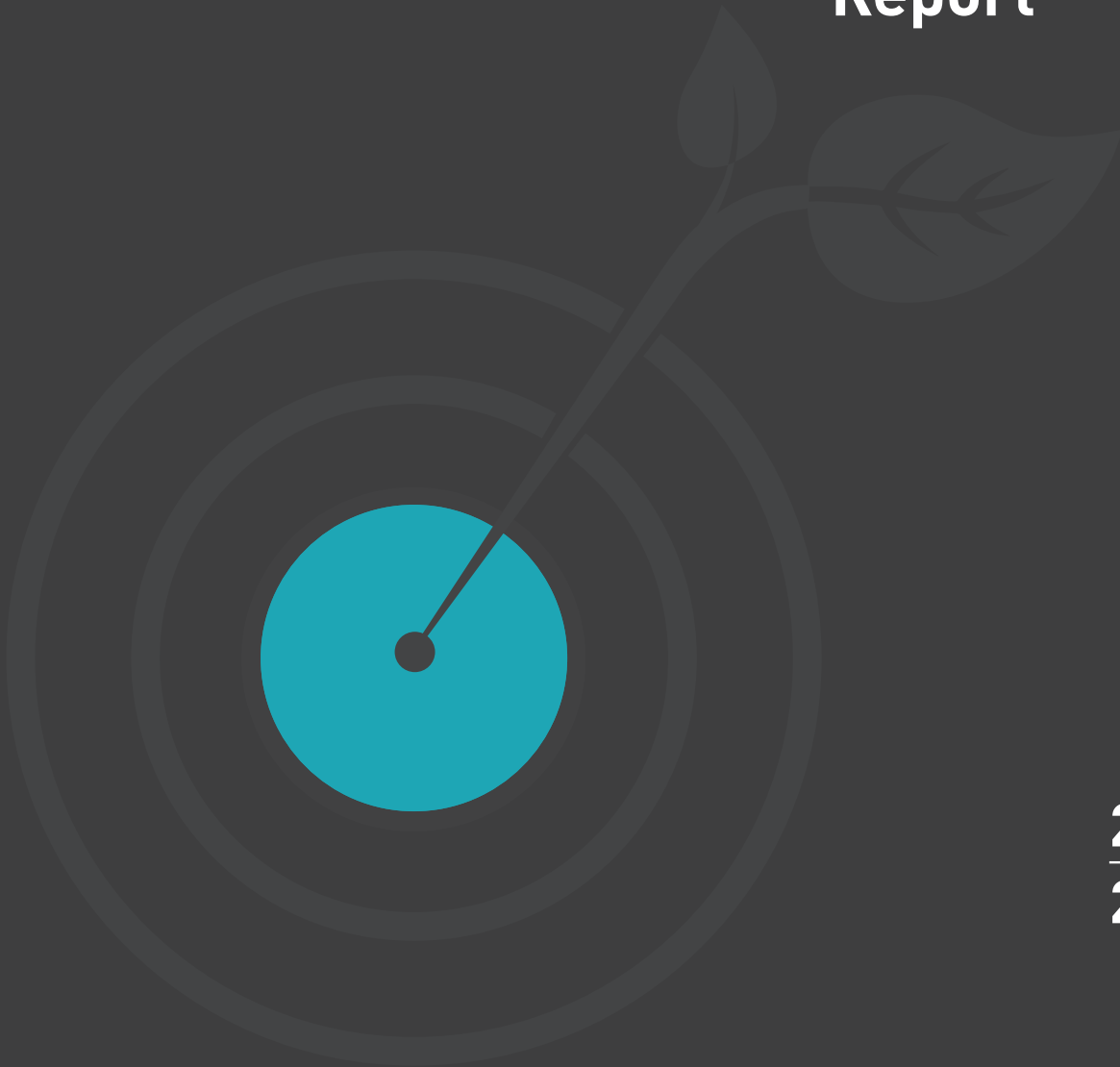


**Annual  
Sustainability  
Report**



**2019**  

---

**2020**

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# Acknowledgment of Country

Inland Rail acknowledges the Traditional Custodians of the land on which we work and pay our respect to their Elders past, present and emerging.

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Artwork by Moree Secondary College students. It represents the journey Inland Rail will take through Narrabri, Moree and North Star and includes tracks and native animals from the area. The artwork was created for Inland Rail as part of our Indigenous Participation program.



Proud Gomeri elder Aunty Elaine Edwards leading the Toomelah cultural appreciation tour for the Inland Rail North Star to Border project team.

## Projects

- + Yorta Yorta People, Taungurung People, Wurundjuri People and Boon Wurrung People (Tottenham to Albury project)
- + Wiradjuri People (Albury to Illabo, Illabo to Stockinbingal, Stockinbingal to Parkes, Parkes to Narromine and Narromine to Narrabri.
- + Wailwan People, Ngemba People, Ngiyampaa People and Wangaaypuwan People (Narromine to Narrabri project)
- + Gomeri People (Narromine to Narrabri, Narrabri to North Star, North Star to Border projects)
- + Bigambul People (Border to Gowrie project)
- + Western Wakka Wakka People (Border to Gowrie and Gowrie to Helidon projects)
- + Yuggera Ugarapul People (Gowrie to Helidon, Helidon to Calvert, Calvert to Kagaru and Kagaru to Acacia Ridge and Bromelton projects)
- + Jagera Daran People (Calvert to Kagaru project)
- + Danggan Balun Five Rivers People (Kagaru to Acacia Ridge and Bromelton projects)

## ARTC Inland Rail Offices

- + Boon Wurrung People and Wurundjuri People of the Eastern Kulin Nation (Melbourne office)
- + Wiradjuri People (Wagga Wagga office)
- + Gadigal People of the Eora Nation (Sydney office)
- + Wiradjuri People (Parkes office)
- + Bigambul People (Goondiwindi office)
- + Western Wakka Wakka People, Giabal People and Jarowair People (Toowoomba office)
- + Yuggera Ugarapul People (Gatton office)
- + Jagera People and Turrbal People (Brisbane office)

Source: National Native Title Tribunal, Australian Institute of Aboriginal and Torres Strait Islander Studies, Aboriginal Victoria

## Our commitment

Inland Rail recognises the impact of Australia's colonial history for Indigenous peoples. We are committed to a spirit of reconciliation.

We develop mutually beneficial relationships with Indigenous peoples based on respect and recognition.

We work collaboratively with Indigenous peoples to mitigate impacts to cultural heritage during the design, construction and operation of our railway.

We welcome and actively encourage the participation of Indigenous peoples as employees, contractors and suppliers to Inland Rail.



### La Toya Pinner

**Indigenous Participation Advisor,  
Inland Rail**

Proud Gomerroi woman living  
in Sydney.



*Ash and I are in a unique position where we can help Indigenous individuals, Indigenous communities and Indigenous businesses to be a part of an innovative project and leave a legacy.*



### Ashley Williams

**Indigenous Participation Advisor,  
Inland Rail**

Proud Wakka Wakka and Koa man  
living in Dalby.



*I hope that the Inland Rail program delivers economic benefits, employment and business opportunities for Indigenous people and communities directly impacted.*

An aerial photograph of a railway track stretching through a vast, flat landscape. The track is composed of two parallel steel rails on a bed of gravel, with wooden sleepers visible. The surrounding terrain is a mix of brown and golden-brown earth, suggesting a dry or agricultural area. The lighting is dramatic, with a low sun creating long shadows and a warm, golden glow across the scene. The overall mood is one of quiet solitude and industrial presence in nature.

# Foreword





**Richard Wankmuller – CEO Inland Rail**

In presenting Inland Rail's second Annual Sustainability Report we demonstrate our ongoing commitment to a focus on social, environmental and economic sustainability.

This 2019–2020 financial year has seen us working through important project milestones as we prepare for construction to be completed on the Parkes to Narromine project and construction commencing on Narrabri to North Star project.

With this significant progress comes the opportunity to share evidence of how we are creating long-term value and delivering Inland Rail with the best possible outcomes for local communities, the economy and the natural environment.

During the past 12 months we continued to grow our capability and develop our procurement and contract delivery systems in readiness for construction to ramp up across the program. Lessons learnt and wins achieved on the Parkes to Narromine project have enhanced our understanding of how to best drive sustainable change with our suppliers and have informed our new Inland Rail Sustainable Procurement Policy and implementation plan.

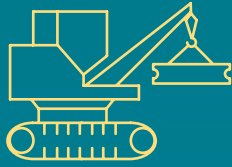
Growing employment and economic development in regional communities and facilitating opportunities for Australian businesses are key benefits of Inland Rail. On the Parkes to Narromine project, since construction commenced to 30 June 2020, we have generated 692 local and Indigenous construction jobs, \$100.7 million in local construction contracts, and \$12.6 million in contracts with Indigenous businesses. The use of Australian manufactured steel rail, concrete sleepers and culverts further contributes to boosting regional jobs and supporting local industries.

To assist our employees in learning about sustainable development, climate change and infrastructure sustainability, a 90-minute training course titled 'Sustainability Foundations' is one of the new training courses designed and developed in-house and implemented this financial year.

Meanwhile, the global coronavirus pandemic has highlighted not only the critical need for an efficient freight supply chain, but also the importance to regional economies of continuing work on major projects like Inland Rail in times of crisis. In addition to the work occurring on site, our response to the pandemic has also equipped us for delivering this program efficiently across three states, not only in different offices, but as restrictions dictate, from our homes.

Across this program we are striving to lead by example in optimising the benefits of sustainability practices throughout the design, construction and operation of Inland Rail. We recognise the outstanding efforts of our private sector partners – our designers and technical advisors, product suppliers and principal construction partners – and know we cannot achieve our vision without their support and accomplishments.

I encourage our Inland Rail communities, stakeholders, suppliers and delivery partners to read this report and work with us to set new benchmarks for the delivery of world-class rail freight infrastructure in Australia.



**1 of 13**

projects in construction

**0.00**



Lost Time Injury  
Frequency Rate  
(LTIFR) for employees



Approximately

**\$250,000**

in community grants



**3**

major  
suppliers with  
**Environment Product  
Declarations**



**11**

university scholarships  
awarded to regional students

# Annual sustainability highlights

(At 30 June 2020)



**115**

applications received

for land stewardship partnerships across NSW



**0** significant exceedances for construction noise, air quality or pollution

**692**



local construction jobs including 197 Indigenous workers

**297,000M<sup>3</sup>**



recycled or reclaimed ballast and ash used

**\$100.7m**

to local suppliers including \$12.6 million to Indigenous businesses



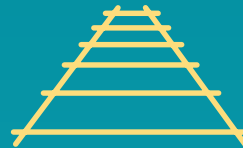
**22,625**

tonnes of carbon neutral culverts installed



**46,716**

timber sleepers recovered for re-use on other rail projects



**98%**

of existing steel rail track recovered and redeployed

# About Inland Rail



## About Inland Rail

Inland Rail is a 1,700km fast freight backbone from Melbourne to Brisbane that will transform how goods are moved around Australia.

It will better link businesses, farmers and producers to national and global markets and generate new opportunities for industries and regions.

We need Inland Rail to keep pace with the increasing freight demands of our growing population. Shifting more goods onto rail is a smart move for Australia. It means faster, more reliable freight: safer, less congested roads; and fewer emissions.

The Australian Rail Track Corporation (ARTC) is building Inland Rail on behalf of all Australians, with local knowledge and insights from landowners, businesses and communities.

Inland Rail is expected to be operational in 2026 and will:

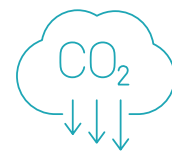
- + Improve freight linkages
- + Provide greater access to markets
- + Reduce freight costs
- + Create jobs
- + Improve freight reliability
- + Increase freight capacity
- + Improve road safety
- + Improve community amenity
- + Reduce carbon emissions.



**Faster, more reliable freight**



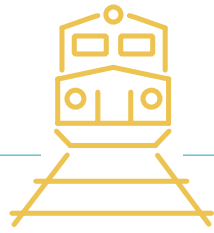
**Safer, less congested roads**



**Fewer emissions**



- LEGEND**
- Alignment
  - ARTC rail network
  - Existing rail
  - Project boundaries



# CURRENT PROGRAM STATUS

30 JUNE 2020

1



## KAGARU TO ACACIA RIDGE AND BROMELTON

48km of existing track

2



## CALVERT TO KAGARU\*

53km of new track

3



## HELIDON TO CALVERT\*

47km of new track approx. half is existing rail corridor

4



## GOWRIE TO HELIDON\*

26km of new track

5



## BORDER TO GOWRIE

145km of new track and 71km of existing rail corridor

6



## NORTH STAR TO BORDER

39km of new track using 23km of existing rail corridor

7



## NARRABRI TO NORTH STAR

188km of existing track and 1.6km of new track. Project split into Phase 1 and Phase 2. The Phase 1 section is nearing construction

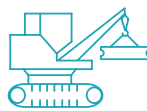
8



## NARROMINE TO NARRABRI

300km of new track

9



## PARKES TO NARROMINE

98.4km of existing track and 5.3km of new track

10



## STOCKINBINGAL TO PARKES

173km of existing track

11



## ILLABO TO STOCKINBINGAL

37km of new track

12



## ALBURY TO ILLABO

185km of existing track

13



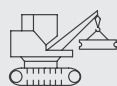
## TOTTENHAM TO ALBURY

305km of existing track

\* These three projects will be constructed under a Public Private Partnership



Reference Design



Construction



Approval/Pre-construction

## Private sector partners

Inland Rail is delivered in partnership with the private sector who are contracted to provide technical advice, project design and construction services, and supply materials. The private sector contributes to Inland Rail's social, environmental and economic objectives by delivering on contracted requirements, applying global industry experience and identifying value-enhancing opportunities.

