

# Environmental and community impacts



Boral Recycling Widemere facility, NSW

## Our approach

**Our policy is to eliminate adverse environmental impacts and where elimination is not possible, seek to minimise any harmful effects from our operations.**

At an absolute minimum, this means complying with environmental legislation, regulations, standards and codes of practice applicable to each of our businesses.

We recognise that effective management of our sites, including complying with our site-based planning approvals, is critical to our reputation and meeting community expectations.

We manage our quarries and land assets responsibly, planning strategically to mitigate and manage our impacts across the full life cycle of our extraction and processing sites – from development applications through to rehabilitation and end-use planning and development.

We are also committed to meeting our responsibilities to the local communities in which we operate. This means managing our operations to avoid negative impacts on local stakeholders and proactively addressing community concerns through open and constructive engagement programs. Operational issues that can impact local communities include traffic, noise, dust, odours, water, waste, quarry end use, and impacts on biodiversity, heritage and culture.

As outlined in Boral's Environment Policy, we are committed to:

- Reducing greenhouse gas emissions from our processes, operations and facilities.
- Reducing waste in all forms including through the efficient use of energy, conservation of water, minimising and recycling waste materials and energy, prevention of pollution, and effective use of virgin and recovered resources and supplemental materials.
- Protecting biodiversity values at and around our facilities.
- Openly and constructively engaging with communities surrounding our operations.

## Community engagement

Our stakeholder engagement programs are underpinned by ongoing communications, consultation and contribution to the local community.

At key sites we have Community Consultation Committees that include elected community representatives which meet with interested residents and stakeholders. We communicate through online information resources, newsletters, mail, advertising, community inspections, community meetings and site tours.

For example, during the year, we held guided tours for the community at our Hall, Talbragar and Seaham quarries in NSW and Orange Grove and Midland Brick quarries in Western Australia. This provides an opportunity for the public to understand our operations, and for Boral to receive feedback on any issues, including our impact on local communities. Government representatives also participated in site tours around our concrete and quarry operations on the Gold Coast, Queensland.

We have been acknowledged as an industry leader in community engagement. This year, we received the Community Leadership Award at the NSW Cement Concrete & Aggregates Australia 2017 Innovation Awards. The award recognised Boral's comprehensive stakeholder engagement program at Marulan that uses feedback from local residents to guide community relations plans, incorporates public reporting on commitments, and is focused on actively contributing to the local community through initiating and organising local events.



Community meeting at Hall Quarry, NSW

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## Environmental compliance

We target zero environmental infringements across our ~680 operating sites and strive to continuously improve our environmental management and performance.

We continue to strengthen our internal controls to improve compliance with increasingly stringent regulatory requirements in Australia, including through an online information management system for environmental licence conditions.

During the year, we conducted 55 environmental compliance audits, developed 89 new site-based action plans and reviewed 246 existing site-based action plans for effectiveness across our Australian operations. Boral North America completed 29 environmental compliance audits, focusing on operations acquired through Headwaters.

Formal regulatory notifications are reviewed by our internal legal and HSE functions and reported to Boral's Executive Committee. Any material issues are reported to the Board HSE Committee, even if no penalty results.

In FY2018, we were charged with six regulatory infringements related to environmental contraventions in Australia and the US that resulted in total fines of \$82,273. The number of infringements and fines is significantly lower than in the prior year despite our substantially enlarged footprint following the acquisition of Headwaters, reflecting an increased focus on compliance.

The infringements relate to non-compliant:

- water quality discharge from the Chinderah concrete plant, NSW
- supply of concrete outside of approval conditions from the Mount Kuring-gai concrete plant, NSW
- use of kiln exhaust at Meridian Bricks JV Salisbury plant, North Carolina
- disposal of solvent wastes at Atlantic Shutters Latta plant, South Carolina

- disposal of solid or viscous materials to sewer at Oceanside roofing plant, California
- permitting of a raw material feed and gas flare at Meridian Bricks JV Terre Haute plant, Indiana.

In addition, we have one set of agreed undertakings relating to vegetation clearing at the Loch Catherine Colliery in NSW.

In November 2016, the NSW Resources Regulator (Regulator) commenced investigations relating to the clearing of approximately one third of a hectare of vegetation regrowth along a pre-existing drift at the Loch Catherine Colliery, which the Regulator deemed to be undertaken without the relevant consent. The Loch Catherine Colliery is located on the same mining lease as Boral's Medway Colliery, although never operated by Boral. While Boral undertook this clearing as part of closure works and on the basis that we held the appropriate approvals, the Regulator deemed that Boral's activities were not permitted.

Boral entered into an enforceable undertaking in relation to this matter that was accepted by the Regulator in March 2018. The Regulator's published decision noted that Boral's actions were neither malicious nor in deliberate contravention of its regulatory obligations. Boral's obligations under this undertaking include training of relevant staff, conducting compliance audits and making a \$50,000 contribution to a conservation project managed by a not for profit organisation. Boral expects to incur approximately \$133,000 in complying with its obligations.

