



**Clean Harbors Canada, Inc.  
Ryley Facility Expansion Project**

**Project Description**

In accordance with the Canadian Environmental Assessment Act, 2012

**Prepared By:**



**Date**

August 2014



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## **Appendices**

- Appendix A. Letter from Alberta Environment and Sustainable Resource Development
- Appendix B. Photographs



## 1. General Information and Contact(s)

### 1.1 Nature of the Project and Location

Clean Harbors Canada, Inc. (Clean Harbors) owns and operates the existing hazardous waste management facility and transfer station located near Ryley, Alberta (the Ryley Facility) in SE 09-050-17 W4M (Figure 1). The Ryley Facility receives hazardous and non-hazardous material for landfill disposal and facilitates transfer of hazardous materials; it is one of only two operating hazardous waste landfills in Alberta. The Ryley Facility receives and transfers waste materials from research and development facilities, bitumen, oil and gas developers, chemical producers, institutional laboratories, federal and provincial government departments, and other industrial manufacturers. It has been in operation since 1992.

According to current annual rates of landfill capacity depletion, Clean Harbors anticipates that the existing Ryley Facility will achieve its anticipated total capacity of approximately 1.6 million cubic metres (m<sup>3</sup>) by 2021. To meet the projected market demand for landfill disposal of hazardous material for the continued growth of the oil and gas, chemical and heavy manufacturing sectors, Clean Harbors proposes to expand the landfill capacity of the Ryley Facility to occupy the area located immediately north of the lands on which it currently operates (the Project).

Clean Harbors proposes two alternative project designs according to shallow- and deep-constructed cell liner scenarios. The Project will occupy an approximate area of 44 hectares (ha) within NE 09-050-17 W4M located adjacent to the north of the municipal boundary for the Village of Ryley and the boundary for the Ryley Facility. Under a full-build scenario, the Project footprint will consist of 25 to 30 landfill cells, temporary access roads, vehicle staging/offloading areas and surface water collection ponds. Depending on the selected project design, and the dimensions of the proposed landfill cells, the Project will achieve a final closure volume of 5,000,000 m<sup>3</sup> to 10,000,000 m<sup>3</sup> resulting in an operational lifespan extension of greater than 40 years.

### 1.2 Proponent Contact Information

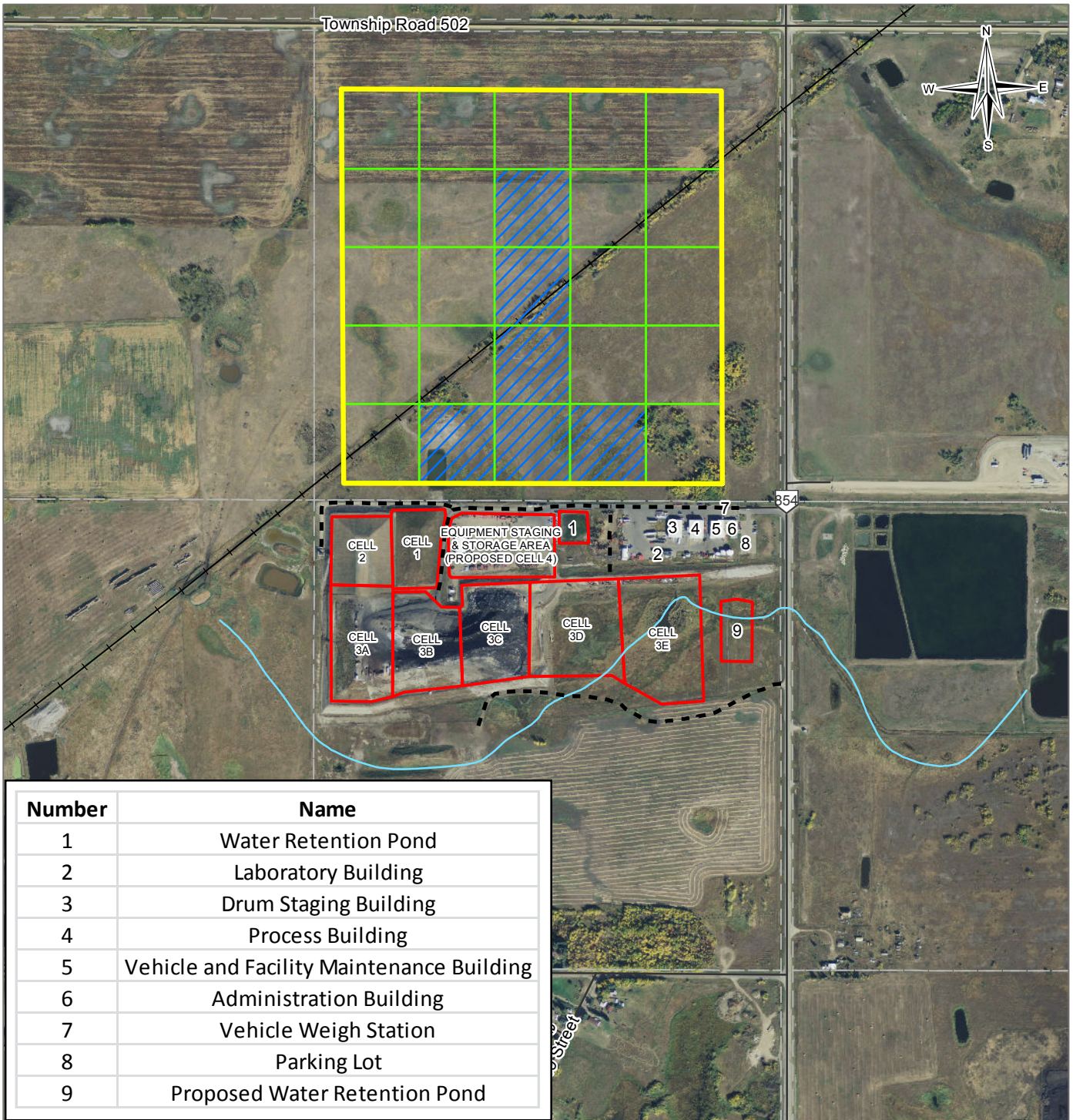
The name of the Project is the "Ryley Facility Expansion Project".

The proponent for the Project is Clean Harbors Canada, Inc., a subsidiary of Clean Harbors, Inc.

Clean Harbors Canada, Inc.  
4090 Telfer Road, RR#1  
Corunna, Ontario, N0N 1G0  
Website: <http://www.cleanharbors.com/locations/canada.html>

The Chief Executive Officer for Clean Harbors, Inc. and its subsidiaries is:

Alan S. McKim  
Chairman and Chief Executive Officer  
Clean Harbors Inc.  
Phone 781.792.5000



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### LEGEND

- Road
- - - Access Roads (Approximate Centreline)
- - - Historical Railway Bed (Approximate Centreline)
- Bible Creek (Approximate Centreline)
- Existing Ryley Facility
- Proposed Expansion Boundary
- Future Landfill Subcells
- Interim Access and Vehicle Staging Area

**NOTES**  
 Base data source: ESRI & CanVec (50,000)  
 Imagery: Valtus Imagery Services  
 (July 29 - Oct. 6, 2012)

**STATUS**  
 ISSUED FOR USE

### RYLEY FACILITY EXPANSION PROJECT

#### Facility Location and Layout

<b>PROJECTION</b> UTM Zone 12	<b>DATUM</b> NAD83			
Scale: 1:10,000				
<b>FILE NO.</b> Figure1.mxd				
<b>PROJECT NO.</b> ENVSWM03011-01	<b>DWN</b> BB	<b>CKD</b> MS	<b>APVD</b> BH	<b>REV</b> 1
<b>OFFICE</b> Tl EBA-CAL	<b>DATE</b> August 7, 2014			



**PREPARED BY:**  
 TETRA TECH EBA

**Figure 1**



The principal contact person for the purposes of this Project Description is:

Michael E Parker  
Director Environmental Compliance, Lambton Facility  
Clean Harbors Canada, Inc.  
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Corunna, Ontario, N0N 1G0  
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E-mail: [parker.michaele@cleanharbors.com](mailto:parker.michaele@cleanharbors.com)

### **1.3 Consultation During the Preparation of the Project Description**

The Project Description has been prepared following consultation with Ms. Susan Tiege and Ms. Tawanis Testart of the Canadian Environmental Assessment Agency (CEAA). No other public or aboriginal stakeholders or regulatory agencies under provincial or municipal jurisdictions have been consulted with respect to the preparation of the Project Description.

### **1.4 Other Relevant Information**

#### **1.4.1 Additional Regulatory Requirements**

##### **1.4.1.1 Municipal Jurisdictions**

Although the Project lies outside of the municipal boundaries for the Village of Ryley, the Project footprint is located within the Ryley Inter-municipal Development Plan Area and is designated for “general industrial” future land use. Clean Harbors anticipates that the land in which the Project is located will be annexed by the Village of Ryley in the next 1 to 2 years. A development permit must be obtained for proposed activities occurring within lands designated to be for “general industrial” land use. In accordance with the Inter-municipal Development Plan, Beaver County and the Village of Ryley may require that an environmental impact assessment be conducted for activities proposed to be conducted within lands designated for industrial development.

Clean Harbors will determine the need for a municipal Environmental Impact Assessment (EIA) through consultation with the Village of Ryley and Beaver County.