Our key partners\* during the 2019/20 financial year were:

### Program advisors



A joint venture of:



\*Includes companies engaged by Inland Rail (ARTC) on active contracts greater than \$5m in value or engaged as Principal Technical Advisory Services Consultants in 2019/20 financial year



Project delivery partners



Product and System Suppliers





Community engagement at the 2019 Coonamble Show, New South Wales.



# About this report



## About this report

This is the second Annual Sustainability Report for Inland Rail. This reporting period we have one project in construction, one nearing construction and 11 others in varying stages of development.

This staged approach provides us with a unique opportunity to remain innovative and agile, to learn from our experience, continually improve and implement changes to maximise our positive contribution and legacy.

This report outlines the scale and nature of benefits generated by Inland Rail and its project delivery partners during the 2019/20 financial year (FY20) and importantly, shares our sustainability goals, achievements and how we seek to create value beyond regulatory requirements.

Seven key sustainability objectives provide a framework for the consistent application and evaluation of our approach, while a focus on social, environmental and economic sustainability ensures we deliver the best possible outcomes for communities and the natural environment.

Performance data and case studies presented in this report include:

- + Inland Rail program-wide activities across all key objectives
- + Project construction outcomes particularly in relation to environment, heritage and resource use.

We use as-built or construction data as opposed to reference and detailed design estimates. For this reason, the Parkes to Narromine project features heavily throughout the report. As more projects enter construction there will be greater diversity in case studies from across the alignment.

In preparing this report we also invited sustainability peers from large transport infrastructure programs across Australia to review our sustainability reporting framework. It was an opportunity to both challenge and strengthen our thinking and the insights shared have helped inform how we communicate our progress.

# Inland Rail sustainability objectives

1

Leadership and awareness    

2

Governance    

3

Community and economy   



NUMBER OF TARGETS



PEOPLE



ECONOMY



ENVIRONMENT



SUSTAINABLE DEVELOPMENT GOALS

4 Environment and heritage 

5 Resource use 

6 Sustainable procurement 

7 Future operations 



The United Nations Sustainable Development Goal 9 has as its purpose to 'Build resilient infrastructure, promote sustainable industrialisation and foster innovation'.

Inland Rail delivers on this Goal 9 (Target 9.1) by delivering a modal shift from trucks to rail in the Melbourne to Brisbane corridor.

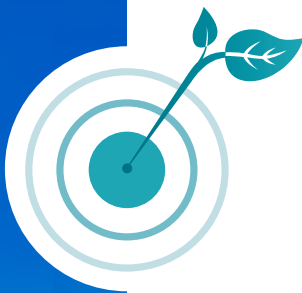
**We seek to create a program delivery culture that optimises benefits to communities and the natural environment. Employees, contractors and private sector partners understand the sustainability priorities of Inland Rail and work collaboratively to create positive and lasting change where possible.**



# Leadership and awareness



## Targets and FY20 progress and outcomes



### 1. Achieve a program-wide infrastructure sustainability (IS) rating of 'excellent' (between 50–74 points)

- + The Parkes to Narromine project commenced Round 1 as-built rating submission.
- + The Narrabri to North Star (Phase 1) project verified for Round 1 Design rating submission.
- + All other projects completed preliminary assessments to determine target IS rating score based on reference design.



### 2. Deliver sustainability training and education to all Inland Rail employees

- + 19 new starters participated in sustainability induction training. Face-to-face training was cancelled from March 2020 due to the global coronavirus pandemic.
- + The annual sustainability event planned for April 2020 was cancelled due to the global coronavirus pandemic.
- + A new Sustainability Foundations eLearning course designed and developed in-house and released in May 2020.



### 3. Publish an Annual Sustainability Report

- + The inaugural Inland Rail Annual Sustainability Report was published in October 2019.



### 4. Report sustainability performance internally to executive management

- + Sustainability updates of progress against targets were reviewed quarterly by the Inland Rail Leadership Team. This led to executive engagement and progression on several key objectives such as sustainable procurement.

# Safety

Our goal is that no one is harmed at work or on the rail network. This includes our employees, contractors and visitors to our workplaces, and members of the public during rail construction and operation.

## Employee safety

Inland Rail achieves the goal of 'No harm' through our Inland Rail Safety Management Plan. Aligned with ARTC's Safety Management System, the plan provides a framework for driving health and safety across the program.

Our approach recognises the importance of:

- + Ensuring all required procedures, systems, training, engagement and reporting is undertaken
- + Building capability across our employees, contractors and delivery partners through the Inland Rail Health and Safety induction training and eLearning course.
- + Assessing and managing risks across all areas of the program such as:
  - + Site-based risks associated with operating machinery and equipment, driver fatigue, personal safety and heat stress
  - + Office-based risks including ensuring best practice ergonomic office set up and use
  - + Proactive response and associated behaviours as a consequence of the global coronavirus pandemic.

## Safety Summary FY20

- + Inland Rail employee Lost Time Injury Frequency Rate (LTIFR) – 0.00
- + Inland Rail employee Medical Treatment Injury Frequency Rate (MTIFR) – 0.00
- + Inland Rail Safety Management Plan approved in April 2020
- + Inland Rail Health and Safety portal launched
- + Health and Safety Induction training provided to 195 employees
- + New eLearning module launched in August 2020
- + New Health and Safety Dashboard established
- + More than 600 participants in the October 2019 ARTC/INLink JV Safety Forum



## National Safety Work Month – Parkes event

While safety is our number one priority year-round, in October 2019 we launched National Safety Work Month with a two-day event in Parkes, NSW.

Designed to increase safety awareness, more than 600 people including our Parkes to Narromine project team, contractors and representatives from surrounding shire councils joined together to see demonstrations of new personal detection and collision avoidance (RFID) technologies that will help protect the safety of workers during the construction of Inland Rail.

Internationally renowned speaker Candace Carnahan also delivered a powerful address, sharing her own personal safety story and leaving those in attendance with her simple – and yet transformational – message: ‘if you see something, say something’.



Our team and contractors join together for the inaugural safety event in Parkes.



**MATES in Construction**

On the Parkes to Narromine project, 320 INLink JV staff attended a MATES in Construction forum with eight becoming 'Connectors' – a person trained to help keep someone safe in a crisis, while at the same time connecting them to professional help.

MATES has provided research-based suicide prevention and support for the construction industry since 2008.

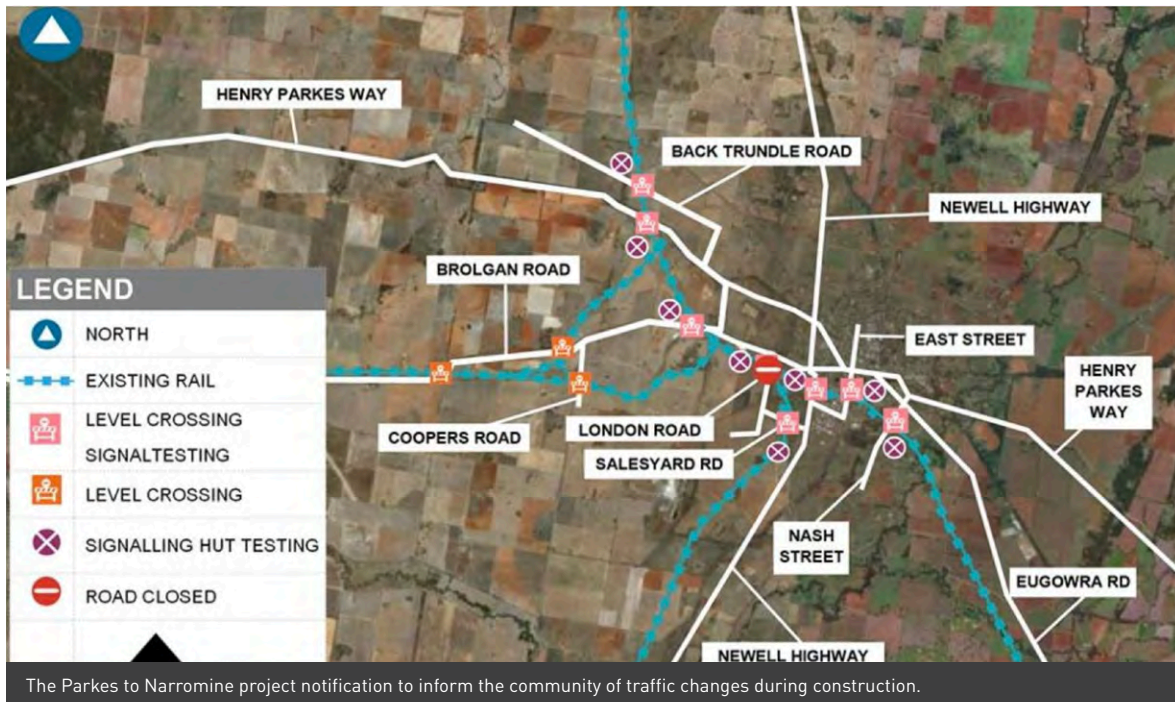
## Public safety

To ensure a safe environment for everyone, Inland Rail aims to positively influence people’s attitudes and behaviours in areas where they may interact with the rail corridor.

During construction of the Parkes to Narromine project, using existing tracks helped us transport materials more efficiently, and some level crossings remained active because trains and other rail traffic such as road rail vehicles, hi-rail and flash-butt welders continued to operate. Construction also involved using plant and heavy and light vehicles both within the rail corridor and travelling to and from the construction site, and because public safety is our key priority, community awareness was important.

More than 100 notifications were issued to help keep the community safe and informed during construction with a focus on:

- + The importance of following road rules when driving across level crossings
- + Giving way to all rail traffic
- + Not entering the rail corridor or construction sites
- + Observing signage and using added caution when driving or walking near the rail network.





101 construction notifications were issued to the public during construction of the Parkes to Narromine Project to help keep the community safe.

## Infrastructure Sustainability rating

The Infrastructure Sustainability (IS) rating scheme is Australia and New Zealand's only comprehensive rating system for evaluating sustainability across design, construction and operation phases of infrastructure programs, projects, networks and assets.

As part of our Sustainability Strategy, Inland Rail has committed to achieving an 'Excellent' IS rating (between 50–74 points). Each individual project is awarded a score with the overall program rating determined by averaging these results.

To achieve this goal, we work in collaboration with our project delivery partners, helping them to determine the sustainability strategies they'll use for detailed design and construction, providing access to program resources and materials to support formal verification, and overseeing the entire process.

The IS rating helps to create a common language around sustainability and provides a formal framework for its application.

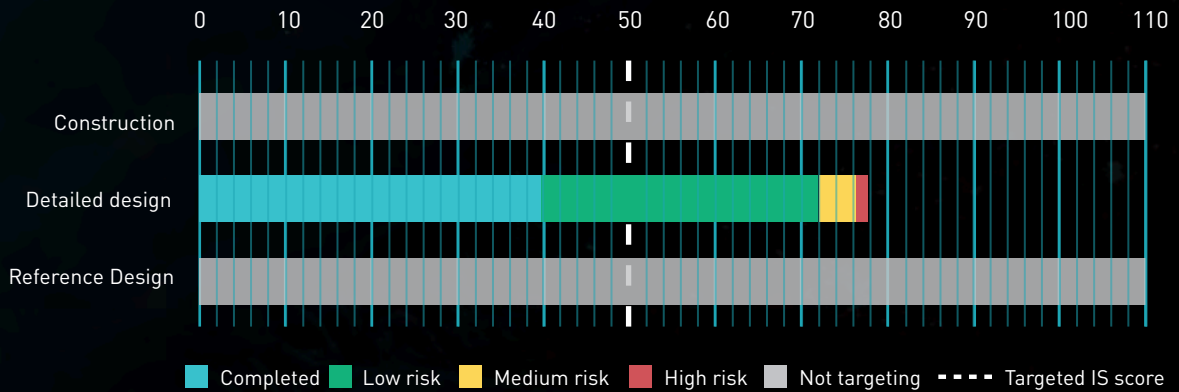
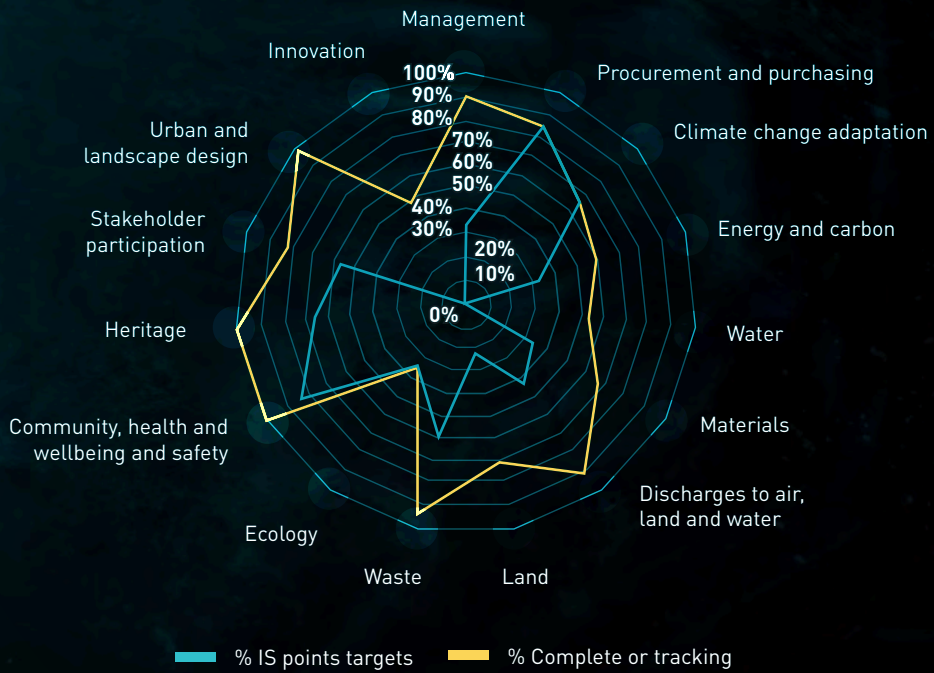
### Narrabri to North Star (SP1) project

- + The first project to be registered for an ISCA design rating
- + The project submitted a Round 1 submission in October 2019 and was verified by ISCA in December 2019
- + Round 2 will address any outstanding items to achieve the minimum of 50 points
- + Inland Rail Design Joint Venture (WSP and Mott MacDonald) developed the detailed design for this project



The **Infrastructure Sustainability Council of Australia (ISCA)** is a member-based industry association with the purpose of enabling sustainability outcomes in infrastructure.





