Boral
a resourceful and responsible company valuing people, communities and the environment
Boral is a resource-based, manufacturing company with strong reserve and market positions.

Operating in Australia, the USA and Asia, we produce and distribute a broad range of construction materials, including quarry products, cement, fly ash, pre-mix concrete and asphalt; and building products including clay bricks and pavers, clay and concrete roof tiles, concrete masonry products, plasterboard, windows and timber.

We recognise the responsibility we have to manage our resources and manufacturing activities in a sustainable way.

We aim to minimise the environmental impacts of our operations and, where we can, to make a positive difference to the environment and communities in which we operate.

We value our stakeholders – the people who buy and use our products, the people who invest their money in the Company, the people who help us operate – employees, contractors, suppliers, regulators, government – and the people who live next door to us, locally and globally.

A total of 16,194 Boral employees (and a further 8,400 contractors and joint venture employees) work across 707 operating sites globally. Despite our geographic spread we place importance on collecting energy, emissions and water data across the Company and sharing best practice sustainability outcomes and key learnings with each other.
Key sustainability highlights

In 2007, we...

- lowered our lost time injury frequency rate by 10% to 2.8 and percentage hours lost by 18% to 0.09%

- consumed 2.93 billion litres of mains water, steady on a comparative basis

- emitted 3.70 million tonnes of greenhouse gases from Boral owned operations, a 1.6% reduction on a comparative basis

- used 157 million litres of diesel and 14 million GJ of natural gas

- re-used between 33% and 100% of production waste generated in our businesses

- assessed 49 Boral businesses using the Boral Sustainability Diagnostic Tool (BSDT) which on average scored 2.9 against an industry specific best practice target of 3.0

Water management, waste recycling, biodiversity, the efficient use of raw materials and rehabilitation are part of our broad environmental agenda.

We have been searching for commercially, environmentally acceptable ways to lower emissions from our transport operations, via:

- selection and specification of vehicles, including fuel efficiency of vehicles,
- alternate fuels for heavy vehicles, and
- modes of transport.

We are committed to conserving energy and reducing GHG emissions from our processes and facilities. We have developed a GHG abatement cost curve, determined Boral's historic CO₂ emissions for 1990 and 2000, forecast our CO₂ emission to 2012 and beyond, and developed scenarios for emissions target setting.

We are enhancing our product portfolio to meet the demand for more ‘sustainable’ building products and construction materials. An increasing number of Boral’s products are based on recycled materials and enhance the energy efficiency of construction.

Managing health and safety of employees and contractors has been a key area of focus for many years. Safety performance as measured by frequency rates and hours lost due to injury continues to improve.

Boral is...

- A Gold Star performer in the Corporate Responsibility Index
- A member of the FTSE4Good Index
- A member of the Carbon Disclosure Project’s Climate Change Leadership Index (Aus-NZ)
Boral’s Strategic Intent is to be a value(s) and market-driven, focused building and construction materials supplier, operating in Australia and increasingly offshore. We regularly review our strategic intent and objectives but effectively they have remained unchanged since the demerger of our Company in January 2000. Boral’s overarching objective is to “achieve superior returns in a sustainable way”. This applies in a financial, environmental and social sense.

Our sustainability priorities
Our Sustainability agenda is broad but we have managed to sharpen our focus to five priority areas common to all Boral businesses:
• Health and safety management
• Energy and greenhouse gas emission reduction (or climate change)
• Water conservation
• Waste management, and
• Resourcing for growth.

Additional division-specific priority areas reflect the differences between our operations and the progress made so far in sustainability management.

Our progress in 2006/07
We measure and monitor our performance and progress towards sustainable development in many ways. The key sustainability measurement tool used is the Boral Sustainability Diagnostic Tool (BSDT) which we use to measure and monitor progress and to establish improvement targets. Developed in 2000, the BSDT was developed with reference to several globally recognised standards. Seven years on, the external sustainability expert who helped develop the BSDT continues to work with us, bringing independence to the biennial assessment process.

In the fourth roll-out of BSDT assessments our target in 2007 is to be performing at a level of industry-specific best practice. To date we have completed around 90% of the planned 54 business assessments with pleasing outcomes. On a four-point scoring system where “1” indicates a level of compliance, “2” is proactive, “3” represents industry-specific best practice and “4” is world’s best practice, we have averaged a score of 2.9 so far for our 2007 assessments, against a target of 3.0.

The BSDT has proven to be a very useful tool to engage our businesses, to report externally to our stakeholders and to drive change.

Health and safety
Management of health and safety has been a key area of focus for many years.

Our safety performance as measured by frequency rates and hours lost due to injury continues to be pleasing with further improvements delivered in 2006/07. Employee LTIFR reduced by 10% to 2.8 and for contractors LTIFR improved by 22% to 5.7. Hours lost due to injury fell by 18% to 0.09% for both employees and contractors.

Despite these solid improvements, we are deeply concerned with the five work-related fatalities in Boral’s businesses during the first half of the year. Three of the fatalities were contractors and two were employees; two occurred in our Asian operations, two in the USA and one in Australia. This is not acceptable. We are committed to eliminating fatal accidents across all Boral-related work sites.

Climate change
Boral is a significant emitter of CO₂ and in 2006/07 Boral’s fully owned businesses emitted 3.70 million tonnes of CO₂. We have actively participated in a range of voluntary energy efficiency and emission reduction schemes since 1997. In our Cement division in particular, which represents some 60% of Boral’s...
total emissions, we have lowered the emissions produced per unit of cement by 14% compared with 1990 levels.

In 2000 we committed to “meeting our share of national commitments under the Kyoto Protocol to reduce greenhouse gas emissions relative to 1990 levels”. In 2003 we restated our commitment in our Environmental Policy to “reducing the greenhouse gas emissions from our processes and facilities”.

We have been active in the public policy debate on climate change, making submissions to state and federal government reviews into emissions trading.

Boral is supportive of the introduction of a carbon emissions trading scheme, despite the direct and indirect costs it will add to our businesses, because we see a carbon pricing signal as an important driver of necessary change.

In submissions to government we have stated that a national emissions trading scheme must lower global emissions, not simply transfer production and emissions away from Australia. We see the treatment of Trade Exposed Energy Intensive industries as a key issue for Australia. We support “credit for early action”, particularly given Boral’s efforts for some ten years to reduce our emissions. We support one national system for Australia, with relevant policies and strategies that enable a global solution and, more specifically, contributes to the development of a global market response, and we see the need for well-considered national targets to be set.

This year we formed a Boral cross-divisional and cross-functional Climate Change Technical Working Group (TWG). Reporting to Boral’s Management Committee, the TWG has undertaken scenario planning to understand potential financial impacts under an emissions trading scheme, and we have been developing an abatement cost curve to prioritise our opportunities. We have an increasing understanding of the potential cost impacts and opportunities under various scenarios.

We are also firming up our historic data for 1990 and 2000 and we have been projecting Boral’s emissions profile out to 2012 and indeed, out to 2020. We think it is important to understand our emissions profile and to link future targets to them. Projected emissions are based on forecast market demand growth, which leads to “business as usual” projections. This work is in place, however we will wait until national emissions targets are set (both in Australia and the USA) to ensure that we are contributing appropriately and that we understand both the costs and benefits of possible Boral emissions targets. In the meantime, in each of our divisions we are striving to reduce emissions per unit and to offset Boral’s increases in absolute emissions as a result of market demand growth.

We believe there are opportunities presented by managing climate change risks early, such as reduced energy and raw material costs through efficiency gains. There is also the likelihood of increased demand for more ‘sustainable’ and heavy weight products and materials – products that support energy-efficient construction, that withstand extreme weather conditions and that are less resource-intensive.

The viability of a company-owned hardwood plantation strategy to provide a secure long-term resource for our hardwood business, beyond our 23-year wood supply agreement with Forests NSW, may be enhanced if plantation hardwood also provides a carbon offset for the Company.

**Water conservation**

Despite the relatively low cost of water today it may not always be that way. The risks associated with restrictions to our water supply are significant and are being addressed. In 2005/06, we reduced Boral’s mains water consumption by 24% or 760 million litres p.a.; on a comparative basis mains water consumption was steady in 2006/07. We consumed a total of 2.93 billion litres of mains water across Boral’s operations in 2006/07.

**Waste management**

In recent years, we have created new revenue streams and made real cost savings by using our own and others’ waste products as raw materials or alternative fuels in our manufacturing processes. Boral’s businesses generally re-use or recycle between 33% and 100% of the production waste that they generate.

**Resourcing for growth**

With profit after tax down 18%, the 2006/07 financial year was a challenging year for Boral because of significant macro-economic pressures in our key housing markets in the USA and NSW. Despite this, our Perform & Grow strategy has remained fundamentally sound. We are growing into new products and markets and managing more complex capital works projects. The competitiveness of our markets also demands ongoing improvement in price and cost management and the more effective utilisation of assets in our businesses.

Boral’s success is dependent on the effectiveness and development of our employees and managers. Resourcing for our ongoing operations and for growth is a priority area. Our average employee tenure in Australia is 8.4 years but with an ageing workforce and increasing skills shortages, our focus is on recruitment, development and succession planning.

This Sustainability Report should help our stakeholders to understand our progress across our key priority areas; it highlights our performance more broadly in terms of our social and environmental impacts. We welcome your feedback on specific issues and on our general performance.

Rod Pearse
CEO and Managing Director

Sharing staff ideas and solutions across Boral is important to us and so is recognising and celebrating achievements. We formally recognise outstanding achievements through the Boral Awards for Excellence program. In 2007, 27 finalists were recognised from 104 submissions.
Boral’s strategic direction as it relates to sustainability matters is set at the corporate level with clear policies and operating frameworks in place to guide Boral’s businesses and to assist line managers in the management of their operations in a sustainable way.

Boral’s corporate governance practices and frameworks ensure that the Board of Directors is accountable to shareholders for appropriately overseeing the management of relevant sustainability matters. The key details of Boral’s governance framework and practices are disclosed in the Corporate Governance section of the Annual Review (p 28-32) and on our website. Amongst a range of specific functions of the Board, the most significant responsibilities in relation to sustainability are:

- oversight of the Company, including its conduct and accountability systems;
- reviewing the performance of the chief executive officer and senior management;
- reviewing and verifying systems of risk management and internal compliance and control, codes of conduct and legal compliance;
- reviewing sustainability performance and overseeing occupational health and safety and environmental management performance;
- meeting legal requirements and ensuring that the Company acts responsibly and ethically and prudently manages business risks and assets; and
- remuneration policies and practices for Boral and the remuneration arrangements for senior executives.

Executive General Managers, heads of functional departments and the Managing Director regularly report to the Board on progress and performance as it relates to health and safety, climate change and other environmental and community management, human resources and risk management.

Strong leadership at Management Committee level is driving the required improvements to deliver Boral’s overall objective of superior performance in a sustainable way. Day-to-day management of sustainability matters is integrated into line management, with specialists in health and safety, environmental services, corporate affairs and human resources providing advisory support and corporate functions.

Sustainability matters are also integrated into individual objectives, which are linked to variable remuneration outcomes.

A cross-divisional, cross-functional Climate Change Technical Working Group (TWG) is in place to assist in the development and implementation of an appropriate climate change strategy for the Company. Reporting to Boral’s Management Committee, the TWG has undertaken scenario planning to understand potential financial impacts under an emissions trading scheme and has been prioritising Boral’s emissions abatement opportunities.

**Boral Sustainability Diagnostic Tool (BSDT)**

The Boral Sustainability Diagnostic Tool (BSDT) was developed in 2000/01 to assist Boral Limited and its operating businesses facilitate the adoption of business practices consistent with the principles of sustainable development. The BSDT was updated in 2003, 2005 and 2007. The 2007 version incorporates refinements that reflect recent developments and rising standards in the overall understanding and application of sustainability principles and how these apply to Boral.

The BSDT comprises 20 sustainability elements. A performance assessment against each of these elements is undertaken every two years. The assessment process is undertaken by referring to detailed performance level descriptions and best practice examples provided within the BSDT. Performance levels for each element are graded Level 1 (compliance/reactive), Level 2 (proactive), Level 3 (industry specific best practice) or Level 4 (world’s best practice) (see Figure 2).

**Figure 1**

**Elements of the BSDT**

- **Sustainability management**
  - Scope of commitment
  - Management systems – Quality, HS&E
  - Accountability and performance management
  - Budgeting and financial management
  - Risk management – new business and/or new development, plant and equipment
  - Compliance review and reporting
  - Continuous improvement.

- **Supply chain management**
  - Strategic sourcing and supply chain
  - Sales and marketing.

- **Human resources**
  - Communications, awareness and training
  - Employee and labour relations
  - Health, safety and wellbeing.

- **Social responsibility**
  - Community relations and engagement
  - Business ethics and corporate governance
  - External relations and communications.

- **Environment**
  - Land protection, remediation and rehabilitation
  - Environment and ecosystem protection
  - Waste and resource management, recycling and re-use
  - Energy conservation and climate change
  - Water conservation, extraction and protection.

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1 The BSDT was developed and subsequently refined in collaboration with an independent sustainability expert and with reference to the Global Environmental Management Initiative (GEMI), the Global Reporting Initiative (GRI), and the Social Venture Network.
The BSDT process serves to reinforce acceptable standards, train managers in ‘best practice’ requirements and identify areas of weakness.

The 2007 BSDT assessments are being undertaken with an external sustainability expert and scheduled for completion in October 2007. At the time of writing, 49 BSDT assessments were completed across Australia and Asia with a further five USA assessments to be undertaken. In Australia, the average score for 2007 was 2.3, which approached our target of 3.0 – industry-specific best practice – a substantial improvement on our 2005 result of 2.6. BSDT assessments were first undertaken in Asia in 2005; the average score for 2007 BSDT assessments was 1.6 versus 1.2 in 2005.

The first seven elements, which focus on “Sustainability Management” scored an average of 3.1 across Boral’s Australian businesses in 2007, compared with 2.7 in the 2005 assessments and 2.0 in 2003. The 2007 scores demonstrate that Boral’s businesses are progressively:

- incorporating sustainability targets into business plans;
- linking incentives and reward systems with sustainability objectives;
- using stakeholder feedback for assessing effectiveness of management systems;
- measuring and communicating sustainability performance;
- considering sustainability risks in decision making; and
- regularly reviewing plans and processes to incorporate new technologies and best practice.

In general, the lowest scoring element in the 2007 assessments were Energy Conservation and Climate Change (2.7) and sustainability aspects of Sales and Marketing (2.6) – which are two areas of intense current activity as sustainable products increase and firm action on climate change is taken. The strongest elements were Scope and Commitment (3.2) and Continuous Improvement (3.1).

Divisional BSDT results are discussed on pages s26 to s37.

External sustainability measures

In 2007, Boral retained its Gold Star rating by the Corporate Responsibility Index which is managed by the St James Ethics Centre and validated by Ernst & Young. Boral scored 90%.

Boral again scored an “outstanding performance” (i.e. score ≥ 95%) in two of the management modules: Community Management and Workplace Management. The CRI specifically mentioned Boral’s organisational commitment at the senior executive level to implement change and how sustainability has been successfully integrated into Boral’s business. Boral’s 2007 CRI Report is posted on our website.

Boral was ranked 5th out of the top 50 companies in Australia by the Association of Chartered Certified Accountants (ACCA) in its report on “Disclosures on Stakeholder Engagement”. In this case, the use of the BSDT as a tool for setting targets clearly contributed to Boral being rated as the top-performing company (equal with BHP Billiton) around “targets and metrics” in the area of stakeholder engagement.

