

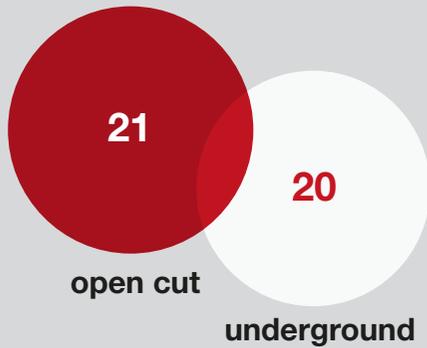


Partnering with Industry as 
Prevention Specialists



Performance highlights

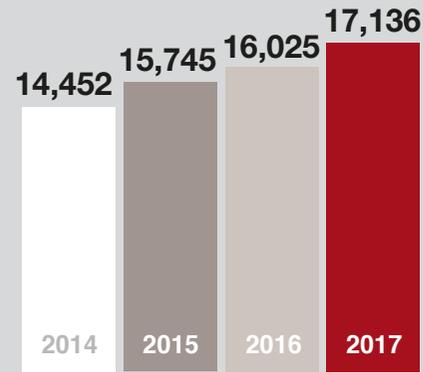
Operating coal mines in
NSW at 30 June 2017



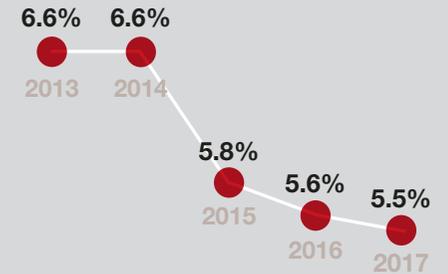
6,359

periodic health
surveillance medicals
to monitor and
protect against
occupational disease

Attendance at Mines
Rescue courses



Claims frequency rate



5.5%

2,312

workers sampled for
respirable dust

1.8%

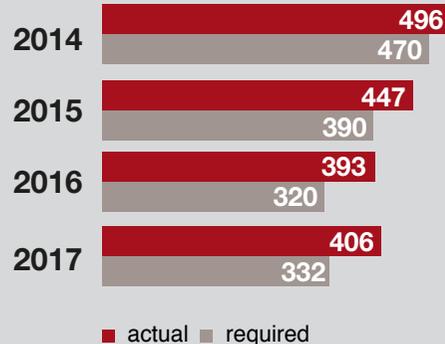
reduction in exceedances

707

workers sampled for
respirable crystalline silica

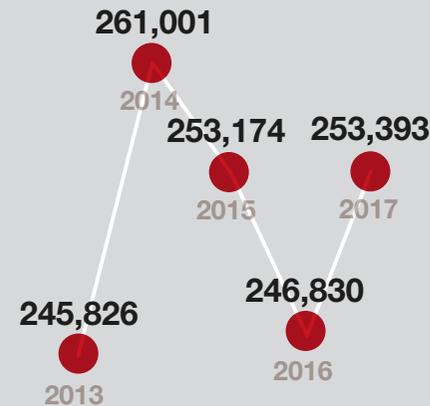
2.7%

reduction in exceedances



Trained volunteer mines
rescue brigadesmen

Raw coal production
'000 tonnes



31%

Increase in
pre-placement health
medical assessments

90%

Increase in attendances
at Order 41 chest x-rays

To protect workers and mining

Coal Services is an industry-owned organisation committed to providing critical services and expertise to the NSW coal industry. We are a Specialised Health and Safety Scheme that provides an integrated suite of services aimed at preventing injury and illness in the workplace. These include occupational health and safety, workers compensation, mines rescue and training.

We work in collaboration with employers, workers, Government departments and other industry partners to help identify, assess, monitor and control many risks inherent in the NSW coal industry. Together, we work to protect the health and safety of those working in the industry through prevention, detection, enforcement and education.

We are jointly owned by two shareholders, the NSW Minerals Council and the Construction, Forestry, Mining and Energy Union (CFMEU). Our purpose, vision and values are aligned to focus on the safety and health of our industry and its workers.

Our purpose

To protect

Our vision

To partner with industry for a safe workplace and a healthy workforce



Message from the Chairman and Managing Director/CEO

David Moulton and Lucy Flemming



The industry saw net employment growth for the first time in five years, bringing the production workforce to 20,538.

Our industry

The NSW coal industry has strengthened over the last twelve months, with positive gains seen in market demand, commodities prices and employment.

After the closure of the Drayton open cut mine October 2016, the year ended with 41 coal mines operating across the state. Overall raw and saleable coal production increased following two consecutive years of decline. Raw coal production rose 2.7 per cent to 253.4 million tonnes and saleable coal production increased 3.7 per cent to 198.2 million tonnes. NSW coal exports also rose in 2016-17 following a decline in 2015-16. Shipments increased from 169.6 million tonnes to 170.2 million tonnes. And in a sure sign of change, the industry saw net employment growth for the first time in five years, bringing the production workforce to 20,538.

Health and safety performance remains a critical element of our industry's strength and is an area of which all industry stakeholder groups can be proud. The claims frequency rate has been maintained at less than 6 per cent and is the result of an industry that works together.

An isolated case of mixed dust (coal and crystalline silica) pneumoconiosis was confirmed in NSW in January 2017. During the year, Coal Services carried out extensive reviews across our systems and, working closely with our stakeholders, have further strengthened our health surveillance processes to ensure that they remain robust and continue to protect workers from occupational harm.

The claims frequency rate has been maintained at less than 6 per cent and is the result of an industry that works together.

Message from the Chairman and Managing Director/CEO *continued*

David Moulton and Lucy Flemming

Our business performance

The effects of improved economic conditions across the coal mining industry were evident across many of our business units. Higher than forecast employment numbers at 30 June 2017 resulted in greater assessable wages for the year, and as a result, increased premium collection. CS Health and Mines Rescue statutory revenues also benefited from buoyant employment numbers, with demand for medicals and generic underground induction training gaining strength compared to the previous year.

However; net claims payments for the year far exceeded budget and were driven predominantly by higher weekly payments, lump sum payments, medical expenses and increased legal costs. There was also a marked deterioration in return-to-work practices. The overall result was a net loss for the Coal Mines Insurance Scheme.

The group reported a net loss for the year of \$23.9m (2016: \$13.2m profit) which was mainly due to the cost of workers compensation claims (including the movement in the outstanding claims provision) exceeding premium income by \$18.2m (2016 \$14.1m excess of premium over claims). The results for CS Health and Mines Rescue were consistent compared to budget and prior year; while investment returns of \$27.8m (2016 \$22.4m) exceeded our budget and prior year. The group result was negatively impacted by impairments to owner occupied properties of \$3.3m (2016 \$0m). Please refer to page 65 for the group's segment results.

To address the deterioration in Scheme performance three new projects were initiated: a review of new claims, a review of legal and industrial deafness costs and a strategic claims review. In addition, a number of strategies were implemented to improve return-to-work outcomes including trialling new case and account management models to help drive further improvements with respect to claims outcomes and performance. Preliminary results have been positive and work will continue on these initiatives throughout 2017-18.

In addition to the transformation projects underway in Coal Mines Insurance, the program of works that support our 2020 Strategy in other business units continued to progress with several major projects either implemented or commencing during the year. These projects have had a focus of strengthening our systems, driving efficiencies within the business as well as providing the means for better stakeholder engagement. The new CMTS database was implemented to support enhanced occupational hygiene exposure reporting and CS Health launched the initial phase of the 'Better Health Project' to identify opportunities to improve efficiencies and reporting to identify, analyse and mitigate health hazard exposure trends.

Higher than forecast employment numbers at 30 June 2017 resulted in greater assessable wages for the year, and as a result, increased premium collection.

Message from the Chairman and Managing Director/CEO *continued*

David Moulton and Lucy Flemming

Our relationships

Our collaborative model is like no other. It is a model that unites all industry stakeholders to enable us to fulfil our purpose and to prevent, detect, enforce and educate about occupational health and safety issues. In this regard we have partnered with workers, employers and other industry and community groups to share knowledge, strengthen relationships and to maintain our watch for current and emerging issues.

Over the past year we continued to positively engage with the NSW Resources Regulator, NSW Minerals Council and CFMEU, facilitated through regular meetings with representatives from across the business. This has resulted in greater collaboration, improved communication and more productive outcomes.

Our involvement with other key groups such as the Standing Dust Committee, Mines Rescue Working Group and the Mine Safety Advisory Council continues to demonstrate our unwavering commitment to support our industry and provide insight and advice.

Thank you to the Hon. Don Harwin, Minister for Resources, Minister for Energy and Utilities, and Minister for the Arts; Stephen Galilee, CEO of the NSW Minerals Council and Tony Maher, National President of the Construction, Forestry, Mining and Energy Union (CFMEU) for their support throughout the year.

Our people

Uncertainty has plagued our industry for some time and will continue to be a challenge in the future despite positive indicators of change seen during the year. Our business has not been immune to the impact of the changing industry landscape but we are proud of the resilience and passion demonstrated by our people in delivering on our purpose, to protect.

We would like to thank our employees, management teams and the Board of Directors for your continuing hard work and commitment to our vision, values and purpose.

We look forward to building on our achievements in the coming year and continuing to work with our industry partners to remain at the forefront of key health and safety issues to protect those working in our industry.

Our collaborative model unites all industry stakeholders to enable us to fulfil our purpose and to prevent, detect, enforce and educate about occupational health and safety issues

People and Customers

Our people

Our people are critical to achieving our vision. By ensuring our complementary talents and skills are aligned with our common purpose we can work together to create a top quality service for our customers.

We are committed to building a culture that can adapt to ongoing changes in our industry. We recognise that change must be led from above, and that our people feel supported throughout the process.

Our diversity policy

Our diversity policy seeks to encourage cohesive decision making, in addition to trust and common values that seek to leverage diversity in order to:

- drive business results
- enhance our reputation
- attract, recruit, engage and retain a diverse team of talented people.

We seek to add value to the organisation with a Board membership and General Management Team who have an appropriate mix of skills, experience (in a variety of specified fields), expertise and diversity.

We also seek to build a safe work environment by taking action against inappropriate workplace behaviour that does not value diversity including discrimination, harassment, bullying, victimisation and vilification.

We value and manage diversity through a variety of programs, practices and policies which cover:

- recruitment, selection and promotion of employees with the appropriate skills, talent and experience for the position
- equal employment opportunity and zero tolerance towards discrimination including but not limited to differences that relate to gender, age, ethnicity and cultural backgrounds
- talent and succession planning
- employee assistance programs
- flexible work hours and parental leave that supports employees at all levels of the organisation who may have domestic responsibilities
- career development through programs that assist employees to develop skills and experience for career enhancement
- a defined grievance and dispute process
- work health and safety programs and training
- study assistance.

Gender diversity is a key part of our overall diversity policy, ensuring that women are represented in senior roles and on the Board.

By ensuring our complementary talents and skills are aligned with our common purpose we can work together to create a top quality service for our customers.

People and Customers *continued*

Workplace profile 2016-17 (as submitted to the Workplace Gender Equality Agency for the period to 31 March 2017)

	WOMEN					MEN					TOTAL		
	Full time	Full time contract	Part time permanent	Part time contract	Casual	Full time	Full time contract	Part time permanent	Part time contract	Casual	Total	Women %	Men %
Managing Director/CEO	1										1	100	0
Key management personnel	1					4					5	20	80
Senior managers	9					11					20	45	55
Other managers	2					2	1	1			6	33.33	66.67
Professionals	57	8	42	3	9	62	10	2		3	196	60.71	39.29
Technicians and trade	1					23				1	25	4	96
Clerical and administrative	36	11	21	5	3					1	77	98.70	1.30
Other										1	1	0	100
Total	107	19	63	8	12	102	11	3	0	6	331	63.14	36.86
	Female Representation					Male Representation					Total	Women %	Men %
Board					1					6	7	14.29	85.71

Coal Services is required to report its workplace profile annually under the *Workplace Gender Equality Act (2012)*. Figures correct as at 31 March 2017. Total employment at 30 June is 331.

People and Customers *continued*

Engaging our people

The 2016 Engagement Survey was conducted in November 2016. Employee participation in the bi-annual survey was 80.3 per cent with overall employee engagement returning a score of 53 per cent (compared to a global benchmark of 60 per cent).

Feedback from this survey has led to the development of both immediate and long term action plans to address identified areas of improvement and focus

80.3%

**employee participation in
the bi-annual survey**

Health Safety and Environment (HSE)

Our purpose 'to protect' is integral to all that we do. We are committed to safeguarding the health, safety and environment of our employees and strive to improve HSE performance. This is achieved by consulting and communicating with all employees to gain their involvement and ownership of the Safety Management System.

We have five regional HSE committees and a central HSE committee to promote safety and health to support environmental initiatives in the workplace. These consultation committees also assist in the review of HSE systems and incident trends, development and monitoring of safe work practices and systems and discussion of issues that affect the health and safety of all employees.

There were nine elected Health and Safety Representatives (HSRs) for the period to 30 June 2017. Health Safety Representative training is provided to all HSRs on an ongoing basis through Mines Rescue. Five HRS completed the five-day HSR course and four completed the HSR Refresher during the year.

Positive HSE indicators

Our positive HSE indicators are the preventative measures that help to minimise the risk of injury or incident in the workplace. These include:

Risk assessments

During 2016-17 the HSE team supported all business units in conducting six high level risk assessments.

Four broad brush risk assessments have been completed. Each business unit has implemented controls for high level risks and will continue to monitor these.

Workplace inspections

The five regional committees conducted 21 workplace inspections across the business in 2016-17.

HSE communications

15 HSE safety awareness messages were distributed to all employees throughout the year.

HSE committee meetings

A total of 27 meetings were held across all six HSE committees.

Employee HSE training

HSE training is compulsory for all employees when they join Coal Services and attendance at a refresher course every two years thereafter. The HSE Refresher training program was revitalised and a new round of training offered to all employees from January 2017.

Employees have the opportunity to complete accredited First Aid and Fire Warden courses through Mines Rescue.

A total of 141 employees completed HSE, First Aid and Fire Warden training during the year.

People and Customers *continued*

Other initiatives

- Development of an Emergency App that enables employees to access vital information in the event of an emergency.
- Consultation with employees to implement frontal protection systems for vehicles identified as high risk travelling on rural roads.
- A pilot program for managing unreasonable client behaviour was completed in April 2017 with further training to be rolled out to employees later in the year.

Work disruption

Our work disruption (lost time injury frequency rate) for 2016-17 was 5.1. This was due to three lost-time injuries recorded during the year. In each case, all completed a return to work program and successfully returned to regular workplace duties in a short timeframe.

Lost time injury frequency rate refers to the number of lost time injuries per one million hours worked.

Optimising capability and performance

We provide a suite of learning and development programs to equip employees with increased skills and knowledge to perform their duties.

On-boarding and compliance modules

62 new employees attended induction welcome days in 2016-17. Upon joining the Coal Services team, new employees attend the welcome day as part of the New Starter Program designed to articulate company culture and introduce basic company information, policies and procedures.

Compliance training must be completed by all new employees and refresher modules are undertaken by the broader business as required. Modules in the compliance suite include privacy, HSE, zero tolerance, drug and alcohol awareness and complaints handling and customer feedback.

Cyber-security awareness training was introduced in May 2017 as a new addition to the compliance suite. The training program helps to protect individuals and company assets against social engineering. 98 per cent of employees have completed the program.

The training program helps to protect individuals and company assets against social engineering

Improving our stakeholder relationships

A key component of the 2020 Strategy is to improve our customer focus. During the year work commenced to align our stakeholder engagement approach to the AA1000 Stakeholder Engagement Framework (the framework).

The framework will support:

- Positioning stakeholder engagement as a core business activity for Coal Services
- Embed stakeholder engagement at all levels of strategic and operational planning
- Ensure a tailored and coherent approach to stakeholder engagement across Coal Services
- Enable better planned and more informed policies, projects, programs and services
- Facilitate effective collaboration and knowledge sharing
- Demonstrate the organisation's commitment to working with its stakeholders.

Implementing this program will occur over a period of two years with ongoing application to ensure the program is embedded within the organisation.

Customer feedback

We also reviewed our approach to collating stakeholder feedback as part of the Voice of Customer program. In particular, the review considered which indicators would be measured and the most efficient ways to collate feedback. Customer Satisfaction and Customer Effort Scores (quantitative metrics) as well as qualitative feedback will be used to help drive improvements to the overall customer experience.

Various cloud-based solutions were investigated to address the current issues relating to collating customer feedback and to ensure that any new feedback system would meet the objectives of the framework and 2020 Strategy requirements.

A Feedback Enterprise Management System tool was trialled initially with CS Health clients, followed by trials for Mines Rescue training participants and injured workers through CMI. Full rollout of the system has commenced with a view to expanding the scope to capture feedback from policyholders and other B2B stakeholders as the program progresses.

Preliminary survey results have been positive. Results at 30 June 2017:

AVERAGE RATING BY BUSINESS UNIT

	Customer Effort	Customer Satisfaction	Number of Respondents
CS Health	96.64	96.11	1,546
Mines Rescue	98.16	94.93	77
CMI – Injured Workers (note: small base)	82.14	83.93	16
CMI – Policyholders (note: very small base)	100	87.5	2

Community Events and Sponsorships

Coal Services establishes strong ties with NSW coal communities through support of not-for-profit organisations and industry and community events.

These sponsorships and community partnerships aim to:

- change or influence behaviours leading to better health, safety and wellbeing outcomes
- communicate health, safety and wellbeing messages and associated support programs
- increase awareness of Coal Services and our business units

Our purpose, vision and values have the central theme of protecting the health and wellbeing of the NSW coal mining industry and its workers. This includes giving back to mining communities and extending support to local initiatives and events.



Westpac Rescue Helicopter Service

The Westpac Rescue Helicopter Service (the Service) performs around 1,000 life-saving missions each year and relies on corporate sponsorships and community fundraising to do so. Coal Services has proudly sponsored the Service for many years as it embodies our commitment to giving back to the industry, families and communities in which we operate.

