Associated Engineering

GLOBAL PERSPECTIVE.
LOCAL FOCUS.

REPORT

Town of Claresholm

Claresholm ASP
Biophysical Impact Assessment (BIA)

JULY 2023

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1 INTRODUCTION

The Town of Claresholm (the Town) retained Associated Engineering Ltd. (Associated) to complete a Biophysical Impact Assessment (BIA) for a portion of land (Portion Block 7, Plan 7410624; Linc 0032892564 and Lot 5, Block 8, Plan 0715848) as part of an Area Structure Plan (ASP) (Figure 1-1). The BIA was initiated to support the Town's ASP as it provides proper conceptualization of approximately 38 acres of mixed development within Claresholm, thus ensuring sustained economic growth for the community. The Town intends to develop the land in accordance with the current Municipal Development Plan (MDP) which anticipates zoning commercial development along Highway 2, with residential uses adjacent.

The objective of this BIA is to collect site-specific information and characterize existing biophysical resources for the project area. Evaluation will account for the temporary disturbances (i.e., construction activities) and permanent disturbances (vegetation and wetland removal, habitat loss) associated with the project. This information will be used to assess potential impacts, identify environmental effects on biophysical resources, and provide mitigations to limit impacts on the environment.

Associated Environmental

Claresholm

LEGEND

Study Area

Base Data

Highway

N

0 20 40 60 80 100 m

AE PROJECT NO.	2023-3708-00
SCALE	1:3500
COORD. SYSTEM	NAD 1983 UTM ZONE 12N
DATE	2023-07-18
REV	00
DRAWN BY	HS
CHECKED BY	WL
DESCRIPTION	ISSUED FOR REPORT

FIGURE 1-1
PROJECT LOCATION

TOWN OF CLARESHOLM
AREA STRUCTURE PLAN

BIOPHYSICAL IMPACT ASSESSMENT

2 PROJECT DESCRIPTION

2.1 Project Background

The Town intends to prepare an ASP to support the subdivision and development of approximately 38 acres of land, including a Portion Block 7, Plan 7410624; Linc 0032892564 and Lot 5, Block 8, Plan 0715848. These lands are situated west of Highway 2 and Alberta Road and east of 8 Street W. The ASP will consider and conceptualize residential and commercial development along the highway corridor. The lands within the proposed development area (Study area) are currently zoned C2 – Highway Commercial; however, the MDP designates the portion of the planned area abutting Alberta Road as "Future Commercial." The internal lands within the Study area will balance commercial area use with residential development.

As required in the Town's MDP, development of an ASP is required for the Study area in advance of the subdivision development. The completed BIA will ultimately assist the ASP in considering and conceptualizing residential and commercial growth along the highway corridor and address all *Municipal Government Act* (MGA) requirements.

2.2 Project Study Area

The Study Area consists of the 38-acre parcel being considered for future development (**Figure 2-1**). The Study Area accounts for the temporary disturbances (i.e., construction activities) and permanent disturbances (i.e., habitat loss) associated with the development. In addition to the Study Area, a 500 m buffer (Assessment Area) around the project area will evaluate regional environmental sensitivities with potential to interact with the project.

\\AE.CA\DATA\WORKINGLET\2023-3708-00\GIS\ARCMAP\ASP\AE20233708_FIG2-1_STUDYAREA_230717.MXD
IMAGERY: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA FSA, USGS, AEX, GETMAPPING, ROAD: STATISTICS CANADA, 2019; ATS GRID: ALTALIS LTD., 2005.

Associated Environmental

Claresholm

LEGEND

Assessment Area

Study Area

Base Data

Highway

0 40 80 120 160 200 m

AE PROJECT NO.	2023-3708-00
SCALE	1:8000
COORD. SYSTEM	NAD 1983 UTM ZONE 12N
DATE	2023-07-18
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FIGURE 2-1
STUDY AREA

TOWN OF CLARESHOLM
AREA STRUCTURE PLAN

BIOPHYSICIAL IMPACT
ASSESSMENT

3 EXISTING ENVIRONMENTAL CHARACTERISTICS

Associated conducted a desktop review and field survey to understand the baseline biophysical characteristics of the Study Area. Associated surveyed the terrestrial vegetation and wildlife resources and recorded observations of the geomorphological characteristics of the Study Area to aid in assessing environmental, construction, and permitting risks and requirements for the project. Environmental components pertaining to the project were identified, including soils and terrain, vegetation, wildlife and wildlife habitat, potential land and resource use, and historical resources.

The desktop review included consulting the provincial Fisheries and Wildlife Management Information System (FWMIS) database (GoA 2022a) and the species listed under the *Species at Risk Act* (SC 2002, c. 29) (SARA).

Associated's Carlo Gallotta B.Sc., G.I.T., and Krish Purohit, M.Sc., B.I.T, conducted biophysical field surveys of the Study Area on July 5, 2023. The field survey used a meandering survey technique that spanned the entirety of the Study Area. Observations were recorded using written notes and photographs, and point-location data were recorded using a hand-held GPS unit. The field survey documented the following:

- Type and quality of terrestrial habitat and general geomorphology of the Study Area;
- Extent of vegetation communities and composition;
- Potential terrestrial and avian wildlife habitat and incidental wildlife observations;
- Biophysical and geomorphological issues of concern, such as the presence of provincially listed noxious weeds or locations of soil erosion, presumed contamination, and sedimentation; and
- Evidence of human use and impacts on the area that could affect the Project.

3.1 Soil and Terrain

3.1.1 Methods

A desktop review was conducted to obtain soil information in the Study Area, which included a review of the Alberta Soil Inventory Database (AGRASID) (GoA 2022b).

3.1.2 Results

A desktop review indicates soils in the Study Area are from the Whitney series, Regosolic Dark Brown Chernozem on a medium textured till loam, silt loam, and very fine sandy loam parent material. The soils in the area drain well and consist largely of two distinct soil horizons: the surface A horizon of mineral soil where most organic material accumulates and soil life resides, and the substratum C horizon of poorly weathered mineral soil parent materials. The field assessment identified exposed soils situated in the northern and southeastern portion of the Study Area expressed elevated clay coarse-grained cobble material.

The northeastern quadrant of the Study Area contains a relatively large depression, approximately 1 m deep, which were assumed to result from pre-existing land uses. The field assessment verified this, documenting containment berms with several older apparent gravel stockpiles within the depressed area. Additionally, two larger drainage swales originating from within the depression were observed, directing drainage toward the Highway 2 drainage ditch to the east. The installed berms and pre-disturbed depression area accounted for roughly 2.8 ha of the Study Area. The Study Area is largely dominated by undulating low-relief landforms that exhibit a flat 2% south-facing slope, slightly increasing to 4% when transitioning from the southern to northern side of the Study Area. The Study Area also exhibits an increased east-facing slope on the eastern boundary abutting the Alberta Transportation and Economic

Corridors (TEC) Highway 2 right-of-way. Small natural mounds are present throughout the middle of the Study Area, but none exceed a 0.5 m elevation increase.

