)

- Contains either more than 25% tree cover of a variety of species or more than 25% shrub cover
- Coniferous or deciduous trees or tall shrubs

Marsh

- Mineral wetland with water levels near, at or above the ground surface for variable periods during the year
- Shallow surface water
- Graminoid vegetation in the deepest portion of the wetland in the majority of years
- Little accumulation of organic material and peat of aquatic plants
- Emergent aquatic vegetation, largely rushes, cattails, reeds, grasses, and sedges with some floating aquatic plants

Shallow Open Water

- Mineral wetland with water levels near, at or above the ground surface for variable periods during the year
- Less than 2 m deep at midsummer
- Contains an open water zone in the deepest wetland zone covering greater than 25% of the total wetland area in the majority of years
- Accumulation of organic material

3.3 Alberta Biodiversity Monitoring Institute Wetland Inventory

Not implemented

3.4 Setbacks

3.4.1 Municipal

Different municipalities may require specific setbacks for wetlands depending on the proposed activity. Many have setback requirements starting around 30 m from the edge of a wetland. Some setback modifiers may be applied based on slope, adjacent cover type, and hydraulic connectivity. It is recommended to double check your local municipality for to determine if a project-specific setback from the edge of a wetland is required.

3.4.2 Master Schedule of Standards and Conditions

The Master Schedule of Standards and Conditions provides recommended setbacks for specific wetland types depending on the type of disposition or activity being proposed. Although these setbacks apply to oil and gas projects located on Crown land it is recommended that they be applied on private land as well.

- Temporary marsh wetlands – 15 m
- Seasonal marsh and shallow open water wetlands – 45 m
- Semi-permanent and permanent marsh and shallow open water wetlands – 100 m

There are no recommended setbacks for swamps, fens, or bogs (Government of Alberta 2024)

Additional Master Schedule of Standards and Conditions Recommendations

- *"The Disposition Holder must construct the activity and conduct its operations and reclaim any disturbed land in accordance with the approved Wetland Assessment and Impact Report or Wetland Assessment and Impact Form that forms part of this Disposition or as otherwise approved in writing by the Regulatory Body.*
- *The holder must not interrupt natural drainage, including ephemeral wetlands and fens, block water flow or alter the water table.*
- *The Disposition Holder must not interrupt natural drainage, (including ephemeral wetlands and fens*) block water flow or deposit or place debris*, soil or other deleterious material* into or through any watercourse and/or water body.*

- *The Disposition Holder must install bird deterrents on all power lines above and adjacent to wetlands.*
- *Within Sensitive Amphibian ranges, the Holder must not conduct any activities in areas within 100 m of any wetland.*
- *The Disposition Holder must not conduct any peat extraction activities within 800 m of a known or identified Trumpeter Swan watercourse or water body and associated wetland* complexes.”*
(Government of Alberta 2024).

3.5 Regulatory Requirements

3.5.1 Water Act

The Water Act manages Alberta’s water resources. Through Alberta Environment and Protected Areas (AEPA), the Act governs activities affecting waterbodies in Alberta (including wetlands). An approval under the Water Act is required to alter flow levels of water; change the location of water; change the direction of water flow, cause the siltation of water; cause erosion of bed or shore of any waterbody; or any effect on the aquatic environment. A Water Act License is required for the consumptive use of water.

Within the Water Act several activities fall under the guidance of Code of Practice (COP) Notifications. A COP has been established for all vehicle and equipment crossings, pipeline and telecommunication line crossings, temporary diversion of water for hydrostatic testing, as well as outfall structures. Notification must be submitted to AEPA at least 14 days prior to construction. For activities that are not regulated under a COP, a Water Act Approval is required, which may include a review by the Water Boundary Group from the Public Lands Act and consideration under the Alberta Wetland Policy.

