

BORAL NEWS

APR 2017

**Q&A WITH BORAL USA'S
DAVID MARINER**

**HEADWATERS:
A STRONG STRATEGIC FIT**

**30 YEARS WITH
CONSERVATION VOLUNTEERS**

**A DAY IN THE LIFE
OF THE BERRIMA
CEMENT WORKS**

**SECURING OUR
LONG-TERM
RESOURCE POSITIONS**

Quarries reinvestment in Australia



A truly global organisation

Throughout Boral's businesses we're working hard to *Build something great.*

Whether we're supplying roof tiles in Miami, fly ash in Dallas, bricks in Ontario, plasterboard in Ho Chi Minh City, asphalt in Perth, aggregates in Darwin or concrete in Ballarat, everywhere that Boral is, we are working with our customers to create a built environment that is addressing the needs of a modern world.

More than ever, our focus on innovation, quality, sustainability and technical know-how, together with our commitment to Zero Harm, tie all of our businesses together across the globe. And we are increasingly being recognised for this, winning work on landmark commercial developments and supplying major infrastructure projects.

Growing globally, with earnings outside Australia set to be around half our total earnings when the Headwaters acquisition completes, means we are attracting a more globally diverse group of shareholders who like the fact that we are taking advantage of our geographic strength and opportunities.

Boral is being valued for its strong foundations in Australia with its enviable integrated construction materials positions that are close to market and servicing a broad range of building and construction activity, including growing infrastructure work.

The Company is also being valued for the excellent positions we have built in the plasterboard-based interior linings markets across Australia, Asia and the Middle East. With our joint venture partner, USG, we have outstanding manufacturing, technology and sales positions in some of the fastest-growing markets in the world.

And finally, investors are attracted to the fact that in North America we are positioning Boral to take full advantage of diverse growth markets, including US infrastructure and housing construction, and we are offering customers a broader suite of products that are responding to changing market dynamics and customer needs.

Together we are building a strong, high performing and sustainable business. This is what it looks like to *Build something great.*



Mike Kane
CEO & Managing Director

FRONT COVER IMAGE:
Belinda Prideaux, Environmental
Manager – Cement at Berrima
Cement Works, NSW

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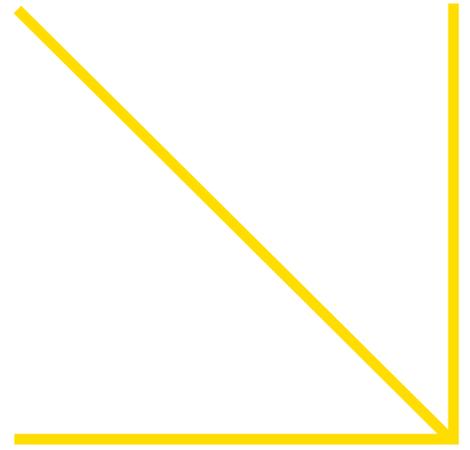
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USG Boral supplied more than 500,000m² of plasterboard to the Parklands Project in Gold Coast, Queensland



Boral concrete used in road works for removal of level crossings in south-east Melbourne, Victoria



Office building in Little Rock, Arkansas, features Cultured Stone[®] by Boral[®] in Country LedgeStone



Diaoyutai Hotel in Hangzhou, China, features USG Boral's full ceiling and partition system products



Boral and Q-crete supplied concrete to the Lucent Apartments in Brisbane, Queensland

Boral and Forterra join to become Meridian™ Brick

The US bricks joint venture is now officially Meridian Brick. The name was selected from more than 500 employee submissions last year, with Meridian representing “the joining of two companies, their people and the promise they bring to the future,” according to 32-year industry veteran Debbie Brady, who suggested it.

Meridian Brick will offer expanded commercial and residential brick offerings through a larger, more responsive plant network. The joint venture is positioned to better meet the needs of the evolving market as a result of improved utilisation of freight and distribution channels.

Integration of the business under the joint venture is going well, said Paul Samples, now CEO of Meridian Brick. “We’re on track to deliver synergies identified in the business case and, with the establishment of a new name and completion of the organisational structure, the company culture is unifying seamlessly.

“We continue to meet our goal of manufacturing clay brick and supplying other high-quality durable cladding and components while providing the service and support for which Boral and Forterra are known,” he said. ■



Board visits USG Boral's Thailand and India facilities



Laboratory at the Research & Development Centre in Saraburi, Thailand

Boral's Board of Directors visited USG Boral's Thailand and Indian operations in March, touring the Saraburi and Khushkhera plants, respectively, and meeting local management.

At the award-winning Saraburi plant, the Board also visited USG Boral's state-of-the-art Research & Development Centre

where testing and analysis of innovative interior linings products and systems are conducted.

Meanwhile, in India they had a up-close look at recent plant improvements, including road works around the plant, office renovations, a new gypsum crushing system and a new metal products manufacturing line. ■



Boral Timber's new distribution centre at Murwillumbah

Seeing the light of energy savings

In NSW Boral Timber is reaping the rewards of a lighting upgrade project completed in January. At seven timber operating sites, more than 900 400-watt metal halide high bay lights and flood lights were removed and replaced with 90-watt LED lights, assisted by the NSW

Government's Energy Savings Scheme rebates.

The project will deliver an annual reduction of more than 950,000 kilowatt hours of electricity and almost 850 tonnes of carbon dioxide emissions, as well as improved lighting levels. ■

Ceramic roof tiles boost design flexibility

Boral has introduced a new designer ceramic roof tile range in Australia with new profiles and colours developed to offer more contemporary choices for architects and designers.

Available in Wave, Artline and Shingle profiles, the Designer range offers long-life colour and gloss stability backed by a 60-year warranty. The range is available in six new satin finish colours.

Manufactured at Boral's roof tile plant at Wye, NSW, the Designer range is available in NSW, Victoria, Queensland and South Australia. ■



Wave profile in Onyx (inset) and Shingle profile in Fossil

Elegant Cloisters® wetcast pavers

Designed for outdoor settings like paved courtyards or poolsides, Boral's Cloisters® wetcast concrete pavers match style with hard-wearing reliability.

