Case Study: Cattle Loafing Pad
Lower Beach Road Farm

Elcoseal Geosynthetic Clay Liners (GCLs) are used as an easy to install lining system in landfills and waste containment structures and for liquid containment in effluent ponds and tailings dams. Elcoseal GCLs are also effective liners for dams, ponds, lakes, wetlands, irrigation canals and channels.

Elcoseal GCLs consist of a layer of bentonite bonded between two layers of woven and nonwoven geotextiles. The needle-punching process reinforces the bentonite layer with thousands of fibres, maximising the product’s internal resistance. An additional heat treating process called “thermal locking” secures the needle-punched fibres, further improving strength and performance.

Elcoseal GCLs can replace thick, compacted clay layers in composite landfill liners and caps, thanks to the fast swelling sodium bentonite clay liner. This creates a highly effective containment barrier for landfill final cover systems and base landfill liner systems. Elcoseal GCLs can self-heal around holes or punctures so there is less chance of leaks due to installation damage.

With the rise in Dairy Farm developments in New Zealand during the last twenty years there has been a move to improve farming practices. One significant change is the requirement for off pasture pad systems. Stand off or loafing pads are areas where stock can be withheld from grazing during wet periods to minimise damage and nutrient loading to pastures.

Loafing pads are typically built above the natural ground level and are constructed of free draining material on a sealed surface with drainage designed to capture and direct Farm Dairy Effluent (FDE) to a pond or tank.

Sustainable Water Ltd installed Elcoseal X800 as the base sealed surface as designed by Clarke Goldie Consulting and constructed by Greg Donaldson Contracting.

Elcoseal GCLs consist of a layer of bentonite bonded between two layers of woven and nonwoven geotextiles. When in contact with other liquids Elcoseal installed as per guidelines is able to provide the equivalent hydraulic protection as one metre thick layer of compacted clay.