3.5.2 Public Lands Act

The Public Lands Act requires surface disposition be issued for the use of all public lands in Alberta. The Act is responsible for administering lands owned by the Crown. Under Section 3 of the Act, public lands include the bed and shore of all permanent and naturally occurring waterbodies, including wetlands, unless the title has been granted to a private landowner. The Water Boundary Group of AEPA makes a determination of Crown claimed waterbodies under the Public Lands Act. All watercourses are assumed to be claimed by the Crown; however, all reasonably permanent wetlands must be submitted to the Water Boundary group for determination of Crown ownership. Additionally, authorization is required for the alteration of or work within a Crown-owned waterbody: 1) a Department License of Occupation (DLO) for permanent infrastructure or alterations and/or 2) a Temporary Field Authorization (TFA)/Regulator Temporary Field Authorizations (RTF) for temporary activities, such as construction.

3.5.3 Wetland Policy

The Alberta Wetland Policy was implemented in 2015 for private land and 2016 for public land. The goal of the Policy is to conserve, restore protect and manage Alberta’s wetlands.

For activities that that do not fall under a Code of Practice or are not designated as low-impact (e.g., infilling wetlands), wetlands must be classified using the Alberta Wetland Classification System and assigned an ecological wetland value using the Alberta Wetland Rapid Evaluation Tool – Actual (ABWRET-A). This standardized method must be performed by an Authenticating Wetland Professional (AWP) to ensure that wetland replacement considers both specific wetland function and loss of area.

A Wetland Assessment and Impact Report (WAIR) must be prepared according to the relevant Directive and submitted with a Water Act application. Any replacement for wetland disturbance (or loss) will eventually be directed toward county and municipal-level agencies to assist with its sustainability planning and restoration efforts.

For activities that fall under a Code of Practice or for activities designated as low impact by the Wetland Policy, wetlands must be classified and delineated using the Alberta Wetland Classification System and associated directives. Additionally, a Wetland Assessment and Impact Form (WAIF) must be submitted with the appropriate Notification or Application (e.g., Code of Practice Notification for Code of Practice Activities, or Water Act application for activities not under the Code of Practice and are described as low

impact). The WAIF must be signed by an AWP. For Code of Practice activities wetland replacement is not required, however, for low-impact (e.g., WAIF) Water Act applications, wetland replacement may be required.

Section 4 - Watercourses and Fish Habitat

This section identifies in detail which quarter sections impact which environmental features and lists the recommendations to go along with each feature. It is recommended that Qualified Aquatic Environment Specialist be consulted to confirm these features.

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4.2 Watercourse Inventory

No watercourses were found in the search area.

4.3 Fish and Fish Habitat

No fish species were found in the search area.

4.4 Critical Habitat

No critical aquatic habitat found in the search area.

4.5 Setbacks

4.5.1 Municipal

Different municipalities may require specific setbacks for watercourses and riparian habitats depending on the proposed activity. Some setback modifiers may be applied based on slope, adjacent cover type, and hydraulic connectivity. It is recommended to double check your local municipality for to determine if a project-specific setback from the edge of a wetland is required.

4.5.2 Master Schedule of Standards and Conditions

The Master Schedule of Standards and Conditions provides recommended setbacks for specific watercourse types depending on the type of disposition or activity being proposed. Although these setbacks apply to oil and gas projects located on Crown land it is recommended that they be applied on private land as well.

- Ephemeral drainages/draws – 15 m
- Intermittent streams and small permanent watercourses – 45 m
- Large permanent watercourses – 100 m

There are no recommended setbacks for anthropogenic features (Government of Alberta 2024).

Additional Master Schedule of Standards and Conditions Recommendations

- *"The Disposition Holder must not place or use energy sources on watercourses* or water bodies. Laying of recording equipment will be allowed.*
- *Unless otherwise approved by the Regulatory Body, the Disposition Holder shall not use wheeled or tracked conveyance on the bed and shore of a water body or watercourse for the installation and removal of a dock and associated structures*