Launched in late 2016, the Cloisters® range is a contemporary blend of standard and grooved pavers which can be laid in herringbone or other

patterns to accentuate the grooved feature. Cloisters® steps and garden edging are also available.

The pavers are manufactured at Boral's masonry plant at Wacol, Queensland, in ivory or slate grey, and are available in Queensland, NSW, Victoria and South Australia. ■



Cloisters® pavers in Ivory

Porous permeable concrete



Boral's new permeable concrete range, Permier, is designed to reduce the risk of flooding by absorbing rainwater.

For use in driveways, carparks and footpaths, the high-performing, porous paving system forms a structurally sound, permeable surface which allows water to soak through to the earth below.

The Permier range is as strong as standard and exposed concrete typically used for driveways and is currently available in metropolitan Victoria. ■

Boral TruExterior® 8- and 10-inch Bevel Siding launched

Reflecting the latest trends in home building, Boral TruExterior® Bevel Siding was launched in 8-inch and 10-inch sizes at the 2017 International Builders' Show in Florida, USA, in January.

Complementing the existing 6-inch offering, Boral TruExterior® Bevel Siding offers a superior combination of aesthetics and performance, with a true taper and deep shadow lines that mimic wood like no other man-made material.

Made from Boral's proprietary blend of polymers and fly ash, it offers a high level of dimensional stability and durability. ■



8-inch Bevel Siding pictured

DID YOU KNOW?



ANNUAL HOUSING STARTS IN THE USA (RATE AS AT END 2016)



USG BORAL MANUFACTURING LINES NOW PRODUCING SHEETROCK® PLASTERBOARD



Introducing our new Chief Information Officer

William Payne joined Boral Australia as Chief Information Officer (CIO) in January 2017. Previously CIO of Veolia in Australia and UK for 10 years, he also brings more than 10 years' experience in senior information technology roles for Brambles in the USA and Australia, and senior consulting positions for Deloitte.

Under William's leadership, Boral ICT will oversee a customer-centric digital transformation that will support Boral Australia's zero|one|ten strategy.

"I aim to create an environment in which Boral's people, customers, external stakeholders and technology providers collaborate to drive genuine business value while embracing a fast-moving, agile approach," said William. ■

Boral Women in Engineering Scholarships awarded

The inaugural University of New South Wales Boral Women in Engineering Scholarships were recently awarded to two students who have commenced their civil and chemical engineering studies at the university.

The recipients were selected based on a number of factors, including academic merit and their interest in their chosen area of engineering. In March managers from Boral Quarries NSW/ACT and Boral Cement were delighted to show the students around their respective businesses.

Civil engineering student Petra Quartullo visited Peppertree Quarry and the Maldon rail terminal, meeting managers and staff who gave her a site tour and provided her with first-hand insights into quarrying. Petra will undertake work experience at the end of the year.

Meanwhile chemical engineering student Olga Bida met with staff and visited Boral's Berrima Cement Works, and will start her work placement in mid-2017. ■



Civil engineering student Petra Quartullo at Peppertree Quarry



2017 Leadership Summit

One hundred senior executives from Boral's businesses around the world gathered at a Leadership Summit in Australia in February to examine how 'worldview influences leadership'. In a series of workshops and panel sessions the group explored perceptions and perspectives that can influence how we lead.

CEO and Managing Director Mike Kane shared his personal insights on how his own worldview has and continues to shape him as a leader. ■

We're Rocking the House with Habitat again!

Following the success of our first international build with Habitat for Humanity Australia in 2016, Boral will be sending another team to the second annual Rock the House build in Yogyakarta, Indonesia, from 30 September to 7 October 2017.

Applications for the 12-person Team Boral will be open to Australian employees in mid-2017. Boral staff can learn about Habitat for Humanity and our 2016 team's experiences at intranet.boral.com.au/Rock-the-House or by emailing habitat@boral.com.au for more information. ■



Making the move

The big move was made from Boral's Greystanes House office in Prospect, NSW, to our new North Ryde offices in April.

After months of planning and consultation, more than 500 Boral Australia staff have moved and are now based at the 5 Green Star and NABERS Energy rated Trinita building. The office features an open plan work environment, collaborative meeting spaces and dedicated work areas for Logistics and Supply Chain teams.

In January in Perth, WA, more than 50 Boral Australia staff moved from Belmont to their new ground-floor, open-plan offices at Perth Airport. ■



REINFORCING OUR SYDNEY CONCRETE NETWORK



Boral's Granville concrete plant

Boral has unveiled two new fixed concrete plants in Granville and Kirrawee, NSW, increasing capacity in our Sydney network to service the city's booming demand for residential, commercial, roads and infrastructure construction.

About an hour west of the Sydney CBD, Boral's Granville concrete operations service the city's thriving western suburbs, including Parramatta, Westmead, Auburn and Homebush.

Commissioning of the new twin-alley concrete batching plant in Granville commenced in November 2016 with no disruptions to production in the handover from the former single-alley plant. It was fully operational by December, with new overhead silos and in-ground storage bins, conveyors, dual slump stands, dual truck washes, concrete reclaimers and a new office and amenities.

The Granville project has substantially increased the site's production and materials storage capacity, enabling Boral to meet burgeoning demand from residential and commercial developments in Parramatta and neighbouring suburbs.

The two individual load alleys, each with their own aggregates weigh bins and incline

conveyors feeding materials into the plant, have more than doubled the site's production capacity. Moreover the expansion gives the Granville operations greater supply chain flexibility, as raw materials can now be replenished in the evenings.

The separate load alleys also support better maintenance flexibility and redundancy, improving Boral's ability to supply concrete reliably and offer better customer service.

And at Kirrawee in Sydney's south, Concrete – Boral's second brand in NSW – boasts an innovative new concrete production facility at a new site location. It features a twin-alley concrete plant with a near-continuous production process – an innovation for concrete plants – and the ability to function automatically without an operator's constant attention.

