

Hartland Landfill

Frequently Asked Questions

Capital Regional District | 2019

Did you know?

Hartland is the only municipal solid waste landfill in the region:

- Started in the mid-1950's
- Spans 125 hectares, including 48 hectares of landfill area
- Receives about 140,000 tonnes of garbage per year
- Capacity is expected to be reached in 2049



What makes Hartland more than a landfill?

Hartland Landfill is a multi-purpose facility. In addition to landfilling garbage and controlled waste, it is a drop-off location for recycling, kitchen scraps, stewardship items, yard and garden waste and household hazardous wastes. It is a state-of-the-art solid waste management facility, using landfill gas to generate electricity and demonstrating sustainability principles in the operation of the site.

Why is Hartland a "landfill" and not a "dump"?

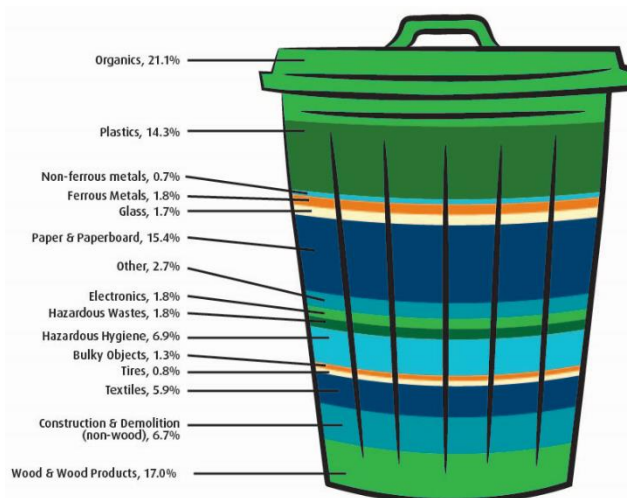
Generally, a dump does not have systems and controls to reduce the environmental impact of the site. Hartland began as an unregulated dump in the mid-1950's. In 1985, the Capital Regional District (CRD) took over operation and invested more than \$40 million to upgrade the site infrastructure and environmental controls. With these improvements, Hartland transitioned from a dump to an engineered sanitary landfill.

What happens in a landfill?

Trucks deposit garbage at the active face, where it is compacted to save air space. At the end of each day, the garbage is covered with a tarp and/or gravel. The active face is made up of cells which are arranged in rows and layers, called lifts. Each lift is four metres high. Over time, the organic material inside the cells decomposes, consuming oxygen and producing landfill gas and leachate. Decomposition is facilitated by moisture from precipitation that trickles through the garbage. Leachate is water that has contacted garbage.

What does the garbage at Hartland consist of?

About every five years, the CRD holds a waste composition study at Hartland. Trained workers sort random loads of garbage into categories. The 2016 study showed that organics, paper and plastics make up about half of the waste landfilled at Hartland.



What happens to the gas produced inside the landfill?

Since 1991, Hartland has been collecting landfill gas using a series of wells and pipes, then burning the gas in a flare to reduce greenhouse gas emissions. In 2003, a landfill gas utilization facility was built to use the methane in the landfill gas to produce electricity. The facility feeds the electrical energy into a BC Hydro distribution system. The plant has the capacity to produce enough electricity to supply green power to about 1,100 homes.

With the diversion of kitchen scraps from Hartland landfill, gas production will decline. Although the majority of landfill gas is generated within 20 years of landfilling, emissions can continue for many years at a reduced rate.

What happens to the leachate produced inside the landfill?

Hartland Landfill contains and conveys leachate to two leachate lagoons. It is tested monthly and is discharged via a pipeline to the sanitary sewer under a permit.

How is Hartland Landfill monitored?

Hartland Landfill utilizes control systems to reduce environmental risks. A routine monitoring program verifies the effectiveness of these control measures. In addition, Hartland requires permits for controlled wastes that require special handling to control health and safety risks or adverse effects to the environment.

What is Phase 1 of Hartland landfill?

Phase 1 is the original portion of Hartland Landfill that was completely closed by 1998. There is approximately 4.5 million cubic metres of garbage in place in this area. It was permanently covered with a specially designed durable plastic liner and soil cap. Since 2004, over 35,000 native trees and shrubs have been planted to restore the site and blend naturally with the surrounding forest.

What is Phase 2 of Hartland landfill?

Phase 2 refers to the current active Hartland Landfill site which officially opened on April 30, 1997. It is designed as a long-term engineered, environmentally secure waste disposal site. Phase 2 is able to accept approximately 5.3 million cubic metres of solid waste.

What will happen when Hartland landfill is full?

After the landfill is closed the landfill must be capped and a top layer of soil added to support vegetation. Landfill gas, leachate collection and environmental monitoring systems must continue to operate for a minimum of 30 years. The CRD is setting funds aside today for closure and monitoring costs.

In the meantime, the CRD investigates new innovative technologies to extend the life of the landfill and reduce environmental impacts. Any future options to manage our region's waste will involve public consultation and input.



Vector Control

At a Glance

Hartland is much more than a landfill:

- Accepts over 80 items from 25 product categories for recycling
- Takes household hazardous waste for proper disposal
- Receives 6,500 tonnes of kitchen scraps annually for composting
- Provides green energy for 1,100 homes
- Rehabilitates closed areas with over 35,000 indigenous trees and shrubs planted to date
- Provides landfill tours and hosts school, community and professional education workshops at the Hartland Learning Centre