- The holder must not deposit or place debris, soil or other deleterious material* into or through any watercourse* and/or water body, or on the ice of any watercourse or water body.
- The Disposition Holder is prohibited from conducting activities on islands and the bed and shore* of all water bodies*.
- The Disposition Holder must ensure all watercourse crossings maintain fish passage.
- The Disposition Holder must bore all permanent watercourses* unless geotechnical data indicates unsuitable bore conditions exist.
- The Disposition Holder must install a Type I or Type II structure as defined in the Code of Practice for Watercourse Crossings that maintains the channel, for all Class A, B and C watercourses.
- Where crossings have been removed, the Holder must immediately stabilize the bank* or shoreline of all affected watercourses* and/or waterbodies and/or make alterations or modifications to the bank* or shoreline and restore to native vegetative species found in the adjacent area.
- No watercourse and/or water body crossings are permitted without prior approval in writing from the officer of the Regulatory body.
- The holder must use only existing road or bridge crossings to gain vehicular access across any watercourse.
- The Disposition Holder must not interrupt natural drainage, (including ephemeral wetlands and fens) block water flow or deposit or place debris, soil or other deleterious material* into or through any watercourse and/or water body.
- The Disposition Holder must not construct any access and pipeline routes that parallel permanent watercourses* or riparian* habitat within 200 metres, except to allow for vehicle or pipeline crossings.
- Where this activity encounters waterbodies, the Disposition Holder must:
 - Drill holes are permitted where the lake is frozen to the bottom. Where water is encountered, drilling operations must be discontinued immediately.
 - No drilling additives such as fluids or muds that contain any chemical substances may be used. All surplus drilling and plugging materials must be removed from the lake. Drill cuttings may be spread on ice surrounding the hole.
 - All drill holes must be sealed with cement or bentonite to prevent the mixing of groundwater and surface water.
 - Where a flowing hole is encountered, drilling must be discontinued immediately. The hole must be sealed or cemented without delay to confine the flow to its aquifer of origin.
- Disposition holders must comply with all applicable federal Critical Habitat Orders issued under Section 58 of the Species at Risk Act (Canada). Proponents and disposition holders should contact Fisheries and Oceans Canada in relation to the application of the Species at Risk Act (Canada) and any relevant Critical Habitat Orders.”
(Government of Alberta 2024).

4.6 Regulatory Requirements

4.6.1 Federal

Fisheries Act

The Fisheries Act protects all fish and fish habitat and applies to work and activities in all waterbodies that support fish. To avoid work that will result in the death of fish and/or cause a harmful alteration, disruption, or destruction (HADD) of fish habitat, proponents must implement the Measures to Protect Fish and Fish Habitat (Department of Fisheries and Oceans Canada [DFO] 2022a), and/or apply the Standards and Codes of Practice (DFO 2022b), if applicable to their Project. Projects that cannot incorporate these measures and mitigation or apply the standards and codes of practice may require a Review by DFO. In addition, if the project activity cannot avoid harm to fish habitat or will result in the death of fish, it may be subject to an Authorization which will also require an off-setting plan to ensure no net loss occurs.

Navigable Waters Act

The Navigable Waters Act, formally known as the Navigation Protection Act, was designed to protect the waters on which the public has the right to travel. Navigable water refers to a body of water that is used by vessels, in full or in part, for any part of the year as a means of transportation or travel for commercial or recreational purposes, or as a means of transportation or travel for Indigenous peoples of Canada. Transport Canada oversees the implementation and enforcement of the Act. Any project that may impact a listed scheduled water way must submit an application under the Act.

4.6.2 Provincial

Water Act

The Water Act manages Alberta's water resources. Through Alberta Environment and Protected Areas (AEPA), the Act governs activities affecting waterbodies in Alberta (including wetlands). An approval under the Water Act is required to alter flow levels of water; change the location of water; change the direction of water flow, cause the siltation of water; cause erosion of bed or shore of any waterbody; or any effect on the aquatic environment. A Water Act License is required for the consumptive use of water.

Section 5 - Wildlife

This section identifies in detail which quarter sections impact which environmental features and lists the recommendations to go along with each feature. It is recommended that a Professional Wildlife Biologist be consulted to confirm these features.

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It should be noted that the results of any database searches only identify species of conservation concern (plant or wildlife) that have been previously recorded. The results of these searches should not be used as a conclusion on the presence or absence of species of conservation concern.

5.2 Wildlife Sensitive Layers

The search has identified the following wildlife sensitivity.

