



Christmas offers us the chance to relax after a very busy 2007.

In the past few months we have opened a new sales branch at the Gold Coast, appointed Humes as our exclusive distributor in the Northern Territory, launched a new look website and secured the distribution rights for the Intermas landfill drainage systems.

Whilst the current level of engineering and mining construction activity is exciting, 2008 promises to be just as exciting. Looking forward to 2008, we will be:

- holding design workshops for consulting engineers around Australia
- building a world-class geosynthetic laboratory
- growing our export performance for our Australian-made solutions
- investing in our factories at Albury and the Gold Coast

The world-class laboratory is quite innovative, as it will bring a "Centre of Geosynthetic Excellence" culture to the Australian engineering scene. This centre will offer engineers the opportunity to test materials and systems locally, rather than working with offshore testing centres. The centre will provide local engineers confidence to specify more advanced manufacturing or construction QA regimes. We look forward to working with local companies and research institutions in understanding how their projects can best incorporate geosynthetics into engineered structures.

But before we tackle an exciting 2008, we wish you a safe and relaxing Christmas break, and look forward to working with you in 2008.

The Geofabrics Team

International Relations

We are pleased to announce our appointment as exclusive distributors of Intermas Geosynthetics drainage products. The addition of the Interdrain and Techdrain products will allow us to better support the landfill and mining sector's demand for alternatives to gravel drainage layers.

Intermas, established in 1957, is a leading company in the production of extruded and woven plastic meshes. Intermas geonets have been applied in many civil, landfill and mining applications. The products are supported by detailed technical data and the company is involved in constant technological development and research into new products to respond to all client needs.

If you would like more information on the new product range please contact Warren Hornsey at w.hornsey@geofabrics.com.au

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Flemington Race Course

...And they're racing!

The Melbourne Cup is Australia's greatest race. Held annually on the first Tuesday in November, the race that stops a nation sees eyes from all over the world turn to Flemington. The national passion runs a distance of 3,200 metres with over five million dollars in prize money up for grabs. The Melbourne Cup is the jewel in the Spring Racing Carnival crown, that injects millions of dollars into the Victorian economy every year.

Sitting alongside the Maribyrnong River this Australian icon is potentially under threat. Seeking to ensure that potential flooding of the river does not interrupt an event, the VRC sought to flood-proof the carnival by spending \$60 million in redevelopment of the Flemington racecourse. A 2.5 metre high **gabion** wall stretching 1.6kms was chosen as a suitable and aesthetically pleasing solution as protection against possible flood waters.

Akron Roads constructed the wall using patented **Maccaferri Terramesh** units and specified rock infill. The unique brown coloring of the double twist mesh (produced specifically for this project) is set upon both a brown hornfeld rock and a streaking blue/gray granite rock. The hornfeld rock was supplied by Readymix from their Oaklands Junction Quarry. The Landscape Architect, ERM envisaged the wall to be a cost effective, natural looking stone wall that complemented the riparian environment of the Maribyrnong River and its surrounds. The civil design was carried out by GHD.

Planning Minister Mary Delahunty has noted the need for ensuring such a spectacle is not at risk from flood "It is the centerpiece of world-class racing, especially the spring racing carnival, which brings hundreds of millions of dollars to the Victorian economy," she said. "The flood protection works and racetrack upgrade will ensure that major horse racing events at Flemington, such as the Cup or the Victoria Derby, cannot be affected by major flooding of the Maribyrnong River."

For more information on the project and products used contact Russ Hogan on (03) 8586 9100 or email r.hogan@geofabrics.com.au



ELCOSEAL X1000 GCL

Promoting Greener Pastures.

The BEGA COOPERATIVE SOCIETY LIMITED, an influential group of farmers and land owners in the Bega Valley, has employed a novel and most effective way to support the environment.

The Bega Co-operative Society Limited in conjunction with the farmers have utilised the wastewater from the manufacturing process of the Bega cheese factory by pumping and spraying the nutrient rich wastewater as a fertilizer onto selected areas of farm properties. This irrigation of nutrient in the wastewater improved and increased the quality and quantity of fodder for the farmer's prime dairy cattle.

The Bega Co-operative Society Limited with the professional input from: **Andrew Marshman & Associates P/L, ACT Geotechnical Engineers P/L and Guideline South Coast P/L** designed a Wastewater Storage Dam with a capacity of 120 megalitres (28,000m²) to store wastewater during wet weather events and better utilise the wastewater for irrigation.

The Geofabrics **ELCOSEAL X1000 GCL** proposal, promoting cost, installation and performance benefits, was chosen as the Lining System for the dam to contain the large volume of stored wastewater and prevent leaching and loss of any of the water resource.

For more information on the project and products used contact Michael Thomas on (02) 9821 3277 or email m.thomas@geofabrics.com.au

Cowes WWTP

Ecocell takes the load....

Westernport Water, a regional Victorian water authority providing water and sewage services to Phillip Island and surrounds, faced the problem of restricted access to the discharge point for septic tankers at its Cowes Waste Water Treatment Plant. The condition of the gravel access road was deteriorating, particularly over the wetter winter months.

Typically 25,000L tankers entered the site, turned, screwed and rutted the pavement. The damage was to such an extent that the tankers were being turned away and sent to Westernport Water's second treatment plant at Coronet Bay, some 30km away. The access track has been a continual problem since it was constructed in conjunction with a new inlet pit approximately 4 years ago.

A combination of low-quality backfill and poor compaction during the track's initial construction meant the road required frequent maintenance. A more permanent means of addressing the problems was needed to overcome the ongoing need for maintenance works.