Production capacity here has more than doubled, improving service and supply to customers in the Sutherland Shire and surrounds. At the same time an improved raw materials supply process has enabled multiple

night-time deliveries with greater automation, increasing the plant's efficiency.

Environmental impact has been reduced thanks to a low-profile design and with most material handling taking place below ground. Other innovations include jointless fibre reinforced yard paving, improved traffic management, radio frequency ID-tagged concrete trucks and a production process that ensures materials fed into the truck at any point are representative of the whole mix.

The replacement and relocation of the old plant at Kirrawee, which dated back to the 1970s, has also given Boral an opportunity to optimise its land portfolio.

The new concrete facilities strengthen Boral's long-term position in metropolitan NSW, said Robert Giddings, General Manager – Concrete (NSW/ACT). "They're giving us more capacity in key high-growth regions and helping us be number one for our customers in Sydney," he said. ■



HEADWATERS: A STRONG STRATEGIC FIT

Boral's recently announced US\$2.6 billion acquisition of Headwaters Inc., a North American fly ash and building products company, is a strong strategic fit with Boral's existing US business. The acquisition presents opportunities to create significant value and substantially expands our building products offering in the US. Here's an overview of the suite of products.



WINDOWS
Headwaters manufactures a range of vinyl trim windows, sold mainly into the new residential construction market under the brand names of Krestmark and Legacy Vinyl Windows.



DECKING
Clubhouse Decking is a PVC-based decking product that looks like real wood without the traditional wear and weathering problems associated with natural timber.



STONE
Boral and Headwaters can offer customers a broad choice of stone products. Both produce and sell manufactured stone for the residential and commercial cladding markets. Boral offers Cultured Stone, while Headwaters has three brands – Eldorado, Dutch Quality and StoneCraft.



HEADWATERS BRANDS





ROOFING

Expanding Boral's clay and concrete roof tile offering, Headwaters' range includes composite polymer roofing products mimicking timber, slate, concrete and shingle tiles. The composite products include recycled materials and a proprietary additive to improve durability and fade and impact resistance. Headwaters also produces concrete roof tiles and stone coated metal roofing – a lightweight product with the appearance of granite, stone or wood.



SHUTTERS

The Vantage and Atlantic Shutters range of vinyl shutters helps to add instant appeal to any dwelling.



TRIM and SIDING

Adding to Boral TruExterior® Siding & Trim, which is based on our patented fly ash and polymer composite technologies, Headwaters manufactures PVC (or vinyl) trim products under the Kleer brand, as well as Grayne and Foundry siding products. Offering better performance than traditional timber, the range replicates wood shake, wood shingle and stone products.



BLOCK

Headwaters Concrete Products incorporate a complete line of concrete block products including lightweight, normal, and heavy-weight block; foundation block; architectural block; segmental retaining wall units; and a diverse line of hardscape products.





DAVID MARINER



By the time he clocks his first year in the top job at Boral USA, President and CEO David Mariner will be leading a much bigger business following the recently announced transformational acquisition of Headwaters Inc.

He is currently managing a 50-strong integration team whose principal task is to bring together the two organisations to *Build something great in North America.* Boral News spoke to David about his career and outlook for the business.

BORAL NEWS: Tell us about your career before and at Boral.

DAVID MARINER: I have a civil engineering degree and started work as a municipal engineer in Michigan, a job that involved, among other duties, designing new roads, bridges, shopping centres and other major infrastructure in neighbourhoods that were quite happy just the way things were.

It meant dealing with plenty of angry people and it taught me a lesson I remember well: not everyone embraces change and, as a manager, you have to deal with entrenched but often very legitimate views.

After earning a master's degree, I moved into the automotive industry and joined Detroit Diesel which was subsequently sold to Daimler Chrysler. It was at this stage I had my first taste of acquisitions and integration during the decline of the American automotive industry. Being in a company being acquired provided me with insights as to what it feels like to be integrated; lessons which I still recall and am now drawing upon.

My career pivoted again when I joined Holcim, a global cement manufacturer. It was there I met Mike Kane and in 2010 I joined Boral roughly the same time that Mike became the head of Boral USA.

During my tenure with Boral, I led the acquisition and integration of Cultured Stone and was President of the new division.

I served as the Chief Operating Officer of the Cladding division, and in 2014 I moved with my family to Australia to become the Executive General Manager for the Building Products division.

After having the privilege of working with many great people in Australia, I returned to the US in July last year to take on the role of the head of Boral USA, following the retirement of Al Borm.

BN: What have been some of the highlights of your time at Boral?

DM: A few things stand out for me. First is the work we've put in collectively as an organisation to improve our safety

“the successful combination of two solid companies... will allow us to *Build something great with Boral in North America*”

performance. While we've made great strides, more work lies ahead to achieve Zero Harm each and every day.

Second, at a more personal level, it's been the opportunity I was given to take a leadership role in the Australian business, which meant bringing my family over to Sydney to experience Australia. They loved it and I was able to further develop my leadership abilities.

And of course I've been blessed to have worked with great leaders and people on two continents.

BN: Do you think leadership is something you're born with, or something you learn?

DM: A very small proportion of people are true born leaders; they just have it and people follow them. But for most of us it involves a lot of learning, a lot of watching others, a lot of experimenting and training. You either learn at the school of hard knocks or you're trained into leadership.

BN: You've held a few executive roles at Boral in the USA and Australia – what do you think drives the company's culture?

DM: I think it's a combination of three important areas. First is a focus on safety and housekeeping which, when successful, forces engagement at all levels of the organisation.

Next, we are a performance-based company and have a bias towards action and focus on results. These results can come in the form of excellence for our customers, continuous improvement through LEAN, or innovation, all with the goal of delivering financial performance.

Finally, I believe integrity drives our culture where we do what we say we are going to do and treat people with respect and dignity.

BN: You've been very involved in the Headwaters acquisition. What's the most rewarding part of the process?