3.2 Vegetation

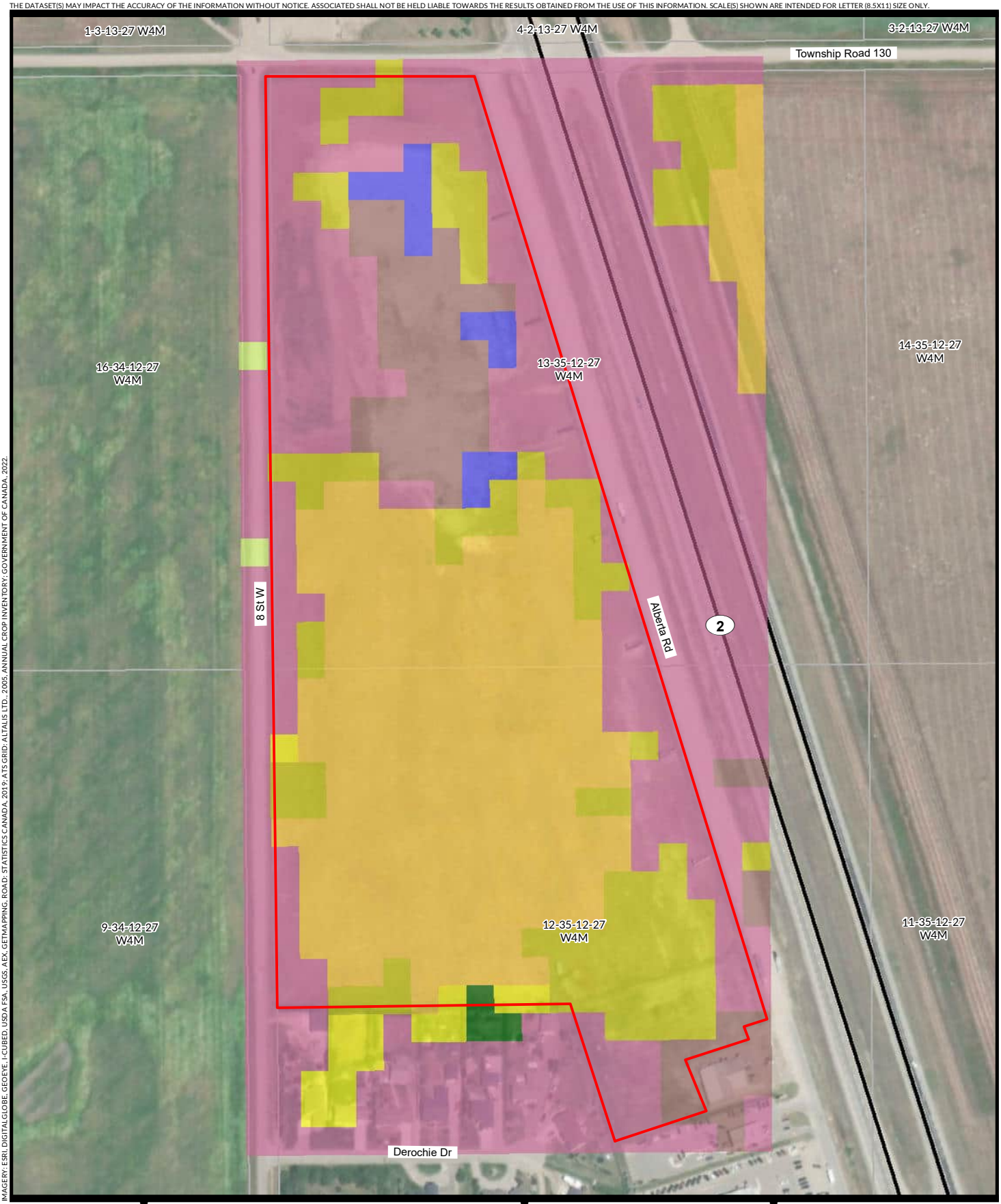
3.2.1 Methods

A desktop review of Alberta Conservation Information Management System (ACIMS) (AP 2019) and FWMIS (GoA 2022a) was conducted to identify and review rare and at-risk plant species that may be affected by the project. In addition, Satellite imagery and the Annual Crop Inventory (AAFC 2022) were reviewed to identify vegetation communities present within the Study Area.

3.2.2 Results

The Study Area is within the Mixedgrass Natural Subregion of the Grassland Natural Region of Alberta (NRC 2006), characterized by predominantly drought-tolerant grasses like blue grama and needle-and-thread grass. Other common grasses included June grass and western wheatgrass. Native vegetation in this subregion thrive in drought conditions (arid winds, high summer temperatures, and low precipitation) due to adaptations such as deep roots, shorter life cycles, and dormancy in dry periods. A review of ACIMS data (AP 2019) found no occurrences of rare plants or rare ecological plant communities in the Assessment area. The 2022 Annual Crop Inventory (AAFC 2022) indicates the Study Area contains two dominant vegetation cover types: pasture/forages, native grass or grassland, and three minor vegetation types: canola/rapeseed (*Brassica napus*), barley (*Hordeum vulgare*), and water. These coverages were verified in the field as the Study Area largely consisted of tame pasture, with distinct native grass patches throughout. There is a large canola field immediately adjacent to the Study Area to the west. Evidence of potential seed migration is present on the western boundary, as canola was observed growing in sporadic clusters. A large field of barley was observed northwest of the Study Area; however, unlike canola, no evidence of barley growth was observed within the Study Area. Associated could not verify the presence of surface water, illustrated in **Figure 3-1**, because no standing water was observed in depressions or drainage areas across the Study Area.

Vegetation throughout the Study Area consisted of species common to the region. Native tame pasture and wheat grasses dominated the majority of the Study Area. Several clusters of lambsquarters (*Chenopodium album*) were patchily distributed, with greater localization near disturbed dirt mounts. Clusters of alfalfa (*Medicago sativa*) and yellow sweet clover (*Melilotus officinalis*) were dominant primarily in the southern portions of the Study Area near the commercial complexes neighbouring the Study Area. Alfalfa and sweet clover density greatly decreases to native tame pasture grasses past the southern property fence line. Along the southeastern and eastern sides of the Study Area, summer-cypress (*Kochia scoparia*), sainfoin (*Onobrychis viciifolia*), and low-lying woody shrub clusters vary in density, with the highest concentrations in the southeastern corner of the Study Area. A notable patch of hydrophytic vegetation, indicating an ephemeral wetland, is present on the southern side of the Study Area. This area consisted of mainly aquatic-based plants, such as long-leaved dock (*Rumex obtusifolius*). The Study Area also contained two localized areas of juvenile willow shrubs (*Salicaceae*) and one instance of chokecherry (*Prunus virginiana*) on the northern side. Mature aspen (*Populus*) stands and rows of caragana bushes coincide within the private residents' properties on the southern border.



Associated Environmental

Claresholm

LEGEND

- Study Area

Annual Crop Inventory

- Barren or Exposed Land
- Canola/ Rapeseed
- Coniferous
- Grassland
- Pasture/ Forages
- Shrubland
- Urban/ Developed
- Water

Base Data

- Highway

N

0 10 20 30 40 50 m

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FIGURE 3-1
VEGETATION COMMUNITIES

TOWN OF CLARESHOLM
AREA STRUCTURE PLAN

BIOPHYSICAL IMPACT ASSESSMENT

Several weed species were observed across the Study Area, with several noxious weeds listed under the Alberta *Weed Control Act (RSA 200, c. W-3), (GoA 2022c)* observed during the field assessment (**Table 3-1**); common tansy (*Tanacetum vulgare*), Canada thistle (*Cirsium arvense*), black henbane (*Hyoscyamus niger*), dandelion (*Taraxacum officinale*), foxtail barley (*Hordeum jubatum*), red clover (*Trifolium pratense*), and wild mustard (*Sinapis arvensis*).