Initial pricing estimates to repair the damaged roadway using various standard methods of concrete or asphalt allowed Ecocell to come in at a 30% - 40% cost saving for the client.

Westernport Water elected to trial the more cost effective option of an Ecocell reinforced pavement. The pavement was to consist of a layer of bidim A24 geotextile, 150mm deep Ecocell section filled with compacted type 2 roadbase materials, overlaid with 50mm deep cover of road material.

The Ecocell confinement system prevents vertical, horizontal and shearing actions of the gravel, greatly improving the load carrying capacity of the pavement.



Following the Ecocell installation Westernport Water is extremely happy with the results. Not only is the pavement performing to expectation, but often exceeding intended traffic levels without detrimental effects. The effectiveness of treatment and trafficability of the access track has been maintained despite an extended period of wet weather and very high loadings associated with tourist events (such as the Motorcycle Grand Prix), which would normally have caused considerable damage to the access track and possibly made it untrafficable.

For further information please contact Cameron Roberts on (03) 8586 9100 or email at c.roberts@geofabrics.com.au

Exmouth Superlot B



The demand for canal subdivisions is certainly showing no signs of drying up in Western Australia.

Developers City and Suburban Group along with canal design specialists TABEC are producing a first class canal subdivision, Exmouth Superlot B, on the outskirts of the North West coastal town of Exmouth.

Following extensive design consultations between Geofabrics, structural engineers Worley and geotechnical consultants, Golders, a concrete tilt up panel facing wall was selected in combination with a hybrid Tensor geogrid reinforced soil backfill.

This detail was used to line the 1.4kms of canal that runs through the subdivision and ultimately to the Indian Ocean.

A selection of Geosynthetic products were utilised to enable the construction of a long term structurally stable canal wall.

Tensor 120RE Geogrid – reinforced soil backfill
MegaFlo Flat panel drainage systems – Pore water balance control

Bidm A14 Non woven geotextile – backfill fines retention

Bidim A64 Non woven geotextile – waterproof membrane protection layer

Bituthene 5000 Bitumen tape – waterproof wall joints.

Local Exmouth contractor Roberts Civil is proud to have been involved with the project as it enters the final stages of construction.

For more information on this project contact Martin Ellam on (08) 9309 4388 or email m.ellam@geofabrics.com.au



Bunker Breakthrough.

Mission Hills is an 18 hole gated residential private golf course being constructed 2 hours drive from Singapore in Johor Bahru, Malaysia. Australian designer Ross Watson is the master architect on the project with Australian golf course constructor Mark Ecott and shaper Gary Cox adding their expertise.

Previously, throughout Malaysia golf course designers have had to be conservative in their bunker design due to the regions high and heavy rainfall. These designs usually resulting in grass faces on bunkers. The heavy rainfall creates erosion and the problem of maintaining sand on bunker walls.

With the use of Australian made **BunkerMat®** the bunker erosion problem has been resolved.

BunkerMat® traps the sand within its fibres thus not allowing the sand to move through the mat profile. Bunker walls then require less (usually very expensive) sand but still gives the wall a deep sand appearance. Several **BunkerMat®** colours are available to blend in with different coloured sand. Having less sand on the bunker wall also means that golf balls do not plug, instead, rolling to the base allowing an easier shot to be played.

BunkerMat® also provides an important separation layer keeping the orange clay subsoil from contaminating the sand.

BunkerMat® is now allowing the design of deep, interesting sand bunkers throughout other Asian golf courses projects.

For more information on this project contact Neil Taylor on (03) 8586 9100 or email n.taylor@geofabrics.com.au

Staff Profile



Neil Taylor commenced employment with Geofabrics 12 months ago as Golf Development Manager.

Neil came to us after spending 6 years with an erosion control supplier, finishing with this company in the position of National Sales Manger. He is currently a director of the International Erosion Control

Association (IECA) and has Qualifications in Turf Management.

The position has taken on both the domestic market and the international market through ELCOS-Golf. Neil travels extensively speaking with golf club superintendents, architects, designers and construction contractors. He is excited with the growth of Geofabrics golf product range, including the new products being developed.

For your golf enquiries please do not hesitate in contacting Neil on 0400 584 585.

Sealmac saves the day...

The Department of Main Roads (DMR) in Bundaberg, Queensland, have been using paving fabrics as part of their reseal program for a number of years now. Diminished "reconstruction" funding has caused the DMR to rethink their road network strategy and adopt "rehabilitation programs" for their road network.

As part of this rehabilitation program, Geofabrics Australasia's PF1 fabric has become a major strategy in extending the life of the fatigued pavements and reseals. Their bitumen reseals Project Manager Bill Hanenberg stated that DMR's confidence in Geofabrics' paving fabric's ability to hold their existing seals, (until re-construction funds are available), has been critical in their assessment of how they spend their maintenance allocation.

Some sections of these **PF1** resealed roads are giving Main Roads upto 5-7 years "grace in reconstruction".

Most regional road pavements within Main Roads Bundaberg's district are of a "non standard" type pavement, most being ridge gravels etc. These pavements are now generally cracked, some rutting, but are in reasonable condition, given their age. Most road networks are resealed to hold off reconstruction but given the "low cost" involved to add a paving fabric, Bundaberg DMR has elected to use **Sealmac PF1** to enhance and add approximately 5 years plus to the bitumen and pavement life.

In Summary: The Department of Main Roads Bundaberg will continue to use Paving Fabrics for "water proofing their pavements, adding "tensile strength" to the pavement and reducing reflective cracking.

For more information on this project or similar works carried out throughout the country contact Chris Lancaster on (07) 4155 9968 or email at c.lancaster@geofabrics.com.au

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