In addition to our corporate agreement, each year we participate in various fundraising events in support of this invaluable community service. These have included the 23rd annual **Hunter Golf Day** in February 2017 and the

22nd annual **Wests Cycle Classic** in March 2017 that raised around \$95,000.

Mines Rescue was on hand to provide first aid at the **Hunter Valley Mining Charity Rugby League Knockout Competition** in October 2016, which is another annual community event and fundraiser for the Service. More than 70 local Hunter Valley businesses and service clubs backed teams to help their fundraising targets or provided in-kind support and assistance on the day.



Community Events and Sponsorships *continued*



Newcastle Knights 'Voice for Mining Family Day'

Coal Services participated in the fifth annual 'Voice for Mining Family Day'; held on Sunday, 2 July 2017 at the Newcastle Knights home game. The Hunter coal community shares a strong connection with the Knights, with many past players and relatives of current players working in the region's mining industry. The event is a joint initiative between the NSW Minerals Council and the Knights to recognise the contribution that coal mining makes to the Hunter region. It also provides a chance for workers, their families and the local community to show their support for the women and men that make up our local mining industry.

Community Open Days

Open days provide the opportunity for us to work together with our customers to demonstrate a range of mining-related activities for the community and other local businesses. Coal Services participated at Mt Owen's Community Day in September 2016 and Glencore's Bulga Open Cut community day in October 2016. These events provide a platform to showcase our health and rescue services that protect the NSW coal industry and its workers.

Singleton Emergency Services Expo

Singleton Emergency Services Expo held on Saturday, 25 March 2017. The free community event aimed to build disaster awareness and preparedness and service familiarisation through live demonstrations and scenarios. The community was encouraged to interact with and learn more about the work of a range of services, including

NSW Mines Rescue, the SES, NSW Police, Fire and Rescue, Ambulance and the Westpac Rescue Helicopter Service.

Roof Bolting and Coal Shovelling Titles

The roof bolting and coal shovelling challenge has been a major attraction to the Blackheath Rhododendron Festival for many years. Coal Services has long supported this annual event in support of showcasing mining-related tasks to the community. Teams from across NSW, Queensland and Tasmania competed at the 2016 Australian Roof Bolting and Coal Shovelling Titles in November.



Community Events and Sponsorships *continued*

Sparke Helmore Newcastle City Triathlon 2017

In 2017, Coal Services continued our proud sponsorship of Newcastle's Sparke Helmore Newcastle City Triathlon, with eleven Coal Services employees participating in the event held on Sunday, 26 February 2017.

The community-focused event provides an opportunity to raise brand awareness and promote an active and healthy lifestyle. The triathlon is one of the largest held in NSW and raises funds for local and NSW charities. This year's event supported *beyondblue*, to improve awareness of mental health.

Sharing knowledge with local and international visitors

The Western Mines Rescue station welcomed 25 visitors from twelve African countries as part of an in-depth tour of Lithgow's mining and energy operations in May 2017. The station visit gave the group the opportunity to have an immersive experience of what it would actually be like to be in an emergency situation in a mine through virtual reality technology. The tour was organised by the Minerals Council of Australia in conjunction with the Australian National University as part of the delegates' six-week short course funded by The Department of Foreign Affairs and Trade's (DFAT) flagship development program to Africa, the Australia Awards Africa program.



Image courtesy of the Lithgow Mercury

Our purpose, vision and values includes giving back to mining communities and extending support to local initiatives and events.

Caring for the Environment

Coal Services is located at eleven sites across the state and we are committed to minimising the environmental impact of our operations.

Our environmental policy outlines how we aim to deliver on this commitment:

- Undertake responsible resource management practices that aim to prevent pollution and reduce waste
- Incorporate environmental best practice (AS/NZS ISO 14001) into our core business plans and management processes
- Apply best practice and innovative environmental initiatives in Coal Services workplaces, training, technology and infrastructure, working towards improving our environmental performance
- Work closely with our clients, suppliers and other stakeholders to ensure they are aligned to Coal Services policies to continually improve our business processes and minimise our environmental footprint
- Set environmental objectives and targets to ensure continuous improvement and sustainability. Focus areas include reductions in energy consumption, paper usage, fuel emissions and implementing recycling initiatives
- Measure, monitor and report on environmental initiatives
- Develop an environmentally responsible culture across all levels of our organisation and consult, educate, train and motivate workers and contractors of their environmental responsibilities.

During 2016-17 the Health, Safety and Environment (HSE) team engaged an environmental consultant to enhance the Coal Services Environmental Management System.

Coal Services has developed several policies and programs to help us meet or exceed regulatory and community standards. We have also implemented practices that help us to conduct our business in an environmentally-friendly manner. Initiatives for 2016-17 include:

- Monitoring, storing and treating trade wastewater at each Mines Rescue Station
- Employees displaying environmental awareness when out on worksites.

Coal Services will continue to monitor these initiatives and implement strategies to reduce our environmental footprint.

Employee education

- Quarterly 'Environmental Clips' to inform employees of our environmental initiatives
- Inclusion of environmental management awareness in the new HSE Refresher program for all employees

Energy consumption

- Reducing and replacing printers across all business units to be eco-friendly and reduce energy use
- Use of energy efficient lighting, including sensors, wherever possible across Coal Services premises
- Turning off computers and air conditioners at the end of the day

Recycling

- Recycling printer cartridges and consumables to save these components from entering landfill
- Provision of recycling bins for plastics and paper
- Recycling of obsolete I.T. equipment where possible

Paper usage

- Introduction of electronic scanning of hard copy records as part of electronic documents and records management system project to reduce paper and storage costs
- Introduction of 'Diligent Boards' software for electronic distribution of information for Board and Senior Management Meetings
- Supporting sustainable forest management by using Australian Forestry Standard certified paper across all business units and encouraging reduced paper usage through double-sided printing. Employees are also encouraged to increase use of online tools and reduce the need for printed documents

Emissions

- Purchase of new fleet vehicles based on their performance, safety, cost and environmental impacts
- Regular vehicle maintenance to ensure optimal running efficiency and environmental performance
- Use of cleaner, renewable fuels to have a positive impact on air quality.
- Promoting good driving practices to minimise vehicle emissions and fuel consumption
- Encouraging car-pooling and use of public transport by employees where possible as well as actively promoting video or teleconferencing as alternatives to meetings that involve travel

Other

- Completion of a company-wide chemical audit. The audit provided insight to implement better environmental control of chemicals purchased, storage, use and disposal.

We will continue to monitor these initiatives and implement strategies to further reduce our environmental footprint.

External program of work

The NSW Environmental Protection Authority (EPA) initiated an investigation program in 2016 to assess the legacy of per- and poly- fluoroalkyl substances (PFAS) use across NSW. PFAS is a man-made chemical first introduced in the 1950s. The chemical was quite common and used in everyday products like Scotchguard stain resistant sprays, shampoos, shaving creams, Teflon non-stick cookware and some food wrappers. Three per cent of the chemical produced is estimated to have been used in fire fighting foams, which were particularly effective and necessary for controlling liquid fuel fires.

The EPA investigation is prioritising sites around NSW where PFAS were used in significant quantities and is focussing on airports, defence bases, fire fighting training facilities (including fire fighting stations) and some industrial sites.

NSW Mines Rescue (Mines Rescue) voluntarily entered the investigation program in April 2017, beginning with a preliminary soil and sediment sampling plan around its Hunter Valley and Newcastle facilities. It was expected to find traces of the chemicals in the soils due to the chemicals persistence in the environment and the use of fire fighting foam containing PFAS (prior to 2002). The levels of PFAS triggered a decision tree used by the EPA to determine if further investigation was warranted.

It should be noted this is a legacy issue relating to a chemical which was permitted to be used and Mines Rescue facilities have adhered to correct usage and disposal protocols.

Further investigations at the Hunter Valley and Newcastle facilities began in early August 2017 with findings expected to be available by the end of September. The Lithgow facility will also undergo an investigation as a further precautionary step. The Woonona station will not undergo testing. Mines Rescue has operated from this premise since 2008; after PFAS was phased out at Mines Rescue.

Mines Rescue is working closely with the EPA to undertake the investigations and determine any necessary actions. Updates of the Mines Rescue PFAS investigations can be found at www.minesrescueservices.com.

We have developed several policies and programs to help us meet or exceed regulatory and community standards.

Specialised Health and Safety Scheme

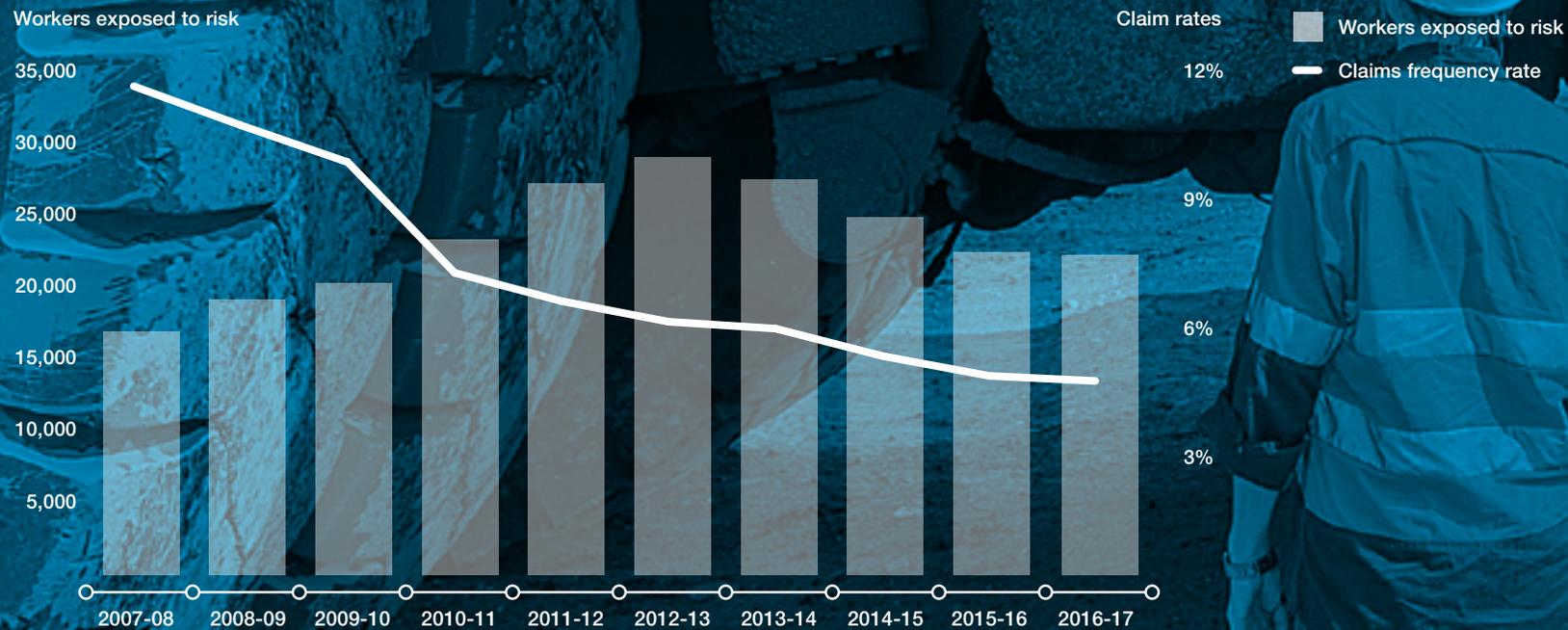


Workers Compensation



Coal Mines Insurance (CMI) is responsible for providing workers compensation insurance to the NSW coal industry and administers the Coal Mines Insurance Workers Compensation Scheme (the Scheme).

Workers exposed to risk vs. claims frequency rate



Workers Compensation



The Coal Mines Insurance Scheme

The Coal Mines Insurance Scheme (the Scheme) provides protection to workers and their employers in the event of a work-related injury or disease. The Scheme is funded by the insurance premiums paid by employers. In the unfortunate event where workers are injured we ensure workers receive the assistance, support and treatment they need to return to work and where they cannot return to work they are supported to lead full and productive lives.

Premiums fund financial and medical support to injured workers to return them to work and also cover the costs of dispute management and administration. While financial compensation and medical treatment are an important part of our workers compensation Scheme, the primary aim is to enhance workplace health and safety by helping to prevent incidents and fatalities. Under the Scheme, insurance premiums also subsidise industry-specific preventative measures such as [Orders 34 \(training schemes\)](#), [40 \(dust abatement on longwalls\)](#), [41 \(health surveillance\)](#), [42 \(dust monitoring\)](#) and the Standing Dust Committee.

Premium profile

During the reporting period CMI provided workers compensation insurance for 751 policies; including 82 new policies. At 30 June 2017, the Scheme protected 23,233 exposed to risk (actual) employees, with the year to date average being 22,591 employees; reflecting a 3 per cent increase from 22,522 exposed to risk (actual) employees in 2015-16 noting that the year to date average in 2015-16 was 22,803 employees.

Assessable wages were higher than expected in 2016-17 as the industry experienced some signs of growth. Assessable wages were \$3 billion compared to a budget of \$2.8 billion. This resulted in a premium pool for the year of \$99 million, which was down from \$101 million in 2015-16.

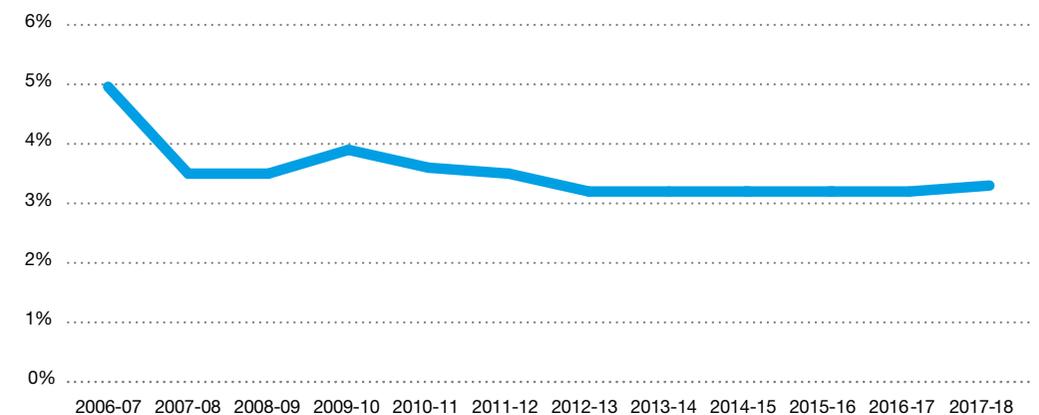
Target premium performance

CMI obtains independent actuarial advice each year on outstanding claims liabilities and the premium pool required for the coming financial year. It is based on collecting the necessary funds to pay for policy and claims services for employers and workers as well as necessary statutory services.

The Scheme Target Premium Collection Rate (TPCR) for a policy year represents the proposed premium to be collected over all insured employers, expressed as a percentage of covered wages.

At 30 June 2017 the actual Scheme premium collection rate was 3.26 per cent against the TPCR of 3.2 per cent. This contributed an additional \$1.8 million of premium revenue above budget. The actual collection rate vs. TPCR varies according to fluctuations in the number of exposed to risk workers, wages, and the types of work being undertaken as well as the impact of bad or doubtful debts. The TPCR is set with an implicit tolerance margin of +/- 5 per cent.

Target premium collection rates



When Coal Services commenced in 2001, the TPCR was 11.52 per cent. Since then, there has been a 71.7 per cent reduction in the TPCR.

Workers Compensation *continued*



The TPCR has been held at 3.2 per cent since the 2012-13 policy year. The TPCR has been increased to 3.25 per cent for the 2017-18 year.

The graphs below demonstrate the impact of a changing industry on Scheme performance. Graph 1 represents assessable wages versus the Target Premium Collection Rate and Graph 2 shows premium collected against claims payments over a 17 year period.

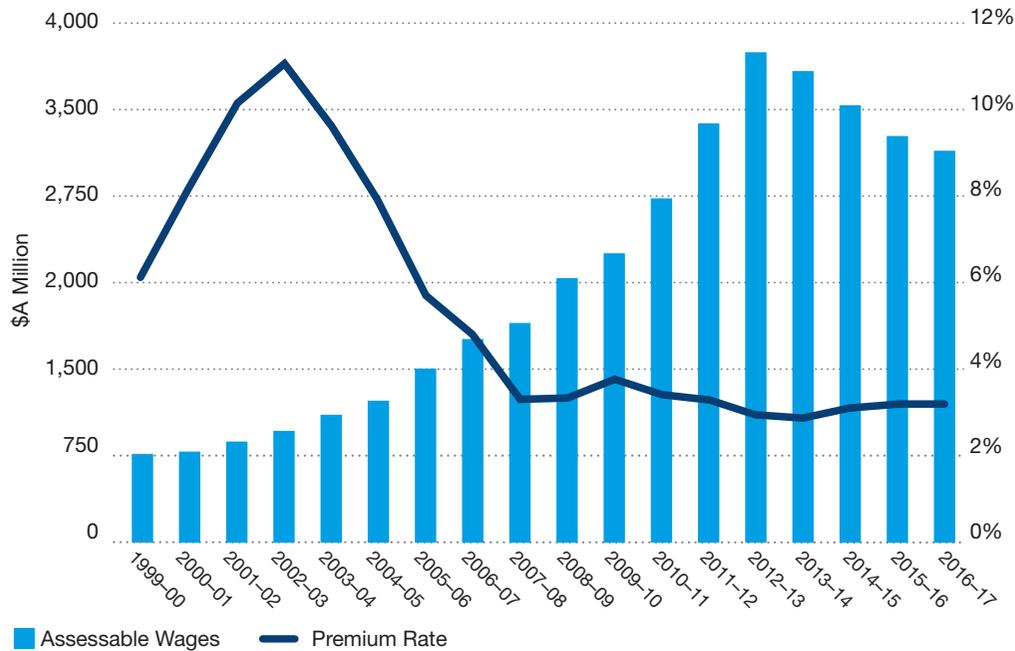
In the early 2000s assessable wages were much lower than today, however; the premium rate was 11.5 percent. As assessable wages grew, the TPCR reduced which is reflective

of both the industry's expansion and a concerted effort to reduce injury rates. It is imperative to note that assessable wages have contracted since FY 2014.

