



## This issue

Pulp Mill Conference **P1**

Nigel Miller **P2**

Surrey Hills **P3**

Bulk Earthworks Update **P2**

Simon Cook **P3**

Pulp Mill Dams Approval **P4**

## Pulp Mill Conference

During early January the Project's Environmental Specialist, Lawson Harding, travelled to South America to attend the pulp and paper industry's major scientific forum. The *8th International Conference on the Fate and Effects of Pulp and Paper Mill Effluents* was held in conjunction with the *10th Forest Industry Wastewater Symposium*. The combined fora are held every three years and provide an opportunity for scientists from academia, research, government and industry to meet and discuss relevant developments and learn of emerging technologies from throughout the world.

The *Mill Effluent Symposium* focused on the implementation and outcomes of 'fit for purpose' monitoring strategies to provide surveillance of the health of water bodies which receive pulp and paper mill effluent. A substantive body of evidence was presented on the vastly improved environmental performance of older technology mills, prevalent in North America and Europe over recent decades. Similarly, the environmental characteristics of the modern large scale mills, prevalent in South America were contrasted against the older technology mills.

Evidence was presented of several studies of the South Central Chilean marine environment as a number of pulp mill outfalls, similar to that proposed by Gunns, have been established in this region over the last decade.

### Figure 1

Close up of one of the bio-treatment technologies that will be implemented by Gunns. The small discs shown (about the size of a 50c piece) provide an ideal substrate for growth of specific strains of bacteria that will effectively remediate the effluent prior to final release.



While long term variability in the structure of local marine ecosystems has been observed, no pulp mill related trends have been apparent. These studies however, provided new insights into the effect(s) of natural perturbations in local eco systems, due to the very recent Japanese and Chilean earthquakes and accompanying tsunamis.

The *Forest Industry Wastewater Symposium* focussed on the operation and management of bio-reactors used in modern waste water treatment systems. Presentations detailed how the health of the 'bugs' that are cultured in the waste water system, is vital as these organisms are responsible for transforming the waste waters into a relatively benign waste stream.

The attached images show waste waters in the early stages of biological treatment (*Figure 1*) and after secondary treatment at a mill in Chile (*Figure 2*). This particular mill is relevant as it uses very similar technology for pulp production; the same tree species mix and the same waste water treatment systems to that proposed by Gunns.

Please refer to the 'Further Information' contacts for further details of the scientific symposium.

### Figure 2

Image of a secondary treated effluent (wastewater) at the point of final release. At this stage, most traces of pollutants emanating from the mill process have been consumed by cultured micro-organisms resulting in a relatively clear but yellow tinted waste stream (of a non-toxic nature) being released.



This is the fifth in a series of newsletters, published to provide interested community members with information about the Bell Bay Pulp Mill Project.

We will continue to provide this newsletter regularly and encourage interested people to make contact with Gunns if they would like more information about the project.

## INTRODUCING Nigel Miller



Nigel commenced employment with Gunns in January 2010 from Great Southern. His current role is Operations Manger for the Green Triangle estate. The Operations team consists of seven staff who look after the maintenance of the ex Great Southern hardwood estate in the Green Triangle (SA/Vic), Kangaroo Island and Gippsland areas. The team also manage the maintenance and establishment of the softwood estate in the Green Triangle area and Tumbarumba, NSW.

Nigel graduated with a Bachelor of Forest Science and Bachelor of Commerce from Melbourne University in 2000 and worked for the Department of Sustainability and Environment in various locations conducting Native Forest Inventories. Nigel then moved to private forestry and spent two and half years establishing hardwood for Great Southern on Kangaroo Island, before transferring to work for Great Southern in the Green Triangle.

Nigel and his wife moved to Hamilton with their two young daughters in 2007. He is also Club Captain for the Hamilton Rowing Club and volunteer coaching young members of the club. When time (and fitness) allows Nigel competes in single sculls and eights.



## Bulk Earthworks Update

Bulk earthworks are continuing well and are expected to be finalised by the middle of March 2012. For those who would like some construction statistics, please find below a snapshot of 30 August 2011 to 31 January 2012.

Criteria	To 31 Jan 2012
Total number of hours worked for: <ul style="list-style-type: none"> <li>Contract administrators and site management team</li> <li>Contractor's direct work force - all Tasmanian</li> <li>Contractor's subcontract workforce - all Tasmanian</li> </ul>	8,500 + hrs 18,500 + hrs 17,500 + hrs
<ul style="list-style-type: none"> <li>Lost Time Injury Frequency Rate (LTIFR) which measures all injuries that require more than an overnight recovery.</li> <li>Injuries that required less than an overnight recovery (non LTIFR).</li> </ul>	0 4
<ul style="list-style-type: none"> <li>Largest number of machines on site (all but a couple Tasmanian)</li> <li>Largest number of sub contractors on site (all Tasmanian)</li> </ul>	64 80+
<ul style="list-style-type: none"> <li>Number of companies working on site including Hazell Bros &amp; John Holland</li> <li>Number of contractors – all Tasmanian</li> </ul>	4 9
<ul style="list-style-type: none"> <li>Area vegetation cleared</li> <li>Area re covered with site's topsoil</li> <li>Area sprayed with reseeding mix</li> <li>Total excavation volume</li> <li>Percentage of rock in excavation</li> <li>Volume of rock blasted</li> <li>Weight of rock crushed</li> <li>Total embankment volume</li> <li>Platform area covered with crushed rock</li> <li>Temporary storm water catchment dams</li> <li>Days where blasts were conducted</li> </ul>	414,607 m <sup>2</sup> 13,500 m <sup>2</sup> 11,000 m <sup>2</sup> 666,364 m <sup>3</sup> 60,856 m <sup>3</sup> (9.1%) 71,630 m <sup>3</sup> 92,533 tonne 540,318 m <sup>3</sup> 29,174 m <sup>2</sup> 13 8
<ul style="list-style-type: none"> <li>Number of visitors to site</li> </ul>	480+
<ul style="list-style-type: none"> <li>Construction Environmental Management Plan (CEMP) internal audit reports undertaken by JV and Gunns site environmental officers</li> </ul>	15