Table 3-1 Weed Species Present in Study Area

Common Name	Scientific Name	Status[1]
Black henbane	*Hyoscyamus niger*	Listed Noxious
Canada thistle	*Cirsium arvense*	Listed Noxious
Common tansy	*Tanacetum vulgare*	Listed Noxious
Dandelion	*Taraxacum officinale*	Not Listed – nuisance
Foxtail barley	*Hordeum jubatum*	Not Listed – nuisance
Red Clover	*Trifolium pratense*	Not Listed – nuisance
Wild mustard	*Sinapis arvensis*	Not Listed – nuisance

3.3 Wildlife and Wildlife Habitat

3.3.1 Methods

A desktop review was conducted to identify potential wildlife and wildlife habitat that may be present in the Study Area, including a search of the FWMIS database (GoA 2022a). Species identified in the Study Area were cross-referenced with the Alberta Wild Species Status, and the *Species at Risk Act* (SARA) to verify conservation status (GoA 2020 and GoC 2021).

3.3.2 Results

No wildlife species were reported to FWMIS within 500 m of the Study Area. Waterbodies surrounding the Study Area are known to contain whirling disease; however, no interaction with waterbodies is anticipated for subdivision development (GoA 2022d). Based on a review of the ACIMS data (AEP 2017), there are no occurrences of rare, sensitive, or non-sensitive element occurrences within the Study Area.

The Study Area is located within the following sensitive species ranges. Habitat and foraging requirements for the sensitive species are further detailed in **Table 3-2**

- Bald eagle (*Haliaeetus leucocephalus*)
- Golden eagle (*Aquila chrysaetos*)
- Prairie falcon (*Falco mexicanus*)
- Ferruginous hawk (*Buteo regalis*)
- Sharp-tailed grouse (*Tympanuchus phasianellus*)

Table 3-2 Sensitive Species Habitat Requirements

Species	Habitat Requirement	Habitat Presence	Mitigation Requirements
Bald eagle	**Foraging**[1] • Coasts • Large lakes • Mountains in open country • Rivers **Nesting**[1] Large trees on west-facing cliffs	**No** – The Study Area contains no suitable conditions for foraging and nesting.	**No** – The Study Area contains no suitable habitat; thus, is not expected to be encountered.
Ferruginous hawk	**Foraging/Nesting**[1] • Plains • Prairies • Dry grasslands • Sagebrush plains • Saltbush and greasewood flats • Rangelands • Deserts **Wintering**[1] • Agricultural lands and plowed fields	**Yes –** The Study Area contains suitable foraging/nesting habitat. Wintering habitat is also present.	**Yes** – Retain a qualified environmental professional if working between mid-April and late August (restricted activity period).
Golden eagle	**Foraging**[1] • Open mountains • Rivers • Marshes • Foothills • Plains • Open country • Prairies • Rangeland deserts **Nesting**[1] • Large trees near cliff faces **Wintering**[1] • Agricultural lands and plowed fields	**Yes** – The Study Area provides suitable foraging and wintering habitat; however, no suitable nesting habitat is present.	**No** –Project activities are not anticipated to impact nesting habitat.
Prairie falcon	**Foraging**[1] • Grassland plains • Near nesting sites **Nesting**[1] • Cliffs or steep bluffs • May use trees, powerline structures, or buildings	**Yes –** The Study Area provides suitable nesting and foraging habitat.	**Yes** – Retain a qualified environmental professional if working between mid-April and late August (restricted activity period).

Species	Habitat Requirement	Habitat Presence	Mitigation Requirements
Sharp-tailed grouse	**Foraging**[1] • Brush and aspen groves, and Edges of forests **Nesting**[1] • Ground • Tall grass	**Yes –** The Study Area provides suitable nesting habitat, but limited foraging habitat.	**Yes** – Retain a qualified environmental professional if working between mid-April and late August (restricted activity period)

[1]National Audobon Society (2021).

The Study Area falls into Category B3 of Canada's Migratory Bird Zones (GoC 2018), and nesting can be expected from mid-April to late August.

Available habitat for wildlife in the Study Area currently includes the native mixed grassland that provides foraging opportunities for ground nesters and burrowing mammals. The area south of the Study Area consists of commercial and residential developments, which act as a habitat barrier for species in the Study Area. More suitable habitat for ground nesters and burrowing mammals is observed across Highway 2 to the east and through the croplands north and west of the Study Area. Aside from the mature aspen trees on private residence to the south, no tree stands are located on or near the Study Area. Furthermore, no waterbody or water crossings are located on or near the Study Area.

An abundant population of ground squirrels (*Marmontini sp.*) was observed during the field assessment as small burrows, visual identification, and ground squirrel calling were recorded throughout the Study Area. Large networks of ten or more burrow entrances within elevated natural mounds were observed across the Study Area (**Figure 3-2**). Larger burrows were also recorded within the Study Area, which could indicate the presence of larger burrowing mammals such as foxes (*Vulpes*); however, no conclusive evidence on species inhabitants or activities was recorded at the time of the field assessment.

Based on available habitat within the Study Area, suitable foraging habitat is present for all the sensitive species identified in **Table 3-2**. The Study Area provides suitable habitat for sensitive life stages (i.e., nesting, dens, leks, spawning, and overwinter habitat) for ferruginous hawk and sharp-tailed grouse. The proposed development has the potential to remove quality habitat for several sensitive species permanently.

The Study Area also does not contain any suitable habitat for pileated woodpecker (*Dryocopus pileatus*), great blue heron (*Ardea herodias*), and black-crowned night-heron (*Nycticorax nycticorax*). These species of special interest were not observed in the Study Area during the field assessment, nor were any evidence of these species observed. The field assessment was conducted outside of the breeding period for these species and did not conform with Environment and Protected Areas (EPA) survey protocols.

3.4 Wetlands

3.4.1 Methods

A desktop review of the Alberta Merged Wetland Inventory (AMWI) (AEP 2020) found no wetland cover within the Study Area. Associated conducted a desktop wetland delineation to determine if any wetlands not identified in the AMWI were present. An in-field wetland assessment was not completed. The methodology adhered to the *Alberta Wetland Identification Directive* (GoA 2015); however, the precipitation analysis was modified. The delineation consisted of analyzing topographic and vegetation signatures observed in temporal, representative historical images based on the result of the precipitation analysis and LiDAR data to determine historical and current wetland ecological boundaries.