5.2.1 Sensitive Raptors

The following raptor ranges are in the project area: Bald Eagle

Prairie Raptors Survey

- Surveys to be conducted by an experienced Wildlife Biologist.
- Surveys should be conducted between May 1st and June 30th.
- Survey should be conducted during the daytime.
- Surveys are temperature and weather dependent.
- A Research Permit is not required for general surveys.
- A Research Permit is required if surveyors will be examining the nest.

Boreal and Foothills Raptors Survey

- Contact local AEPA Wildlife Management Office for known locations of sensitive raptor species.
- Surveys to be conducted by an experienced Wildlife Biologist.
- Owls - Surveys should be conducted between mid-May to late-June.
- Hawks - Surveys should be conducted between mid-June to late-August.
- Surveys should be conducted during the daytime.
- Surveys are temperature and weather dependent.
- A Research Permit is required for call playback surveys or if surveyors will be examining the nest.

Setbacks

- March 15th to July 15th – 1,000 m setback.
- July 16th to March 14th – 50 to 1,000 m setback depending on proposed activity.

Note: It is recommended to consult a Professional Wildlife Biologist to determine if additional measures or species-specific surveys may be required.

Additional Master Schedule of Standards and Conditions Recommendations

- "The Disposition Holder must not conduct any activities within 1,000 m of a sensitive raptor active nest.
- The Disposition Holder must not construct any activities within 1,000 m of a sensitive raptor active nest with the following exception:
 - When construction and operational activities occurs between July 16th and March 14th, the

- *Disposition Holder must not conduct the activity within 100 m from a sensitive raptor active nest.*
- *Between March 15th and July 15th, the Holder must not conduct any activities within 1,000 m of a sensitive raptor active nest.*
- *Between March 15th and July 15th, the Disposition Holder must not conduct any operational maintenance within 1,000 m of a sensitive raptor active nest.*
- *The Holder must conduct appropriate pre-construction wildlife* surveys for all activities occurring within the Sensitive Raptor Range as per the direction of the Sensitive Species Inventory Guidelines as amended from time to time."*
(Government of Alberta 2024).

5.2.2 Sharp-Tailed Grouse

Surveys

- Contact local AEPA Wildlife Management Office for known locations of sharp-tailed grouse.
- Surveys to be conducted by an experienced Wildlife Biologist.
- Surveys are broken up into two steps: survey general area for potential lek sites and survey each potential lek area.
- Surveys should be conducted between mid-March and early or mid-May.
- Surveys are temperature and weather dependent.
- Ground area surveys should be conducted in the evening before the lek survey.
- Lek surveys are to be conducted from 1 hour before sunrise to 2 to 3 hours after sunrise.
- A Research Permit is required for these surveys.

Setbacks

- March 15th to June 15th – 500 m setback from leks.
- June 16th to March 14th – 100 to 500 m setback from leks depending on proposed activity.

Note: It is recommended to consult a Professional Wildlife Biologist to determine if additional measures or species-specific surveys may be required.

Additional Master Schedule of Standards and Conditions Recommendations

- *"The Disposition Holder must not conduct any activities within 500 m of the perimeter of any known or identified active sharp-tailed grouse lek sites.*
- *The Disposition Holder must not conduct any activities within 1,600 m of the perimeter of any known or identified active sharp-tailed grouse lek sites.*
- *The Disposition Holder must install and use perch-preventing technology in accordance with the Avian Power Line Interaction Committee (APLIC) (<http://aplic.org>) on all above ground structures that are greater than 1 metre in height and within 1,000 m of a sharp-tailed grouse lek.*
- *The Disposition Holder must ensure that noise resulting from the activity does not exceed 49 decibels within 500 m of a sharp-tailed grouse lek when the level of noise is measured 10 m from the source of the noise.*
- *The Disposition Holder must not construct any activities within 500 m from the perimeter of an active or known sharp-tailed grouse lek from March 15 to June 15 of any given year.*
- *The Disposition Holder must not construct any activities within 100 m from the perimeter of an active or known sharp-tailed grouse lek from June 16 to March 14 of any given year.*
- *Between March 15 and June 15, the Disposition Holder must only conduct operational maintenance between 10:00 a.m. and 4:00 p.m. for sites located 100 m to 500 m from a sharp-tailed grouse lek.*
- *The Holder must conduct appropriate pre-construction wildlife surveys for all activities occurring within the identified Sharp-tailed grouse Range as per the direction of the Sensitive Species Inventory Guidelines as amended from time to time.*
- *The Holder must not conduct any activities within 500 m of the perimeter of any known or identified active sharp-tailed grouse lek sites between March 15th and June 16th of any given year."*
(Government of Alberta 2024).

