



# Gove Operations 2011 Sustainable Development Report

## Our people, our operations, our community

The 2011 Gove Sustainable Development Report outlines key aspects of our performance in the areas of people, planet and prosperity. This report is produced to help interested stakeholders understand more about our operations, impacts and improvements initiatives.

### About Pacific Aluminium

Pacific Aluminium is a world leader in quality aluminium products. Our bauxite mine, alumina refinery and smelter operations in Australia and New Zealand give us the advantage of being a fully integrated aluminium business. Pacific Aluminium produces more than one million tonnes of aluminium each year, making us one of the largest aluminium businesses in the world.

Formed as a new Rio Tinto business unit in 2011, the success of Pacific Aluminium is founded on a deep commitment to safety and operational excellence.

### About Gove Operations

Gove Operations bauxite mine and alumina refinery is located on the remote Gove peninsula in the east Arnhem Land region of Australia's Northern Territory. From this remote location we supply bauxite and alumina to the global aluminium industry.

The operation includes a mine, refinery, residue disposal area, steam power station, port and ship loading facilities.



Gove Traditional Owner Agreement celebrations

### Health, safety and environment (HSE)

Excellence in managing HSE risks is key to our long term success. We are committed to minimising harm to the environment and safeguarding the health and safety of our people. Our goal is zero harm.

### Commitment to our community

We aim to develop long lasting, mutually beneficial partnerships with the community in which we operate. Through our Community Assistance and Partnership program, we provide financial and in-kind support for programs, events and partnership that contribute to the sustainable development of the Gove region.

### Sustainable development

Our approach to sustainable development focuses on people, planet and prosperity. Our strong governance systems provide the framework in which our business operates. It ensures sustainable development is an integral part of our business plans and decision making processes.

### Feedback

We value your input. If you have any questions or feedback please contact us;  
 Email: [govecommunities@pacificaluminium.com.au](mailto:govecommunities@pacificaluminium.com.au)  
 Post: Gove Operations, Po Box 21, Nhulunbuy, Northern Territory, 0881, Australia  
 Phone: 1800 996 508



Refinery operations



Environmental monitoring



Mining operations

## People Enhancing social wellbeing

Area	2010	2011	2011 target	target met	2012 target
All injury frequency rate (AIFR)*	1.13	0.84	0.9	✓	0.72
Total employees	851.5	929.4	931.8	✗	922.3
Total female employees	91	102	93	✓	92
Total Indigenous employees**	101	110	110	✓	110

\* All Injuries (AIs) includes an injury that requires medical treatment. We use the all Injury Frequency Rate (AIFR) to convert the number of AIs into a figure that is easier to understand. The AIFR represents the average number of AIs per 200,000 manhours (equivalent to approximately 100 employees) per year.

\*\* Includes core contractors

- In 2011 we continued to reduce our AIFR by approximately 25 percent. This was due to the implementation of new HSE initiatives and embedding sustainable safety tools.
- The second phase of the Wellness Program was implemented including the introduction of Health Risk Assessments.
- 346 Crew Projects were registered and 223 completed during 2011

### HSE Crew Projects

'HSE Crew Projects' is an initiative aimed at encouraging work crews to take an active role in improving HSE in their workplace.

Since its introduction in 2009, the number of implemented projects has increased every year with 2011 seeing a record number of projects registered (346) and completed (223). During 2011 the program was also rolled out to contractors across site.

Individual crews are responsible for the project from inception to completion, taking charge of all aspects from initial brainstorming to assessing risk and applying for funding. As of January 2011 all crews completing a project are able to nominate a community group to receive a donation of \$100.



Materials Handling V Crew accepting their award for Best Overall Crew Project at the HSE Crew Projects Gala Dinner

### Return To Work Program

Following a successful intake of Return To Work trainees in 2010, the program was offered for a second time in 2011. Designed to build confidence levels, gain workplace familiarisation and build staff retention, the program is offered to those who have been out of the workforce for an extended period of time or have English as a second or third language. Seven trainees were accepted for the year with one trainee accepting a full time position in the Maintenance and Engineering department and other trainees gaining employment with local businesses.

### Wellness Program

Programs that promote a healthy lifestyle provide benefits to the business including reduced injury risk and financial costs. In recognition of this, the implementation of personal Health Risk Assessments (HRAs) formed one of the HSE team's strategic projects for 2011.

The HRA is a screening tool to check an individual's current level of health and assist in identifying potential health risk factors. During 2011, HRAs were run as a group session during monthly Sustainable Safety Meetings.

Each session takes approximately two hours and includes a health questionnaire, blood sugar testing, blood pressure testing, strength assessment, information session and a personalised report.

## Planet Minimising environmental footprint

Area	2010	2011	2011 target	target met	2012 target
Energy intensity (GJ/t Alumina)	10.9	10.3	10.4	✓	10.12
Total fresh water (ML)	10,475	10,643	10,050	✗	10,300
Serious environmental incidents	2	1	2	✓	1
Total mine land rehabilitation (ha)	0	135.2	140	✗	108.5
Total mine land disturbance (ha)	147	154.2	150	✗	155

- Rehab fell just short of target due to changes to the mine plan and subsequent overburden movements.
- While the plant fresh water consumption decreased, the town, communities and mine water consumption increased.
- One serious environmental incident was recorded which involved exceeding a licence after heavy rainfall in December.
- Tank integrity issues from 2010 lead to an increased focus on maintenance and inspections throughout 2011.
- During 2011 the Liquor Management Strategy was reviewed and communicated with relevant stakeholders. The Residue Disposal Area (RDA) Pond 6 South wall and Pond 8 stage two was completed.