The BSDT assessment scores

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<tr>
<th>Level 1 Compliance/Reactive</th>
<th>FY2001 Scores</th>
<th>FY2003 Scores</th>
<th>FY2005 Scores</th>
<th>FY2007 Scores</th>
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<td>Achieving basic compliance with regulatory requirements.</td>
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<th>Level 2 Proactive</th>
<th>FY2001 Scores</th>
<th>FY2003 Scores</th>
<th>FY2005 Scores</th>
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<td>Achieving “better than compliance” regulatory performance and satisfactory performance in accordance with Company and industry requirements and/or practices.</td>
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<td>Can demonstrate that business practices compare/align favourably with sector or industry leaders, e.g. through benchmarking programs.</td>
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<th>Level 4 World Best Practice</th>
<th>FY2001 Scores</th>
<th>FY2003 Scores</th>
<th>FY2005 Scores</th>
<th>FY2007 Scores</th>
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<td>Can demonstrate that business practices compare/align favourably with global industry leaders. Stakeholders consider the business to be a global competitive leader/champion in the industry or sector.</td>
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1 Excludes scores for Asia businesses which are reported separately on page s29
2 2007 BSDT data for USA not available at the date of printing this report.
The FTSE4Good Index Series has been designed to measure performance of companies that meet globally recognised corporate responsibility standards, and to facilitate investment in those companies. Since March 2005 Boral has been included in the FTSE4Good Global Index by meeting the required inclusion criteria. Constituent members of the FTSE4Good Index (of which there are some 900 companies worldwide including around 30 Australian companies) have demonstrated that they have policies and management systems in place to address social, environmental and ethical risks.

Our policies and values
Boral’s Values of Leadership, Respect, Focus, Performance and Persistence describe how we do things at Boral and should influence our day-to-day business activities. We know that our Values are being adhered to by observing people’s behaviour. Our Values are incorporated into annual performance reviews; they are used to benchmark behaviour or workplace style and effectiveness, with examples of expected behaviour provided to ensure a common understanding of Boral’s Values across the organisation.

The Boral Management Guidelines contains a Code of Corporate Conduct and 52 policies and guidelines setting out legal and ethical standards for employees. This policy and guideline document was extensively reviewed in 2007 as part of Boral’s triennial policy review process.

Boral’s employees have access to a whistleblowing service known as FairCall. FairCall is an independent service operated by KPMG for employees to report fraud, illegal acts or misconduct, which has been in place since 2001. FairCall is communicated extensively within the Company and during 2006/07, 10 calls making new allegations to the FairCall hotline were logged resulting in thorough investigations. The outcomes were reported back to Boral’s Audit Committee.

While Boral operates in a range of countries with cultural and regulatory differences, all of Boral’s operations in Australia and offshore are expected to work within Boral’s policies and guidelines. In a few cases, country-specific policies are in place to address differences in local laws. A breach of Boral policy can and does lead to termination. Some 45 Boral employees were terminated during the year, specifically as a result of serious breaches of the law or policy.

Bribery and corruption
Boral supports the Australian Government’s commitment to the global fight against corruption and to raising public awareness about the foreign bribery offence under Australian Criminal Law.

In addition to our Code of Conduct and FairCall whistleblowing service, Boral has policies in place that relate to offering or accepting bribes, kickbacks or gifts. They include our Gifts, Entertainment and Financial Inducements policy, Business Expenses policy, Government Relations policy, and Limits of Authority for Political Donations.

These policies apply to Boral’s operations globally. Induction programs for new managers and ongoing annual performance reviews are used for training and discussion around these matters.

In addition, internal risk management processes include consideration of “high risk” countries1. In summary, Boral’s policies and/or compliance systems:

• prohibit Boral’s businesses, and agents acting on our behalf, from giving and receiving bribes;
• commit to obeying all relevant laws;
• restrict and ensure controls around political donations;
• restrict and ensure controls around facilitation payments; and
• restrict the giving and receiving of gifts.

Boral’s joint venture business, Lafarge Boral Gypsum Asia, which operates in countries including those earlier identified as “high risk” countries, is a 50/50 joint venture with Lafarge SA. Lafarge is a large French multinational company which comprehensively discloses information on its policies and practices, including those in relation to its Code of Business Conduct and bribery and corruption. Refer to www.lafarge.com for more information.

Boral derives around 3% of revenues from “high risk” countries.

1 “High risk” countries identified by the FTSE4Good Index include the following countries in which Boral operates: Indonesia and Thailand (and through joint ventures in China, the Philippines, Vietnam, Mexico and Trinidad)
We have a genuine regard not only for the interests of our shareholders, but also for the interests of employees, customers, suppliers, neighbours, members of the communities, government and other stakeholders. We value the views of our stakeholders, taking those views into account when we make decisions about our daily operating activities and the future.

We aim to work with our stakeholders to:

- provide accurate and timely information about Boral’s plans/operations;
- seek stakeholder views on our plans/operations and take stakeholder views into account; and
- achieve mutually beneficial outcomes.

Stakeholder engagement is an important part of our sustainability agenda. Two BSDT elements (Community Relations and Engagement and External Relations and Communications) focus specifically on monitoring and measuring our performance as it relates to stakeholder engagement and several other elements incorporate stakeholder engagement standards. Figure 3 demonstrates the improved performance by Boral’s businesses in engaging with external stakeholders over recent years.

It is particularly important for us to understand stakeholders’ views on the Company’s sustainability priorities and performance and to provide information back to our stakeholders on sustainability matters. This sustainability report is one way in which we do that. We have used the Global Reporting Initiative (GRI) Guideline (www.globalreporting.org) in determining the content of this report including aligning non-financial indicator definitions with the GRI where appropriate (p s39).

In FY2007 we formally sought input into Boral’s 2007 Sustainability Report from employee, government, shareholder and financial community representatives.

Following independent reviews of selected sustainability data in our 2005 and 2006 Sustainability Reports based on ISAE3000, this year we have moved down a path of assurance based on the AA1000 Assurance Standard for sustainability reporting, giving greater recognition of the importance of stakeholder engagement and responsiveness (p s40).

Stakeholder dialogue takes many forms, including the following examples:

**Employees**

- Independent annual surveys to gauge employee satisfaction and what employees think about Boral’s sustainability performance (p s10).
- Communication on sustainability matters through “Boral in the News” and divisional newsletters, tool box meetings, safety committees and ‘safety conversations’, Boral’s intranet and direct letters to employees (p s5).

**Customers and suppliers**

- Surveys of key customer groups – architects (FY2005), builders (FY2006) and developers (FY2007) – and ongoing dialogue to understand sustainability priorities and perceptions of Boral, leading to the development of new sustainable products and enhanced communication tools (p s22).
- Sustainability questionnaires for suppliers incorporated into tender processes (p s22).

**Shareholders**

- Response to the Carbon Disclosure Project (CDP5) representing the world’s largest institutional investor collaboration on seeking information on climate change risks.
- Communications through Sustainability Report, AGM, investor meetings, results presentations, website.
- Conference addresses including Rod Pearse presenting at Citi Conference on Climate Change (July 2007).

**Community and neighbours**

- Open days, site tours, community newsletters.
- Community liaison groups to facilitate the exchange of open and transparent communication.

**Government and regulators**

- Government submissions including to the Prime Minister’s Task Group on Emissions Trading and the National Emissions Trading Taskforce (NETT).
- Whilst Boral does not make political donations, we have retained membership of the NSW Millennium Forum and NSW Australian Labor Party’s Business Dialogue and attended several events to access bipartisan political debate. The AEC reportable cost to Boral in 2006/07 was $45,000.
- Direct dialogue with local councils and regulators such as state EPAs, and planning authorities.
- Dialogue through association memberships including the Cement Industry Federation; Cement, Concrete and Aggregates Australia; Housing Industry Association; Think Brick Australia; Association of Wall and Ceiling Industries; Gypsum Board Manufacturers Association; 10,000 Friends of Sydney; The Urban Development Institute of Australia; and the Business Council of Australia (BCA). Rod Pearse is a BCA Board member and Chair of the BCA’s Sustainable Growth Taskforce.
- Voluntary participation in a range of government environmental programs (p s18).
In addition to ensuring a healthy and safe work environment for our people, when it comes to managing human resources (HR), Boral’s strategic priority is resourcing for growth. This key sustainability priority, which supports Boral’s Perform & Grow strategy, incorporates effective workplace planning, recruitment and retention, training and development, succession planning, remuneration and benefits, performance management, workforce diversity and balancing work and family life.

Our management approach
Our approach to managing our HR activities is shaped by both external and internal drivers. Externally, business and labour market cycles in Australia, the USA and Asia; regional differences within our operating countries; an ageing workforce; low unemployment levels and skills shortages; the industrial climate; and changing expectations of workforce and society all influence our HR strategies. Internally, our strategies are underpinned by our offshore growth imperative; our focus on performance improvement and capital project management; the growth of our “quarry end use” activities and associated property development skills; our continued need for improved gender diversity; and our commitment to social responsibility.

Boral’s line managers play a significant role in the HR processes on a daily basis. The majority of Boral’s 46 specialist HR staff work within Boral’s divisions and are actively involved in business management processes to ensure appropriate support is provided for line managers in achieving business plans and objectives.

Performance management and development plans, employee surveys, employee relations, organisational effectiveness reviews, divisional HR planning, recruitment and induction management and maintenance of employee records are largely managed in a decentralised way, within Boral’s divisional management structures.

A small corporate HR team provides an advisory support service to the divisions as well as managing centralised HR activities such as superannuation; remuneration reviews and incentive schemes; learning and organisational development; health and safety direction; and workers’ compensation. The corporate function also plays a governance role for HR processes and behaviours and is responsible for Boral-wide policies; succession planning; coordinated programs such as MBA and graduate recruitment; management of expatriates; and HR planning for the Boral Group.

Our workforce profile
During 2006/07, Boral experienced a 2.5% increase in full-time equivalent employee numbers to a total of 16,194 employees as at 30 June 2007. This increase reflects ongoing growth in Asia and growth in Australian Construction Materials, which more than offset the decline associated with Boral’s exit from the WA contracting and Hunter Valley transport businesses. In the USA, employee numbers declined by 7% as a result of the significant downturn in the US housing market.

Around 36% of Boral’s employees work in our offshore operations.

In addition to our permanent Boral workforce, there are around 3,500 people working in our joint venture operations in Australia, the USA and Asia, and we engage some 4,900 contractors in a range of activities including transport operations, contract maintenance, roof tiling, plasterboard installations, concrete placement and some professional services such as finance and information technology.

Boral’s ratio of female to male employees remains consistent with our industry sector, with women representing 12% of all employees at 30 June 2007. Female employee numbers grew by 6% compared with 4.5% growth in male employee numbers.
Women occupy 70% of clerical positions and 33% of sales positions. Boral’s trade and plant/transport roles are clearly dominated by male employees, who account for 98% of these roles. Males occupy 91% of employees, who account for 98% of roles are clearly dominated by male employees. Women occupy 70% of clerical positions and 33% of sales positions.

Diversity
Boral has continued its commitment to the employment of Aboriginal and Torres Strait Islander people through its Indigenous employment strategy. In partnership with the federal government’s Corporate Leaders Program, and through Boral’s HR function, including our Indigenous Employment Manager, we have seen a continued increase in the number of Indigenous people applying for and being successful in obtaining jobs with Boral. Boral’s efforts continue to focus in regional areas, particularly in northern New South Wales, southern Queensland and Western Australia. Through these programs 26 people were recruited into the company in 2006/07 and 14 indirectly through Boral contractors.

Boral has also worked extensively on the retention of Indigenous staff through cross cultural training, better support mechanisms and improving relations of Boral’s businesses with their local Indigenous communities. During the year, our Indigenous Awareness training program had 80 attendees in addition to 161 the previous year. Boral provides annual feedback to the federal government’s Equal Opportunity for Women in the Workplace Agency (EOWA) on its initiatives to create a family-friendly environment conducive to the employment of a more diverse workforce. Boral’s initiatives, which were recognised by the EOWA as supporting the development and employment of women, include Boral’s “Working with Respect” and “Springboard for Women” training programs, Boral’s parental leave policy, our Outward Bound Family Re-Discovery program, the Boral Employee Assistance Program (BEAP); Service Awards program; our community partnership activities, as well as our Indigenous employment and community relations program. In 2006/07, the EOWA recognised Boral’s progress and performance by granting a waiver from reporting for two years.

Developing our people
Ensuring our people have the right skills and capabilities to perform their jobs and develop their careers is an important aspect of Boral’s people strategy. In general, on-the-job training and competency-based training for operational and front-line employees, as well as contractors, is managed within Boral divisions. Boral’s Learning and Organisational Development team provides corporate direction and support to the development of Boral’s managers and future leaders.

In 2006/07, 2,570 employees participated in a comprehensive range of training programs offered through Boral’s global learning teams. A total of 271 employees in Australia and the USA participated in Boral’s formal leadership development programs. (See figure 11)

All of Boral’s businesses undertake a range of on- and off-the-job training programs including safety training, which is complemented by Boral’s centrally administered leadership program, the Leading Health and

# Employees by occupation

<table>
<thead>
<tr>
<th>Occupation</th>
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<tbody>
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# Turnover in Australia by age

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<td>70%</td>
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<tr>
<td>60+</td>
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# Age profile of Boral’s employees

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
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</thead>
<tbody>
<tr>
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<td>80%</td>
<td>20%</td>
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<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>60+</td>
<td>20%</td>
<td>80%</td>
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# Length of service of Boral’s employees

<table>
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<th>Length of Service</th>
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<td>0-5 years</td>
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<tr>
<td>21+ years</td>
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Safety Program. With a total of 568 participants in Boral’s Leading Health and Safety Program in 2006/07, a 27% increase on the prior year, the program focuses on safety culture and leadership. Ninety-two attendees during the year were from the Asian region, prompting the training of five people to develop new leadership health and safety programs in local languages in Asia.

Boral also developed a formal Asia People Development Plan in 2007, to attract, develop and retain local people, identify future leaders and enhance management talent.

Boral’s Australian Construction Materials division operates a registered training organisation (RTO) and utilises the national training system including competency standards and qualifications to establish rigorous performance benchmarks for operators, supervisors and managers. During the year, through Boral’s RTO, 296 statements of attainment and 100 certificates at levels II, III, IV and V under the Australian Quality Training Framework (AQTF) were issued. A large number of employees undertake structured training on modules under the AQTF relevant to their work but do not go on to complete a full certificate program. In addition to promoting entry level employment and up-skilling in non-salaried roles, Boral has an extensive number of registered traineeships in place, including 80 in Australian Construction Materials.

Employee engagement
During the year, employee satisfaction surveys were independently conducted in our major business groups in Australia and the USA. In Australia, a total of 4,390 employees responded, compared to 4,117 in the previous year. In the USA, 2,039 employees participated, representing an 84% response rate, up from 2,007 employees and an 80% participation rate in the previous year. The survey results continue to indicate that our employees have strong emotional engagement with Boral. In Australia, 91% are engaged, with 45% of employees highly engaged. In the USA, 91% of employees are engaged, with 50% of employees being highly engaged with Boral. While there has been some improvement in perception around safety, particularly in terms of Boral providing a safe and healthy work environment and individuals taking responsibility for safety, key issues which affect employee engagement that require ongoing attention include being trusted and valued as a person, fair pay, well maintained equipment and work-life balance. Feedback sessions take place with our employees to discuss the results and likely actions in key areas.

In Asia, we engage employees directly through a number of communication channels that promote two-way exchange of information and employee views. For example, in Thailand over 300 “Morning Talks” or tool box meetings take place per week to deal with issues of concern to business and employees.

Employee relations
Australia has now seen the first full year of the new “WorkChoices” industrial system. During this time our employee relations strategy has remained underpinned by:

- our objective to be recognised as an employer of choice;
- a focus on attracting and retaining competent and skilled people with the right behavioural values;
- providing competitive and sustainable remuneration and employment conditions;
- encouraging and recognising employee involvement in business operational change and improvement; and
- our commitment to developing and training our employees.

All of Boral’s Australian non-salaried employees work under registered industrial instruments. Our best estimate is that:

- 80% are regulated by Union Collective Workplace Agreements;
- 3% are regulated by a Notional Agreement Preserving a State Award;
- 10% are regulated by Employee Collective Workplace Agreements; and
- 7% are regulated by Australian Workplace Agreements.