Submission of monthly sustainability reporting is a requirement for all project delivery partners. It enables Inland Rail to generate dashboard summaries around a project's IS rating status as well as emerging risks and opportunities. Pictured is the Narrabri to North Star (Phase 1) project dashboard summary in April 2020 (subject to change in response to verification by ISCA).

# Training and engagement

## Sustainability Foundations eLearning course

In May, the Inland Rail Learning Centre launched a new training course, Sustainability Foundations. Designed and developed in-house, the 90-minute course is an engaging way for staff to learn about sustainable development, climate change, infrastructure sustainability and implementing change on the program.

The initiative forms part of Inland Rail's commitment to education and awareness and is one of many in place designed to support innovative thinking and a culture of sustainability.

The course demonstrates the value of staying informed and working together to make a positive impact, and complements the classroom style sustainability training for new starters already delivered by the Sustainability team.

Designed and developed in-house, the 90-minute course is an engaging way for staff to learn about sustainable development, climate change, infrastructure sustainability and implementing change on the program.



Inland Rail Sustainability Foundations eLearning course.

## Project engineering challenge

In December 2019 INLink JV held sustainability training for all engineers and the construction leadership team on the Parkes to Narromine project. The group explored how sustainability applies to engineers and how energy and material use translates to greenhouse gas emissions (GHG) and embodied environmental impacts.

The INLink JV crew were divided into teams and challenged to demonstrate the largest total quantified reduction in either energy use or materials. Submissions included using locally sourced limestone and bedding materials and installing timers on generators.

The ideas were captured and shared with Inland Rail and joint venture companies Fulton Hogan and BMD Constructions.



The INLink JV crew were divided into teams and challenged to demonstrate the largest total quantified reduction in either energy use or materials. Submissions included using locally sourced limestone and bedding materials and installing timers on generators.

## Project photo competition

To encourage the sharing of ideas and help keep sustainability top-of-mind, INLink JV sustainability photo competitions were held each month throughout the year.

In line with September's theme 'Energy Use', a toolbox was delivered across all sites outlining the sustainability challenges associated with fossil fuels, and the project workforce was challenged to share examples of energy use reductions in the field.

Surveying subcontractor MinStaff Survey submitted a winning photo of the solar panels they're using to power GPS bases for surveying work across the Parkes to Narromine job site.





Inland Rail sponsored and presented at the IAIA Conference 2019 and the NSW Landcare and LLS Conference 2019

## Sustainability conference sponsorship

The annual ISCA National Conference is one of the pre-eminent events for infrastructure owners, contractors, suppliers and professionals.

Inland Rail was invited to sponsor and coordinate the Regional Investment in Communities panel at the conference held in Melbourne during October 2019.

Moderated by the Inland Rail Sustainability Manager, a panel of experts from Inland Rail, Transport for New South Wales (Regional Rail Fleet) and John Holland (Murray Bridge Wastewater Infrastructure) engaged in robust discussion around the lasting social and economic benefits infrastructure can deliver to regional communities.

Inland Rail was invited to sponsor and coordinate the Regional Investment in Communities panel at the conference held in Melbourne during October 2019.

## Contributing to industry voice

- + 5 major conference presentations
- + 1 case study on sustainable procurement shared with industry
- + 1 media release on carbon neutral concrete

**A focus on governance helps us integrate sustainability into core business systems and processes and provide employees with the tools and resources to identify and address sustainability risks and opportunities. The aim is to encourage program-wide decision-making that strives for long-term holistic outcomes.**



# Governance



## Targets and FY20 progress and outcomes

### 1. Update and review systems and processes to optimise the achievement of sustainability objectives

- + Sustainability requirements reviewed and better articulated in procurement, schedule, risk management and project controls.
- + Green and healthy building principles integrated into the design, fit-out and operations of the new Brisbane office.

### 2. Provide Inland Rail Project managers with monthly updates on IS rating score

- + New sustainability dashboards developed and released in April 2020. The dashboards are populated from monthly sustainability updates provided by contracted service providers.
- + Monthly status reports issued to project managers from April 2020 onwards.

### 3. Register and assess innovative solutions through the Inland Rail Innovation Portal

- + The Innovation Portal is currently under development and expected to be operational in the second half of 2020.
- + Innovations recognised through industry awards or verified through the IS rating process to date include:
  - + Light weight deflectometer
  - + Earthwork performance specifications.

## New workplace

The Inland Rail team is predominantly based in Brisbane and before relocating to new premises at 180 Ann Street in December last year, our team was spread across two office buildings.

With its green, healthy and agile fit-out, our new workplace is designed to facilitate innovation, encourage collaboration and enhance productivity.

Flexible and technology-enabled workstations, meeting rooms and workspaces means people can work anywhere across our two floors, collaborate easily, access various spaces suited to work needs, and work remotely.

Our new home is also the first commercial building in Brisbane to achieve a 6-star rating by the Green Building Council of Australia thanks to its features including:

- + Rainwater captured for use by fire management systems
- + Up to 10% of the building's base load electricity provided by photovoltaic cells on the roof
- + Tri-Gen system to provide electricity, heating and cooling in one process
- + Lifts designed to return energy to the building while braking at each floor
- + Grey water recycling from hand basins and showers for flushing toilets
- + Moisture from the air generated by breathing converted to water the plants.



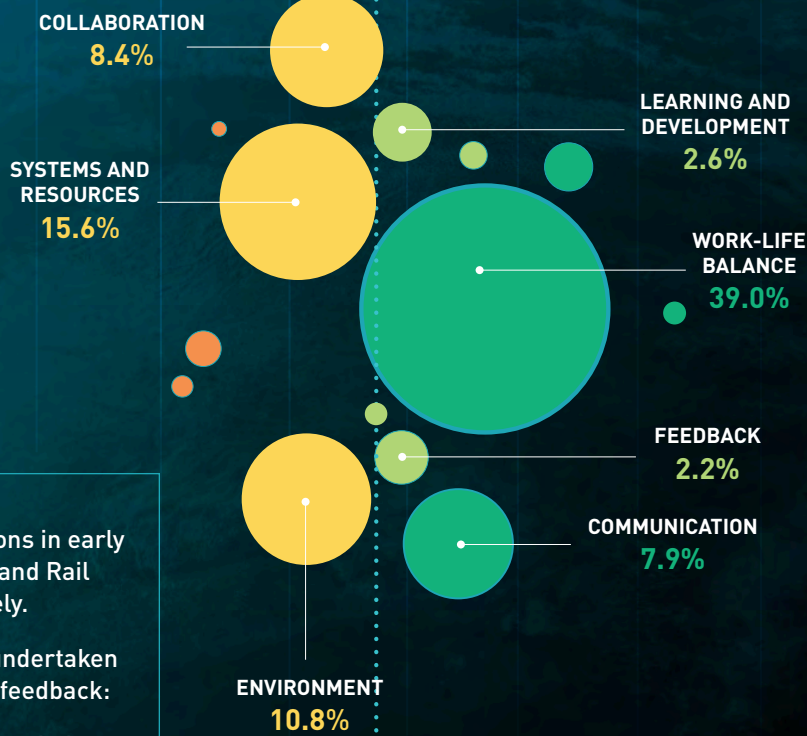


A view of the main reception area at the Inland Rail office in Brisbane.



Inland Rail implemented a successful 'PaperShrink' campaign as part of the move – removing desk clutter; reducing paper use and printing; and shifting to digital data storage.

NEGATIVE -10      NEUTRAL 0      POSITIVE +10



During pandemic restrictions in early 2020 more than 94% of Inland Rail employees worked remotely.

An employee survey was undertaken in April–May 2020 to seek feedback:

- + 83% of employees responded
- + 96% of employees understood their health and safety responsibilities
- + 91% agreed there was open and honest two-way communication with leaders
- + 90% stated they had flexibility in their work schedule to care for dependents where required.

Sentiment analysis from the survey highlights common topics from employee comments. The flexibility provided by Inland Rail for work-life balance was noted as a positive outcome from the pandemic response.

# Global coronavirus pandemic response

## Business continuity

Ensuring business continuity while protecting the health and safety of our workforce has been a key focus during the rapidly evolving global coronavirus pandemic.

Inland Rail established a cross-functional Business Continuity Group to manage our response and ensure employees were provided with the tools and support they needed to work safely and productively; and received regular and relevant communications.

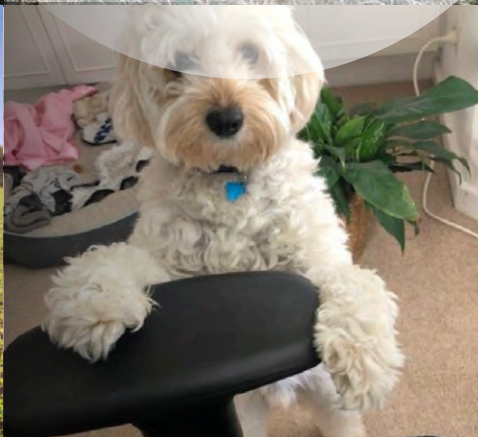
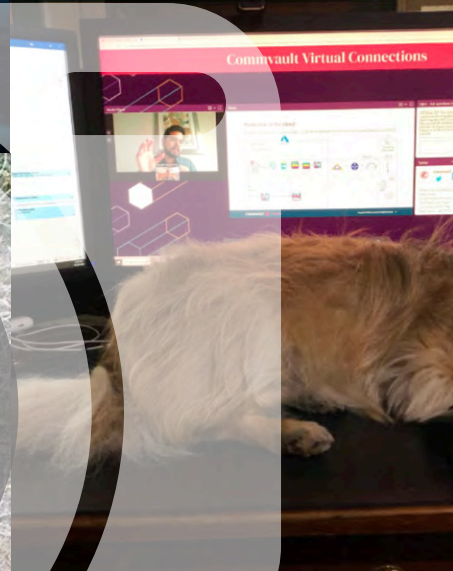
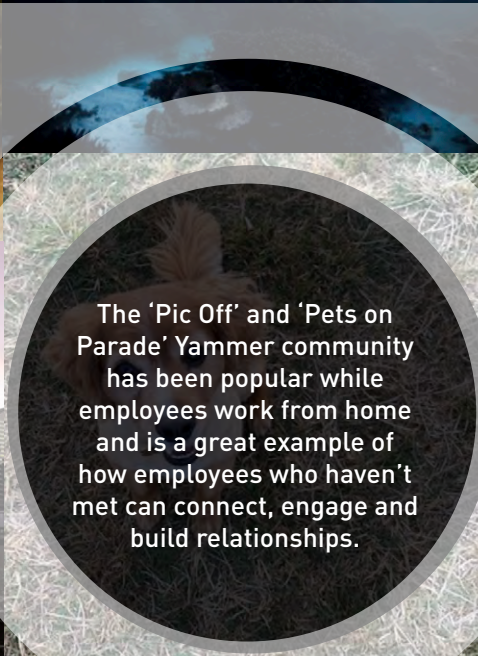
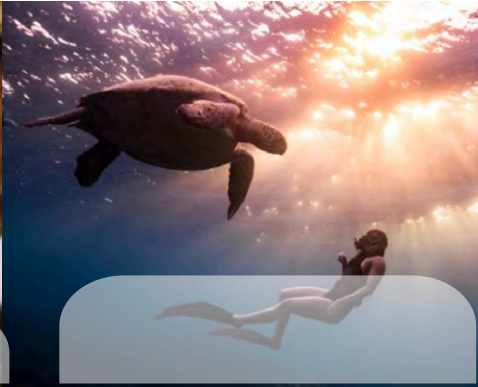
A risk-based COVIDsafe Plan was developed for Inland Rail.

Key elements include:

- + Hazards and controls for all offices
- + Frequently Asked Questions
- + Preparing to work from home – health, safety, wellbeing and technology support
- + Returning to the workplace Toolbox Talk
- + Information for leaders.

The Business Continuity Group has been effective in engaging employees and building the capability of leaders and teams to manage individual working arrangements with program delivery requirements.

The health and safety of our workforce has been a key focus.



The 'Pic Off' and 'Pets on Parade' Yammer community has been popular while employees work from home and is a great example of how employees who haven't met can connect, engage and build relationships.

## Engaging a virtual workplace

To ensure employees felt connected, engaged and supported during the global coronavirus pandemic restrictions we rapidly deployed a number of new and innovative communication and wellbeing initiatives including:

- + Inland Rail live broadcasts and Q&A attracted more than 400 participants at each session and enabled employees to direct questions or concerns to the Inland Rail Leadership Team
- + New internal social platforms such as the Inland Mail e-newsletter, Yammer and a new look Inland Rail portal (intranet) were launched enabling employees to connect with diverse and dynamic content from across the program
- + The Inland Rail Learning Centre was re-launched with 27 new eLearning courses released including Rail 101, Welcome Aboard Induction and Onboarding, Remote Working and a suite of Office 365 Tools training
- + The Inland Rail Building Resilience program, co-developed with The Keil Centre, helped employees establish a personal wellbeing program relating to individual mental health and resilience. Nearly 60 people participated in the program as facilitators or participants.

### Perkbox

400 Inland Rail employees signed up for the new initiative Perkbox – a virtual health and wellbeing care package that provides access to mindfulness and fitness apps, online courses and a range of discounts.

# Driving value creation

## Design optimisation

The Inland Rail Engineering and Value Creation team, supported by our Technical Advisors SMEC and Arup Joint Venture, drive engineering designs that are optimised to:

- + Enable safe, efficient and effective construction
- + Reduce life cycle costs across the program.