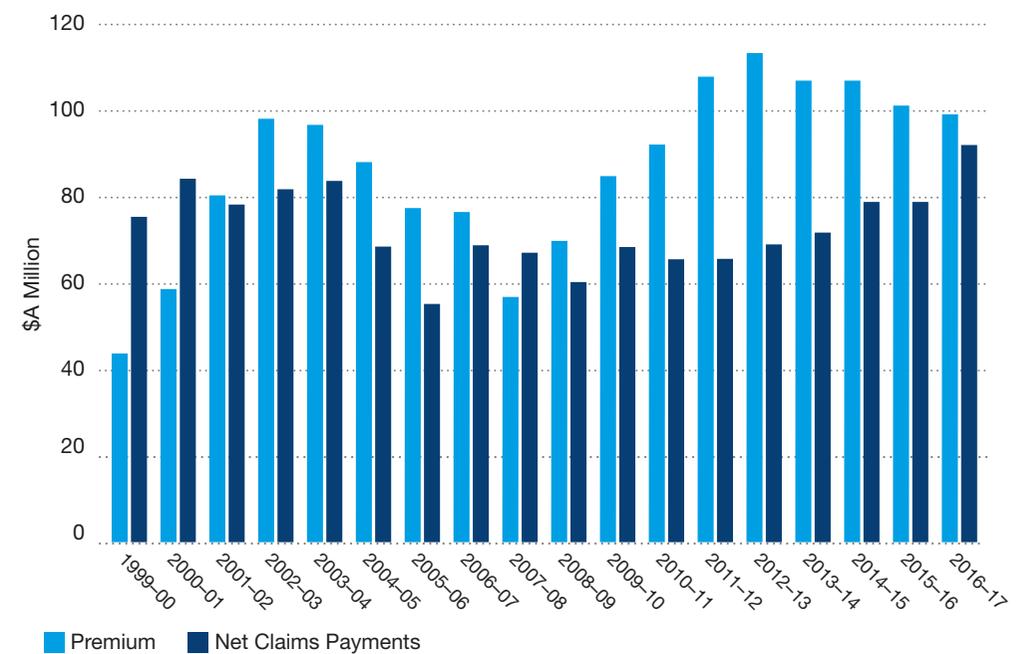
Claims payments have steadily increased since FY 2012, with the most significant increases year on year in FY 2015 and FY 2017.

The graphs also indicate a similar trend in the early 2000s where claims payments continued to increase year on year from 2000 to 2004, which also followed a sustained period of industry expansion then contraction.

Assessable wages vs. Target Premium Collection Rate



Premium vs net claims payments



Workers Compensation *continued*



Premium system reform

The underlying objectives of the Scheme's premium system is that premiums are fair, equitable, and responsive to different levels of risk and claims experience across the industry. The new premium system, which was phased in from the 2013-14 policy year, also helps ensure the Scheme remains financially viable and sustainable.

Following implementation of a number of changes to the premium system for the 2016-17 policy year, work continued on implementing the latest tranche of the premium system reform agenda involving the introduction of multi-category policies to take effect for the 2017-18 policy year.

The introduction of multi-category policies will allow policyholders to declare wages in more than one policy risk category and have their final policy premium rate calculated on that basis; meaning the policy premium rate will be more closely aligned to the overall risk profile of their business.

Initiatives to support and strengthen the Scheme

Since 2014-15 the Scheme has experienced a reduction in premium revenue and an increase in claims payments. Throughout 2016-17, CMI conducted a series of reviews to determine the contributing factors and, more importantly, develop mitigation plans to address the deteriorating Scheme performance. These included:

- New Claims Review
- Legal Costs Review
- Strategic Claims Review
- Industrial Deafness Review

The findings revealed opportunities for improvement in relation to reporting of claims, finding return to work opportunities, consistent case and account management, determination of liability, legal case strategy and highlighted the unintended consequences of changes to the General Workers Compensation Scheme (iCare) in 2012, 2015 and 2016. A number of remedial actions have commenced, including more regular consultation with employer and worker representatives concerning the challenges faced by the Scheme.

Injury Prevention and Injury Management

The Injury Prevention and Injury Management (IPIM) program has the overarching objective to implement a best practice business model that delivers quality injury prevention and injury management services to employers and workers in the coal industry. The program was designed to be implemented in four stages over six years as one of the key elements of Coal Services' 2020 Strategy to 'Strengthen the Specialised Health and Safety Scheme'.

Stage 1 of the program delivered a new operating model to change the way claims are managed and how services are provided to employers. The model segments claims by complexity and separates the functions of 'care' and 'liability'. The concept enables the specialist skill sets of Injury Management Advisors (focused on care) and of Case Managers (focused on determination of liability) to better service the needs of injured workers and employers. Both are supported by an in-house legal specialist. This foundation stage of the program was underpinned by an intensive learning and development program that focused on how to manage claims under the new model, building capability and the culture needed to deliver contemporary case management and account management services.

Stage 2 of the program commenced in March 2017 with the launch of a twelve-month trial of the new operating model. This stage involved the creation of a separate working environment to the current CMI business line where best practice case management and account management could be trialled on a voluntary basis by employers. Eleven employers holding 309 claims (about 20 per cent of total open claims) were participating in the trial as at 30 June 2017. Initial results have been positive with improvement in the speed in which injured workers are returning to work, customer experience and a reduction in legal costs evident. Performance will continue to be monitored to ensure it is delivering improvements. Should the trial prove successful, implementation of the new case management model across all of CMI will take place at the end of the trial period.

Workers Compensation *continued*



Account management

As part of the IPIM program, a new account management model was introduced to build on the existing portfolio management approach. Employers participating in the new case management model trial were each assigned an Account Manager. The account management function acts as a conduit between employers and our claims and policy operations, as well as with other parts of Coal Services. Account managers have joined the existing team of portfolio managers to help employers manage their workers compensation liability and focus on improving injury management and return to work practices. This team will be expanded over the next year so that these services can be provided to a broader range of policyholders.

Stakeholder engagement

Building and maintaining relationships with employers, injured workers and industry representatives is critical to the IPIM program. Regular meetings with the NSW Minerals Council Workers Compensation Working Group have been in place since October 2016 while bi-monthly meetings with the CFMEU were introduced in December 2016. The purpose of these meetings is to improve communications and promote a more collaborative approach between CMI and these stakeholders in relation to workers compensation matters, key CMI initiatives and to support injured workers.

Skills Incentive Scheme

The Skills Incentive Scheme (SIS) was introduced during the 2015-16 policy year to support the hiring and training of apprentices and reinforce safe work practices as they enter the industry. The SIS is designed to encourage employers in the NSW coal mining industry to take on apprentices by providing an incentive payment of \$2,000 per eligible apprentice at the end of a policy period and on receipt of actual wage declarations.

A total of \$738,000 was distributed through the SIS to 42 policyholders who employed 369 apprentices during the 2015-16 policy period.

Claims costs and payments

In 2016-17, the net total payment for all CMI claims was \$92 million. This represents a 15.7 per cent increase over the \$79.5 million paid in 2015-16 which was due, in part, to increased medical costs, legal costs, common law and redemption settlements and industrial deafness payments.

For the reporting period the Scheme Actuary strengthened the outstanding claims provision by almost \$21.5 million resulting in the outstanding claims provision rising from \$384 million in 2015-16 to \$405.5 million in 2016-17. The increase comes primarily from rising common law, redemption and legal costs, and the discount rate.

Claims and injury trends

CMI aims to ensure all notifications and claims are managed to an optimal outcome through a focus on early initial assessment, case management, return to work initiatives and meeting the requirements of applicable legislation.

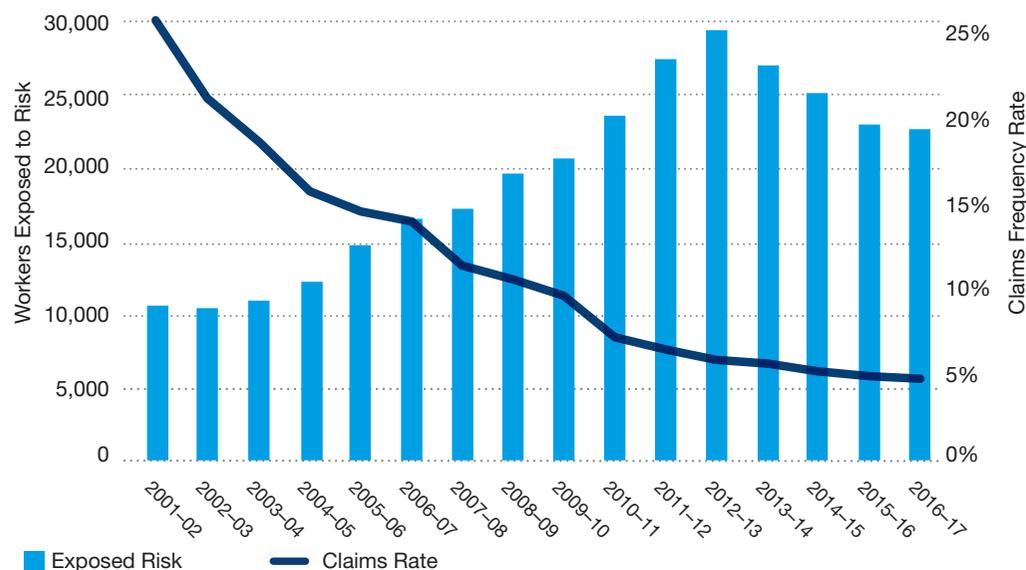
There was a 2.6 per cent reduction in the number of new claims received during the year, but they are costing more to manage. This, combined with the change in employment numbers, resulted in a claims frequency rate of 5.5 per cent for 2016-17. When Coal Services was established in 2001-02, 1 in 4 workers sustained a workplace injury. The claims frequency rate has consistently declined since that time to less than 1 in 17 workers – a reduction of more than 77 per cent.

Of the 1,238 new claims received, 59.2 per cent (733) were significant injury claims where the worker is likely to be incapacitated (partial or total) for a continuous period of more than seven days.

Workers Compensation *continued*



Workers Exposed to Risk vs Claims Frequency Rate



In contrast to the reduction in new claims, the number of significant injury claims rose slightly by 0.5 per cent on the previous year.

Return to work

Research has consistently shown that returning injured workers to full employment is better for their recovery, health and wellbeing than being away from work. For employers, an injured worker's return to suitable duties while recovering can impact on claims experience and premium, while it can also help to lower Scheme liability in the future.

One of the drivers behind the deteriorating Scheme performance was a falling return to work rate. Following the New Claims Review, CMI focused on improving return to work rates in the 0-13 week cohort by working with employers to provide suitable duties for workers and report injuries within the legislated timeframe.

A return to work rate of 95 per cent was set for the 0-13 week cohort. Actual results during the period reached a low of 78 per cent but improved to around 90 per cent. While deterioration in the 13-16 week cohort was stabilised, deterioration continues to occur in the 52-78 week measure.

	2012-13	2013-14	2014-15	2015-16	2016-17
New claims reported during the year	1,922	1,823	1,441	1,271	1,238
Significant injury claims reported	1,104	1,022	714	748	733
Current, open claims at start of each year	1,758	2,133	2,207	1,682	1,651
Claims finalised within 26 weeks (lost time claims)	84%	81%	80%	77%	79%

Nature of injury

Sprains and strains accounted for 493 of all new claims received in 2016-17 and remain the most commonly-incurred injury. Of these, 389 (78 per cent) were significant injury claims; an increase of 4 per cent compared to the previous year. The increase may be attributed to falling return to work rates and suitable duties meaning more injured workers are off duty for seven or more days; therefore, they are counted as having sustained a significant injury.

The NSW coal industry confirmed its first case of mixed dust pneumoconiosis in January 2017. Since the diagnosis, CMI has focused on providing the appropriate care, support and the best medical attention possible to the affected worker. The diagnosis of this disease is a lag indicator, given that the disease may have a long latency period where workers can remain asymptomatic for years before any health effects become apparent.

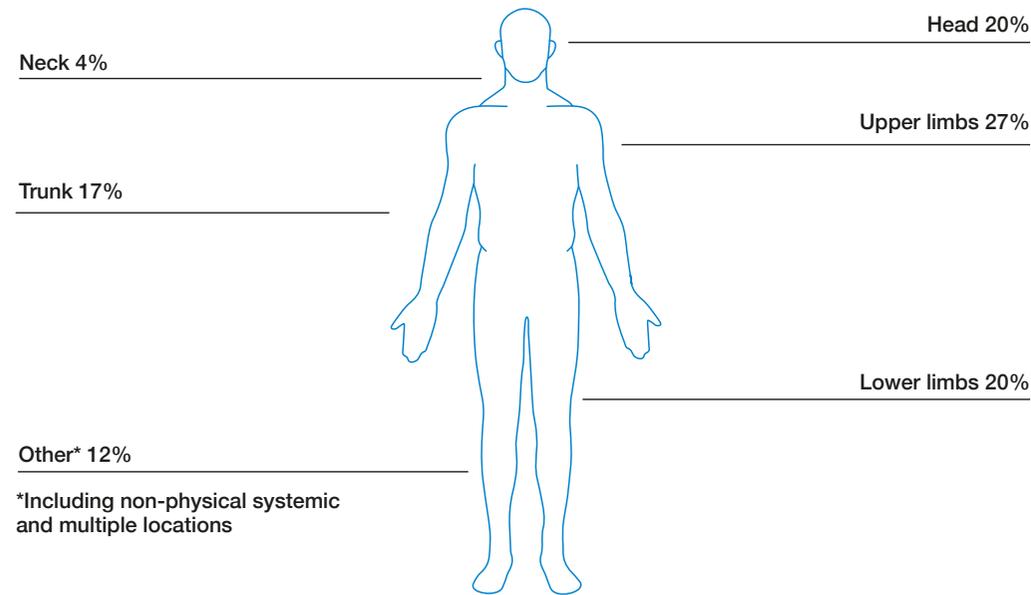
Research has consistently shown that returning injured workers to full employment is better for their recovery, health and wellbeing than being away from work.

Workers Compensation *continued*



Location of injury

The body map shows the parts of the body affected for all claims received during 2016-17.



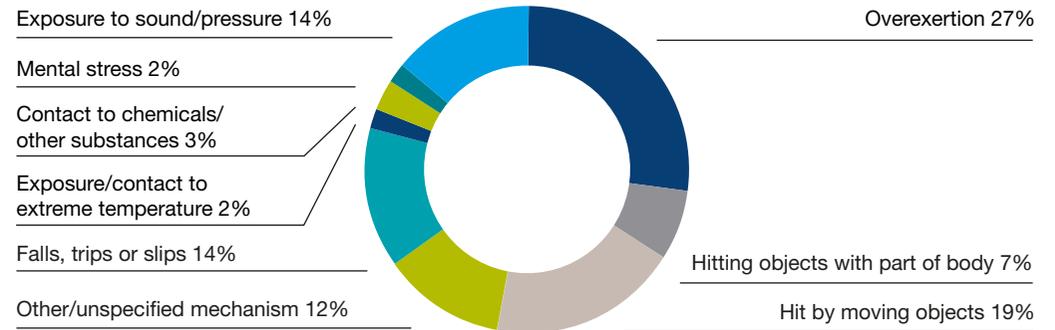
*Including non-physical systemic and multiple locations

Mechanism of injury

The mechanism of injury is best described as the circumstance in which an injury occurs, for example, sudden deceleration, wounding by a projectile, or crushing by a heavy object. The mechanism of injury helps the doctor and/or the allied health professional to understand what mechanical forces may have been in play to cause the injury and therefore assist in the diagnosis of the injury. This information gives an indication as to the potential injury recovery timeframes and also guides the most appropriate treatment. This information also assists the employer to better understand risks within their workplace that need to be addressed or mitigated.

In reviewing the range of potential mechanisms of injury it was found that overexertion, slips/trips/falls, and being hit by moving objects are three of the largest risks in the workplace to cause injury. These factors can all be managed through safe, effective work practices.

Mechanism of injury (all claims received in 2016-17)



Workers Compensation *continued*



Industrial deafness claims

Industrial deafness claims represent 13.8 per cent of all claims received; down 3 per cent on the previous year and account for less than 5 per cent of total claim payments. Claims payments were higher than expected; being driven by a spike in lump sum settlements and hearing aid payments.

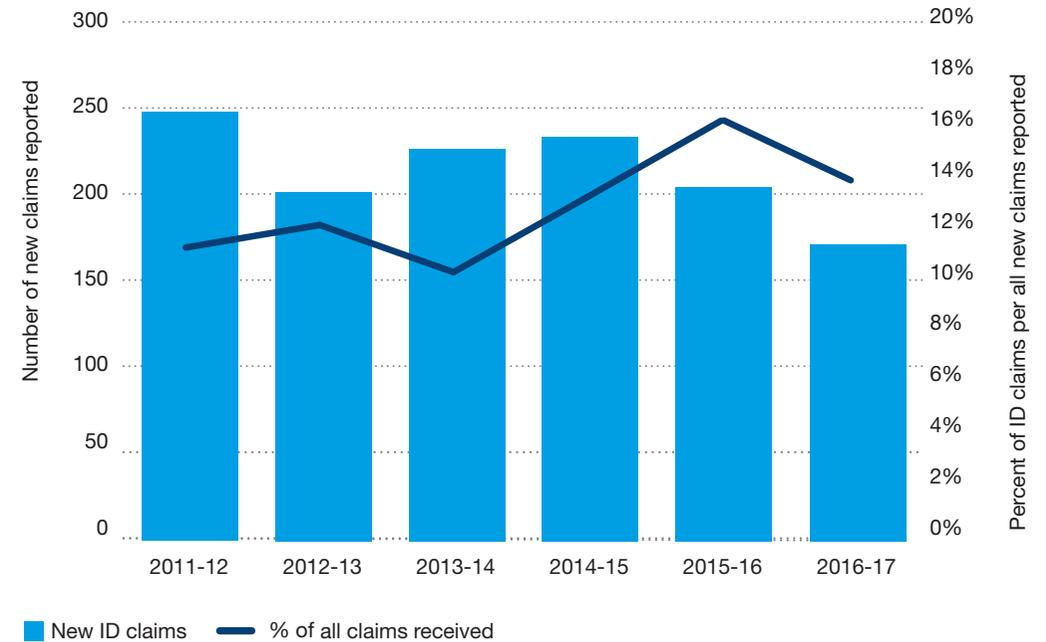
Changes made to the NSW Workers Compensation legislation in 2012 and 2015 for Industrial Deafness in the General Workers Compensation Scheme (iCare) have had, through a combination of threshold changes, legal cost capping and their application to the CMI Scheme, the unintended consequence of increased activity and claims cost for the CMI Scheme.

