

PROJECT EXECUTIVE SUMMARY OF A DESIGNATED PROJECT UNDER THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT, 2012

ALBERTA MIDLAND RAILWAY TERMINAL LTD. PROPOSED LAMONT RAILCAR STORAGE PROJECT LOCATED NEAR BRUDERHEIM, ALBERTA

Submitted to: Canadian Environmental Assessment Agency

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ACRONYMS

ACT	Alberta Culture and Tourism
AEP	Alberta Environment and Parks
AER	Alberta Energy Regulator
AIHA	Alberta Industrial Heartland Association
AMRT	Alberta Midland Railway Terminal Ltd.
ASP	Area Structure Plan
CEAA 2012	Canadian Environmental Assessment Act 2012
CN	Canadian National
CNPRS	Canadian Northern Plains Rail Services Ltd.
EPEA	Environmental Protection and Enhancement Act
ERP	Emergency Response Plan
FAP	Fort Air Partnership
FWMIS	Fisheries and Wildlife Management Information System
HRA	Historical Resources Act
LSD	Legal subdivision
MBCA	Migratory Birds Convention Act
NMHC	Non-methane hydrocarbon
РАН	Polycyclic aromatic hydrocarbon
PDSA	Pre-disturbance site assessment
SARA	Species at Risk Act
ТНС	Total hydrocarbons

UNITS

ha	hectare (s)	
km	kilometre (s)	
kV	kilovolt (s)	
m	metre (s)	
mm	millimetre (s)	

1. GENERAL INFORMATION

Alberta Midland Railway Terminal Ltd. (AMRT) is proposing to construct a railcar storage facility named the Lamont Railcar Storage Project (the Project). The Project will then be operated and maintained by Canadian Northern Plains Rail Services Ltd. (CNPRS) and decommissioned at a future date by AMRT. The Project is located in the northwest and southwest quarter sections of 25-55-20 W4M, approximately three kilometres (km) northwest from the town of Lamont, Alberta. The Project is within Lamont County and Alberta's Industrial Heartland and adjacent to a Canadian National (CN) railway line (see Figure 1).

AMRT currently owns the LSDs 11, 12, 13, 14 within 25-55-20 W4M and a portion of LSD 6 (approximately 76 hectares (ha)). Within these, the Project footprint is defined as:

- 16 storage tracks and 5 operating tracks 21 tracks in total;
- Repair area for placement of a mobile repair truck;
- Site access, service road, and employee parking;
- Office trailer; and
- Stormwater management pond.

The purpose of the Project is to store and switch railcars to support private railcar fleet owners and rail shippers. This storage capacity is required to expand rail operations in the Fort Saskatchewan area and Alberta's Industrial Heartland. This will prevent unnecessary movement of empty railcars to distant storage yards in Canada and the United States.

Principal Proponent and Contact Information

Category	Details		
Name of Corporation:	Alberta Midland Railway Terminal Ltd.		
Address:	P.O. Box 830 (564 North 200 East), Raymond, Alberta, Canada, T0K 2S0		
Chief Executive Officer:	Darcy Heggie		
Principal Contact for the Lamont Railcar Storage Project			
Name and Title:	Darcy Heggie, President		
Contact:	dheggie@albertamidlandrail.com, (403) 308-6924		
Company Website:	http://albertamidlandrail.ca/home.html		

The Northern Plains Railroad group of companies includes CNRPRS, and is a key shareholder of AMRT. CNPRS will be responsible for the operating phase of the Project.

Category	Details		
Name of Corporation:	Canadian Northern Plains Rail Services Ltd.		
Address:	P.O. Box 1174, Camrose, Alberta, Canada, T4V 1X4		
Chief Executive Officer:	Gregg F. Haug		
Secondary Contact for the Lamont Railcar Storage Project			
Name and Title:	Shawn I. Smith, President		
Contact:	shawn_smith@nprail.com, (780) 679-4008		
Company Website:	http://www.nprail.com/canadian-nprail-services.php		

Secondary Proponent (for Operations) and Contact Information

The Project is within the Alberta Industrial Heartland and the Capital Region (a group of 24 municipalities including Lamont County). These two regions officially adopted a cumulative effects management approach in 2007, which is built on three regional environmental frameworks:

- Water Management Framework for the Industrial Heartland and Capital Region;
- Capital Region Air Quality Management Framework; and
- Elemental Sulphur Management Framework.

Since 2007, regional environmental studies have been completed to investigate wetlands, groundwater, and water quality, amongst others. The Project also falls within the Alberta Industrial Heartland Regional Noise Management Plan, the Capital Region Growth Plan, and Lamont County's Industrial Heartland Area Structure Plan.

The Project is not within an area that has been subject to a Regional Environmental Study under CEAA 2012.

Figure 1: Alberta Midland Railway Terminal Site Plan



2. PROJECT INFORMATION

The Project railcar storage facility will support private railcar fleet owners and rail shippers. These include Pembina Infrastructure and Logistics LP (Pembina), and others, who have existing and expanding operations in the Fort Saskatchewan area, within Alberta's Industrial Heartland. The Project will provide the capacity to store and switch up to 850 railcars at any one time.

All railcars will be either empty of any product, or be considered "residue– last contained" railcars (empty railcars that last contained dangerous goods. The majority of product that was last carried by the stored railcars will be residue of petroleum products (fuels, oil or natural gas liquids [NGL]). The railcars may also have last carried cyclical products including residues of grain, potash, fertilizer, lumber, or intermodal containers.