##### **1.4.1.2 Provincial Jurisdictions**

Pursuant to Schedule 1 of the Alberta *Environmental Protection and Enhancement Act* (EPEA) *Environmental Assessment (Mandatory and Exempted Activities) Regulation*, the development of a “landfill that accepts hazardous waste from an off-site source” is considered an activity for which an EIA must be conducted prior to receiving approval from Alberta Environment and Sustainable Resource Development (ESRD). Subject to the requirements for notification of the Project to ESRD, Clean Harbors prepared a Project Summary Table that was submitted for review by ESRD on March 17, 2014. On April 10, 2014, ESRD confirmed that the completion of an EIA in accordance with the EPEA shall not be required for the Project (Appendix A).

The existing license to operate the Ryley Facility, as approved by ESRD (EPEA Approval Number 10348-02-00, 10348-02-01, and 10348-02-02), will expire on March 31, 2016. Pursuant to Schedule 1 Subsection (f) of the EPEA *Activities Designation Regulation*, the Ryley Facility is considered to be an activity for which an Approval must be obtained.



Clean Harbors will prepare applications for Approval under the EPEA to continue operation of the Ryley Facility, and to construct and operate future landfill cells associated with the Project. Clean Harbors will implement any environmental monitoring, protection and mitigation measures required as conditions of the Approvals. Given the anticipated rate of landfilling, Approvals under the EPEA will be obtained for successively planned landfill cells, over an operational life cycle of approximately 2 years per landfill cell.

### **1.4.2 Regional Environmental Study**

There are no Regional Environmental Studies as defined under the CEAA, 2012 that apply to the region in which the Project is located.

The Project is located within the North Saskatchewan Planning Region designated under the provincial Land Use Framework (ESRD 2014a). The North Saskatchewan Regional Plan (NSRP) has not yet been developed; however completion of the NSRP is anticipated prior to application for Approval under the EPEA. In the event that the NSRP is completed in advance of the application for Approval under the EPEA, Clean Harbors will ensure that the Project is constructed and operated in accordance with applicable constraints, conditions, targets or thresholds established within the NSRP, as required according to the conditions of Approval for the Project, to be issued by ESRD.

## **2. Project Information**

### **2.1 Project Purpose and Rationale**

In the Province of Alberta, processing of hazardous waste has grown progressively during the period for which the Ryley Facility has been in operation. The bulk of hazardous waste designated for landfill disposal has predominantly originated from the oil and gas sector (ESRD Unknown Date). Recent forecasts for development of conventional oil and oil sands resources in Alberta suggest a growth of 46% and 189%, respectively, for the period from 2012 to 2030 (Canadian Association of Petroleum Producers 2013). Furthermore, under both low and high growth rate scenarios, the population of Alberta is anticipated to increase from approximately 3.99 million in 2013 to between 5 and 7 million by the year 2041 (Alberta Treasury Board and Finance 2013). The predicted increase in population is expected to vary positively with growth in commercial and industrial activity and, therefore, an increase in the amount of hazardous waste produced in Alberta may also be expected.

Waste designated for landfill disposal at the Ryley Facility predominantly originates from waste disposal brokers, typically associated with municipal, commercial and light industrial development, which accounts for more than one-third of the solid waste intake (35%). Other activities from which the Ryley Facility receives hazardous waste include: oil sands development (25%), petroleum upgrading (10%), chemical processing (10%), general construction (10%), and other activities (10%).

Although efficiencies in reduction of hazardous wastes may be realized on a per capita basis, Clean Harbors anticipates that an improved rate of diversion will not offset the cumulative volume of hazardous waste designated for landfill disposal. Production of hazardous waste designated for landfill disposal is anticipated to grow continuously with the rate of development associated with the forecasted growth in sectors that contribute substantial proportions to the hazardous waste processed at the Ryley Facility. Consequently, projected volumes of hazardous waste diverted for landfill disposal at the Ryley Facility are anticipated to increase for the foreseeable future.

According to current annual rates of landfill capacity depletion, Clean Harbors anticipates that the Ryley Facility will achieve its anticipated total capacity of approximately 1.6 million cubic metres (m<sup>3</sup>) by 2021. To meet the projected market demand for landfill disposal of hazardous material for the continued growth of the oil and gas,





chemical and heavy manufacturing sectors, Clean Harbors proposes to expand the landfill capacity of the Ryley Facility to occupy the area located immediately north of the lands on which it currently operates.

## 2.2 CEAA 2012 Designated Activity

The proposed expansion will increase the overall landfill capacity by 5,000,000 m<sup>3</sup> to 10,000,000 m<sup>3</sup>, or approximately 313% to 626% of the originally approved capacity of approximately 1,600,000 m<sup>3</sup>. The cumulative total operating capacity of the Ryley Facility, including the proposed expansion, will be 6,600,000 m<sup>3</sup> to 11,600,000 m<sup>3</sup>.

Pursuant to Paragraph 30 of the *Canadian Environmental Assessment Act, 2012 (CEAA, 2012) Regulations Designating Physical Activities*:

*The construction, operation, decommissioning and abandonment of a facility used exclusively for the treatment, incineration, disposal or recycling of hazardous waste, or an expansion of such a facility that would result in an increase in its production capacity of more than 50%.*

Consequently, the proposed expansion of the Ryley Facility is considered to be a Designated Project.

## 2.3 Components and Activities

### 2.3.1 Existing Facility

The Ryley Facility is located in the SE 09-050-17 W4M, within the municipal boundaries of the Village of Ryley, Alberta. The Ryley Facility occupies an area of approximately 27 ha and consists of the following primary infrastructure (Figure 1):

- Administration building and hygiene facilities;
- Parking lot, weigh station, truck staging areas, and access roads;
- Vehicle and facility maintenance building;
- Waste transfer station consisting of a drum staging building, process building, exhaust scrubber, and laboratory facilities;
- Landfill cells;
- Leachate collection system consisting of underground infrastructure, pumphouses, and holding tanks; and
- Surface water collection and holding pond.

Presently, the Ryley Facility functions as a hazardous waste transfer facility and secure landfill. At its maximum approved capacity, the Ryley Facility will consist of eight landfill cells (i.e., cells 1, 2, 3A-3E and 4). The scope of the proposed expansion is to increase the cumulative landfill capacity for the Ryley Facility; there are no proposed changes in the capacity or processes associated with hazardous waste transfer or other activities conducted at the Ryley Facility.

### 2.3.2 Proposed Expansion

The Project occupies an approximate area of 44 ha in NE 09-050-17 W4M located adjacent to the north of the current municipal boundary for the Village of Ryley and the boundary for the Ryley Facility. Under a full-build



scenario, the Project footprint will consist of 25 to 30 landfill subcells, temporary access roads, vehicle staging/offloading areas, and surface water collection ponds. The location and size (i.e., area or volume) of these proposed infrastructure components may vary throughout the operation of the Project, depending on rates of airspace depletion and ongoing improvement of operational procedures and management. The proposed expansion will increase the overall landfill capacity by 5,000,000 m<sup>3</sup> to 10,000,000 m<sup>3</sup>, or approximately 313% to 626% of the originally approved capacity of approximately 1,600,000 m<sup>3</sup>. The cumulative total operating capacity of the Ryley Facility, including the proposed expansion, will be 6,600,000 m<sup>3</sup> to 11,600,000 m<sup>3</sup>.

The Project will be constructed to meet or exceed specifications for a Class 1 solid waste hazardous material disposal facility (Canadian Council of Ministers of the Environment 2006). Prior to cell construction, topsoils will be stripped and the subsoil surface graded. Cell liners will consist of a compacted clay layer of at least 1.0 m depth underlying a protective cover of sand measuring at least 0.45 m depth (Figure 2). The cell liner and protective cover layers will be separated by an engineered barrier comprised of geocomposite fabrics and high-density polyethylene (i.e., HDPE) protective layers. Leachate collection trenches will be divided into primary and secondary systems, each isolated by a similarly engineered barrier as that dividing the clay liner and protective cover. Upon closure, landfill cells will be capped with a layer of low permeability clay and additional engineered barrier.