Key changes include:

- Removed 6 per cent hearing loss threshold for claiming hearing aids and removed timeframe to claim replacement hearing aids
- The threshold for claiming binaural hearing loss remains at 6 per cent for coal miners but is 20.5 per cent (11 per cent whole person impairment) for workers covered in the NSW General Scheme.

These amendments contributed to an increase in claims frequency and cost in the CMI Scheme on two counts: hearing aids and replacements became available without a threshold and a replacement timeframe.

Industrial deafness claims reported



Not all industrial deafness claims received by CMI will reach the required 6 per cent binaural hearing loss threshold that would lead to a compensable payment. On average, 40 per cent of the ID claims have achieved the required loss threshold.

Workers Compensation *continued*



Psychological injury claims

Claims for psychological injury accounted for approximately 1.6 per cent of all new claims received in 2016-17.

Work pressure and other mental stress factors accounted for around 42 per cent of psychological injury claims, second only to work-related harassment and/or workplace bullying, which accounted for 48 per cent. Psychological injury relating to a traumatic event accounted for 13 per cent of claims received.

While this cohort of claims is a small proportion of claims overall, periods of incapacity for work tend to be longer and they generally incur a considerably higher claims cost.

42% of psychological injury claims are related to work pressure and other mental stress.

Year that the claim was reported	Average incurred cost per psychological injury claim	Average incurred cost per all other significant injury claims
2016-17	\$51,317	\$20,295
2015-16	\$224,993	\$41,707
2014-15	\$95,463	\$58,745
2013-14	\$159,521	\$64,488

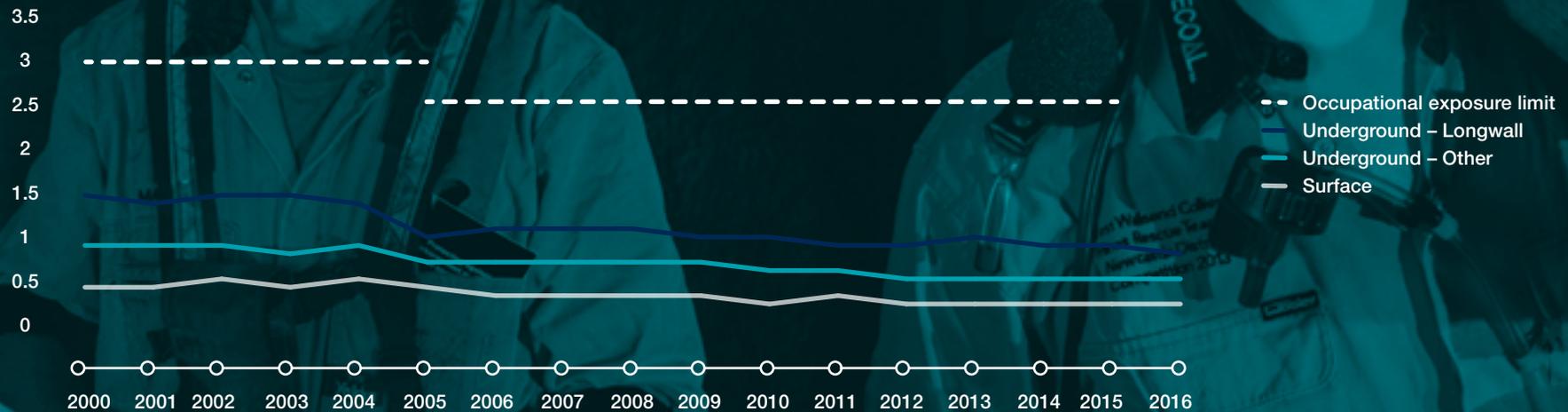
This table presents a comparison of the cost to manage a psychological injury claim compared to the average cost of all other significant injury claim types. These costs are developed (in terms of their total cost since their date of injury) and are measured as at 30 June 2017.

Health and Hygiene

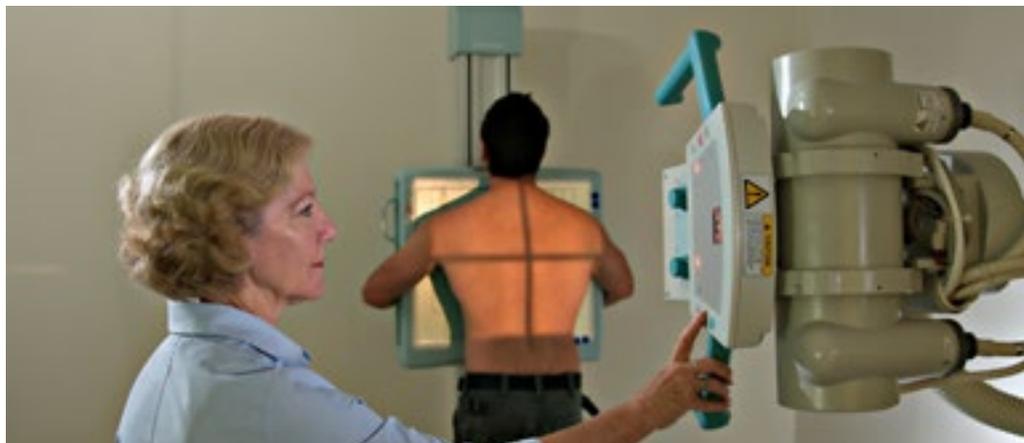


Coal Services collect, analyse and report on workplace health risk data across the NSW coal industry. This information is reviewed on a regular basis to monitor and identify emerging trends and areas requiring focus, enabling Coal Services to partner with industry to help minimise health and safety risks.

Respirable dust exposure profile (mean) trends NSW coal



CS Health



CS Health protects workers in the NSW coal industry through the provision of statutory medical assessments and complementary health services.

Prevention, monitoring and early detection of occupational illness is paramount but should injury or illness occur, CS Health's treatment and rehabilitation services can help workers to recover and have a safe and sustainable return to work.

In addition to the critical health services provided to the coal industry, CS Health also provides these services from time to time to related industry sectors.

90% increase in
periodic chest
x-rays

NSW Coal Order 41: monitoring health and meeting statutory requirements

Under NSW Coal Order 41 (Order 41) all employers of coal mine workers and operators of coal operations in NSW must ensure that their workforce, both employed workers and contractors, undergo pre-placement medical assessments and periodic health surveillance medicals.

Pre-placement medical assessments

Pre-placement medicals are conducted prior to an individual commencing a new role to confirm they are fit to undertake the associated physical requirements of the role safely and that no underlying medical conditions exist that may impact on their safety in the workplace. Pre-placement medical assessments are vital to provide baseline health measures for ongoing health surveillance.

The number of pre-placement medicals conducted in 2016-17 reached 4,983; increasing for the second consecutive year and confirms employment growth within the industry.

Pre-placement medical assessments		
2016	2017	% Change
3,790	4,983	31%

Periodic health surveillance

Periodic health surveillance is used to monitor workers' health regularly over time to identify any adverse health effects as a result of hazardous exposure in the workplace. Early detection of changes to health is critical.

Periodic health surveillance medicals		
2016	2017	% Change
5,984	6,359	6.3%

Some occupational illnesses can take many years to develop but with early intervention a worker may continue to work safely and maintain their wellbeing, thus preventing the occurrence of serious and long-term illness.

CS Health *continued*



Periodic chest x-rays

	2016	2017	% Change
CS Health conducted (Singleton and Lithgow)	2,355	3,910	66%
External providers conducted (Mudgee, Speers Point, Woonona)	969	2,419	150%
Combined	3,324	6,329	90%

The increase in attendances at periodic health surveillance medicals and chest x-rays can be attributed to CS Health and employers working together to maintain compliance with Order 41 as well as heightened awareness of the importance of regular health monitoring following the re-identification of coal workers pneumoconiosis in Queensland and a single, isolated case in NSW of mixed dust pneumoconiosis.

Industry health and wellbeing

Industry health data collected through pre-placement and periodic health surveillance medicals provides a state-wide view of emerging health trends.

The workforce is increasingly displaying the physical characteristics associated with obesity and related lifestyle diseases. Age, fatigue and stress are also factors demanding focus due to their health and safety implications.

CS Health's data is the foundation for a number of projects and initiatives designed to reduce the impact of these issues and demonstrate effective collaboration with industry.

Coal & Allied partnership to combat obesity

CS Health joined with Coal & Allied to develop an innovative new program in a bid to reduce occupational risk amongst a key group of workers who were overweight and exceeded mobile equipment seat weight limits.

The seat weight limit is set to ensure that the self-levelling air suspension, which works to prevent significant acute and chronic back injuries, works to maximum effect. When the weight limit is exceeded, workers are at a higher risk of injury.

To identify at-risk workers a new measure was added to the Coal & Allied pre-placement and periodic health assessments. When the measure was triggered, physicians and advisers engaged with workers to develop a personal management plan in consultation with their General Practitioner. Additional medical reviews were then scheduled to track progress.

Results to date indicate that on average there has been a 5 per cent weight reduction and workers have reported that their choice of healthier lifestyle behaviours has also benefited their families' lifestyle choices such as diet and exercise habits.

Obesity Blueprint

The Blueprint for the Management of Overweight and Obesity in the NSW Mining Industry is an initiative of the NSW Minerals Council to provide an industry-wide framework to promote effective weight management and support an overall healthy lifestyle. Coal Services is represented on the Obesity Sub-committee to provide insights into the challenges faced by workers in balancing work and lifestyle issues, assist with the provision of de-identified industry health data that can be used to design workplace health initiatives and to provide advice on how healthy lifestyle programs can be incorporated into existing workplace health management programs.

Preventing musculoskeletal injury

According to Centennial Coal Mandalong mine's injury claims data, musculoskeletal injuries formed the largest proportion of injuries experienced by their underground mineworkers. With the goal of reducing the incidence of these injuries through targeted interventions, CS Health and Centennial Coal embarked on a study to identify trends and risk factors for musculoskeletal injury in underground mining.

A sample of 138 workers was assessed during the study where a musculoskeletal screen was added to their standard periodic health surveillance medical. Around 21 per cent of workers displayed musculoskeletal limitations, with reduced performance relating to leg function or spinal postural issues being of greatest concern. Upper limb stability and lower limb balance also showed reduced performance in some participants.

CS Health *continued*



These results could suggest the significance of leg strength and balance in the optimisation of leg function and the prevention of injury and could be a target for future intervention. Given the heavy upper limb requirement for some tasks, there may be scope for intervention to improve upper limb performance.

The combined contribution by the injury mechanisms of ‘overexertion’ and ‘slip/trips/falls’ to 75 per cent of the causes of pain or injury experienced by workers in the study may further support consideration of interventions to improve upper and lower limb function and balance.

CS Health and Centennial Coal are reviewing the results and assessing potential interventions such as stretching programs; an early intervention program for soft tissue injuries; education on repetitive strain injuries and healthy lifestyle programs.

University of Newcastle task rotation study

A twelve-month study commenced in May 2016 following a pilot commissioned by CS Health and Centennial Coal to investigate whether task rotation in underground mines can help to reduce injuries.

The pilot data showed that rotating tasks two to three times during a shift improved both psychological and environmental domains of a quality of life measure, compared to those workers who did not receive a task rotation intervention. The pilot study also

demonstrated that a three-segment rotation schedule is feasible and practical within the confines of a dynamic coal mining environment.

Task rotation was implemented across the whole of the Mandalong underground coal mine and was evaluated at three time-points across a twelve-month period.

Early findings have shown a reduction in musculoskeletal discomfort reported by workers over the task rotation intervention period, with significant improvements in lower limb, shoulder and lower back pain. Further analysis is underway to fully determine the impact of task rotation on musculoskeletal injuries incurred in an underground coal mine.

Other workplace health services

Other medicals

In addition to statutory health surveillance required by Order 41, CS Health performs a number of workplace medicals to support the health and safety of workers in coal mining and other industries including:

Site access medicals – typically requested for Contractors to meet specific site requirements.

Pre-placement medicals – medical assessments completed for workers not directly employed within the coal industry.

Mines Rescue and Emergency Response Team medicals – specifically designed assessments used to determine whether rescue personnel have the required fitness levels to perform these specialist activities. Provision of these medicals rose significantly during the year in response to concerted efforts to improve the number of brigadesmen deemed to be ‘current’ from a competency perspective; of which attending mandatory medical assessments is part.

	2015 -16	2016-17	% Change
Site access medicals	2,474	2,547	4%
Pre-placement medicals (Workers not directly employed in the coal industry)	1,016	1,044	2.8%
Mines Rescue and Emergency response teams	296	495	67.2%

CS Health *continued*



Personal protective equipment FIT-testing

Testing of personal protective equipment (PPE) is essential to effectively protect against exposure to workplace hazards such as noise, dust, gas and fumes.

Noise-induced hearing loss continues to be an issue for the NSW coal industry, with industrial deafness claims accounting for 14 per cent of all new claims received by Coal Mines Insurance in 2016-17.

E-A-R-Fit validation is conducted to help ensure that PPE is correctly fitted to protect against excessive noise exposure while respiratory fit tests are conducted to safeguard against exposure to airborne dust, gas and fumes.

	2015 -16	2016-17
E-A-R-fit validation	792	792
Respiratory fit tests	885	888

Functional capacity evaluations

Functional capacity evaluations are generally conducted as part of the recruitment process or as part of a structured return to work program following injury to assess a worker's physical ability to perform tasks typical to their role. They may also help to identify focus areas for preventative strategies and education to reduce workplace injuries.

	2015 -16	2016-17	% Change
	1,856	2,251	21.3%

Drug and alcohol screening

Strict drug and alcohol policies and procedures are in place across all mines sites in NSW and certain requirements must be met by the mine operations under the Coal Mines Health and Safety Regulation.

CS Health provides screening services which assist employers to meet their regulatory obligations which require the implementation of measures to eliminate or control risks from the consumption of alcohol or drugs in the workplace and ensure workers are fit for duty.

	2015 -16	2016-17	% Change
Drug and alcohol screening samples collected	12,528	14,604	16.6%

Immunisations

Workplace immunisation programs are an important aid to help protect workers against illness and diseases such as hepatitis A and B and tetanus. CS Health also conducts flu immunisation clinics between March and June each year. A total of 4,644 immunisations were administered throughout the year.

CS Health *continued*



Occupational rehabilitation and treatment services

During the year CS Health provided 374 allied health treatment services, injury management and occupational rehabilitation to injured coal industry workers and other clients.

While there was no formal audit required for 2016-17, CS Health submitted a self-evaluation audit of rehabilitation services to the NSW State Insurance Regulatory Authority (SIRA) in December 2016. The audits were completed across all regions and returned a 98 per cent compliance rating.

Managing business improvement and risk

ILO International Classification of chest x-rays introduced

CS Health introduced a new process in March 2017 that sees all chest x-rays being read and reported against the ILO International Classification of Radiographs of Pneumoconioses.

The ILO Classification of x-rays is a method of grading based on x-ray appearance. In the past, only chest x-rays showing signs of abnormality were reviewed and sent for secondary reporting against the ILO Classification, however; this measure was added as a standard feature to complement existing processes for coal worker health surveillance, including the practice of looking for any abnormalities – not just dust disease.

The industry had expressed a desire for all reporting to be conducted to the ILO standard and this, coupled with the findings of the Monash Review in Queensland, led to steps to bolster the NSW coal industry health surveillance process. Part of this is ensuring that all coal worker chest x-rays are only read and reported on by clinical radiologists on The Royal Australian and New Zealand College of Radiologists Coal Workers Pneumoconiosis Register.

Blind audit on chest x-rays

As a further tool to ensure the reliability of chest x-ray reporting, CS Health introduced an additional audit process in early 2017. A five percent sample of chest x-rays conducted during the previous quarter is reviewed by an independent Radiologist on the approved Radiologist Register against the ILO Standard. This process helps ensure that chest x-rays are accurately read and that any potential abnormalities are identified.

Strengthening the NSW coal industry health surveillance scheme

The re-identification of cases of coal workers pneumoconiosis in Queensland has led to a review of the content of Order 41 medicals against what would be considered best practice in the health surveillance setting to manage issues such as dust-related disease and other occupational health risks.

Industry consultation took place on a number of proposed changes to the medical content of Order 41 in late 2016. The proposed changes were based on advice from a range of professional bodies and included:

- Increasing the frequency of chest x-rays to three years for underground coal miners and at risk surface coal miners, with a maximum period of six years for all other coal miners.
- Including Respiratory fit testing as a proactive step in protecting workers' health and providing ongoing education in the use of personal protection.
- Implementing improved clinical standards and training for Doctors and other health professionals who conduct health assessments for coal workers.

Better Health Project

The Better Health (Process and System) Project is part of CS Health's ongoing strategy to improve service provision to customers. The main priority of the project is to deliver re-engineered processes, augmented by a new software solution, to enable provision of improved operational efficiency and reporting to assist employers to identify, analyse and mitigate health hazard exposure trends.

A comprehensive discovery phase commenced in 2016 to define key processes across the breadth of CS Health and to identify opportunities to streamline and improve the way the business operates and interacts with customers and their workers. The Request for Proposal and vendor selection processes were completed in July 2017.

The Better Health Project is scheduled for completion in 2018.

Occupational Exposure Monitoring



Coal Mines Technical Services (CMTS) provides a complete range of gas-related technical and occupational hygiene services to the coal mining and other industries. These specialised services include gas detection and analysis, laboratory and workshop services, and monitoring of airborne contaminants and other occupational exposures.

18 dust suppression plans were received and approved by Coal Services during the year.

