

Environmental impacts



We are committed to minimising our environmental impacts so that our business is sustainable for the long term.



We work to mitigate our environmental impacts from our operations, and wherever possible, eliminate them altogether.

Across our operations, we focus on meeting our responsibilities and the expectations of our stakeholders, including our local communities.

In addition to reviewing science-based emissions targets, we are also advancing a range of new business-level plans and targets. These focus on improving water efficiency, reducing waste generation and increasing use of recycled materials in our products.

Environmental compliance

Typically, we aim to perform better than legal requirements, but at a minimum, we seek to comply with environmental legislation and regulations relevant to the particular business.

Our environmental management systems and compliance programs are designed to accommodate local environmental requirements and business variations.

Operational teams are responsible for compliance with environmental regulations, with specialist functional support provided.

In Boral Australia, we manage compliance obligations through an information management system that covers environmental requirements and regulations. We will be implementing similar new systems in Boral North America and USG Boral in FY2021.

During FY2020, we conducted 66 internal environmental compliance audits in Boral Australia and 18 in Boral North America, and initiated corrective actions based on audit findings.

We conduct a range of compliance activities across the Group, focusing on stack emissions and dust control. We also audit burners and dust control equipment annually.

The Group HSE function completed additional audits across all three divisions in FY2020. These focused on environmental planning and objective setting, environmental compliance and risk management, and environmental assurance processes. Site verification audits were conducted across a selection of 13 Boral sites.

Environmental infringements

During the year, we received 11 infringement penalties across the Group, totalling \$53,576. Eight related to non-compliance in administrative arrangements, rather than causing environmental impacts. Of these, three penalties related to one matter at our Terramungamine Quarry, in NSW.

The three other infringements related to:

- releasing water from a former coal cleaning site, exceeding licensed discharge limits in Kentucky, USA, in 2017
- releasing dust from Berrima Cement Works in NSW due to a failed filter bag, and
- releasing sediment-laden water from our Maclean concrete plant in NSW.

In November 2019, Boral received a Clean-Up Notice from the Environment Protection Agency (EPA) Victoria to remove an oily substance found at the Paisley-Challis Wetlands in Williamstown. Boral cooperated with the EPA to implement the clean-up, which was largely completed in January 2020. The EPA continues to investigate the matter.

Environmental impacts (continued)

Water

Water is an essential resource for our operations. We use it in manufacturing, for dust suppression, and in cleaning and sanitation.

Many of our operations use recycled water in their production processes, including for concrete, plasterboard, quarry, asphalt and some building products. While the proportion of recycled water used at our operations varies, it can be as high as 100%.

In FY2020, we used about 4 gigalitres of municipal water, in line with the prior year. The majority of our municipal water use is in concrete and plasterboard production.

Over time, we have expanded the use of site-captured rainwater, supplementing our municipal supply. At our larger sites, including our quarries, we capture rainwater that is often the primary source of water and is largely used for dust control.

Across the Group, we focus on improving water consumption per unit of output. We are developing and refining plans and targets to deliver efficiency improvements, particularly in geographic areas of potentially high water stress.

Water quality

We work to comply with stringent environmental regulations on the quality of water discharges and stormwater management to avoid adverse impacts on local water bodies. We have well-established internal compliance systems, and regulatory controls through licensing and permitting.

Infringements and penalties	FY2020	FY2019	FY2018	FY2017
Number	11	9	6	10
Fines ¹	\$53,576	\$38,820	\$82,273	\$110,083
Penalties ¹	\$0	\$0	\$0	\$30,000
Undertakings	\$0	\$0	\$133,000	\$133,556

Across the Group, a relatively small amount of process water is discharged to sewers for treatment by water authorities, in line with our existing licensing conditions at relevant sites.

When building or acquiring new facilities, our due diligence process includes assessing the risks to water quality from site discharges. We also ensure sufficient water availability and supply, which may require assessing river catchments.

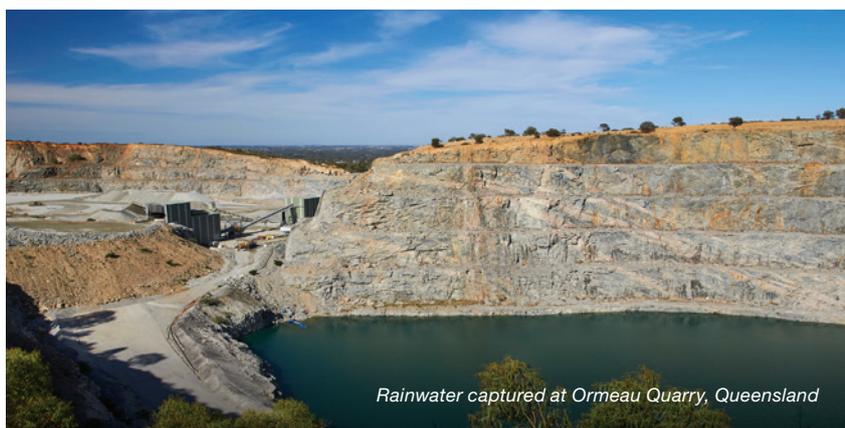
Waste

Throughout Boral's operations, we re-use materials in our production processes, including concrete washout, recycled asphalt pavement, plasterboard waste, process water from our production facilities and quarry by-products.