Infringements and penalties	FY2018	FY2017	FY2016	FY2015
Number	6	10	9	3
Fines <sup>1</sup>	\$82,273	\$111,083	\$33,888	\$11,658
Penalties <sup>1</sup>	\$0	\$30,000	\$250,000	\$0
Undertakings	\$133,000	\$133,556	\$0	\$0

1. Fines are directly issued by the Regulator and penalties by a court hearing.

## Biodiversity management

Protecting the diversity of plant and animal species at and around our operational sites is a core component of our land management efforts.

Some examples of the many initiatives to protect biodiversity at our own sites include:

- collaborating with the Royal Botanic Garden Sydney in research on the endangered Illawarra Socketwood population at our Dunmore Quarry in NSW
- partnering with Sleepy Burrows Wombat Sanctuary to capture and relocate wombats found at our Peppertree Quarry in NSW
- maintaining koala fodder plantations at Narangba and Petrie quarries in Queensland
- conservation work to provide habitat for the threatened legless lizard and spiny rice-flower at Deer Park Quarry in Victoria
- construction of a bird island habitat as part of our rehabilitation of wetlands at our Dunmore Quarry in NSW.

Through our community partnership with Conservation Volunteers Australia, we support conservation and education initiatives in our local communities, including native vegetation initiatives in local reserves and schools. Refer to page 39 for more detail.

## Cultural heritage

We are committed to protecting places and items of cultural significance to local Indigenous groups across our Australian operations. We work alongside Indigenous peoples to protect cultural heritage, including across our sites subject to Cultural Heritage Management Plans. Some of this work includes:

- engaging local Aboriginal groups to undertake cultural heritage surveys, including at 13 quarry sites in Queensland
- salvage excavation works at Peppertree Quarry in NSW which were completed in March 2018, with identification of nearly 100,000 Aboriginal artefacts.



Ormeau Quarry, Queensland

## Waste and recycling

Throughout Boral's operations, some materials are commonly re-used back into our production processes, including concrete washout, recycled asphalt pavement (RAP), and plasterboard waste from production and building sites. This beneficially uses materials that would otherwise require disposal.

A large proportion of Boral's recycled and low carbon products revenue, totalling 9% of Group revenue, is derived from external waste products. This includes our Fly Ash and Boral Recycling businesses. Opportunities for the re-use of production by-products or waste material continue to grow and are actively being pursued.

In Boral Australia, we are developing plans and looking for opportunities that will help us firm up targets to reduce waste generated across all product lines over the coming five years.

Boral's businesses deal with only low amounts of hazardous waste, and this is managed in accordance with government regulations.

We only use relatively small amounts of packaging, as the vast majority of our products are delivered in bulk. Boral businesses in Australia that do use some packaging, such as Midland Brick, are signatories to the Australian Packaging Covenant. Boral Cement, through its membership of Cement Concrete & Aggregates Australia, is also a signatory.

## Water management

**Water is a valuable resource and good quality fresh water is essential to our concrete, construction material and plasterboard operations. We use water in manufacturing, and for dust suppression, cleaning and sanitation. Our quarry and asphalt operations are able to use recycled, brackish and/or process water.**

Boral's global operations consumed about 4 gigalitres of municipal supplied water, steady on last year.

At our larger sites, including our quarry operations, we also capture rainfall or stream flow which is largely used for dust control purposes. In Boral Australia, we are developing systems that will enable us to collect data on captured rainfall and are developing plans that will underpin an overall improvement in water efficiency.

At a Group level, management of water is not considered a material risk. Individual Boral sites may, however, be exposed to water risk from time to time, either from too little or too much water, and we assess the potential impacts on our stakeholders of water-related risks where this is relevant.

Most of our Boral North America operations have federal or state government stormwater management permits with very stringent limits. To reduce the risk of non-compliance, we have been implementing a program of upgrading stormwater management infrastructure.

Across the Group, a relatively small amount of used process water is discharged to sewer for treatment by water authorities in line with our existing licensing conditions at relevant sites. We have well established internal compliance systems for prevention of pollution of discharged waters, as well as numerous regulatory controls through licensing and permitting.

In recent years, we have had several penalties regarding water discharges. These are largely traceable to rainfall deluge events, which we are moving to better respond to as part of our approach to climate-related risks.

When developing or purchasing new facilities, our due diligence assessment includes scenario analysis of the quantity and quality of water, assessment of the risks of potential water discharges, and, where relevant, river catchment assessments to ensure sufficient water availability and supply.

## Berrima Colliery closure

Our Berrima Colliery in the Southern Highlands of NSW ceased coal extraction in October 2013, after nearly a century in operation.

The colliery was placed in care and maintenance mode while Boral works on an agreed closure plan process with the local community, local council, NSW Environment Protection Authority (EPA), NSW Resources Regulator, as well as other relevant state and local agencies.

This process includes ongoing monitoring and testing of groundwater that naturally runs through the disused mine, and water quality in the Wingecarribee River, upstream and downstream of the mine's licensed discharge point.

To reduce higher concentrations of naturally occurring minerals evident at the discharge point since mining ceased, since December 2017 we have been trialling an underground water treatment system following consultation with the

EPA. This has resulted in a noticeable improvement in the visual appearance of the Wingecarribee River downstream of the discharge point, and is returning indicators closer to longer-term levels.

We continue to work closely with the EPA and other relevant agencies – and with the local community – to develop an agreed closure plan for the old colliery, and to help with this, we have recently expanded the existing Closure Working Group to include additional community representatives.