Risk profiling using similar exposure groups (SEGs)

CMTS continues to collate, analyse and report on contaminant exposure data using NSW Coal Similar Exposure Groups (SEGs). A SEG is a group of workers with the same general exposure to health risk due to similarity:

- and frequency of the tasks that they perform
- of the materials and processes with which they work
- in the way that they perform tasks.

Categorising workers into SEGs allows more detailed risk profiling and benchmarking to be undertaken and reported back to operations and industry.

Order 40 – Abatement of dust on longwalls

NSW coal mines operating by longwall mining methods are required to prepare and submit to Coal Services an Order 40 application, detailing all dust abatement controls that they intend to have operational on the proposed longwall block to limit dust creation and reduce personal exposure. The manager or owner of the coal mine must obtain the consent in writing of the Coal Services Board prior to the commencement of production in any longwall block. Once production commences an audit of these plans must be submitted to ensure that all provisions of the application, and any conditions within the approval, are in place and operational. Compliance with Order 40 and other dust control measures is an essential component of protecting workers from occupational disease.

18 dust suppression plans were received and approved by Coal Services during the year.

Occupational Exposure Monitoring *continued*



Order 42 – Monitoring airborne dust

Order 42 gives powers to Coal Services inspectors to enter coal mine operations for the purposes of monitoring airborne dust, collecting dust samples and other functions and activities necessary to monitor airborne dust.

A comprehensive, targeted monitoring program is conducted in NSW to determine whether dust levels at coal mines are maintained below the approved airborne dust exposure limits. Regular onsite dust monitoring and analysis provides essential data for mines to review the

effectiveness of dust control measures and identify areas or tasks that potentially present a respiratory health risk for workers.

- Statutory respirable and inhalable dust samples were taken from the breathing zones of 3,733 workers in 2016-17.
- 2,312 workers were sampled for respirable dust, with 0.6 per cent exceeding the specified respirable dust limit.
- 1,421 workers were sampled for inhalable dust, with 4.3 per cent exceeding the specified inhalable dust limit. This is an improvement on the previous year's results that returned an exceedance rate of 5.9 per cent.

Increased monitoring and analysis of respirable crystalline silica is a major focus in the respirable dust area. This monitoring assists operators to identify areas and activities of higher risk and to continue to drive further improvements.

- 707 workers were sampled for respirable crystalline silica, with 4.5 per cent exceeding the specified limit. This is an improvement on the previous year's results that returned an exceedance rate of 7.2 per cent.

All exceedances, particularly those relating to respirable crystalline silica, were reviewed to identify all potential contributing factors and opportunities for improvement.

Mines that have undertaken such reviews and implemented effective controls and training, saw significant improvements in their exposure results.

Compliance assistance

Independent, accompanied monitoring continues to be the cornerstone allowing CMTS to assist customers to identify risk and go beyond compliance by providing practical solutions that keep workers out of the dust. CMTS continued to work closely with many mine operators to review the effectiveness of their dust controls, their work procedures, and identify any areas of possible improvement.

Real time monitoring and dust mapping of work areas are services provided to industry by CMTS technicians to identify dust sources and best practice operator positioning.

Dust education programs continued at mine sites across all regions to ensure workers are educated and informed, enabling them to make smart choices. In many mines, these education sessions have had immediate positive results with workers, particularly in the areas of maintenance standards, operator positioning and respiratory protection compliance.

Occupational Exposure Monitoring *continued*



Investigating respirable crystalline silica (RCS) exposure risks in NSW surface coal mining

CMTS successfully obtained a research grant to investigate respirable crystalline silica exposure risk across NSW surface coal mining operations. Exposure risk findings will be reviewed by CS Health to ensure that evidence-based health surveillance guidelines are in place to monitor and protect NSW surface workers. The project requires the collection of some additional personal respirable dust samples across all surface coal mining operations in NSW.

All samples collected are being analysed for respirable crystalline silica and all results are reported back to each site. This additional monitoring, analysis of samples, provision of data and reporting comes at no extra cost to each mining operation and is funded by the Coal Services Health & Safety Trust.

Statistical analysis and review of data and observations will form the basis of a de-identified report that will be communicated to all industry stakeholders on completion of the research project.

Diesel particulate matter (DPM)

The exhaust fumes from diesel-powered equipment pose a potential risk for workers. The Work Health and Safety (Mines) Regulation 2014 states that if diesel engines are used underground, that the general body of air in which persons work or travel has a concentration of diesel emissions that is as low as reasonably practicable.

Mine Design Guideline 29 (MDG 29), 'Management of Diesel Engine Pollutants in Underground Environments', further specifies that workers should not be exposed to levels of DPM in the form of Elemental Carbon (EC) at greater than 0.1mg/m³. A revised MDG 29 is expected to be released in 2017.

Operators can better understand the risk profile of their workers by using personal monitors to measure DPM exposures. The data can then be used to identify areas of risk and implement effective controls.

- CMTS conducted 309 individual personal samples for DPM during the year.
- A further 72 static samples were taken to provide useful insight into the potential exposure risk in various areas of a mine or when conducting specific tasks e.g. belt moves, longwall relocations.

Mining regulators and mine operators actively seek practical measures to reduce human exposure to diesel particulate matter. CMTS conducted 1,700 diesel engine tests across NSW and Queensland to assist mine operators maintain DPM levels as low as reasonably practicable.

CMTS also provided customers with assistance to develop diesel emission management plans to help minimise worker exposure to DPM.

Gas monitoring, analysis and calibration of equipment

CMTS is accredited by the National Association of Testing Authorities (NATA) to perform testing, repairs and calibration of gas detection equipment. This critical service assists to keep mine environments at safe levels of flammable and noxious gases. There were 12,500 NATA calibrations conducted in 2016-17 for both NSW and Queensland mining operations.

CMTS also performed 630 mine atmosphere gas analysis services during the year.

The purpose-built SMARTGAS system provides gas chromatograph analysis to monitor mine atmospheres and identify potential or actual hazardous conditions. Maintaining the system onsite provides management with the ability to monitor mine atmospheres as frequently as required. Data acquisition and remote transfer technology also enables the system to be remotely accessed, calibrated and monitored by experienced CMTS technicians. Seven SMARTGAS systems were maintained during the year.

Occupational Exposure Monitoring *continued*



Standing Dust Committee

The Standing Committee on Airborne Contaminants and Occupational Hygiene (known as the Standing Dust Committee or SDC) is a sub-committee of the Coal Services Board of Directors and has operated continuously since 1954. The purpose of the SDC is to ensure reduced exposure to airborne contaminants, improvements in occupational hygiene and elimination of occupational disease.

Membership is comprised of representatives from Coal Services with hygiene, health and technical expertise, persons nominated by the Chief Inspector with mining and engineering expertise, as well as representatives from the CFMEU, NSW Minerals Council and Mine Managers Association.

The functions of the SDC are to:

- monitor the results of nominated hazard sampling
- evaluate results and discuss improvement strategies
- identify hazards which may present emerging health issues
- research improved control strategies and methods for nominated hazards
- educate mine personnel in control of nominated hazards
- report back to industry stakeholders.

The SDC met six times during the year at Ashton Mine, Appin Colliery, Newcastle Mines Rescue Station, Bulga Underground Operations, Mangoola Open Cut and Austar CHPP / CFMEU Northern District Office. The purpose of the mine visits was to promote the work of the SDC and to investigate and inspect issues that had been identified through routine statutory monitoring.

With the recent increased industry focus on occupational lung disease, the SDC has been identified as having made a significant contribution to improved overall outcomes in this area. Over the last 12 months, the SDC has continued to work with industry to provide guidance and assistance through information bulletins, conference presentations and improved supply and analysis of data to industry stakeholders. Bi-monthly meetings continued to see the SDC host a wide variety of guests from manufacturers to government and regulatory officials, all keen to observe what is widely considered to be a valuable and integral part of the collaborative model that keeps occupational lung disease under control in the NSW coal industry.

Bi-monthly meetings continued to see the SDC host a wide variety of guests from manufacturers to government and regulatory officials.

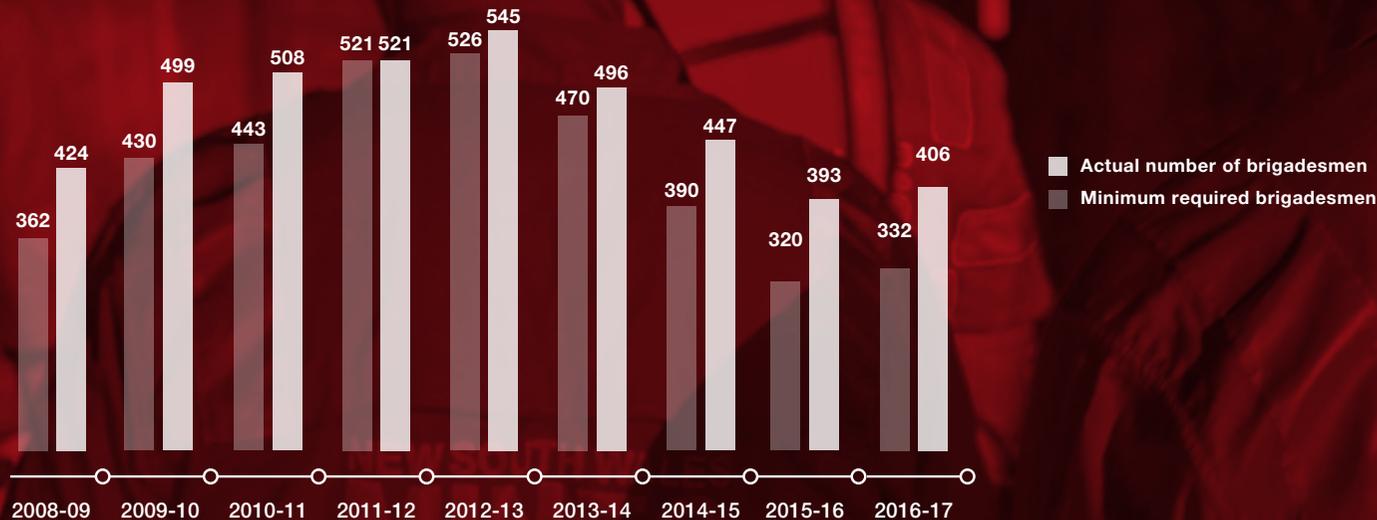
Emergency Response



NSW Mines Rescue (Mines Rescue) are fully resourced and equipped to respond 24 hours a day, 365 days a year with trained brigadesmen, systems and equipment. They are responsible for training brigadesmen and providing expert advice and control in the event of an incident. This provides miners and operators with peace of mind that Mines Rescue is response-ready for any emergency situation within the NSW coal industry – quickly, safely and efficiently.

They are supported by Coal Mines Technical Services (CMTS) who provide critical technical expertise when rapid, accurate and complex data analysis is required for mines rescue deployment.

Mines Rescue brigadesmen



Emergency Response



Incident response

Mines Rescue's primary role is to activate personnel, equipment and systems to respond to any emergency situation arising at NSW coal mines. The decades of knowledge and experience of Mines Rescue trainers is instrumental in preparing brigadesmen and surface emergency responders with an array of specialised skills and rescue techniques. Volunteer brigadesmen play a pivotal role in preventing significant incidents from occurring by supporting and promoting a proactive safety culture onsite. They are ready onsite to enact timely response or assist their workmates with escape if needed. This provides mine site resilience and protection for both workers and operators. It is pleasing to report that there were no incidents requiring Mines Rescue response in 2016-17.



Maintaining response capability

A core function of Mines Rescue is to maintain response capability by training volunteer brigadesmen in rescue techniques and other specialised tasks. A minimum five per cent of the underground workforce (plus full-time equivalent contractors) must be trained to provide mines rescue support.

It is essential that brigadesmen be assessed as fit, competent and capable of providing emergency services in the event of a mining emergency or incident. New recruits are required to complete a ten-day induction at Mines Rescue stations. 41 new recruits completed this training during the year. Attendance at six rounds of training each year is also necessary to maintain skills and active status.

At the end of June 2017 there were 406 colliery-nominated brigadesmen in NSW, which is above the minimum levy requirement. There is always a major focus on improving the number of brigadesmen available to respond to an emergency by ensuring they remain current from a competency perspective. This is only possible by attending mandatory training days and annual medical assessments – on average, only 75 per cent of brigadesmen are deemed to be current. Mines Rescue, through the Mines Rescue Working Group, have worked with industry to understand the contributing factors behind this occurrence with a purpose to develop strategies to improve attendances and hence increase capabilities in 2017-18.

Another focus during the year was to improve the functional medical assessment applied to brigadesmen. Supported by the Coal Services Health & Safety Trust,

medical research staff from the University of Wollongong worked with Mines Rescue and CS Health to identify the minimum standard of occupational fitness required to perform the physical demands of critical emergency response activities and tailor a medical assessment to these needs. The new medical assessment protocol will be applied in 2017-18.

Emergency preparedness

Simulated events

Major incidents requiring brigadesmen to respond are limited which is testimony to today's safety focused operations. However; emergency simulations are regularly undertaken across the state to assess systems and skills ahead of possible real-life incidents. Simulations vary from desktop exercises and evaluating internal communications processes to those requiring a full scale deployment to a simulated mine emergency onsite.

In August 2016, Mines Rescue attended simulations at Glencore's Bulga underground mine and Liddell open cut mine. The team assisted in coordinating and assessing the events that involved other external response agencies including NSW Police, NSW Ambulance Service and the Westpac Rescue Helicopter Service.

Mines Rescue also worked with South 32 Illawarra Coal in March 2017 to coordinate and respond to a major simulation at the Dendrobium mine. The simulation included a full test of the Southern Mines Rescue station's response systems, including the involvement and participation of other external emergency response agencies and the Regulator's Emergency Management Coordination team.

Emergency Response *continued*



The event culminated in an underground co-deployment with the NSW Ambulance Service and the associated rescue of a trapped miner.

Mines rescue competitions

Mines Rescue competitions also provide an opportunity for brigadesmen, surface emergency responders and first-aid personnel to practice their skills in a realistic, high-pressure environment. These competitions are pivotal in elevating and maintaining team skills at the optimum level such that they are ready to respond. New trainees are encouraged to participate such that they can learn from more experienced team members.

More than 180 brigadesmen competed at five NSW regional competitions during the year.

In addition to traditional mines rescue competitions, Coal Services' 4th annual first aid competition was held in August 2016 at the Newcastle Mines Rescue station. Fifteen teams (60 first aiders) from mine sites across NSW competed at the event that aims to test first aid skills that may potentially save a life.

Competition details outlined below:



Competition	Date	Venue	No. Teams	Winners
Northern	24 June 2016	Yancoal Abel	6	Composite team
Hunter Valley (Underground)	15 July 2016	Hunter Valley Mines Rescue station	6	Peabody Energy Wambo
Southern	19 August 2016	Peabody Energy Metropolitan	5	South 32 Appin Pink
Western	2 September 2016	Centennial Coal Angus Place	7	Centennial Coal Clarence
Hunter Valley (Open Cut)	4 November 2016	Hunter Valley Mines Rescue station	11	BHP Billiton Mt Arthur
NSW First Aid Competition	12 August 2016	Newcastle Mines Rescue station	15	West Wallsend Barbarians
Australian Mines Rescue Competition	20 October 2016	Rio Tinto Kestrel (Qld)	8	1. South 32 Appin 2. Oaky North 3. Grosvenor
10th International Mines Rescue Competition	23-25 August 2016	Sudbury, Canada	27 teams from 13 countries	Kirkland Lake Gold (Canada) – overall winners Peabody Energy Wambo – first place in first aid scenario

Emergency Response *continued*



Mines Rescue Working Group

The Mines Rescue Working Group is a collaborative forum with representation from mining companies, the Mine Managers Association, the mines inspectorate and unions. The group is facilitated by Mines Rescue to ensure all stakeholders keep abreast of and participate in determining the capabilities and capacity of the Mines Rescue service. The group met three times during the year with specific areas of focus being improving brigadesmen currency levels, emergency response capability, consultation process regarding emergency management and determinations regarding suitable self-contained self-rescuer training units.

There were no incidents requiring Mines Rescue response in 2016-17.



Improving communications channels

Government Radio Network

Effective communications are a critical component of any coordinated emergency response effort. The NSW Government Radio Network (GRN) is a communications platform available only to approved government agencies and is used for emergency services voice communications, special events, exercises and training. With the assistance of the NSW Resources Regulator, Mines Rescue was granted access to the GRN during the year. This allows Mines Rescue direct and immediate access to other response staff across the state, without reliance on the mobile telephone network.

Whispir technology

Development and trials of Whispir Interactive Voice Response technology commenced during the year with full implementation expected by December 2017. The system is based on a centralised Mines Rescue emergency contact number and inbuilt redundancies designed to maximise reliability and effectiveness.

This technology complements the Whispir Notification System that has been in use at Mines Rescue since 2015. The platform enables Mines Rescue to send simultaneous mass activation messages to selected personnel and/or brigadesmen as required in the event of an emergency. The Whispir Notification System was consolidated across all regions during the year; allowing Mines Rescue to validate the effectiveness of the channel and determine the timely level of response to an affected site.

UAV project

The Coal Services Health & Safety Trust supported a project aimed at ultimately delivering an Unmanned Aerial Vehicle (or drone) capable of being remotely deployed into a mine following a major incident to gather critical data and information, prior to sending in Mines Rescue teams. The first stage of the project succeeded in delivering a flying UAV platform capable of traversing down a mine roadway regardless of the condition of the terrain on the floor of the mine (avoiding the problems that ground-based robots encounter post incident), being piloted remotely by an operator external to the mine utilising a live video feed in real time with the capability to monitor, record and relay gas levels alongside visual and thermal images. Development will continue in pursuit of establishing this critical safety initiative. Success will significantly improve the safety and effectiveness of mines rescue and as a world-wide interest.



Improved response to remote mining districts

Moolarben Mines Rescue Station

Mines Rescue established a permanent presence in the heart of the Mudgee-Ulan mining district in 2016, with further development and construction of the Moolarben Mines Rescue station at Ulan now well underway. The development follows extensive consultation amongst mining companies and other stakeholders in the region regarding options to improve mines rescue emergency response to the surface and underground mines in the area.