DM: Working collaboratively with multiple stakeholders across various continents to get the deal signed: bankers, lawyers, Boral teams in the US and Australia, and other advisers all working together to accomplish the goal. And throughout, having the unwavering support of Mike Kane and the Boral Board was very rewarding.

We're currently working on integration plans, with the principal task of bringing together the two organisations into one division. With a footprint that covers much of the US, as well as plants in Canada and Mexico, it's a challenge but one that I'm enjoying as we work together with Headwaters. This transaction will truly transform our division and we cannot wait to get started.

BN: Boral's North American division will more than double in size after the completion of the acquisition with a significant expansion in product offering. What does this mean for our customers and employees?

DM: It's an exciting time to be head of Boral USA. I'm confident it will be an exciting time, too, for our customers and employees.

For our customers, it will be about our ability to offer a much wider range of products while at the same time making it easier for them to deal with Boral across North America. Just as importantly, customers will see a tangible commitment on our part to the North American business; it's the old saying about putting your money where your mouth is. It signals that we're here to stay.

For our employees, the transformation of our business in North America will provide opportunities for growth and career development across the board. There is

“Approach each day with a goal to learn something new”

excitement in taking part in the successful combination of two solid companies, which will allow us to *Build something great* with Boral in North America. I want Boral to be a desired employer in the building and construction industry.

BN: What are the biggest challenges facing the business over the next 5-10 years?

DM: Labour shortages in the overall construction industry are a concern, as is the battle to attract and retain talent in Boral North America.

At the same time we're in the upswing of the economic cycle but, frankly, it's hard to predict the timing of when that might change. What we do know is that we need to be nimble and quick to react. The pieces being put in place today will allow us to succeed throughout the cycle, which was a driving strategic force behind the acquisition of Headwaters.

BN: What do you like to do in your spare time?

DM: It's been a very busy few months, which means I spend every spare moment I have with the family, with my two kids, aged 12 and nine, and our recently added puppy. The kids named her Sydney, of course.

Beyond that, I donate my time and efforts at our church and try to play golf when time allows. Sadly, my golf game reflects the amount I play.

BN: What's the best advice you've ever received?

DM: Approach each day with a goal to learn something new, and reflect on what you learned prior to going to bed. It has served me well to this point! ■



Quarry reinvestments to build long-term success

Aerial view of Boral's Orange Grove Quarry, Western Australia (as at May 2016)



Following the \$200 million investment in Peppertree Quarry, which has been supplying materials to Sydney since 2014, Boral is reinvesting \$180 million into three quarries that service key markets in Melbourne, Perth and Brisbane.

As the only fully integrated construction materials player in Australia, with upstream quarries and cement businesses and downstream concrete and asphalt businesses, Boral is well positioned to benefit from the growth of Australia's cities and their need for sustainable urban development and infrastructure.

To this end the company is well served by its national network of around 90 strategically located quarries. Our hard rock, sand and gravel quarries supply material for a diverse range of infrastructure, commercial and residential projects in capital cities and regional markets.

"In many ways our strategic quarry resources form the foundations of our Australian business, today and for the future," said Boral CEO and Managing Director Mike Kane. "These assets are incredibly important because they not only allow us to build a strong platform in Australia to deliver solutions for customers, they help create real, sustainable value for our shareholders and communities." >



A generational investment – Peppertree, NSW

In New South Wales Boral invested \$200 million to establish the state-of-the-art Peppertree Quarry in the Southern Tablelands about two hours from Sydney. Replacing the now-depleted Emu Plains Quarry, Peppertree has the capacity to produce 2.5 million tonnes of materials per year. The majority of its aggregates and manufactured sand output supplies our integrated concrete and asphalt operations in Sydney via rail, direct to our Maldon, St Peters and Enfield terminals.

The investment in Peppertree and its rail network has secured Boral's position in the high-growth Sydney metropolitan market and has already contributed to landmark construction projects like the Barangaroo South commercial tower and the in-progress NorthConnex motorway.

Securing resources

The \$180 million, three-year quarry reinvestment program in Melbourne, Perth and Brisbane will secure our quarry resources for the long term. The program is focused on increasing production capacity and plant efficiencies at Boral's Deer Park (Victoria), Orange Grove (Western Australia) and Ormeau (Queensland) quarries. At all three quarries, ageing processing plants will be replaced with facilities that represent significantly more advanced technologies and environmental practices.

“These reinvestments are a long-term strategic priority. Urban populations are growing, which will result in greater demand for quarry materials for residential, commercial, roads and major project construction for many years to come.”

Joe Goss, Divisional Chief Executive, Boral Australia



30+ years
reserve
life



38
full time
staff



New Deer Park Quarry product silos and blending plant

Deer Park, Victoria

Established in 1965, Deer Park Quarry is a major source of basalt-based hard rock aggregate for the Melbourne metropolitan market. Located off the Western Freeway, its proximity to the CBD has allowed it to make a substantial contribution to the city's road network and skyline, including the iconic Westgate Bridge and Western Ring Road.

“Deer Park Quarry is a cornerstone asset of our integrated construction materials supply chain in Melbourne,” said Boral's Executive General Manager – Southern Region Paul Dalton. “This reinvestment will enhance our ability to service the Melbourne CBD and growth corridors to the west and north of the city.”

Boral is investing \$75 million to replace the Deer Park Quarry processing plant, which was established with the original

operations, and has some working parts which date back to the 1960s.

In addition to increasing capacity to approximately 3 million tonnes per year and improving efficiency, the plant will enhance product yield with upgraded screening technology designed to process the variable quality of resources at Deer Park. It will also be enclosed, reducing operational noise and dust generation, and relocated in the northern section of the quarry closer to future extraction areas.

Major works commenced in January 2016 and the new plant is on track for completion in late 2017. Boral regularly meets with the Deer Park local community and other stakeholders to share information about the project and operational and environmental matters.