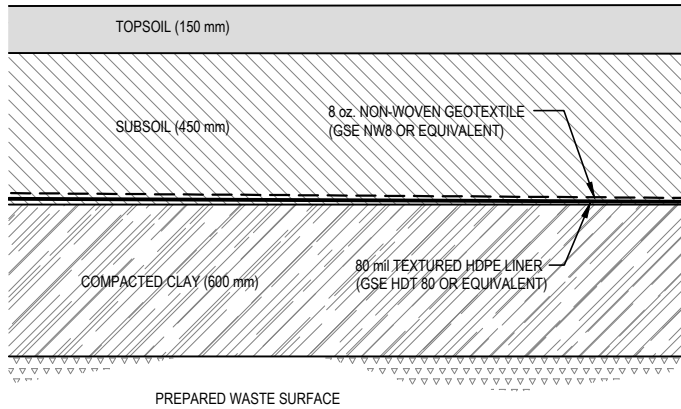
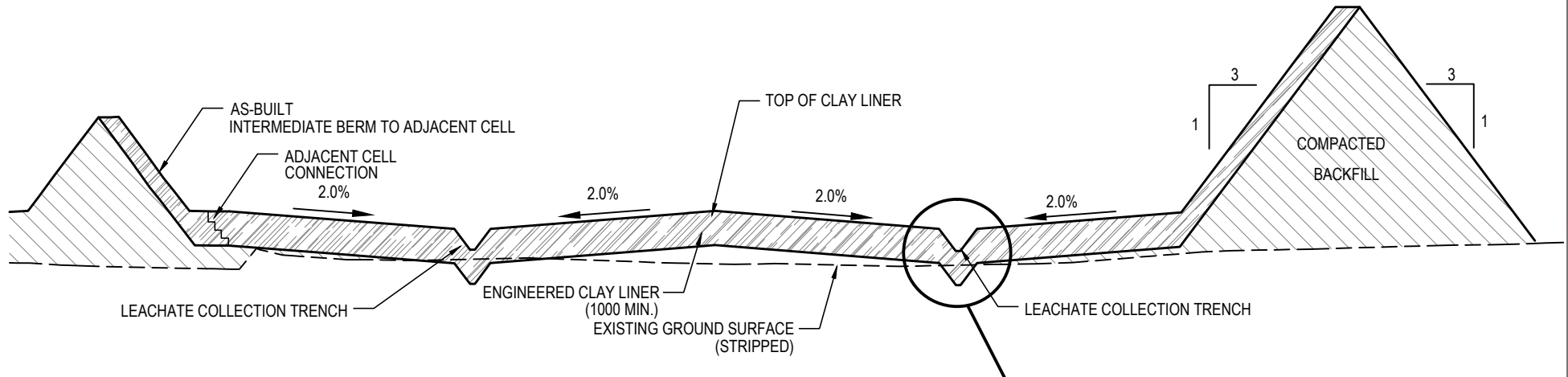
Both the primary and secondary leachate collection systems will be constructed by installation of perforated polyvinyl chloride pipe within the leachate collection layers. The leachate collection systems are evacuated by pumping collected liquids from the cell liner to above ground storage tanks where volume and contaminant concentrations can be monitored.

Clean Harbors proposes two alternative designs for the Project according to shallow and deep-constructed cell liners, herein referred to as Option 1 and Option 2, respectively. Depending on the final dimensions and selected alternative design for the Project, the final closure height of the landfill cell may vary from approximately 32 m to 37 m above grade.

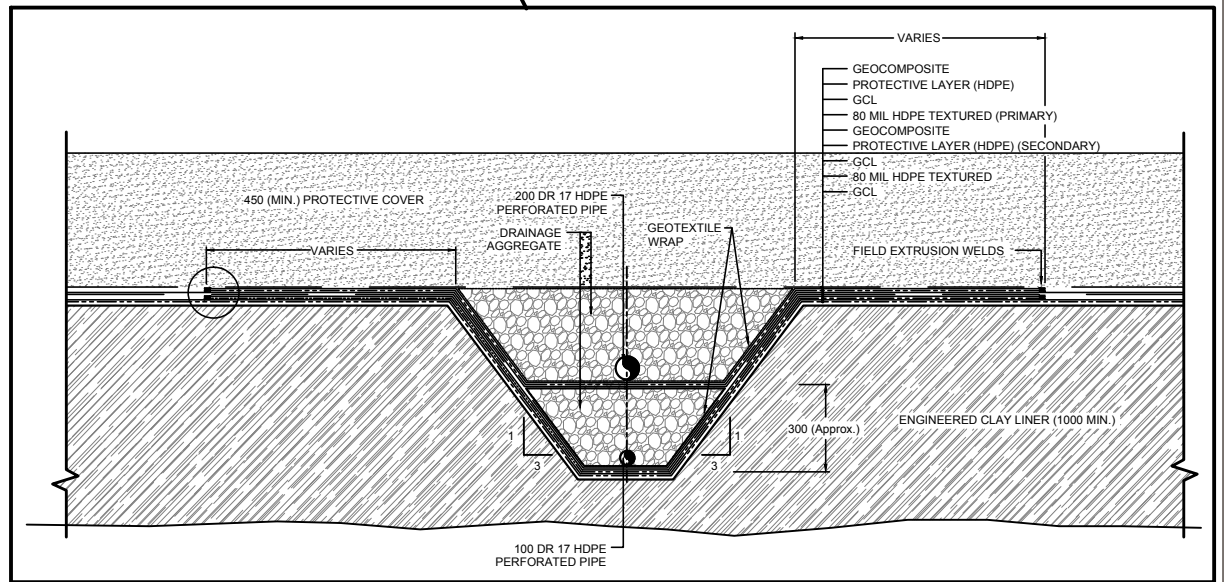
Option 1 would consist of landfill cells constructed with the top of the cell liner at an approximate depth of 1.5 m below grade following salvage of topsoil materials. The planned design for Option 1 is consistent with the design of the presently operating cells at the Ryley Facility.

Option 2 would consist of landfill cells constructed with the top of the cell liner at an approximate depth of 5 m (varying from 3 m to 7 m depending on the depth of underlying clay materials) below grade following salvage of topsoil materials. The vehicle staging/offloading area would then be perched above the landfill cell, preventing vehicle traffic from contacting landfilled waste.

Upon decommissioning and abandonment, space between landfill subcells will be filled and the Project footprint contoured into a single landfill cell that will be reclaimed to a land cover type that is consistent with surrounding land use conditions at the time of closure.



**DETAIL**  
 GENERAL CAP CONFIGURATION



**DETAIL**  
 LEACHATE COLLECTION TRENCH

NOTE  
 DRAWING NOT TO SCALE

CLIENT



Ryley Facility Expansion Project

**SCHEMATIC DESIGN OF LANDFILL CELL LINER**



PROJECT NO. 704-ENVSWM03011-01	DWN DRG/DBD	CKD BH	REV 0
OFFICE EDM	DATE August 7, 2014		

**Figure 2**

### 2.3.3 Description of Activities

Activities associated with the construction and operation of the Project include:

- Landfill cell excavation, liner construction, and installation of the leachate collection system;
- Construction of access roads, surface water retention ponds, vehicle staging and offloading areas;
- Vehicle weigh-in, staging and material offloading;
- Waste handling and compaction; and
- Environmental monitoring for impacts to groundwater, surface water, soils and air.

## 2.4 Emissions, Discharges and Wastes

Aqueous solutions derived from collected leachate will be assessed and, if contaminant concentrations are compliant with the conditions of the EPEA Approval, are disposed of via deep well injection at an approved site located north of Edmonton near Morinville, Alberta. Surface water collected in onsite retention ponds is assessed for contaminant concentrations and, if compliant with the AENV *Surface Water Quality Guidelines for Use in Alberta* (AENV 1999, 2010), is disposed of by offsite pumping into Bible Creek, typically occurring once a year during dry conditions or periods of negligible flow rates. Contaminated waters not meeting thresholds for surface water quality will be addressed in the same fashion as collected leachate and will be disposed of via deep well injection.

Water volumes, as well as thermal and electrical energy requirements for operation of the Ryley Facility and the proposed expansion are considered to be relatively low; utility services are presently achieved through the connection to the facilities operated by the Village of Ryley and Beaver County. Increased water, sewage, and energy demand associated with expansion of the Ryley Facility (i.e., the Project) are anticipated to be negligible and will not require additional infrastructure.

Solid waste generated by construction and operation of the Project will be negligible in volume, characteristic of light industrial processes including both hazardous and non-hazardous materials and well within the available capacity of the Ryley Facility or the Beaver Regional Waste Management Services landfill.

The Ryley Facility (including the proposed expansion) does not require the use of incinerators that would result in an increase of total nitrogen and sulphur oxide (i.e., NO<sub>x</sub> and SO<sub>x</sub>) emissions. Trace emissions of volatile organic compounds (i.e., VOCs) may occur through use of a fume hood within the onsite laboratory facility. VOCs associated with storage and handling of hazardous materials associated with the existing transfer facility are removed through a ventilation scrubber. Greenhouse gas and air emissions are anticipated to be negligible to low in volume and will primarily be attributed to exhaust emissions from the operation of heavy equipment on site (i.e., approximately 10 vehicles) and transport vehicles shipping material to the Ryley Facility from source locations.

Clean Harbors implements dust and noise control measures to reduce the level of impact associated with the operation of the Ryley Facility to the greatest extent feasible. During windy periods with low precipitation, potential exists for the offsite deposition of dust and odour emissions from the landfill cells. Dust and odour emissions are controlled in accordance with Clean Harbors dust and odour control best management practices, including but not limited to regular monitoring of weather conditions and watering of landfill cells and access roads as required. Furthermore, Clean Harbors has implemented concurrent cell capping and closure plans for



cells nearing capacity to reduce the duration of exposed landfilled waste, thereby reducing dust and odour emissions from the Ryley Facility.

Impacts of noise generated by the operation of heavy machinery at the Ryley Facility is reduced by restricting operations to standard business hours.

## 2.5 Construction, Operation and Decommissioning Schedule

The Project is still in the planning stages and proceeding through the ESRD Industrial Approval process. Given this, the following represents a typical construction and operation schedule for the proposed expansion, which is based on the previously constructed landfill at the Ryley Facility.

### 2.5.1 Scheduling, Duration and Staging

Depending on approved Project design, the proposed lifespan of the Project is anticipated to exceed 40 years, according to the following phases of development:

- |                                     |                |
|-------------------------------------|----------------|
| ▪ Site Preparation and Construction | 6 months       |
| ▪ Operation                         | 38 to 76 years |
| ▪ Closure                           | 6 months       |
| ▪ Reclamation                       | 2 years        |

The Project will be developed with preliminary construction of ancillary elements related to the expansion of landfill capacity including storage areas for trucks, vehicle staging areas, access roads, disposal bins and stormwater retention ponds. Construction of these elements will only proceed with appropriate land-use approval from the Village of Ryley. Given the anticipated rate of landfilling, the landfill capacity will be developed in a succession of 25 to 30 subcells with each anticipated to undergo an operational life cycle of approximately 2 years. If approved, construction of the future proposed landfill subcells would likely commence in 2020 with the operational phase of the Project anticipated to commence in 2021.