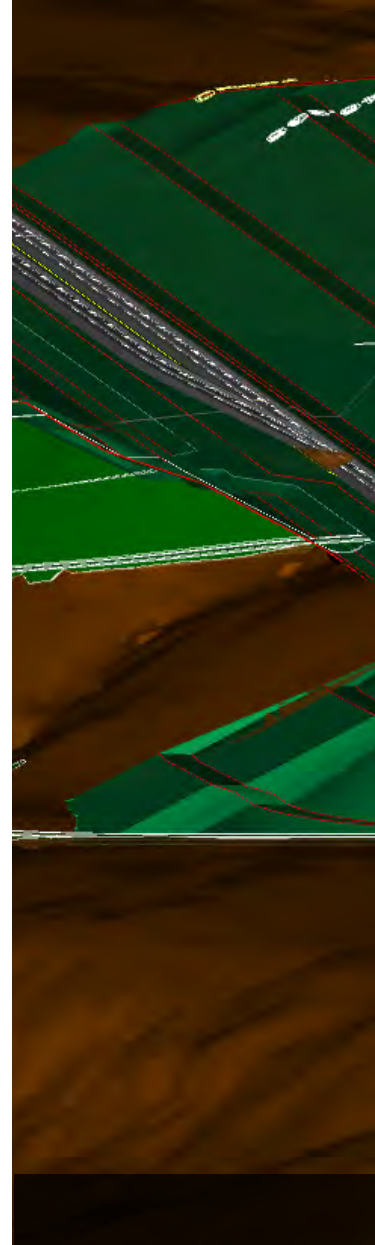
Design optimisation helps us deliver key sustainability outcomes relating to reduction in resource use, future proofing and avoiding or minimising community, environmental and heritage impacts.

All Inland Rail projects at reference design stage, where elements of the design may be conservative, have been challenged to identify design outcomes. Value engineering reviews at this stage also identify opportunities for value creation for future stages of the project such as construction and commissioning.

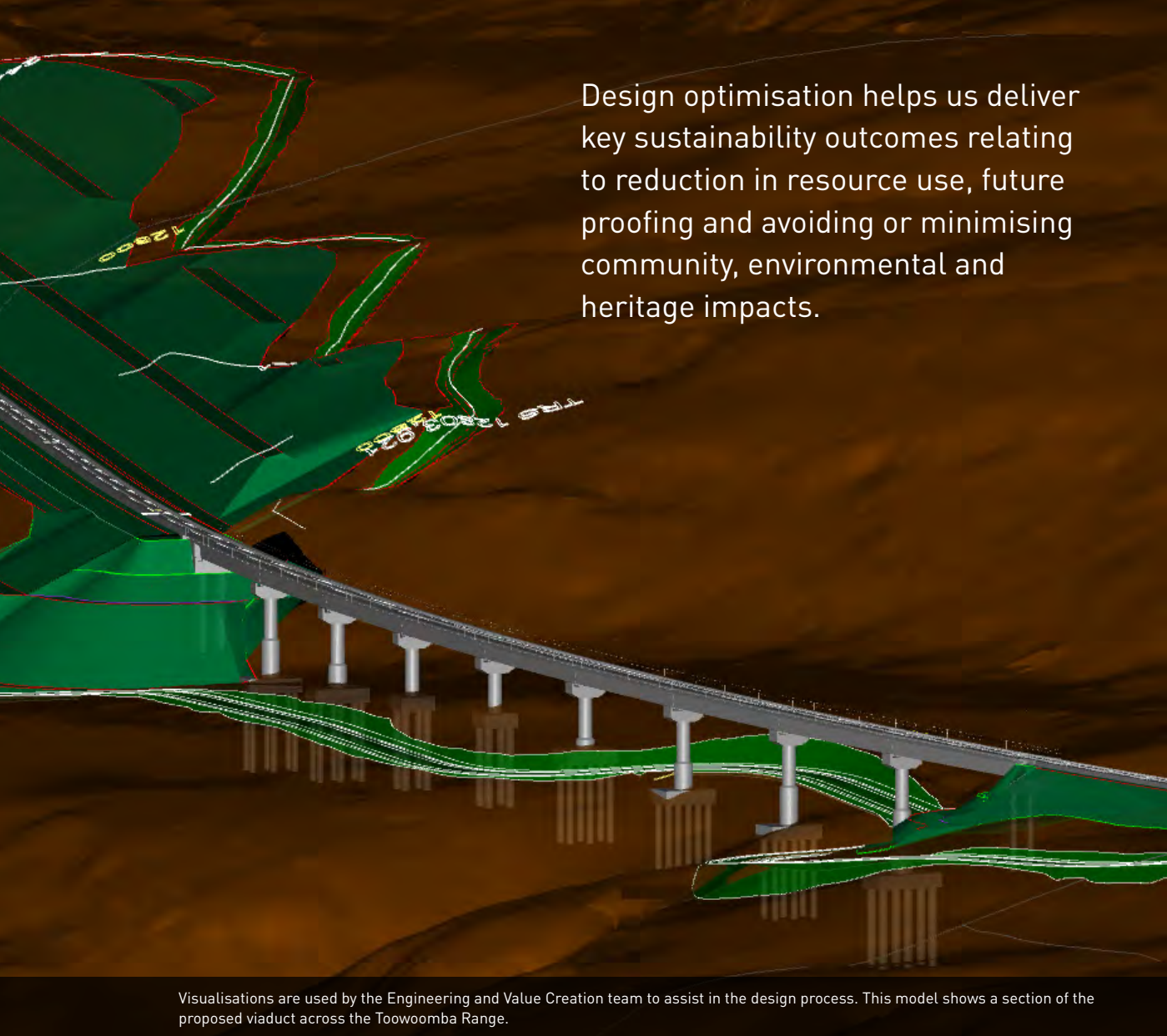
## FY20 key value opportunities

In FY20 value opportunities were identified which resulted in significant savings in cost and effort through activities such as:

- + Re-use and recycling of earthwork material
- + Reducing double handling, distances hauled and location of source materials
- + Challenging standards and specifications including earthwork methods and structures.







Design optimisation helps us deliver key sustainability outcomes relating to reduction in resource use, future proofing and avoiding or minimising community, environmental and heritage impacts.

Visualisations are used by the Engineering and Value Creation team to assist in the design process. This model shows a section of the proposed viaduct across the Toowoomba Range.

## Program and project innovation

Innovation is about novel or original ideas that are developed into solutions to create value. Significant improvements in how we design our railway from using on-site resources to new technological applications are due to innovation.

We support and encourage innovation by:

- + Aligning innovation to focus on challenges and opportunities facing Inland Rail
- + Sharing ideas and collaborating between Inland Rail, industry peers and our stakeholders
- + Creating an online presence to foster engagement and efficiently assess solutions.

The Inland Rail Innovation Portal will be launched in the second half of 2020.

## The IS rating scheme

- + The IS rating scheme rewards up to 10 additional points for innovations that are state or national firsts, transform markets or set new benchmarks. Innovations such as the Light Weight Deflectometer (LWD) can contribute to the Inland Rail program rating.





LWD trial on treated general fill.

## Innovation in action

Rail projects traditionally use laboratory and on-site tests to ensure sub-soils meet design requirements for durability and strength. This is time consuming and can result in significant delays.

In response to this challenge, Inland Rail trialled LWD equipment during construction of the Parkes to Narromine project.

The equipment sends testing results to a control unit on-site for immediate processing.

This allows our team to check if the design requirement has been achieved and make decisions on site without delay, resulting in more efficient construction.

A technical paper about the LWD innovation will be presented at the CORE 2021 Conference of Railway Excellence.



Inland Rail (ARTC) is a member of the Australasian Centre for Rail Innovation.



## Narrabri to North Star (Phase 1) project

Narrabri to North Star (Phase 1) project is the first project to benefit from the updated sustainability specifications for construction.





## A streamlined approach to sustainability

The Inland Rail Sustainability Requirements Framework defines the sustainability approach for our private sector delivery partners during design and construction.

The framework creates consistency across all stages of the program and project delivery and ensures our delivery partners have access to well-developed and robust sustainability strategies, frameworks, guidelines and templates including:

- + ISCA rating guidance documents such as the Business as Usual Assumptions framework
- + Templates for sustainability and climate change chapters in environmental approval assessments
- + Program-wide guides such as the climate change risk assessment or renewable energy assessment
- + Design, construction and operations energy and water modelling.

This objective helps us mitigate social impacts, respond to community concerns and support community aspirations. Developing a mutually beneficial relationship based on trust and goodwill is key to maintaining a social licence to operate. Job creation and economic recovery are significant benefits that Inland Rail brings to host communities.

# Community and economy

A view of Hume Dam Wall in Bonegilla, New South Wales.

## Targets and FY20 progress and outcomes



### 1. Active engagement with local communities and stakeholders

- + Stakeholder engagement activities were impacted by the global coronavirus pandemic. Opportunities for community participation in online forums and events were made available across the alignment.
- + More than 150 community information sessions held including community meetings, workshops, Community Consultative Committees (CCCs) and project information sessions.
- + 110 project newsletters issued via email or post.
- + The Parkes to Narromine and Narrabri to North Star (Phase 1) projects were independently audited as part of the IS rating requirements.



## 2. Create opportunities for skilled local and Indigenous workers during construction

- + The Parkes to Narromine project had employed 622 local workers to the end of June 2020 including 168 local Indigenous workers.
- + The Parkes to Narromine project INLink JV Indigenous Employment Trainee and Apprenticeship program involved 42 participants with 15 being retained on the project.
- + The Narrabri to North Star (Phase 1) project delivered pre-construction skills training for 66 residents (31 Indigenous and two women) in civil competencies and completion of a white card.



## 3. Create opportunities for local and Indigenous businesses during construction

- + The Parkes to Narromine project has achieved a total spend of \$100.7M with local businesses and \$12.6M with Indigenous businesses at the end of June 2020.
- + The Narrabri to North Star (Phase 1) project team implemented a new supplier portal and partnership strategy; delivered eight face-to-face and online workshops to upskill potential suppliers; and facilitated four supplier briefing sessions attended by 300 participants.



## 4. Where possible house non-local construction workforce with existing accommodation providers

- + Strategies to reduce the impact of construction camps are being assessed through the environmental and social impact assessment process for projects requiring accommodation options.



## 5. Implement programs that support community wellbeing along the Inland Rail alignment

- + Inland Rail sponsored 81 community initiatives valued at an approximate total of \$250,000 through the Sponsorship and Donations program.
- + Inland Rail is partnering with six Primary Health Networks to increase awareness of local mental health services in each region.

## Engaging communities

### Virtual engagement during the pandemic

In response to the challenges posed by the global coronavirus pandemic, we employed a number of digital solutions to ensure we could continue to engage with communities and connect with residents and stakeholders.

Activities normally held in person – like Community Consultative Committee meetings, stakeholder meetings and community drop-in sessions – were moved to online platforms.

To accommodate varying levels of digital literacy and internet access, our teams were on hand to help, providing assistance to use online channels, while also ensuring those unable to access the technology could connect by email or phone.

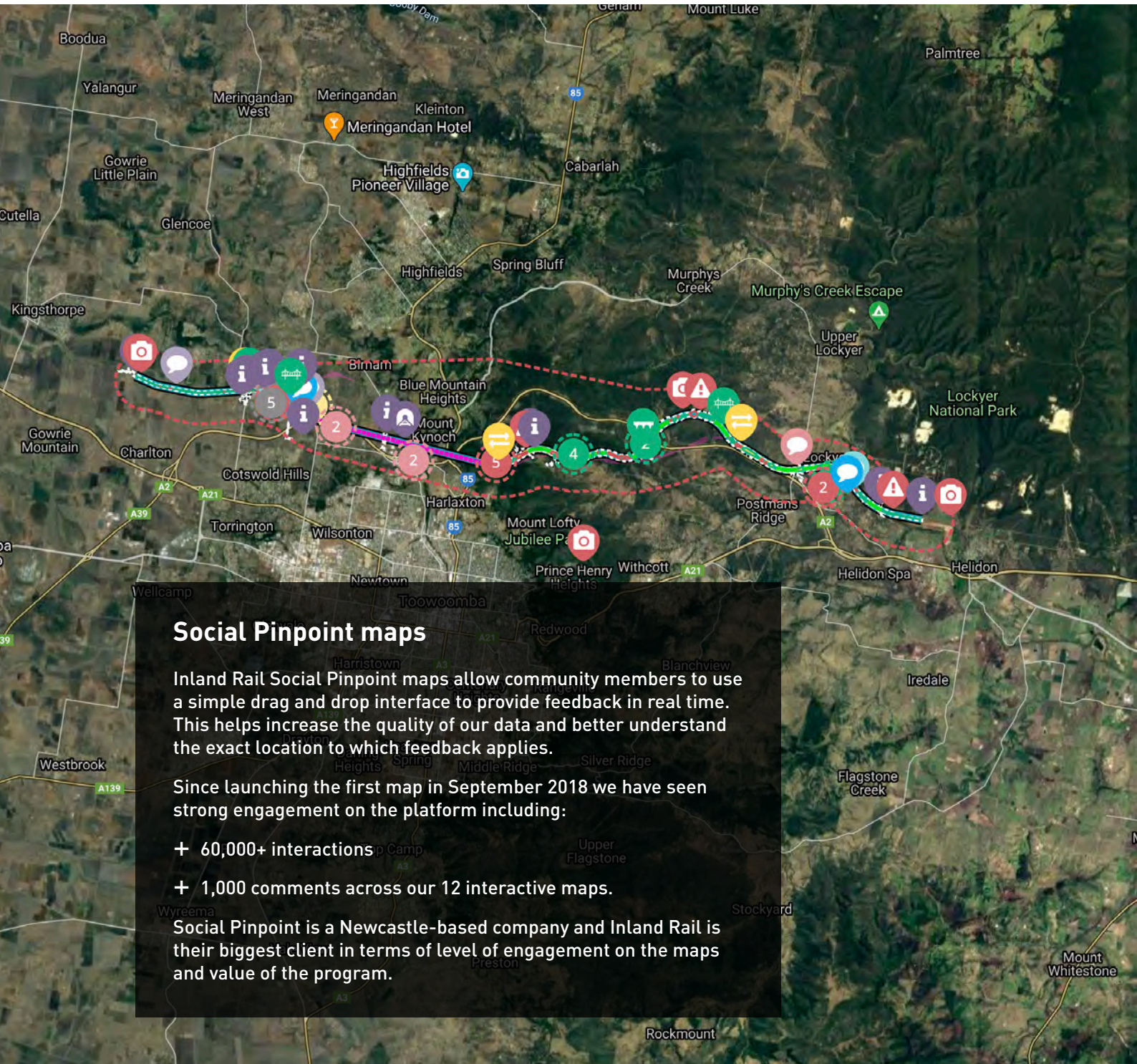
With more ways to communicate, local communities along our alignment are now provided with more ways to ask questions, share their views and stay informed.