5.2.3 Prior to Construction

It is recommended that wildlife sweeps for any active nests, roosts, burrows, or dens should be completed prior to any clearing and construction activities. A sweep needs to be conducted by a qualified professional a maximum of 10 days prior to these activities taking place within the Project footprint as well as up to 100 m around the Project (Government of Alberta 2020).

Results of any wildlife sweep may need to be submitted to the Fisheries and Wildlife Management Information System. Written notification to the appropriate regulatory agency of the completion of the wildlife sweep may be requested by the regulator (Government of Alberta 2024).

If any migratory birds' nests or an active den site are identified during the sweep, a setback may be identified through consultation with federal and provincial government experts and may remain in place until the wildlife habitat features is no longer active. A permit may be granted to remove the feature in some extenuating circumstances.

5.3 Regulatory Requirements

5.3.1 Migratory Birds Convention Act

The Migratory Birds Convention Act (MBCA) ensures protection of migratory birds, their nest, and their eggs. Birds protected by the MBCA include waterfowl (e.g., ducks, geese, and swans), insectivorous birds (e.g., wrens, robins, shrikes, and woodpeckers), and some non-game bird species (e.g., herons and gulls).

To protect migratory birds, the MBCA provides general nesting periods based on geographic location. The general nesting period covers most species covered under the MBCA; however, it may not be accurate for species that can breed at any time during optimal conditions (e.g., crossbill species), or species that may nest earlier or later. It is important to note that this period may not include those nesting periods for species not covered under the MBCA but are covered under Alberta's Wildlife Act (see below).

Under the new Migratory Birds Regulations (effective July 30, 2022) migratory bird nests that are considered to have a higher conservation value for migratory birds are now protected. In addition, nests of all migratory bird species are protected when they contain a live bird or a viable egg. The nests of 18 species that are listed in Schedule 1 of the regulations and whose nests are reused by migratory birds, also continue to have year-round nest protection, unless they have been shown to be abandoned.

5.3.2 Species at Risk Act

The Species at Risk Act identifies measures to protect wildlife species listed under Schedule 1, through recovery strategies, protection of critical habitat, management of species of concern, agreements and permits, as well as Project reviews. Listed species cannot be killed, harmed, harassed, or captured and their residence (e.g., nest, burrow) and habitat cannot be destroyed or moved under the Act.

5.3.3 Alberta Wildlife Act

In addition to the federal MBCA, birds may be protected provincially under the Wildlife Act. AEPA administers the Wildlife Act, which influences and controls human activities that may have adverse effects on wildlife or wildlife habitat on both Crown and privately-owned land. Section 36(1) of the Wildlife Act states that a person shall not wilfully molest, disturb, or destroy a house, nest or den of prescribed wildlife or beaver dam in prescribed areas and prescribed times. This applies to nests and dens of endangered wildlife, migratory birds, snakes (except prairie rattlesnakes), bats, and prairie rattlesnake hibernacula. Additionally, Section 36(1) also applies to beaver dens and houses on land that is not privately owned as well as houses, nests, and dens of all wildlife in a wildlife sanctuary and nests of game birds in game bird sanctuaries.

Section 6 - Rare Element Occurrences and Endangered and Threatened Rare Plant Range

This section identifies in detail which quarter sections impact which environmental features and lists the recommendations to go along with each feature. It is recommended that Professional Vegetation Ecologist be consulted to confirm these features.

6.1 Disclaimer

The information provided in this document is meant for planning purposes only. The information provided in this report and the report itself cannot be used for regulatory applications or for construction purposes. AERAS cannot guarantee the accuracy of the information provided. As such, it is highly recommended that an appropriate professional is consulted.