Located at Yancoal's Moolarben Coal Mine, the station is now functioning as a rescue response station. A primary dedicated underground response rescue vehicle is garaged on site allowing a rapid response. Scheduled expansion will provide similar training capabilities enjoyed at other regional rescue stations. These facilities will greatly enhance the mines rescue and training capabilities in the area.

Westpac Rescue Helicopter Service

One of the challenges in providing timely emergency response to the north-western mining regions has been distance. In 2016 an agreement was reached with the Westpac Rescue Helicopter Service which will enable Mines Rescue personnel to be airlifted to Narrabri in the event of an emergency, with this arrangement formalised in 2017. The agreement greatly enhances the rapid deployment of response expertise should it become necessary.

Training



The NSW coal industry maintains one of the highest safety records in the world. As a Registered Training Organisation (RTO) and provider of specialist industry training, Mines Rescue plays a critical role in assisting workers and employers to manage risk and operate safely.

Attendance at Mines Rescue training courses



Industry education and training



Order 34 – ensuring training schemes are in place

Order 34 requires NSW coal mine operators to have a mine site Training and Competency Management Scheme (TCMS) in place to maintain a properly trained workforce. One of the general functions of Coal Services under the Coal Industry Act 2001 is to work with operators to check that their submitted training plans meet the requirements of the 'Guideline for Training and Competency Management Scheme' and help identify opportunities to improve their training systems. Coal Services may also audit existing TCMS or specific elements of these programs. The audit process is designed to help operators meet their statutory obligations under coal mining safety legislation, and comply with general work health and safety legislation.

Coal Services' Order 34 team hosted an industry-wide training conference in December 2016. The conference brought together safety and training professionals to enable them to understand legislative changes around training requirements and how to apply these to their site's TCMS. Industry and Government experts were also invited to provide the latest advice regarding current initiatives and answer site representatives' questions.

In 2016-17, Coal Services' audit team assisted 29 mine sites to gain approval of their TCMS. The team also completed a review of 60 per cent of site audits with the remainder to be completed by the end of 2017.

Mines Rescue – a registered training organisation (RTO)

Mines Rescue is registered with the Australian Skills Quality Authority (ASQA) to operate as an RTO. Compliance with ASQA requirements ensures all accredited training is developed and delivered to a national standard.

Mines Rescue also offer a range of courses which are outside of the national training framework. These courses are tailored to specific safety outcomes required to meet unique industry and customer needs.

Overall training numbers

Overall attendances at Mines Rescue training courses increased 6.9 per cent on the previous year to reach 17,136 in 2016-17.

Of the total attendances, 3,323 were for accredited training. Training participant numbers for the Generic Underground Induction (GUI) grew for the first time in three years with 463 attendances, compared to just 133 in 2015-16. Brigadesmen training days accounted for 1,824 attendances and there were 11,526 attendances at other training courses.

29 mine sites gained approval of their TCMS



19.4%
of the 17,136
attendances were
for accredited
training.

463 GUI participants
(Up 248% for the
first time in 3 years)

Industry education and training *continued*



Demand for the ICCS course continued throughout the year

Meeting industry demand

Moolarben Mines Rescue station

Development of the Moolarben Mines Rescue station commenced during the year to provide a local rescue response service and training facility to mines in the Mudgee-Ulan region. The station is currently comprised of administration and training rooms. Scheduled expansion will enable specialty training such as fire fighting, confined space and working at heights training, as well as underground and open cut mines rescue training. These arrangements will greatly enhance the mines rescue and training capabilities in the area.

Two full-time Mines Rescue training coordinators and two full-time training officers are based at the station with benefits already being realised.

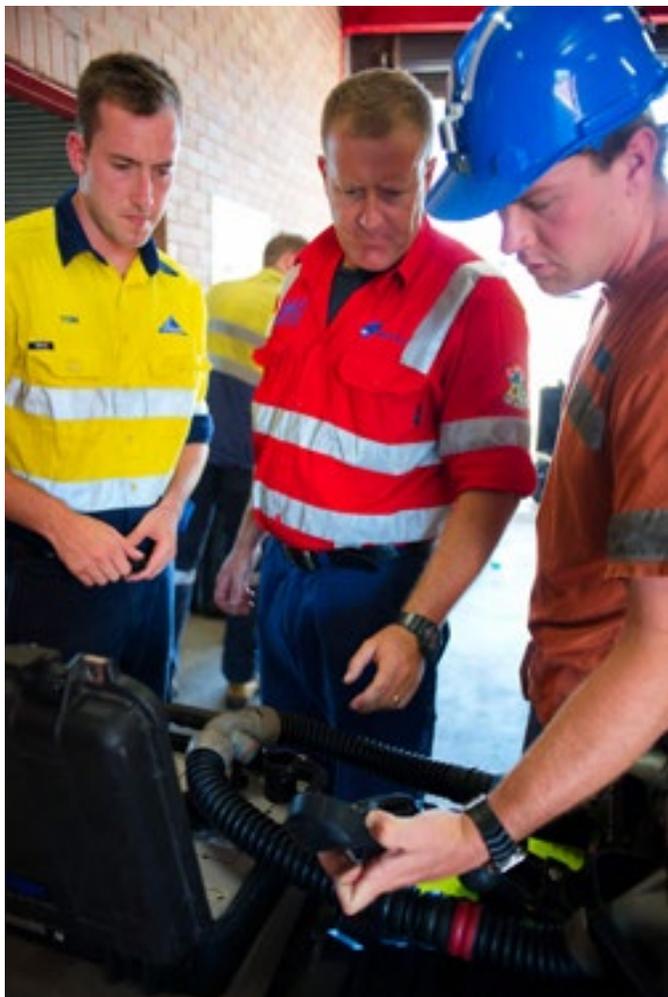
Incident Command and Control System (ICCS)

The Incident Command and Control System (ICCS) course continued to be adopted and rolled out by coal mine operators. The course provides the uniform operating system that NSW Police and other response agencies are seeking to ensure an efficient and co-ordinated emergency response should assistance be required. With common legislation, the ICCS course was tailored for the metalliferous sector and has been delivered to workers at an underground copper mine.

Emergency Preparedness and Response course

An Emergency Preparedness and Response course for surface and metalliferous mines was developed and trialled during the year in response to growing demand for training in this area. The course is targeted towards mining engineering managers, electrical engineers, mechanical engineers and quarry managers to provide the required skills and knowledge to establish and maintain mine emergency preparedness and response systems. The course will be rolled out in the Mudgee-Ulan region from August 2017.

Industry education and training *continued*



Managing risk

The G1 – Apply Risk Management Processes course was developed in response to customer demand to prepare those new to the industry for the risks inherent to their roles. The course enables participants to develop the necessary awareness and skills to plan and prepare for risk management; including assessing and identifying unacceptable risk; reviewing risk management documentation; identifying and recommending controls and contributing to the implementation of those controls.

The G2 – Carry out the risk management processes course was tailored specifically for Mines Safety Inspectors. The course covers the necessary skills, knowledge and attitudes required by the Mine Safety Inspectors to facilitate risk assessments and carry out risk management processes in the coal and metalliferous mining industries. The course has been delivered to approximately 70 Mines Safety Inspectors throughout NSW since it was introduced in May.

Drive under lights and sirens

Mines Rescue employees may be required to drive under lights and sirens in the event of an emergency callout. An in-house course was launched during the year based on the unit of competency 'Drive vehicles under operational conditions' and involves both theoretical and practical elements. The course will be rolled out to all Mines Rescue emergency response staff from July 2017.

Fire Warden course

An accredited Fire Warden course was established in 2016. A non-accredited course had been offered for many years, however; the new course was designed following customer demand across all regions. 138 participants have completed the course since it was launched in July 2016.

New course development

Mines across NSW have expressed interest for training in other safety areas, specifically **Work safely with industrial chemicals and materials** and **Perform rescue from live low voltage panel**. Both courses are under development and will be released in 2017-18.

Whole of mine customised training

Whole of mine customised training days provide an opportunity to utilise Mines Rescue's facilities to effectively and efficiently maintain workforce competency. Customised training of Principal Hazard Management Plans, incorporating virtual and augmented reality, plus Mines Rescue or CS Health training programs are regularly combined for our customers.

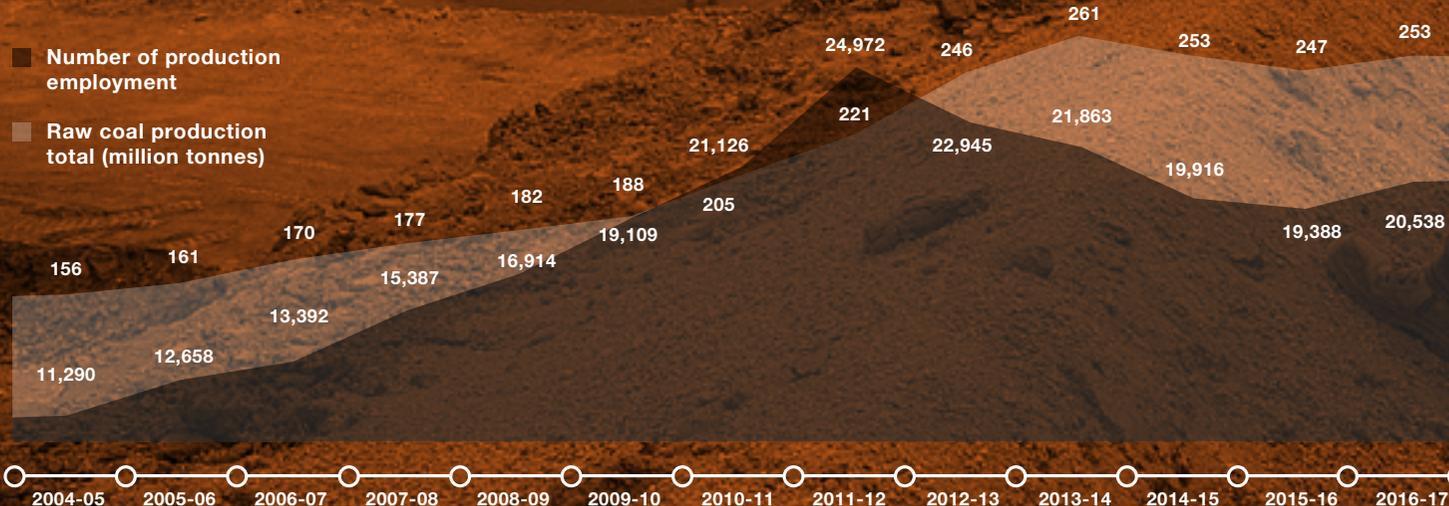
138 attendances at
accredited Fire
Warden training

Industry statistics



Coal Services Statistics' comprehensive current and historical data series describing the NSW coal industry provides a unique resource for all stakeholders. With the cooperation of NSW coal producers, shippers and coal consumers, the Coal Services Statistics team is able to collect data on key aspects of the NSW coal industry.

Raw coal production vs. production employment



Industry statistics



NSW mining operations

At 30 June 2017, there were 41 coal mining operations in NSW; 20 underground mines (15 longwall operations) and 21 open cut mines. During the twelve months to 30 June 2017, two mines opened and three mines closed.

Production

Overall raw and saleable coal production increased in 2016-17 following two consecutive years of decline.

Total raw coal production increased by 2.7 per cent or 6.6 million tonnes to 253.4 million tonnes. Overall raw coal production rose across all coalfields except Newcastle and Southern. Production from underground mines fell 1.8 per cent while production at open cuts rose 4.3 per cent.

Raw coal production from the Gunnedah coalfield increased by 10 per cent to a record 31.1 million tonnes. The Gunnedah coalfield has continued to grow and accounted for 12.3 per cent of the total raw coal production for the year 2016-17, compared to 3.7 per cent five years ago.

The Mudgee-Ulan region also increased raw coal production during the year, rising 15.1 per cent to 41 million tonnes; accounting for 16 per cent of the total raw coal production for the year.

NSW underground coal mines produced 64.3 million tonnes of raw coal in the year 2016-17, down 1.8 per cent or 1.2 million tonnes compared to the previous year. Underground mines produced 25.4 per cent of total raw coal production. Open cut mines produced 189.1 million tonnes of raw coal in the year 2016-17, up 4.3 per cent or 7.7 million tonnes compared to the previous year. Open cut mines produced 74.6 per cent of total raw coal production in the year 2016-17, compared to 66.4 per cent ten years ago.

Saleable coal production is calculated by subtracting rejects from raw coal production and adding or subtracting unexplained adjustments at the mine site. Saleable coal production is a combination of raw (unwashed) and clean (washed) coal.

41 coal mines operating in
NSW as at 30 June 2017

253 million tonnes of raw
coal produced from
NSW coal mines

Industry statistics *continued*



NSW Coal Industry Statistics	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
Number of coal mines at 30 June	52	55	58	60	60	60	62	61	61	55	51	44	42	41
Raw coal production underground mines (million tonnes)	49.3	51.9	52.2	57.2	61.3	63.1	62.8	62.2	60.5	69.0	74.4	77.4	65.5	64.3
Raw coal production open cut mines (million tonnes)	97.7	104.4	108.9	113.1	115.9	118.9	126.0	142.7	160.5	176.8	186.6	175.8	181.4	189.1
Raw coal production total (million tonnes)	147.0	156.3	161.1	170.3	177.2	182.0	188.8	204.9	221.0	245.8	261.0	253.2	246.8	253.4
Saleable coal production (million tonnes)	114.2	122.1	124.6	131.3	135.1	138.5	145.4	157.0	167.2	185.6	196.6	196.4	191.0	198.2
Coal sales to power stations within Australia (million tonnes)	26.6	27.8	28.5	30.4	30.8	30.6	28.5	27.8	23.6	24.2	23.1	21.9	22.5	22.4
Coal sales to others within Australia (million tonnes)	6.2	6.1	5.6	5.9	6.0	4.3	5.5	5.7	4.8	4.5	4.3	3.9	4.0	4.1
Coal sales within Australia (million tonnes)	32.8	33.9	34.1	36.3	36.8	34.9	34.0	33.5	28.4	28.7	27.4	25.8	26.5	26.6
Metallurgical coal exports overseas (million tonnes)	21.0	18.6	17.9	20.4	25.4	21.2	28.8	25.1	23.3	25.5	25.1	24.1	25.6	25.9
Steaming coal exports overseas (million tonnes)	64.0	68.0	71.9	71.1	75.1	82.1	81.1	96.7	113.0	129.8	142.2	148.8	144.0	144.3
Coal exports overseas (million tonnes)	85.0	86.6	89.8	91.5	100.5	103.3	109.9	121.8	136.3	155.3	167.3	172.9	169.6	170.2
FOB value of metallurgical coal exports overseas (\$A billion)	1.1	1.3	2.0	1.8	2.6	5.7	3.7	4.5	4.4	3.3	2.9	2.6	2.5	4.4
FOB value of steaming coal exports overseas (\$A billion)	2.6	4.2	4.7	4.4	5.7	11.4	7.5	9.6	12.3	11.7	12.3	11.8	10.7	13.8
FOB value of coal exports overseas (\$A billion)	3.7	5.5	6.7	6.2	8.3	17.1	11.2	14.1	16.8	15.0	15.2	14.4	13.2	18.2
Average FOB value of metallurgical coal exports (\$A per tonne)	50.77	71.81	110.89	88.37	103.15	272.48	129.85	178.85	190.49	129.01	114.49	107.73	98.38	169.91
Average FOB value of steaming coal exports (\$A per tonne)	41.57	61.15	65.98	61.47	75.56	138.49	92.31	99.47	109.24	90.01	86.68	79.57	74.29	95.67
Average FOB value coal exports (\$A per tonne)	43.85	63.43	74.92	67.46	82.52	165.95	102.16	115.80	123.11	96.41	90.86	83.5	77.92	106.97
Average number of employees insured (exposed to risk) at 30 June ¹	10,736	12,272	14,726	16,691	17,628	19,312	20,383	23,407	30,595	30,065	27,740	24,990	22,803	22,591
Number of production employment at 30 June ²	9,998	11,290	12,658	13,392	15,387	16,914	19,109	21,126	24,972	22,945	21,863	19,916	19,388	20,538
Saleable coal output per mineworker per year (tonnes)	11,380	11,680	10,240	9,970	9,430	8,410	8,130	7,750	7,000	7,830	8,820	9,270	9,460	9,980
Saleable coal output per mineworker per hour (tonnes)	5.82	5.73	4.95	4.87	4.74	4.15	4.09	3.87	3.49	3.91	4.46	4.98	4.99	5.24
Days worked per mineworker per year	279.2	291.1	295.6	292.2	284.4	289.6	286.7	286.4	286.6	286.0	282.6	266.1	270.1	272.2
Lost-time injuries per million tonnes raw coal produced	2.9	2.4	2.6	2.6	2.3	2.5	2.0	1.9	2.1	2.3	2.1	1.6	1.5	1.4
Lost-time injuries per million tonnes saleable coal produced	3.7	3.1	3.4	3.3	3.0	3.2	2.6	2.5	2.8	3.0	2.8	2.0	2.0	1.8
Lost-time injuries per million hours worked	21.5	17.7	16.6	16.2	14.2	13.5	10.5	9.7	9.6	10.4	12.4	10.0	9.8	9.7

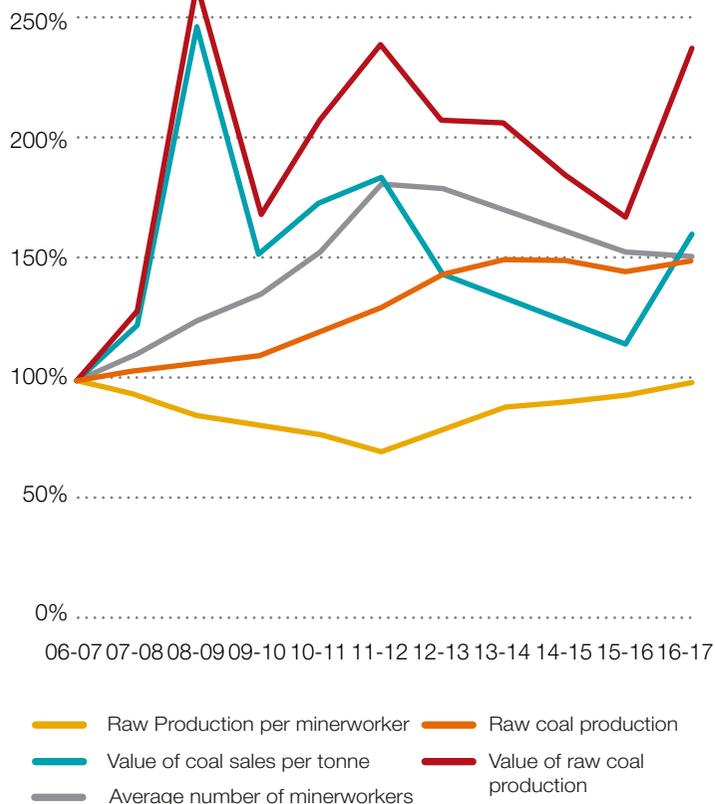
¹ The exposed to risk average is calculated on data available in the August of the following year.