CN is a common carrier railway, which will solely deliver and receive traffic from the Project facility. Railcars to be stored will arrive at the Project on the adjacent CN line, be placed into temporary storage in the rail yard, and then be switched out and returned to service as they are required for re-loading. This is the only involvement of CN with the Project. The proposed in-service date for the Project is Q2 2017, subject to permitting and construction schedules.

The Project will be located on AMRT owned lands in NW 25 55-20 W4M, and the easement on SW 25 55-20 W4M. Currently, AMRT is projecting a total project cost of C\$34 million for construction of the Project.

The Project will consist of:

- Railcar Storage 16 designated railcar storage tracks totalling approximately 48,000 feet (14.6 km) of standing capacity;
- Operating Tracks five designated operating tracks totalling approximately 12,000 feet (3.7 km). To be used for exchanging railcars with CN, switching, and storage of a more temporary nature;
- Light mobile car repairs a small onsite repair area is planned where cars can be switched to and placed for inspection and repair, using a mobile repair truck;
- Site access (2) and service roads and employee parking;
- Office trailer for operations administration and employee comforts; and
- Stormwater management pond.

The Project is not a component of a larger project listed in the CEAA 2012 Regulations Designating Physical Activities.

2.1 **Project Operations**

CNPRS will operate the Project to meet applicable federal and provincial rail safety guidelines and standards. CNPRS operating personnel will be qualified in applicable operating rules and standards to ensure a safe and efficient operation. This includes qualification in industrial rail operating and safety rules, and the transportation and handling of dangerous goods.

CNPRS plans to maintain two locomotives required for switching at the Project facility and will offer a location for a mobile railcar repair truck to perform "mobile repairs" as may be required. These repairs include minor repairs to safety appliances on cars, covered hopper tops, bottom hopper gates, couplers,

wheels, brake shoes, tank car valves, brake valves, and stenciling. Any major repairs that cannot be handled onsite will be taken to the closest CN or CP heavy repair facility. No purging, venting, or other cleaning of tank cars containing dangerous commodities is planned onsite.

Within the Project facility, CNPRS anticipates Monday to Friday operation from 0800 to 1700 (for four to five hours per day and two to three days per week). Specific days of the week are to be determined, but would only including occasional weekend operations as required.

On days when CN trains are planned to serve the Project facility, the CN trains will stop, and the railcars to be set out for storage at the Project will be brought to the site by CN crews and locomotives. Any outbound cars to move out of the Project terminal will have been switched into place by the CNPRS crews for CN to handle out of the Project, and onto a CN train track accordingly. CNPRS crews will perform any switching from the planned CN inbound and outbound tracks, into designated onsite storage tracks. These CN operations could occur outside of daylight and weekday hours (subject to CN service ability) but are anticipated to occur for one hour per week overall.

2.2 Project Facility Maintenance

CNPRS, as operator of the Project facility, together with AMRT, are responsible for maintenance of the Project. Onsite maintenance includes inspection, repair, and replacement of railway track(s), switches, and other components; maintenance of roadways; maintenance of stormwater management facilities; snow removal; and weed control during the summer months.

2.3 Physical Project Works

The physical works components associated with the construction of the Project facility include:

- Grading: approximately 70,000 feet (21.6 km) of track and associated access and service roads;
 - Top Soil Stripping: approximately 67,500 m³ will be stockpiled on site and utilized for a perimeter berm where practical,
 - Cut (suitable fill): 140,000 m³,
 - Granular: approximately 45,000 m³ (subballast), and
 - o Culverts: approximately 200 LM (various diameters 600 to 900 mm).
- Trackwork;
 - o Rail: approximately 70,000 (21.6 km) track feet (100 pounds/yard minimum rail weight),
 - o Track ties: approximately 35,000 steel tiesand 300 wood ties,
 - o Track Ballast: approximately 52,000 tonnes (1-3/4 inch crushed rock), and
 - Turnouts: 18 of type #8 (for Rail Yards and Industrial Tracks typically 15 mph design speed), 6 of type #10 (for Industrial Yard or Branchlines typically 15 to 20 mph design speed), and 2 of type #12 (for Maintrack use typically 25 mph design speed).
 NOTE: all track materials are proposed as NEW materials.
- Buildings;
 - Office Trailer for administrative and employee comfort requirements.

- Utilities;
 - Electrical supply for office trailer, yard lighting at key working areas, and locomotive "hot start." ¹
- Security Fence;
 - Approximately 3.2 km of security fence (chainlink) along the west and north sides of the property and one control entrance gate.
- Equipment; and
 - As a railcar storage facility, with light "mobile repairs," no permanent equipment will be installed or constructed on the site, and
 - To facilitate track maintenance repairs, the Operator will engage a qualified rail contractor to complete track inspection and maintenance activities as required and in accordance with Alberta Transportation railway guidelines.
- Material Storage.
 - Track Maintenance Materials: a small inventory of track materials will be maintained on site in order to undertake necessary repairs such as joint bars, replacement rails, turnout components, track ties (steel and wood), and miscellaneous fasteners.

2.4 Size

The property limits of the Project Facility total 74 ha (182.9 acres) including 63.2 ha (156.1 acres) within the NW 25 55-20 W4M, and 10.8 ha (26.8 acres) of property under easement agreement in SW 25 55-20 W4M.