It should be noted that the results of any database searches only identify species of conservation concern (plant or wildlife) that have been previously recorded. The results of these searches should not be used as a conclusion on the presence or absence of species of conservation concern.

6.2 Rare Element Occurrences

The search has found no sensitive plant species impacting the project area.

Note: It is recommended to consult a Professional Vegetation Ecologist to determine if additional measures or species-specific surveys may be required.

Additional Master Schedule of Standards and Conditions Recommendations

- *"The Disposition Holder must not conduct any activities between October 1 and June 1 if pre-construction surveys are not completed.*
- *The Disposition Holder must not conduct any activities within 300 m from an Endangered or Threatened plant species as listed under the Alberta Wildlife Act.*
- *The Disposition Holder must not use any Ribes Species for revegetation in any Limber or Whitebark Pine ranges.*
- *The Holder must conduct appropriate pre-construction wildlife surveys for all activities occurring within the identified Endangered and Threatened Plant Ranges as per the direction of the Sensitive Species Inventory Guidelines as amended from time to time.*
- *The Holder must not conduct any activities within 30 m from an Endangered or Threatened plant species as listed under the Alberta Wildlife Act.*
- *The disposition holder must manage all regulated weeds to the satisfaction of the regulatory body.*
- *The Disposition Holder must not conduct vegetation control maintenance including but not limited to mechanical mowing or brush removal between April 15th and August 15th within the Grassland and Parkland Natural regions except for the purpose of mowing vegetation no more than 4 m in width for vehicle access; between May 1st and August 10th for all other Natural regions except for the purpose of mowing vegetation no more than 4 m in width for vehicle access, notwithstanding the requirement to control weeds as per the Weed Control Act.*
- *The Disposition Holder must remove all deciduous or coniferous merchantable timber from the Activity as per the following utilization standards;*
 - *Deciduous Timber: 15 cm Base/10 cm Top*
 - *Coniferous Timber: 15 cm Base/11cm Top*
- *and haul said timber to the location of end use.*
- *The Disposition Holder must slash, limb and buck flat to the ground all woody debris and leaning trees created by the activity.*
- *For fire control purposes on forested lands, the Disposition Holder must dispose of excess coarse woody debris* not utilized for rollback or stockpiled for reclamation*.*
- *Within FireSmart Community Zones, the Disposition Holder must dispose of coarse woody debris*

by burning unless a Debris Management Plan has been approved under the Forest and Prairie Protection Act.

- *The Disposition Holder must obtain the appropriate timber authority for the removal of timber from this Disposition.*
 - *The Disposition Holder must not cut or clear the vegetative cover on the land unless otherwise approved by the Regulatory Body.*
 - *The Disposition Holder must not dispose of coarse woody debris by burning unless otherwise approved by the regulatory body.*
 - *The Disposition Holder must not remove deciduous and coniferous merchantable timber from the Disposition unless otherwise approved by the regulatory body.*
 - *The Disposition Holder must not apply Pesticides unless otherwise approved by the Regulatory Body.*
 - *The Disposition Holder is permitted to cut the vegetative cover on the Lands for the purpose of line maintenance.*
 - *The Disposition Holder must not sell the vegetated cover and salvaged materials from the Lands unless otherwise approved by the regulatory body.*
 - *The Disposition Holder may utilize only over-the-counter domestic herbicides for weed control, unless applied by a Certified Pesticide Applicator. Soil sterilants are prohibited. The application of herbicides outside lot boundaries is strictly prohibited. Hand-picking and bagging, or mechanical control is recommended.*
 - *The Disposition Holder must ensure all chemical control measures, including which chemicals may be used, chemical application requirements, and, the amount of chemicals that may be used, have been pre-approved by the Province's Representative.*
 - *The Disposition Holder must supply upon Regulatory Body request, a record of all weed control activities."*
- (Government of Alberta 2024).

6.3 Endangered and Threatened Plant Range

The project area does not overlap any threatened plant ranges.

