



**GEOFABRICS®**

**LAKE HAYES  
GCL POND  
ARROWTOWN, NZ**



**CASE STUDY**



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**PRODUCTS USED**

**ELCOSEAL®**

Elcoseal Geosynthetic Clay Liners (GCLs) are an effective lining solution for water containment such as dams, ponds, lakes, wetlands, irrigation canals and channels.

Geosynthetic Clay Liners consist of a layer of bentonite bonded between two layers of woven and nonwoven geotextiles. Thanks to the fast-swelling sodium bentonite clay liner, Elcoseal creates a highly effective containment barrier resulting in an unmatched sealing capability and are quicker and cheaper to install than natural clay layers. Additionally, Elcoseal can self-heal around holes or punctures, reducing risk of leaks due to installation damage.

Elcoseal is used extensively in landfill construction together with HDPE geomembrane as composite base liner and final capping. Elcoseal is also an effective solution for containment of contaminated materials and for liquid containment in effluent ponds and tailings dams.

**PROJECT DESCRIPTION**

This private pond, overlooking Lake Hayes in the Queenstown Lakes District, was designed with a timber board walk through the pond, linking the house to an entertainment area. Timber poles support the board walk, presenting a construction issue and prompting the team to question, "how do you line a pond and seal around the timber supports without compromising a synthetic liner?"

**OUR SOLUTION**

The Elcoseal geosynthetic liner was installed onto the excavated prepared sub base and covered with the required compacted aggregate cover material to ensure containment. Capping that system with local river gravels gave the pond a natural look.

Ensuing this, the timber board walk was bedded into the concrete footings that sit directly on the Elcoseal, meaning the liner was not compromised with penetration of the timber poles.

Elcoseal GCL met the criteria of being an easy to install product and providing effective liquid containment; whilst simultaneously producing a stunning result.



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