The total amount of disturbed area, which includes grading for track, access and service roads, office trailer/parking, drainage ditches, stormwater management pond, proposed partial perimeter berm, is estimated at approximately 30.2 ha (74.6 acres). Approximately 0.5 ha of the total disturbed area will be of a temporary nature during construction for material laydown and equipment storage.

As this is a new Project with no currently existing rail infrastructure, no increase in size is applicable.

2.5 Utility Services for the Project

Electrical services required to operate the Project are limited to: localized yard lighting for operations and maintenance purposes; locomotive "hot start"; and office trailer outlets and heating.

A power demand load has not been prepared at this stage; however, a typical commercial service of Single Phase, 37.5 kV, is considered appropriate. Existing electrical supply for this level of service is located adjacent to the proposed development (parallel to Range Road 201). ATCO Power will been engaged to provide the necessary power line from the existing service to the Project site.

¹ Hot start is a circulating device that keeps fluids in the locomotive engine circulating, which reduces greenhouse gases and ensures optimal engine function.

The Project facility will not require permanent potable water or sewer services. A portable onsite industrial office trailer will be in place to accommodate operational and employee comfort requirements. Three to four employees will be accommodated by the office trailer. Potable water for this trailer will be supplied by contract. Washroom facilities will be portable and maintained by an approved contractor.

The Project has no requirement for the use of water in the carrying out of activities associated with storing and repairing of railcars. Cooling water required for operations of diesel locomotives will be supplied by contractor in a small onsite heated tank or delivered by truck when/as required.

Local fire protection is to be provided by the Town of Bruderheim, and Lamont County.

Stormwater drainage (both offsite and onsite) will be directed to an onsite storage pond in accordance with the Stormwater Management Plan (AECOM 2015).

Telephone and internet access will both be provided by wireless services.

A source of natural gas will not be required. Heating requirements for the employee-occupied facilities will be sourced by electrical power.

Solid wastes generated from the Project will be limited to typical office requirements and will be trucked by a licensed waste management contractor to an approved local landfill and recycling facilities.

Track and railcar repair materials will be salvaged and removed from site by the Operator (CNPRS).

2.6 Emissions and Discharges

Dust and exhaust emissions from construction equipment are anticipated to occur during normal working hours throughout the construction of the Project, and will be temporary in nature. Construction is scheduled in phases over a one year period, beginning in Q1 2016 (see schedule in Section 2.9). If/when required, mitigation of onsite dust emissions associated with earth moving and construction of roads will be addressed through appropriate dust suppression measures.

Construction materials and equipment delivered to site by truck will be completed under an agreement with Lamont County for the duration of the construction period.

During operations, typical emissions within the Project are expected from: diesel locomotive(s) during delivery and picking up of railcars to and from the designated Arrival and Departure tracks by CN, and any subsequent railcar re-positioning.

Typical durations of locomotive operations would include:

- CN: 2 locomotives for a duration of < 2 hour, 1 to 2 times per week; and
- CNPRS: 1 locomotive for a duration of 4-5 hours per day, approximately 3 to 4 days per week

Project operations air emissions are anticipated to impact local air quality no more than a 2 km radius from the Project. The US EPA's "Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for Stack Height Regulations)" suggests that typical local air quality impacts occur within 20 times the height of the stack (U.S. EPA, 1985). As diesel locomotive exhaust stacks are typically approximately 5 m in height, a 2 km radius of study area would conservatively estimate the potential area of influence.

Greenhouse Gas (GHG) Emissions

An engine air emissions calculator spreadsheet was used to estimate the yearly greenhouse gas (GHG) emissions for the construction and operations at AMRT. The spreadsheet calculates a GHG potential emissions estimate in CO₂ equivalents (CO₂e) units based on the U.S. Environmental Protection Agency (EPA)'s GHG calculation methodology (U.S. EPA, 2015). The following timelines were used:

- Construction: 10 hours/day, 5 days/week, 4 weeks/month for a total duration of 8 months
- Operations: 5 hours/day, 3 days/week, 52 weeks/year

A total emission of 15,909 CO₂e tons/year (14,432 CO₂e metric tons/year) and 1,505 CO₂e tons/year (1365 CO₂e metric tons/year) are predicted for construction and operations, respectively. Based on data from 2013, these total estimated emissions contribute approximately $6x10^{-3}$ % and $5.6x10^{-4}$ %, respectively, to the province of Alberta's overall annual GHG emissions based on 2013 data from Environment Canada (Environment and Climate Change Canada, 2013).

Liquid Discharges

Onsite direct Truck to Locomotive fueling will only be completed by a licensed and experienced truck supplier. Fueling will be completed at a designated location that will be equipped with appropriate drip matting and emergency spill kit equipment. Drip pans will be in place as a requirement of the licenced fuel delivery operator.

Any liquid discharges from "residue – last contained" railcars will be controlled in accordance with the Project Emergency Response Plan. Shipping documents for all potential railway product contents will be available onsite at all times, to advise first responders on appropriate procedure in the case of discharge.

Site grading construction will be staged to ensure that positive site drainage is in place before general site grading is commenced. Such positive drainage will be maintained during the full construction period site grading. Erosion control will be provided by the application of silt fencing installed in accordance with stormwater best management practices. The stormwater management pond and outlet control will be incorporated into the site drainage plan and prepared in advance of general track and roadway grading. The stormwater management pond and drainage systems have been designed to accommodate a 1:100 year storm event. Release from the stormwater management pond will be conveyed north through a roadside ditch along Range Road 201 and will then follow existing drainage pathways eventually discharging to Lamont Creek.