### Waste Water Neutralisation Project - Rapid Reduction

During the production of alumina, waste water is produced. The waste water stream is alkaline due to the use of caustic in the production of alumina. The waste water is normally recycled to wash the red mud residue that remains, but when the demand for wash water is low, the excess waste water is stored in large, engineered ponds where it can be later recycled back through the Refinery. Over the last decade the inventory in our ponds has built up due to process issues and the large volume of rain experienced during the wet season.

To reduce the volume of waste water in the ponds Gove Operations undertook research in 2011 to enhance recycling and improve the treatment processes of the waste water stream. This project is the Waste Water Neutralisation Project - Rapid Reduction (WWNP RR). The waste water can be safely treated with the use of sea water which lowers the pH and also strips out metals in the form of a white solid (hydrotalcite). The output from the WWNP RR process is salty effluent that is safe to discharge to Melville Bay via our sea water channel. The hydrotalcite will be filtered and stored with red mud residue in the ponds.

Consultation with the Department of Resources, Department of Natural Resources, Environment the Arts and Sport, local Traditional Owners and members of Gove Operations Community Engagement Forum took place during the development of this project. This project has been approved for construction and it is expected that it will be commissioned in December 2012.

The Waste Water Neutralisation Pilot Plant



### Gove Harbour Marine Monitoring

The remote location of Gove Operations makes Gove Harbour the primary access point for the importing and exporting of raw materials and products. Approximately 130 ships enter the harbour per year, carrying around 50,000 tonnes of material each and delivering products such as alumina all over the world. The ships are constantly moving through international waters and foreign ports so there is a risk of transporting marine pests. These marine species have the potential to significantly impact the environment.

Regular monitoring is critical for the early detection of marine pests. On behalf of the Northern Territory Fisheries Aquatic Biosecurity Unit, Gove Operations environmental team deploy and collect settlement plates and rope mops to attract juvenile marine plants and animals around the export wharf. The traps provide a place for the juvenile plants or animals to grow. These traps are left in place for six months before being recovered and sent to the laboratory for species identification. In the latest round of sampling no marine pest species were identified.

## Prosperity Maximising economic prosperity

Area	2010	2011	Increase
Refinery production (alumina '000 tonnes)	2,473	2,549	76
Mine production (bauxite '000 dry tonnes)	7,190	7,246	56
Employment contributions (\$m)	133	149	16

### Community Investment

We promote active partnerships that are based on mutual commitments, trust and transparency. Our Community Assistance and Partnership program (CAP) consists of partnerships to support significant self-sustaining projects and financial assistance for smaller projects valued between \$500 and \$5000.

Contributions of more than \$1.5M (including in kind support) were made to communities and organisations in 2011. This included but was not limited to:

- Education (\$486,140) including programs designed to support Indigenous traineeships and a partnership with NT Smart Schools program
- Health (\$26,000) including support for Gove Variety and other local health initiatives
- Environment (\$141,000) including a partnership with Dhimurru Aboriginal Corporation
- Cultural (\$225,000) including support for Garma Festival with Yothu Yindi Foundation and partnership with NT Museum for a Cultural Centre
- Sport and Recreation (\$71,000) including support for a charity mountain bike ride from Nhulunbuy to Jabiru
- Business and Regional Development (\$27,025) including support for Traditional Owners (Gumatj and Rirratjingu Groups)

In addition we have provided in-kind equipment and accommodation support, assistance for a community bus service and electricity subsidies.

### Traditional Owner Agreement

During 2011, Gove Operations welcomed a new era in sustainable development with the signing of the historic Gove Traditional Owners Agreement with Gumatj, Rirratjingu and Galpu Traditional Owners, the Northern Land Council and the Arnhem Land Aboriginal Land Trust.

The Agreement runs for 42 years and contains mutual obligations that will benefit both Gove Operations and the Traditional Owners affected by the Gove Operations lease. Mutual commitments include contracting and business development opportunities, employment and training initiatives and a collaborative approach to environmental and cultural heritage management.



The Agreement signing

### Suggestion & Question Scheme

Gove's Suggestion & Question Scheme ran throughout 2011 encouraging innovative contributions from employees to improve the business as well as provide financial benefits to the community.

Suggestions to the scheme cover four business categories: Production Improvement, Waste Elimination, Cost Saving and Innovation. For every implemented suggestion the business contributes a \$100 donation to a local community group nominated by the employee. During 2011, accepted suggestions contributed \$9,750 to the local community. In addition to operational and safety improvements, implemented suggestions included improved crib room facilities, the donation of obsolete uniforms to a Nhulunbuy Neighbourhood Community Group and the reconfiguration of the refinery entrance in order to avoid morning traffic congestion.

The Gove Suggestion & Question Scheme will continue in 2012 with a particular focus around waste elimination.