### 2.5.2 Main Activities in Construction, Operation and Closure

Primary activities associated with the successive construction, operation, and closure of individual subcells will include:

- Excavation and stockpile of excavated spoil;
- Construction of the associated cell liner and leachate collection system following preliminary excavation;
- Receipt and compaction of solid waste for landfill disposal, management of collected leachate, produced gas, dust, and surface water;
- Monitoring of air, groundwater, and surface water quality; and
- Closure of filled subcells including construction of the cell cap, contouring and reclamation of the closed cell surface.

Following the closure and reclamation phases of the Project, Clean Harbors is committed to conducting ongoing environmental monitoring in accordance with the approved closure plan.

## 3. Project Location

### 3.1 Description of Project Location

The Ryley Facility and the proposed expansion are located within Beaver County, situated in east central Alberta, approximately 61 km southeast from the City of Edmonton (Figure 3).

The Ryley Facility is located on patented lands under title to Clean Harbors Canada Inc. and occupies an area of approximately 27 ha in SE 09-050-17 W4M. The Ryley Facility is located with the northern boundary of the Village of Ryley. The proposed expansion will be located immediately adjacent to the north of the Ryley Facility and will be located within the future boundaries of the Village of Ryley (Figure 4), with an anticipated annexation to occur in 2015.

#### 3.1.1 Co-ordinates

The proposed expansion would be located at 53° 18' 10.8" N, 112° 25' 12" W, on patented lands, under title to Clean Harbors Canada, Inc.

#### 3.1.2 Site Map and Plan

A detailed plan for the location of facility components associated with the Ryley Facility and the proposed expansion are depicted on Figure 1.

#### 3.1.3 Photographs

Photographs of the Ryley Facility and the proposed expansion are provided in Appendix B.

#### 3.1.4 Legal Description

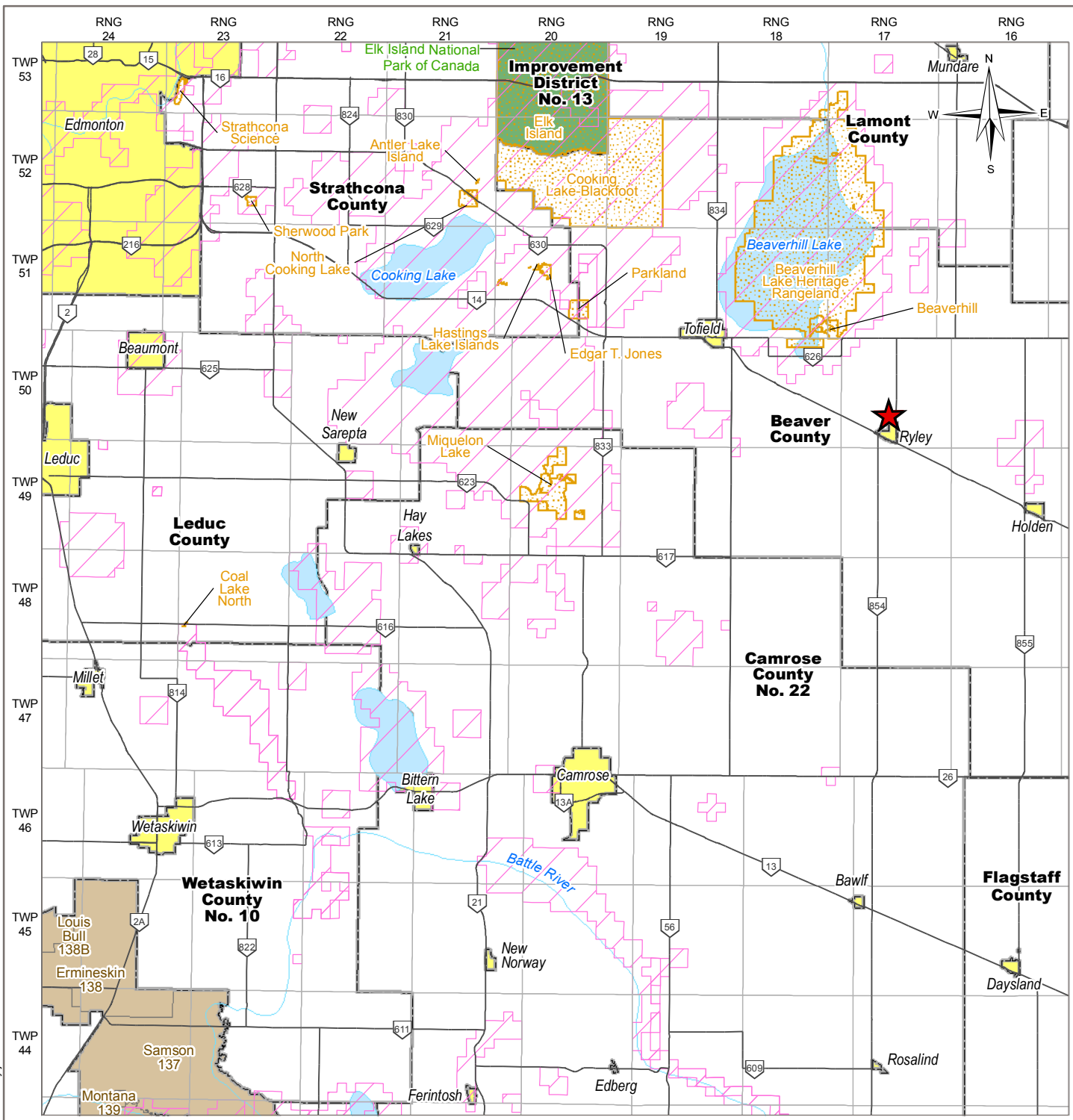
The legal description of the Project site is NE 09-050-17 W4M.

Clean Harbors is undertaking negotiation to purchase the property on which the Project will be located. The Land Title will be made available upon request following completion of the purchase.

#### 3.1.5 Proximity of the Designated Project

The Project is located adjacent to the municipal limits of the Village of Ryley, within which the nearest residences are located approximately 0.8 km south from the Project. Rural residences in Beaver County with closest proximity to the Project have the following legal locations and proximities to the Project:

- 07-16-050-17 W4M: 0.9 km north;
- 13-10-050-17 W4M: 0.9 km east;
- 12-15-050-17 W4M: 1.6 km north northeast;
- 04-09-050-17 W4M: 1.6 km southwest; and
- 04-10-050-17 W4M: 1.3 km southeast.



M:\ENVIRONMENTAL\SWM\ENVSWM03011\Maps\Figure3.mxd modified 6/12/2014 by justin.orton

### LEGEND

- ★ Site Location
- Primary / Secondary Highway
- Environmentally Significant Area
- Protected Area
- National Parks
- Indian Reserve
- Urban Area
- Municipal Area
- ~ Watercourse
- ~ Waterbody

**NOTES**  
 Base data source: ESRI, CanVec (50,000), AltaLIS, ESRD & Government of Alberta (Tourism, Parks and Recreation)