We estimate from our records of union payroll deductions in Australian Construction Materials that 25% to 35% of our non-salaried employees in Australia are financial members of a trade union. In the USA, approximately 15% of Boral’s employees are members of a trade union.

Managing and rewarding our people
Of Boral’s Australian workforce, about 58% work under an enterprise or industrial agreement, which generally involves hourly rates of remuneration and in some cases a productivity bonus; 38% are in salaried staff positions with an annual bonus linked to individual performance; and 4% are

Figure 11
Number of staff participants in Boral’s leadership development programs in 2006/07

Figure 12
Independent employee survey
Ensuring the right industry skills now and in the future
It is fundamentally important to Boral’s sustainability to ensure that the industries in which we operate have enough skilled people now and into the future. Boral works with industry organisations to address skill shortages and through the Australian Brick and Blocklaying Training Foundation (ABBTF) contributes $2 for every 1,000 bricks sold in Australia to fund programs for apprentice bricklayers. ABBTF now operates throughout Australia supporting the employment of more than 630 apprentices in 2006/07 (almost double 2005/06 numbers). In addition, the ABBTF’s “Step Out Program” provided 40 hours of hands-on trade work experience to over 2,400 secondary school students in 2006/07.
Boral is also supporting trade skills development in plastering. In consultation with the Construction and Property Services Industry Skills Council, Boral continues to provide recognised trade qualifications and two-year plastering traineeships through the Boral Interior Linings Enterprise Training package. Since 2003, more than 130 trainees have participated in the program.

in “total cost” salaried positions which involves an annual short-term incentive tied to individual performance objectives and financial performance of the business.

Boral provides a comprehensive Remuneration Report, which includes details of our remuneration policy and structure, found on pages 37 to 43 of the 2007 Annual Review. Boral’s remuneration practices are designed to be market-competitive and to use variable remuneration to reward good performance.

As part of our annual remuneration cycle, performance reviews are carried out for salaried and management staff (40% of all Australian employees in 2007). These consist of a formal two-step performance management process, incorporating identification of individual development needs, as well as assessing performance against pre-agreed objectives.

To ensure appropriate individual development plans are in place and that opportunities for internal promotion are made available, Boral conducts a formal succession planning process focused on managerial positions on an annual basis.

Boral provides superannuation for its Australian employees mainly through Boral Super, a sub-plan of the Plum Superannuation Fund. Boral Super is our default fund for employees who do not elect to make a choice of fund. An internal review has confirmed that fees paid by Boral Super members are competitive and at the lower end when compared with similar funds and in line with fees charged by industry funds.

Boral Super offers employees a range of services including a broad investment choice, financial education, access to financial planning, and member-specific internet facilities. During the year, Plum conducted 52 superannuation seminars for Boral employees, attended by 794 employees. Boral has salary and wages sacrifice as a mechanism for employees to save additional amounts for their retirement.

Work/life balance
Employees are encouraged to focus on an appropriate work/life balance. Boral’s parental leave policy which includes eight weeks paid maternity leave and one week of paid paternity leave, is now well established. During 2006/07, a total of 82 female employees in Australia commenced or continued maternity leave and 285 male employees took paid paternity leave.

We recognise that it’s increasingly challenging to find time outside of work for family and to give something back to the community. As such, Boral’s community programs are designed to allow employees to combine community-giving activities with their work schedules and with their family life, providing an increased sense of balance. Through our community partnership programs, employees have access to family zoo passes for complimentary entry to Taronga and Western Plains Zoos and discounted tickets for other partner events.

Our Outward Bound Family Re-Discovery scholarships remain a highlight of the Australian social and employee programs. Since 2003, 62 employees with their son or daughter have participated in the nine-day program in the Australian wilderness with a further 16 scholarships being offered for 2007/08. In the USA, Boral’s six Educational Scholarships have been increased to US$4,000 (from US$3,000) each year for four years towards the college tuition fees for children of employees.

Boral’s employees have access to a range of other benefits, mentioned throughout the Report, including BW ell (which offers regular medical assessments for employees and health awareness educational material for employees and family members) and BEAP (a counselling service for employees and their families).

During the year, over 2,500 Boral employees and their families participated in the JDRF Walk to Cure Diabetes in Australia and the USA. After seven years of employee fundraising for this excellent cause Boral is approaching a milestone $1 million contribution to JDRF.
The health and safety of all people involved in our operations is a key priority. Our aim is to eliminate or minimise the circumstances under which people can be injured. Boral’s approach to health and safety is built on a solid foundation of corporate policies, standards and procedures.

Our management approach
Boral’s health and safety risks are diverse. We have over 16,100 employees and some 4,900 contractors working across 851 operating, administration and distribution sites globally, some accommodating as many as 700 people and others with as few as two employees. Many of our contractors and some employees work beyond Boral’s own sites – our truck drivers, roof tilers, plasterers, concrete placers and asphalt crews work on our customers’ residential, commercial and infrastructure projects. Whilst many of our joint venture operations are not managed directly by Boral, we place the same level of importance in managing safety in partly owned businesses as we do in fully owned operations.

The highest risk activities undertaken by our people involve mobile equipment (including trucks), equipment safeguarding; isolation of plant and equipment; and working at heights. We call these our “High Consequence” risks and have clearly articulated and communicated protocols for managing these risks across Boral.

Our Health and Safety Management System embodies the requirements contained within Australian Standard 4801:2001. Boral’s Health and Safety Policy, which applies across all of Boral’s businesses, states our fundamental commitment to providing safe and healthy working conditions for all people involved in our operations, including employees, contractors, visitors and the general public, and how we work towards meeting that commitment. The policy is displayed at all Boral worksites and posted on our intranet and website.

Boral’s Best Practice Elements (BPEs), which were last revised and updated in 2005/06, are designed to enable each business to develop health and safety management systems that address individual requirements while simultaneously ensuring industry best practice in critical safety areas across the organisation. Boral’s BPEs (shown in Figure 13), together with divisional health and safety management systems, cover all aspects of health and safety management which are currently required by legislation and Company policies, and cater for those likely to become of concern in the future.

Integrated into divisional health and safety planning and auditing activities, the Boral High Consequence Protocols (HCPs) set out rules and procedures to manage hazards that are associated with serious injuries and fatalities.

In addition to over 60 health and safety professionals working in our divisions, Boral has a corporate health and safety function that provides advice and support to divisions.

The corporate function assists in safety management planning and Boral-wide or cross-divisional initiatives and reporting systems. The corporate team also undertakes formal reviews of divisional performance, reporting back to the Management Committee and the Board on a regular basis. In addition to business-level reporting, the following internal reporting takes place:

- Divisional management teams present their health and safety plans to the Board annually.
- On a monthly basis, the Management Committee reviews employee and contractor safety performance including serious and potentially serious incidents. Safety results and updates are reviewed by the Board of Directors.
- Executive General Managers and business managers meet with the Board as soon as practicable to discuss and review all Boral-related accidents involving fatalities.

Boral’s Health and Safety Management System, which is built on a foundation of solid corporate policies, standards and procedures, provides for the diversity and geographic spread of Boral’s operations, and ensures accountability at the site level.

The Health and Safety Management System

- Site H&S management plans and documentation
- Division/region H&S management plans
- Boral corporate standard procedures
- Boral High Consequences Protocols (HCPs)
- Boral’s Best Practice Elements (BPE)
- Health and Safety policy
- Boral Values

The health and safety of all people involved in our operations is a key priority. Our aim is to eliminate or minimise the circumstances under which people can be injured. Boral’s approach to health and safety is built on a solid foundation of corporate policies, standards and procedures.
In all Boral businesses there is an emphasis on strong leadership – on managers and supervisors being safety role models by doing what is right and moral and not what is expedient.

Boral’s BPEs define required levels of responsibility and accountability for safety performance. Individual management accountabilities are linked to strategic plans with performance measured and linked to managers’ variable remuneration. In addition, a component of Boral’s Managing Director’s and Executive General Managers’ variable remuneration is linked to safety performance.

**Engagement** of Boral’s people is an essential component of continual improvement in safety performance. This is aided by behavioural safety programs which focus on changing employee/contractor behaviours and include such activities as “safety conversations”. Hazard identification and corrective actions are closely monitored and communicated to ensure targeted corrective actions are taking place within targeted time periods.

Communication and consultation with our staff on health and safety is achieved through safety committees at larger sites and via managers consulting directly with their people at smaller sites. Boral has approximately 60 formal health and safety committees, with approximately 90% of Boral’s workforce represented on these joint management-employee committees. Safety committees take on a number of roles including hazard identification, monitoring corrective actions, reviewing safe working practices, and overviewing health, safety and ergonomic considerations for purchase of materials and equipment.

**Training** is also integral to achieving improvements in safety outcomes. A total of 568 employees participated in health and safety leadership training programs in 2006/07 (and 447 in the prior year). Many more employees and contractors participated in site-specific safety training programs including consultation, risk management, safe work practices, emergency procedures and first aid. Boral’s divisions maintain staff training registers, which are monitored to ensure ongoing training needs are met.

Divisional safety alerts are broadcast to communicate serious accidents, near misses and corrective actions that have taken place. In some cases where cross-divisional learning opportunities exist, particularly in relation to serious and potentially serious accidents, safety alerts are communicated throughout Boral. Responsibilities are assigned against corrective actions to ensure tracking and monitoring through to completion.

Boral’s health and safety **audit program** includes independent third-party and corporate audits. During the year, assessments were completed throughout Boral’s businesses including, but not limited to:

- Independent corporate assessment of many Australian operations against the Boral BPEs.
- Internal assessment of electrical safety management practices across all divisions in Australia, Asia, and the USA.
- External management system and physical hazard audits in BCSC.
- An internal management system audit in Plasterboard and spot audits of contractor safety management.
- Internal auditing against the Safe Mate program in Timber.

**2006/07 safety performance**

As part of Boral’s commitment to health and safety, ambitious performance targets are set annually in all divisions. The targets are based on significant improvements over the previous three-year average, generally greater than 20% improvement.

In 2006/07, Boral’s Lost Time Injury Frequency Rate (LTIFR) for employees of 2.8 reduced by 10% from 3.1 in the prior year. Percentage hours lost improved by 18% from 0.11% to 0.09%. These outcomes were better than Boral’s targeted improvements (more than a 20% reduction on the average of the last three years) and are consistent with the ongoing improvement trend in recent years.

Contractor safety management also improved, with LTIFR of 5.7 (versus 7.3 last year) and percentage hours lost of 0.09% (18% better than last year’s 0.11% and in line with employee safety outcomes). Despite our efforts to make safety the number one priority across the Company and despite the reduction in lost time injuries, we continue to experience tragic accidents that result in fatalities. It is with deep regret that we had five work-related fatalities in the first half of the year. Two employee fatalities occurred in our Asian operations, two contractor fatalities in the USA and a third contractor fatality in Australia.
Mr Sabellona, a maintenance contractor working on a Boral Bricks site in the USA, fell through a skylight in August 2006. In October 2006, Mr Insuk, an employee of our Thailand construction materials business was fatally electrocuted, and Mr Hidayat, an employee in Indonesia, was killed in a truck accident. In December 2006, Mr Roberts tragically became the second contractor to fall through a skylight, this time in our MonierLifeTile JV operation in the USA. Also in December 2006, an electrical contractor, Mr Newstead, who was working at BCSC’s Maldon plant was electrocuted.

Contractor safety management has been strengthened to ensure safe working procedures are well understood and adhered to. The focus on electrical safety has also been elevated and an extensive audit of electrical switchboards undertaken.

Investigations by authorities in the USA and in Asia suggest that no action will be taken against Boral, while investigations continue into the fatal accident at Maldon.

During 2006/07 Boral was prosecuted for a safety incident which occurred in May 2004 in NSW, relating to an employee being injured in the bowl of a concrete agitator. The judgement, handed down in March 2007, resulted in two fines totalling $100,000. Significant work has been done to minimise the risk of a similar accident occurring.

**Contractor management**

Boral’s health and safety policies and procedures and required high safety standards apply to all of our contractors, as well as employees. Boral’s BPes outline the legal and ethical responsibilities of Boral’s managers associated with contractor management, including requirements of induction and safety training; insurance and licence certification; and ongoing consultation/communication with contractors around health and safety matters.

Contractors must demonstrate an ability and willingness to comply with Boral’s health and safety requirements and are subject to internal audit. Failure to comply with Boral standards can and does result in contract termination.

Any incident involving a contractor is investigated and reported when they are working on Boral owned, leased or controlled premises or working offsite under conditions negotiated or controlled by Boral.

**Workers compensation**

As shown in figures 18 and 19, in 2006/07, Boral’s workers compensation claim numbers and claim costs deteriorated markedly. This was despite strong gains in LTIFR and % hours lost and despite solid reductions in claims cost in 2005 and 2006.

All divisions except the USA had an increased number of claims and all had higher claims costs taking total costs back to around the level seen in 2003.

The total number of claims reported increased by 19% and claims costs increased by a disappointing 40%. The average cost of each claim also increased except in the Cement division. US claim costs were impacted by a single claim with costs exceeding US$1 million and it appears that treatment patterns in Australia have taken a less conservative path compared with recent years, with surgical intervention occurring much earlier than previously experienced.

Boral gained a licence for self-insurance for workers compensation purposes in 2006/07 in respect of its operations in South Australia, and this has proven to be a benefit in the first year.

**Injury types and risk management**

Boral’s businesses are required to effectively integrate health and safety risk identification and risk management into all work activities and processes. This requires a systematic process for hazard identification, risk assessment and development of control measures. Risks associated with identified hazards are assessed, taking into consideration both the probability of a hazard causing an actual incident and the potential severity of such an incident.

Statistical injury analysis allows Boral to develop specific risk management strategies. As shown in figures 16 and 17, around 80% of injuries in Boral’s workplaces in 2006/07 were sustained by “hitting an object with a part of the body”, “muscular stress”, “being hit by a moving object” or “falls from the same level”, and around 60% of the injuries sustained were to the hand/fingers, back/neck or leg/knee. Consequently, increased focus is given to higher frequency hazards to reduce falls and muscular stress injuries such as manual handling.
Improving contractor safety
Boral has successfully raised the standard of safety for its contractors in the residential construction industry through leadership, commitment and the successful implementation of the Boral Interior Linings (BIL) Management System. Developed in 2003, the BIL safety system, which addresses specific health and safety requirements of plasterers, includes a Health & Safety Manual for Boral’s clients, tools for identifying and mitigating risks including a site risk assessment process, the setting of health and safety expectations for contractors via a bilingual handbook and a “Snap Audit Process” to verify on-site compliance. An LTIFR of <3 has been consistently achieved and an RIFR of <7.5 has been maintained; this is considered industry best practice. BIL in South Australia was the recipient of the 2006 Self Insurers of SA Award in the Injury Prevention Category and runner-up in the 2007 SA Safety Awards for Excellence in 2007.

Employee health and wellbeing
Boral’s employees are required to be fit for work, with the required level of fitness depending on the nature of the work. In general, pre-employment medicals are undertaken to ensure new employees are fit for the job and in some higher-risk roles, regular employment medicals are provided, and drug testing of employees and contractors takes place, where it is a part of enterprise or workplace agreements.

Through Boral’s employee wellbeing program, BWELL, we also aim to provide employees with the opportunity to maintain a healthy lifestyle with mental and physical wellbeing, beyond requirements of being “fit for the job”. BWELL provides three core services: annual or biennial health assessments, wellbeing awareness seminars, and educational information on health issues which is easily accessible by employees and their families.

Currently only available to employees in Australia, over 4,603 employees have chosen to obtain health assessments since 2003/04 with 5,952 assessments undertaken (1,586 in 2006/07). Conducted as team training, 631 BWELL seminars have been delivered during working hours, across 122 sites. These outcomes are in line with our targeted plans of continuing to roll out BWELL services to as many employees as possible.