Imagery obtained from the Aerial Photographic Record System (AEP 2021), Hexagon's HxDR catolog (Hexagon 2023), and Sentinel Hub (Sinergise Ltd. 2023) from 1949, 1962, 1966, 1974, 1979, 1983, 1985, 1992, 1999, 2005, 2009, 2012, 2015, 2019, 2020, and 2021 was used for this assessment. Each year and month from 1960 to 2022 were assessed for relative wetness and classified as wet, normal, or dry. Each period was classified as follows: "wet" if precipitation was greater than the 70th percentile, "normal" if precipitation was between the 30th and 70th percentile, and "dry" if precipitation was less than the 30th percentile. Precipitation data was obtained from the Alberta Climate Information Service's *Interpolated Weather Data Since 1901 for Alberta Townships* (ACIS 2020). Images were selected to show a variation of wet and dry years and were interpreted for changes in topography, vegetation patterns, and evidence of soil saturation or inundation. The seasonal precipitation data was considered when delineating approximate boundaries in ArcMap.

3.4.2 Results

No wetlands were identified within the Study Area based on desktop review. It is recommended that the results of the desktop delineation be verified by completing a field assessment prior to any disturbance.

Even though no wetlands were identified in the desktop assessment, it is important to be aware of the potential of ephemeral waterbodies existing in the project area. Ephemeral waterbodies are not subject to replacement requirement under the Alberta Wetland Policy; however, avoidance and minimization of impacts to ephemeral waterbodies is still expected. Regulatory approval is required under the Water Act for impacts to any type of waterbody, including ephemeral waterbodies.

3.5 Land Use and Contamination

3.5.1 Methods

A desktop review was conducted to identify past land use and potential sources of contamination that may be present in the Study Area. This included reviewing historical satellite imagery and searching the Environmental Site Assessment Repository (ESAR) (EPA 2023). A field study was conducted on July 5, 2023, to evaluate presumed contamination within the Study Area (stressed vegetation, stains, discoloration etc.) and potential contamination vectors of adjacent properties within 200 m of the Study Area.

Associated has also completed a Phase 1 Environmental Site Assessment (ESA) for the Study Area to further support the Town develop the ASP in considering and conceptualizing mixed development growth along the highway corridor and addressing all MGA requirements. Further information about identified potential contamination vectors are covered in greater detail in the Phase 1 ESA ASP Report (**Appendix A**).

3.5.2 Results

A search of the ESAR (EPA 2023) database identified no previous ESA or past reclamation activities within 200 m of the Study Area. The nearest historical ESA was located ~500 m south of the Study Area (Buzz “N” Burts Automotive). A search of the Alberta Water Well Information Database (GoA 2023) identified a single water well (Well ID 140560) located ~150 m across Highway 2 to the east, and one well approximately 150 m northwest of the Study Area (Well ID 1770291). No information on static water levels for the two wells nearest to the Study Area were available; however, a distant well (Well ID 293427) located on the private residence ~500 m east of the Study Area recorded a static water level of 27.00 ft.

Historical imagery of the Study Area indicates that the commercial and residential properties to the south were established in 2012, and the commercial establishment (formally Brandt Agriculture) predates 2002. Agricultural land use on the property west of the Study Area predates 2002, and the area remains tame pasture.

A change in land use in the Study Area occurred between 2003 and 2012 when an area of tame pasture in the northern portion of the Study Area became disturbed. The disturbed area remained relatively unchanged between 2012 to 2019. Some natural regrowth became apparent starting in 2014 suggesting possible periods of low activity. Natural regrowth appeared to increase year over year until 2019 when the disturbed area increased slightly, and pre-existing vegetation appeared to have been removed. In 2019, the general conditions of the Study Area appear dried or burned; vegetation appeared brown and erosion scours appeared to develop over the span of a month (August 2019, to September 2019). Widespread regrowth of vegetation within the Study Area was visible the following year (August 2020).

Visual evidence of disturbed vegetation on the southeastern portion of the Study Area was also identified during desktop assessment. The disturbed vegetation is presumed to directly correlate with the development of commercial complexes on the southern boundary, and the development of the disturbed area to the north. Visual evidence of disturbed vegetation is still evident to present day. Further evidence of disturbance was observed with clear vehicle tracks linking the commercial development of Meadow Creek Sausage and Meat Ltd with the disturbed area, indicating transportation between the two sites.

Desktop findings were verified during the field assessment. Disturbed areas to the north, and southeast, and vehicle tracks between the commercial and disturbed areas were observed. Associated identified distressed vegetation and

compact soils in the southeastern portion of the Study Area behind Meadow Creek Sausage and Meat Ltd. Distressed vegetation was also observed in the northern portion of the Study Area within a large depression. Visual contamination indicators were recorded as vegetation appeared burned and dried. Additionally, a thin crusted layer of a white substance, presumably salt, was observed in vast quantities within the depression. When scraped, the substance would crust off and generate a powder, exposing the soil underneath. These crusts were assumed to be saline in nature and appeared superficially similar to those found in saline environments. Further evidence of disturbance contamination included observation of small gravel stockpiles and concrete spills throughout the depression area (**Figure 3-2**).

\\AE.CA\DATA\WORKINGLET\2023-3708-00\GIS\ARCMAP\ASP\AE20233708_FIG4-1_CONTAMINATEDAREAS_230717.MXD
IMAGERY: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA FSA, USGS, AEX, GETMAPPING, ROAD: STATISTICS CANADA, 2019; ATS GRID: ALTALIS LTD., 2005.

Associated Environmental

Claresholm

LEGEND

- Borehole Location
- Concreate Pour Refuse
- Study Area

Contaminated Area

- Distressed Vegetation
- Drainage Swale
- Drainage Swale / Old Access Road
- Gravel Pile
- Visual Surface Contamination

Base Data

- Highway

0 10 20 30 40 50 m

N

AE PROJECT NO.	2023-3708-00
SCALE	1:3500
COORD. SYSTEM	NAD 1983 UTM ZONE 12N
DATE	2023-07-18
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FIGURE 3-2
CONTAMINATED AREAS

TOWN OF CLARESHOLM
AREA STRUCTURE PLAN

BIOPHYSICAL IMPACT ASSESSMENT

3.6 Historical Resources

The Alberta Listing of Historical Resources (GoA 2022e) was reviewed to identify the potential for historic resources in the Study Area. The Study Area is on lands designated with a historical resource value of 5a in the north. Any development or construction activities that require digging at any depth (i.e., utility installation, service additions, landscaping, or residential subgrade developments) may require clearance under the *Historical Resources Act*.

The responsible contractor for any of the above-listed activities will be responsible for reporting any discovered historic resource to Alberta Arts, Culture, and Status of Women following the standard reporting requirements provided by that Ministry. If a historical resource is discovered, any development or construction activities must cease in the vicinity of that resource and may proceed only with the direction of the Ministry to prevent disturbing the resource.

4 REGULATORY

Table 4-1 summarizes federal, provincial, and municipal legislation permitting considerations and regulations that should be followed during the project (planning, construction, and restoration). Regulatory requirements may change and should be revisited prior to construction activities to confirm requirements.

Table 4-1 Development Regulatory Permitting Considerations

Legislation	Environmental Conditions and Restrictions
Provincial	
Water Act	• Impacts (permanent, temporary. or ephemeral) to wetlands require *Water Act* approval.
Historical Resources Act	• Under the *Historical Resources Act*, the study area is within a historical resource value notation of 5a, which denotes the potential to contain archaeological resources. Clearance under the Act is required prior to construction activities. • Lands with historical resource value notations of 5 are exempt from clearance requirements for geotechnical investigation activities.

