ASSET MANAGEMENT

**DBS** 

OPEN CUT MINING

**CIVIL PROJECTS** 

EXPLORATION DRILLING

2014-2015 Downer Mining

# Sustainable Development Report

**OTRACO** 

UNDERGROUND MINING

**OTRECYCLE** 

**SNOWDEN** 

**REGEN** 



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# Our **Business**

## Downer

Downer EDI Limited (Downer) is a leading provider of services to customers in markets including: Transport Services; Rail; Mining; Utilities Services; Technology and Communications Services; and Engineering, Construction and Maintenance.

Downer builds strong relationships of trust with its customers, truly understanding and predicting their needs, and bringing them world-leading insights and solutions.

Downer employs about 20,000 people across more than 200 sites and projects, mostly in Australia and New Zealand, but also in the Asia-Pacific region, South America and Southern Africa.

# **Downer** Mining

**Our Vision:** To be the preferred provider of quality mining services throughout the regions in which we operate.

We have been successfully delivering contract mining and civil projects to an impressive list of global customers for over 90 years. We are now one of Australia's leading mining contractors, with revenue in FY2015 of \$1.59 billion. We have around 3,500 employees at around 60 sites in Australia, New Zealand, Papua New Guinea, South America and Southern Africa, and work-in-hand of \$3.1 billion (as at 30 June 2015).

An essential part of our business strategy is to support our coal and metalliferous mining customers at all stages of the mining lifecycle. We do this through the provision of a wide range of services including:

- Open cut and underground mining, including mine planning and design
- Blasting services (through our subsidiary DBS)
- Tyre management (through our subsidiary Otraco International)
- Asset management mining fleets
- Civil projects mine site infrastructure
- Crushing
- Exploration drilling
- Mine reclamation and land rehabilitation (through our ReGen business)
- Consulting, software and training for the mining industry (through our subsidiary Snowden)
- Aboriginal and Torres Strait Islander training and development.

# Our **Sustainability** Commitment

Our approach to sustainability reflects our leading value of Zero Harm. We put health and safety first, are environmentally responsible and provide support to our host communities. In reporting our sustainability performance, we include not only our impact on the environment and our people but also our efforts to ensure that the broader economic contributions of our operations benefit the regions in which we operate. Regardless of where we work or what we do, we strive to create a working environment that is free from injury and illness.

# A Message from our CEO

Relationships creating success – the new tagline adopted by Downer during the year – perfectly summarises the reason for Downer Mining's sustained leadership in the mining services sector.

Like many in the mining sector, our performance in the past financial year was affected by adverse economic conditions in our key markets. Nonetheless, we achieved solid results in all areas of our business. We have been able to achieve this by working alongside our customers, understanding their needs, increasing our efficiencies while still remaining competitive in the market and obtaining the best value for our customers.

Nowhere are successful relationships more imperative than with our own people and in the mateship essential for our outstanding Zero Harm culture. Focussing on employee engagement through critical risk identification has resulted in a Total Recordable Injury Frequency Rate (TRIFR) of 3.2 for FY2015; a 21.9% decrease on our

Our Enhancing Workforce Health program has also gone from strength to strength, picking up another two State industry health awards for Healthy Lifestyle programs and mental health interventions introduced to our offices and mine sites.

Thanks to our robust governance processes and Environmental Management Systems we maintained our zero environmental fines and prosecutions record for FY2015. Environmental competency and awareness improvements included the roll-out of a targeted, project-specific training program, to ensure that all Supervisors are aware of their environmental responsibilities. We also continue to focus on identifying operational efficiencies to reduce our energy consumption and greenhouse gas emissions across our operations.

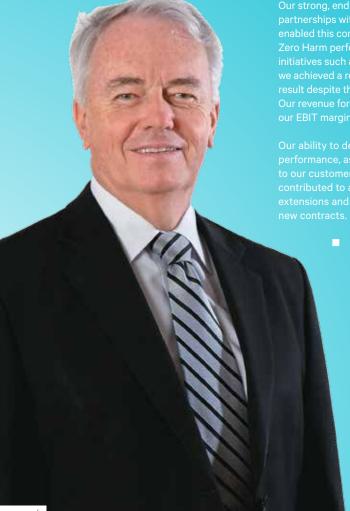
Our strong, enduring, collaborative partnerships with our customers not only enabled this continual improvement in our Zero Harm performance by supporting initiatives such as these, it also ensured that we achieved a respectable FY2015 financial result despite the unstable market conditions Our revenue for the year was \$1.59 billion, and our EBIT margin reduced slightly to 8.3%.

Our ability to demonstrate sustained performance, as well as our responsivenes to our customers' changing requirements, contributed to a number of contract extensions and renewals, as well as new contracts.

We expanded our contract with Fortescue Metals Group (Fortescue) to perform mining services at Christmas Creek iron ore mine until September 2016. The revised contract was valued at approximately \$720 million.

