

**Jak Materia** The ground stabilisation mat for track & utility area construction

## CASE STUDY - DOC TARANAKI AREA OFFICE (24-08-2009)

PROJECT: Wilkies Pools Track Upgrade DOC PERSONNEL: Paul Marshall – Works Officer Dave Rogers - Programme Manager Visitor Assets CONTRACTOR: Mathew Low– BECA CONTRACTOR: Richard Smith - Logic Forest Solutions

### Track Upgrade Background

Wilkies Pools Track is located in the East Egmont area, 14 kilometres from Kaponga, west of Stratford and Eltham. The track entrance is 100 metres from the Dawson Fall Visitors' Centre (DOC) and is a popular destination for bush walkers and day visitors wanting to experience the subalpine (goblin) forest and view the pools scoured from 20,000 year old lava.

The brief was to upgrade 480 metres of the current

track to enhance visitors' walking comfort and remove what had become a worn and undulating track surface with, therefore, many potential trip hazards of steps, rocks and tree roots. Further consideration was to provide a surface which was "barrier free" enabling use of strollers, walking frames and wheelchairs. Finally, to provide a surface which will tolerate very high rainfall (up to seven meters per annum).





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#### Construction Steps:

 Considerable infilling was carried out to create a track without steps and to remove hazards. The hard fill was either excavated existing track aggregate or supplied GAP20 aggregate, compacted to a maximum of 150mm.

- Timber (150X25mm R/S H4 treated) edgings and pegs (50X50mm R/S H4) were used for track containment along one edge of the entire track. A water course was created at the side of the timber side of the track to reduce water flow across the track with the intention of reducing rutting and track water damage.
- Bedding sand was added to a depth of 20mm onto which JakMatEnviro was positioned. The mats were laid two across (2 X 585mm) giving a total track width of 1170mm.
- Pinning of the mats was achieved using a wire staple (230 X 2.5mm diameter wire) at the centre join
  of the two JakMats (approx 2 per mat).





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- The JakMatEnviro was then filled with GAP20 aggregate and compacted. Another 10-15mm layer of GAP 20 was compacted on top of the mat.
- Fall of the track surface was 2% either to the right or left and in some places a crown design was used
- 7. again with a 2% fall from centre.



# 2 years down the track (Aug 2011)

#### Wilkies Pools Revisited!

**JakMat** ground stabilisation mats have been installed on the Wilkies Pools Track for over two years and it was time for us to see how they had been performing.

The stabilised track is performing well despite the heavy rainfall of up to 7 metres per annum. Other benefits of the **JakMatEnviro** ground stabilization programme have been the enhancement of visitor's walking comfort by the removal of trip hazards like rocks and tree roots.

Stage 4 of the upgrade (135m approx) is set to be completed in the 2012/13 - track extension project on the Nature walk, North Egmont Visitor Centre. This will create a link between two tracks to provide a short loop track. Two Years Later 2011





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