Environmental Protection and Enhancement Act	• The development of stormwater or wastewater infrastructure as part of the planned development may be subject to permitting or notification requirements under the *Environmental Protection and Enhancement Act*.
	  • If development is to merely extend the stormwater / waste water infrastructure under an existing EPEA approved system, a new full approval is not required; however, a notification under the existing system is required.
	  • As per the EPEA Activities Designation Regulation, Division 2 - Substance Releases, (f): "the construction, operation or reclamation of a storm drainage system for storm drainage in a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, municipal development or privately owned development, but does not include a storm drainage system that collects, stores or disposes of storm drainage solely from agricultural land or land on which farms are located". As such, if the Town of Claresholm eventually plans to construct a new storm drainage system in this subdivision, this would be considered an activity under EPEA and would require approval. However, clause (f) does not apply to the following:
	  • (i) the extension of a storm drainage collection system forming part of a storm drainage system,
	  • (ii) the replacement of a portion of a storm drainage collection system forming part of a storm drainage system,
	  • (iii) the extension of a wastewater collection system forming part of a wastewater system,
	  • (iv) the replacement of a portion of a wastewater collection system forming part of a wastewater system,
	  • (v) the addition or modification of a storm drainage treatment facility forming part of a storm drainage system,
	  • (vi) irrigation using treated wastewater from a wastewater system, or
	  • (vii) application of sludge from a wastewater system to land,

Legislation	Environmental Conditions and Restrictions
	• where the wastewater system or storm drainage system is approved or registered under the Act.
Municipal	
Town of Claresholm Land Use Bylaw No. 1525	• All future proposed developments and subdivided lots (i.e., highway commercial and multiple residential land use districts) must adhere to the provisions of Schedule 1 of the *Land Use Bylaw*.

In addition to permitting requirements in Table 4-1, regulatory compliance requirements must be adhered to, including those outlined below in Table 4-2.

Table 4-2 Development Regulatory Compliance Considerations

Legislation	Environmental Conditions and Restrictions
Federal	
Migratory Birds Convention Act	• Provides protection for migratory birds and their nests, prohibiting disturbing, destroying, or taking a nest egg, or nest shelter of a migratory bird. • The project is in the B3 nesting zone with a breeding and nesting period from mid-April to late August.
Species at Risk Act (SARA)	• The Act prohibits the killing, harming, harassment, possession, capturing or taking of a species listed as extirpated, endangered or threatened, and the damage or destruction of a residence.
Provincial	
Environmental Protection and Enhancement Act	• The Act outlines requirements for protecting the environment, including air, land, and water. This includes activities that involve releasing substances to the environment, issues around conservation and reclamation, protecting potable water, handling and storing hazardous substances, waste minimization, recycling, and management.
Water Act	• This Act protects Alberta's waterbodies. • Potential dewatering of excavations must adhere to the conditions outlined in the Water Ministerial Regulation. • The procurement of water as part of construction activities (e.g., road watering or dust suppression) is subject to approval or licensing requirements under the Act.
Wildlife Act	• The Act provides protection and conservation of wildlife in Alberta. • A person shall not willfully molest, disturb, or destroy a house, nest, or den of prescribed wildlife.
Weed Control Act	• The Act requires a person to control noxious weeds and destroy prohibited noxious weeds on lands the person owns or occupies.

Legislation	Environmental Conditions and Restrictions
	• A person shall not use or move anything that, if used or moved, might spread listed weed species. • Weed management should be included in the project tender documents.
Soil Conservation Act	• The Act requires the project to take appropriate measures to prevent soil loss or deterioration from taking place.
Historical Resources Act	• The Act gives Alberta Culture and Status of Women the authority for the orderly development, preservation, study, interpretation, and promotion of appreciation for Alberta's historic resources. • Accidental discovery of historic resources during ground disturbance must be reported in accordance with Section 31 of the Act.

5 POTENTIAL IMPACTS

Development of commercial and residential properties, including supporting infrastructure will directly effect soils and terrain, vegetation, wildlife, wetlands, and land use.

Environmental effects may be positive (i.e., improves existing conditions), neutral (i.e., no change), or negative (i.e., degrades existing condition), and temporally short-term (i.e., during construction) or long-term (i.e., post-construction). **Table 5-1** outlines anticipated impacts on identified biophysical resources.

Table 5-1 Anticipated Impacts of Development on Identified Biophysical Resource

Biophysical Resource	Construction (Short Term)						Long Term
	Vegetation Clearing	Soil Removal and Stockpiling	Grading	Utility Installation	At grade construction	Landscaping	Commercial and Residential Activities
Soils and Landforms	↓	↓	↓	↓	↓	↑	--
Vegetation	↓	--	--	--	--	↑	--
Wildlife and Wildlife Habitat	↓	↓	↓	↓	↓	↓	↓
Wetlands	↓	↓	↓	--	--	--	--
Land and Resource Use	--	↓	↓	↓	--	--	--

↓: Negative anticipated effect of development
↑: Positive anticipated effect of development
--: Neutral / no change anticipated

The proposed development may impact identified biophysical resources including:

- Degradation of topsoil (via erosion and/or soil admixing);
- Removal of native plant communities;
- Introduction of weeds and non-native species;
- Loss or alteration of wildlife habitat;
- Potential loss of sensitive wildlife habitat;
- Sensory disturbance to wildlife;
- Potential disturbance of historical resources.

Developing the area will remove vegetation and temporarily destabilize soils during earthworks and underground utility installation. Exposed soils are susceptible to wind and water erosion and may move into adjacent private residences and agricultural fields. No element occurrence vegetation species have been previously identified within

the Study Area; however, uncultivated natural areas may provide suitable habitat for rare plant species. Impacts on rare plant species are not anticipated; however, Associated recommends completing additional rare plant field assessments to determine if rare plant occurrences are present in the Study Area prior to development. Development also has the potential to introduce/spread weeds and non-native species into vegetation communities.

Developing the Study Area will permanently remove grassland (grazing/agriculture) wildlife habitat during development, resulting in the direct loss of habitat for sensitive species, including prairie falcon, ferruginous hawk, and sharp-tailed grouse nesting and foraging habitat. Post-construction commercial and residential developments may result in a decrease in habitat quality within retained natural areas. Sensory disturbance and direct/indirect mortality during construction activities can be mitigated by limiting development to periods outside of restricted activity periods, conducting wildlife surveys to identify sensitive features (nests and dens), and establishing buffers around any known environmental sensitivity. Indirect, and direct impacts on wildlife can be avoided by implementing mitigation measures, and disturbance is limited to the construction phase.

Developing the Study Area has the potential to impact/disturb historic resources. The Study Area is located on lands with an Historical Resource Value of 5, with potential to contain a historic resource. Clearance under *Historical Resources Act* will be required prior to development activities.

6 MITIGATION MEASURES

Mitigation measures, can minimize, eliminate, or avoid potential environmental effects from the project. The mitigation measures presented in **Table 6-1** are not static and may need to be amended through the project design and execution. All implemented measures and changes to the proposed mitigation measures must adhere to the applicable regulatory legislation and requirements outline in the project approvals and permits.

