

# news from Transwaste Canterbury



## Construction Success

The Kate Valley Landfill is on track to be completed and in operation on or before the early June 2005 target. A superb performance by our contractors and some help from the weather has enabled us to complete what would normally be 18 months work in 12 months. What is more, the landfill is likely to be completed within Transwaste's budget.

## What Has Been Achieved?

Around 1.5 million cubic metres of soil and rock have been shifted during the process, creating the first "cell" of approximately four hectares. This has been lined with upper and lower layers of high density polyethylene, sandwiching between them a layer of geosynthetic material infused with bentonite clay. Together, these layers give Kate Valley Landfill a containment system superior to standards used in Europe and the USA for municipal landfills. Kate Valley

## Landfill liner under construction

also has the backup benefit of the excellent natural containment provided by the siltstone confining layer that lies beneath the landfill.

Within the landfill cell, collection systems have been constructed to take any rainwater that comes into contact with waste, and leachate from the waste, to a central sump. It will then be pumped to storage tanks, prior to being taken to a sewage treatment plant.

As landfilling progresses, gas collection wells will be installed in the waste. These will be connected to extraction pipes, and a vacuum applied to recover landfill gas generated within the landfill. Initially this gas will be destroyed in a flare, but when its volume is sufficient, the gas may be used to evaporate leachate and to generate electricity.

Just over five kilometres of the existing Mt Cass Road has been upgraded, including substantial realignment in places. This part of Mt Cass Road now meets State Highway standards for its traffic load.

A new two lane bridge has been built to replace the old single lane bridge across the Omihi Stream.

Approximately two kilometres of new private road has been constructed to give direct access to the site from Mt Cass Road. This new road avoids the difficult narrow winding section of Mt Cass Road, and substantially reduces the distance to the landfill from State Highway One.

Alongside the landfill, a container park has been developed. This will enable trucks carrying waste containers from transfer stations to unload and load, without having to go near the landfill itself, or leave the sealed road surface.

Facilities for the on-site staff have been built next to the container park, along with a workshop. The main site administration office is being constructed in a different location overlooking the landfill.

Further down Kate Valley, below the landfill, two earth dams have been constructed as part of the overall

**New CWS staff during training - photo also illustrates CWS truck and waste container vehicles.**

landfill operation. The first dam, about 300 metres down the valley from the landfill, is to collect and hold runoff in storm events. This allows soil and dust particles picked up from the earthworks around the site to settle in the impounded pond. Clean water will be discharged downstream to the site's water supply dam.

This dam is around one kilometre further downstream from the landfill. The water supply dam impounds up to 40,000 cubic metres of winter and spring stormwater runoff in a lake up to 500m long. This water will be used during dry summers to assist with construction of future cells, and for dust control.

The drinking water supply for the landfill staff comes from a collection gallery in the stream between the two dams.

A further kilometre downstream of the water supply dam, a smaller weir has been constructed, to create a new 12 hectare wetland in the Tiromoana Bush area. This new wetland will complement the existing natural wetlands in the vicinity.



## What Happens Now?

Waste should start arriving at Kate Valley in early June. There will be a gradual build-up, with full operations expected to be underway by the end of June. Most heavy machinery to be used will be transported to the site during May.

Canterbury Waste Services Ltd (CWS) staff will be present at the landfill from mid May, undergoing training and pre-operation activities. There will be fifteen staff employed at the site, eight of who currently live in North Canterbury. In addition, two senior landfill management staff currently living in Christchurch will move into houses on the Transwaste property in the near future.

The significant increase in residual waste quantities in Canterbury over the last two years was reported in our last newsletter. While the economic boom that has caused this increase shows signs of slowing down, it is expected that the initial waste quantities going to Kate Valley will be higher than originally anticipated.



## Waste Transport Operations

Truck and trailer units will commence transporting waste from transfer stations to the Kate Valley Landfill as operations commence. Most of these will be operated by CWS, but waste from Ashburton and Waimakariri Districts will be hauled by subcontractors to CWS. CWS has employed 19 experienced truck and trailer drivers, around half of them from North Canterbury.

## CWS Truck and Trailer Units

The trucks and trailers to be used by CWS will be the most modern fleet in Canterbury. They incorporate a full range of safety features unlikely to be found on most other heavy vehicles on the road. There are too many to cover here, but a few of the features incorporated are:

- Brushes on trailer wheel guards to stop water spraying onto following or passing vehicles on wet days.
- Side protection panel guards on the trailer to remove the possibility of cyclists or pedestrians being able to fall under the trailer.
- Full width rear mudflap to stop any loose stones flicking up from truck wheels onto following vehicles.
- Euro III Exhaust Emission Standard, currently the most stringent emission standard in the world.
- Euro III Noise Standard engines.
- All trucks will be speed limited to 90km per hour.
- All equipment specified to the latest safety standards.

CWS has taken great care to employ experienced, high calibre truck drivers. Their high standard will be maintained through ongoing training, with a view to achieving the safest possible on-road performance.

CWS plans to initiate the “Thumbs Up” Programme in Canterbury in conjunction with NZ Police, which focuses on safety around trucks for school aged children and transport operators.

## Other Transwaste Activities

While the primary focus of Transwaste in recent months has been the completion of the landfill and preparation for the start of operations, other



**Landfill staff in front of the 58 tonne waste compactor and D7 waste handler bulldozer**

## Kate Valley Landfill Geology Report

issues have also been addressed and progressed. These have included:

- Completion of appropriate contracts for landfill management, transport of waste to the landfill, and arrangements with refuse transfer stations.
- Working towards the establishment of the Kate Valley Landfill Community Trust to administer funds arising from the fees charged for landfill disposal to be provided for local community benefit.
- Progressing the establishment of the Community Liaison Group.
- Ongoing farm management activities at Tiromoana Station and Mt Cass farms.
- Initial planning for the Tiromoana Bush native forest restoration area.
- Property management of the total land area owned by Transwaste, much of which is to be put on the market in future years.
- General management as the company moves from a construction phase to an operational phase. As expected during the transition phase for the new enterprise from development to operations, these activities are time consuming and require a considerable depth of knowledge of the company, the site, and relationships with other parties. To meet its needs during this transition period, the company entered into a six month fixed term contract with its Chairman, Denis O'Rourke, to undertake these management duties. This arrangement will terminate in September 2005. By this time, sufficient knowledge will have been gained to put in place an appropriate longer term management structure tailored to the ongoing operational needs of Transwaste.

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Transwaste's geologists, Geotech Consulting Ltd, have just completed their detailed inspection of the "as built" area of the landfill, and have provided their report to the company. The construction of the first cell provided an opportunity for a complete check of the expected geological conditions determined from investigation work against what is actually present. Copies of the report have been provided to Environment Canterbury and Hurunui District Council. A CD copy of the full report is available from Transwaste.

## Who is Transwaste?

Transwaste Canterbury Limited is a joint venture company with 50% owned by six Canterbury Councils and the balance by Canterbury Waste Services Ltd (CWS). The six Councils currently involved are Christchurch City, Hurunui, Waimakariri, Selwyn, Banks Peninsula and Ashburton Districts. CWS is itself a joint venture company, formed by the two leading waste companies in New Zealand, Waste Management NZ Ltd and Envirowaste Services Ltd.

Transwaste has eight directors, four appointed by the Council shareholders, and four appointed by CWS. The current Chairman is Denis O'Rourke.

CWS is managing the project for Transwaste, and is responsible for the construction and operation of the Kate Valley Landfill.

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