**STATUS**  
 ISSUED FOR USE

### RYLEY FACILITY EXPANSION PROJECT

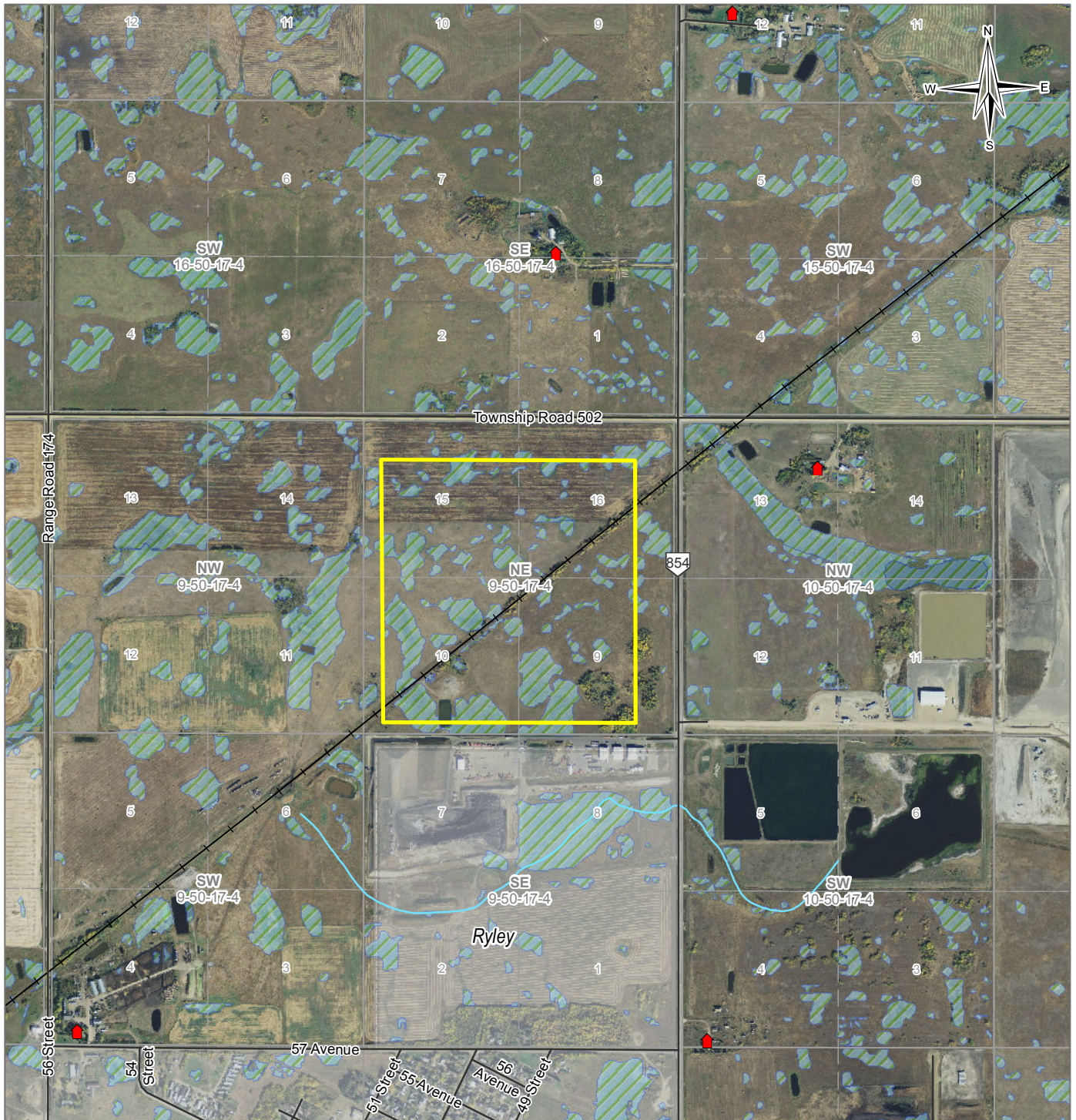
#### Regional Environmental Context

<b>PROJECTION</b> UTM Zone 12	<b>DATUM</b> NAD83
Scale: 1:500,000	
<b>FILE NO.</b> Figure3.mxd	
<b>PROJECT NO.</b> ENVSWM03011-01	<b>DWN</b> BB
<b>OFFICE</b> Tl EBA-CAL	<b>CKD</b> MS
	<b>APVD</b> BH
	<b>REV</b> 1
	<b>DATE</b> August 7, 2014

**CleanHarbors**

**PREPARED BY:**  
**TETRA TECH EBA**

**Figure 3**



M:\ENVIRONMENTAL\SWM\ENVSWM03011\Maps\Figure4.mxd modified 6/10/2014 by justin.orton

### LEGEND

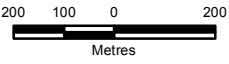
-  Rural Residence
-  Road
-  Historical Railway Bed (Approximate Centreline)
-  Bible Creek (Approximate Centreline)
-  Potential Wetland
-  Proposed Expansion Boundary
-  Town Boundary

**NOTES**  
 Base data source: ESRI, CanVec (50,000) & ESRD  
 Imagery: Valtus Imagery Services (July 29 - Oct. 6, 2012)

**STATUS**  
 ISSUED FOR USE

## RYLEY FACILITY EXPANSION PROJECT

### Local Environmental Context

<b>PROJECTION</b> UTM Zone 12	<b>DATUM</b> NAD83			
Scale: 1:15,000  Metres				
<b>FILE NO.</b> Figure4.mxd				
<b>PROJECT NO.</b> ENVSWM03011-01	<b>DWN</b> BB	<b>CKD</b> MS	<b>APVD</b> BH	<b>REV</b> 1
<b>OFFICE</b> Tl EBA-CAL	<b>DATE</b> August 7, 2014			



PREPARED BY:  
 TETRA TECH EBA

**Figure 4**





The Project is not located in close proximity to any known traditional territories, settlement land or lands and resources currently used for traditional purposes by aboriginal peoples. Nearest aboriginal lands have the following proximities to the Project:

- Kikino Métis Settlement: 168.1 km north;
- Buffalo Lake Métis Settlement: 132.5 km north
- Saddle Lake Cree First Nation: 77.2 km northeast ;
- Louis Bull First Nation: 84.4 km southwest;
- Ermineskin First Nation: 77.9 km southwest;
- Samson First Nation: 77.2 km southwest;
- Enoch Cree First Nation: 85.5 km west northwest; and
- Montana First Nation: 89.4 km southwest.

The Project is located approximately 33.9 km southeast from Elk Island National Park.

## **3.2 Land and Water Use**

### **3.2.1 Zoning Designations**

The Project is located on lands zoned for “Landfill and Composting” activity in Beaver County, Alberta.

### **3.2.2 Current Land Ownership, Surface and Subsurface Rights**

The Project is located on freehold lands that shall be titled to Clean Harbors upon completion of a purchase agreement from the present landowner. There are no previously existing public or private caveats associated with Project location (Alberta Energy 2014). There are no pre-existing subsurface mineral rights associated with the Project location.

There are no pre-existing authorizations for the diversion and/or use of water associated with the lands on which the Project is located (ESRD 2014b).

### **3.2.3 Existing Plans near the Project Site**

The Project is located within the Urban Fringe Area surrounding the Village of Ryley and has been designated for general industrial land use according to the Ryley Inter-municipal Development Plan (Beaver County 2010). Other land uses surrounding the Project include livestock ranching, cultivation, rural residences and other landfill and recycling facilities.

The Project is located approximately 7.1 km south-southeast from lands administered according to the *Beaverhill Lake Land Use Plan* (Alberta Energy and Natural Resources 1981). The *Beaverhill Lake Land Use Plan* provides guidance on the integration of agricultural, recreational and wildlife land use planning in the areas immediately surrounding Beaverhill Lake. There are no regionally applicable recommendations associated with the *Beaverhill Lake Land Use Plan*.

### 3.2.4 Marine Terminals and Port Authorities

The Project is not a marine terminal, nor is it located within the waters or lands administered by a Canada Port Authority under the federal *Marine Act* and its regulations.

### 3.2.5 Traditionally Used Lands and Resources

Although the Project is located within the asserted traditional territory of Treaty 6 First Nations, the lands within NE 09-050-17 W4M have been under freehold title and have not been accessed for the purposes of traditional use and/or resource harvesting following settlement in the region. Consequently, the Project will not require access to, use or occupation of, or the exploration, development and production of lands and resources currently used for traditional purposes by Aboriginal peoples.

## 4. Federal Involvement

There are no federal authorities that are, or may, provide financial support to the Project.

The Project is not located on federal lands.

No other federal legislative or regulatory requirements are anticipated to apply to the Project.

## 5. Environmental Effects

### 5.1 Baseline Conditions

The Project is located in the Central Parkland Natural Subregion of the Parkland Natural Region in Alberta (Natural Regions Committee 2006); the Central Parkland Natural Subregion occupies the extensively cultivated area of Central East Alberta and contains Alberta's three most populated cities.

An *Environmental Baseline Study of Laidlaw Environmental Services' Ryley Waste Management Facility and Surrounding Area* was prepared by The Delta Environmental Management Group Ltd. (DEMG) (1992) (the Baseline Study). The Baseline Study provides detailed information regarding biophysical resources for the Ryley Facility and surrounding areas. In supplement to the Baseline Study, a baseline description was prepared for selected environmental features to be assessed in support of an application to amend the license to operate the Ryley Facility (Section 3.0 in AXYS 1995).

#### 5.1.1 Air Quality, Odour and Noise

The Project is located in a rural area dominated by agricultural and industrial developments surrounding the Village of Ryley. Given the nature of annual ground disturbance and operational equipment associated with such activities, cultivation, cattle ranching and landfill developments have affected local air quality, odour and noise.

Using air quality data obtained from locations near Crossfield, Alberta (considered to be the nearest monitoring stations that were representative of a rural setting similar in context as that of the Project), AXYS (1995) conducted air quality simulation modelling and determined that baseline air quality characterized by total NO<sub>x</sub> and SO<sub>x</sub> levels in the vicinity of the Ryley Facility was likely to be well within established regulatory guidelines (i.e., 1.5 and 3.7 parts per billion [ppb], respectively).

The Ryley Facility (including the proposed expansion) does not require the use of incinerators that would result in an increase of NO<sub>x</sub> and SO<sub>x</sub> emissions. Trace emissions of volatile organic compounds (i.e., VOCs) may occur through use of a fume hood within the onsite laboratory facility. VOCs associated with storage and handling of hazardous materials associated with the existing transfer facility are removed through a ventilation scrubber. Greenhouse gas and air emissions are anticipated to be negligible to low in volume and will primarily be attributed to exhaust emissions from the operation of heavy equipment on site (i.e., approximately 10 vehicles) and transport vehicles shipping material to the Ryley Facility from source locations.

Clean Harbors implements dust, odour and noise control measures to reduce the level of impact associated with the operation of the Ryley Facility to the greatest extent feasible. During windy periods with low precipitation, potential exists for the offsite deposition of dust and odour from the landfill cells. Dust and odour emissions are controlled in accordance with Clean Harbors dust and odour control best management practices, including but not limited to regular monitoring of weather conditions and watering of landfill cells and access roads as required. Furthermore, Clean Harbors has implemented concurrent cell capping and closure plans for cells nearing capacity to reduce the duration of exposed landfilled waste, thereby reducing dust and odour emissions from the Ryley Facility.