The BWELL program provides an opportunity to analyse consolidated data to monitor trends and patterns in the health status of our employees. The average number of risk factors amongst Boral’s employees has reduced from 2.9 to 2.6 and the proportion of employees at the high end of the health risk spectrum with five or more undesirable risks has reduced from 10% to 7% since 2003/04. Many examples of improved health and wellbeing have been reported by employees as a result of increased health awareness and positive lifestyle changes.

In January 2007, Boral’s BWELL program was recognised for best practice in wellness programs in an international report by PricewaterhouseCoopers and the ‘Working Towards Wellness’ initiative of the World Economic Forum.

Boral also offers employees and family members in Australia a program called BEAP “Boral Employee Assistance Program”, a confidential, free counselling service for early intervention into any issues that may affect an employee’s wellbeing. During 2006/07, a total of 276 employees and family members used BEAP.

Managing security issues
The security issues facing Boral’s employees and JV staff working in countries of political and social unrest are closely monitored. Boral engages global security advisers and our travel and security policies are reviewed and adjusted in response to the changing global situations. Boral regularly considers emerging global health and security issues that may affect Boral’s operations and employees abroad.

Across LBGA, our plasterboard JV business in Asia, “Crisis Management Guidelines” have been developed, documented and implemented. A full simulation exercise has also been conducted across the region, along with multiple staff education seminars to ensure our staff are prepared for the potential effects of medical or security emergencies.
Our Environment

Operating since 1995, Boral’s Environmental Management System (EMS) is based on the requirements of ISO14001. A set of Boral Environmental General Procedures incorporated into Boral’s EMS assists Boral’s businesses in adopting best practice processes for environmental management. In addition to adhering to Boral’s overarching Environmental Policy and using the BSDT to monitor progress and set improvement targets, all of Boral’s businesses develop and maintain their own versions of Boral’s EMS. Boral Roofing at Wyee and our cement facility at Waurn Ponds maintain formal ISO14001 certification.

Environmental strategic plans are prepared annually by each of Boral’s operating divisions and reviewed and approved by the Managing Director and Boral’s General Manager, Environmental Services. Focusing on priority areas covered in Boral’s Environmental Policy as well as those areas of importance specific to individual businesses, these plans have a one-and-five year outlook, and include targets and action plans. Improved collection and management of environmental data, particularly energy/GHG emissions, water and waste, has been a focus across Boral’s businesses in recent years. This year, we have improved our processes further by taking a more consistent approach to the treatment of data from joint venture businesses. We have collected energy/GHG data and water data for Boral businesses as well as requesting information from our joint venture operations and, where available, reporting on an equity basis.

Boral’s corporate Environmental Services department, which consists of five full-time environmental professional staff, is linked across the company, providing advisory support services to all divisions globally and environmental corporate governance, including due diligence, through monthly reporting and monitoring of compliance as well as regular reporting back to the Management Committee and the Board on environmental matters.

Audit and assurance programs are an important part of Boral’s EMS. In 2006/07, Environmental Services undertook 37 compliance and/or systems audits, and nine acquisition and divestment audits. Australian Construction Materials completed 347 internal environmental short-form audits. Subsequent to these audits, action plans for each site were compiled from all applicable sources (audits, checklists, environmental improvement plans and regulatory notifications). Progress is formally tracked through the BSDT, which assesses compliance with industry-specific best practice, including across the five environmental elements of:

- land protection, remediation and rehabilitation;
- environment and ecosystem protection;
- waste and resource management, recycling and re-use;
- energy conservation and climate change; and
- water conservation, extraction and protection.

The BSDT results for the environmental elements are shown in Figure 20.

As a global building and construction materials company, we acknowledge that our shareholders, employees and the community at large expect responsible environmental practice by Boral’s businesses; this is paramount to maintaining our licence to operate. Three of Boral’s five company-wide sustainability priorities are environmentally focused: energy and greenhouse gas emission reduction; water conservation; and waste management.

Our management approach

As detailed in Boral’s Environmental Policy, which applies to all Boral businesses, we are committed to pursuing industry-specific best practice in environmental performance. More specifically, we are committed to:

- reducing GHG emissions from our processes and facilities, remediating our contaminated land sites, complying with environmental legislation, protecting (and where possible enhancing) biodiversity values and continual improvement of our performance with regard to energy, water, waste, pollution and the use of virgin materials.

Through the BSDT, we aim to reach and sustain a standard of industry-specific best practice, including across the five environmental elements of:

- land protection, remediation and rehabilitation;
- environment and ecosystem protection;
- waste and resource management, recycling and re-use;
- energy conservation and climate change; and
- water conservation, extraction and protection.

The results for the environmental elements from the BSDT assessments are shown in Figure 20.

Figure 20

BSDT assessments*

Energy conservation and climate change

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Water conservation, extraction and protection

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Waste and resource management, recycling and re-use

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Land protection, remediation and rehabilitation

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Boral exports 8.4 million KWh of renewable energy to the national grid
Located adjacent to our Deer Park quarry in Victoria, and using air space created over the quarry’s 40 year life, Boral Western Landfill (BWL) accepts ~400,000 tonnes p.a. of putrescible, solid inert and construction and demolition waste (~25,000 tonnes of which are recovered/recycled). At completion of each stage, the landfill is capped and revegetated and gas collection systems are installed to capture landfill gas to generate renewable energy. In February 2006, Boral commenced exporting electricity from BWL into the national grid and currently generates ~9,000 MWh of renewable electricity each year (equivalent to supplying ~1,000 homes). This rate is expected to double in 2007/08. Over the longer term (20-30 years), it is expected that the renewable energy produced will be capable of supplying power to over 10,000 homes p.a. This initiative is creating Greenhouse Gas Abatement Certificates (NGACs) under the NSW Greenhouse Reduction Scheme; Renewable Energy Certificates (RECs) under the Federal MRET scheme; and will be producing VRECs under Victoria’s new renewable energy scheme.

captured for each business and reported monthly on an exception basis to Boral’s Management Committee.

In the USA, internal environmental specialists have commenced a complete re-audit of all Boral locations, which will require a three-year program. Action plans were subsequently developed and are monitored for action item closure.

In our Thailand and Indonesian businesses, best practice standards, auditing protocols and hazard/action registers to monitor closing out of actions have been developed and are steadily being implemented.

During 2006/07, Boral’s staff and contractors continued to receive the latest internal environmental training via 15 business-specific environmental awareness training sessions (to 165 employees), sessions on sustainable development (to 63 employees) and two environmental management sessions (to 19 employees). Business-specific environmental training takes place across the organisation.

Boral held its third internal sustainability conference in March 2007, involving over 50 staff with responsibility for environmental management from across Boral’s businesses. The two-day conference highlighted best practice sustainability management and shared learnings across the organisation.

During 2006/07, Boral incurred five Penalty Infringement Notices (PINs) in Australia (resulting in $20,022 fines) for environmental contraventions and two penalty notices in the USA (resulting in $US10,000 fines) which were issued for minor or technical non-compliances including failing to monitor air emissions, emission rates exceeding permitted limits, discharge of tannin water and an asphalt-prime-wash incident. No environmental fines were recorded against Boral or its joint ventures in Asia during the reporting period. A summary of the number of penalty notices issued against Boral is shown in Figure 21. Over the past three years, the number of penalty notices issued has halved and total fines has declined, despite the maximum penalty increasing in some jurisdictions fivefold.

Energy use and GHG emissions
Boral’s operations consume a significant amount of energy and some businesses are particularly energy intensive. In 2006/07, greenhouse gas (GHG) emissions from Boral’s fully owned businesses in Australia, the USA and Asia totalled 3.70 million tonnes of CO2-e. This compares with 3.66 million tonnes of CO2-e emitted in 2005/06, but includes 0.09 million tonnes of CO2-e as a result of an increase in reporting scope in 2006/07, as shown in Figure 22. On a comparative basis with 2005/06, absolute GHG emissions in 2006/07 reduced by 1.6% as a result of improved efficiencies as well as cyclical changes in production volumes. In 2006/07, volumes in construction materials in Australia were higher, building products’ volumes in Australia were lower and in the USA, the housing downturn resulted in a lower level of brick and roof tile production volumes. In addition to the 3.70 million tonnes of CO2-e emission from Boral’s fully owned businesses in 2006/07, approximately 0.19 million tonnes of CO2-e were emitted from Boral’s equity share of joint venture businesses in Australia and Asia.

The distribution of Boral’s energy use and related GHG production across Boral’s businesses is summarised in Figure 23. Around 60% of Boral emissions come from our Cement division, half of which is due to calcination, the chemical process of forming cement from limestone at high temperatures. Emissions associated with cement are obviously a key issue for Boral but beyond calcination, the energy intensive process of forming cement from limestone.

In each of our divisions we are striving to reduce emissions per unit and to offset Boral’s increases in absolute emissions as a result of market demand growth. In 2006/07, GHG emissions per tonne of cementitious material sold were steady on the prior year and as shown in Figure 24, emissions per tonne of cement have

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1 In Boral’s 2006 Sustainability Report, Boral’s 2005/06 GHG emissions were reported as 3.75 million tonnes. This restated figure reflects updated emission factors and enhanced data collection and review processes, and excludes 46,000 tonnes reported from JV operations.
reduced by 14% compared with 1990 levels. Divisional reports (p s26-s37) provide more detailed energy and emissions efficiency data specific to Boral’s businesses. Over the past ten years Boral has been an active participant in a number of voluntary and mandated schemes in partnership with state and federal levels of government, including:

- Greenhouse Challenge Plus (member since 1997)
- NSW SEDA Energy Smart Business Program
- DITR’s Energy Efficiency Opportunities (EEO) Program (covering 20 sites representing 80% of Boral’s emissions in Australia)
- NSW Greenhouse Reduction Scheme (NSW GGAS)
- EPA Victoria Greenhouse Program

Participation in these schemes generally requires Boral’s businesses to establish improvement targets and develop action plans, which are audited as part of the program.

Boral is one of seven elective benchmark participants in the NSW GGAS scheme that receives Large User Abatement Certificates (LUACs) for reducing GHG. Boral surrendered 157,082 LUACs in 2006, saving more than 157,000 tonnes of CO₂-e annually. Under the NSW GGAS Scheme, Boral abated 1,000,000 GJ of energy and more than 157,000 tonnes of CO₂-e of additional abatement. Boral’s businesses submitted more than 147,000 LUACs in 2006, saving more than 157,000 tonnes of CO₂-e. Boral’s participation in these schemes, which are mandated by the Australian government, has helped to establish the country’s GHG abatement targets.

50% of businesses assessed so far in 2007 scored 3.0 or higher but across all divisions this will be an area of very strong focus over the coming years.

Boral’s internal cross-divisional, cross-functional Energy & Climate Change Technical Working Group (TWG) has continued to progress work on Boral’s climate change strategy. We are firming up 1990 and 2000 historical data as well as forecasting future emissions to allow us to establish appropriate Boral abatement targets for the future. We consider it prudent to wait to set external targets until such time as the Australian and US governments set national targets. In the meantime, we have been developing an abatement cost curve to better understand the costs of emissions and abatement. We are also identifying an opportunities set including cost reductions through energy efficiencies and alternate fuels; revenue opportunities through more sustainable products and technologies; and a potential timber plantation strategy.

We are adopting a portfolio approach to abatement of our GHG emissions with projects falling into the following categories:

1. energy-efficiency programs including new technology, plant upgrades, and replacement vehicles; alternative fuels and alternative materials, such as the use of waste tyres and waste oils in our Australian cement plants and peanut hulls and wood waste in our brick plants in the USA;
2. renewable energy, specifically around the generation and use of landfill gas; and
3. the use of timber plantations as a carbon sink.

For an effective longer term solution, we need to see the development of new technologies around carbon capture and storage (CCS). Geological CCS has a number of location-specific constraints that may make it unworkable at cement manufacturing works and while it’s early days, there may be more hope in algal “sequestration”, which is an area of focus for the global cement industry. Boral is not directly involved in the development of this type of technology, however through the Cement Industry Federation, Boral is actively involved in global benchmarking and sharing of knowledge at an international level.

For additional information on Boral’s approach to managing climate change refer to the Message from the Managing Director (p s3-s4) and for Boral’s response to the Carbon Disclosure Project (CDP) refer to www.cdproject.net. Also see the Cement Industry Federation’s website: www.cement.org.au.

Other emissions

Boral and its subsidiary businesses take emissions testing from its production processes and operations extremely seriously and are committed to ensuring the highest level of independent emissions monitoring and reporting. That is why one of our subsidiary businesses, BCSC, is currently cooperating with the NSW Department of Environment and Climate Change
Water conservation in Boral’s Queensland operations

In 2006/07 Boral focused on more effective utilisation of water resources across more than 50 Queensland sites, by working in-house and with the Queensland Government to achieve some great water saving initiatives. Through a mixture of technology and “common sense” operational improvements at Boral’s Carole Park roof tile plant, mains water consumption reduced by 58%, saving ~4.2 million litres p.a.

In Boral’s Construction Materials businesses a “Boral Water Grid” was developed to systematically identify, assess, prioritise and implement water reduction, re-use, and water distribution improvements between Boral sites. One of the Water Efficiency Management Plans developed has reduced mains water usage at Boral’s West Burleigh Quarry by 80% compared to 2004/05, despite similar production levels. In plasterboard, the Northgate plant received a four-star rating on its “OneTwoFive” water audit program carried out by Brisbane Water in 2007, placing it in the top 10% of more than 275 businesses.

Boral’s soon to be commissioned new state-of-the-art plasterboard manufacturing plant at Pinkenba, will deliver further benefits with an estimated reduction in potable water reliance by up to 90%, through a range of initiatives including negotiating the use of recycled water from the proposed new Luggage Point waste water treatment facility and Western Corridor Recycled Water Scheme.

Following a 24% reduction in mains water in 2005/06, in 2006/07, a total of 2.93 billion litres of mains water was used by Boral’s fully owned businesses in Australia, the USA and Asia. This compares with 2.38 billion litres of mains water used in 2005/06 and includes 0.54 billion litres of mains water as a result of an increase in reporting scope in 2006/07, as shown in Figure 25. On a comparative basis, mains water usage in 2006/07 was steady on the previous year. Water efficiency gains were delivered across many businesses, however the continuation of Australia’s drought resulted in generally lower rainfall and hence a reduction in the amount of on-site water collected and an increase in the reliance on mains water. In addition to the 2.93 billion litres of mains water used by Boral’s fully owned businesses in 2006/07, approximately 0.08 billion litres of mains water was consumed by Boral’s equity share of joint venture businesses in Australia.

A breakdown of mains water usage by division is shown in Figure 26 and details on divisional water usage and improvements are covered on pages s26 to s37.

In 2007, numerous Boral sites in Australia participated in formal water conservation programs in partnership with governments and/or water authorities. For example, Boral Plasterboard, Camellia, is classified as a high water user (>50 megalitres per year) by DECC and was required to submit a Water Savings Action Plan during the year, while Plasterboard Port Melbourne developed a similar plan under the Victorian Government’s Pathways to Sustainability program.

Fifteen of Boral’s South East Queensland businesses were required to produce Water Efficiency Management Plans in response to the region’s dire water situation. In Western Australia, Midland Brick is voluntarily participating in the Water Corporation’s Water Wise program and when Midland’s plans are fully implemented, over 4.5 million litres of water will be saved each year.

In 2007, the average score for our BSDT Water Conservation, Extraction and Protection element was 2.9, a 24% improvement on our 2005 scores emphasising the strong efforts being applied to minimise our use of mains water. Over 70% of businesses scored 3.0 or higher. To achieve an industry-specific, best practice score of 3.0 for Water Conservation, Boral’s businesses taken together should:

• have consumption and cost savings tracking integrated into business reporting systems;

• undertake water risk assessments for all sites;

1 In Boral’s 2006 Sustainability Report, Boral’s 2005/06 mains water usage was reported as 2.62 billion litres. This restated figure reflects enhanced data collection and review processes and excludes 0.07 billion litres of water from JV operations.
• incorporate reduction targets for key sites;
• achieve performance improvements; and
• demonstrate positive performance trends when being compared with peers.