² Production employment includes working proprietors, persons engaged as employees of the operator of the mine or as employees of a contractor undertaking work relating to coal production, coal preparation, overburden removal, drivers transporting coal from the mine to a preparation plant or in administration/clerical work at the mine site and is a subset of exposed to risk numbers.

Industry statistics *continued*



NSW coal industry performance relative to 2006-07



NSW production employment and productivity

NSW coal industry production employment is defined as all persons working in or about the coal mine or coal preparation plant, pertaining to its operation, whether employed directly by the mine owner or the mine operator or by a contractor.

During the twelve months to 30 June 2017 there was net job growth of 1,150, taking the production workforce at NSW coal mines up to 20,538 full-time equivalent workers. The contractor share of employee numbers has steadily increased from 29.4 per cent to 41.3 percent across the open cut segment over the past five years. Despite the increase of 5.9 per cent on 2015-16, the industry has lost 17.8 per cent of the peak workforce numbers reached in June 2012 of 24,972.

Growth in employee numbers was highest in the Hunter region, increasing by 881 workers or 8.1 per cent.

The NSW coal industry average annual production employment for the year 2016-17 fell for the fifth consecutive year. The average number of workers at NSW coal mines fell by 1.7 per cent, down 340 to 19,858 for the year. However, there was an increase in employee numbers towards the year end at 30 June 2017, rising to 20,538.

Overall productivity at NSW coal mines rose for the fifth successive year. Productivity calculated as raw coal production tonnes won per employee for the year rose by 4.4 per cent to 12,760 tonnes, up from 12,220 tonnes for the previous year.

20,538

production workforce in NSW as of 30 June 2017

Productivity calculated as raw coal production tonnes won per hour worked for the year 2016-17 rose to 6.7 tonnes, up marginally from 6.45 tonnes for the previous year. Saleable coal production tonnes won per hour worked, for the year 2016-17 rose to 5.24 tonnes.

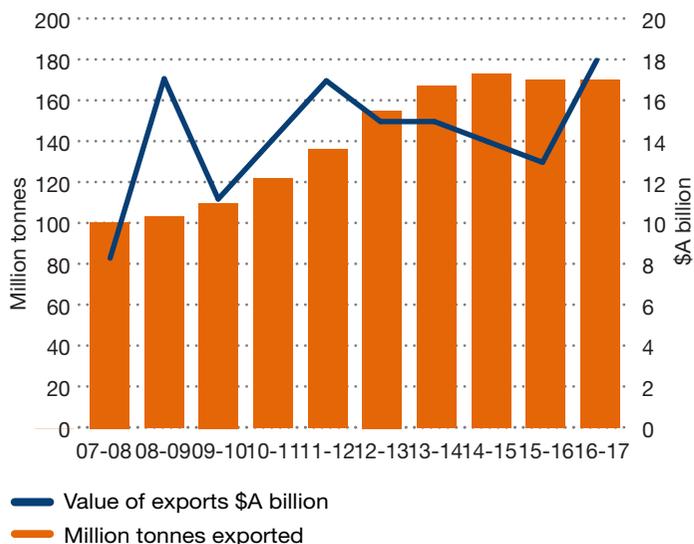
There has been an improvement in productivity in the NSW coal industry for both productivity measures since the low point in the year 2011-12.

The graph at left plots the NSW coal industry performance as an index, using the year 2006-07 as its base for comparing each successive year. It shows the relationship between the numbers of workers employed, raw coal production levels and productivity. The value of sales per tonne has been calculated using the average FOB value of exports for metallurgical coal and steaming coal, discounting transport costs and assuming domestic sales parity; the value of raw coal production has been derived from the value of sales per tonne. The graph demonstrates the significant improvement in the value received for coal sales in 2016-17 and the steady improvement in worker productivity.

Industry statistics *continued*



NSW coal exports as at 30 June 2017



Exports

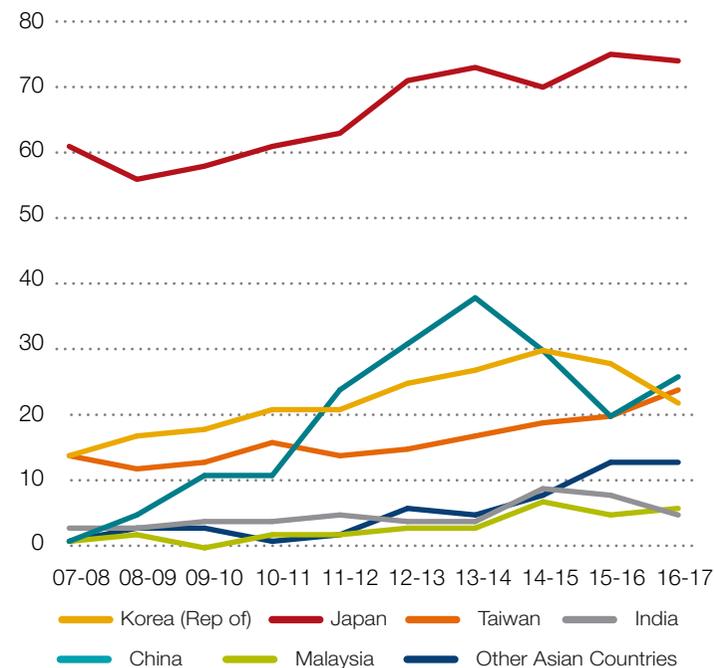
The year 2015-16 saw NSW coal exports fall for the first time in fifteen years, a period during which shipments had been increasing year on year to reach a record 172.9 million tonnes in 2014-15. NSW coal exports for the year 2016-17 rose 0.4 per cent to 170.2 million tonnes.

The FOB value of coal exports for the year rose 37.7 per cent to 18.2 billion Australian dollars with an average FOB value of \$106.97 per tonne. The average value was up 37.3 per cent or \$29.05 on the previous year.

NSW metallurgical coal exports increased by 1.2 per cent or 0.3 million tonnes to 25.9 million tonnes for the year 2016-17, accounting for 15 per cent of the total tonnage exported and 24.2 per of the FOB value for the year. The FOB value of metallurgical coal exports rose 74.6 per cent to 4.4 billion Australian dollars with an average FOB value of \$169.91 per tonne, up 72.7 per cent or \$71.53 on the previous year.

Metallurgical coal exports are made up of hard coking coal and other coking coal, which covers the semi-soft coking and non-coking metallurgical PCI (pulverised coal injection) coals. Hard coking coal exports which had increased to a record 8.2 million tonnes in the year 2014-15, fell by 9 per cent to 7.5 million tonnes in the year 2015-16 and it fell further by 15.2 per cent to 6.3 million tonnes in the year 2016-17. Other coking coal shipments rose for the second year by 8 per cent to 19.6 million tonnes. Hard coking coal exports accounted for 3.7 per cent of the total NSW coal exports in the year 2016-17 with other coking coal exports accounting for 11.5 per cent.

NSW coal exports by major destinations, million tonnes



Steaming coal exports rose 0.2 per cent to 144.3 million tonnes, accounting for 85 per cent of all NSW coal shipments in the year. The FOB value of steaming coal exports rose 29 per cent to 13.8 billion Australian dollars with an average FOB value of \$95.67 per tonne, up 28.8 per cent or \$21.38 on the previous year.

NSW coal was shipped to 22 countries during the year 2016-17. The top four markets of Japan, China, Taiwan and the Republic of Korea accounted for 86.3 per cent of

0.4% rise in NSW coal exports in 2017

Industry statistics *continued*



the total tonnage exported. Japan remained the largest market for NSW coal with 74.5 million tonnes shipped during the year. Exports to Japan were down 0.3 million tonnes from the previous year.

China regained its position as the second largest market for NSW coal exports with exports increasing 26 per cent to 25.8 million tonnes. Taiwan became NSW's third largest market with shipments up 24 per cent to record 24.4 million tonnes.

In the year 2015-16, the Republic of Korea was the second largest market for NSW coal exports, however; in 2016-17 exports were down 22 per cent to 22.1 million tonnes thus relegating them to the fourth largest market for NSW coal.

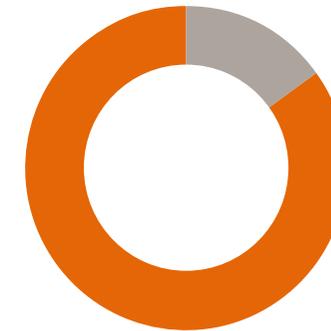
NSW coal shipments to India fell for the second year in 2016-17, reducing by 33.4 per cent to 5.2 million tonnes. Exports to Malaysia rose 9.6 per cent to 5.7 million tonnes for the year.

Domestic market

The steady decline of domestic coal sales that had been seen for many years was reversed in 2015-16 and the increase continued in 2016-17 with overall sales to domestic markets up by 0.3 per cent to 26.6 million tonnes.

The largest market for NSW coal within Australia during the year was power generation. NSW power stations accounted for 84.4 per cent of all domestic sales of NSW coal. NSW coal mines delivered 22.4 million tonnes to power stations during 2016-17, down 0.1 per cent on the previous year.

The iron and steel industry was the second largest domestic market for NSW coal with a 14 per cent market share. Sales to the steelworks in NSW and South Australia totalled 3.7 million tonnes for the year, up 6.2 per cent on the previous year.



84%

of all domestic sales of NSW coal went to NSW power stations.

14%

of NSW coal is used by the iron and steel industry.

Board of Directors



David Moulton

Non-Executive Chairperson

Nominee for NSW Minerals Council

Term of appointment (1 January 2015 – Current)

David Moulton was appointed as a Director of Coal Services in January 2015. He was also appointed Chairman for the two-year period of 2016-17.

After qualifying in 1979 as a mining engineer, followed by an MBA from Nottingham University, UK, David spent nine years as a mine manager with British Coal and RJB Mining PLC (more recently UK Coal PLC).

In 1995, David moved to Pittsburgh, USA, as Global Business Development Manager for Joy Mining Machinery with responsibility for the USA, UK, Republic of South Africa and Australia.

In July 1997, he moved to Australia with Joy Mining Machinery as the Regional Vice President with responsibility for Queensland.

In January 1998, David joined Centennial Coal Company Limited as the General Manager, Operations, and subsequently assumed the role of Chief Operating Officer before being appointed to Managing Director & CEO in July 2011 through to April 2017. David now holds the position of Non-Executive Director of Centennial Coal Company Limited.

David is currently chairman of the Australian Coal Association Low Emissions Technologies Limited Board (ACALET); and a member of University of NSW Education Trust Advisory Committee.

He was previously a director of Minerals Council of Australia; NSW Minerals Council; Australian Coal Association (ACA) and a member of the NSW Freight Advisory Council and Coal Innovation NSW (CINSW).

In May 2014, through to project end in February 2015, David was also a member of the Minerals Industry Taskforce, tasked with providing a roadmap for the growth in the minerals sector within NSW.

Board of Directors *continued*



Lucy Flemming

Managing Director/CEO

Term of appointment (19 December 2011 – Current)

Lucy Flemming joined Coal Services in August 2010 as Chief Financial Officer and was appointed as Managing Director/CEO in December 2011, becoming the first female Director in the 90-year history of Coal Services and its predecessors.

Prior to joining Coal Services, Lucy spent seven years at WorkCover NSW where she managed various facets of workers compensation insurance in NSW. In Lucy's last three years at WorkCover NSW she was the Director of Regulatory and Financial Services. Her career has spanned more than 30 years, during which time she has held executive positions in accounting, business, finance, investment and retail areas across the public and private sectors.

Lucy continues to influence change in a challenging industry landscape by actively participating in forums, events and committees to raise the profile of Coal Services and its role in protecting workers and the NSW coal industry. She is a Trustee of the Coal Services Health & Safety Trust and sits on the NSW Mines Rescue Working Group, as well as advising many key industry health and safety groups and mining bodies. This involvement has been instrumental in building a robust specialist health and safety scheme, which over recent years has experienced injury rates and premiums at some of their lowest levels under her leadership.

Lucy holds a Bachelor of Business degree with a major in Accounting and sub-major in Law and is a qualified CPA. She is a Graduate Member of the Australian Institute of Company Directors, and has been a Director of Hospitality Employers Mutual Limited since February 2015.

Board of Directors *continued*



The Hon. John Hannaford

Independent Non-Executive Director

Term of appointment (1 January 2013 – Current)

The Hon. John Hannaford was appointed as a Director of Coal Services on 1 January 2013. John is the former Chair of the NSW Mine Safety Advisory Council, Chair of the Wentworth Institute of Higher Education Pty Ltd and has been appointed an Examiner with the Australian Crime Commission until 2017.

John is a lawyer and was a full-time Examiner with the Australian Crime Commission from 2003 to 2011. Between 2000 and 2003 he held various appointments including Adjunct Professor with University of Technology Sydney; Corporate Facilitator, Mediator and Arbitrator with part-time appointments to the NSW Workers Compensation Commission and District Court; member of the Commonwealth Government's National Alternative Disputes Advisory Council; Special Inquiry Steward with NSW Harness Racing; Chair of the Panel to review the Aboriginal and Torres Strait Islander Commission for the Commonwealth Government; and, has an appointment to the Professional Standards Review Panel of the Catholic Church in Australia.

From 1984 to 2000 he was a Member of the Legislative Council in the NSW Parliament where he held appointments as the Minister for State Development; Minister for Health; Minister for Community Services; Minister for Industrial Relations; Minister for Justice and Attorney-General. He was also Leader of the Government and of the Opposition in the Legislative Council.



Peter Jordan

Non-Executive Director

Nominee for Construction, Forestry,
Mining and Energy Union
Term of appointment (1 January 2012 – Current)

Peter Jordan was appointed as a Director of Coal Services on 1 January 2012. Peter has represented mine workers in the NSW coal mining industry for more than 31 years. He is President of the Northern Mining & NSW Energy District Branch of the Construction, Forestry, Mining and Energy Union (CFMEU) (Mining & Energy Division), a position he has held since October 2009, and is a Central Executive member of the CFMEU National (Mining & Energy Division). He is also President of the NSW Branch of the CFMEU. He was also Vice President of the Northern District Branch of the union from April 1993.

Peter was previously the NSW Mining Official of the Federated Engine Drivers and Firemen's Association (FEDFA), a position he held from 1986 until its amalgamation with the United Mineworkers Federation of Australia. Peter is also a Trustee of the Mineworkers Trust and represents the CFMEU as a Director of Unite Organising Pty Ltd and the Mining & Energy Workers Services Pty Ltd. Peter was appointed as a member of the NSW Mine Safety Advisory Council on 8 February 2011.

Peter is also a member of the Health Management Advisory Committee. He has been a Non-Executive Director of the Hunter Region Westpac Rescue Helicopter Service Limited since 2007 and is also a member of its finance committee.

Board of Directors *continued*



Greg Sullivan

Non-Executive Director

Nominee for NSW Minerals Council
Term of appointment
(1 January 2016 – 20 September 2017)

Greg Sullivan was appointed a Director in January 2016. Greg is the Policy Director at the NSW Minerals Council.

Following four years at Brisbane City Council, finishing as the Acting Divisional Manager for Families and Community Services, he held the position of Deputy Director General with the Department of Environment Climate Change and Water (later the Office of Environment and Heritage) in NSW and instrumental in the re-establishment of the independent NSW EPA.

After leaving the public sector in late 2011, Greg took on the role of Deputy CEO Australian Coal Association, following which he was appointed Interim CEO of the ACA Low Emissions Technology Ltd (ACALET).

Greg commenced his current role in October 2014 and has been responsible for leading the development of industry positions on planning, bio-diversity and indigenous employment policy. His current portfolio includes Health and Safety and Community Engagement. Greg represents the mining industry on a range of boards, committees and working groups, including chairing the Steering Committee which oversees the Minerals Industry Agreement on Aboriginal Employment and Enterprise Development.

Greg holds Bachelor and Master of Laws degrees from the Queensland University of Technology (QUT) and also holds a Masters of Public Administration from Griffith University.



Mark Genovese

Independent Non-Executive Director

Term of appointment (1 January 2013 – Current)

Mark Genovese was appointed as a Director of Coal Services on 1 January 2013. Mark has over 30 years' experience within the Australian Credit Union Movement, including periods as Chief Executive Officer of Esso Employees Credit Union and the public service-based Comtax Credit Union. He is now Chief Executive Officer of Unity Bank, formerly Maritime Mining and Power Credit Union (MMPCU). The Credit Union officially changed its name to Unity Bank on 1 March 2017.

Mark previously worked at Australia's peak Credit Union body, Credit Union Services Corporation Australia, where his specific responsibility included managing the retail banking products provided to credit unions. He also represented the industry on the Australian Payments Council and VISA Australia Boards.

Mark managed the Australian Credit Union Movement's international development activities, which are primarily focused within the South Pacific and South East Asian regions, and domestic development activities including the development of new credit unions and the expansion of existing credit union services within rural and regional Australia.

In recent years Mark has played a pivotal role in the development of the first cooperative raising of capital, where credit unions pooled their balance sheets to secure 'mutual friendly', affordable capital. He is also a Director of Cuscal.