- Our long-term relationship with BMA secured us a \$100 million two-year contract extension for mining services at their Blackwater coal mine in the Bowen Basin in Queensland. In addition to this, our focus on diversifying our service offering won us a two-year \$60 million contract for the maintenance of haul truck fleets at two other BMA Bowen Basin mines, Peak Downs and Saraji.
- We won a two-year, \$70 million new contact with Glencore at their CSA copper mine in Cobar, New South Wales, to carry out development mining and shotcrete application.
- Adani Mining issued us with two Letters of Award advising of their intent to enter into contracts for the provision of mining services and the construction of minerelated infrastructure at the Carmichael coal mine in the Galilee Basin, Central Queensland. These contracts are expected to have a combined value in excess of \$2 billion over seven years.
- We are pleased to be continuing one of our longest-lasting partnerships, with AngloGold Ashanti Australia at Sunrise Dam gold mine, with a five-year contract extension worth approximately \$125 million for run of mine and ore rehandling services. This contract is a joint venture with Aboriginal mining contractor, Carey Mining.
- Collaboration with Aboriginal contractors also underpins the operating philosophy of ReGen, our land rehabilitation and mine closure business, which, during the year, completed surface water management works for Fortescue at Christmas Creek in a joint venture arrangement with Aboriginal construction company, Karlayura Enterprises.

Increasing the number of Aboriginal and Torres Strait Islander people who work with us remains a very important objective. In FY2015, 4.8% of our people were Aboriginal or Torres Strait Islander, and this remains well above the average rate in the resources



# Our Values

**ZERO HARM** 

INTEGRITY AND ETHICAL BEHAVIOUR

**COOPERATION AND TEAMWORK** 

**VALUE CREATION AND CLIENT RELATIONSHIPS** 

**OUR PEOPLE ARE OUR ADVANTAGE** 

INNOVATION

industry. We have, however, set ourselves a renewed target of 6% by 2020.

In addition to increasing the number of Aboriginal and Torres Strait Islander employees, our Downer Mining Diversity Group, which I chair, will pursue opportunities to leverage our workforce diversity – for example, through greater engagement with local schools – to help us reach 18% female participation by 2020.

We continue to encourage our people to positively contribute to the communities in which we operate and, as a consequence, we have seen a marked increase in employee volunteering during the year. Those that have become involved have played an important role in ensuring that our commitments to charity and community organisations have become far more than a 'cheque handover' by developing into true partnerships.

In the year ahead we will continue to pursue new ways to expand and diversify our business and its service offerings to customers. For example, we are continuing to consult with our customers to progress our Otrecycle project, which will offer a low-risk, environmentally friendly solution for the recycling of mining tyres and other industrial rubber products. We are also looking at several opportunities to take our open cut and asset management capabilities overseas.

We could not have achieved all that we did in the past year were it not for the resilience, determination and smart thinking of our people, and our customers' continued confidence in the value that we bring to their operations. I am extremely grateful for your continued support, and the open and honest relationship we share that shapes the culture of Downer Mining.





**David Overall**Chief Operating Officer





### **Our safety performance**

In FY2015, our TRIFR reduced to 3.2 injuries per million hours worked – a 21.9% decrease from FY2014 and our best result on record. Our LTIFR at 0.54 remained well below our target of <1.0 but increased slightly on the previous year's result.

There were no workplace fatalities nor fines or prosecutions in any of our Downer Mining business units.

While our TRIFR performance is industry leading, it still means that 29 of our colleagues required treatment by a doctor as a result of workplace injuries. Our commitment to our workforce is that we will further improve how we organise work so that there are fewer injuries in our business.

A key underpinning process to this commitment is our focus on High Potential Incident (HPI) reporting and investigation, and the implementation of improvements to prevent recurrence. In FY2015, we continued to monitor the close-out of actions arising from HPI investigations and achieved 99.7% close-out within the assigned 50-day timeframe.

During the year we also introduced milestone performance indicators to monitor the progress of our Employee Resilience Plan. Our employee resilience goals cover both physical and mental health, including the provision of direct support and assistance, and opportunities for employees to self-assess their lifestyle choices. We also continue to work with our injured employees to assist in their rehabilitation and early return to work.

Indicator	FY2015 Target	FY2015 Actual	Performance Against Target	Trend (↑) Positive (↓) Negative	FY2016 Target
Employee Resilience Plan	Meet milestones in Employee Resilience Plan	100%	<b>⊘</b>	New Indicator	Meet milestones in Employee Resilience Plan
Close-out of High Potential Incidents (HPIs) and injury-related incidents within required period <sup>1</sup>	100%	99.7%	×	•	95%²
Total Recordable Injury <sup>3</sup> Frequency Rate (TRIFR) <sup>4</sup>	≤5.0	3.2	<b>⊘</b>	•	≤5.0
Lost Time Injury <sup>5</sup> Frequency Rate (LTIFR) <sup>4</sup>	≤1.0	0.54	<b>⊘</b>	•	≤1.0
Fines and prosecutions	0	0	<b>⊘</b>	=	0
Fatalities	0	0	<b>⊘</b>	=	0

1. Within 50 days of due date
2. Within 45 days of due date, not including injury actions
3. Includes medical treatment injuries, lost time injuries and fatalities
4. Per one million man hours worked
5. All injuries where more than a full shift was lost

### Understanding and controlling the risk

Every day in every part of our business our people apply practical processes to identify, understand, control and eliminate risks. An ongoing goal in our Zero Harm Plan has been to review and further improve these processes, focussing particularly on HPIs, the controls necessary for their prevention and the monitoring of the performance of these controls.