Waste, recycling and re-use
Re-use and recycling of materials are part of Boral’s focus to responsibly manage our resources, including reducing our reliance on virgin materials. Re-use refers to the incorporation of waste material back into the same product and recycling involves waste material being used in a different product. Both conserve primary resources, reduce the environmental impact and cost of disposal and, depending on the circumstances, can reduce the energy required to manufacture the product on a production unit basis.

Information on the amount of waste produced and recycled by the divisions is provided on pages s26 to s37 and on the Sustainability Data Table. We currently measure waste1 from our production processes and the proportion of this waste that is re-used or recycled. In general, Boral’s businesses re-use or recycle between 33% and 100% of the production waste that they generate.

Our own returned or reject waste materials re-used in new (same) product include concrete washout slurry, recycled asphalt profiling (RAP), plasterboard, brick bats and green and cured masonry product. External waste products (secondary resources) utilised include: cementitious waste materials in cement, crushed demolition concrete in new concrete (“Green Concrete”) and granulated used tyres in LoNoise Asphalt (4-6dBa noise reduction).

Boral’s businesses only deal with very minor amounts of hazardous waste and this is managed in accordance with government regulations. Similarly, we only use relatively small amounts of packaging, as the vast majority of our products are delivered in bulk.

As part of the 2007 BSDT assessments, Boral achieved a score of 3.0 for the element of Waste and Resources Management, Recycling and Re-use compared with 2.6 in 2005. Over 75% of businesses scored 3.0 or higher.

To achieve an industry-specific best practice score of 3.0 for this element Boral’s businesses taken together should:
• monitor waste streams across key operational areas and report on these relative to operational efficiency;
• conduct risk analyses to determine risks and opportunities associated with waste management and resource allocation;
• incorporate waste reduction targets for key sites;
• introduced approaches to improve the sustainability performance of products throughout their lifecycle; and
• demonstrate meaningful improvements in key areas.

In addition to all Boral businesses being focused on minimising and taking responsibility for their own waste, two types of Boral’s businesses are based on the utilisation of other people’s waste – Boral Recycling in Australia and our fly ash operations in the USA – BMTI and Blue Circle Ash through Fly Ash Australia (50% Boral-owned) respectively. These businesses process coal-fired power station waste to provide fly ash as a supplementary cementitious material in cement and in concrete, and bottom ash as drainage, filter and fill materials (“Enviro-O-Agg”).

Boral Metro Quarries and Recycling in NSW processes construction and demolition waste in combination with concrete washout, recycled asphalt profiling (RAP) and natural rock and markets a variety of products including road bases, pipe-bedding, backfill and aggregates. In addition, EnviropaveTM is a bound, recycled road base consisting of RAP, recycled crushed concrete and a slow setting binder (ground granulated blast furnace slag and hydrated lime).

Land management
Responsible land management starts before we acquire new land assets or businesses with environmental due diligence, and continues through to divesting sites only when they are “fit for purpose”. Complying with environmental and planning regulatory requirements, minimising Boral’s “environmental footprint”, progressively rehabilitating our extraction sites and maximising the sustainability and financial end use of our extraction sites are key aspects of our land management activities.

As previously reported, the majority of the work required on our contaminated sites globally was completed by 2003. We do, however, have an ongoing project in Australia, which is to progressively remove our underground fuel storage tanks (USTs).

For the 2007 BSDT assessments, Boral’s Australian businesses scored an average of 3.0 for the element of Land Protection, Remediation and Rehabilitation, a 12% improvement on the 2005 scores and for the Environment and Ecosystem Protection element scored 2.8 compared with 2.5 in 2005. To achieve an industry-specific best practice

1 Quantitative waste data is collected where available. If data is not available, waste is calculated through a mass balance equation or estimated through sampling.
Waurn Ponds cement works substituting ~50% of fossil fuels

with by-products

The versatility of the cement-making process enables the safe use of by-products from other industries as raw materials, fuels or constituents of cement. The use of by-products contributes to sustainability by reducing landfill and emissions and preserving valuable natural and non-renewable resources.

At Boral’s BCSC cement works at Waurn Ponds the Company is substituting ~50% fossil fuels and preserving valuable natural and non-renewable resources. The versatility of the cement-making process enables the safe use of by-products from other industries as raw materials, fuels or constituents of cement. The use of by-products contributes to sustainability by reducing landfill and emissions and preserving valuable natural and non-renewable resources.

The use of by-products from other industries as raw materials, fuels or constituents of cement. The use of by-products contributes to sustainability by reducing landfill and emissions and preserving valuable natural and non-renewable resources.

score of 3.0 for these elements Boral’s businesses taken together should:

• have management systems in place to prevent land contamination including well-trained people;
• evaluate land contamination risks and have systems in place to identify land contamination hazards and risks and to manage contaminated land liability holistically;
• have a good understanding of rehabilitation conditions with completion plans for site closures; and
• have undertaken comprehensive biodiversity investigations and protection plans implemented for all relevant sites.

Consideration of heritage values is important in the management and development of Boral’s sites. During the year, Boral undertook a number of heritage assessments of sites and engaged with stakeholders including government agencies and councils responsible for administering heritage and local Aboriginal groups. In carrying out heritage assessments, Boral appoints appropriate heritage experts and follows government guidelines. Most recently, heritage assessments and consultation have occurred as part of the environmental assessment process for the proposed hard rock quarry at Marulan South in the New South Wales Southern Tablelands and the redevelopment of Greystanes Estate for employment lands.

Some Boral locations are subject to Native Title claims and these are dealt with according to local statutory requirements. Boral is committed to working cooperatively with traditional land owners and where necessary Boral’s businesses draw on the expertise of Boral’s Indigenous Employment Coordinator to assist with indigenous cultural issues. There is currently ongoing dialogue with claimants with respect to three quarry sites, one each in Queensland, New South Wales and Western Australia.

In addition to the already developed or proposed nature reserves at various Boral locations, Boral quarries continue to develop rehabilitation plans in greater alignment with current thinking around biodiversity, such as re-establishment of natural ecosystems relevant to the local area, rather than just addressing visual impact.

Boral’s efforts in biodiversity enhancement and land management generally involve long-term commitments. Commitments to protecting the Western Swamp Tortoise in the Swan Valley in Western Australia, the Striped Legless Lizard on the Basalt Plans west of Melbourne, and the Grey-Headed Flying Fox in NSW are ongoing.

The first captured Legless Lizard at Boral’s Deer Park Quarry was transferred this year, under the management plan agreed with the federal government. The capture program for the lizard and a relocation plan for a fellow endangered species, the Spiny Rice Flower, are key requirements before commencing any fresh stripping of overburden.

Two new biodiversity programs are propagation of Yarra Gums (Eucalyptus yarraensis) in the Dandenong Creek Valley, on Boral Bricks land at Scoresby Victoria, and of White Box (Eucalyptus albens) (as part of the endangered White Box Yellow Box Blakely’s Red Gum Woodland) on Boral Bricks land at Jindera NSW. Both species are under pressure due to loss of available land and historical clearing leaving remnant populations unviable without deliberate intervention.

Through the Boral Living Green initiative in partnership with Conservation Volunteers Australia, we have continued to support several projects to enhance the habitat of threatened species including:

• maintaining the habitat of the Western Swamp Tortoise (a nationally threatened species currently classed as ‘critically endangered’) at Ellen Brook Nature Reserve, in Western Australia.
• installing rehabilitation ponds, trenches and fencing for the Seabird Recovery facility at Torrens Island, South Australia to help to preserve important bird species.
• reforestation of Box-Ironbark habitat corridors at O’Keefe Rail Trail in Bendigo, Victoria, to rehabilitate a significantly declined ecosystem with many nationally threatened species of fauna and flora including the Grey Crowned Babbler, Swift Parrot, Regent Honeyeater, Tuan and Squirrel Glider.
Responsible supply chain management is an important part of Boral’s sustainability agenda. In accordance with Boral’s Value of Respect, we aim to ensure that we act with integrity and that our actions meet both the spirit and the letter of the law and community expectations.

Our customers
To ensure our sales activities and dealings with customers are within the law, all managers and sales staff must complete an online, regularly updated Trade Practices Compliance training program and a biennial refresher course. In the event of customer dissatisfaction, all businesses have their own processes in place for dealing with customer complaints. When it comes to managing product performance and health and safety risks through the lifecycle of our products, Boral’s businesses have systems and procedures in place including appropriate product labelling, training and a well developed system of Material Safety Data Sheets that are provided to users of our products.

In 2007, Boral sponsored the Housing Industry of Australia (HIA) – Boral GreenSmart Awards to recognise excellence in environmentally sustainable housing construction. GreenSmart is a practical approach to building which focuses on educating builders, designers, product manufacturers and consumers about the benefits of environmentally responsible housing. Further to this initiative, Boral is a Foundation Partner with the Urban Development Institute of Australia (UDIA) in its EnviroDevelopment project in Queensland. EnviroDevelopment is a scientifically based branding system designed to make it easier for purchasers to recognise and select more environmentally sustainable homes and lifestyles.

Boral is also actively involved in developing appropriate and consistent methodologies for undertaking product lifecycle assessments through various industry groups including the Building Products Innovation Council (BPIC).

We use feedback from regular customer surveys and other market research to assist us in understanding the needs of our customers and the challenges they face. Boral undertakes new research and product development to meet stakeholder needs including the development of more environmentally friendly products (see p s23).

In FY2008, Boral is providing customers with a self service electronic facility through Boral’s website. With the increasing migration to electronic data management, our focus is on maintaining extensive and robust security systems and procedures, and giving continued priority to customer data protection and privacy. As such, Boral has a clearly articulated Privacy Policy. Resources have been and continue to be channeled into ensuring the protection of data that relates to our customers and suppliers. These are tested through regular security reviews against stringent IT policies.

Our suppliers
Boral’s procurement processes are well defined and reinforced through to the businesses with annual divisional strategic sourcing plans. These plans specifically address capability improvement initiatives identified through the utilisation of Boral’s Procurement Capability Assessment Tool. During the past year, Boral developed and is implementing its Supply Chain Sustainability Survey for all strategically critical suppliers. The sustainability survey addresses governance and ethics, policies, risk management, systems, reporting and key areas including safety, labour standards, stakeholder engagement and environment as key supplier selection criteria (as applicable) in Boral’s procurement processes.

Boral monitors its overall procurement and supply chain performance through its BSDT assessment process. Our average score for Strategic Sourcing and Supply Chain in 2007 was 2.8, representing a 22% improvement from our score of 2.3 in 2007, slightly below our 2007 target of 3.0, which requires our business to:

- evaluate the performance of contractors’ and suppliers’ products and services with respect to compliance, safety, environment, innovation and cost;
- provide sustainability information to contractors and suppliers and give priority to those providing improvements in sustainability, human rights and labour rights (as appropriate) in addition to commercial considerations;
- include in supplier negotiations opportunities for tightening specification to improve Boral’s sustainability, as well as cost performance;
- incorporate sustainability objectives and metrics in procurement and/or supply chain strategic plans; and
- regularly review supply chain practices against Boral’s and industry standards.

We recognise that sustainable supply chain management includes addressing the provision of products and services in remote locations and the issue of skills shortages. Boral uses a large number of smaller local contractors for transport and maintenance services, particularly in remote regions. Whilst this supports local communities, it also requires an increased focus on ensuring contractors meet Boral’s commercial, safety and environment performance criteria. During 2007, this has included the expansion of regional preferred contractor panels and the establishment of trade contractor benchmark cost and service standards. In doing this, contractor’s have greater visibility of Boral requirements, and can plan their own resource requirements and job preparation. From a labour hire perspective, partnering efforts with preferred suppliers have taken place, to jointly target scarce labour and skills.

![Figure 27 BSDT assessments*](image)

**Figure 27 BSDT assessments**

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*FY07 scores are for Australian businesses only. US assessments are yet to be completed. Asian scores are reported on page s29.
Sustainable products

As a "market-driven" company, Boral strives to understand the needs of its many customers, including land developers, construction companies, contractors, builders, architects/designers and consumers, and to provide effective building and construction material solutions for them. To respond to the challenges of modern living, Boral’s product portfolio has been growing to provide more sustainable product solutions to our customers.

Plasterboard
- lightweight construction
  - with low embodied energy
- plasterboard made from 99% natural non-toxic gypsum, 5% recycled waste paper liner, 2% other (i.e. starch).

Windows
- creative and innovative window designs and construction (orientation and glazing) to reduce heat gain during summer and heat loss in winter.

Hancock Plywood
- manufactured from 100% renewable and sustainable plantation resources
- 100% use of resource including chip and sawdust for landscaping materials and energy for factory boilers.

Masonry blocks and pavers
- very low embodied energy
- may be crushed and recycled – comprises as much as 20% of the coarse aggregate used in concrete
- Boral FireLight™ bricks contain 75% by-product and 5% recycled concrete.

Clay bricks
- excellent thermal properties for energy-efficient construction
- reusable and recyclable
- low maintenance
- excellent durability with an unsurpassed life cycle.

Asphalt and Boral recycling road base
- wearing course provides increased safety for motorists in wet weather
- porous asphalt mix provides large voids to allow surface water to drain away
- LoNoise Asphalt to reduce noise pollution on heavily trafficked roads in urban and suburban areas – produced from granulated recycled tyres

Green Concrete
- uses recycled materials including aggregates, cementitious waste & recycled water
- low embodied energy
- high thermal mass for energy-efficient homes
- materially contributes to EnviroDevelopment sustainability rating system (UDIA) and the Green Star sustainability rating system (Green Building Council of Australia).

Terracotta roof tiles
- made from 100% natural clay and shale – reusable and recyclable
- enhanced thermal performance averages out temperature swings
- all manufacturing tile waste on site is recycled or re-used
- low maintenance.

Timber
- Australian hardwood sourced from sustainably managed forests for optimal use of resources
- Silkwood™ utilises three times less hardwood than traditional solid timber flooring.

Fly ash (EnviroAgg®) and slag (Slagment)
- 100% recycled waste products – Fly ash is a by-product of coal-fired power stations; slag is a by-product of steel manufacturing,
- may replace virgin materials in many cementitious construction and engineering applications.

Envirocement
- uses recycled materials including crushed concrete and recycled aggregate
- diverts waste concrete from landfill
- conserves precious virgin material.

Timber
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- Silkwood™ utilises three times less hardwood than traditional solid timber flooring.

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Boral’s community support programs are intended to make a meaningful contribution to the social and economic well-being of our communities and also to provide value to Boral’s operations through support of business objectives and improvements in community relations. Our community contributions include financial support, materials in kind support and volunteering, as well as using our networks to raise awareness about key community issues.

To enable the best selection of partnerships, Boral has a strategic community partnership model supported by key selection criteria that help determine the most effective partnerships for the Company. The core platform of Boral’s partnership program is to make a valued and sustainable contribution to the communities in which we operate through Our Products; Our People; and Our Places.

Boral’s businesses are provided flexibility to work locally with their communities, while being required to adhere to limits of authorities and use Boral’s Partnership Framework and Criteria to assess the appropriateness of local partnership opportunities.

Boral has several key strategic partnership programs in place, which are focused on engaging employees and making a difference to local communities. These community partnership programs and key outcomes are detailed here. In FY07 a total of $594,280 of cash and materials support was invested in these community programs, together with a further $336,000 of cash donated to the Juvenile Diabetes Research Foundation through employee fundraising efforts in Australia and the USA.