### Summary March–June 2020

- + **60** people attended two online information sessions on the Kagaru to Acacia Ridge and Bromelton project
- + **90** people attended seven Community Consultative Committee meetings held for the Illabo to Stockinbingal, North Star to Border, Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Kagaru to Acacia Ridge and Bromelton projects





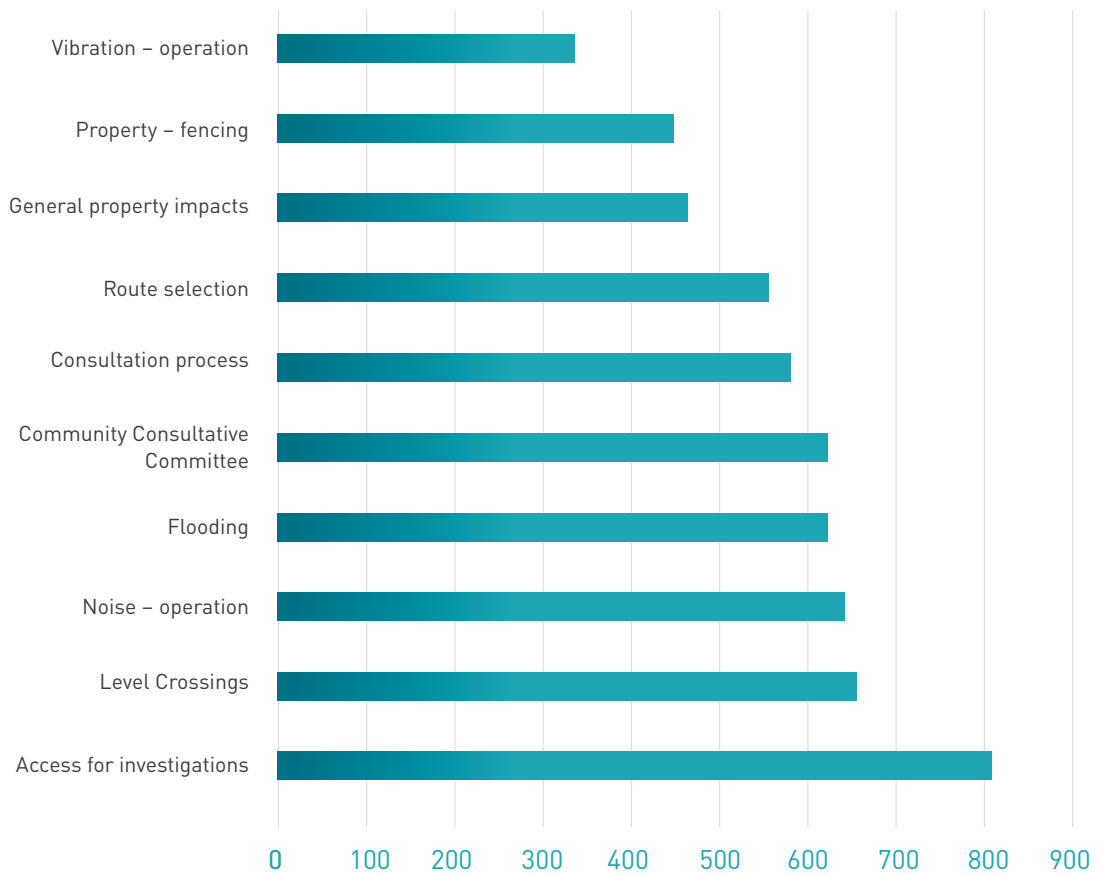


## Areas of community interest

We are committed to listening and responding to feedback provided by our Inland Rail communities.

The Inland Rail Stakeholder Engagement team records any feedback, questions or concerns raised by community members and stakeholders in our Consultation Manager database. This includes comments provided in person, online, by email, post or phone. By logging all interactions, we can monitor issues raised by the community and ensure a response is provided.

The most frequent community feedback received and responded to by Inland Rail in FY20 was around access for investigations, level crossings, operational noise and flooding.



Most frequent feedback received and logged through the Consultation Manager database.

# Indigenous partnerships

## Indigenous Participation Plan

Inland Rail is committed to working in partnership with Indigenous communities to create meaningful opportunities that deliver lasting benefits for individuals, their families and communities. Our Indigenous Participation Plan outlines our goals for Indigenous participation and how we work with Indigenous communities to achieve these goals.

Key outcomes in FY20 include:

**168**

local Indigenous residents  
employed on the Parkes to  
Narromine project

**\$12.6M**

in contracts awarded to  
Indigenous businesses during  
construction of the Parkes to  
Narromine project



Statement of Commitment  
and Youth Summit with  
Bigambul People on the  
Border to Gowrie project

INLink JV initiatives include:

- + Sponsoring 10 local Indigenous students to undertake leadership training through the NSW Police Active Citizens program
- + Implementing a workforce-wide mandatory cultural awareness program with approximately 500 of the INLink JV workforce and subcontractors participating.



Project cultural appreciation tours on the Parkes to Narromine and North Star to Border projects

5

Indigenous groups received grants for community initiatives



Artwork for vehicle wraps for the Parkes to Narromine project



Project cultural appreciation tour on the North Star to Border project.

## Project cultural appreciation tour

The Inland Rail North Star to Border project team was privileged to join Toomelah Indigenous Elders in a cultural appreciation tour led by proud local Gomeri woman and Elder, Elaine Edwards.

Initiated by the Toomelah community, the tour introduced the team to the Dreamtime legends of the local people along the southern side of the Barwon River.

The tour visited Boobera Lagoon – the resting place of the Rainbow Serpent (also called 'Kurree') – and the Canoe Tree to learn more about the cultural significance of these sites. Insights into the history of the Toomelah township were also shared.

The tour provided the group with an invaluable opportunity to connect with culture, build relationships and to further discuss how Inland Rail can work in partnership with Indigenous people to create pathways that support meaningful and long-term opportunities for their communities.



**Sponsorship**

Inland Rail supported the Moree Secondary College team to attend the KARI Ella 7s competition in March 2020, sponsoring the purchase of jerseys.

The tournament is the largest of its kind in Australia, bringing together First Nation peoples to represent their school or club. It is a showcase of both culture and talent.

## Statement of Commitment with Bigambul People

In September 2019, Inland Rail (ARTC) signed a Statement of Commitment with the Bigambul People of southern Queensland to reflect the intent of both parties to work together to support the preservation of Bigambul cultural heritage on the Inland Rail alignment as the Border to Gowrie project progresses through their traditional lands.

The Statement of Commitment recognises the social, economic and health aspirations of the Bigambul People and how they can capitalise on opportunities from Inland Rail to create social and economic change in their communities, and pathways to support longer term opportunities.

The commitment has generated shared excitement between Inland Rail and the Bigambul people that such opportunities can be created through targeted workforce and business development focussing on real job outcomes.

One of the first outcomes from the Statement of Commitment was the Bigambul Youth Summit. Over five days, the event saw important conversations around culture, social connection and the future take place. As the emerging leaders of the Bigambul nation, participants were able to voice ideas, share insights and talk about the needs and aspirations of young Indigenous people.

The initiative resulted in a comprehensive report which will inform the development of the Bigambul Young People's strategy and the establishment of a Youth Advisory Council.







The commitment has generated shared excitement between Inland Rail and the Bigambul People that such opportunities can be created through targeted workforce and business development focussing on real job outcomes.

## Industry and workforce participation

Inland Rail partners with local and regional communities along the project corridor to create meaningful economic development and employment opportunities.

We're committed to maximising opportunities for local and Indigenous individuals and businesses to participate in Inland Rail and we plan and deliver these outcomes through our Social Performance program, Skills Academy and Australian Industry Participation commitments.

### Inland Rail commitment

#### Industry participation

- + Engaging local and Indigenous businesses where possible.
- + Working with local and Indigenous businesses to strengthen the capability of the local supply chain to participate in Inland Rail.
- + Working with government stakeholders to build the capacity of Indigenous businesses through development, mentoring and other support programs.
- + Having a clear and efficient process for businesses to seek information about supply opportunities and register their interest to supply to Inland Rail.

#### Employment and training

- + Providing local employment opportunities where possible.
- + Working with local and Indigenous communities to strengthen the capability of the local workforce to participate in Inland Rail.
- + Working with government to provide long-term outcomes through training, mentoring and other support programs.
- + Working with schools and local training providers to deliver appropriate training.
- + Having a clear and efficient process for people to seek information about employment opportunities and register their interest in Inland Rail.

## Project industry and workforce participation

Outcomes achieved for the local and Indigenous workforce and businesses on the Parkes to Narromine project during December 2018 to 30 June 2020 include:

### Community benefits

Parkes to Narromine snapshot: December 2018 – June 2020





Since working on Inland Rail, Luke Dickerson's business Compliance Rail (an INLink JV subcontractor) has grown its team from five to 70 employees – 90% of whom are Indigenous.



Narromine-based K B Concrete Pty Ltd was engaged by INLink JV on the Parkes to Narromine project.

## Facilitating local participation

To encourage and facilitate local participation, we implemented a supplier engagement strategy for the Narrabri to North Star (Phase 1) project – our second project scheduled for construction.

With a focus on providing potential suppliers with opportunities to learn more about the project, upskill staff and easily register their interest we:

- + Partnered with the Industry Capability Network (ICN) NSW to host a project information and supplier registration portal on ICN Gateway – Australia’s largest business networking platform
- + Facilitated information sessions to bring contractors, suppliers and regional stakeholders together to discuss the project and upcoming supply opportunities
- + Piloted a supplier capability development program to upskill local and Indigenous businesses for supply opportunities
- + Engaged ICN-NSW to prepare a supply chain report that identifies and promotes the capability and capacity of local and Indigenous industry located along the project corridor
- + Partnered with leading Indigenous advocacy bodies to drive Indigenous economic development and employment.

## Outcomes

- + >1,500 registrations of interest received from >650 businesses against 90 ‘indicative’ work packages.
- + >300 people attended four supplier briefing sessions in North Star, Moree and Narrabri in NSW.
- + 265 people attended ‘meet the contractors’ events in Narrabri and Moree, resulting in 375 one-on-one introductory meetings with the three shortlisted construction contractors.
- + Eight face-to-face and online workshops, followed by one-on-one mentoring support, to upskill potential suppliers in preparing a business capability statement and elevator pitch, registering on the ICN Gateway and effective tendering.
- + Corporate memberships and partnerships established with Supply Nation, New South Wales Indigenous Chamber of Commerce and Yarpa.



New partnerships.



Damian and Luke were trainers for the Construction skills training workshop.

In preparation for the Narrabri to North Star (Phase 1) project, Inland Rail implemented a civil construction skills training program to help create a pool of skilled and employable locals from which the Inland Rail supply chain can draw labour for construction.

## Project civil construction training

In preparation for the Narrabri to North Star (Phase 1) project, the Inland Rail Skills Academy implemented a civil construction skills training program to help create a pool of skilled and employable locals from which the Inland Rail supply chain can draw labour for construction.

Moree Plains, Narrabri and Gwydir shire residents were invited to nominate for a pilot training project through an Expression of Interest (EOI) process run by each local council. The initiative targeted interested Indigenous and unemployed residents, as well as participants with machinery experience looking to acquire necessary tickets.

Three of five civils competencies and completion of the white card were offered through the training. Training was completed in June 2020 and involved 66 participants including:

- + 31 Indigenous participants
- + 2 women.

# Community investment and programs

## Community sponsorship and donations

Inland Rail supports communities along the alignment through a program of sponsoring eligible community groups. Applications are invited for events, projects and activities that contribute to local and regional prosperity, wellbeing and sustainability.

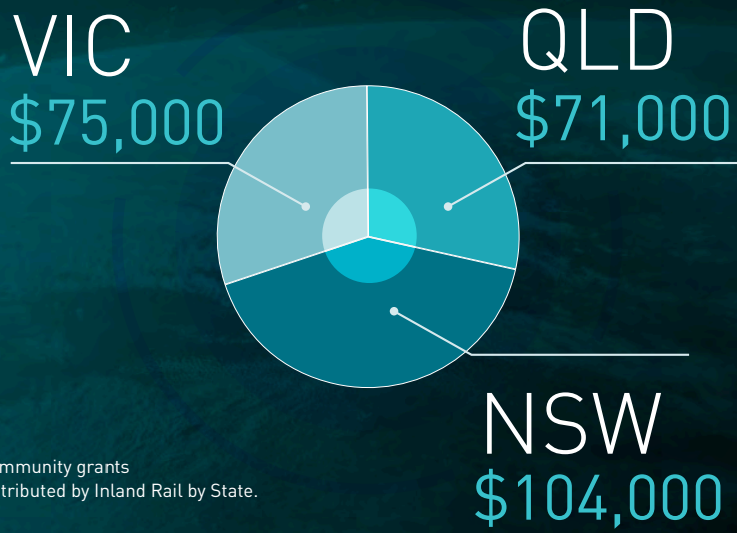
The Community Sponsorships and Donations program guidelines outline eligibility requirements, application and assessment processes and terms and conditions of funding.