Table 6-1 Development Mitigation Measures

Biophysical Resource	Development Activity Risk	Mitigation Measure	Effect Characteristic	Residual Effect
Soils and Terrain	Admixing of soils Erosion and sedimentation Augmented terrain	• Create and implement an Erosion and Sediment Control (ESC) plan. • Minimize handling and re-handling of topsoil. • Salvage topsoil for reuse in landscape/restoration activities unless soil is infested with weeds. • Schedule work to minimize the duration of soil exposure. • Avoid construction during periods of heavy precipitation. • Separate topsoil and subsoil stockpiles by a minimum of 3 m (Alberta Transportation and Economic Corridors (TEC) 2023). Stabilize stockpiles if left in place for longer than 30 days. • Use ESC measures as needed to protect exposed slopes or stockpiles. • Inspect ESC measures daily and during or immediately after heavy rain, and immediately conduct maintenance on any deficiencies identified. Document and record all inspections and maintenance activities completed. • Remove non-biodegradable, temporary ESC measure material (T-bar posts, silt fence fabric, etc.) after vegetation establishment.	• Admixing may occur during any potential stripping, excavation, or other earthworks. The frequency of admixing is expected to be low if appropriate soil handling procedures and mitigation measures are implemented. • Increased erosion potential during stripping and excavation will be short term before stabilization and vegetation establishment. • Increased erosion potential will be reversible after reclamation activities are conducted.	Negligible. Residual effects are not anticipated if mitigation measures are implemented.
Vegetation	Destruction of native vegetation communities Introduction and spread of weeds	• Delineate the area to be cleared prior to construction and limit native vegetation removal as much as possible. • Develop landscape/restoration plans based on native vegetation species present in the Study Area prior to development. • Preserve the native seed bank by salvaging topsoil for reuse during landscaping and restoration activities. • Conduct pre-disturbance rare plant surveys to identify any rare plant communities in the Study Area prior to development. Ensure surveys adhere to the Alberta Native Plan Council Guidelines for Rare Vascular Plan Surveys in Alberta – 2012 Update. • Protect planted/seeded areas until vegetation is established. • Avoid using equipment and vehicles where weeds are present, if possible. Delineate areas with weeds and restrict access. • Eradicate prohibited noxious weeds and control noxious weeds pursuant to the Alberta *Weed Control Act*. • Ensure all equipment and tools brought to and used on site are clean and free of off-site soil and plant material. • Remove dirt, mud, and clumps of sod from equipment before removing the equipment from the site. • Ensure imported soil fill is free of weed seeds. • Ensure seed mix for landscaping is free of weed seeds.	• Destruction of native vegetative communities is anticipated. With proper mitigation measures, effects of this distribution will be limited. • There is a risk of destroying rare plant habitat. With proper mitigation measures, impacts to rare plant species will be negligible. • There is an increased risk of introducing weeds through soil or vegetation debris from equipment brought to the Project site from other sites. With proper mitigation, effects are not expected to occur. If not properly mitigated against, effects can be long term but reversible. • There is an increased risk of spreading weeds through vehicle or equipment use between locations during construction. • There is an increased risk of spreading weeds through potential imported soil fill, if it is required.	Low, short-term negative residual effects during construction until vegetation has established. Long-term negative effects where native vegetation communities are permanently removed. Negligible. Residual effects are not anticipated if mitigation measures are implemented.

Biophysical Resource	Development Activity Risk	Mitigation Measure	Effect Characteristic	Residual Effect
Wildlife and Wildlife Habitat	Disturbance to wildlife and nesting birds during nesting or restricted activity periods Permanent removal of potential wildlife habitat	• Perform pre-development surveys for sensitive species (prairie falcon, ferruginous hawk, and sharp-tailed grouse) to identify high-quality habitat within the Study Area. • Minimize suitable nesting and foraging habitat disturbance, where possible. • Select development options with minimal disturbance to areas with native vegetation communities (habitat). • Restore impacted but undeveloped areas within the Study Area as soon as possible after construction activities. • Retain a qualified environmental professional to complete pre-construction sweeps for any activity that occurs. Pre-construction wildlife sweeps must be completed before all project activities, regardless of the time of year. • Repeat wildlife sweeps if the development site is inactive for more than four days. • Stop project activities immediately if active nests are identified during a wildlife sweep or during the completion of the project. • Have a qualified professional review project activities and the nesting species. EPA will be contacted to determine the appropriate mitigation measures (if applicable) to implement for construction activities to proceed.	• Suitable habitat for urban-adapted wildlife is present in the Study Area, and disturbance may occur through interaction with breeding or nesting behaviours. • Migratory birds may be deflected or may avoid important habitat during sensitive seasons. Habitat avoidance may result in lower overall individual fitness during important seasons.	Short-term negative effects until vegetation (habitat) has established. Long-term negative effects following the development of native vegetation communities (habitat). Effects are expected to be minor if mitigation measures are implemented.
Land Use, Contamination	Potential interaction with contaminated material	• Remove any known contaminated material immediately from the site and dispose of it in an appropriate waste disposal facility. • Avoid excavating known contaminated material during heavy precipitation. • Avoid excavating known contaminated material during high winds. • Inspect the working conditions of all ESC measures before excavating known contaminated material. • Stop activities immediately and inform the qualified contaminated specialist if groundwater seepage enters the excavation area. • Isolate areas of known contaminated materials during excavation activities. • Direct excavation personnel on the course of action when contamination is encountered. • Clean all equipment before and after all contamination-involved activities.	• The potential release of contaminated material directly impacts the agricultural quality and habitat surrounding properties. Direct and residual impacts from the spread of contamination can range in severity and duration. Implementation of mitigation measures and BMPs is anticipated to decrease the risk and reduce encounters. The extent and magnitude of the potential impacts depend on the contaminant and the quantity of contaminant released.	Negligible. Residual effects are not anticipated if mitigation measures are implemented.

7 CONCLUSIONS & RECOMMENDATIONS

The Town of Claresholm intends to develop a segment of land located on the northern boundary of the Town. Plans for the development and construction phases are still in the preliminary stages and were not available at the time of this report; however, it is understood that commercial developments will be in accordance with the current Municipal Development Plan (MDP), which anticipates zoning commercial development along Highway 2, with residential uses adjacent.

Considerations to include during the design phase of development, which will limit the impacts of biophysical resources should include;

- Retain native habitat as much as possible;
- Develop areas in sequence, avoiding disturbing the entirety of the development area;
- Consider utilizing environmental reserves or green spaces to reduce habitat loss;
- Preserve as much natural vegetation as possible, ensuring seed bank from previous site condition is preserved; and
- Ensure contaminated material is contained and removed prior to development of residential and commercial areas.

Additional construction impact assessments and environmental requirements (i.e., field surveys and regulatory approvals) must be completed at later stages of the project, prior to development. The project's anticipated impacts can be minimized or avoided by adhering to the mitigation measures provided in this report. While there are residual effects associated with this development, the conceptual design plan preserves key habitats while maintaining an economically feasible plan for the development of the Study Area.

REFERENCES

Agriculture and Agri-Food Canada Annual Crop Inventory (AAFC) 2020. Available online at: Annual Crop Inventory – Open Government Portal (canada.ca).

