



We are pleased to inform the community about the development of a new landfill in SE ¼ -5-30-14 W3M. This project aims to address the growing waste management needs of our area while ensuring environmental sustainability and community safety.

## Project Overview:

**Project Name:** Rosetown C&D Landfill

**Location:** SE ¼ -5-30-14W3M

**Project Start Date:** October 30, 2024

**Expected Completion Date:** September 30, 2025

**Project Manager:** Kyle Shaw, P.Eng. AECOM

## Key Features:

## Use and Capacity:

The Cell is intended to be used as an Inert waste landfill and will not accept any waste that is not classified as inert material. The Ministry of Environment defines inert material as bulk refuse originating from construction, demolition, renovation and re-development projects. It does not include waste dangerous goods or material contaminated with waste dangerous goods.

The landfill cell was design to maximize the storage volume for waste that is hauled to the landfill by the Town and other serviced populations. The landfill is designed with an approximate 16-year lifespan and consists of the airspace within the landfill itself and the airspace of the mound above the cell.

## Setbacks

The Standards for Alberta Landfills from Alberta Environment was utilized for the siting of the landfill cell; and conforms to the set-back guidelines for new landfills. The construction of the Cell will not affect major setbacks. The closest road to the site is 116 m to the south of the cell, and is located on the top of a hill, with the ground sloping away from the site. The closest residential dwelling is located approximately 506 m to the southeast, and there is no water body located within 300 m of the landfill site. The closest municipal water well is located on NW-33-29-14 W3M and is approximately 755 m from the Cell; based on a review of WSA's Drilling records; no other water well is located within 1 km of the Cell.

# Environmental Protection:

The landfill incorporates advanced technologies to minimize environmental impact, including a **leachate collection system** to facilitate a safe and efficient removal of leachate and prevent potential contamination of soils and groundwater. The leachate collection system / sump is sized to accommodate flows from a 1:25 rainfall event.

One x 200 mm diameter perforated DR-17 HDPE leachate collection pipe will be placed in the north south direction. Two x 200 mm diameter perforated DR-17 HDPE leachate header pipes will be placed in the east west direction. pipes will be joined together by fusion welding. The perforations will be 12.50 mm diameter, spaced at 250 mm and installed in four rows around the circumference of the pipe.

Drainage rock layer will be placed around the leachate collection pipes. The leachate collection trenches will also be backfilled with drainage rock, surrounding the pipes. The drainage rock will generally be clean 12.5 mm to 40 mm rounded rock meeting the following gradation:

A 300 mm thick drainage rock layer will be placed above the leachate collection pipes; and will cover the entirety of the cell floor. The drainage rock will generally be clean 12.5 mm to 40 mm rounded rock.

Separation Non-Woven Geotextile is proposed for placement over the leachate collection trench and pipe to 0.5 m beyond the limits of the drainage rock layer over the base. The purpose of separation geotextile is to provide protection against damage / clogging caused during placement waste and interim cover over the drainage rock layer.

The landfill will be placed atop a compacted clay layer that exceeds the hydraulic conductivity (permeability) requirements set forth by the province. The landfill Cell footprint has been designed to allow positive drainage of surface water off the site and minimize the potential for water to come into contact with waste or infiltrate into the groundwater.

# Safety Measures:

Comprehensive safety protocols are in place to protect the community and the environment. The existing barded wire fence that encloses the site will be removed and upgraded with a new fence that will span the entire perimeter of the site. Litter fencing will be installed along the east and south faces of the landfill cell to catch any litter that may become airborne.

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# Contact Information:

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