Orange Grove, Western Australia

Comprising high-quality granite and dolerite resources, Orange Grove Quarry is Boral's only hard rock quarry in Western Australia. It is located 19 kilometres from Perth CBD and supplies the region's construction industry, including Boral's concrete and asphalt operations, with aggregates, armour rock and road base materials.

With the existing crushing and screening plant dating back to the 1960s when operations commenced, Boral is investing approximately \$50 million to build a new plant to replace the existing crushing circuit. The new facility will increase capacity by 30 per cent to 2 million tonnes per year while reducing labour, repair and maintenance and fuel costs.

"The Orange Grove Quarry plant upgrade will ensure we maintain a competitive position in Perth and provide for scalable capacity and a range of products to service long-term demand in the Western Australia market," said Boral's Executive General

Manager – Western Australia and Northern Territory Wayne Manners.

The new fully enclosed plant will facilitate best practice environmental management, significantly reducing noise and dust emissions. The quarry stockyard will be relocated to a more wind-protected area on the site further away from residential properties, which will also help to improve traffic flows and truck loading efficiency.

Works commenced on relocating and upgrading the crushing and screening equipment in May 2016. Stage 1 of the upgrade, including a new primary and secondary crusher, is currently being commissioned, while Stage 2 has recently started.

The Orange Grove community will be able to see the plant upgrade works first hand at the annual Boral Orange Grove Quarry Open Day on 21 May 2017.




40+ years
reserve
life


20
full time
staff

New primary and secondary crusher at Orange Grove Quarry




50+ years
reserve
life


20
full time
staff



Ormeau Quarry pit

Ormeau, Queensland

Located 33 kilometres from the Gold Coast and 43 kilometres from Brisbane, Ormeau Quarry services South-East Queensland – where growth trends point to a supply shortfall in quarry materials in the next decade – with aggregates and road base products.

The current processing plant at Ormeau is reaching the end of its economic life, while the smaller Yatala and Purga quarries are almost depleted of approved reserves. Boral will therefore invest \$58 million in a new plant at Ormeau to replace all three existing sub-scale facilities, more than doubling annual production capacity to 2 million tonnes.

"The new scale operation at Ormeau will significantly improve our relative cost position in the market," said Boral's Executive General Manager – Queensland Simon Jeffery. "This investment represents a generational change

in our operations here. We'll have a long-term, energy-efficient asset and sustainable, cost-effective supply of materials into growing South-East Queensland markets."

The new facilities will incorporate a new workshop and quality assurance laboratory. Boral has already completed extensive environmental work in preparation for the plant upgrade, including the implementation of a stormwater management system.

Site preparations and civil works commenced in November 2016, with upgrade works expected to continue into late 2018.

Boral shares information on the Ormeau plant upgrade with local community members and stakeholders through the regular liaison group meeting, newsletters and website. ■



ZERO HARM TODAY

Across the globe, Boral's people are committing to our safety goal of Zero Harm Today, delivering improved safety performance and a more engaged and safe workforce.

Boral USA: LTI free for a year!

For just over 12 months to January 2017, Boral in the USA was free of lost-time injuries – that's in all of our US businesses, at all of our US sites and for all of our US people!

"This is a tremendous accomplishment and a record for our operations across the US," said Boral USA's President and CEO David Mariner.

He attributes the result to the efforts of leaders who set an example by personally embracing and enforcing safe work practices and behaviours at all times, as well as frontline staff who have adopted a personal commitment to working safely.

"The milestone is the culmination of all your hard work and dedication, implementation of tools, talks, training, and engagement occurring over the past several years," David told the US workforce. "But we must remember this journey never ends. The goal of Zero Harm Today is a work in progress and we must work together always to ensure we're all healthy at the end of each shift."

In congratulating Boral USA, Group Health, Safety and Environment Director Michael Wilson, said: "It's a fantastic milestone for the business. Boral USA is proof that injuries, and in this case lost-time injuries, are preventable when all our people are committed and engaged." ■

"The milestone is the culmination of all your hard work and dedication, implementation of tools, talks, training, and engagement occurring over the past several years"

David Mariner, President and CEO, Boral USA

"Our improved performance is a reflection of the whole team's effort to shift our working culture to truly put safety before production"

David Bolton, General Manager, Boral Quarries NSW/ACT

Reducing injuries and incidents in Quarries

Quarries NSW/ACT has been improving its safety performance and reaching milestones across the business. The entire business achieved Zero Harm across 30 operational sites in the month of October 2016, with no recordable injuries for the month – a new milestone for Quarries NSW/ACT.

The business' recordable injury frequency rate has been declining steadily since 2011, while hazard and near miss reporting is on the up – in both quality and quantity.

"Everyone in the team recognises that safety is no longer a numbers game, it's now an essential part of everyone's day-to-day role," said David Bolton, General Manager, Quarries NSW/ACT.

Initiatives to reduce injuries include SafeStart, the behavioural safety program being rolled out across Australia, Zero Harm summits for front-line leaders and recognition initiatives like the NSW Quarries zero|one|ten Awards.



Peats Ridge Quarry won the inaugural "Zero" prize in the NSW Quarries zero|one|ten Awards in recognition of the team's efforts in seeking to achieve Zero Harm

Move Safe at USG Boral

In Australia and New Zealand, USG Boral is making moves to reduce manual-handling injuries across its plasterboard and metal products manufacturing sites and trade stores – in more ways than one.

The aim of the national Move Safe training program is to enable employees in manufacturing and distribution roles to recognise tasks that require a high degree of manual handling, then use techniques to lower the risk of personal injury.

Developed for the plasterboard business and facilitated by qualified physiotherapists, the program comprises a discussion about safe manual handling followed by a practical demonstration of how to safely handle plasterboard, compounds, cornices and metal products. It also explains the importance of pre-stretching and takes participants through a practical 2-3 minute stretching sequence, said George Gilby, Environment, Health and Safety Advisor – Northern Region for USG Boral Australia, who is leading the project.

The second phase of Move Safe will involve revisiting sites to see how well the safe manual handling and stretches programs are being practiced.