2.7 Regulation Designating Physical Activities

The Canadian Environmental Assessment Agency may require a federal environmental assessment, pursuant to the CEAA 2012, as the Regulations Designating Physical Activities describe a designated activity, under paragraph 25 of the Physical Activities Schedule as follows:

25. The construction, operation, decommissioning and abandonment of a new

(b) railway yard with seven or more yard tracks or a total track length of 20 km or more.

The proposed Project facility includes twenty one (21) tracks with a clear track capacity (storage capacity of cars) of approximately 60,000 track feet (18.3 km).

2.8 Additional Regulatory Requirements

As described in Section 2.7, the CEAA 2012 Regulations Designating Physical Activities apply to the Project. This requires submission of this Project Description to the Canadian Environmental Assessment Agency. In addition, the following regulatory requirements have been considered during the planning stages of the Project:

Federal

- Migratory Birds Convention Act (MBCA)
 - The MBCA strictly prohibits the harming of migratory birds and the disturbance or destruction of their nests and eggs.
- Species at Risk Act (SARA)
 - SARA listed species must not be harmed by the construction, operation, or decommissioning of Project works. It is illegal to kill, harm, harass, capture, or take in any way any species listed under the SARA.
- Railway Safety Act
 - See below under Provincial "Alberta Railway Act".
- Transportation of Dangerous Goods Act
 - See below under Provincial "Alberta Railway Act".

Provincial

The Project is not considered an energy resource activity (as defined in the *Responsible Energy Development Act* Section 1(1)(i/j); as such, Alberta Environment and Parks (AEP) has authority over any of the Project's *Environmental Protection and Enhancement Act* (EPEA) and the *Water Act* requirements.

- EPEA
 - The Project is an activity as defined within the EPEA Schedule of Activities, Section 9 (1), due to the need for a *Water Act* approval for wetland disturbance.
 - The Project is not included as an activity identified in Schedule 1 (Divisions 1, 2, and 3) of the EPEA Activities Designation Regulation; no industrial approval is required.
 - The Project is not a mandatory or exempted activity, as defined within the EPEA Environmental Assessment (Mandatory and Exempted Activities) Regulation. No provincial Environmental Impact Assessment (EIA) is required (determination made on December 2, 2015).
 - The EPEA Division 1 on Releases of Substances Generally, Section 110(1) requires AMRT to report any release of substance to the environment.
 - The stormwater management pond associated with the Project will require an EPEA registration.
 - Based on above, AMRT has engaged the Director and a provincial Environmental Impact Assessment is not required (determination on December 2, 2015).
- Public Lands / Water Act Joint Application to AEP for wetland disturbance
 - The Project is anticipated to impact wetlands; a Joint Application (*Public Lands Act and Water Act* to AEP) is required.

- AEP's decision will be required to determine if the impacted wetlands are Crownclaimable (triggering the *Public Lands Act*).
- Directive 056 License to AER
 - The Project is not a petroleum industry energy development as defined in the Directive; no license is required.
- Alberta Railway Act Industrial Operating Certificate
 - AMRT has approval to carry out construction from the Railway Administrator (Alberta Transportation) as per Part 1, Section 5. As part of this approval, AMRT will develop and implement a safety management system and operating rules.
 - The Alberta Railway Act includes federal requirements within Transport Canada's Transportation of Dangerous Goods Act and the Railway Safety Act.
- Historical Resources Act (HRA) Clearance from ACT
 - The Project land locations have not been assigned a historical resource value (HRV) indicating limited potential for historical resource concerns (ACT, 2015). HRA Clearance was received on June 18, 2015 for the Project.
 - In the unlikely event that during Project construction or operation a historic resource site is discovered, it will be reported to ACT immediately as per Section 31 of the HRA.

Municipal

- Lamont County
 - A Development Permit application was submitted to Lamont County in September 2015, and included a full disclosure of the Project plan (AMRT, 2015a). Lamont County approved this application on November 6, 2015 with a list of submission requirements. These will be submitted by AMRT prior to construction.
 - AMRT will work with the County to obtain road use agreements and establish emergency response planning.

2.9 Project Phases and Scheduling

The following table summarizes the forecasted timelines for the phases of the Project.

Project Phase	Anticipated Start/End Dates		
Conceptual design	Q3 2013 to Q2 2014 (completed)		
Preliminary design	Q3 2014 to Q3 2015 (completed)		
Regulatory approvals and permits	Q1 2014 to ongoing		
Detailed design & RFP	Q4 2015 to Q1 2016		
Start up: access improvements in SW site	Q1 through Q2 2016		
entrance, office trailer/employee facilities,			
parking, etc.			
Temporary works: construction equipment	Q2 2016		
and material storage			
Permanent works			
1) Topsoil removal & site preparation	Q2 2016		
Site drainage and storm pond	Q2 2016		
 Construct subgrade 	Q2 to Q3 2016		
Electrical supply to site	Q2 2016		
5) CN maintrack turnout installation	Q2 2016		
6) Track & turnout construction	Q3 to Q4 2016 & Q2 2017		
7) Ballast & surface track	Q4 2016 & Q2 2017		
8) Lighting & fencing	Q1 2017		
Commissioning & operations start up	Q1 & Q2 2017		
Decommissioning and Abandonment	Minimum 25 years after commissioning and start up		
	(during or after 2042).		

