



THORHILD LANDFILL

61308 Hwy 63
Newbrook, AB T0A 2P0
587.735.0462

BUSINESS HOURS

Monday - Friday:
7:00am – 6:00pm

Saturday:
8:00am – 2:00pm

Holidays:
8:00am - 2:00pm

Thorhild Landfill

WM of Canada's disposal facilities employ the latest advances in landfill technology. Thorhild Landfill provides safe and convenient disposal services for communities, businesses and industries serving central and northern Alberta. This regional facility is engineered with environmental protection systems designed to meet or exceed rigorous government requirements.

Thorhild Landfill uses a three-legged stool for groundwater and environmental protection. First, the site is situated optimally on top of low permeability clay. Second, it leverages advanced landfill engineering designs and operations. Lastly, system performance is verified through a series of checks and balances, including environmental monitoring systems for surface and groundwater, to provide proof of environmental protection.

Liner System

The landfill cells at the Facility are lined in accordance with AESRD approvals. These systems meet or exceed regulations for Class II landfills. The liner system for each cell consists of the following layers (top to bottom):

1. 2.0m Protective Material (select waste),
2. 0.3m Granular Leachate Collection Layer,
3. Geotextile cushion,
4. Geomembrane Liner (60-mil HDPE),
5. Geocomposite,
6. Geomembrane Liner (60-mil HDPE),
7. 0.6m Compacted Clay, and
8. Prepared Subgrade.

Leachate Collection & Conveyance

The Leachate Collection and Removal System is composed of a highly permeable gravel drainage layer covering the entire landfill base. Currently, there leachate collection sumps with an automated electronic monitoring system which transmits real-time liquid levels to both on and offsite staff. More will be installed as the landfill cells are developed. Leachate is collected and managed in a double-lined evaporation pond.

Environmental Monitoring

The groundwater monitoring program for Thorhild Landfill is based on the requirements of both the Standards for Landfills in Alberta (AENV, 2010) and the Environmental Protection and Enhancement Act Approval No. 23628-00-00. The monitoring program provides baseline information on groundwater quality. Baseline monitoring will occur for the first four years of operation, and once every third year, thereafter. Detection monitoring will occur once a baseline has been established, continuing through operations and into the post-closure period. Both baseline and detection monitoring will be completed on a semi-annual basis.

The groundwater monitoring network will be developed on a progressive basis concurrent with landfill development. The initial well network includes nine monitoring locations

YEAR OPENED

2015

PROJECTED LIFE REMANING

70+ years

FACILITY ACREAGE

454 hectares

PERMITTED FOOTPRINT

85 hectares

REMAINING PERMITTED CAPACITY

23 million m³

TONS PROCESSED ANNUALLY

200,000 – 400,000 +/-

OWNERSHIP

WM of Canada

PERMIT TYPE & PERMIT

Province of Alberta EPEA
236328-00-00 (Provincial Operations
Approval) & Ministerial Order
29/2013
(Appeal No. 11-025 et al.)

Province of Alberta WA
0266612-00-00 (Provincial Approval
under Water Act) County of Thorhild
Development Permit for CLASS
II Private Landfill and Wetland
Restoration

County of Thorhild Development
Permit
for CLASS II Private Landfill and
Wetland
Restoration

OF SITE EMPLOYEES

16

WM OF CANADA

established around the perimeter of the initial landfill cell.

Monitoring results are submitted to both Thorhild County and Alberta Environment.

Security

Thorhild Landfill limits access to the facility, having both perimeter fencing and an electrified bear fence. The facility can only be accessed via a single gate, which directs all traffic to a gatehouse occupied during business hours by trained personnel. During non-business hours, the gate is locked and monitored by electronic surveillance.

Acceptable Materials

| | |
|--|--|
| Asbestos (Friable & Non-Friable) | Municipal Waste Incinerator Ash/Residues |
| Ash | Off-Spec Products |
| Auto Shredder Fluff | Process Waste* |
| Bottom Ash | Soils* |
| Construction & Demolition Debris | Special Waste |
| Dead Animals, Animal Parts, Meat & Bone Meal | Wastewater Sludge |
| Exploration & Production Wastes* | Yard Waste |
| Fly Ash | Other: Oil Field Waste* |
| Industrial Waste* | Other: Treated Biomedical Waste |
| Municipal Solid Waste (MSW) | |

Unacceptable Materials

| | | |
|--------------------------------|-----------------------------|---------------------------|
| Bulk Liquid Wastes | Hazardous Waste | Soils Containing Clubroot |
| Dangerous Oilfield Waste (DOW) | Household Hazardous Waste | Radioactive Wastes |
| Domestic Wastewater | Ozone-Depleting Substances | |
| Explosives | Untreated Biomedical Wastes | |

Future Services

| | |
|--------------|----------------|
| Rail Service | Solidification |
|--------------|----------------|

Approval Process

WM has a defined waste screening protocol for each of its non-hazardous waste facilities, which protects employees and the environment. For industrial and special waste streams, the generator or agent must complete a waste profile for review by our technical staff. Waste profiles can be completed online at WMSolutions.com.

Recycling Services

| | | |
|--------|-------------|------|
| Metals | White Goods | Wood |
|--------|-------------|------|

Risk Mitigation

WM provides the highest level of services, backed with state-of-the-art site design and management systems to minimize potential risks and reduce liabilities.

Community Partnerships & Involvement

WM of Canada is proud to lend our support to the communities where we conduct business. Since 2006, WM introduced a Community Investment Fund to Thorhild County and has provided more than \$900K in community investment funding to important local projects within the County of Thorhild. WM is committed to continuous annual support of the County's non-profit organizations and being a valued community partner and environmental steward.



CONTACT

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COMMUNITIES SERVED

Central and Northern Alberta
Thorhild County
City of Edmonton