Due to the global coronavirus pandemic and government social distancing measures impacting community events, Inland Rail adjusted its funding approach to encourage applications for projects that focussed on equipment and small capital upgrades or increasing their ability to develop and deliver services or Science Technology Engineering and Mathematics (STEM) programs online.

## Community contribution by INLink JV FY20

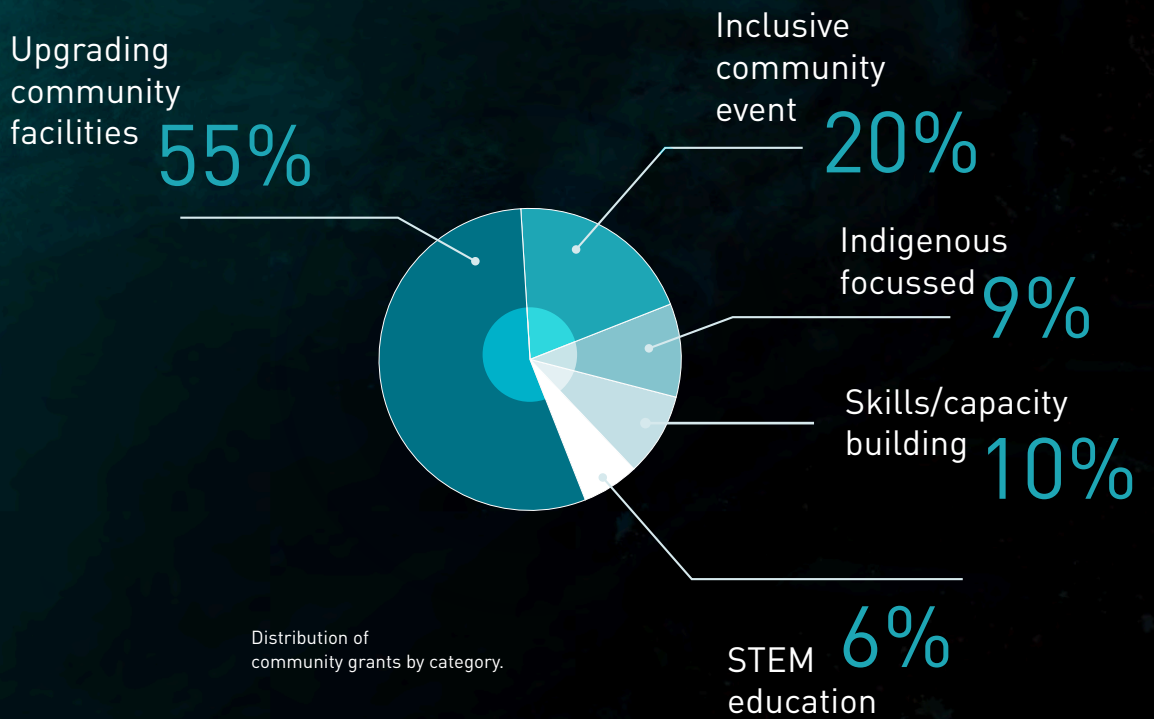
- + **\$16,240** invested in local community initiatives addressing drought relief, fire services, Indigenous services, mental health, domestic violence and breast cancer awareness.
- + Donated **20** water tanks (25,000L) worth **\$50,000** to stakeholders including shire councils and impacted stakeholders across the project.
- + Donated **15** households-full of furniture worth **\$45,000** to Can Assist (Cancer Assistance Network) Parkes.





Community grants distributed by Inland Rail by State.

Inland Rail sponsored **81** community initiatives valued at **\$250,000**.



Distribution of community grants by category.



## Branjee Country Fire Authority

Branjee Country Fire Authority has some new kits that helped them through a relentless fire season thanks to the Inland Rail Community Sponsorship and Donations initiative.

## Partnering with Primary Health Networks

Inland Rail supports community wellbeing through partnerships with Primary Health Networks (PHNs). PHNs are administered by the Australian Government Department of Health and have been established in regions across Australia to improve medical services and coordination of care particularly for patients at risk of poor health outcomes. PHNs commission a range of mental health services to suit the needs of their regions.

We are partnering with six PHNs along the alignment to:

- + Promote local, independent mental health services that are accessible to stakeholders at no cost
- + Ensure local mental health services and GPs are aware of Inland Rail's progress in local areas
- + Provide resources to services to mitigate any increased demand caused by Inland Rail.

### Current PHN partnerships

- + Brisbane South (K2ARB)
- + Darling Downs and West Moreton (B2G, G2H, H2C, C2K)
- + Western NSW (S2P, P2N, N2N)
- + Murrumbidgee (A2I, I2S, S2P)
- + Hunter New England and Central Coast PHN (N2N, N2NS, NS2B)
- + Murray PHN (VIC)

**This objective helps us enhance environmental and heritage values where possible. Enhancement strives to go beyond impact minimisation to creating new opportunities for habitat restoration and heritage interpretation and engagement. This objective also protects community amenity in relation to noise, dust and pollutants during construction.**

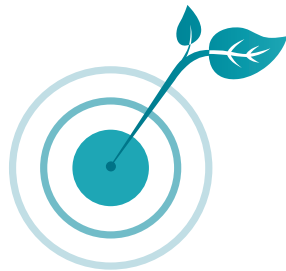
# Environment and heritage

## Targets and FY20 progress and outcomes



### 1. Ecological values have been enhanced

- + Assessment commenced on the Parkes to Narromine Project native landscape rehabilitation works to determine the area of ecological enhancement using the IS rating ecology calculator.
- + An Expression of Interest for offset-related biodiversity stewardship sites in New South Wales was released in November 2019.



### 2. Indigenous and non-Indigenous heritage values have been interpreted and/or enhanced

- + The Parkes to Narromine Project Heritage Interpretation Plan has been completed for the project. Work is underway to determine if heritage enhancement options for salvaged heritage timbers can be implemented in partnership with the Parkes Shire Council.
- + A tender for the Narrabri to North Star (Phase1) project Heritage Interpretation Plan was released.



### 3. No significant pollution incidents (Level 1 severity) occur during construction

- + There have been no significant pollution incidents during construction of the Parkes to Narromine project.



### 4. No major exceedances (Level 1 or 2 severity) of relevant air quality and noise guidelines during construction

- + There have been no significant or major air quality or noise incidents during construction of the Parkes to Narromine project.



The Brigalow Belt provides habitat to protected species such as the glossy black cockatoo.

## Caring for the land

### Landholder stewardship partnerships

Inland Rail seeks to avoid, minimise and mitigate the impacts of the rail corridor and associated infrastructure on biodiversity. Where impacts to biodiversity cannot be avoided or mitigated, Inland Rail will offset these impacts through native vegetation offset programs.

The Inland Rail offset strategy is to combine environmental offset requirements across each project and pool offset values to enable larger strategic environmental offset sites to be delivered. This approach ensures that offset properties are strategically located, such as adjoining protected area estates.

In November 2019, Inland Rail released an Expression of Interest (EOI) for Biodiversity Stewardship Sites on private properties within 100km of the New South Wales alignment. Key bioregions include:

- + Brigalow Belt
- + Darling Riverine Plains
- + NSW South Western Slopes.

The EOI will encourage proximal landholders to pursue conservation land management activities, enhance the environment, and potentially access a new revenue stream.

### Landholder Interest FY20

- + **115** landholders submitted an Expression of Interest
- + **60** properties progressed to assessment to determine suitability
- + Full field assessments commenced on **8** properties



Established cover crop between Bulgandramine Road to Kittos Bridge Road, Peak Hill.



## Project landscape restoration

The Inland Rail Landscape and Rehabilitation Framework (May 2020) outlines outcomes required for revegetation and rehabilitation of disturbed areas. The framework is a guide for each project to develop its own tailored ecological and landscaping approach.

A Landscape Plan was developed and implemented for the Parkes to Narromine project. By end of June 2020, Inland Rail applied 960,000m<sup>2</sup> of hydromulch – an efficient and sustainable restoration method – to the rail corridor.

Hydromulch is a tailored spray-on product designed to encourage fast cover crop growth that suppresses weeds and supports erosion control. As the cover crop dies off it creates a micro habitat for the establishment of perennial and native grasses over the longer term.

Rain events have enabled a good outcome for hydromulching across the project.



Hydromulch application near Goonumbla.

## Interpreting rail heritage

Project Heritage Interpretation Plans identify opportunities to interpret and promote pioneer rail heritage along the alignment.

From the late 19th century the railway spurred the growth of many inland towns and settlements in eastern Australia and enabled the bulk transportation of wheat and agricultural expansion. Supporting the railway were stations as well as grain silos and sidings.

Surviving structures of the pioneer rail line, such as extant steel truss underbridges, timber constructed underbridges and remnant evidence of former stations, can be assessed as having local heritage significance.

From the late 19th century the railway spurred the growth of many inland towns and settlements in eastern Australia and enabled the bulk transportation of wheat and agricultural expansion. Supporting the railway were stations as well as grain silos and sidings.





Photographic archival recording and cataloguing was undertaken of heritage elements such as this rail bridge located at Bulldog Creek on the Parkes to Narromine project.

## Project photographic archiving

Photographic and archival recording of pioneer railway elements was conducted for the Parkes to Narromine project to support local heritage interpretation initiatives and to provide organisations, like local rail museums, with a valuable educational resource.

Heritage timbers were also salvaged during construction and the Project Heritage Interpretation Plan identified opportunities to interpret and display these timbers in council parkland and wetland projects. This initiative is currently progressing with the Parkes Shire Council.

## Recollections working for the railway, Wally Walker

Long serving ARTC employee of 40+ years and former Area Manager Wally Walker shared some of his experiences working for the railway. Wally is a proud Murrawari man residing in Wongarbron.

### What was your experience working for the railway?

I loved to work in the rail industry – abiding by standards and rules and following procedures to ensure the work was done right. I learnt on the job and was good at it. I progressed through the ranks and managed a 10–15 man maintenance team based in Dubbo.

I worked in maintenance and construction, one of our tasks was removing worn out track and turnouts by replacing with newly constructed tracks and turnouts.

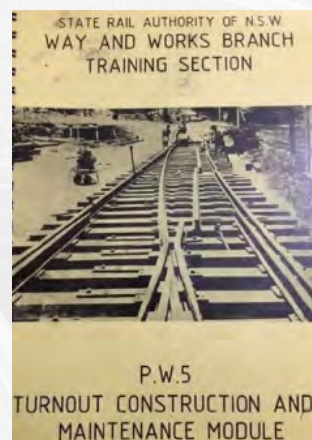
Back in the early days we had to construct turnouts and sidings by reading plans. These days it's all manufactured off-site. But back then we constructed it by hand – following the plans, cutting the rail, crowing and bending the rail to form a consistent arc, using a string line and radius rule. I still have the Turnout Construction Books which uses the imperial measurements (pictured).

I've seen a lot of changes since then – in the 1990s there was more mechanisation, tools and equipment such as the first hi-lux hi-rail vehicles and mini excavators with rail wheels to work on track. There's been changes in technology but also other changes – you don't need to be an engineer to be a manager or area manager. Once only the engineers could manage large civil assets.

### Did many Aboriginal people work for the railway?

Aboriginal people have worked in rail for a long time. People come and go. Some stay and work till they retire others come in and out of the industry. Working in rail suited Aboriginal people. It was the outdoors and manual labour that suited. Aboriginal People were not well educated back then, there were no subsidies for training being offered. Aboriginal people liked working with their mates and brothers, there was a bond and a sense of camaraderie.

There is nothing much documented about Aboriginal people in building the early rail lines. My uncle worked on the Bourke line. In the 1950 and 1960s the wives and kids would accompany the men and they'd pitch their tent up along the rail corridor. The kids would go to the local school.



Original Turnout Construction handbook provided by Wally Walker.



## Historic role of Indigenous people in rail

An unrecognised aspect of Australia's rail heritage is the close links retained by Indigenous families to the railway industry.

Many Indigenous men accompanied by their families were employed in constructing, maintaining and operating rail lines from the 1930s onwards. This history is undocumented and is based on recollections by Indigenous people of their parents, grandparents or other family members travelling extensively to undertake rail work.

“ I loved to work in the rail industry – abiding by standards and rules and following procedures to ensure the work was done right. I learnt on the job and was good at it. I progressed through the ranks and managed a 10–15 man maintenance team based in Dubbo.

Long serving ARTC employee of 40+ years and former Area Manager Wally Walker.



This objective helps us reduce the quantities of water, energy and materials utilised on the rail network and any associated wastes generated. Using less resources can directly lower capital costs and reduce maintenance requirements. Wider benefits of optimising resource use include conserving scarce resources such as water, avoiding greenhouse gas emissions and generating economic value from recovered resources.

# Resource use

Ballast regulator working on the railroad track near Parkes, NSW.

## Targets and FY20 progress and outcomes



### 1. Reduce construction water demand by 15% across the program

- + On the Parkes to Narromine project INLink JV water monitoring showed a reduction in actual water use when compared with construction estimates.
- + The project achieved a 41% reduction in monitored construction water use compared to modelled water use.
- + This was achieved through reusing material from the existing rail formation, which avoided water use for moisture conditioning, and the creation of a semi-sealed running track from reused materials along the alignment that required less dust suppression.



## 2. Reduce construction material use by 15% across the program

- + On the Parkes to Narromine project INLink JV construction monitoring showed a reduction in actual material use when compared with construction estimates.
- + The project achieved a 10% reduction in monitored construction material use compared to modelled use. This equates to a savings of 24,131 tonnes of greenhouse gas emissions (GHG).
- + This was achieved through the reuse of onsite materials and procurement of Australian steel for rail tracks.



