

CASE STUDY

Project: **Barretta Landfill Rehabilitation**
Location: **Kingborough, Tasmania**
Client: **Kingborough Council**
Contractor: **Batchelor Civil Contracting**
Estimated Cost: **\$2.3 million**



Barretta Landfill Rehabilitation Project, Tasmania

Swellseal MS 4000 Geosynthetic Clay Liner
chosen to cap former landfill that has been
converted to a Waste Transfer Station.

A tip site was originally established at Barretta in the 1950s on a ridge separating two drainage systems flowing into North West Bay. Waste was initially disposed of by trenching and filling, later by landfill layers up to the late 1970s/early 1980s. A valley fill system was then developed to the south.

The site was closed for land filling of putrescible waste in January 2008. A permanent Waste Transfer Station was constructed on the site and opened to the public in July 2011.



As part of the original operating licence and in conjunction with the EPA Guidelines, Kingborough Council has begun rehabilitating the old landfill site. The rehabilitation program includes:

- Earthworks to remove the existing soil cap and shape the landfill;
- A gas collection and management system to generate carbon credits;
- Installing Swellseal MS 4000 Geosynthetic Clay Liner to cap the former landfill and minimise any further pollution of the groundwater from the ingress of rainfall;
- Constructing two leachate storage ponds to assist in the capture and management of leachate from the landfill;
- Stormwater drainage, leachate and management work; and
- Revegetation and road works to complete the transformation of the site to an open recreation area.

Kingborough Council investigated various capping options and decided to use Swellseal MS 4000 Geosynthetic Clay Liner. Council's decision to select Swellseal MS 4000 was based on a number of factors including its performance, ease of installation and significant cost savings compared to similar products. Made from high quality natural sodium bentonite granules, the 5m wide Swellseal MS 4000 rolls gave superior coverage with less dust emissions during installation. Independent QA testing was undertaken by Precision Geosynthetic Laboratories, California.

The 24,000m² capping system is being installed by local contractors, **Batchelor Civil Contracting Pty Ltd**.

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