We are exploring additional opportunities to further reduce waste in our operations and build capacity in the recycled products space, including through re-using production by-products and waste materials. See pages 51–52.

We 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 are signatories to the Australian Packaging Covenant or fulfil the requirements of state regulations.

Boral's businesses generate only small volumes of hazardous waste (such as waste oil) and this is managed in accordance with government regulations.



Rainwater captured at Ormeau Quarry, Queensland

Water stress review

During the year, we completed a risk review of water stress across our Quarries business. The review, undertaken with the assistance of Griffith University in Queensland, focused on understanding water availability and consumption across the 67 quarries we operate in Australia.

This work resulted in 22 quarry sites being categorised at high risk of water stress.

The Quarries business is working with Boral's HSE team to investigate measures to mitigate the future risk of constrained water supply. This includes seeking alternative sources of water and adopting technology improvements and/or process changes, particularly focusing on higher risk sites.

1. Regulators issue fines and the courts issue penalties.
2. See note 3.6 of the financial statements in the 2020 Annual Report for details of the provision for anticipated future costs associated with remediating and rehabilitating sites, based on our estimate of associated costs.

Land management, rehabilitation and remediation

Due to our substantial land footprint across a broad geographic region, responsible land management is an integral part of how we operate.

For each of our extraction and operating sites, we carefully plan to mitigate any adverse environmental impacts – from development applications and operational land use through to rehabilitation and end-use planning and development. Boral's dedicated Property and Environment teams work closely with our operations to ensure we evaluate our environmental rehabilitation and remediation obligations, and address them in a responsible manner.

These obligations relate to future rehabilitation of sites, or clean-up of legacy contamination issues, at the appropriate point in the life cycle of these operations. They enable the ongoing use of the relevant land, which may include recreational land use, industrial property or a higher value end use.²

Biodiversity

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

Our Quarries business has the highest potential to enhance or adversely impact biodiversity. The business owns or leases approximately 12,000 hectares of land, with about 30% of this land disturbed through our operating activities.

All greenfield sites or expansions to existing operations undergo comprehensive internal and – where required – external assessments to identify biodiversity risks. When we identify risks, we address them through a range of mitigation activities such as offsets (either on- or off-site) and biodiversity area enhancements.

We identify biodiversity risks associated with new operations through our due diligence processes, and address them via environmental assessment and management controls.



Rehabilitation at Dunmore Lakes, NSW

Biodiversity obligations that are integrated into site permits are audited under Boral's environmental audit program to verify that we are meeting our commitments. We have management plans in place for all sites identified as having biodiversity values. These are in accordance with relevant site-specific, regional and national requirements.

Air quality

We have rigorous systems and processes to minimise air emissions across our operations. These are tailored to the type of operation and site-specific regulatory requirements.

Where we have identified that air emissions may occur, our operations install engineered and procedural controls. These range from scrubber and filtering systems at major manufacturing sites (such as cement,

brick or plasterboard manufacturing), to simpler dust suppression measures (such as water sprinklers) that are typical of quarries and concrete-batching plants. See page 30 for our approach to dust management.

Where relevant, Boral's operations have either continuous or scheduled air quality monitoring programs. Data is available to local communities through regulatory reporting or stakeholder engagement programs.

When we exceed regulatory limits, we report these instances to relevant authorities. We also address the underlying causes to ensure we maintain ongoing emissions within appropriate levels.

At a national level, Boral reports data on various emissions to the National Pollutant Inventory and the National Greenhouse and Energy Reporting Scheme in Australia.

Biodiversity offset project

In FY2020, Boral acquired a vacant block of land near our Marulan South Limestone Mine as a biodiversity offset project.

We are working with the NSW Government to enter into a Biodiversity Stewardship Agreement under its Biodiversity Offset Scheme to protect and conserve the vegetation on the 1,007-hectare property in perpetuity.

This scheme provides annual funds to assist landowners to actively manage their land for conservation. Boral plans to generate biodiversity credits at the site to offset the clearing of native vegetation at Marulan South Limestone Mine and Peppertree Quarry. Credits will be generated for a number of vegetation communities.