

## Kinleith Integrated Remediation Project

Carter Holt Harvey Ltd implemented a “one-off” landfill solution to dispose of a range of stored wastes associated with processing and treatment of timber in the Kinleith area, and from its other sites in New Zealand. The project comprised:

- Construction of a fully lined landfill in an old quarry (Sprinkler Quarry Landfill) to contain CCA treated wood shavings that had previously been stockpiled nearby
- Removal of wastes from “Site A” for disposal on the larger “Site B” (Sites A and B being two historical disposal sites in the area)
- Construction of a hazardous waste containment cell, generally in accordance with USEPA Subtitle C criteria, for containing PCP contaminated soils and soils from Site B contaminated with forestry chemicals
- Construction of a smaller containment cell for hydrocarbon contaminated soils
- Capping of Site B with a LLDPE membrane cap over approximately half of the site, and a compacted soil cap over the balance of the site.

### Project Data

Owner - Carter Holt Harvey Ltd.

Tonkin & Taylor Involvement - Hydrogeological and containment investigations and modelling, concept design, consents, risk analysis, detailed design and construction supervision.

Sprinkler Quarry Landfill:

Landfill Volume - 250,000 m<sup>3</sup>.

Footprint Area - 2 ha.

Base Liner - Compacted ash soils/geomembrane.

Sidewall Liner - Compacted ash soils.

Hazardous Waste Containment Cell:

Cell Volume - 13,000 m<sup>3</sup>.

Footprint Area - 4,000 m<sup>2</sup>.

Liner - Double geomembrane liner with geocomposite drainage layer overlying geomembrane/GCL/compacted clay.

Cap - Compacted ash soils/geomembrane.



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