**Partnership initiative**

**Conservation Volunteers Australia (CVA)**

- **Boral Living Green**
  Building on a 20-year association with CVA, Boral Living Green, which commenced in January 2005, supports the involvement of employees, their families, other stakeholders and local community groups, such as Landcare and Bushcare, on projects that provide environmental benefits for communities in the areas in which Boral operates.
  
  - Focus on our people and our places.
  - 669 volunteer days across nine conservation projects including weed removal, tree planting and collection of native seed at Stockton Beach in NSW, Montrose in Victoria, Ellenbrook in WA and Barron River and North Pine River locations in Qld.
  - 80% of FY07 Living Green projects had employee participation.
  - Boral Living Green Storyteller Competition resulted in conservation projects at Somersby Falls and nearby National Parks on the NSW Central Coast.
  - "Nature Walks" initiative developed for employees and their families.

**Bangarra Dance Theatre**

Boral has sponsored Bangarra Dance Theatre, Australia’s leading indigenous dance company, since 2002. Boral renewed its partnership with Bangarra in March 2007 to become the Sydney season sponsor.

- Focus on our people and our places.
- In FY07, 140 Boral staff and their guests attended Bangarra’s capital city main stage performances or regional performances. A further 150 Boral people attended a one-off Boral Sydney event at Bangarra’s Walsh Bay Theatre in July 2006.
- Boral is the main Sydney season sponsor for 2007.
Taronga and Western Plains Zoos

In partnership with Taronga and Western Plains Zoos since early 2003, Boral supports the zoos’ education and conservation programs by sponsoring the Youth at the Zoo (YATZ) program and the backyard precinct of Backyard to Bush.

- Focus on our people and our products.
- Over 2,000 Boral employees, families and customers visited the zoo in FY07 including over 200 attendees at the Twilight concerts in Feb/March; 400 Boral staff and families at Borals Family Day in Nov; and 275 employees and family members at Boral’s zoo sleepover in May. Boral’s employee sleepover at the zoo was a highly successful event and included a component of employee fundraising to support the Zoo’s conservation efforts.
- YATZ Eco Fair was held in January 2007 with Boral participation.
- Boral Concrete is being used in Great Southern Oceans exhibit and in FY07 was profiled in several building trade magazines.

Outward Bound Australia – Boral Family Re-Discovery Programs

Boral continues to offer Outward Bound Family Scholarships to Boral employees with high-school-aged son or daughter and through the Harden Education Foundation for less advantaged youth in the community. Outward Bound is widely recognised for delivering a program focused on work-life balance and the scholarships are a key platform of Boral’s broader commitment to corporate responsibility and to supporting, nurturing and developing its employees.

- Focus on our people and our places.
- Since the Boral Family Rediscovery program was developed in 2003, a total of 63 family groups have participated in the program across five states.
- 14 family groups received Boral scholarship in FY07.
- Improved systems for monitoring participant feedback implemented with feedback continuing to be overwhelmingly positive.
- Boral is sponsoring an Outward Bound program for indigenous youth at risk (year 9 students from Western Sydney high schools) in mid-2007.
- Outward Bound will be a recipient of some funding from a Boral-supported Charity House in the ACT which was successfully auctioned in FY07.

Juvenile Diabetes Research Foundation (JDRF)

JDRF has been Boral’s preferred charity since 2001. It provides Boral with structured opportunities to participate in fundraising and promote employee engagement while increasing awareness of Type 1 diabetes and the need for further research towards finding a cure. Since 2006, Boral has been a Global Walk Leader for the Walk to Cure Diabetes campaign.

- Focus on our people and our places.
- Boral has contributed in excess of $930,000 for JDRF since our partnership began in 2001, including around 85% from employee fundraising efforts.
- In FY07 Boral’s employees raised over $336,000 for JDRF through the Walk to Cure Diabetes in Australia and the USA and through the Ride to Cure Diabetes in Australia. Over 2,500 employees and family members participated in the October 2006 Walk to Cure Diabetes.
- 37 Boral riders in Ride to Cure Diabetes in 2007 raising $150,000.
- Focus on engaging managers through JDRF committees and Walk Captains.

World Vision Australia – Building Communities

Boral’s Building Communities initiative with World Vision followed on from a series of natural disasters in the South East Asian region where Boral operates. Boral is providing cash and building materials via World Vision at a level of approximately $200,000 per annum.

Building Communities focuses on post-tsunami and community support initiatives to help rebuild affected communities in Indonesia and Thailand, as well as providing ongoing support.

- Focus on our places and our products.
- Construction of 118 houses in the villages of Utamong and Saney, Indonesia.
- Construction of a Hotel School in Thailand at Tai Mang Phuket completed.
- Boral employees participated in the World Vision Smiles Christmas catalogue campaign and World Water Day fundraising and awareness building initiatives.
- Boral hosted Sydney launch of World Vision’s “Business for Poverty Relief Alliance” attended by Tim Costello and corporate representatives.

HomeAid

Boral USA has partnered with HomeAid, a leading national non-profit organisation providing shelter for the homeless. Boral’s initial two-year commitment is for US$50,000 in cash and US$50,000 in-kind product donations.

- Boral is on the HomeAid Atlanta, Georgia Board of Directors.
- Committed to providing clay roof tiles for a children’s shelter in Southern California (valued at US$31,000).
- Committed to providing US$14,000 worth of bricks for homeless families shelter in Conyers, Georgia.
- Provided brick for special signage at Drake House in Atlanta, Georgia.
Australian Construction Materials (ACM) aims to manage employee, community and environmental responsibilities to a standard of excellence recognised as industry best practice in five specific areas: safety, compliance, resource efficiency (energy, water, waste), land management and community perception. ACM has increased its focus on reducing GHG emissions through energy efficiency improvements and increasing alternative fuels. We have also commenced electricity generation from renewable landfill gases in our waste management business. With diverse operations across 400 operating sites and varying age of plant and equipment, the challenges of continual improvement and consistent measurement are substantial. We are continuing our drive to measure environmental impacts more accurately and comprehensively.

**BSDT assessments**
ACM made improvements across all BSDT elements, achieving an overall score of 2.8 in 2007, a 15% improvement on 2005. Key improvement areas were in *Energy Conservation and Climate Change; Water Conservation, Extraction and Protection; and Community Relations and Engagement*. The key 2007 targeted improvement areas, where a score of 2.5 was not achieved in 2005, were in Environment, particularly in country areas. Targeted improvements focused on ACM’s environmental management system (EMS), data capture systems and training and development of our frontline managers. These targets were broadly delivered during FY07, with continued data capture improvements planned for FY08.

### Priority issues

<table>
<thead>
<tr>
<th>Safety</th>
<th>FY2007 performance against target</th>
<th>FY2008 key objectives/actions</th>
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<tbody>
<tr>
<td>ACM achieved a strong reduction in lost time from workplace injuries, with an overall result of 0.09% of hours lost, a reduction of 55% from FY06. LTIFR also improved, down 11% to 3.3. Performance was well ahead of targeted improvements. An extensive audit of electrical safety was undertaken in FY07 covering all operating sites. Plans are now in place to address areas of risk. Work has also started on a national Safety Management System to provide a uniform approach to assessing and managing risk.</td>
<td>Achieve &gt;20% improvement on past three-year average LTIFR and % hours lost</td>
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| Energy use and GHG emissions | Total energy use of 5.3 million GJ was down 8% on FY06 and GHG emissions of 458,000 tonnes CO₂e were down 9%, despite increased production. This reflects the exiting of two energy-intensive non-core businesses, and efficiency gains in our remaining businesses. Asphalt efficiency improved due to investment in newer, more efficient plants. Quarries improved as production reduced at some older quarries which have longer and steeper haul routes, and processing plant efficiency improvements were undertaken. In FY07 ACM acquired five compressed natural gas (CNG) – fuelled concrete agitators as a further trial in lower emission fuels, reducing GHG emissions by nearly 10%. | Continue increasing use of alternative fuels, including biodiesel and CNG |

<table>
<thead>
<tr>
<th></th>
<th>Lost Time Injury Frequency Rate (LTIFR)</th>
<th>G1GH emissions index</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY01</td>
<td>0.29</td>
<td>1.000</td>
</tr>
<tr>
<td>FY02</td>
<td>0.24</td>
<td>0.930</td>
</tr>
<tr>
<td>FY03</td>
<td>0.20</td>
<td>0.830</td>
</tr>
<tr>
<td>FY04</td>
<td>0.20</td>
<td>0.700</td>
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<table>
<thead>
<tr>
<th></th>
<th>% hours lost</th>
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<tbody>
<tr>
<td>FY01</td>
<td>100%</td>
</tr>
<tr>
<td>FY02</td>
<td>100%</td>
</tr>
<tr>
<td>FY03</td>
<td>101%</td>
</tr>
<tr>
<td>FY04</td>
<td>93%</td>
</tr>
</tbody>
</table>

### Energy efficiency index

- **Quarries**
  - FY01: 100%
  - FY02: 104%
  - FY03: 105%
  - FY04: 105%
  - FY05: 105%
  - FY06: 105%
  - FY07: 105%

- **Quarries**
  - FY01: 0.89
  - FY02: 1.00
  - FY03: 1.00
  - FY04: 1.00
  - FY05: 1.00
  - FY06: 1.00
  - FY07: 1.00

### Water consumption

- FY01: 1,468 million litres
- FY02: 1,468 million litres
- FY03: 1,468 million litres
- FY04: 1,468 million litres
- FY05: 1,468 million litres
- FY06: 1,468 million litres
- FY07: 1,468 million litres

### CO₂ emissions

- FY01: 458,000 tonnes CO₂e
- FY02: 458,000 tonnes CO₂e
- FY03: 458,000 tonnes CO₂e
- FY04: 458,000 tonnes CO₂e
- FY05: 458,000 tonnes CO₂e
- FY06: 458,000 tonnes CO₂e
- FY07: 458,000 tonnes CO₂e
Water

At 1.468 billion litres, ACM’s mains water use accounts for 50% of Boral’s total. ACM’s reported mains water use increased by 17% in FY07 following a 16% decline in FY06, largely due to improved measurement and increase in scope, particularly in Quarries. The Concrete business accounted for 77% of ACM’s mains water use in FY07, achieving a 1% decrease in mains water use on a unit of production basis following a 20% improvement in FY06 from increased on-site water capture and recycling systems. Dry conditions in key markets limited our ability to improve water capture further.

Waste

ACM is increasing the use of recycled waste in our products. Our recycling facilities in NSW increased processing of concrete waste by 13% in FY07. This material is used in a variety of products, including roadbase and concrete aggregate, where it replaces virgin resources. In asphalt, we have increased our ability to process recycled asphalt pavement (RAP), with a total of 12 plants now capable of using RAP. This has led to an increase in the volume of our asphalt production waste reused. Overall RAP declined, however, due to customer specifications and limited availability from external sources.

Biodiversity

All new developments include biodiversity management plans and “offsets” to protect habitat and biodiversity. In FY07, documentation of constraints placed on site development, including “offset” requirements due to protection of biodiversity, was completed. A score of 2.7 for Environment and Ecosystem Protection element in the BSDT was achieved against an overall target of 3.0.

Stakeholder engagement

Stakeholder Engagement Plans have been completed for all sensitive quarry sites. Community consultation models are in place at key sites and new developments. Completed risks assessments at all Queensland quarries (93). Examples of stakeholder engagement include: in Western Australia, over 350 local community members attended Orange Grove Quarry open day and Community Liaison Group was formed at Dundowran Quarry, Queensland. A score of 2.9 for Community Relations and Engagement element in the BSDT was achieved against an overall target of 3.0.

• Expand trials and full time use of waste water in selected concrete plants in South East Queensland, New South Wales and Victoria
• Increase water capture in quarries to reduce reliance on town water
• Identify and rectify gaps in current data collection to ensure more accurate capture of waste stream data
• 15% increase in recycling construction and demolition waste
• Invest in further new asphalt plants capable of processing recycled asphalt (RAP)

Fact Box
ACM, Boral’s largest division, has a diverse number of businesses which cover: Quarries, Concrete, Asphalt, Transport, Contracting and Quarry End Use. The division has:
• 413 operating sites
• 4,800 employees and 2,100 contractors in Australia.
• ACM’s sustainability data includes second brand operations (Concrite, Alsafe, GoCrete, Q-Crete and Allens Asphalt)
The Cement division is a diverse portfolio of businesses, each with different sustainability priorities and levels of maturity. Blue Circle Southern Cement (BCSC), Boral’s most energy-intensive business, continually strives for best practice in air emission reductions and energy and raw materials usage, following substantial achievements over the past few years. Whilst not as progressed, the Asian businesses have embarked on the sustainability journey. In addition to the priority issues of safety, and environmental management of energy, water and waste, the Cement division is focused on community engagement and enhanced business practices in Asia.

**BSDT assessments**

In 2007, Cement achieved an overall BSDT score for its Australian businesses of 3.0, an 8% improvement on its 2005 result. Strong performance was exhibited in several elements including Continuous Improvement and Compliance Review and Reporting. The cement division’s key focus continues to be managing high consequence safety risks and implementation across the business and increased use of both alternative fuels and alternate raw materials to reduce GHG emissions in BCSC. Boral’s Indonesian operations were first assessed using the BSDT in 2005. Thailand (for the first time) and Indonesia were assessed in 2007.

**Priority issues FY2007 performance against target**

**Safety**

Strong gains made in previous years were further improved in FY07 with LTIFR decreasing by 23% to 2.2. Regrettably, the Cement division reported three fatalities in FY07 (see p s13 and s14). Thorough investigations were undertaken, detailed response plans were implemented, and each fatality case was reported through to the Board of Directors. Asia continued to enhance its Safety standards to meet Boral expectations, with strong emphasis on employee engagement and training.

**Energy use and GHG emissions**

Energy use across the division increased 16% to 11.6 million GJ and GHG emissions increased 7% to 2.2 million tonnes of CO$_2$e due to greater clinker production following the Stage 2 kiln upgrade at Waurn Ponds, and from scope additions of Asian and Windows sustainability data (they account for 11% of divisional energy use and 4% of GHG emissions). Energy use per tonne of clinker produced fell 1% year-on-year and 4% compared to FY05, and GHG emissions for clinker produced fell 1% on last year and 7% compared to FY05 as a result of alternative fuels use and ongoing trials of air-cooled slag addition to the kiln at Maldon.

**FY2008 key objectives/actions**

- Achieve >20% improvement on past three-year average LTIFR and % hours lost
- Audit electrical switch gear and upgrade as required
- Replace site-based safety management system in BCSC with a standard business-wide model
- Continue to roll-out ‘Alcohol and Other Drugs Management Programs’
- Identify and implement energy efficiency projects at major operating sites (Berrima, Waurn Ponds, Maldon and Marulan) under EEO program
- Explore technology solutions to reduce GHG emissions through participation in the AP6 Program
- Progress investigation of electricity co-generation from waste heat recovery at Berrima
Water

In the Cement division, BCSC accounts for the vast majority of mains water consumption in Australia. BCSC consumed 56 million litres of mains water and sustained efforts to use alternative sources of water, such as pit water from quarries, has helped to contain mains water use at around 18% per unit of production below FY05 levels. For the first time, mains water data was collected for Asia, totalling approximately 400 million litres.

Waste

Within the Cement division, BCSC used ~840,000 tonnes of other organisations’ waste, including ash produced by power plants, granulated blast furnace slags to make cement blends, and waste oils and tyres as sources of fuel. In 2007, a significant breakthrough was developed at Berrima and Waurn Ponds to utilise Hi-Cal 50, an aluminium industry by-product. At Berrima, resource recovery from BlueScope Steel waste has significantly reduced the requirement to mine virgin iron ore. For the first time, internal waste recycled and re-used data was collected for Asia, totalling ~124,000 tonnes.

Community engagement

BCSC sites at Berrima, Maldon and Waurn Ponds held regular community consultation to ensure an understanding of BCSC’s operations and planned changes. At Galong, efforts to boost community consultation around new transport routes in and out of the quarry resulted in a mutually satisfactory outcome being identified and the plans lodged with the Council. Key community support programs continued at Berrima, including the Boral Living Green Conservation Volunteers Australia projects and community support at Galong in association with the Harden Education Foundation.