Alberta Climate Information Service (ACIS). 2020. Interpolated Weather Data Since 1901 for Alberta Townships. Available online at https://acis.alberta.ca/township-data-viewer.jsp. Accessed on June 30, 2023.

Alberta Environmental Protection. 1996. Alberta User Guide for Waste Managers. Available online at: https://open.alberta.ca/dataset/03070d06-973f-4707-8ff3-6cef10fe93c4/resource/2ec1e4ef-ec17-420d-821f-c743028f38cd/download/albertauserguidewastemanagers-aug1996.pdf. Accessed June 27, 2023.

Alberta Environment and Parks (AEP). 2017. Environmental Site Assessment Repository (ESAR). Available at: https://www.esar.alberta.ca/esarmain.aspx. Accessed July 13, 2023.

Alberta Environment and Parks (AEP). 2020. Alberta Merged Wetland Inventory. Available online at https://geodiscover.alberta.ca/geoportal/rest/metadata/item/bfa8b3fdf0df4ec19f7f648689237969/html. Accessed on July 6, 2023

Alberta Environment and Parks (AEP). 2021. Air Photo Distribution Library - Aerial Photographic Record System. Available online at: https://securexnet.env.gov.ab.ca/aprs/index.html. Accessed on July 6, 2023

Alberta Parks (AP). 2019. Alberta Conservation Information Management System (ACIMS). Alberta Environment and Parks, Edmonton, Alberta. Available at: https://www.albertaparks.ca/albertaparksca/management-land-use/alberta-conservation-information-management-system-acims/download-data/. Accessed July 13, 2023.

Environmental Protection and Enhancement Act, RSA 2000, c. E-12.

Government of Alberta (GoA). 2009. Restricted activity periods (RAPs) for fish species in the 10 fish management zones of Alberta. Sustainable Resource Development. Available online at: https://open.alberta.ca/dataset/5145cda2-41aa-47ab-96dc-29810e7aca81/resource/b1fef90a-74b6-4d3f-b458-2ec0a711bd2a/download/restrictedperiodsfishspecies10fmzs-jan2010.pdf. Accessed July 13, 2023.

Government of Alberta (GoA). 2011. Alberta Transportation Erosion and Sediment Control Manual.

Government of Alberta (GoA). 2014. Significant Landforms of Alberta Project – an Introduction. Alberta Environment and Sustainable Resource Development. Edmonton, Alberta. Available online at: https://www.albertaparks.ca/albertaparksca/management-land-use/significant-landforms-of-alberta. Accessed July 13, 2022.

Government of Alberta (GoA). 2015. Alberta Wetland Identification and Delineation Directive. Water Policy Branch, Alberta Environment and Parks. Available online at: https://open.alberta.ca/dataset/b2a69660-7f44-4c8c-9499-0da23946dafa/resource/3917b05d-7cf8-4d08-b3ae-74a15af625ce/download/2015-Alberta-Wetland-Identification-Delineation-Directive-June-

2015.pdf#:~:text=Alberta%20Wetland%20Identification%20and%20Delineation%20Directive%20June%202015,improve%20consistency%20of%20wetland%20boundaries%2C%20area%20and%20assessments. Accessed July 4, 2023.

Government of Alberta (GoA). 2017. General Status of Alberta Wild Species 2015. Alberta Environment and Parks (AEP). Available online at: https://open.alberta.ca/dataset/ad0cb45c-a885-4b5e-9479-52969f220663/resource/763740c0-122e-467b-a0f5-a04724a9ecb9/download/sar-2015wildspeciesgeneralstatuslist-mar2017.pdf. Accessed July 13, 2022.

Government of Alberta (GoA). 2020. Alberta Wild Species Status. https://www.alberta.ca/lookup/wild-species-status-search.aspx

Government of Alberta (GoA). 2022a. Fisheries and Wildlife Management Information System (FWMIS). Accessed June 10, 2022.

Government of Alberta (GoA). 2022b. Agricultural Regions of Alberta Soil Inventory Database (AGRASID).

Government of Alberta (GoA). 2022c. Provincially regulated weeds. Available online at: https://www.alberta.ca/provincially-regulated-weeds.aspx. Accessed July 13, 2023.

Government of Alberta. (GoA). 2022d. Stop the spread of whirling disease. Available at: https://www.alberta.ca/stop-whirling-disease.aspx. Accessed July 13, 2023.

Government of Alberta (GoA). 2022e. Alberta Listing of historic resources. Available at: https://www.alberta.ca/listing-historic-resources.aspx. Accessed July 13, 2023.

Government of Alberta (GoA). 2023 Alberta Water Well Information Database. Available at https://groundwater.alberta.ca/WaterWells/d/ Accessed July 13, 2023

Government of Canada (GoC). 2018. General nesting periods of migratory birds. Available online at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html. Accessed July 13, 2023.

Government of Canada (GoC). 2021. Species at risk public registry. Available online at: https://species-registry.canada.ca/index-en.html#/. Accessed July 13, 2023.

Hexagon. 2023. Hxdr Catolog. Available online at https://hxdr.app/catalog. Accessed on July 7, 2023.

Historical Resources Act, RSA 2000, c H-9.

Migratory Birds Convention Act, 1994, SC 1994, c. 22.

Natural Regions Committee. 2006. Natural Regions and Subregions of Alberta. Compiled by D.J. Downing and W.W. Pettapiece. Government of Alberta. Pub. No. T/852.

Sinergise Ltd. 2023. EO Browser. Available online at: https://apps.sentinel-hub.com/eo-browser/. Accessed July 7, 2023.

Soil Conservation Act, RSA 2000, c. S-15.

Species at Risk Act, SC 2002, c. 29.

Transportation and Economic Corridors. 2023. Engineering Consultant Guidelines for Highway, Bridge, and Water projects – Volume 1. Available at: https://www.alberta.ca/assets/documents/tec-ecg-highway-bridge-and-water-projects-volume-1.pdf. Accessed July 13, 2023.

Water Act, RSA 2000, c. W-3.

Weed Control Act, RSA 2008, c. W-5.1.

Wildlife Act, RSA 2000, c. W-10.

Water Act, RSA 2000, c. W-3.

Weed Control Act, RSA 2008, c. W-5.1.

Wildlife Act, RSA 2000, c. W-10.