## 3. Use materials that contain recycled content or have low embodied impact

- + The Parkes to Narromine project achieved 11% of materials by value (equating to \$14 million) containing recycled content or having a low embodied impact.



## 4. Reduce GHGs by 15% across design, construction and operation

- + On the Parkes to Narromine project INLink JV construction GHG monitoring showed a reduction in actual use when compared with construction estimates.
- + The project achieved a 32% reduction in modelled GHG emissions compared to monitored use. This equates to 20,785 tonnes in saved GHGs.
- + This was achieved through the establishment of a 'running track' that minimised the need for dust suppression and the achievement of strong local employment targets that reduced travel emissions associated with fly-in fly-out (FIFO) workers.
- + An Inland Rail program-wide GHG emissions model has been developed to ensure consistency in modelling across projects.



## 5. Divert construction waste from landfill with the aim of 80–100% by volume of spoil, 50–90% by volume of inert and non-hazardous waste, 40–60% by volume of office waste

- + The Parkes to Narromine project achieved the following diversion from landfill outcomes:
  - + 100% diversion of spoil equating to 0m<sup>3</sup> of spoil being generated through incorporating into the final built form.
  - + 69% diversion of non-hazardous waste equating to 6,177m<sup>3</sup> through the source separation of key materials streams such as crushed concrete and metal and the re-use of removed rail on other rail projects.
  - + 51% diversion of office waste equating to 238m<sup>3</sup> through the collection of containers under the Return and Earn scheme and the use of both paper and container recycling bins.

# Construction water management

## Construction water optimisation

Inland Rail will require significant quantities of water during construction for activities such as earthworks, dust suppression and revegetation.

The program-wide Water Plan, finalised in February 2020, outlines a strategy for optimising and selecting the most appropriate water supply options and considers water availability, cost, sustainability and water quality.

The plan is used to guide the development of project-specific construction water plans and helps us deliver sustainability outcomes such as:

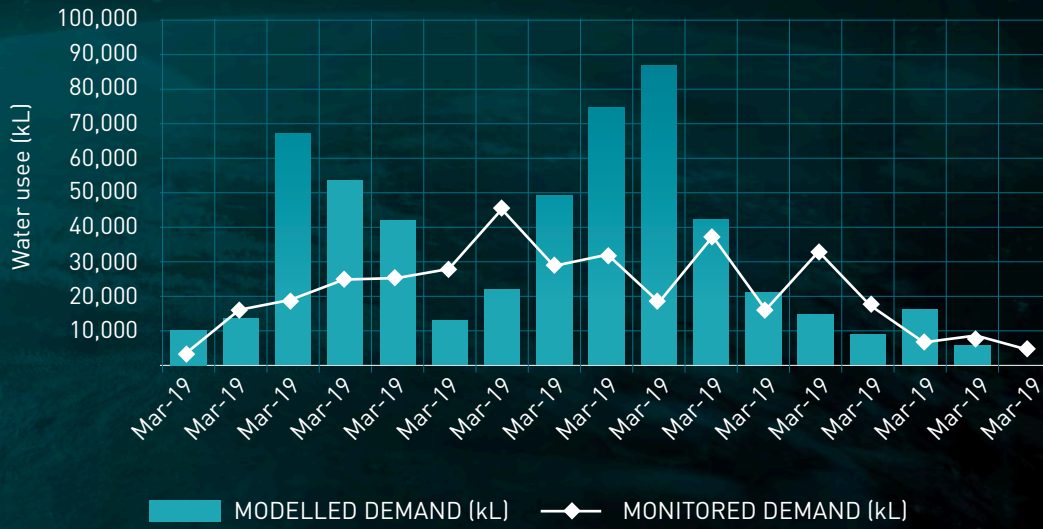
- + Avoiding and reducing water demand
- + Sourcing water in a way that minimises potable water use
- + Maximising water re-use, treatment and recycling.



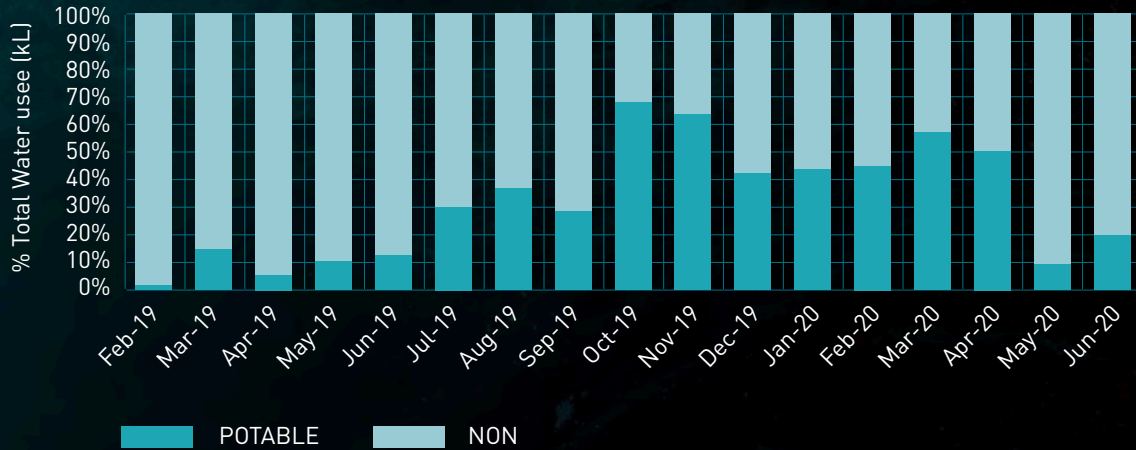




Dust suppression on the Parkes to Narromine project.



INLink JV modelled estimated versus monitored construction water use.



INLink JV modelled potable versus non-potable construction water use (kL).

## Project construction water reduction

On the Parkes to Narromine project INLink JV achieved a 41% reduction in water use as shown by comparing actual monitored daily water use to construction estimates. Water saving initiatives implemented during construction included:

- + Creating a 'running track' along the whole site made from waste ballast and ash to form a semi-sealed road to reduce vehicle dust
- + Creating Geographic Information Systems (GIS) maps of sealed and unsealed access roads leading to the site which noted location of households and businesses and strategically deployed dust suppression where necessary
- + Re-using excavation materials in the rail formation to reduce the need for import fill and associated moistening
- + Using revegetation seed varieties that can germinate up to six months after planting to reduce establishment watering requirements.

### Water savings

A 41% net reduction in construction water use was achieved on the Parkes to Narromine project.

Non-potable water comprised 66% of total water use during construction.

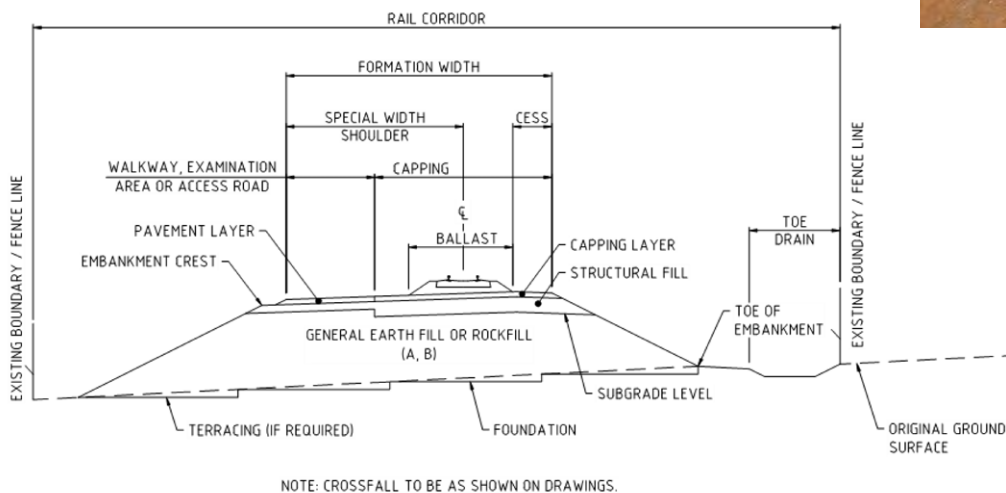
# Re-use of site materials

## Performance-based earthworks

General earth fill is used to provide a stable foundation and formation for ballast and track. The earthworks material and construction technologies used must maintain stability and meet safety and performance standards over the next 100 years.

Specifications or approved standards are required to define earthworks material properties for construction of railway earthworks.

The Inland Rail Engineering and Value Creation team supported by Technical Advisors SMEC and Arup Joint Venture updated the earthworks specifications so that geotechnical designs are able to address project-specific earthwork challenges such as the use of locally sourced materials.



A homogenous embankment – earthworks constructed by placement of a uniform general earth fill material meeting requirements of the Earthworks Materials Specification.



### Parkes to Narromine project

297,000m<sup>3</sup> of blended ballast and ash was reincorporated into Inland Rail formation works.

Specifications or approved standards are required to define earthworks material properties for construction of railway earthworks.

### Key benefits

- + Reduced social and traffic impacts from hauling materials.
- + Cost savings from using locally sourced materials.



Sleepers being put in place on a construction site near Peak Hill Railway Road, Tomingley, NSW.

## Parkes to Narromine project

- + 85% timber sleepers recovered.
- + 15% timber sleepers required disposal in landfill.

All **46,716** recovered timber sleepers beneficially re-used by a third party for civil engineering or landscaping purposes.

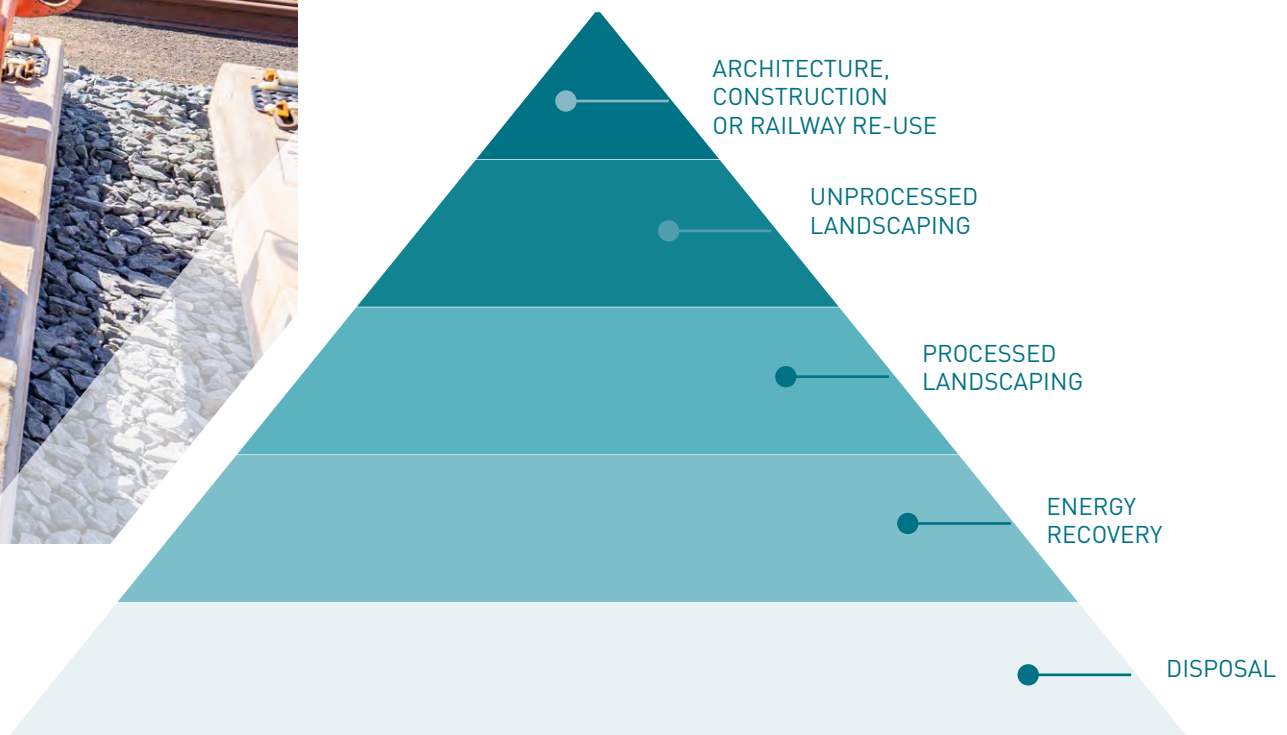


## Timber sleeper recovery

Inland Rail will generate thousands of tonnes of waste timbers from upgrading railway track across the alignment. To help guide the beneficial re-use or disposal of this material, ARTC has developed a Waste Timber Management Guideline.

Identification of graded, treated and contaminated timbers and appropriate re-use/disposal pathways will be undertaken where timbers are being considered for re-use or disposal.

On the Parkes to Narromine project, Inland Rail worked closely with government authorities to overcome regulatory, technical and logistical challenges associated with recovering waste timber.



Waste timber re-use hierarchy – architecture, construction and rail applications are the preferred options, with disposal being the least preferred. Management effort, cost and environmental impact typically increases down the hierarchy.

## Recovered steel rail track

For Inland Rail projects that involve upgrading existing track there are significant opportunities for re-use and recovery.

The existing steel rail track does not meet Inland Rail specifications in terms of capacity load but is still in good condition for deployment to other rail networks operated by ARTC and Transport for New South Wales.

Of the approximate 200km of parallel steel rail on the Parkes to Narromine project 98% was re-used:

- + 147.5km of rail was re-used by Transport for New South Wales on the Country Rail Network
- + 51km of rail was re-used by ARTC for enhancement and maintenance works on the Interstate and Hunter Valley Networks.

Re-use of materials such as steel rail track provides significant savings in waste transport and landfill costs, reduces the need for purchase of new materials and reduces the life cycle environmental impacts and associated embodied emissions of manufactured materials.







Existing rail track and timber sleepers on the North Star to NSW/QLD Border project.