Impacts of noise generated by the operation of heavy machinery at the Ryley Facility is reduced by restricting operations to standard business hours.

### 5.1.2 Groundwater

The Project is located in a region characterized by having deep, horizontal groundwater flow (DEMG 1992). Local groundwater is recharged at areas of higher elevation to the south and east, and is discharged to the north near Beaverhill Lake. Depending on site-specific factors, depth to groundwater in the vicinity of the Project ranges from one to five metres below grade. DEMG (1992) determined that areas of weathered sandstone exposed or located in close proximity to the Project may provide a conduit point for introduction of contaminants into the groundwater supply. Observations made during the drilling of water quality monitoring wells within and surrounding the Ryley Facility have indicated that these strata are not encountered within the footprint of the Ryley Facility, and are not likely to be encountered by the Project.

Groundwater quality within shallow bedrock encountered in the vicinity of the Project is typically brackish to slightly alkaline (i.e., 1,384 mg/L to 14,996 mg/L total dissolved solids [TDS]) with relatively high content of bicarbonates (DEMG 1992). Furthermore, DEMG (1992) reported that there was no significant concentration of pesticides, nutrients or heavy metals. Regardless, groundwater associated with shallow bedrock formations was determined to be of poor quality and unsuitable for human consumption and agricultural activities (i.e., irrigation). Deep bedrock (i.e., >10 m below grade) was determined to have substantially lower content of total dissolved solids (i.e., 1,108 mg/L) and therefore was considered to have better water quality than groundwater found in shallow formations (i.e., <10 m below grade).

Aside from chloride, concentrations for cadmium, cobalt, copper, barium, lead, molybdenum, nickel, zinc, mercury, antimony, pesticides, volatile hydrocarbons, and phenoxy herbicides were assessed to occur at less than or near the detectable limit (DEMG 1992). Abnormally high concentrations of chloride detected in April 1992 were attributed to contamination by dissolved road salt.

To date, Clean Harbors operates a network of 13 groundwater monitoring wells throughout and surrounding the Ryley Facility. Numerous chemical parameters are assessed annually including:

- pH (field and lab values);

- Major ions (calcium, magnesium, sodium, potassium, chloride, carbonate, bicarbonate, nitrate and sulphate);
- Nitrogen (ammonia nitrogen and total Kjeldahl nitrogen)
- Chemical oxygen demand;
- Dissolved organic carbon;
- Electric conductivity;
- Trace metals; and
- Petroleum hydrocarbons (benzene, toluene, ethylbenzene, xylenes and petroleum hydrocarbon fractions F1 and F2).

Results of annual groundwater quality monitoring are submitted to ESRD annually and are assessed in accordance with the Federal-Provincial-Territorial Committee on Drinking Water *Guidelines for Canadian Drinking Water Quality* (Health Canada 2012). To date, there have been no impacts to groundwater quality that have been attributed to the construction or operation of the Ryley Facility. Variations in some parameters have been observed but were considered to be attributed to local agricultural activities, the historic sewage lagoon on which the Ryley Facility is now located and naturally occurring background levels (EBA Engineering Consultants Ltd. 2012, 2013a).

### 5.1.3 Surface Water

An unnamed, ephemeral drainage, locally known as “Bible Creek”, crosses the southeast areas of the Ryley Facility and is located less than 200 m south from the Project footprint. Bible Creek drains east from the vicinity of the Project then north to its confluence with Beaverhill Lake.

There is a depression with potential to support wetland vegetation identified within the Project footprint (DEMG 1992), however it appears to have been altered by construction of a dugout (Figure 4). Numerous potential wetlands of ephemeral to temporary inundation have been reported from within the Project footprint, however their ecological and hydrological function has likely been affected by local land use change and has yet to be confirmed (Figure 4).

Similar to monitoring of groundwater resources, Clean Harbors monitors up to 20 actively used dugouts within a 1.6 km radius from the Ryley Facility. Assessed parameters were similar to that assessed for groundwater quality. To date, there have been no impacts to surface water quality that have been attributed to the construction or operation of the Ryley Facility; variations in some parameters have been observed but were considered to be attributed to local agricultural activities and runoff from nearby roads and highways (EBA Engineering Consultants Ltd. 2013b).

### 5.1.4 Fish and Fish Habitat

In addition to Bible Creek, numerous potential wetlands are located within the Project footprint and in the vicinity of the Project and the Ryley Facility. Although these waterbodies may sustain seasonal inundation or flooding following high precipitation events, lack of connectivity to permanently flooded waterbodies precludes the potential for providing habitat of value for sustaining local sport fish populations (DEMG 1992). Permanent waterbodies located in the vicinity of the Project are shallow and likely to freeze to the bottom in most years

(AXYS 1995); waterbodies deep enough to avoid complete freezing are likely to experience overwinter anoxia due to high rates of vegetation decomposition.

There are no records of fish within a 5 km buffer of the Project, according to the ESRD Fish and Wildlife Management Information System (ESRD 2013b).

### 5.1.5 Soils

Soils within the Central Parkland Natural Subregion are primarily characterized by Orthic Black Chernozems with remaining areas comprised of solonetzic soils or soils with solonetzic characters (Natural Regions Committee 2006). Other less common soil types, primarily associated with northern reaches of the Subregion, consist of Orthic Dark Gray Chernozemic and Dark Gray Luvisolic soils. Wetland soils are typically characterized by Humic and Orthic Gleysols.

Soils within the Project footprint predominantly consist of Black Solonetzic soils characteristic of the Camrose soil series. Humic Gleysols associated with the Haight soil series occur in isolated depressions, typically generating wetlands and other depression environments (DEMG 1992).

### 5.1.6 Terrain

Terrain within the Central Parkland Natural Subregion is typically characterized by undulating till plains and hummocky uplands (Natural Regions Committee 2006).

Within the Project footprint, terrain is primarily level with minor depressions associated with poorly-drained lowlands (DEMG 1992).

### 5.1.7 Vegetation

The Central Parkland Natural Region is mostly cultivated with remnant areas of native vegetation primarily isolated to non-arable lands or terrain that is not easily cultivated (Natural Regions Committee 2006). Native vegetation types remaining in the Central Parkland Natural Subregion resemble the aspen (*Populus tremuloides*) forests of the Boreal Forest Natural Region to the north, and fescue (*Festuca* spp.) grasslands to the south.

Upland areas are mostly agricultural lands of improved pasture or forage cover types (DEMG 1992). A single depression dominated by shrub and herbaceous wetland vegetation is encountered within the Project footprint.

There are no vegetation elements (i.e., plant species and ecological communities) of conservation concern that are known to occur from within 5 km of the Project footprint (ATPR 2013b). Elements of conservation concern are considered to be those species and ecological communities listed:

- As Threatened or Endangered under the Alberta Wildlife Act;
- As Special Concern, Threatened or Endangered under Schedule 1 of the federal Species at Risk Act;
- As Special Concern, Threatened or Endangered according to the Committee on the Status of Endangered Wildlife (COSEWIC) (COSEWIC 2013);
- As May Be At Risk or At Risk according to the General Status of Alberta Wild Species (ESRD 2012); or
- On the Alberta Conservation Information Management System (ACIMS) List of Tracked and Watched Elements (Alberta Tourism, Parks and Recreation [ATPR] 2013a)

- Wildlife and Wildlife Habitat

A review of wildlife species likely to be encountered in the vicinity of the Project footprint was conducted as part of the environmental baseline study for Laidlaw (DEMG 1992). Remnant areas of native vegetation within and adjacent to the Project footprint are anticipated to provide habitat for wildlife including amphibians, migratory birds, ungulates and small canines. Numerous wildlife species of conservation concern were considered to have potential to occur in the vicinity of the Project (DEMG 1992); however there are no previously identified occurrences encountered within a 5 km buffer of the Project identified within the ESRD Fish and Wildlife Management Information System (ESRD 2013b). Anecdotal evidence for the presence of coyote, fox and deer have all been reported by Clean Harbors staff within the vicinity of the Project and the existing Ryley Facility.

The area surrounding the Project footprint was considered to have high potential to support deer (*Odocoileus* spp.), however, due to the extent of clearing associated with agricultural activities, important aspen woodland patches of may be limiting (DEMG 1992).

Large carnivores (i.e., black bear [*Ursus americanus*] and cougar [*Felis concolor*]) were considered to be unlikely to occur from the vicinity of the Project, particularly given the extent of human activity and reduced protective cover associated with clearing of the lands for agricultural development (DEMG 1992). Small canines, including coyotes (*Canis latrans*) and red fox (*Vulpes vulpes*), were considered to be fairly common. Other small carnivores, including members of the weasel family (Mustelidae), were considered to be likely to occur in the vicinity of the Project however their relative density was considered to be variable and difficult to determine based on low rates of reporting.

Muskrat (*Ondatra zibethicus*) was considered to be relatively abundant in the vicinity of the Project, however habitat availability was considered to be restricted to waterbodies of relatively consistent permanency (DEMG 1992). Due to the abundance of wetlands with shallow-grade margins, beaver (*Castor canadensis*) was considered to be relatively sparse in abundance within the vicinity of the Project. Small mammals of the rodent family (Muridae), as well as white-tailed jackrabbit (*Lepus townsendii*), were considered to be relatively abundant and diverse, depending upon species'-specific habitat requirements and availability of remaining habitat areas. Several species of bat are known to occur from the region however only three species, little brown bat (*Myotis lucifugus*), big brown bat (*Eptesicus fuscus*) and hoary bat (*Lasiurus cinereus*), were considered likely to occur from within the vicinity of the Project.