## INTRODUCING Simon Cook



Simon manages part of the Gunns Chain of Custody certification system which provides Gunns with the ability to supply customers with the guarantee that our products originate from certified/sustainably managed plantations across the Tasmanian, Western Australian and the Green Triangle Regions. Simon also coordinates Gunns existing certification programme to both the Australian Forestry Standard, the Environmental Management System (ISO 14001) standard and is assisting with the implementation of our Forest Stewardship Council (FSC) certification project.

Simon gained his forestry qualification from the University of Aberdeen in Scotland, and has a background in operational forest management within a number of organisations. He has worked and gained experience in the plantation forest industry in the UK, NZ and Australia.

## Surrey Hills Montane Native Grasslands

Montane native grasslands and moorlands cover about 6,500 hectares of northwest Tasmania – with an altitude range of 600–1200 m. They include some of Tasmania’s largest and most diverse grasslands and are maintained by fire, frost and browsing by native animals. A significant amount of these grasslands are located on Gunns’ freehold estate called ‘Surrey Hills’ which is the company’s largest single freehold block at over 60,000 hectares. Originally it was part of the large land grant to the Van Diemens Land Company in 1825 who tried to run merino sheep on the grasslands. This represented the earliest European occupation in this part of the State and whilst the sheep enterprise spectacularly failed after only three winters, the estate supported ‘wild’ cattle grazing in this remote area for over 100 years. More importantly Aborigines lived here for millennia and using fire created and maintained the area as grasslands as these were their hunting grounds.

Since the mid-1980s several projects examined aspects of the distribution, ecology and conservation management of the grasslands. These included surveys to establish the conservation status of the grasslands, the distribution and ecology of Tasmania’s most threatened butterfly totally dependent on the grassland, the distribution of threatened plant species, and a detailed vegetation survey. In 1990, more intensive vegetation surveys were carried out and in some sample plots (1m x 10m) over 50 individual species were recorded.

The studies showed that the most diverse areas were found to be those grasslands that had a long history of burning and grazing. By 1997 many of the recommendations from these previous studies had been put into effect. These included allocation of 1,700ha of grasslands by Gunns into informal reserves and the preparation of a Grassland Management Plan in 1998. The Management Plan focused on the use of fire to maintain species diversity, maintenance of threatened species, and control of weed species. Gunns has taken a further step in agreeing to permanently reserve some 1,900ha of grassland under a Covenant in perpetuity and incorporate all the grasslands (including moorlands) into a Vegetation Management Agreement covering a period of 10 years. Surveys are carried out each year to collect data and refine our practices to ensure that species diversity is maintained and threatened species are protected.

## FURTHER INFORMATION

For general enquiries on this publication please use our 'blog' site at [gunnsblog.com](http://gunnsblog.com)

For further information on the Bell Bay Pulp Mill Project, please visit [www.gunnspulpmill.com.au](http://www.gunnspulpmill.com.au)

For general enquiries or more urgent concerns associated with construction activities, please contact us on the following:

Ph 03 6335 5459 or [bettina.goodwin@gunns.com.au](mailto:bettina.goodwin@gunns.com.au)

Ph 1800 265 297 or 0458 001 785 from mobile phones (after business hours)

Email – [pulpmill@gunns.com.au](mailto:pulpmill@gunns.com.au)

## COMMUNITY LIAISON COMMITTEE

Website at: <http://bellbaypulpmillclc.org>

Postal address:  
PO Box 437 George Town  
TAS 7253

## Pulp Mill Dams Approval

Gunns was pleased to receive final regulatory approval from the Assessment Committee for Dam Construction (ACDC) for 2 large permanent storm water storage dams on the pulp mill site in December.

These 15 and 9 mega litre (ML) dams will replace the smaller temporary ponds constructed at the commencement of the current bulk earth works and will form an important part of the overall storm water management strategy during construction and operation of the mill.

Construction of the dams is currently underway and is expected to be completed in March 2012.

## Environmental Monitoring

Potential environmental impacts have been closely monitored during bulk earthworks, including surface and ground water quality, dust, noise and ground vibration.

Surface water quality in streams is monitored daily and groundwater aquifers are monitored monthly at established points above and below the construction footprint. These checks are designed to assess the impact of construction on key water quality parameters such as turbidity, pH, dissolved oxygen and the presence of hydrocarbons.

Dust monitors, a vibration monitor and continuous noise monitors have been strategically placed at potentially sensitive locations in nearby Rowella. The dust monitors continuously record atmospheric PM10 dust levels whilst the vibration monitor is used to assess ground and air vibration associated with blasting activity on the pulp mill site. The noise monitor logs environmental noise data at Rowella 24 hrs per day 7 days a week. All monitoring instruments report automatically to environmental monitoring databases and issue SMS warnings to key site personnel should readings approach pre determined alert levels.

Monitoring data from these instruments is submitted to the EPA and reported publicly in the Gunns Annual Environmental Performance Report available on the Gunns Pulp Mill website.

## Did you know. . .

**When the mill commences - using 26 gigalitres p.a. of water purchased from Hydro Tasmania, the Project will export nearly 100 times more electricity to the Tasmanian electricity grid than Hydro Tasmania would have produced from that same volume of water, should it have passed through the Trevallyn Power Station and into the Trevallyn tailrace!**