The appropriateness of this approach to controlling critical risk was confirmed by the release of the *Health and safety critical control management: good practice guide* by the International Council on Mining & Minerals (ICMM) in April 2015. The ICMM is an industry body created by leading resource industry companies and governed by the CEOs of many of our customer companies. This guide reinforces that our planned approach of concentrating on

the practical implementation of workplace controls is aligned with industry good practice.

the practical implementation of workplace controls is aligned with industry good practice

MANAGING YOUR
CRITICAL RISKS

BEFORE YOU START A TASK, STOP AND ANSWER
THE FOLLOWING FOUR IMPORTANT QUESTIONS:

What specifically could harm or fatally injure me or others as I carry out my work?

What are the controls that stop this from happening?

What is my role in maintaining these controls?

What will I do if I think these controls are not working?

What will I do if I think these controls are not working?

While this systems-level work is being undertaken, we have continued to reinforce practical risk identification and controls assignment in all of our workplaces using the four questions pictured above right. These questions have been designed to give our people accountability and confidence in identifying, eliminating and controlling critical risks, and they have been rolled out and reinforced across all our sites.



**228** people completed the **HSE Leadership course** in FY2015

**85% of Supervisors** have completed the course ir the past 24 months





# Equipping our supervisors with Zero Harm capabilities

Our Zero Harm outcomes are primarily delivered by our frontline supervisors. We therefore continue to strengthen their capability and assist their progress so that they can realise their full potential and deliver the required business results.

Our leaders participate in a series of supervisor training programs within our Supervisor Capability Framework<sup>6</sup>, which includes an HSE (Health, Safety and Environment) Leadership course. During the year, 228 employees completed this core training, which provides the knowledge and support they need to lead at our project sites.

# Tyre technology provides increased safety

In an Australian-first for the tyre management industry, our tyre management business, Otraco, received two very exciting and innovative deliveries in FY2015 – a Super Jack and a Multi Handler. These new pieces of equipment are not only at the cutting edge of tyre and truck maintenance solutions, they also allow our fitters to perform their tasks in a safer environment; all while greatly increasing productivity for our customers.

The Super Jack is a self-propelled machine that is driven under the haul truck to jack up either the front or rear axle in one go in preparation for a tyre change or service, eliminating the need to use a manual jacking device.

The Multi Handler is designed and manufactured to facilitate the removal and installation of truck final drives or wheel motors, eliminating the use of cranes in the workshop. This highly manoeuvrable device is remote controlled and has a heavy-duty frame that holds up to 50 tonnes, allowing the wheel motor to rotate on cradle cams. It has all-wheel drive with aggressive traction tyres. Optional equipment can also be attached to the Multi Handler to allow for the safe removal of the front and rear struts and main body hydraulic cylinders.

# Roy Hill eliminates high-risk activity

Our Roy Hill team identified a clever way to change the drill rods on its Atlas Copco Pit Viper blasthole drill rig fleet, increasing safety, reducing cost and increasing overall productivity.

Although the traditional method of using cranes to change the rods had been working effectively, the team believed they could find a way of ensuring that the job was even safer.

By using a rod-handler to change drill rods, the team has eliminated the risk of working at heights, reduced the time taken to do the job by three hours, and, as a result, provided a direct cost saving to our customer.



Over 3,500 blankets were distributed to Downer Mining employees in early 2015 to raise awareness of the importance of managing critical risks in the home as well as in the workplace.

# Critical risks aren't limited to the workplace

We put a significant amount of time and effort into identifying and developing responses to the critical risks in our workplace, but do we do the same in our homes? You only have to watch the television news in wintertime to see that one of the major risks in our homes is fire.

According to the Queensland Fire and Emergency Services in October 2014, house fires had claimed 80 lives in the State in the past five years, with 2,500 fires recorded during winter and 44% of fires occurring within the kitchen area.

And so we posed the question to our employees: 'What would you do if a fire broke out in your home?' To ensure that they knew how to respond correctly, we provided the correct advice, as well as a fire blanket to take home and training on how to use it.



er Health Shaun Smith, pictured with The Hon. Anthony Roberts MP, receiving the Health yard at the NSW Minerals Council Health, Safety, Environment and Community Awards.

### Focussing on the health of our people

Our industry-leading Enhancing Workforce Health program has received two further accolades, winning the People Category at the Chamber of Minerals and Energy of Western Australia's 2015 Safety and Health Innovation Awards and the 2015 NSW Minerals Council Health Excellence Award. The program previously took out the 2014 Queensland Mining Industry Health Program Award.

Enhancing Workforce Health is a structured, holistic occupational health program based on the risks that poor health poses to employee safety. Through a commercial research partnership with Queensland University of Technology's (QUT) Institute of Health and Biomedical Innovation, we have been able to work with internationally recognised experts to develop a diversified, continuousimprovement approach to managing our priority health risk areas: obesity and nutrition, musculoskeletal disorder and mental health.

We recognise that the mining industry offers one of the more challenging working environments in Australia and, as such, it experiences one of the nation's highest rates of mental health conditions among employees. It has, therefore, been a critical area of focus for us in the past few years and will continue to be so in the future.

During the past year, our two in-house Regional Health Advisors - Employee Support (who between them have over 30 years of clinical experience) underwent training to become accredited instructors to deliver specialised training to our employees as part of the Mental Health First Aid (MHFA) Australia program. The MHFA course provides training in how to recognise the signs and symptoms of mental health problems, as well as how to give the

appropriate support and take action in a crisis situation. It is the only internationally recognised course of its kind and has so far been rolled out in 26 countries.

The course has been introduced as a compulsory component of the Supervisor Capability Framework, as well as being mandatory for employees at a Superintendent level or above. We have already delivered MHFA training to over 90 of our employees.