Decommissioning and Abandonment

The Project facility is anticipated to have a minimum operational period of 25 years. At the end of life of the facility, it may be re-purposed to an alternate rail served facility. The proposed configuration is suitable for a loading terminal with adequate train length capacity for modern day rail operations.

When the Project is decommissioned, the Project will be reclaimed to "equivalent land capability." Project decommissioning activities will include the removal of tracks and other infrastructure (such as access roads and buildings), remediation of any environmental impacts where necessary, and reclamation of the Project to suitable agricultural capable lands.

Construction of the Project will also include creation of a new pond and changes to site drainage. At the time of decommissioning, the Project would be assessed to determine the best reclamation approach that would cause the least negative effects to the environment. Returning the landscape of the Project and drainage to previous condition has the potential to result in negative effects to habitat on the property which will have been in place for many years. AMRT would consider using the adjacent lands as a representative baseline to return the site to an appropriate level of predevelopment condition.

It is proposed during soil stripping activities that topsoil will be conserved in a "berm" along the perimeter of the Project, to the extent practical. Topsoil from the perimeter berm will be available at the time of decommissioning and used to reclaim infrastructure such as the access roads, office trailer/parking, and track grade to support vegetation growth on reclaimed areas.

Track materials will be salvaged for re-use through normal railway materials broker agencies. These include reusable track materials, such as rail, ties, fasteners, and ballasts. Scrap materials will similarly be sold for recycling or disposal as appropriate by a licenced contractor. The office trailer would be removed from site for re-use or disposal. Small track repair tools and railcar equipment parts will be removed for use by the Operator of the Project. Upon a decision to abandon the Project facility, it is anticipated that Project decommissioning would take approximately one year.

3. PROJECT LOCATION

The site is located at latitude 53.7839 and longitude -112.8450 and is approximately 3 km northwest of the town of Lamont, Alberta. The proposed Project is located in the NW and SW quarters (LSD's 6, 11, 12, 13, 14) of section 25-55-20 W4M. AMRT owns surface rights for a portion of LSD 6 and all of LSD's 11, 12, 13, and 14.

The maps in Appendix A show the Project in relation to nearby environmentally sensitive areas, historical resource values, watercourses and waterbodies, linear and other transportation components, land use features, Aboriginal communities, federal lands and provincial boundaries, nearby communities, residences and fisheries information.

There are two permanent residences located adjacent to the Project: one is on the west side of Range Road 201 and the other is located on the south boundary of the CN railway tracks. Lamont County defines the referral area for consultation as 1,500 metres from the Project. Consultation with residences within 1.6 km of the Project is and ongoing part of AMRT's consultation plan.

The Project is located within Treaty 6. Aboriginal groups who may have asserted traditional territory in the Project area have been notified; a full list of these groups can be found in Section 6 of this document.

The proposed Project is not located on any federal lands. The closest federal lands are Elk Island National Park, located 7.2 km to the south. The Project is not anticipated to cause changes to this National Park or any other federal lands.

The Project is located within Alberta's Industrial Heartland Heavy Industrial Policy Area and is currently zoned as heavy industrial. Lamont County also recognizes this zonation and provides recommendations based on this designation.

The Project is within jurisdiction of Lamont County's Alberta's Industrial Heartland Area Structure Plan (ASP) 676/07 (Lamont County, 2008). As defined in the ASP, the Project is within the Heavy/Medium Industrial Policy Area. The ASP includes compliance guidelines for heavy/medium industrial activities as follows:

- Activity must comply with all municipal, provincial, and federal approvals and requirements.
- A buffer will be established and maintained between the industrial activity and adjacent neighbours.
- Nature of the buffer will be determined in consultation with the proponent and county.
- Proponent will consider all current land uses in the area of interest (including industry and agriculture) to exploring sharing lands.

All guidelines for this Policy Area were considered during AMRT's development application process to Lamont County.

The Project is also within the North Saskatchewan land use planning region defined by AEP. The North Saskatchewan Regional Plan is not complete; Phase 1 consultation (with "the Regional Advisory Council, First Nations and Métis groups, stakeholders, municipalities and the public") has recently been completed (AEP, 2015a).

4. FEDERAL INVOLVEMENT

There is no proposed or anticipated financial support by federal authorities for the Project. No federal lands are required for carrying out the Project. No federal permits, licenses, or authorizations are required to carry out the Project.

5. ENVIRONMENTAL EFFECTS

This section summarizes baseline environmental information collected for the Project. These include a Qualified Aquatic Environmental Specialist Assessment (Mainstream Aquatics, 2015), a desktop review of environmental features (Opus Stewart Weir, 2015), a Pre-disturbance Site Assessment (PDSA) (IEL, 2015a), a Wetland Assessment and Impact Report (IEL, 2015b), a Geotechnical Site Investigation (Opus Stewart Weir, 2014), and a Phase I Environmental Site Assessment (IEL, 2015c). Information collected was used in the determination of environmental effects due to the Project.