Business sustainability in Asia

Environmental auditing and awareness training continued and environmental performance targets were established. Safety awareness and standards also lifted. Local managers from front line supervisor level and above currently make up over 95% of staff in both Indonesia and Thailand. Boral’s businesses in Indonesia and Thailand were disrupted by several natural disasters including severe flooding. The businesses were involved in clean-up operations and supporting employees who faced accommodation issues.

- Investigate alternative sources of process water, including treated sewerage effluent for Berrima
- Continue to improve water measurement capabilities on the Marulan Mine site
- Initiate a timely study into options around shared water storage at the future ACM Marulan South Quarry
- In a joint effort with the local authorities and the community, progress feasibility study to use treated biosolids as an alternative fuel at Waurn Ponds to further reduce fossil fuels use
- In consultation with the community, continue to explore opportunities to replace fossil fuels
- Continue community consultation groups at our major cement sites (Berrima, Maldon, Waurn Ponds and Galong)
- With the support of the Boral Living Green Conservation Volunteers Australia Partnership continue working with local community groups on projects that will improve local amenities and rehabilitate legacy sites
- Progressively bring OHS and Environmental Management to Boral Standards, including electrical isolation and equipment guarding
- Continue to support community rebuilding projects in Indonesia and Thailand through Boral’s “Building Communities” initiative in association with World Vision Australia e.g. commencement of new education centres in Thailand

1 Indexed to 100% in FY05 as base year. Energy/GHC Calculations based on total energy use and GHG emissions from clinker production divided by tonnes of clinker produced; water calculations based on total mains water use divided by tonnes of cement produced, including net clinker sales for FY07.
2 In Boral's 2006 Sustainability Report. Cement’s main water usage was reported as 87 megalitres for FY06 and 131 megalitres for FY05. The restated figures reflects enhanced data collection and review processes.

Note – Environmental data is for Boral owned businesses but excludes DMG and Scaffolding as they are immaterial.

Fact Box
The Cement division is made up of a group of diverse businesses: BCSC and Construction Related Businesses (Formwork & Scaffolding, Windows and De Martin & Gasparini concrete placing) in Australia and the Asian construction materials operations in Indonesia and Thailand. The division has 136 operating sites under Boral management, around 2,000 employees in Australia, over 3,400 employees in Asia and owns a 50% share in Sunstate Cement Ltd.
Clay & Concrete Products’ (C&C) approach to sustainability is to consider business goals and stakeholder needs at each site, to accurately measure performance, and to ensure clear accountability. C&C’s sustainability priority areas are: health and safety, energy efficiency (focused on clay products, where the manufacturing process is more energy-intensive), water conservation (targeting higher usage sites), solid waste minimisation and recycling, pollution control (focused on achieving sustainable reduction in plant emissions, effluent, fugitive dust and noise), maintaining or restoring biodiversity associated with our operations, “sustainable products” sales and development, and effective community engagement.

BSDT assessments
C&C achieved an overall score of 3.1 for its 2007 BSDT assessment, compared to its target of 3.0 and its 2005 score of 2.8. In the 2007 assessments there was improvement across every business in Waste and Resource Management, Recycling and Re-use; Community Relations and Engagement; and Water Conservation, Extraction and Protection. Continued key areas of focus to improve specific scores include sustainability related Sales and Marketing and Energy Conservation and Climate Change.

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<td><strong>Safety</strong></td>
<td>The significant improvement delivered in FY05 and FY06 was consolidated in FY07. Six lost time injuries were recorded in FY07 compared to six in FY06 and eight in FY05. LTIFR of 1.6 was steady year-on-year; % hours lost more than halved to 0.03%, which was well ahead of target. Workers compensation claims costs increased however due to changes in legislation and some high-cost claims. In FY07, site EH&amp;S plan completion and site risk reduction levels were ahead of target. The division also achieved safety system accreditation to AS 4801.</td>
<td>Achieve &gt;20% improvement on past three-year average LTIFR and % hours lost  • Implement a number of safety improvement projects, including:  – site electrical safety program  – site contractor safety management program  • Consolidate C&amp;C accreditation to AS 4801</td>
</tr>
<tr>
<td><strong>Energy use and GHG emissions</strong></td>
<td>Energy use and GHG emissions decreased by 5.8% and 4.8% to 5.6 million GJ and 408,000 tonnes of CO$_2$e respectively, reflecting efficiency gains, changes in energy mix and variations in production volumes across manufacturing plants. Clay product energy use and GHG emissions per tonne of production decreased by 4.8% and 4.0% respectively, reflecting underlying energy efficiency gains (including benefits delivered by Midland Brick Kiln 11), despite lower production volumes on the east coast related to weak housing activity. Lower gas usage in FY07 was delivered through initiatives to optimise kiln temperature profiles, burner configuration, gas balances and brick weights.</td>
<td>• Implement energy efficiency opportunities project at Midland Brick as part of the federal government’s EEO program  • Complete EEO efficiency audits at targeted sites  • Develop GHG emission abatement cost curve to prioritise opportunities</td>
</tr>
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</table>
Water
Following an 18% reduction in FY06, C&C delivered a further 8% reduction in total mains water use in FY07 to 188.3 million litres. A 6% reduction in total water use was also delivered in FY07, partially reflecting reduced production volumes. On a per tonne of production basis, mains water use improved by 2% and 9% in clay and concrete businesses respectively, as a result of several targeted initiatives including the recycling of brick saw water at Midland Brick in WA and water efficiency improvements at Carole Park Roofing in Qld.

Waste
C&C is a net consumer of waste. In FY07 C&C used 143,000 tonnes of external waste in production and recycled over 85% of its own waste, compared with 92% in FY06 (the recycling percentage reduced largely due to reduced waste generation and product quality considerations). On a net basis, C&C diverted 136,000 tonnes of waste from landfill. In FY07 Midland Brick consolidated its innovative site collection/brick recycling program, collecting 7,700 tonnes of bricks from customers’ sites. This is currently cost neutral but reduces waste to landfill and reliance on virgin resources.

Sustainable product development
C&C has been seeking to increase the market penetration of “sustainable products” across its businesses. Recent work undertaken by Newcastle University supports the improvement in home thermal properties attainable using clay bricks. In NSW a new product range of lightweight masonry blocks was introduced in July 2007 where raw material usage is minimised.

Community relations and engagement
C&C recognises the need to meet levels of performance which are considerate of the local community. Plans were developed at C&C’s manufacturing sites which identified site issues and appropriate actions. In WA, Midland Brick has continued a strong partnership with the Hills Community Support Group (which included the planting of more than 10,000 trees in FY07) and continued involvement in the Bickley Road Reserve development, where 2,500 trees were planted in FY07. In Somersby, NSW, a plan was developed with the local bushfire brigade to improve bushfire safety in a fire-prone area.

Fact Box
C&C manufactures clay products (terracotta roof tiles, clay bricks and pavers) and concrete products (concrete roof tiles, masonry blocks, bricks and pavers). The division has:
- 22 manufacturing sites under Boral management
- Approximately 1,800 full-time equivalent employees and approximately 800 contract employees in Australia.
In addition to key focus areas of safety and efficient use of energy and water, the Timber division has two main strategic sustainability objectives. The first is to maximise the conversion of whole log into value-added product and reduce production of waste product such as chip and sawdust. The second is to ensure log stocks are drawn from sustainably managed forests and are certified as such by globally recognised systems. Capital upgrades of several of the timber sites helps build a more sustainable business, improving the eco-efficiency and safety of Boral’s operations.

**BSDT assessments**
A BSDT score of 2.8 in 2007, does not reflect all of the gains Timber has made since the 2005 assessment, as Davis & Herbert (D&H), a relatively new business with less developed sustainability systems, was included. Since 2005, gains have been made in Energy Conservation and Climate Change and Water Conservation, Extraction and Protection. Timber’s continued future focus is finding improved and commercially valued end uses for sawdust, including as an alternative energy source, and improving water conservation practices.

### Priority issues FY2007 performance against target FY2008 key objectives/actions

#### Safety
Timber’s safety performance declined in FY07 largely due to newly acquired businesses, which have historically had a much poorer safety performance than Boral, being incorporated into FY07 data. LTIFR of 10.2, compares with 5.4 last year. Percentage hours lost of 0.15% was up on last year’s 0.09%. Contractor safety improved with only one LTI in FY07, down from three in FY06. In FY07 the Safe Mate program was introduced in Engineered Flooring and South Coast operations and continued elsewhere with over 851 hazards identified and an 82% close-out rate. Implementation of HCP action plans also continued throughout the business.

- Achieve >20% improvement on past three-year average LTIFR and % hours lost, including recently acquired businesses
- Implement actions identified through the FY07 Switchboard Electrical Review
- Continue contractor safety management improvements through induction processes and in bush crews
- Continue implementation of HCP action plans with full implementation by FY11
- Implement and anchor third-party manual handling program being piloted in East Coast Hardwood
- Integrate Safe Mate program with Boral BPEs

#### Energy use and GHG emissions
Timber’s energy GHG emissions increased by 21%, to 33,000 tonnes of CO$_2$e, reflecting increased plant automation (which has benefits of reduced waste and improved safety). Energy use and GHG emissions per unit of Hardwood production increased 7% and 32% respectively, reflecting “ramp-up” modes of new capacity upgrades at Kyogle and Herons Creek as well as the inclusion of D&H. Timber Plantations to provide potential GHG abatement and conversion of wood waste into carbon, heat and electricity continue to be investigated.

- Reduce diesel and LPG consumption by continuing to modernise the fleet through to 2010
- Continue work towards eliminating non-value added burning of wood by 2010
- Continue to develop plantation strategy in light of any potential carbon trading schemes/ tax regimes
- Undertake energy efficiency audits based on pilot/trial at Herons Creek
- Continue to investigate feasibility of R&D technology for the production of carbon and electricity from waste sawdust
**Water**

Total mains water use by Timber remained constant at 90 million litres in FY07, however mains water efficiency in the Hardwood business on a per tonne of production basis has improved by 20% since 2005. The installation of rain water harvesting tanks at the Walcha operations are delivering a 30% saving on mains water consumptions.

**Waste**

HPP has reduced waste to landfill by approximately 90% through an on-site system for waste segregation. Continued improvements in solid wood recovery will also impact positively on waste reduction in hardwoods. ECH is progressively improving cutting technology to optimise recovery. Trials of the use of hardwood saw dust in a third party R&D pilot plant for the production of heat, carbon and biodiesel are progressing.

**People practices**

In May 2007 Timber conducted its third employee survey with a solid 74% participation rate. Given the amount of change Timber has undergone in the last year, the survey outcomes, which indicate employee satisfaction and commitment, were pleasingly positive and in line with previous years. Over 84% of employees are ‘fairly well’ or ‘extremely’ satisfied with working at Boral. Timber’s Employee Engagement Index of 78% was only slightly down on the 79% Index in FY06.

**Hardwood resource management**

Forests NSW (Boral’s hardwood log supplier) achieved Australian Forestry Standard (AFS) (AS4708) certification on 8 December 2006. Sawmillers Exports Pty Ltd (SEPL) achieved certification of the Chain of Custody System (AS4707 (Int) – 2004) on 20 December 2006. Product supplied by SEPL is recognised via a third-party audit to have been sourced legally from sustainably managed forests. Following mill rationalisation and AFS certification for Forests NSW, in FY07, priority areas for optimisation of hardwood resource will be to identify improvement opportunities though processes and technology. In FY07, sales of Engineered Flooring product, which uses less valuable hardwood resource than traditional solid flooring, increased.

**Fact Box**

Boral Timber incorporates Hardwood, Softwood and Plywood operations. The softwood operations are 50% owned by Boral through the Highland Pine Products (HPP) joint venture; HPP is managed by a separate joint venture board. The division has 16 operating sites under Boral management and 800 employees in Australia.

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1 Indexed to 100% in FY06 as base year (due to improved data collection since FY06) on a per unit of production basis.
2 Indexed to 100% in FY05 as base year on a per unit of production basis, including new Engineered Flooring plant, which was in ramp-up mode in FY06.
Plasterboard’s sustainability focal points are the health and safety of all who interface with its operations and products, people practices and an emphasis on a whole of life cycle approach to environmental management from the supply chain through to the design and construction of buildings. Energy, water use and waste minimisation are priorities, including facilitating the re-use of building site waste. Evidence of success with this strategy can be seen in the strong safety performance delivered and in the approach to the design brief for a major $106 million net investment in a new plant at Pinkenba in Queensland due to be constructed by the end of 2007.

**BSDT assessments**
Plasterboard's overall BSDT score improved by over 11% to 3.1 in 2007, from 2.8 in 2005. The Division continues to develop excellent practices (a score of 3 or higher) in a number of areas including: Accountability and Performance Management, Risk Management (for new business and/or new development), Continuous Improvement and Employee and Labour Relations. Key areas of focus going forward include environmental performance in Energy Conservation and Climate Change, Water Conservation Extraction and Protection, and Waste and Resource Management as well as Community Relations and Engagement.

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| **Safety**            | Plasterboard continued its excellence in overall safety performance in FY07. 0.02% lost was a record low result, well ahead of targeted improvement. Over 2,200 actions were raised and 92% closed out by the agreed, which was above the FY07 targeted rate of 85%, and a significant improvement in response time from FY06. The number of safety conversations surpassed 7,000 (target 4,230 for FY07). 70% of all employees attended BVWell seminars, signaling trust and commitment at all levels of the organisation. | • Achieve >20% improvement on past three-year average LTIFR and % hours lost  
• Continue 90% of hazards closed out by due date  
• Maintain employee safety awareness through management/employee safety conversations (>7,000 conversations)  
• Consolidate permit to work and risk management system implementation |
| **Energy Use and GHG Emissions** | In FY07, Boral’s Plasterboard operations in Australia generated 117,000 tonnes of CO₂, while Boral’s equity interests in the Asian plasterboard JV LBGA emitted approximately 145,000 tonnes of CO₂, and in GRA & Rondo 3,400 tonnes. Total energy (of 1.6 million GJ) and GHG emissions for Australia were relatively steady in FY07. GHG emissions per unit of Australian plasterboard production improved by 1% relative to FY06, while energy usage per unit of production remained constant year-on-year. An energy audit and savings plan was developed at the Camellia plasterboard plant. Benchmarking of our manufacturing processes against world best practice has allowed the identification of energy savings opportunities which have now been incorporated into FY08 action plans. | • Commence operation of new Pinkenba plant in Qld in Dec 07 to achieve associated energy and emission reductions  
• Incorporate energy reduction initiatives into management objectives  
• Trial new generation additives to reduce dryer energy consumption  
• Investigate opportunities to further reduce electricity usage  
• Following participation in the ‘Life Cycle’ Assessment (LCA) of the Aus/NZ plasterboard industry (conducted by the GBMA in 2007), continue further LCA analysis of Boral’s plasterboard products |
Water

Total mains water use for the division was 322 million litres for FY07. Mains water use per unit of plasterboard production (excluding plaster, cornices and compounds) decreased by 2% in FY07 relative to FY06, due to process improvements.

During FY07, Camellia, Port Melbourne and Northgate submitted water efficiency improvements plans to the various state governments to reduce water consumption.

Waste

Waste levels reported in FY07 increased on a per unit of production basis from FY06 and the reported percent of own waste re-used/recycled reduced from 85% in FY06 to 83% in FY07, primarily due to improved data collection processes. The quantity of gypsum recovered from building sites and re-used in our NSW process remained constant.

Supply chain management

BIL (Boral Interior Lining) received the 2007 Boral Excellence in Safety award for successfully raising the safety standard for contractors within the residential construction industry. Through leadership and commitment, the BIL Health Safety and Environment (HSE) Management System was successfully implemented, enabling BIL to achieve industry best practice by maintaining a RIFR <7.5 and a LTIFR <3.