Beaverhill Lake, located approximately 5.8 km northwest from the Project footprint, is a wetland that has been designated as a Ramsar site according to the International Union for Conservation of Nature (IUCN) (IUCN 2013) and as an Environmentally Significant Area of international significance (Fiera Biological Consulting Ltd. 2010) for its regional importance not only as substantial nesting habitat for diverse assemblages of waterfowl and shorebirds, but also as a significant migration staging area (DEMG 1992). Although much of the data pertaining to bird populations in the vicinity of the Village of Ryley can be attributed to the surveys conducted by the Beaverhill Bird Observatory, assemblages of birds occurring either as migrants or breeding populations were also considered likely to occur within the vicinity of the Project (DEMG 1992). However, aside from a single dugout, permanent waterbodies are not found within the Project footprint. Given the proximity to Beaverhill Lake and a lack of seasonal to permanent waterbodies with shallow grades and suitable emergent vegetation, habitats within the Project footprint are unlikely to support substantial populations of waterfowl and shorebirds.

A remnant occurrence of immature aspen woodland is encountered within the southeast corner of the Project footprint. Furthermore, habitats encountered by the Project are predominantly low to mid height grasslands likely to be of non-native origin. Consequently, migratory bird populations are anticipated to be predominantly composed of migratory songbirds and members of the crow family (i.e., Corvidae). Parkland adapted raptor species may occur within the remnant area of immature trembling aspen, however given the proximity to, and



industrial vehicle traffic associated with the operation of the Ryley Facility, their likelihood of occurrence is considered low.

## 5.2 Potential Environmental Effects

Under the ownership and operation of Laidlaw Environmental Services Ltd. (Laidlaw), an assessment of environmental and socio-economic effects was conducted in support for an amendment to the license to operate the Ryley Facility (AXYS 1995). Given that the Project consists of an expansion of landfill disposal capacity that will be constructed in a similar manner to the design and specifications of the Ryley Facility, Clean Harbors anticipates that impacts predicted by AXYS (1995) will be similar in nature for the Project.

Construction and operation of the Project is likely to contribute to off-site deposition of fugitive dust as well as the off-site carry of odours associated with exposed landfill cells and noise caused by the operation of heavy machinery and transport vehicles. Clean Harbors will implement its ongoing dust and noise control measures to reduce the level of impact associated with the construction and operation of the Project to the greatest extent feasible. Since the construction and operation of the Project will overlap with end-of-life landfilling and closure activities for approved landfill cells at the Ryley Facility, additive cumulative effects to local air quality, odour and noise may be anticipated, however these impacts are anticipated to be low in magnitude and less than five years in duration.

The Project will result in a loss of vegetated areas for the duration of the associated construction and operation phases; however the Project footprint will be reclaimed to an equivalent land cover type upon closure and decommissioning of the landfill cell. Potential low-lying areas that may support wetlands will be lost during construction of the Project and, given the planned profile of the planned landfill cell, will not be restored following closure and decommissioning. Where wetlands are confirmed to be affected by construction of the Project, Clean Harbors will adhere to applicable regulatory policies of no-net-loss to wetland areas by paying compensation to an approved wetland restoration agency (e.g., Ducks Unlimited Canada). Consequently, potential environmental effects associated with the loss of wetland areas will be mitigated by restoration of wetlands outside of the Project footprint.

### 5.2.1 Effects on Fish and Fish Habitat

No waterbodies of permanent inundation or seasonally inundated areas providing fish habitat are present. Consequently, direct mortality of fish or loss of fish habitat attributed to construction of the Project is not anticipated.

Off-site deposition of fugitive dust, spills, and discharge of contaminated groundwater or surface water into waterbodies may cause indirect effects to fish by introduction of contaminants that may interact with or disrupt physiological processes (e.g., reproduction) or habitat quality (e.g., dissolved oxygen content) (AXYS 1995). These potential effects were identified to be negligible to low in magnitude and, given the proposed design for the Project and the likelihood of encountering fish within the associated study area, were considered to be not significant.

Given the similarity to the cell liner design for the Ryley Facility, construction and operation of the Project has potential to result in similar predicted impacts to fish and fish habitat. Construction of the Project to the presently planned design specifications, in addition to implementation of those measures for the protection of soils, groundwater and surface water resources is anticipated to reduce the magnitude of potential impacts to fish and fish habitat to such a level that the residual effects are likely to be considered not significant.

## 5.2.2 Effects on Aquatic Species at Risk

The Project footprint does not contain any aquatic environments, nor are there any potential effects that extend beyond the Project footprint (e.g., off-site deposition of fugitive dust) likely to interact with aquatic environments. Consequently, there are no anticipated effects on aquatic species as defined in the federal *Species at Risk Act*.

## 5.2.3 Effects on Migratory Birds

Construction of the Ryley Facility was predicted to result in loss of vegetated areas with potential to provide habitat for wildlife and, therefore by extension, habitat for migratory birds (AXYS 1995). Furthermore, activities associated with the operation of the Ryley Facility would create sensory disturbance (i.e., noise, odours, visual disturbance) that may deter migratory birds from approaching, and utilizing habitat areas in the Project footprint and surrounding area. Vehicle traffic associated with operation of the Project also has the potential to cause mortality of migratory birds located within the Project footprint. Potential for contamination of habitat and food sources that may cause disruption of physiological processes (e.g., development, reproduction) may occur via trophic linkage to impacts to air, groundwater, and surface water quality.

Since the nature of the Project is similar in scope and design to the landfill disposal cells originally proposed for the Ryley Facility, construction and operation of the Project may have potential to cause loss of habitat, deterrence from utilizing nearby habitat, mortality and contamination of food sources and habitat that may affect reproductive success, potentially causing declines in local migratory bird populations.

Depending on the approved closure plan for the Project, reclamation and revegetation of the Project footprint may result in a neutral or net positive effect on impacts to migratory bird habitat. Furthermore, deterrence of habitat utilization in the vicinity of the Project will cease upon final closure of planned landfill subcells. Mortality associated with operation of the Project will be reduced to the greatest extent feasible by enforcement of maximum posted speeds onsite. Contamination of food sources or habitat will be reduced to the greatest extent feasible by implementation of ongoing monitoring of air and groundwater quality as well as retention of onsite surface water prior to testing and treatment before pumping offsite. Habitat utilization by migratory birds of infrastructure within the Project footprint (e.g., stormwater retention ponds) will be discouraged by the implementation of barriers and preventing establishment of vegetation that may provide habitat and sources for food.

Project-specific impacts to migratory birds and their habitat are anticipated to be limited to the construction, operation and closure phases of the Project. Given the distance from Beaverhill Lake, current land use within the Project footprint and implementation of applicable operational and closure measures described previously, impacts to migratory birds are anticipated to be limited in extent and severity and are considered to be reversible during the period following closure and reclamation of the Project footprint.

## 5.3 Potential Interprovincial/International Effects

Construction and operation of the Project is not anticipated to result in any interprovincial or international effects or any effects to federal lands.

## 5.4 Potential Effects on Aboriginal Peoples

Given the distance between the Project and the nearest aboriginal land (Section 3.1.5), the potential for construction and operation of the Project to affect the health, rights and socio-economic conditions of aboriginal peoples is considered to be unlikely. Furthermore, the lands on which the Project is located have been under freehold title and have not been accessed for the purposes of traditional use and/or resource harvesting



following settlement in the region. Consequently, impacts to the environment associated with the Project footprint are not anticipated to have an effect on the physical and cultural heritage of, or traditional use by, aboriginal peoples.

## **6. Proponent Engagement and Consultation with Aboriginal Groups**

### **6.1 List of Contacts**

Clean Harbors has reviewed the location of aboriginal communities with nearest proximity to, and therefore most likely to be affected by, the Project. The aboriginal groups identified as having the greatest potential to be affected by the Project include:

- Kikino Métis Settlement;
- Buffalo Lake Métis Settlement;
- Saddle Lake Cree First Nation;
- Louis Bull First Nation;
- Ermineskin First Nation;
- Samson First Nation;
- Enoch Cree First Nation; and
- Montana First Nation.

### **6.2 Description of Aboriginal Engagement and Consultation Activities**

Engagement and consultation with aboriginal groups has not yet been initiated. Implementation of the aboriginal consultation plan will commence following the first open house that was held in June 2014.

### **6.3 Aboriginal Consultation Plan**

Clean Harbors is committed to identifying and addressing aboriginal concerns regarding the Project, including those concerns related to aboriginal rights, health, safety and the environment. The conceptual phases of engagement and consultation with aboriginal groups will consist of:

- Notification of the Project and development of community-specific consultation plans;
- Consultation regarding potential environmental, health, socio-economic and cultural impacts;
- Engagement in the collection and sharing of Aboriginal Traditional Knowledge (ATK); and
- Mitigation planning, ongoing consultation and follow-up planning.