Assistant Commissioner Michael Corboy, RMS's Paul Endycott and Boral's Victoria Sherwood at the Prestons depot

Vehicle and compliance information day for police, roads officials

Boral Logistics hosted an industry engagement day in February at its Prestons, NSW, depot, inviting the state's Joint Traffic Taskforce to take a closer look at our heavy vehicles and compliance systems.

Visitors from the Joint Traffic Taskforce, made up of officers from the NSW Police Force's Traffic and Highway Patrol Command and inspectors from Roads and Maritime Services (RMS), was led through Boral's heavy vehicle compliance systems and gained insights into driver training and induction, telematics, heavy vehicle maintenance, and sub-contractor and records management.

Boral also provided a number of heavy vehicles for Police and RMS officers to inspect, with driver trainers discussing our driver requirements and vehicles' safety features.

Assistant Commissioner Michael Corboy of the Traffic and Highway Patrol Command said afterwards, "It's pleasing to see Boral's commitment to compliance and safety in support of road safety. Engagement with industry like this is essential to gain exposure to what operators are doing to ensure the safety of their own fleets and drivers."

General Manager Compliance Operations for RMS Paul Endycott agreed, saying, "It was obvious Boral takes its compliance and safety obligations relating to fatigue and speed and all operations seriously. We're pleased to be able to engage and support such organisations to share our experiences to help these safety leaders and, equally, to witness leading heavy vehicle and driver management."

"We've established high standards of safety and compliance in our logistics operations and seek to continually improve the performance of subcontractors"

Victoria Sherwood, General Manager Supply Chain, Boral Australia



Move Safe training underway at USG Boral's Pinkenba, Queensland plant



125+ Safety Blurbs and counting

In the US, Meridian Brick Safety & Health Manager Scott Herndon ensures that safety is always top of mind for staff members with his twice-weekly Safety Blurb emails.

Since January 2016 Scott has created, written and distributed more than 125 blurbs which have reached hundreds of Boral USA staff and their families. Each email shares a story or tip to encourage personal commitment and engagement to achieve Zero Harm Today.

"I always read and look forward to his blurbs," said Paul Samples, CEO of Meridian Brick. "Scott has an uncanny sense of timing and seems to have the perfect Safety Blurb at the right time, which obviously reflects his close daily engagement with colleagues."

"Scott's safety reminders resonate throughout the organisation and have undoubtedly helped change behaviour"

Rich Stevens, Director, Occupational Safety and Health, Boral USA



Meridian Brick's Scott Herndon

Alstonville's baby platypus discovery

A thriving family of platypuses has been found in a creek near Boral's Alstonville asphalt plant on the NSW North Coast.

The native mammals were discovered living near water pipes in Branch Creek during the local council's works on rebuilding a bridge near the entrance of the plant. WIRES Wildlife Rescue volunteers relocated the healthy little family further down the creek opposite our plant.

Boral is committed to protecting and, where practicable, enhancing biodiversity values at all our sites, aiming to ensure Zero Harm to our environment as well as our people.



A DAY IN THE LIFE OF...

BERRIMA CEMENT WORKS, NSW

Boral's key cement manufacturing operation in Australia is located in Berrima in the New South Wales Southern Highlands, about two hours from Sydney.

The facility produces grey and off-white clinker – a key ingredient of cement – and grey cement, which supplies Boral's concrete network, major infrastructure projects as well as wholesale and retail customers. *Boral News* spent a day with its 100-strong team whose 24-hours-a-day, seven-days-a-week operations produce up to 1.6 million tonnes of cement a year.



After its brief shutdown the kiln has reached its minimum operational temperature. It's heated to 1,450°C to manufacture 5,000 tonnes of clinker a day and is powered by about 25 tonnes of coal an hour.

MIDNIGHT 2 AM 4 AM 6 AM 7 AM 7.05 AM 7.15 AM



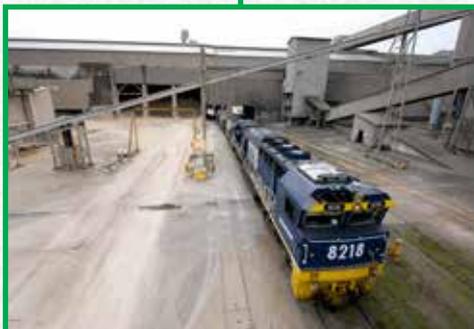
Kiln operation is halted for four hours for planned maintenance works. Refractory Project Engineer Mick checks the kiln condition. It's in good shape.



Process controllers Greg and Paul start their 12-hour shift in the Control Room. They monitor production, train arrivals and departures, diesel needs, kiln operations, cement and clinker despatch, and raw mill blending. They also receive data from the onsite quality control laboratory.



At the Maintenance Department Toolbox meeting, Shift Superintendent Paul provides a shift review to electricians, fitters, boilermakers, yardmen and scaffolders who were all congratulated on no safety incidents and a "job well done".



Trains start arriving, preparing to load cement from 6am. Clinker sets off via train to Boral's packaged cement plant at Maldon, about 60 kilometres north of Berrima.



Stock house operative John oversees cement loading of the first of two daily trains. It will take almost four hours to fill the 30 wagons that hold 56 tonnes each.



Maintenance Team Leader Phil leads the mechanics Toolbox meeting to discuss safety and the day's work schedule. He cautions workers to be mindful of slips, trips and falls after wet weather overnight. First-year apprentice fitter Nathan reports a "near miss" and the team immediately repairs an unhinged door.



Technical Manager Gabriel chairs a management meeting with NSW Cement Operations Manager Stuart, providing an overview of the plant's operation for the past 24 hours. It includes updates on safety, risks, environment, quality control, laboratory findings, production rate, clinker and cement stocks, transport and a maintenance report.



Laboratory technician Luke carries out a chemical analysis led by Cement Services Manager Belinda. The team check for fineness and chemical balance to ensure the cement will meet strength and setting-time requirements for customers. Berrima is the central laboratory for all quality-assurance testing of Boral's cement.

