

MATERIAL TOPIC

HEALTH AND SAFETY PERFORMANCE



Woodside’s health and safety (H&S) performance is essential to our success and growth. We are committed to managing our activities to protect our people and our host communities.

2018 HIGHLIGHTS

- + Perfect HSE (Health, Safety and Environment) Day discussions in our operations have led to a visible improvement in safety culture and performance, achieving our best operations safety performance to date
- + Global Institute of Chemical Engineers Award winner for enabling improvement in process safety through data analytics
- + Australian Petroleum Production and Exploration Association Safety Excellence Award winner

OPPORTUNITIES

- + Implement the safety perception survey improvement plan to mature safety culture
- + Strengthen H&S leadership capability across the business, including with our contractors and suppliers
- + Further embed mental wellbeing culture across the organisation

RISKS

- + Failure to maintain a healthy and safe workplace
- + Failure to engage with our contractors and suppliers to improve H&S outcomes
- + Failure to deliver a trusting, safe work culture with our employees

Our approach

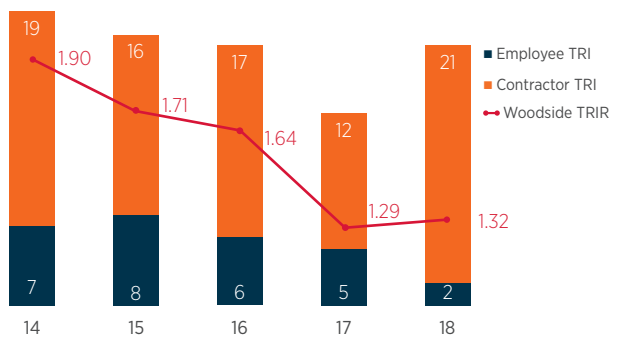
Woodside aims to continuously improve towards the goal of achieving industry-leading H&S performance. In 2018, we achieved a total recordable injury rate (TRIR) of 1.32, just over our target of 1.30.

In response to declining H&S performance in early 2018, we collaborated with our contractors through a leadership forum to develop innovative solutions. In 2019, we continue to progress these solutions including hosting an intensive two-week safety activity with our key contractors to identify ways to prevent injuries.

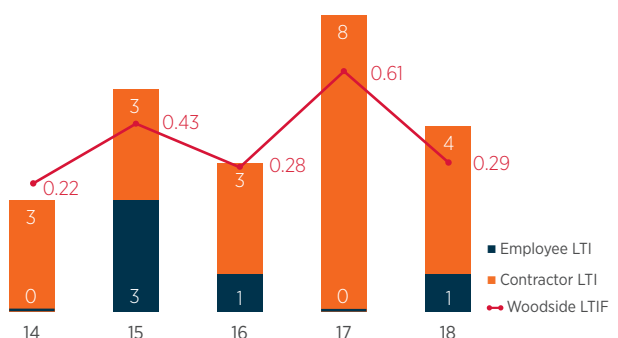
In 2018, our lost time injury frequency improved by 52%. Our high potential incidents have reduced by 46% and the identification of high potential hazards has improved by 54%.

[i](#) Refer to the case study on page 14 for more information.

Total recordable injuries (TRI) and total recordable injury rate (TRIR)



Lost time injuries (LTI) and lost time injury frequency (LTIF)





Safer Together

We played a leading role in steering industry-wide engagement and collaboration to support the formation of the new Safer Together industry group for Western Australia and the Northern Territory (WA/NT). Modelled on the success of the Safer Together Queensland organisation, the group aims to deliver sustainable industry safety-performance improvement.

Safer Together WA/NT has more than 60 company members across the oil and gas value chain and is led by 20 senior in-country leaders from operators and contractors. In September 2018, we chaired the inaugural forum in Perth, which attracted more than 150 attendees.

Our safety culture

A strong HSE culture where people go “beyond the call of duty” to keep each other safe and protect the environment is critical to sustaining performance improvements.

In 2018, we conducted a safety culture survey across the company to understand our people’s perceptions and attitudes to safety. The survey measured our safety culture maturity, allowing benchmarking across sites and against best-practice organisations. We had a strong response to the survey with more than 2,600 employees and contractors participating. While the results showed we are on par with our industry average, we are not where we would like to be. In response, we have identified improvement areas and integrated these into our future activity plans.

We strongly believe in building a safety culture in which our people are empowered to take action to prevent injuries and thoroughly investigate incidents. We will focus on strengthening H&S leadership, increasing recognition and off-the-job safety awareness in 2019.

We continued to engage our workforce in Perfect HSE Day discussions, raising situational awareness and the risk profile of tasks at hand each day.