Karara was one of the first sites to complete the specialised MHFA training course. Pictured here are Karara Training Coordinator Wayne Kendrick, Regional Health Advisor – Employee Support Natasha Palethorpe, Maintenance Supervisor Greg Brown, Maintenance Planner Sarel Bacon, Project Manager - Innovation Mandy Fleming, Drill & Blast Supervisor Grant O'Hehir and Regional Health Advisor – Employee Support Donna Viner.

### Not hitting snooze on fatigue management

During FY2015, we refreshed our procedures around fatigue management, and what resulted was a leading-practice solution that has now been implemented across our sites.

The change came about as a result of a review of changed rosters at our Boggabri project from 4 days on/5 days off, 5 days on/4 days off to 7 days on/7 days off. Although the new roster brought with it lifestyle and productivity benefits, there were concerns about the increased risk of fatigue.

As a result, we rolled out a fatigue training refresher package to all employees on site. We also brought together a group of specialists comprising internal Health and Safety representatives and external fatigue experts. Together they examined our fatigue data and looked at what we could do to better manage the potential increased risk of fatigue.

We now have a new, evidence-based suite of fatigue management documents and processes. They include a self-assessment tool for employees on night shift, who rate their fatigue levels as green, amber or red. They are contacted regularly throughout their shift by a site dispatch officer or Supervisor, whom they will advise whether they are fit for work (green), showing minor signs of fatigue but fit to continue (amber), or feeling fatigued (red).

If they are 'red', their Supervisor will immediately conduct a fatigue assessment, and together they will agree whether the employee should take a short break, be temporarily redeployed to other duties or go back to their room to rest. Our 'no shame' approach to fatigue management is just another part of our positive safety culture.



### Taking action – healthy lifestyle intervention programs

Since 2009, our team at Boggabri has been implementing a range of health promotion campaigns to combat employee health issues, such as smoking, obesity, depression and heart disease. In 2014, they employed an accredited exercise physiologist as a full-time Lifestyle Coordinator to work with our corporate Health team and QUT to develop and deliver a range of innovative health promotion activities to the Boggabri workforce and their families.

Boggabri also held a family health festival on site, where for two days employees and their families had the opportunity to have their blood pressure checked, receive healthy eating tips from a qualified dietician and have a DEXA scan, which accurately measures the body's lean muscle, fat and bone mass to identify areas for improvement.

After the festival, 20 volunteers signed up to participate in a 12-week, self-managed, healthy lifestyle program that consisted of dietary and mild exercise components, as well as regular consultations and testing with the Lifestyle Coordinator and local dieticians.

Participants were provided with a heart rate monitor and a food journal, and had to record and track their daily dietary and exercise data using a web-based portal.

This research-based intervention produced great results with respect to diet, weight management and fitness levels. On average, the volunteers saw a 9% body fat loss overall.

We are now taking the key learnings from this initiative to implement similar lifestyle programs at our other sites across Australia.

## Our focus for FY2016

- **1.** Understand our critical risks, and implement and verify the effectiveness of controls.
- 2. Build line manager commitment and capability through HSE Leadership training.
- **3.** Support our people in line with our Resilient People Strategy.
- **4.** Continue to implement MHFA training.
- 5. Form collaborative relationships and seek active external engagement that promotes the Downer Mining brand.

# People & Community





Our workforce has reduced in size over the past few years due to tough market conditions and some of our projects coming to an end. Pleasingly, despite this, the number of Aboriginal and Torres Strait Islander people that we employ continued to increase in FY2015, with 51 new starters joining the company during the year. This contributed to a 10% increase in our total Aboriginal and Torres Strait Islander participation rate, which reached 4.8%, almost double the current estimated industry average of 2.6%.

At 87.5% our employee retention rate increased by more than 4% on last year. Disappointingly though, our female participation rate dropped disproportionately to the reduction in total employee numbers, and this is of concern. We will be making increased use of exit interviews to determine whether such departures were preventable, as we are committed to achieving 18% female participation by 2020.

Notwithstanding the challenges of changing workforce composition in the current climate, we are confident that our Diversity Strategy will enable us to build organisational depth and capability, and better leverage difference to achieve organisational success. Accountability for driving the implementation of the strategy lies with our CEO-led Diversity Group.

Our employee attendance rate for the year was 95.4%, which, although lower than our target, was still a significant outcome for our business, and underlines the benefits of our unwavering focus on employee health and well-being.

Indicator	FY2015 Target	FY2015 Actual	Performance Against Target	Trend (♠) Positive (♠) Negative	FY2016 Target
Aboriginal and Torres Strait Islander employees <sup>7</sup>	≥2%	4.8%	<b>⊘</b>	•	>5%
Gender balance <sup>7</sup>	≥14%	12.5%	×	•	>13.5%
Employee retention <sup>8</sup>	≥75%	87.5%	<b>⊘</b>	•	>80%
Employee attendance <sup>9</sup>	≥97%	95.4%	×	•	>97%

7. As a percentage of total workforce (excluding overseas operations)
8. Does not include those that exited the business via a redundancy
9. All leave is counted, excluding annual leave, parental leave and long service leave

# Christmas Creek team impresses with culture strengthening

In March 2014, our customer at Christmas Creek, Fortescue, conducted a culture and climate survey to seek the views of their employees and key contractors at each of their sites. More than 2,000 people completed this survey, nearly 600 of which were our employees.