A plant attendant monitors the unloading of a train from Marulan Limestone Mine, about 80 kilometres south of Berrima. The limestone, along with blue shale, iron ore and local sand, will comprise 95% of the finished cement product.



Senior managers meet for their weekly planning meeting. They discuss observations of the past week, risk assessments, performance and areas for improvement. They resolve to alter some training methods and a new maintenance schedule.



Work for the day is over at Berrima's blue shale quarry, which produces and crushes 7,000 tonnes a week for use in cement production.

The second train, hauling 24 wagons of cement, leaves Berrima.

8 AM 8.30 AM 9 AM 10 AM 10.30 AM 11.15 AM 2.30 PM 3 PM 3.30 PM 6 PM 6.30 PM



A tanker leaves for Boral's Granville concrete plant carrying about 28 tonnes of cement. The loading and docketing process takes only 15 minutes. Berrima's silo can load up to four tankers and a train concurrently.



The first cement train departs for Parramatta where its rail wagons will be split and sent to various locations including Clyde, Kooragang (near Newcastle) and Coffs Harbour, where it will be used in work on the Pacific Highway.



A shift team of an electrician, fitter and five plant attendants finish their 12-hour shift. Outputs include providing chemical analysis reports to the Control Room every two hours and monitoring train deliveries.



Production Services and Logistics Superintendent Branko hosts the daily phone conference between train operator Pacific National and Boral's sales staff in Sydney to discuss the sales forecast for the next day, project demand and stock availability.



Cement Operations Project Manager Kathryn and Environmental Manager Belinda discuss the new \$11.3 million alternative fuels system to be built in 2018. It will enable the use of waste-derived fuels that will reduce the kiln's coal consumption by 13% and lessen carbon emissions.

HOW CEMENT IS MADE AT BERRIMA

- Limestone from Boral's Marulan Mine, shale quarried on site, iron ore and sand are blended
- The mix is ground to fine powder, 'raw meal,' which is heated in a pre-heater tower
- Hot raw meal enters a long rotary kiln where it's further heated to 1,450°C and transformed into clinker
- The clinker is ground with a small amount of gypsum in a ball mill to produce cement powder, then conveyed to storage silos awaiting despatch



Conservation Volunteers Australia

“Our partnership is underpinned by strong connections and friendships between Boral’s people, CVA staff, volunteers and members of the community”

Kylie FitzGerald, Boral’s Group Communications Director



Students at Spring Gully Primary School, Victoria, in 2012 as part of Boral’s Biodiversity in Classrooms program



In 1988 Senator Graham Richardson planted CVA’s one millionth tree using a Cyclone brand spade donated by Boral



Boral and CVA volunteers planting trees in the Hawkesbury catchment area, NSW, in 2009

From little things, big things grow: 30 years of Boral and CVA

This year marks Boral’s thirtieth year of partnering with Conservation Volunteers Australia – a milestone for our longest-standing community partnership.

Conservation Volunteers Australia is a national not-for-profit, community-based organisation that connects people with the environment. It’s one of Australia’s leading hands-on conservation groups, recruiting volunteers from Australia, New Zealand and around the world to contribute to environmental and wildlife projects.

CVA has operations and projects in all states and territories in Australia, and a strong alignment with Boral’s people, places and values.

From little things...

CVA had humble beginnings in 1982 in Ballarat, Victoria, when a small group of volunteers began to plant trees on weekends. At the time, discussion of environmental issues was relatively new, especially in business.

Boral became one of CVA’s first corporate partners in 1988. Our support was modest initially, with Boral donating a cent for every tree planted

by CVA volunteers. After a few successful years, the donation increased to two cents per tree.

The partnership has grown and evolved since then, from donations to tree planting, to financial and volunteering support for wildlife habitat and bush regeneration activities, and the current schools program.

CVA now has 24 offices across Australia and New Zealand, and manages more than 100,000 volunteer days and more than 2,000 projects per year.

Its partnership with Boral makes an especially important impact at a local grassroots level, with community and schools-based programs supporting more than 200 projects since 2012. These have ranged from the construction of frog ponds, kitchen gardens, and indigenous food and sensory gardens to restoring wetland areas and rejuvenating outdoor learning spaces.

...big things grow

Over three decades the partnership has given our employees and communities the opportunity to get involved in Boral-sponsored programs that include:

- **Towards a Greener Future** (with Landcare and CVA) from 2001, supporting environmental projects across Australia located near Boral's operations, including regeneration and revegetation, and erosion control.
- **Living Green** from 2005, promoting the creation, enhancement and celebration of shared community green places across Australia. Projects included restoration and creation of fauna habitats, weed removal, regeneration through tree planting, seed collection and building of walking tracks.
- **Biodiversity in Classrooms** from 2012, supporting a hands-on schools education program with a focus on biodiversity, to educate and inspire students to take action for the environment.
- **Connected Communities** since 2014, assisting schools and communities educate and inspire young Australians to take action to protect their environment through hands-on, practical environmental conservation and education projects. These include creating native bush food gardens, monitoring frog populations in school yards and cleaning up a creek line adjacent to a school.



Boral donated and laid asphalt at CVA's new head office in Ballarat, Victoria, in March 2017



Boral and CVA volunteers at Derrimutt Primary School, Victoria, in 2015

A valued partnership

Boral is CVA's longest-standing corporate partner, says Colin Jackson, Chief Executive Officer of CVA. "Together we have made an invaluable contribution to communities and their environments across Australia," he said. "From bush regeneration and soil erosion programs in the early 2000s to our current schools program, we are educating and connecting volunteers both young and old to their local environment."

The partnership forms an integral part of Boral's commitment to supporting local communities and engaging with our people across the country. Indeed, the company's approach to social responsibility evident in the CVA relationship is a key to our licence to operate, says Michael Wilson, Boral's Group Health, Safety and Environment Director and a CVA Board member.

"We're very pleased to be able to make sustainable and valued contributions to the communities in which we operate with CVA," he said. "We hope to continue creating lasting environmental legacies together for years to come."