5.1 Air Quality

Air quality within the Project area is managed by the Fort Air Partnership (FAP), which operates continuous air quality monitoring stations within Lamont, Bruderheim, and Elk Island National Park, as well as many passive stations throughout the Lamont County. FAP's Lamont, Bruderheim, and Elk Island continuous stations monitor for sulphur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), total hydrocarbons (THC), methane (CH₄), non-methane hydrocarbon (NMHC), and respirable particulate matter (PM_{2.5}). Of these compounds and stations, only PM_{2.5} had measured exceedances during the 2014 reporting year, and all were due to either regional air quality events (forest fire smoke transport and large-scale temperature inversion conditions) or harvesting operations (FAP, 2015).

Construction of the Project is anticipated to contribute to local and temporary increases in dust and exhaust emissions. Project operations emissions are expected to include typical diesel locomotive operational emissions of a temporary nature; these are anticipated to impact local air quality and be limited to an approximately 2 km radius from the Project.

GHG emissions from both Project construction and operations are anticipated to be negligible compared to industrial practices in the Project vicinity and Provincial emissions (Section 2.4.1).

In consideration of the regional air quality data, industrial zoning of the Project, and similar operations in the Project vicinity, air emissions due to Project operations are not expected to impact regional air quality.

No adverse effects on air quality due to the Project are anticipated.

5.2 Noise

Regional noise impacts are directed by the Northeast Capital Industrial Association's (NCIA) Regional Noise Management Plan (RNMP). Local noise effects are anticipated due to the following Project activities: switching railcars, coupling, and idling and operating locomotives. These noise effects are not expected to be scheduled or constant, and frequency will depend on the length of railcar storage at the Project facility. Noise created within the Project facility is anticipated to occur during daylight hours from Monday to Friday (for four to five hours per day and two to three days per week).

Operations outside of daylight and weekday hours could occur for: CN switches into and out of the Project facility, CN locomotive operation and idling of inbound or outbound cars, and in emergency situations.

AMRT has produced a Sound Attenuation Report (AMRT, 2015b), which was submitted to Lamont County on November 26, 2015. This report concludes that the noise effects caused by the Project will be local and

not have a regional noise impact, including at Elk Island National Park. In the vicinity of the Project, local noise levels are dominated by Highway 15 traffic, and include railway and nearby industrial sources. The region is zoned industrial, so existing noise levels will fluctuate between the Alberta rural ambient level of 35 dBA and 50-60 dBA, depending upon nearby activities. AMRT is committed to noise mitigation program which includes: a locomotive shut down policy (reduced idling); daylight hour shifts except for situations described above; and a proposed earthen berm on the north and east sides of the Project facility to mitigate noise to adjacent receptors.

No adverse effects on noise due to the Project are anticipated. AMRT will comply with the requirements of the RNMP and will performance compliance noise monitoring as directed by the NCIA.

5.3 Soil

The Project is located in an area that has been used primarily over the past 60 years for agriculture cultivation and grazing land uses and more recently (last 15 years) for oil and gas processing. The Project footprint is located within Soil Correlation Area 10 with well drained to moderately well drained Black Solodized Solonetz of the Camrose and Kavanagh soil series and Eluviated Black Chernozems of the Angus Ridge soil series present. These soils developed over fine-textured (clay loam) glacial till parent materials. The Project footprint has been mapped as Class 4 soils from the Land Capability Rating System that consists of soils that have severe limitations to agriculture that restrict the range of crops or require special conservation practices (AAF, 1995).

A review of baseline soil characteristics indicated the presence of Black Solodized Solonetz (soils with naturally occurring salinity and sodicity) covering the majority of the Project area. Potential Project impacts to soil quantity and quality for reclamation purposes may result. Soils will be salvaged and conserved for future reclamation purposes.

Mitigation measures will include limiting construction activities during excessively wet soil conditions. The use of two-lift or three-lift soil stripping is recommended to ensure that saline and/or sodic conditions in the subsoil are not admixed with the topsoil during construction. Soil stockpiles will be located away from water courses and bodies with no greater than a 3 to 1 slope. Stockpiles will be revegetated with approved seed mixes.

The Project area includes a zonally abandoned wellsite at 14-25 and a currently active battery site at 13-25; both owned by Husky Oil Operations Ltd (Husky). A Phase I Environmental Site Assessment (ESA) was completed in the Project and identified potential for soil contamination associated with these existing sites (IEL, 2015c). Additional evaluation is under consideration to assess the extent of potential contamination within the Project area.

Under normal operations for the Project, potential contamination risk to soil resources is considered low. Fuel, fluid, and waste management practices for the Project are considered adequate to prevent releases of potentially toxic substances. Railcars stored at the Project site will be empty, or containing only residues, and therefore will not be carrying products in quantities that could be harmful if released. Cars will also not be washed or flushed at the Project site.

With proper mitigation measures in place for the duration of the Project, no adverse effects to soil resources are expected.

5.4 Vegetation

A PDSA was conducted August 26 and 27, 2015. This included a rare plant assessment, weed survey, and vegetation community type classification.

The majority of the Project footprint is being used to cultivate crops (dominantly barley), except for a small portion of pasture land (SW-25-55-20 W4M). No trees, non-vascular vegetation cover, or federally or provincially listed species occur within the Project footprint. Shrubs are limited to a small area in one of the seasonal wetlands. Canada thistle and perennial sow-thistle (both listed as provincially noxious weeds in Alberta) were found within the Project footprint (IEL, 2015a).