APPENDIX A – 2023 ESA PHASE 1 REPORT

APPENDIX B – LAND TITLES

LAND TITLE CERTIFICATE

S

LINC	SHORT LEGAL	TITLE NUMBER
0035 491 075	0715848;8;5	151 218 754

LEGAL DESCRIPTION

PLAN 0715848
BLOCK 8
LOT 5
CONTAINING 1.1790 HECTARES(2.91 ACRES) MORE OR LESS
EXCEPTING THEREOUT:

PLAN	NUMBER	HECTARES	ACRES	MORE OR LESS
SUBDIVISION	1213513	0.202	0.50	

EXCEPTING THEREOUT ALL MINES AND MINERALS

ATS REFERENCE: 4;27;12;35;NW
ESTATE: FEE SIMPLE

MUNICIPALITY: TOWN OF CLARESHOLM

REFERENCE NUMBER: 121 320 423 +1

REGISTERED OWNER(S)

REGISTRATION	DATE(DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
151 218 754	26/08/2015	TRANSFER OF LAND	$40,000	$40,000

OWNERS

HERITAGE STATION CAR WASH INC.
OF 1100 FRONTENAC AVE SW
CALGARY
ALBERTA T2T 1B6

ENCUMBRANCES, LIENS & INTERESTS

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
011 239 157	21/08/2001	CAVEAT RE : UTILITY RIGHT OF WAY CAVEATOR - FORTISALBERTA INC. 320-17 AVE SW

(CONTINUED)

CALGARY
ALBERTA T2S2V1
(DATA UPDATED BY: CHANGE OF NAME 041457277)

041 340 442 09/09/2004 UTILITY RIGHT OF WAY
GRANTEE - THE TOWN OF CLARESHOLM.
P.O. BOX 1000
CLARESHOLM
ALBERTA T0K0T0
AS TO PORTION OR PLAN:0413177

041 375 588 01/10/2004 RESTRICTIVE COVENANT

051 080 492 10/03/2005 RESTRICTIVE COVENANT

051 087 062 16/03/2005 RESTRICTIVE COVENANT

051 089 047 17/03/2005 RESTRICTIVE COVENANT

091 137 087 20/05/2009 CAVEAT
RE : RESTRICTIVE COVENANT

091 137 090 20/05/2009 CAVEAT
RE : RESTRICTIVE COVENANT

131 133 802 10/06/2013 EASEMENT
AS TO PORTION OR PLAN:PORTION
OVER AND FOR BENEFIT OF: SEE INSTRUMENT

131 164 911 11/07/2013 UTILITY RIGHT OF WAY
GRANTEE - THE TOWN OF CLARESHOLM.
AS TO PORTION OR PLAN:PORTION

131 164 916 11/07/2013 EASEMENT
AS TO PORTION OR PLAN:PORTION
OVER AND FOR BENEFIT: SEE INSTRUMENT

151 238 256 15/09/2015 MORTGAGE
MORTGAGEE - THE TORONTO DOMINION BANK.
915-17 AVE SW
CALGARY
ALBERTA T2T0A4
ORIGINAL PRINCIPAL AMOUNT: $200,000

151 294 255 13/11/2015 CAVEAT
RE : DEVELOPMENT AGREEMENT PURSUANT TO MUNICIPAL GOVERNMENT ACT
CAVEATOR - THE TOWN OF CLARESHOLM.
P.O. BOX 1000, CLARESHOLM
ALBERTA T0L0T0

(CONTINUED)

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS

TOTAL INSTRUMENTS: 013

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN ACCURATE REPRODUCTION OF THE CERTIFICATE OF TITLE REPRESENTED HEREIN THIS 12 DAY OF JUNE, 2023 AT 02:59 P.M.

ORDER NUMBER: 47491145

CUSTOMER FILE NUMBER:

END OF CERTIFICATE

LAND TITLE CERTIFICATE

S

LINC	SHORT LEGAL	TITLE NUMBER
0032 892 564	7410624;7	071 582 073 +3

LEGAL DESCRIPTION

PLAN 7410624
BLOCK 7
CONTAINING 36.8 HECTARES (90.98 ACRES) MORE OR LESS
EXCEPTING THEREOUT:

PLAN	NUMBER	HECTARES	(ACRES)	MORE OR LESS
SUBDIVISION	8210390	13.12	32.43	
ROAD	9310163	0.066	0.16	
SUBDIVISION	9611995	1.13	2.79	
SUBDIVISION	0413176	5.622	13.89	
SUBDIVISION	0714860	0.809	2.00	
SUBDIVISION	0715848	1.83	4.52	

EXCEPTING THEREOUT ALL MINES AND MINERALS
AND THE RIGHT TO WORK THE SAME

ATS REFERENCE: 4;27;12;35;W
ESTATE: FEE SIMPLE

MUNICIPALITY: TOWN OF CLARESHOLM

REFERENCE NUMBER: 071 494 040 +1

REGISTERED OWNER(S)

REGISTRATION	DATE(DMY)	DOCUMENT TYPE	VALUE	CONSIDERATION
071 582 073	29/11/2007	SUBDIVISION PLAN		

OWNERS

CLARESHOLM LAND CORPORATION.
OF 1100 FRONTENAC AVENUE S.W
CALGARY
ALBERTA T2T 1B6

(CONTINUED)

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
751 003 609	15/01/1975	UTILITY RIGHT OF WAY GRANTEE - CANADIAN WESTERN NATURAL GAS COMPANY LIMITED. "DISCHARGED EX 20 FT STRIP BY 761123940"
011 239 157	21/08/2001	CAVEAT RE : UTILITY RIGHT OF WAY CAVEATOR - FORTISALBERTA INC. 320-17 AVE SW CALGARY ALBERTA T2S2V1 (DATA UPDATED BY: CHANGE OF NAME 041457277)
041 340 839	09/09/2004	MORTGAGE MORTGAGEE - JACKIE VERNON DEROCHIE MORTGAGEE - MARJORIE GERALDINE DEROCHIE BOTH OF: P.O.BOX 1176 CLARESHOLM ALBERTA T0L0T0 ORIGINAL PRINCIPAL AMOUNT: $380,000
041 375 588	01/10/2004	RESTRICTIVE COVENANT
051 080 492	10/03/2005	RESTRICTIVE COVENANT
051 087 062	16/03/2005	RESTRICTIVE COVENANT
051 089 047	17/03/2005	RESTRICTIVE COVENANT
061 455 239	02/11/2006	MORTGAGE MORTGAGEE - CORNERSTONE FINANCIAL LTD. 3107 VERCHERES STREET SW CALGARY ALBERTA T2T3R6 ORIGINAL PRINCIPAL AMOUNT: $520,000
071 494 042	03/10/2007	CAVEAT RE : DEFERRED RESERVE CAVEATOR - THE TOWN OF CLARESHOLM. 3105 - 16TH AVENUE NORTH LETHBRIDGE ALBERTA T1H5E8
111 034 470	10/02/2011	CAVEAT RE : AMENDING AGREEMENT CAVEATOR - CORNERSTONE FINANCIAL LTD. 3107 VERCHERES STREET SW CALGARY ALBERTA T2T3R6

(CONTINUED)

REGISTRATION NUMBER	DATE (D/M/Y)	PARTICULARS
		AGENT - DONALD E HOMER
151 284 851	30/10/2015	CAVEAT RE : AMENDING AGREEMENT CAVEATOR - JACKIE VERNON DEROCHIE PO BXO 1176 CLARESHOLM ALBERTA T0L0T0 CAVEATOR - MARJORIE GERALDINE DEROCHIE PO BOX 1176 CLARESHOLM ALBERTA T0L0T0 AGENT - L PATRICK LANNAN

TOTAL INSTRUMENTS: 011

THE REGISTRAR OF TITLES CERTIFIES THIS TO BE AN ACCURATE REPRODUCTION OF THE CERTIFICATE OF TITLE REPRESENTED HEREIN THIS 12 DAY OF JUNE, 2023 AT 11:03 A.M.

ORDER NUMBER: 47485785

CUSTOMER FILE NUMBER:

END OF CERTIFICATE