**CASE STUDY**

**Geosynthetic Clay Layer**

Project: Lake Hayes GCL Pond  
Date: August-October 2007  
Client: Bridget Wolters  
Location: Arrowtown

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**ELCOSEAL**

Landscape Architect Bridget Wolters was contracted to design a feature pond for a property overlooking Lake Hayes in the Queenstown Lakes District. The timber board walk through the pond, linking the house to an entertainment area, presented a construction issue. Timber poles support the board walk and the question asked was “how do you line a pond and seal around the timber supports without compromising a synthetic liner?”

**ELCOSEAL X1000**, a Geosynthetic Clay Liner (GCL), was chosen as an ideal solution for this challenging site. **ELCOSEAL** GCL’s are needle punched reinforced composites combining two durable geotextile outer layers with a uniform core of premium quality sodium bentonite clay to form a hydraulic barrier. Installed as per manufacturers instructions, **ELCOSEAL** GCL provides the equivalent hydraulic protection of 1 metre of compacted clay.

The pond area was first excavated and shaped followed by laying of the **ELCOSEAL** GCL which was then covered with local gravel to give the pond a natural look. The timber board walk was then bedded into the concrete footing that sits directly on the **ELCOSEAL** GCL, meaning the liner was not compromised with penetration of the timber poles.

A local contractor, Graham Morgan, was trained in the installation of **ELCOSEAL** GCL thereby removing the added expense of bringing in outside contractors with specialist welding equipment. He found the product easy to work requiring no specialist equipment for joining.

**ELCOSEAL** GCL met all the criteria being a product that was easy to install and providing the liquid containment needs for the site, while producing a stunning result.