The centre area of the proposed track layout will not be disturbed by the Project footprint, and will remain vegetated where practical. Since the majority of the Project footprint is cultivated and used for grazing, no adverse effects on vegetation species due to the Project are anticipated. Should a plant species of conservation concern be discovered during construction, mitigation measures will be implemented. Mitigation measures could include avoidance using buffer zones around rare plants or transplanting.

To prevent the spread of noxious weeds during construction, efforts will be made to clean equipment prior to, or when leaving, known weed locations to control spread of noxious weeds.

No adverse effects on vegetation species or communities due to the Project are anticipated.

5.5 Wetlands

A wetland assessment was conducted August 26 and 27, 2015. Five wetlands and one ephemeral water body (not a wetland according to the 2015 Alberta Wetland Classification System) occur within the Project site. These wetlands are disturbed due to cultivation and are encroached by agronomic species. The total wetland area within the Project site is 7.640 ha. Approximately 4.9 ha (four of the five wetlands) will be directly affected by the Project.

Portions of wetlands not directly affected by the Project footprint might experience indirect effects as a result of construction including increased runoff and increased sediment loading. Mitigation measures will be implemented including silt fencing, staking wetland boundaries, construction during dry-frozen condition and re-contouring to facilitate natural drainage. A replacement wetland proposal will also be submitted, to replace lost wetland area and value as a result of the Project.

No adverse effects on wetlands due to the Project are anticipated.

5.6 Water

There is one petroleum-product well within, and one adjacent to, the Project footprint, owned and operated by Husky. The potential impacts to water from these facilities is being evaluated by Husky.

Hydrology and Surface Water Quality

The pre-disturbance topography of the Project footprint is generally flat, with a depression at the northeast corner. Topographic contours show that natural drainage is generally to the north east toward Lamont Creek, which is approximately 480 m away from the northeast corner of the Project footprint.

There are no watercourses in the Project footprint. Two agricultural dugouts are located within the southern portion of the Project footprint.

The Project is not expected to have an effect on the quantity of surface water in natural water bodies. Surface water is not being used for Project activities, so there are no direct effects to surface water quantity. Stormwater management for the Project is expected to control the release of runoff from the site, and discharge is overland rather than directly to Lamont Creek. Changes to the amount of water reaching Lamont Creek are therefore not expected.

Under normal project operations, impacts to surface water quality are expected to be negligible. Proposed management of wastes, fuels, and fluids is expected to mitigate against releases of those substances to the environment.

Groundwater Resources

Regionally, groundwater resources within near-surface bedrock are in sandstones of the Belly River or Bearpaw Formations (Stein, 1976). Bedrock at the Project consists of shale and fine- to medium-grained sandstone (Opus Stewart Weir, 2014). The depth to bedrock varies at the Project but is generally shallow, from 1.8 m below ground surface (bgs) to greater than 4.5 m bgs (Opus Stewart Weir, 2014).

Surficial sediments at the Project consist primarily of sandy, silty, clay till (Opus Stewart Weir, 2014) and are not likely to have sufficient yield to be groundwater resources.

Impacts to local groundwater quantity are not expected. Groundwater will not be used for the Project and there are no deep, subgrade developments or trenching.

Under normal operations, the risk of potential adverse effects to groundwater quality are considered negligible to low. Fuel, fluid, and waste management practices for the Project are considered adequate to prevent releases of potentially toxic substances. Railcars stored at the Project site will be empty, or containing only residues, and therefore will not be carrying products in quantities that could be harmful if released. Cars will also not be washed or flushed at the Project site.

No adverse effects on surface or groundwater due to the Project are anticipated.

5.7 Fish and Fish Habitat

A Qualified Aquatic Environmental Specialist Assessment identified no fish or fish habitat-bearing watercourses within the Project footprint (Mainstream Aquatics, 2015). Natural drainage is to the northwest towards Beaverhill Creek, approximately 4.3 km north of the Project.

The onsite surface flow of the Project is to the northeast and will be collected in a constructed stormwater pond (AECOM, 2015). Discharge from the pond will be by overland flow to Lamont Creek, which is a small intermittent stream that has severely limited fish habitat potential and no natural connectivity to the Project site. The stormwater management system is designed to reduce the load of suspended solids prior to discharge.

The Project is not expected to have any adverse effects on fish and fish habitat (including those as defined in the *Fisheries Act*).

The Project will not have any adverse effects on marine plants, as defined in the Fisheries Act.

5.8 Wildlife

A PDSA was conducted August 26 and 27, 2015. This included an assessment for wildlife and wildlife habitat. There are no past wildlife occurrences within one km of the Project (AEP, 2015b), and no species of management or conservation concern were noted within the Project footprint (IEL, 2015).

No migratory birds or their nests have been identified on site. The Project is within nesting zone B4; the peak migratory bird nesting period for wetlands and open habitats in B4 is May 15-July 16.

The centre area of the proposed track layout will not be disturbed by the Project footprint, and will remain vegetated where practical. As clearing is scheduled to occur during the peak migratory bird nesting period, a non-intrusive nest survey will occur prior to clearing. The Project area is considered a "simple habitat," or an area where Environment Canada guidelines suggest a successful nest survey can occur without causing unintended disturbance (Environment Canada, 2014b).

The Project is within a bald eagle Sensitive Raptor Range and sharp-tailed grouse range. Bald eagle (*Haliaeetus leucocephalus*) and sharp-tailed grouse (*Pedioecetes phasianellus*) are both listed as "sensitive" in the *General Status of Alberta Wild Species*, bald eagle are protected by the Alberta *Wildlife Act*, and both are not listed by SARA. The presence of both species will be confirmed during pre-project activity nest sweeps.