We also developed a new framework to improve our HSE representatives’ competencies, skills and awareness through structured collaboration. The program ensures our HSE representatives feel supported and confident in their role as HSE leaders. This helps attract passionate and motivated individuals to improve HSE culture and performance across the business.

HEALTH AND SAFETY PERFORMANCE

CASE STUDY

Enhancing incident investigations

A key element of Woodside's health, safety and environment (HSE) management system is having processes in place to investigate and learn from incidents and hazards. To prevent reoccurrence we must learn from every event and address the root cause.

Over the past two years we implemented these improvements:

- + Simplified and improved the investigation methodology and tools to provide greater clarity of requirements to the investigators
- + Developed the investigative capability within the business to improve the quality of investigations

- + Ensured similar risks in other parts of the business were also investigated and addressed
- + Increased emphasis on exploring human factors and understanding the behaviours that may have contributed to the event
- + Enabled the use of tools, including our intelligent digital research assistant, to interrogate historical event data
- + Management review of the investigation outcomes to ensure they are supported and prioritised.

Our 2018 safety culture survey identified "thoroughness in investigation of injuries and incidents" as a key strength. Our future focus is to further embed these improvements.



CASE STUDY

A workplace that promotes wellbeing

A transformative focus was placed on the design of the working environment for Woodside's new Mia Yellagonga campus in Perth. This philosophy combines physical and mental wellbeing requirements to create a collaborative workplace where people can perform at their best and feel happier, stay healthier and enhance the blend of work and life.

The design of Mia Yellagonga maximises the use of natural light combined with visual and physical ergonomics to create a vibrant working environment to encourage collaboration and connectivity. An on-site allied health support service

improves our people's accessibility to health services at work. The breadth of wellness facilities encourages participation in physical activities including swimming, cycling and use of gym facilities.

The campus was designed to welcome family members and includes shared spaces for our community partners. Connecting business performance with human effectiveness builds and maintains social, family and community relationships. This is an active psychosocial risk management approach.

Process safety

Process safety describes a framework for managing asset integrity across the value chain through disciplined application of systems and processes.

With assets operating across the life cycle from start-up through life extension and into decommissioning, Woodside defines and applies rigorous maintenance schedules to manage the integrity of our structures, equipment, piping and wells to minimise the risk of loss of containment, or hydrocarbon release.

Our approach

In 2018, we continued to embed process safety through a risk-based approach, focusing on visible leadership and operational discipline. We also continued our process safety competency program to ensure our people have the skills to manage process safety risks.

Woodside proactively identified risks through continuing HAZOP (hazard and operability study) and LOPA (layers of protection analysis) for our assets.

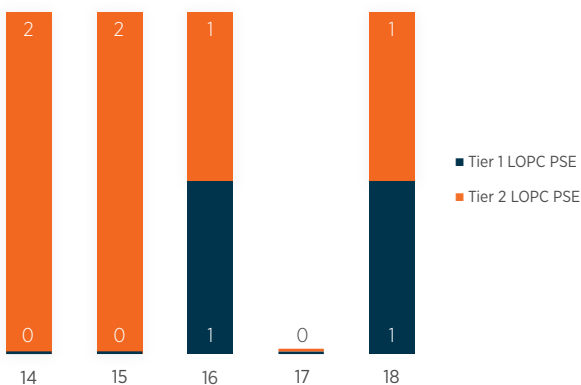
To drive further process safety improvements, we aligned our process safety framework with our company-wide management system to ensure a consistent delivery across our operations and projects. This will be implemented in 2019 and will help identify focus areas and prevent process safety events.

Our 2018 performance

Woodside categorises and reports process safety events (PSE) against the American Petroleum Institute Recommended Practice 754 (API 754).

During the year, there was one Tier 1 and one Tier 2 loss of primary containment PSEs. Both were internally investigated and reported to the regulator. Root causes and actions were identified to prevent recurrence.

Tier 1 and 2 loss of primary containment process safety event (LOPC PSE)



The Tier 1 PSE in 2018 involved the release of crude oil product in a pump room, with no injuries sustained or release to the environment.



CASE STUDY

Bespoke training avoids plant trips

Unplanned temporary shutdowns of our LNG facilities, or ‘trips’ as they are commonly called, are an important safety measure but can interrupt production, increase flaring, reduce energy efficiency and require significant resources to restore normal operations.

To reduce the likelihood of a trip, our plant operators developed trip mitigation training sessions for our Karratha Life Extension (KLE) contractors. The hands-on training courses were delivered in a decommissioned section of the plant to create a real-life training environment, educating contractors on the potential hazards of their work environment and how they may unexpectedly trigger a plant trip through maintenance activities such as erecting or removing scaffolding.

Since introducing the training in April 2018, 86% of our KLE contractors completed the course and there have been no related plant trips.