Board of Directors *continued*



Andy Honeysett

Non-Executive Director

Nominee for Construction, Forestry,
Mining and Energy Union

Term of appointment (1 January 2016 – Current)

Andy Honeysett was appointed a Director in January 2016. Andy is the President of the South-Western District Branch of the CFMEU (Mining and Energy Division). He has held that position since December 2009 representing miners from Mudgee, Lithgow, Wollongong and Broken Hill regions.

Andy has held positions on the District Board of Management and the Mining and Energy Division's Central Council, the division's governing body. He is a member of the National CFMEU Executive, a Trustee of the Mineworkers Trust and holds an executive position with the State Branch of the CFMEU.

Andy has 24 years of experience as an underground coal miner. He was appointed to the NSW Mine Safety Advisory Council in 2011, appointed to the Mining Competence Board in 2012 and a member of the NSW Resources Advisory Forum.

General Management Team



Martin Linz

Chief Financial Officer

Martin Linz joined Coal Services as Chief Financial Officer in June 2012. Martin is responsible for all corporate support services within Coal Services covering Finance, Investments, Property, Risk Management and Internal Audit, Human Resources, Fleet Management, Records Management, Policies and Procedures and Statistics.

Martin developed his broad range of financial and commercial skills as a Partner of 23 years with PricewaterhouseCoopers. He worked in a diversity of industries across mining, energy, aluminium, engineering, construction and health services in both NSW and Queensland. He also carried out work internationally in India, China, South East Asia, West Africa and the UK.

Martin has strong leadership, mentoring and staff development skills. He holds a Bachelor of Commerce Degree, is a Fellow of the Institute of Chartered Accountants, and is a Member of the Australian Institute of Company Directors.



Bruce Grimshaw

Company Secretary/Legal Counsel

Bruce Grimshaw joined Coal Services in February 2008 as Chief Operating Officer and has now moved to the position of Company Secretary/Legal Counsel.

Immediately prior to joining Coal Services Bruce was employed by Home Wilkinson Lowry (HWL) Lawyers as Special Counsel in the Litigation and Corporate Division of the Firm since 2006.

Bruce has worked with Energy Australia as the Manager, Industrial Relations; NSW Premiers Department, as the Director Change Management; Industrial and Employment Law Section, as an Associate Partner with Turner Freeman Solicitors. He also worked as Senior Policy Adviser to the Hon. Jeff Shaw, QC, NSW Attorney General and Minister for Industrial Relations and was the Secretary of the Australian Services Union (NSW Branch).

General Management Team *continued*



Matthew Fellowes

General Manager, Mines Rescue and Regulation & Compliance

Matthew Fellowes joined Coal Services in January 2015 as the General Manager of Mines Rescue and Regulation & Compliance.

Prior to joining the company Matt spent six years as a consultant working directly with sites to optimise mine design and safety.

With his engineering background, Matt's principal functions in these roles included assessment and control design for Principal Hazard Management Plans, continuous improvement initiatives, mine design and feasibility and project management. Matt also has over 20 years' experience in operations management roles across NSW where he has been responsible for site safety, production and financial performance.

Matt is a former brigadesman and his qualifications include a BE (Mining) with Honours, Ventilation Officer and OH&S and Mine Manager Certificate of Competence. Matt is the current Chair of the Standing Dust Committee.



Mark O'Neill

General Manager, CS Health

Mark O'Neill joined what was then Joint Coal Board (JCB) Health in 2000.

Since that time Mark has held various roles within CS Health including Regional Manager and Operations Manager. Mark was appointed to the position of General Manager, CS Health in 2008.

Prior to joining CS Health Mark spent nearly ten years with Email Australia Metals Division where he led a team that focused on delivering service and supply solutions to mining and industrial clients in the Hunter Valley.

Mark's qualifications include a Degree in Business Administration & Leadership from the University of New England, as well as Diplomas in Business, Human Resources and Information Technology. Mark is a Graduate Member of the Australian Institute of Company Directors and an Associate Fellow of the Australasian College of Health Service Management. Mark is also a member of the NSW Mining and Extractives Industry Health Management Advisory Committee.

General Management Team *continued*



Narelle Caldwell

General Manager, Insurance

Narelle leads the Coal Mines Insurance business line providing customer-focused workers compensation services to the NSW coal mining industry.

Joining the company in April 2016 Narelle has spent the last year focussing on reviewing all aspects of the Coal Mines Insurance claims operation as well as developing a new business model, new business plan and a new set of performance metrics which have been rolled out to the business line.

Narelle has also lead the development of a new approach to case management and account management which is currently being trialled at the Coal Services Argenton site.

Narelle has held senior leadership roles in finance, health, primary industry and environment with a strong track record in business transformation, strategic planning, change strategy, and stakeholder engagement.

Narelle has over ten years' experience in workers compensation insurance, including administering the NSW workers compensation scheme between 2007 and 2011. During this time she negotiated a \$3 billion contract aimed at improving workers compensation services to employers and workers in NSW.

Establishing her consultancy in 2012 to help organisations execute agile and adaptive business strategy, Narelle has successfully completed contracts with the National Disability Insurance Scheme; Coal Services; Xchanging Integrated Services; Safety, Return to Work and Support and the NSW Department of Finance, Services and Innovation.

Narelle holds a Bachelor of Business from the University of Newcastle and is a guest lecturer at the University of Sydney's Faculty of Medicine and ADAPT pain management program.

Governance

Coal Services maintains an important set of values that recognise its responsibilities to its stakeholders, including the Minister for Resources, Minister for Energy and Utilities, and Minister for the Arts, shareholders, customers, employees and suppliers.

The Coal Services Board places great importance on maintaining the highest standards of governance and continually reviews its governance practices.

Coal Services has adopted the Australian Stock Exchange (ASX) Corporate Governance Council's 'Corporate Governance Principles and Recommendations' (3rd Edition) and AS 8000 – 2003: Good Governance Principles. This has been adopted by Coal Services to comply with Clause 1, Schedule 2 of the Company's Notices of Approval and provides a structure for implementing good governance. Full disclosure is made to the Minister for Resources, Minister for Energy and Utilities, and Minister for the Arts as well as the Construction, Forestry, Mining and Energy Union and NSW Minerals Council as shareholders of Coal Services in accordance with the above.

Governance framework

The separation of responsibilities between the Minister for Resources, Minister for Energy and Utilities, and Minister for the Arts (the Minister), Managing Director/CEO, the Board and the General Management Team is governed by the *Coal Industry Act 2001* (NSW) and the *Corporations Act 2001* (Cth).

Board nominations and appointments

The Minister is responsible for overseeing Coal Services' operations in respect of its statutory functions including the appointment of Directors to the Coal Services Board. Specific details on Board nominations and appointments can be referred to Schedule 5 of the *Coal Industry Act 2001* (NSW).

Board independence

Board members have a range of relevant general financial knowledge, as well as specific skills and expertise in the coal industry and financial services sector. Specific details for each individual Director are set out in the Board of Directors section.

Four of the six Non-executive Directors are directly connected with Coal Services shareholders, as required by the *Coal Industry Act 2001* (NSW).

In relation to independent Non-executive Directors, independence is assessed prior to nomination to the

Minister for Resources, Minister for Energy and Utilities, and Minister for the Arts.

If a conflict of interest arises through the course of the directorship, all Directors must comply with Coal Services' Code of Conduct and Conflict of Interest Procedure. Further details are provided in the Ethical Framework section.

At the time of appointment and every two years, all Directors must complete a Fit and Proper Responsible Person Assessment as per the Coal Services Fit and Proper Policy.

Board induction and continued professional development

On appointment, all Directors are offered an induction program that is provided by the Company Secretary/Legal Counsel. During the induction program, each Director is provided with a Board Information Pack which includes relevant information for the Director to familiarise themselves with the governance framework that Coal Services operates within, the 2020 Strategy and any current issues relevant to the proper functioning of a Board.

Company Secretary/Legal Counsel

The Company Secretary/Legal Counsel is appointed and can be removed by the Board of Directors. The Company Secretary/Legal Counsel reports to the Chairperson and to the Managing Director/CEO (from a day-to-day operational perspective).

Governance *continued*

Performance evaluation

Board performance

The Board performance evaluation process is conducted by an external facilitator and is performed every two years. The first evaluation occurred in late 2014 and focused on the performance of individual Directors. During the evaluation a number of insights were provided in respect of policy matters, which are the primary responsibility of the Board. A further evaluation was conducted in 2016 which concluded that all responsibilities were appropriately met.

The code of conduct highlights the seven key principles that align with our mission and values.

Ethical framework

Code of Conduct

Coal Services is committed to conducting business with integrity and accountability in accordance with the highest ethical standards and in compliance with all applicable laws, rules and regulations. It is the responsibility of all employees, including the Board of Directors, to remain aware of, and comply with, the Code of Conduct.

The Code of Conduct describes the expectations from Coal Services in relation to the desired level of professionalism and excellence that supports Coal Services' business reputation and corporate image within the community.

Coal Services updated and launched a revised version of the Code of Conduct in September 2015. The Code of Conduct highlights the seven key principles that aligns with Coal Services mission and values being:

1. We act honestly, ethically and with integrity.
2. We value our Customers and Community.
3. We treat each other with respect.
4. We are accountable and transparent.
5. We respect and maintain Privacy and Confidentiality.
6. We recognise and declare any Conflicts of Interest.
7. We obey the law and comply with all company policies.

Conflict of interest

All Directors are required to disclose any conflict of interest upon appointment and are required to keep these disclosures to the Board up to date. Any Director with a material personal interest in a matter being considered by the Board must declare their interest and, unless the Board resolves otherwise, may not be present during the boardroom discussion or vote on the relevant matter.

All employees are expected to disclose all conflicts of interest and have appropriate controls in place around the particular conflict.

The Conflict of Interest Procedure is supported by the Acceptance of Business Courtesies Procedure (referred to as the Conflict of Interest framework). This particular procedure provides Coal Services employees with guidance to manage their obligations relating to the acceptance of gifts.

Protected disclosures

Coal Services re-launched the previous Whistleblower Policy as the Protected Disclosure Policy with an outsourced Protected Disclosure Management Provider in September 2015.

Governance *continued*

Financial reporting and risk management

Financial reporting

The Coal Services Board receives regular reports from management about the financial performance of Coal Services and all controlled entities. The Coal Services Board delegates the responsibility of the review of the various policies and procedures associated with financial reporting to the various Board Committees.

The Board is supported by the:

- **Board Finance Investment and Audit Committee:** monitors the financial and investment performance against strategies and targets, oversees the internal and external audit process, as well as financial reporting.
- **Board Risk Management Committee:** oversees Coal Services compliance with corporate policies, corporate governance and risk management policies, by monitoring implemented internal controls.
- **Board Insurance Committee:** oversees the operation and effectiveness of Coal Services NSW coal workers compensation scheme, including reviewing actuarial valuation methods.
- **Board Remuneration Committee:** oversees Directors remuneration and the remuneration and employment conditions of all Coal Services employees.

Risk management

The recognition and management of risks is a critical function within Coal Services. The risk management framework has been developed to manage:

- Capital, earnings and review targets
- Reputational, political and regulatory risk
- Insurance risk
- Operational risk
- Investment risk
- People risk
- Information technology and security risk

Whilst Coal Services is not required to comply with the Australian Prudential Authority's (APRA) Prudential Standards, Coal Services has adopted these Standards where appropriate.

The Coal Services Board is responsible for reviewing and approving the overall risk management strategy, including the Risk Appetite Statement. A full review of the risk management strategy including the Risk Appetite Statement was considered and adopted at the October 2016 Board Risk Management Committee meeting.

The Board re-approved the Coal Services risk management strategy and Risk Appetite Statement in November 2017.

Governance *continued*

Internal audit

The Internal Audit function is overseen by the Head of Risk Management and Internal Audit who has a direct reporting line to the chairperson of the Board Risk Management Committee and the Finance, Investment and Audit Committee (FIAC) and to the Chief Financial Officer (from a day-to-day operational perspective). The Internal Audit function is governed by the Internal Audit Charter which is reviewed and approved by the Board Finance, Investment and Audit Committee.

The Internal Audit Function is authorised to:

- Have unrestricted access to the Board Finance, Investment and Audit Committee.
- Have unrestricted access to all functions, property, records and employees of Coal Services.
- Allocate resources and apply such techniques as may be required to fulfil the requirements of the annual audit plan and any additional audit activities that may be agreed.

The annual audit plan is resourced internally by the Internal Audit function and by other outsourced audit providers, as appropriate.

External audit

Coal Services external auditor is KPMG and has been appointed by the Coal Services Board. The role of the external auditor is to provide an independent opinion that Coal Services financial reports are true and fair, and comply with applicable accounting standards and the *Corporations Act 2001* (Cth).

KPMG receive all Board Finance, Investment and Audit Committee papers and attend, at a minimum, the Board Finance, Investment and Audit Committee meeting held in September annually to discuss the financial report. The external auditors are also welcome to attend any other Board or Board Committee meeting and have access to Board members and Coal Services employees at any time.

Remuneration

As Coal Services is not a listed public company, no equity based remuneration payments are made to any Director or employee of Coal Services.

Governance *continued*

2016-17 Board Attendance (Summary)

Director	Position	Board Meetings Coal Services ¹ (inc. CMI & Mines Rescue)		Board Remuneration Committee		Board Insurance Committee		Board Finance, Investment and Audit Committee		Board Risk Management Committee	
		Eligible	Attended	Eligible	Attended	Eligible	Attended	Eligible	Attended	Eligible	Attended
David Moults ²	Non-Executive Chairperson (incumbent)	7	7	0	0	1	1	5	5	5	5
Peter Jordan	Non-Executive Director	7	7	0	0	4	4	0	0	0	0
Andy Honeysett	Non-Executive Director	7	6	1	1	0	0	0	0	0	0
Greg Sullivan ³	Non-Executive Director	7	7	1	1	3	3	0	0	0	0
Mark Genovese	Independent Non-Executive Director	7	7	0	0	0	0	5	5	5	5
John Hannaford	Independent Non-Executive Director	7	7	1	1	0	0	5	4	5	5
Lucy Flemming	Executive Director	7	6	1	1	4	4	0	0	0	0

¹ The Board for Coal Services Pty Limited, Coal Mines Insurance Pty Ltd and Mines Rescue Pty Limited are opened concurrently as one meeting

² Appointed to Insurance Committee on 17 November 2016 for subsequent meetings

³ Replaced on the Insurance Committee effective after 17 November 2016

Financial Overview

for the year ended 30 June 2017

	SEGMENT REVENUES		SEGMENT RESULTS	
	2017 \$'000	2016 \$'000	2017 \$'000	2016 \$'000
Consolidated revenues and results by segment				
Workers compensation insurance	124,257	125,959	(48,173)	(7,906)
Investment income	30,588	25,143	27,771	22,408
Mines rescue, training, regulation and compliance services	19,837	19,400	(838)	(504)
Health and rehabilitation services	3,545	3,545	(2,457)	(3,014)
Other	1,382	2,416	(3,140)	1,143
Group Total	179,609	176,463	(26,837)	12,127
Defined benefit fund gains			2,910	1,199
Total comprehensive (loss)/income			(23,927)	13,326

A full set of audited statutory financial statements for the year ended 30 June 2017 can be downloaded from our website.

Consolidated Comprehensive Income

for the year ended 30 June 2017

	2017 \$'000	2016 \$'000
Revenue		
Workers compensation premium	98,928	100,021
Mines safety levy cost recovery	25,329	25,938
Workers compensation insurance	124,257	125,959
Mines rescue levy	8,703	8,558
Training, regulation and compliance services	11,134	10,842
Mines rescue, training, regulation and compliance services	19,837	19,400
Health and rehabilitation services	3,545	3,545
Investment income	30,588	25,143
Other	1,382	2,416
Total revenue	179,609	176,463
Expenses		
Claims	(117,090)	(85,912)
Mines safety levy	(25,329)	(23,923)
Employee benefits	(38,509)	(37,065)
Depreciation and amortisation	(1,713)	(2,815)
Impairment of owner-occupied properties	(3,250)	-
Net (profit)/loss on sale of assets	36	(185)
Impairment/(recovery) of receivables	(889)	2,970
Investment management costs	(2,756)	(2,735)
Miners' pension costs	(11)	(982)
Mines rescue materials	(2,383)	(2,635)
Consultants and contractors	(5,178)	(2,701)
Medical materials	(985)	(623)
Travel and motor vehicles	(1,772)	(1,224)
Occupancy	(2,604)	(2,310)
General overheads	(4,013)	(4,196)
Total expenses	(206,446)	(164,336)
Net (loss)/profit from ordinary activities	(26,837)	12,127
Defined benefit fund gains	2,910	1,199
Total comprehensive (loss)/income for the year	(23,927)	13,326

A full set of audited statutory financial statements for the year ended 30 June 2017 can be downloaded from our website.

Consolidated Financial Position

for the year ended 30 June 2017

	2017 \$'000	2016 \$'000
Current assets		
Cash and cash equivalents	11,402	7,710
Receivables	30,943	15,681
Financial assets held at fair value through profit and loss	496,533	479,445
Inventories	182	120
Prepayments	583	709
Total current assets	539,643	503,665
Non-current assets		
Receivables	177	17,072
Property, plant and equipment	46,476	52,154
Investment properties	39,700	55,900
Total non-current assets	86,353	125,126
Total assets	625,996	628,791
Current liabilities		
Payables	15,805	9,419
Provision for outstanding workers compensation claims	85,663	69,327
Provisions	11,699	11,911
Total current liabilities	113,167	90,657
Non-current liabilities		
Defined benefit superannuation scheme	1,794	4,559
Provision for outstanding workers compensation claims	319,803	314,627
Provisions	4,821	5,652
Total non-current liabilities	326,418	324,838
Total liabilities	439,585	415,495
Net assets	186,411	213,296
Equity		
Contributed equity	-	-
Reserves	-	2,958
Retained profits	186,411	210,338
Total equity	186,411	213,296

A full set of audited statutory financial statements for the year ended 30 June 2017 can be downloaded from our website.



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