As the site is disturbed and cultivated, no adverse effects to SARA listed species or their habitat are anticipated. Should any species of conservation concern or their habitat be identified during the preproject activity nest sweep, mitigation plans will be developed in consultation with regulators.

5.9 Changes to Environment on Federal Lands

There are no changes to federal lands anticipated during the construction, operations, or decommissioning phases of the Project. In particular, the Project is anticipated to produce local air and noise effects which are not expected to impact nearby Elk Island National Park.

5.10 Effects on Aboriginal Peoples

Effects on Aboriginal peoples due to changes in the biophysical and socio-economic environment are not anticipated, considering that Project is zoned heavy industrial, is located on private land and surrounded by existing industrial development.

The Project was granted clearance from ACT under the HRA on June 18, 2015. The Project location (Sec 25-55-20 W4M) does not contain any HRV listings indicating potential historical resource concerns. No Project effects on cultural heritage or historical, archeological, paleontological or architectural resources are anticipated.

6. PROPONENT ENGAGEMENT AND CONSULTATION WITH ABORIGINAL GROUPS

The Project occurs on AMRT owned lands within the Alberta Industrial Heartland. It is not anticipated the Project will impact any Aboriginal groups' asserted traditional territory.

AMRT has notified all of the Aboriginal groups listed below on January 22nd or January 29th, 2016. Notification packages were sent to Aboriginal groups to provide information and an opportunity to comment on the Project.

- Alexander First Nation Administration
- Enoch Cree Nation
- Ermenskin First Nation
- Paul First Nation
- Whitefish Lake First Nation
- Chipewyan Prairie Dene First Nation
- Fort McMurray First Nation
- Foothills Ojibway First Nation
- Blood Tribe
- Piikani Nation
- Siksika Nation
- Stoney Tribal Association
- Tsuu T'ina Nation

- Metis Nation of Alberta, Region 4
- Buffalo Lake Metis Settlement
- Kikino Metis Settlement
- Saddle Lake Cree Nation
- Kehewin Cree Nation
- Alexis Nakota Sioux Nation
- Beaver Lake Cree Nation
- Gunn Métis Local #55
- Métis Nation of Alberta Region 1
- Métis Nation of Alberta Region 2
- Montana First Nation
- Samson Cree Nation
- Louis Bull Tribe

If it is determined that consultation with Aboriginal groups is required, or if an Aboriginal group selfidentifies and indicates interest in the Project, AMRT will develop a Consultation Plan to ensure that open and meaningful communication and engagement is established between all involved parties. The Aboriginal Consultation Plan will outline the processes and approaches used to share and collect information as well as provide feedback on the Project. Consultation would commence as soon as possible prior to Project construction. The consultation schedule will be developed with input from regulators and Aboriginal communities. Two responses have been received. The Project's status, location and any potential economic opportunities were discussed with the Saddle Lake Cree Nation. Additionally, Buffalo Lake Metis Settlement requested clarification on the Project's exact location; AMRT fulfilled this request. Communication with these parties will be ongoing.

7. CONSULTATION WITH THE PUBLIC AND OTHER PARTIES

Landowners within 1.6 km of the Project were consulted in face to face meetings with AMRT representatives. As well, an open house was held by AMRT on November 6, 2015 in the Bruderheim Fire Hall with approximately 40 attendees. The recurring comments and concerns expressed by landowners generally related to traffic, noise, water management and drainage, and emergency response.

Through the existing and ongoing open dialogue with neighboring residents, ARMT aims to develop mutually agreeable avoidance and mitigation measures with Lamont County, CN, and the operator, CNPRS.

AMRT also plans to complete community outreach and communications with Lamont County emergency response personnel, and other local first responders, to ensure a complete understanding of:

- Nature of the railcars stored at the Project facility;
- Various emergency response plans in place on the residue cars (empty railcars that last contained dangerous goods) as well as the Project Facility Emergency Response Plan; and
- Any other risk factors that may be identified to mitigate risk and danger to the public.

AMRT has maintained an ongoing dialogue with Alberta Transportation, Lamont County, Husky Oil Operations Ltd, CN, the Alberta Industrial Heartland Association, and representatives at ACT and AEP. Regulatory approvals for this Project are required by several provincial and municipal regulators (see Section 2). These stakeholders will continue to be consulted as part of the Project regulatory permitting phase.

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APPENDIX A MAPS



ALBERTA MIDLAND	Proposed Lamont Rail Car Storage Project NW and SW 25-55-20 W4M Parks, Protected Areas, and Historical Resources			
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ALBERTA STOLAND THE MAR	Proposed Lamont Rail Car Storage Project NW and SW 25-55-20 W4M Aboriginal Communities and Industrial Heartland				
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Projection: NAD 83 UTM Zone 12N	Revision	Date		Created by	
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ALBERTA STOLAND THE THEM	Proposed Lamont Rail Car Storage Project NW and SW 25-55-20 W4M Wildlife and Sensitive Areas			
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When printed on 11" X 17" sheets, scale is 1:550,000	00	20 Jan 2016		JC



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Sources: Parks: AltaLIS 2008; Hydrology: AltaLIS 2014; Railroad: Natural Resources Canada 2013; Highways, Municipal Boundary, Hamlets, Populated Area: AltaLIS 2015