Our results from this survey were compared with 2,200 other organisations across the world and, although we performed exceptionally well, the survey identified some areas for improvement.

Our Christmas Creek leadership team personally delivered the survey results to every crew. Each department then ran interactive workshops with their crews, allowing our leaders to better understand why the survey presented the results it did.

Throughout this process, our employees offered outstanding constructive feedback regarding the strengths, weaknesses, opportunities and threats within their departments. The feedback and information from these workshops was used to develop an action plan (developed by the people, for the people) to begin enhancing site culture.

This action plan involved rolling out various activities and workshops to the employees on site. These included reviewing and improving formal and informal communication channels, pre-shift information, and how we interpret and act on requests and feedback from large crews. We also extended our corporate support, and implemented leadership workshops and coaching programs on site.

Twelve months later, following the completion of our action plan, Fortescue conducted the survey again. The areas where we had previously had some concerns had improved significantly; so much so that Fortescue's Executive asked our team to present its action plan and results to their Head Office to show how we obtained such a big leap forward.

# Providing new development opportunities for our people

We are continually pursuing new ways to better support and encourage our people to reach their full potential. In FY2015, we created a new employee development package, the Supervisor Capability Program (SCP), to deliver more cost-effective, valuable and practical professional development for our Leading Hands, Supervisors and Superintendents. The program has been built around our previous suite of training courses for these roles, presents them in a fresh format, and clearly outlines the requirements of each role and pathway for progression.

The SCP will be a pilot for a number of new training and development packages to be established over the next year or so, providing a supported development pathway for our employees.

New Aboriginal and Torres Strait Islander recruits

87.5%
Employee retention

\*\*\*\*\*\*\*\*

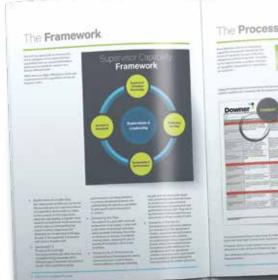


Classroom courses & reading

On-the-job

experience

Mentoring & coaching





95.4% Employee attendance



Organisational Development Specialist Dayle McCallum has been successfully delivering coaching programs to people at our operations in the east.

### Coaching expands

In these more challenging market times, businesses are looking at how to implement innovative and low-cost solutions that fully use the skills of their people and add value to the organisation.

In last year's report we reported on the success of our Succession Coaching program pilot at Christmas Creek in Western Australia, which has led to the roll-out of the program to two other sites in the west – Roy Hill and Karara. In FY2015, our Training and Development team was keen to run a pilot of the program at one of our operations in eastern Australia, and our Meandu project volunteered to be the first to give it a go.

The program is specifically targeted at people who are in leadership roles, such as high-potential Supervisors, Superintendents and senior professionals, who have been identified as critical members of our talent pipeline.

Organisational Development Specialist Dayle McCallum says: "The coaching program provides individuals with tailored development in areas such as developing a leadership style, seeking out technical competency training and creating strong relationships.

"The program is a relatively small time investment and does not intrude upon day-to-day responsibilities. It is run in house at low cost, and takes place either on site or using our in-house video conferencing program.

"Our leaders are concerned with building mutual trust and respect within their teams, motivating team performance through expectation setting and engagement strategies, and encouraging positive change initiatives."

During FY2015, eight employees at Meandu participated in the program, and half of these have subsequently been promoted within the business.

The two pilots have heightened awareness of the benefits of coaching, and the Training and Development team is now further developing the program to roll it out throughout the region.



# Working together to achieve employment success

At the beginning of our Christmas Creek contract in 2010, we formed a service agreement with the Guruma Yani U Men's Shed at Fitzroy Crossing to provide support to Aboriginal and Torres Strait Islander employees to help them build their skills and confidence, and to give them the best possible chance of succeeding in a FIFO environment.

We have now held six recruitment workshops in conjunction with the Men's Shed, and these have been attended by well over 200 people. From these workshops, 52 Aboriginal and Torres Strait Islander people have worked with us as trainee operators at Christmas Creek, where we are proud to report a 90% retention rate of our Aboriginal and Torres Strait Islander employees.

### Community investment

We are committed to making real and positive contributions to the communities in which we operate. This may involve sponsorship and donations, either financial or in kind. We take pride in our partnerships and encourage applications to our Community Investment Committee.

In FY2015, our community investment expenditure exceeded \$300,000. We continued our major partnerships with The Smith Family, Brightwater Care Group, Food Rescue and Mogalakwena Sustainable Development Program, as well as providing ongoing support to the Cerebral Palsy League's Metal for Mobility program, South Burnett Food and Wine in the Park Festival, and the Tabubil Cats and Tabubil Tigers rugby teams in Papua New Guinea.

We also committed to five years of support for the Roy Hill Community Foundation, which will focus on delivering education, training and employment, community development, business development, and arts and culture programs in the Pilbara.

# Investing in the future generation

We hope that our recruitment of people from local communities into the mining industry can be further enhanced through our new corporate partnership with the OMFA.

The QMEA is Australia's largest and most successful industry and education partnership, promoting collaboration within the resources sector through the Queensland Resources Council and the Queensland Government. Our shared focus on engaging with the future workforce from a young age makes this partnership a perfect fit for us.

Our people are experienced in a range of different mining-related fields, and can therefore offer invaluable advice and fresh career insight to local students. Through this collaboration, we hope to inspire young people to consider careers in science, technology, engineering and maths, as well as fostering meaningful relationships with our local communities.