People practices

In May/June 2007, the division’s Australian-based employees were surveyed again to identify our current climate, including satisfaction and morale, current and preferred culture and engagement. Over 70% of employees participated, with strong results recorded on most measures.

Plasterboard’s Employee Engagement Index was 81%, compared to 80% in 2006. The number of highly engaged employees was exceptional in FY07 with 52% of employees being highly engaged, up 2% from FY06. The number of highly disengaged fell 1% to 7%.

- Implement appropriate actions identified in the water efficiency plans
- Optimise technology at Pinkenba to deliver lowest unit water consumption in the group
- Trial use of new generation water-reducing agents
- Investigate use of non-potable water source at Pinkenba

- Further increase the recovery of gypsum from waste plasterboard ex building sites
- Continue review of packaging materials
- Investigate the construction of a waste recycling plant in our Victorian operation
- Continue the focus on reducing all forms of waste using Lean Manufacturing tools

- Implement a rewards program for contractors
- Standardise public liability insurance policy cover for Plasterers
- Maintain industry best practice for RIFR and LTIFR
- Snap audit plasterers twice yearly
- Snap audit new plasterers within a week of working for Boral

- Analyse employee survey outcomes, communicate findings and address key issues
- Further address skills training in the areas of sales, merchandising, contracting, distribution and operations
- Develop Workforce Plan
- Design and implement talent management strategies

Fact Box

Operations are focused on gypsum mining and the manufacturing of plasterboard and plaster products such as cornices, ceiling tiles and compounds. The division has: four operating sites and 49 distribution sites under Boral management; a 50% share of Gypsum Resources Australia (under GRA management); a 50% share of Rondo Building Systems (under Rondo management); and a 50% share of LBGA (under LBGA management working under Lafarge systems). Boral Plasterboard operates with 700 employees in Australia.
Sustainability priorities for the USA division include ensuring a safe and healthy work environment, strengthening employee communications, and recruitment and development. Environmentally, our priorities are to reduce energy usage and associated greenhouse gas emissions, particularly in our energy-intensive clay brick and roof tile operations; reduce the amount of waste we produce; increase the amount of waste we utilise including alternative fuels and fly ash as a substitute for non-renewable resources; and reduce the amount of water used in our manufacturing operations. Attention is also being given to optimising the “end use” outcomes of our hard rock and clay quarries as they reach the end of their resource life.

**BSDT assessments**

The USA division will complete its 2007 BSDT assessments in September 2007. The USA’s 2005 BSDT score of 2.4 represented a 20% improvement over two years and it is expected that further gains will be made in the 2007 assessments with an overall targeted improvement of 25%. Key achievements since 2005 include: further reductions in energy consumption in Bricks, significantly improved sustainability data collection and comprehensive environmental strategic planning, including the establishment of targets to reduce GHG emissions, increase the use of renewable fuels, eliminate production waste to landfills, reduce mains water usage, conduct community assessments and produce more environmentally friendly products.

### Priority Issues FY2007 performance against target

<table>
<thead>
<tr>
<th>Safety</th>
<th>Achieve &gt;20% improvement on past three-year average LTIFR and 9% hours lost</th>
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<tbody>
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<td>Reinforce Contractor Safety Management Systems</td>
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<td></td>
<td>Roll-out BAPP across divisions</td>
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<td>All US Bricks managers and supervisors to participate</td>
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<td>in leading safety through risk identification and control</td>
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<td>Create detailed “Working at Heights” protocols</td>
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### Energy use and GHG emissions

Total energy use and GHG emissions for the division decreased by 10% and 13% respectively, to 7.9 million GJ and 433,000 tonnes of CO₂-e. Bricks USA, the most energy-intensive US business, decreased its energy use emissions on a per tonne of production basis by 2% and GHG 7% respectively, compared to FY06, due to reductions in product weights, equipment upgrades and increased use of renewable fuels. The downturn in the US housing market, which commenced in FY07, has allowed the closure of less energy-efficient brick plants. Software, monitoring time and speed and the use of governors, has reduced miles per gallon to transport bricks by 5%.

- Reduce GHG emissions through increased use of alternative fuels (i.e. sawdust, peanut hulls etc.) to deliver longer term 2010 targets
- Increase energy from renewable sources to deliver longer term 2010 targets
- Reduce gasoline through changes in fleet program, reducing the number of cars and replacing cars with more fuel-efficient models
- Increase use of landfill gas in Brick plants in Union City and Terre Haute
Water

Total mains water use for the division of 408 million litres decreased by 14% in FY07 relative to FY06. Bricks USA achieved a 29% reduction in mains water use on a per unit of production basis, largely due to the mothballing and temporary shutdowns of several plants. Bricks USA has installed pugmaster technology to improve the efficiency of water usage and maximise the recycling of wastewater. In three locations, Construction Materials commenced a program to collect and re-use rainwater as process water.

Waste

91% of Brick production waste was re-used/recycled in FY07 compared with 93% in FY06. Waste produced per production unit increased by 16% due to a program of reducing clay used in the brick body resulting in product quality considerations. In US Tile, waste produced per unit of production reduced by 34% compared to target reduction of 2% – 3% by end of FY08. US Tile was able to re-use or recycle 100% of tile waste compared to 53% in FY05. Over the past four years, BMTI has increased its volume of marketable fly ash by almost 100% through FACT3; an almost 25% improvement on last year.

Community involvement

Boral USA’s first year of partnership commitment to JDRF was met with outstanding employee support. Together, Boral USA and its employees donated in excess of US$70,000 to JDRF. A new partnership based on materials and cash contribution was formed with HomeAid, a national non-profit organisation dedicated to building homes for temporarily homeless families. Boral’s College Scholarship Award increased from US$3,000 to US$4,000 per year, to reflect increasing college tuition costs.

Product development

Boral USA has been seeking the development of new products which provide sustainable outcomes such as improved energy efficiency, longevity, social value, and end of life upcycle potential. For example, light weight clay tiles such as Claylite® and Proshake Plus® were developed by US Tile to replace outlawed timber shakes in California, which provides improved thermal efficiencies.

- Deliver targeted reductions in mains water usage across US businesses in line with environmental strategic plans through improved recycling and re-use, stormwater capture and re-use, and equipment upgrades
- Zero landfilling of production waste by 2010 through increased recycling and re-use programs through high end use alternatives
- Aiming for 75% of concrete and masonry products produced to contain waste materials
- Establish R&D budget of 2% of Boral US revenue for continued research and development of alternative products using fly ash
- Develop products which support green building programs
- Implement sustainability selection process for vendors and suppliers
- Conduct life cycle analysis on future products
- Develop products which could be declared an ‘Environmentally Preferred Product’ or similar

Fact Box

Boral’s US operations include: energy intensive clay brick and roof tile manufacturing, the BMTI business which is built on recycling fly ash, and construction materials operations in Denver, Colorado. The division has 79 operating sites, 26 active quarries/clay pits and 57 distribution sites under Boral management and over 2,500 employees in the USA. Boral owns 50% of the MonierLifetile joint venture which is under MonierLifetile management. The construction materials operations in Oklahoma were acquired post year-end.
To the Board and Stakeholders of Boral Limited:

Boral Limited (Boral) commissioned Net Balance Management Group Pty Ltd (Net Balance) to provide independent assurance of the non-financial content of this Boral 2006/07 Sustainability Report (the ‘report’). The report presents Boral’s sustainability performance over the period 1st July 2006 to 30th June 2007. Boral was responsible for the preparation of the report and this statement represents the assurance provider’s independent opinion. Net Balance’s responsibility in performing our assurance activities is to the management of Boral alone and in accordance with the terms of reference agreed with them. Any reliance any such third party may place on the Report is entirely at their own risk.

Assurance objective

The objective of the assurance process is to provide stakeholders of Boral with an independent opinion on the materiality, completeness and accuracy of the information presented in the report, and whether Boral has responded to stakeholder concerns and adequately communicated those responses within the report. This is confirmed through a review of claims made, underlying systems, processes and competencies that support the report, as well as the embeddedness of policies and strategies on sustainability.

Assurance process and limitations

Our approach to assurance provision is aligned to the AA1000 Assurance Standard. The assurance engagement was undertaken in August 2007. The process involved:

- a series of interviews with key personnel responsible for collating and writing various parts of the report in order to ensure selected claims were discussed and substantiated;
- the examination of the aggregation and/or derivation of, and underlying evidence for, over 200 selected data points and statements made in the report; and
- a review of selected external media sources relating to Boral’s sustainability performance.

Our scope of work did not involve verification of the accuracy and robustness of financial data, other than that relating to environmental, social or broader economic performance. No regional sites were visited as part of this year’s assurance engagement.

Our independence and credentials

Independence was ensured by selecting an assurance team that had no other involvement with Boral during the reporting period that could impair the team’s independence or objectivity. Net Balance was not responsible for preparation of any part of this report. Net Balance has not undertaken any commissions for Boral in the reporting period concerned with reporting or data collection. The assurance team comprised of individuals with expertise in environmental and social performance measurement. The assurance team has collectively undertaken over sixty assurance engagements in Australia over the past ten years and is also led by a Lead Sustainability Assurance Practitioner (Lead CSAP) accredited by the Independent Register of Certified Auditors (IRCA UK).

Our opinion

Based on the scope of the assurance process, the following represents Net Balance’s opinion:

- The findings of the assurance engagement provide confidence in the reporting processes and systems established. The level of data accuracy was found to be high. Data trails were easily identifiable and traceable, and the personnel responsible were able to reliably demonstrate the origin(s) and interpretation of data.
- The statements made in the report appropriately reflect environmental, social and economic performance achieved during the period.

Overall, Net Balance is satisfied that the report is an appropriate fair and balanced representation of Boral’s material environmental, social and economic performance during the reporting period. We are also satisfied of the progress and outcomes achieved in the reporting period as having appropriately reflecting stakeholder expectations. The report continues to improve as a key communication tool to its stakeholders.

Conclusions and recommendations

Materiality: Issues material to stakeholders as identified through our review have been considered and communicated within the report. Material environmental, social and broader economic aspects of Boral’s sustainability performance as deemed through a peer review process are also appropriately addressed.

Completeness: The report was found to be complete in addressing key environmental, social and economic performance as well as all operations of Boral, using the Global Reporting Initiative’s G3 Sustainability Reporting Guidelines (October 2006) as a guide. The GRI Content Index is a useful tool for cross referencing. The majority of waste data was found to be estimated as it was unquantified. Water use data only included mains usage. Reporting of data originating from joint venture operations could be improved. Our peer review also found that Boral covered peer and societal norms in reporting.

Responsiveness: Boral has established robust stakeholder engagement mechanisms. Boral is addressing high priority issues and has adequately communicated its responses within the report. The report is an appropriate tool for stakeholder engagement and additional engagement is recommended.

Recommendations: Net Balance has provided suggestions for reporting improvement in some areas, including developing procedures for data management and reporting. These have been outlined in a more detailed report presented to Boral management.

On behalf of the assurance team
5th September 2007
Melbourne, Australia

Terence Jeyaretnam
Director,
Net Balance & Lead CSAP (IRCA UK)
Email: Terence@netbalancemanagement.com
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GLOSSARY

Biodiversity: Biological diversity (biodiversity) is the variety of life on our planet and ecosystems.

Biodiesel: A diesel fuel obtained by esterification of oil derived from plants or animals.

Calcination: The process of reducing limestone to quicklime by roasting in the kiln. Refer to Greenhouse gases below.

Carbon dioxide ($CO_2$): A greenhouse gas that can be produced from electricity generation, burning fossil fuels and biomass. Refer to Greenhouse gases below.

Concrete: A building material composed of sand and gravel used with water and sand or gravel to make concrete.

Cement: A building material made of a mixture of calcined limestone and clay; used with water and sand or gravel to make concrete.

Concrete: A building material composed of sand and gravel and cement and water.

Energy use: Energy use includes electricity use, combustion of fossil fuels (petrol, diesel, natural gas, liquid petroleum gas (LPG), coal and coke breeze) and combustion of other fuels. In the Timber and Clay & Concrete Products divisions, and in the USA, other fuels include combustion of waste oils, carbon dust, used tyres, tail ash and wood. Reported energy use is for the 12 month period to 30 June.

Fly ash: Fly ash is a by-product of coal-fired electricity generation plants; it has cementitious properties and is therefore used as an important (cost-reducing) additive in cement.


Greenhouse gases: Greenhouse gases (GHG) are gases in the atmosphere that are linked to the greenhouse effect. The main GHG are CO2 and methane. GHG emissions for Boral are reported in tonnes of CO2 equivalent ($CO_2e$), calculated from energy use data using conversion factors from the Australian Greenhouse Office (AGO) and from the EPA AP 42 factors in the US, and for the Cement division, conversion factors from the Australian Cement Industry Federation (CIF). This includes the calcination of limestone. Reported GHG emissions are for the 12 month period to 30 June.

Gypsum: A mineral consisting of the hydrous sulphate of lime (calcium). When calcined, it forms Plaster of Paris used in plasterboard production.

Lime: Oxide of calcium (CaO) produced by heating limestone.

Limestone: A rock consisting chiefly of calcium carbonate ($CaCO_3$).

LTIFR: The Lost Time Injury Frequency Rate (LTIFR) for a particular period is the number of employee Lost Time Injuries (LTIs) per million hours worked during the period. Contractors are not included in employee LTIFR. Contractors LTIFR is reported separately on page s13.

LTI: Def 1: A Lost Time Injury (LTI) is one which causes an employee to be absent from work for one or more full days or shifts on any day subsequent to the injury occurring. Def 2: Long term incentives (LTI) referred to in the Remuneration Report.

Number of employees: Number of employees on a full-time equivalent basis is used to identify total employee numbers and employee numbers by division and by region. The number of employees does not include contractors. Refer to workforce profile below.

Operating sites: Wholly owned or 50% owned JV operating site excluding sales, administration and distribution offices.

Recycling: Waste material being used in a new product.

Recycling: The incorporation of waste material back into the same product.

Re-use: The incorporation of waste material back into the same product.

RIFR: The Recordable Injury Frequency Rate (RIFR) is the number of employee injuries that result in medical treatment as well as those that result in lost work time per million work hours. Contractors are not included.

Staff turnover: The number of employee departures during the year divided by the average number of full-time equivalent staff members employed during the year, and multiplied by 100.

Water usage: Reported water usage is the amount of mains water consumed for the 12 month period to 30 June or in some cases, as stated for Clay & Concrete Products, for the 12 month period covered by usage invoices that most closely match the financial year ended 30 June.

Workers compensation claims: Number of workers compensation claims lodged with Boral’s insurers during compensation claims reporting period.

Workforce profile: Workforce profile data is based on payroll data for permanent full-time, permanent part-time and casual employees, except where full-time equivalent employee numbers are stated.

ABBREVIATIONS

ACM: Australian Construction Materials division

BCSC: Blue Circle Southern Cement

BSST: Boral Sustainability Diagnostic Tool

C&C: Clay & Concrete Products division

CDP5: Carbon Disclosure Project

CNG: Compressed Natural Gas

CO2e: Carbon dioxide equivalent

EOWA: Equal Opportunity for Women in the Workplace Agency

FACT: Fly ash carbon treatment

FY: Financial year

GHG: Greenhouse gas

GJ: One billion (109) joules of energy

GRI: Global Reporting Initiative

HIA: Housing Industry Association

HSE: Health, safety and environment

JDRF: Juvenile Diabetes Research Foundation

JV: Joint venture

LBGA: Lafarge Boral Gypsum in Asia

LTI: Lost time injury or long term incentive

LTI FR: Lost time injury frequency rate

LUAC: Large user abatement certificate

NGAC: GHG abatement certificate

OHS: Occupational health and safety

LPG: Liquefied petroleum gas

QEU: Quarry end use

RAP: Recycled asphalt profiling

RIFR: Recordable injury frequency rate