Adds Kylie FitzGerald, Boral's Group Communications Director, whose team oversees the partnership: "Boral is very proud to partner with CVA and to celebrate 30 years of supporting each other and working together. This partnership has sustained for 30 years and has been such a success because we are always evolving in the way we respond to the changing needs of our local communities. And more importantly, because our partnership is underpinned by strong connections and friendships between Boral's people, CVA staff, volunteers and members of the community.

"There's a great deal of mutual respect, shared values and an appreciation that we are all gaining something valuable from this partnership," she concluded. ■

For employees interested in team volunteering with CVA, please contact Corporate Affairs. For individual volunteering with CVA, see conservationvolunteers.com.au

Boral and CVA facts & figures*



9,140
volunteer days



105,800
trees and stems
planted



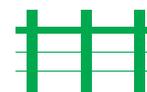
1.9
MILLION M²
of revegetation



25,300M²
track construction
and repair



2,800M²
rubbish
collected



7,000M²
fence
maintenance

* approximate figures from 2001 to 2016

"We really appreciate what Boral has done – the paths in our peace garden and carpark, donation of gravel and financing the nesting boxes for the black cockatoos. All these improvements at our school are enjoyed by our 130 students, staff and the parents within the school."

Orange Grove Primary School Principal Cassandra Cole (Perth, WA)

"The project has re-inspired educators and children in our garden. We look forward to watching the plants grow and mature to provide natural and inviting play spaces for current and new children over the coming years."

Marulan Preschool, Kylie Clewett (Canberra, ACT)



In the community

DEC



MIDLAND BRICK TO THE RESCUE

In Perth, Western Australia, Midland Brick has donated bricks, pavers, concrete blocks and retaining block walls to four homes on Channel 9's Matt & Kim to the Rescue television show. The duo team up with local tradesman and businesses on the program to renovate homes for families in need.

DEC



FISHING DAY FOR PETRIE COMMUNITY

Petrie Quarry north of Brisbane, Queensland, hosted a fishing day at the site's dam in partnership with the Pine Rivers Fish Management Association, with fish transferred to a local lake for future community and schools recreational fishing. The program to re-stock native fish for the local lake started in 2003 at the quarry's dam.

MAR



MAKING AN IMPACT WITH HABITAT

Boral was recognised with the Community Impact Award at Habitat for Humanity Australia's 30th Anniversary gala dinner in Sydney. Boral's Mike Kane accepted the award from Habitat's chair Chris Franks. The first Habitat home in Tamworth, northern NSW, was also handed over to the partner family. Boral contributed concrete and softwood and USG Boral donated plasterboard for the house.

MAR



TOUCHED BY OLIVIA TURNS TEN

This year Touched by Olivia celebrates its tenth anniversary of creating inclusive playspaces for all children, including those with disabilities. Boral has supported the foundation since 2012. We are proud to have contributed concrete to their latest playspace in Victoria, Livvi's Place Craigieburn, pictured, which opened in March.

DEC-FEB



BRISBANE BANDITS BACK-TO-BACK CHAMPIONS

More than 200 Boral staff and families attended baseball matches in Sydney, Brisbane, Melbourne, Adelaide, Canberra and Perth during the Australian Baseball League (ABL)'s 2016/17 season. The Brisbane Bandits took out back-to-back titles, winning the 2017 ABL Championship Series presented by Boral in an exciting Melbourne final.

JAN



340 BORAL YATZ AND COUNTING

Boral is proud to support Taronga Zoo's Youth at the Zoo (YATZ) program for an eleventh year. The program has more than 340 participants, attracting teenagers who have a passion for wildlife and conservation. This year's Boral YATZ scholarship recipient is 14-year-old Hamish from Winston Hills. *Photo: Rick Stevens*

JAN



HELPING BUILD A HOUSE FOR HOMELESS

Boral contributed concrete and roof tiles to help build the Property Industry Foundation (PIF) House in Sydney's west. The five-bedroom dwelling in Blacktown is designed and built by Frasers Property Australia for Marist180, a charity that helps at-risk young people and their families change their lives.

FEB



YOUTH LEADERSHIP IN SOUTHERN HIGHLANDS

This year's Boral Youth Leadership Project with Outward Bound sponsored 16 students from three high schools in the Southern Highlands and Tablelands region on a seven-day personal development camp. Ben Greenwood from our Peppertree Quarry joined the students as they developed school-based community projects.

APR



BUILDING HOPE WITH HOMEAID

In the US Boral has supported HomeAid, a national non-profit provider of housing for the homeless, since 2006. HomeAid is supporting the building of a new facility for Hope House of Colorado, an organisation committed to transforming the lives of teenage mothers. Boral will donate Cultured Stone® in Country LedgeStone to the project.

APR



MORNING TEA WITH REDKITE

Staff in Melbourne, Perth and Sydney offices hosted fundraising morning teas to celebrate Boral's continuing partnership with Redkite, the Australian charity providing essential support to children and young people with cancer, and their families. Since 2012 Boral and our staff-driven fundraising has contributed almost \$600,000 to Redkite.

MAY



AUSTRALIA'S FIRST ARCHITECTURE & DESIGN FILM FESTIVAL

Boral Roofing is proud to sponsor this year's ArchiFlix, Australia's first national architecture and design film festival. The 2017 festival will feature a curated selection of films, events and panel discussions for industry professionals. ArchiFlix is hosted in Sydney and Melbourne, with satellite events in Brisbane, Adelaide and Perth.

JUN



15 YEARS SUPPORTING BANGARRA

This year marks Boral's fifteenth year of supporting Bangarra, one of Australia's leading performing arts companies. Boral employees can access discounted tickets to performances of its new national production, *Bennelong*, in Sydney, Canberra, Brisbane and Melbourne. See intranet.boral.com.au/Bangarra or contact Corporate Affairs for details.

SAME QUALITY ON THE INSIDE DIFFERENT LOOK ON THE OUTSIDE

IN STORES NOW



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