# Mentoring disadvantaged youth proves a great personal development experience

During the year, some of our people decided to give their time and the benefit of their experience to young people from socially disadvantaged backgrounds though the iTrack online mentoring program.

Coordinated by our corporate partner, The Smith Family, the program aims to support senior high school students from low socioeconomic areas who are beginning to develop their post-school plans by matching them with people in the workforce who can offer encouragement, give advice and share their career journey.

Steve Vos, Inventory Manager from our Brisbane Office, has been mentoring a Year 10 student, and spends an hour or so every week chatting with her through an online portal, discussing her interests and career aspirations.

"My experience with iTrack has been extremely positive. I've always wanted to volunteer my time helping kids somehow, and this has been even more rewarding than I thought it would be," says Steve.

"You don't have to be working in the particular field in which the student is interested. My mentee is interested in engineering, architecture and veterinary science, and is also heavily into the Cadets program at her school.

"I helped her work out what subjects she should study in Grade 11 and 12 to be a vet, which universities offered the best courses, and what she should do in the next couple of years to put her in the best place to be able to achieve the grades she'll need."

Mentoring is one of the most effective ways to support and engage disadvantaged children, many of whom lack role models, resources and networks to make informed decisions and maximise the opportunities that are available to them.

Steve says that this was clear when he spoke with his mentee about her struggle to balance her studies with working part time and her cadet commitments.

"I gave her some advice about how she could better manage her time to balance all these activities. It's obvious that she doesn't have the traditional support network around her, so I try to give as much encouragement and positive feedback as I can."

Steve says that the support The Smith Family volunteers provide to him has also been extremely good.

"They are always sending through tips and advice on how to maximise my time with my mentee, and they are extremely flexible, so that if I'm away for work I can reschedule the session. It's been great professional and personal development for me also."



Inventory Manager Steve Vos has been online-mentoring a student through The Smith Family's iTrack program.



### Grease Release royalties go to mining charity

Last year we reported on how we had developed the Remote Grease Pressure Release System in conjunction with Australian Diversified Engineering (ADE). The system is designed to eliminate the risk of high-pressure grease injection injuries. It's a simple, cost-effective solution that can be quickly activated using a garage-door-style remote control mechanism to release the pressure building in a blocked grease gun in both hydraulically and pneumatically operated grease systems.

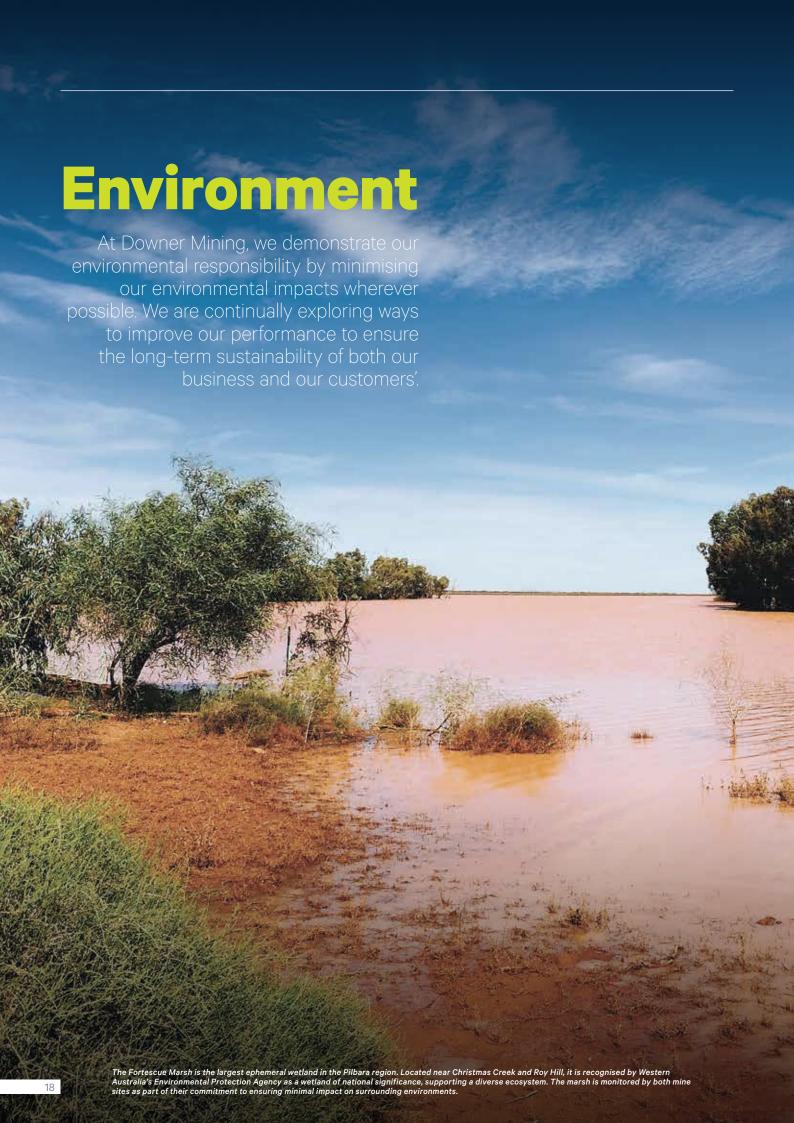
The units are now for sale, and we have decided to donate all the royalties that we receive from sales of this potentially lifesaving piece of equipment to A Miner's Legacy – a not-for-profit foundation that provides support and assistance to families of mineworkers involved in fatal mine accidents. In FY2015, these royalties totalled over \$7,000.