A preliminary notification of the Project and the environmental assessment process will be submitted to all aboriginal communities considered to have potential to be affected by the Project. The preliminary notification will include an invitation to the first open house, as well as request for confirmation of the desired level of



consultation and engagement. Periodic notifications of activities associated with the engagement and consultation process will be prepared and submitted to those communities requesting notification. Given the diversity among aboriginal groups, community-specific consultation plans will be developed for each aboriginal group which identifies interest in the consultative process beyond periodic notification. Culturally appropriate consultation plans that incorporate and reflect local values will be developed with input from band councils and representative members from those communities identifying the need for detailed consultation and engagement.

The collection and sharing of ATK will be conducted in accordance with the guidelines and best practices outlined in the best practices guide: *Considering Aboriginal Traditional Knowledge in Environmental Assessments Conducted under the Canadian Environmental Assessment Act – Interim Principles* (CEAA 2013). Clean Harbors recognizes the sensitivity of some ATK and will respect aboriginal confidentiality in the use of this information. In circumstances where shared ATK shall be incorporated within the Project design and/or evaluation of potential effects associated with construction and operation of the Project, consent and appropriate review of applicable content will be sought from the contributing aboriginal communities.

Where reasonably certain predicted effects that cannot be avoided or further reduced, Clean Harbors will develop appropriate, community-specific mitigation, monitoring and follow-up plans with the consultation of identified aboriginal groups.

## **7. Proponent Engagement and Consultation with Public Stakeholders**

### **7.1 List of Public Stakeholders**

Since acquiring the Ryley Facility in 2002, Clean Harbors has maintained the pattern of consultation established by previous owners Newalta and Laidlaw, working directly with the Village of Ryley, its Reeve and Council, and its residents. Clean Harbors has established a Memorandum of Understanding (MOU) with the Village of Ryley which governs consultation activities between Clean Harbors and the Village of Ryley, as well as Clean Harbors' program of donations to the community.

As part of the community engagement program during the Environmental Impact Assessment for the expansion of the facilities that was completed by Laidlaw in 1995, the following stakeholders were consulted: Alberta Environmental Protection (now ESRD), Village of Ryley Liaison Committee, Beaver County Environmental Protection Association, Village of Ryley, Canadian Parks and Wilderness Society, Federation of Alberta Naturalists, Toxics Watch Society, and Edmonton Friends of the North, as well as local landowners and residents of the Village of Ryley.

Clean Harbors will provide preliminary notification to each of the historically consulted public stakeholder groups, in addition to local landowners and residents of the Village of Ryley.

### **7.2 Overview of Public Stakeholder Consultation**

Issues identified during stakeholder consultation associated with the Environmental Impact Assessment conducted by Laidlaw in 1995 included: the image of the Village of Ryley and Beaver County; local real estate values; and the need for comprehensive decision-making that is sensitive to the community needs. Clean Harbors acknowledges these issues as likely still relevant to affected stakeholders, and is committed to structuring and implementing a consultation plan that will ensure that stakeholders' input is received, understood, and responded to.



## **7.3 Public Stakeholder Consultation Plan**

Clean Harbors will develop and implement a comprehensive consultation plan that will consist of the following opportunities to provide information to and receive feedback from public stakeholders:

- Open Houses;
- Project Website;
- Newsletters;
- Environmental Assessment Telephone Line; and
- Personal Interviews.

It is the goal of the consultation plan to provide meaningful and accessible opportunities for interested public stakeholders to engage with Clean Harbors, providing feedback and requesting information regarding the project design, results of the public stakeholder consultation program and progress of the environmental assessment.

### **7.3.1 Open Houses**

Open houses will be held at the Ryley Facility at key project milestones including: preliminary notification, initiation of the environmental assessment and completion of the environmental assessment. Presentation of proposed alternative project designs, the scope of environmental assessments, evaluation of environmental effects and mitigation strategies will be provided with solicitation for comments invited. An open house was held at the Ryley Facility on June 17, 2014. Additional open houses may be conducted periodically to coincide with provincially and federally designated consultation schedules.

### **7.3.2 Project Website**

Clean Harbors will establish a project-specific website to provide a public forum on which to electronically access materials associated with the public stakeholder consultation program and the environmental assessment. An integrated digital form will be provided to solicit feedback and questions from public stakeholders that will be responsively monitored by Clean Harbors on a regular basis.

### **7.3.3 Newsletters**

Periodic notifications from the results of the public stakeholder consultation program and progress of the environmental assessment will be prepared in the form of a newsletter. Public stakeholders interested in receiving the newsletter may elect to receive it by letter mail and/or electronic mail. Newsletters will be posted to the Project website; Clean Harbors may explore the opportunity for incorporating hyperlinked notifications of the newsletters by select social media vendors.

### **7.3.4 Environmental Assessment Telephone Line**

Clean Harbors will establish a project-specific, toll-free telephone line on which interested public stakeholders may solicit comments and request information. Similar to the integrated digital form within the Project website, the telephone line will be responsively monitored by Clean Harbors on a regular basis.



### 7.3.5 Personal Interviews

On an on-request basis, Clean Harbors will solicit feedback, information requests and provide responses to interested public stakeholders in person.

## 7.4 Additional Regulatory Consultation

A development permit must be obtained for proposed activities occurring within lands designated to be for “general industrial” land use. In accordance with the Inter-municipal Development Plan, Beaver County and the Village of Ryley may require that an environmental impact assessment be conducted for activities proposed to be conducted within lands designated for industrial development. Clean Harbors will determine the need for an environmental impact assessment through consultation with the Village of Ryley and Beaver County.

Clean Harbors prepared a Project Summary Table that was submitted for review by ESRD on March 17, 2014. On April 10, 2014, ESRD confirmed that the completion of an EIA in accordance with the EPEA shall not be required for the Project (Appendix A). Although ESRD has ruled that an EIA is not required, the Project is subject to an Approval under the EPEA (Section 1.4.1.2). Clean Harbors has initiated consultation with ESRD regarding project-specific requirements in the application for Approval in which it will include the findings of the aboriginal and public stakeholder consultation programs as well as the environmental assessment for the CEAA.

Pursuant to Section 37(2) of the Alberta *Historical Resources Act* (HRA), ground disturbance activities with potential to cause alteration, damage or destruction of historical resources may require an assessment to determine the effect of the proposed activity on historic resources in the area where the activity is carried out. Alberta Culture (AC) issues Clearance under the HRA where impacts to historical resources are determined to be unlikely. Clean Harbors will submit an application for Clearance under the HRA and, if required, will conduct a Historical Resources Impact Assessment (HRIA) and meet any conditions as required by AC.

Pursuant to Section 36(1) of the Alberta *Water Act*, Approval must be obtained prior to commencing an activity that has potential to impact a waterbody. In the event that construction and/or operation of the Project will result in impacts to a waterbody, Clean Harbors will submit the necessary applications for Approval and notifications to ESRD in accordance with the Alberta *Water Act* and, if required, will implement any environmental or mitigation measures required as a condition of Approval.

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## **Appendix A**

### **Letter from Alberta Environment and Sustainable Resource Development**



April 10, 2014

Bryan Hensel  
Tetra Tech EBA Inc.  
14940 – 123 Avenue  
Edmonton, AB T5V 1B4  
Via Email: [Bryan.Hensel@tetrattech.com](mailto:Bryan.Hensel@tetrattech.com)

Dear Mr. Hensel:

Further to your letter of March 18, 2014, I wish to advise you that pursuant to Section 44 of the *Environmental Protection and Enhancement Act* (EPEA), I have considered the application of the environmental assessment process to the proposed Clean Harbors Canada Inc. Ryley Facility Expansion Project. This activity is not a mandatory activity for the purposes of environmental assessment. Having regard to the consideration set out in Section 44(3) of EPEA, I have decided that further assessment of the activity is not required. Therefore, a screening report will not be prepared and an environmental impact assessment report is not required.

Please note that this decision is based on the current information about the project and that I reserve the ability to review this decision should different and/or new information come to light. Clean Harbors should also note that Section 47 of EPEA gives the Minister of Environment and Sustainable Resources Development the authority to order the preparation of an environmental impact assessment report under appropriate circumstances, notwithstanding a director's decision to not require an environmental impact assessment report.

Although an environmental impact assessment report is not required for this project, Alberta Environment and Sustainable Resource Development may have other regulatory requirements under EPEA and/or the *Water Act*. For more information about regulatory requirements under EPEA and/or the *Water Act*, please contact Derek Alexander at (780) 427-9064.

Clean Harbors should also contact Shauna Sigurdson (780-495-2236) with the Canadian Environmental Assessment Agency to discuss the potential submission of a federal project description and any federal environmental assessment requirements under the *Canadian Environmental Assessment Act, 2012*.

If you have any questions or need further information please contact me at 780-427-9116.

Sincerely,

<Original signed by>

Corinne Kristensen  
Acting Environmental Assessment Team Leader  
Provincial Programs  
(Designated Director, *Environmental Protection and Enhancement Act*)

cc: D. Alexander (ESRD)  
N. Hollands (ESRD)  
S. Sigurdson (CEAA)  
M. Daneluk (ESRD)



## **Appendix B**

### **Photographs**



**Photo 1:** View west towards the entrance of the Ryley Facility from Secondary Highway 854.



**Photo 2:** View northwest towards the existing landfill cells from Secondary Highway 854.



**Photo 3:** View north towards the proposed location of the Project in NE 09-050-17 W4M.



**Photo 4:** View south towards the proposed location of the Project in NE 09-050-17 W4M.



**Photo 5:** View west towards the proposed location of the Project in NE 09-050-17 W4M.