6.4 Regulatory Requirements

6.4.1 Species at Risk Act

The Species at Risk Act identifies measures to protect certain plant species listed under Schedule 1, through recovery strategies, protection of critical habitat, management of species of concern, agreements and permits, as well as Project reviews. Listed species cannot be harmed, and habitat cannot be destroyed or moved under the Act.

Section 7 - Historical Resources

This section identifies in detail which quarter sections impact which environmental features and lists the recommendations to go along with each feature. It is recommended that a Professional Archeologist be consulted to confirm these features.

7.1 Disclaimer

The information provided in this document is meant for planning purposes only. The information provided in this report and the report itself cannot be used for regulatory applications or for construction purposes. AERAS cannot guarantee the accuracy of the information provided. As such, it is highly recommended that an appropriate professional is consulted.

It should be noted that the results of any database searches only identify areas of conservation concern that have been previously recorded. The results of these searches should not be used as a conclusion on the presence or absence of species of conservation concern.

7.2 Listing of Historic Resource

The search has identified the following historic resource value within the search area.

Legal Location	Historic Resource Value
NE-13-052-23-W4M LSD - 4-6,15,16	5 a

7.3 Regulatory Requirements

Land parcels that have been assigned a Historic Resource Value (HRV) will require an approval under the Historical Resources Act. HRVs range from 1 to 5 where land with an HRV of 1 have been identified as requiring the highest level of protection.

HRVs are defined as:

- HRV 1: contains a World Heritage site or a site designated under the Historical Resources Act as a Provincial Historic Resource
- HRV 2: deactivated (formerly used to designate a Registered Historic Resource)
- HRV 3: contains a significant historic resource that will likely require avoidance
- HRV 4: contains a historic resource that may require avoidance
- HRV 5: high potential to contain a historic resource

Each HRV also includes a letter that describes the primary historic resource category of concern, although others may also be present:

- a – archaeological
- c – cultural
- gl – geological
- h – historic period
- n – natural
- p - paleontological

Note: A Professional Archaeologist should be consulted to confirm the likelihood of historical resources within a project area.

As per Alberta's Instructions for Use, Listing of Historic Resources, all transportation projects in Alberta require the submission and review of a Historic Resources Application.

In addition, pursuant to Section 31 of the Historical Resources Act, if any paleontological, archaeological or any historical resources are discovered during construction the discover must be reported immediately to Alberta Culture and Status of Women (ACMSW). Pursuant to information from the appropriate governing body, it may be necessary for the Department to issue further instructions regarding the documentation of any discovered resources.

Section 8 - Environmentally Significant Areas

8.1 Disclaimer

The information provided in this document is meant for planning purposes only. The information provided in this report and the report itself cannot be used for regulatory applications or for construction purposes. AERAS cannot guarantee the accuracy of the information provided. As such, it is highly recommended that an appropriate professional is consulted.

It should be noted that the results of any database searches only identify areas of conservation concern that have been previously recorded. The results of these searches should not be used as a conclusion on the presence or absence of species of conservation concern.

8.2 Environmentally Significant Areas Inventory

An Environmentally Significant Area (ESA) is defined as an area important to the long-term health of ecological diversity and natural processes which have both local and widespread effects. Some of the criteria used to determine an ESA includes the presence of wildlife species of conservation concern, rare plant species, and/or rare ecological communities. ESA's assist with land use and watershed planning for those areas identified as having a high environmental significance.

An ESA value is assigned to an area based on several metrics which include the four main criteria:

- Criterion 1 - Areas that contain focal species, species groups or their habitats
- Criterion 2 - Areas that contain rare, unique, or focal habitat
- Criterion 3 - Areas with ecological integrity
- Criterion 4 - Areas that contribute to water quality & quantity

ESA Sum Score Ranges/Thresholds:

- Low ESA Potential – 0.001 to 0.076
- Moderate ESA Potential – 0.077 to 0.151
- High ESA Potential – 0.152 to 0.189
- ESA - >0.189

8.3 Environmentally Significant Areas Results

Legal Location	Crit 1	Crit 2	Crit 3	Crit 4	Summary Value	ESA Potential
NE-13-052-23-W4M	0	0	0.02	0	0.02	NO

Section 9 - References

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