Pictured from left to right are our Maintenance Contracts Manager Mick Carr, CEO David Overall, A Miner's Legacy Co-founders Mark Parcell and Rachel Blee, our Executive General Manager Plant Peter Connor and General Manager ADE Clive Gray.

#### Our focus for FY2016

- Advance our preparation for technology-enabled training and development.
- Leverage the SCP to increase the number of females and Aboriginal and Torres Strait Islander people in frontline supervisory roles.
- Continue to engage with our employees and focus our efforts on developing retention actions.
- 4. Simplify our people management systems to make it easier for our operations to be safe, productive and sustainable.
- Participate in a 'Trade Up' fiveyear apprenticeship program with Fortescue at Christmas Creek to provide career development opportunities for Aboriginal employees that will enable them develop trade skills and qualifications to expand their future employment opportunities.





We have operations in seven countries, which means that we are operating in a diverse range of environments. We seek to fully understand the extent and impacts of our operations, no matter what the environment. We recognise our responsibility to take action by reducing our emissions and water use, lowering our fuel and energy consumption to further reduce our carbon footprint, and increasing the reporting of minor environmental incidents. We report openly on our performance in all these areas.

We continue to identify business opportunities through developing operational climate change solutions and to enhance our capability in other key sustainability service offerings, such as low-energy products, renewable energy and sustainable transport.

Indicator	FY2015 Target	FY2015 Actual	Performance Against Target	Trend (♠) Positive (♠) Negative	FY2016 Target
Fines and prosecutions	0	0	<b>⊗</b>	=	0
Regulatory Notifiable Environmental Incidents	≤3	2	<b>⊗</b>	•	≤3
High Potential Environmental Incidents (Level 4–6) <sup>10</sup>	<4	0	<b>⊘</b>	•	<4
Minor Environmental Incident Frequency Reporting	≥124	189.4	<b>⊘</b>	•	≥199
Water recycled as a percentage of scheme or bore provided <sup>11</sup>	31.9%	35.4%	<b>⊘</b>	•	Reduction on FY2015 actual
Greenhouse gas (GHG) intensity (ktCO <sub>2</sub> -e/revenue \$billion)	Reduction on FY2014 actual	20.6% increase on FY2014 actual	×	•	Reduction on FY2015 actual

10. Environmental Incidents classified as potential Level 4-6. Level 4-6 incidents are incidents that would have a potential significant or catastrophic impact 11. At Mt Thorley and Savage River emulsion-manufacturing sites

#### Performance record maintained

Maintaining our record of zero environmental infringements and prosecutions is extremely important to us. We are pleased to report that in FY2015 no environmental infringements or prosecutions, nor significant environmental incidents, were reported at our operations.

We also had no incidents that resulted in material harm at any of our operations. We did, however, have two Regulatory Notifiable Environmental Incidents as part of our blasting operations. These were related to water management during an extreme rain event and a record-keeping error regarding

waste. Although notifiable under our approval conditions, these incidents were still below Level 4 classification, and therefore not deemed to be High Potential or Significant.

An appropriate environmental reporting process and culture are fundamental to ensuring environmental compliance and minimising risks. Reporting minor incidents decreases the likelihood of more significant incidents occurring. We therefore encourage our people to report all environmental incidents, no matter how minor they may seem.

### Environmental reporting

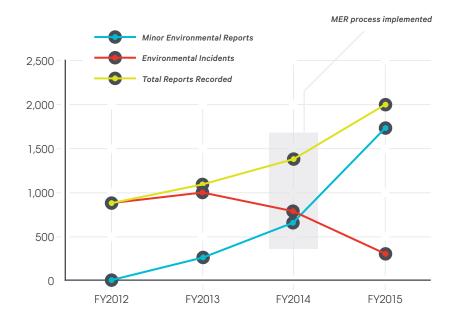
Our Environment team has developed a Minor Environmental Reporting (MER) process that has now been implemented across all our sites. The new MER tool involves the completion of brief and structured reports that can be prepared by operational personnel in the field for any type of environmental event.

The process has helped us improve the quality of the data and information that we record, while reducing the volume of administrative tasks and the time it takes to complete the reports. By analysing and understanding these events better, we are able to prevent minor events from escalating into ones with greater environmental significance.

The MER reports are reviewed by a Downer Mining Environment representative prior to being entered into the incident reporting database to determine whether they require elevation to an environmental incident classification.

The new MER process not only opens the door to faster reporting, but also provides an opportunity to address minor issues early.

Since implementing the MER process, the overall incident reporting culture has improved, which ultimately reduces risk to the business.





#### **PARD drilling at Karara**

Percussion Assisted Rotary
Drilling System (PARD)
introduced a low-impact
hammer to the standard drilling
system, which increased drilling
performance and resulted in
fuel savings.

GJ saved: 12,934



## Water cart fill point at Meandu

Relocated water fill point to Central Area, reducing travel distance, time and water carts' fuel consumption.

GJ saved: 5,042

#### Waste oil in blasting at Jellinbah

Replaced diesel used in bulk explosives with recycled oil to reduce energy use and carbon footprint.

**GJ saved: 8,557** 



### GHG and energy reduction program

We endeavour to reduce GHG emissions and energy use wherever possible; however, our decreased business revenue combined with an increased mining strip ratio impacted this year's result. Notwithstanding this, we reduced our energy consumption across our Australian sites by approximately 25% to 7,770,740 gigajoules (GJ).

We will continue to work with our customers to identify opportunities where we can minimise the GHG emissions and energy use associated with our activities. This includes our fuel and oil efficiency, use of alternative materials, supply chain efficiency, lighting and equipment upgrades, and vehicle modifications.

The key initiatives implemented in FY2015 and the associated gigajoule savings are detailed below and left:

#### Reduced RPM during retard at Boggabri

Decreased fuel consumption by reducing engine revolutions per minute (rpm) during retard and coast modes from 1,500 rpm to 1,200 rpm.

**GJ saved: 3,886** 

#### Use of EX2600 fleet at Karara

Achieved fuel savings through the use of higher-productivity excavator and dump trucks for ore-transfer operations from stockpile to crusher.



# Expanding our environmental training

As part of our overall efforts to implement targeted training for our people, we have reviewed our environmental training process and will be introducing a new approach. We will be incorporating environmental sustainability into our Supervisor Core training module, which is compulsory for all Supervisors. Each participant will attend an office-based workshop, followed by on-site training with their site Environmental representative.

In addition to this, our two-day Downer Environment and Sustainability Awareness (DESA) training will now be a requirement for employees with direct environmental responsibilities, such as HSE personnel, those that run facilities with no onsite environmental representation, and Supervisors, Superintendents and Managers at sites considered to have high environmental risks.

Overall, the new training process is more cost-effective and targeted towards environmental management in an operational environment.

#### Innovation

New innovations demonstrate our proactive approach to minimising our impact on the environment and going beyond our customers' expectations. We continue to implement processes and actions across our businesses that reduce energy emissions, GHG intensity, water use and waste.

In FY2015, the environmental teams at two of our sites, Commodore and Roy Hill, developed simple yet innovative solar-powered solutions that will produce positive outcomes for the environment and our business (see page 22).

## 630E replacement at Meandu

Replaced 630E Komatsu haul trucks with largerpayload EH5000 Hitachi haul trucks with lower relative fuel use per tonne.

**GJ saved: 6,451** 

#### Water management

We are continuing to improve our water management and water recycling efforts at our blasting emulsion-manufacturing plants. We increased our recycled water use at these sites to 35.4% in FY2015, exceeding our target of 31.9%. We continue to investigate further water reuse initiatives at our plants.

#### Solar-powered crib hut

Power to the field crib hut at the Commodore coal mine was previously supplied by a diesel-powered generator. Taking up the challenge to reduce diesel consumption and carbon dioxide emissions, our team on site replaced the generator with an off-grid power system, comprising six solar panel banks connected to a containerised battery bank.

The crib hut is now powered by the battery bank, which is charged by the solar panels during daylight hours. At night, the stored energy in the batteries is used, and, if depleted, the diesel-powered generator is triggered as a back-up until the solar panels can recharge the battery bank again.

It is estimated that this system has resulted in a reduction of up to 80% in diesel usage and carbon dioxide emissions from the generator.



#### ReGer

Our ReGen business offers customers a complete solution to mine reclamation and land rehabilitation, including design, civil capacity, bulk earthworks, revegetation, monitoring and maintenance. Our experience across the fields of mining, rehabilitation and mine closure means that we can work hand in hand with our customers to understand their business drivers, and tailor each unique mine rehabilitation program to meet specific sustainability and post-mining land use criteria.

Our ReGen team is working with Aboriginal businesses to develop business partnerships that will ensure the involvement of Traditional Owners in rehabilitation and mine closure projects.

ReGen has partnered with Karlayura Enterprises, a 100% owned and managed Aboriginal business, to form Karlayura ReGen Joint Venture (KRJV). In February 2015, KRJV embarked on its first project – surface water management works for Fortescue at Christmas Creek mine.

The scope of works included the construction of levees and a floodway, elevation of a haul road and upgrades to four turkey nest dams. Completion of the project ensured ongoing compliance with regulatory obligations by diverting water away from active mining areas.

The project exceeded its stretch target of 40% Aboriginal representation in its workforce, providing opportunities for the local community through employment, skills development and enterprise.





### Solar-lit standpipe

The lighting of a standpipe during night shift is essential for minimising hazards to the operator when they get out of their water cart to refill it. While a standpipe may only be used a few times during the night, traditional-style lighting plants continue to burn diesel at a constant rate whether the standpipe is in use or not.

To address this wastage, our team at Roy Hill iron ore mine has created a solar-powered light that uses an environmentally friendly long-life LED globe. The sensor-activated solar-lighting generates a soft light (30%) until activated by an oncoming water cart, when the luminance increases to 100%. Shortly after the vehicle leaves the area, the light reverts to 30% usage.

The two lights commissioned at Roy Hill are expected to save the site up to 24,276L of diesel per year, with a potential annual cost saving of \$43,200. Our Environment team is currently looking to introduce these lights at other sites across Australia.

#### Our focus for FY2016

- Integrate the environmental critical risk program into our Environmental Management Systems
- 2. Maintain a strong focus on energy efficiency improvements at our projects.
- **3.** Roll out the new targeted environmental training program
- Build on the ReGen business model, focussing on Traditiona Owner partnerships.



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