Re-use of materials such as steel rail track provides significant savings in waste transport and landfill costs, reduces the need for purchase of new materials and reduces the life cycle environmental impacts and associated embodied emissions of manufactured materials.

**This objective helps ensure our supply chain supports achievement of our sustainability priorities. Value for money is defined both in terms of the total cost or cost to procure, use and maintain the product and service, as well as opportunities for creating additional social and environmental value where possible.**

# **Sustainable procurement**

## Targets and FY20 progress and outcomes



### 1. Provide Inland Rail Leadership Team with quarterly updates on Sustainable Procurement Policy

- + The Inland Rail Sustainable Procurement Policy was updated to better align with best practice and approved in March 2020.
- + A Sustainable Procurement Action Plan to guide the policy's implementation was approved in May 2020.
- + Quarterly reporting on the policy will commence in January 2021 following the successful trial and implementation of a new Supplier Sustainability Assessment Tool.



### 2. Issue suppliers with a Supplier Sustainability Assessment Score

- + Key to implementation of the Sustainable Procurement Policy is a new Supplier Sustainability Assessment.
- + This assessment will enable Inland Rail to measure the sustainability 'maturity' of major suppliers and provide targeted feedback on how they can improve over time.
- + The assessment will be developed and piloted for implementation in January 2021.



### 3. Raise sustainability awareness within supply chains through engagement activities

- + On the Narrabri to North Star (Phase 1) project, businesses registered in our supplier portal were offered the opportunity to 'opt in' to learn more about sustainability and how it can benefit their business – 965 suppliers expressed interest.

## Working with the supply chain

### New Sustainable Procurement Policy

Inland Rail directly engages hundreds of suppliers with a large proportion of the program budget being spent through the supply chain.

The size and scale of our program means we have an opportunity – and equally an important responsibility – to positively influence and promote strong sustainability practices within industry. And to do that, we need to not only demonstrate the long-term value sustainability can provide, but signal to our suppliers how crucial it is to our business.

The new *Inland Rail Sustainable Procurement Policy* was collaboratively developed by the Sustainability and Commercial Teams and involved consultation and engagement with internal stakeholders.

The policy was endorsed by the Inland Rail Leadership Team on 12 March 2020 and is available on the Inland Rail website.

Inland Rail directly engages hundreds of suppliers with a large proportion of the program budget being spent through the supply chain.





## Key benefits to suppliers

- + Reduced use of energy, water, materials and waste lowering operational costs and increasing competitiveness
- + Building of environmental and sustainability credentials
- + Helping clients deliver on sustainability priorities such as contributing credits towards ISCA ratings
- + Increasing design life or performance of products or opportunities for trial and commercial demonstration of new or alternative materials

15%

had a publicly-stated  
commitment



85%

did not have  
any policy or  
commitment

A large proportion of suppliers do not have a sustainability policy or commitment.

## Supplier Sustainability Assessment Score

Many suppliers to Inland Rail will bid multiple times allowing for demonstratable continual improvement regarding their sustainability agendas.

The Supplier Sustainability Assessment Score, currently being trialled with select tenders, is set to form a core part of our Sustainable Procurement Policy. This assessment is applicable to major service providers and product suppliers and will enable Inland Rail to:

- + Better use the sustainability questionnaire in the tender evaluation process to generate a scored assessment back to the supplier with a guideline on how to improve their score
- + Enable Inland Rail to engage with suppliers across all phases of the procurement process and measure change and impact on the supply chain.

The Supplier Sustainability Assessment Score will be fully implemented in 2021.



In July 2019 Inland Rail reviewed the websites of 90 contracted suppliers to determine who had a sustainability policy or commitment.

We found:

- + 15% had a publicly stated commitment
- + 85% did not have any policy or commitment

This demonstrates the value of initiatives like our Sustainable Procurement Policy in positively influencing sustainability practices across an entire ecosystem.

# Product environmental initiatives

## Environmental Product Declarations

Environmental Product Declarations (EPDs) are independently verified reports that describe the lifecycle environmental impacts of a product from raw material extraction to manufacturing. As a voluntary industry initiative EPDs are gaining traction particularly with major suppliers to buildings and infrastructure projects pursuing a Green Star or IS rating.

An EPD does not necessarily prove a product is environmentally superior but does provide transparent and comparable information that demonstrates a commitment to continual improvement.

EPDs are part of International EPD® System, a global program that operates in accordance with ISO 14025 for Type III environmental declarations.

Two of the largest materials by value procured by Inland Rail for the Parkes to Narromine project have EPDs:

- + Liberty Steel rail
- + Humes precast culverts and headwalls.

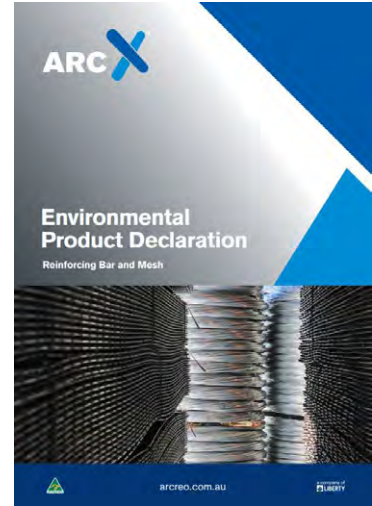
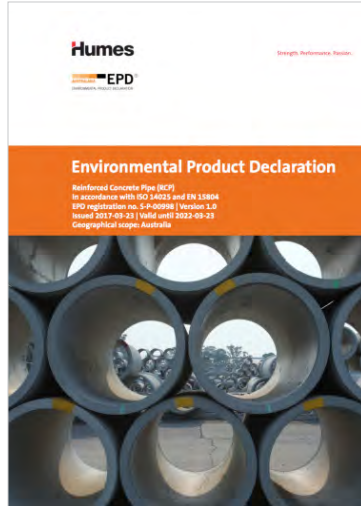
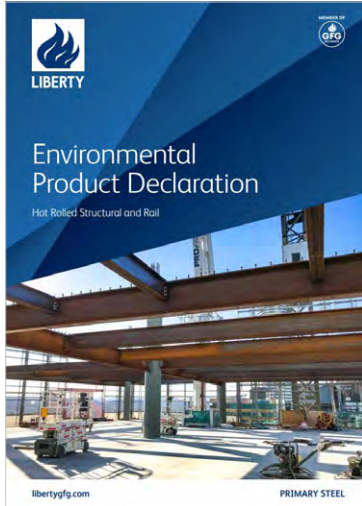
INLink JV also procured ARC Reinforcing Steel which has an EPD.

## Benefits for an EPD

Credible information on environmental performance that can be used to:

- + Improve risk profile
- + Provide transparency to customers
- + Avoid 'greenwashing'.





EPDs for Liberty Steel, Humes precast culverts and headwalls and ARC Reinforcing Steel.



**Materials covered by an EPD**

11% of total project spend on the Parkes to Narromine project was covered by an EPD. These products were procured by both Inland Rail and INLink JV.

## Carbon neutral concrete culverts

Inland Rail is the first rail infrastructure project in Australia to install certified carbon neutral concrete culverts.

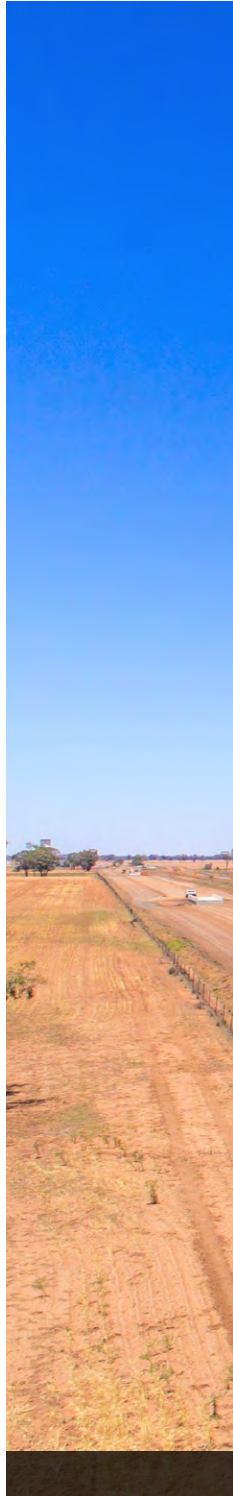
Concrete is typically a major contributor to the embodied greenhouse gas emissions (GHG) of an infrastructure asset. As the first company accorded an Environmental Product Declaration (EPD) for concrete in Australia, Holcim has raised the bar for accurate and transparent quantification and reporting of GHG emissions data for customers.

The culverts were manufactured by the Humes Tamworth facility which is a division of Holcim. In January 2020, Holcim published an EPD for the Humes infrastructure precast elements manufactured for the project. This enabled them to quantify GHG emissions in readiness for a carbon neutrality option.

On 2 April 2020, Holcim received certification from the Australian Government ClimateActive program to sell carbon neutral products. This enables Holcim and its divisions to offset the embodied carbon of its ready-mix concrete on behalf of customers through an opt-in basis.

The carbon emissions are reduced using supplementary cementitious material with the remaining emissions neutralised via certified carbon offsets.

**Inland Rail is the first rail infrastructure project in Australia to install certified carbon neutral concrete culverts.**



## GHGs avoided

A total of 22,625 tonnes of precast concrete culverts were installed on new rail track and road connections on the 103km Parkes to Narromine project between March 2019 and March 2020. This saved more than 7,250 tonnes of carbon emissions – equivalent to removing around 1,350 vehicles off the road for a year.



Carbon neutral culverts being installed on the Parkes to Narromine project.

**This objective helps us ensure long term considerations are integrated into the rail network and associated community and environmental investment. With a design life of more than 50 years, over time many factors will influence both the natural landscape and community expectations from infrastructure. Future-proofing against risks and impacts such as climate change are important in this regard.**

# Future operations

## Targets and FY20 progress and outcomes



### 1. Sustainability knowledge sharing sessions between Inland Rail and wider ARTC

- + ARTC-wide knowledge sharing sessions started in January 2020 and are held bi-monthly. The sessions attract participants from across ARTC business units and corporate services.



### 2. Climate change risk assessments undertaken with extreme and high risks treated

- + Climate change risk and adaptation workshops are undertaken during the reference and detailed design stage for all projects. These workshops involve key functional areas such as engineering, environment and sustainability, and result in a climate risk and adaptation register for the project.
- + Work has commenced on determining how climate change adaptation relevant to the operational phase is integrated into handover plans.

## Skills for future prosperity

### Promoting STEM careers

The Inland Rail Skills Academy aims to raise awareness among school students in communities along the alignment about the Science, Technology, Engineering and Mathematics (STEM) careers that contribute to the successful completion of Inland Rail.

The academy was proud to sponsor the BHERT Award-winning Science and Engineering Challenge in its 20th year of delivery. Run by the University of Newcastle and held over two days at Parliament House, Canberra in October 2019, the outreach program aims to inspire students to consider a future career in STEM.

We were fortunate to play an active role in the event, with one of our young project engineers sharing with students her own career journey, inspired by an early love for science and solving problems. Other Inland Rail employees also joined in on the fun, coordinating activities, coaching students in the challenges and helping judge the results.

Inland Rail sponsored the Science and Engineering Challenge at Parliament House in Canberra 23–24 October 2019. Hosted by the University of Newcastle, 388 students from seven primary and seven high schools attended with 54.6% female participation.





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## STEM Industry School Partnership (SISP) Program

On the Parkes to Narromine project, INLink JV was a key industry partner for the STEM Industry School Partnership (SISP) program – an initiative delivered by Regional Development Australia Central West that aims to give students an awareness and understanding of STEM pathways.

The program provided 200 students with the opportunity to learn more about jobs of the future and explore real-world STEM applications, such as designing and constructing bridges.



INLink JV Project Director Gerard O'Connor presenting to students participating in the SISP program.



## Scholarships

The Inland Rail Scholarships program aims to provide real-world education opportunities for regional students considering an undergraduate degree at the University of Southern Queensland (USQ), Charles Sturt University (CSU) and La Trobe University.

Students commencing at one of these universities can apply for 20 Inland Rail Scholarships, each valued at up to \$20,000, or \$5,000 for every year of study.

Inland Rail scholarships provide an opportunity for students to launch their career paths in industries that directly contribute to their region's prosperity and social cohesion.

The program creates value for communities along the Inland Rail alignment by offering education and training programs that work to increase the number of skilled local residents.

Inland Rail scholarships provide an opportunity for students to launch their career paths in industries that directly contribute to their region's prosperity and social cohesion.



Scholarship recipient Madeline Tomkins aims to become a paediatrics specialist based in regional Victoria.



# Integrating best practices

## Knowledge sharing

The scale and significance of the Inland Rail program, along with its focus on world-class delivery and generation of regional and local benefits mean that Inland Rail is pushing the boundaries for how rail freight can be designed, constructed and operated.

As part of ARTC's culture of continual improvement, Inland Rail is introducing new systems, processes and standards into the wider organisation. Similarly, ARTC having trialled and piloted new approaches in other areas of the network, is able to deploy these technologies at scale on Inland Rail.

## ARTC Sustainability Working Group

In January 2020, ARTC introduced a working group to further support the sharing of knowledge and alignment of best practices.

- + Facilitated by the Inland Rail Sustainability Team.
- + 15+ participants from across ARTC.
- + Topics to date:
  - + Social procurement
  - + Operational benefits of Infrastructure Sustainability-rated projects
  - + Asset visualisation technologies
  - + Timber sleeper recovery.



Workers at the construction site of Inland Rail between Parkes and Narromine, NSW.

The scale and significance of the Inland Rail program, along with its focus on world-class delivery and generation of regional and local benefits mean that Inland Rail is pushing the boundaries for how rail freight can be designed, constructed and operated.

## Asset visualisation

As we embrace the use of new technologies, digital engineering is becoming an established discipline for major infrastructure projects, offering benefits throughout the asset lifecycle and driving efficiency, productivity and innovation.

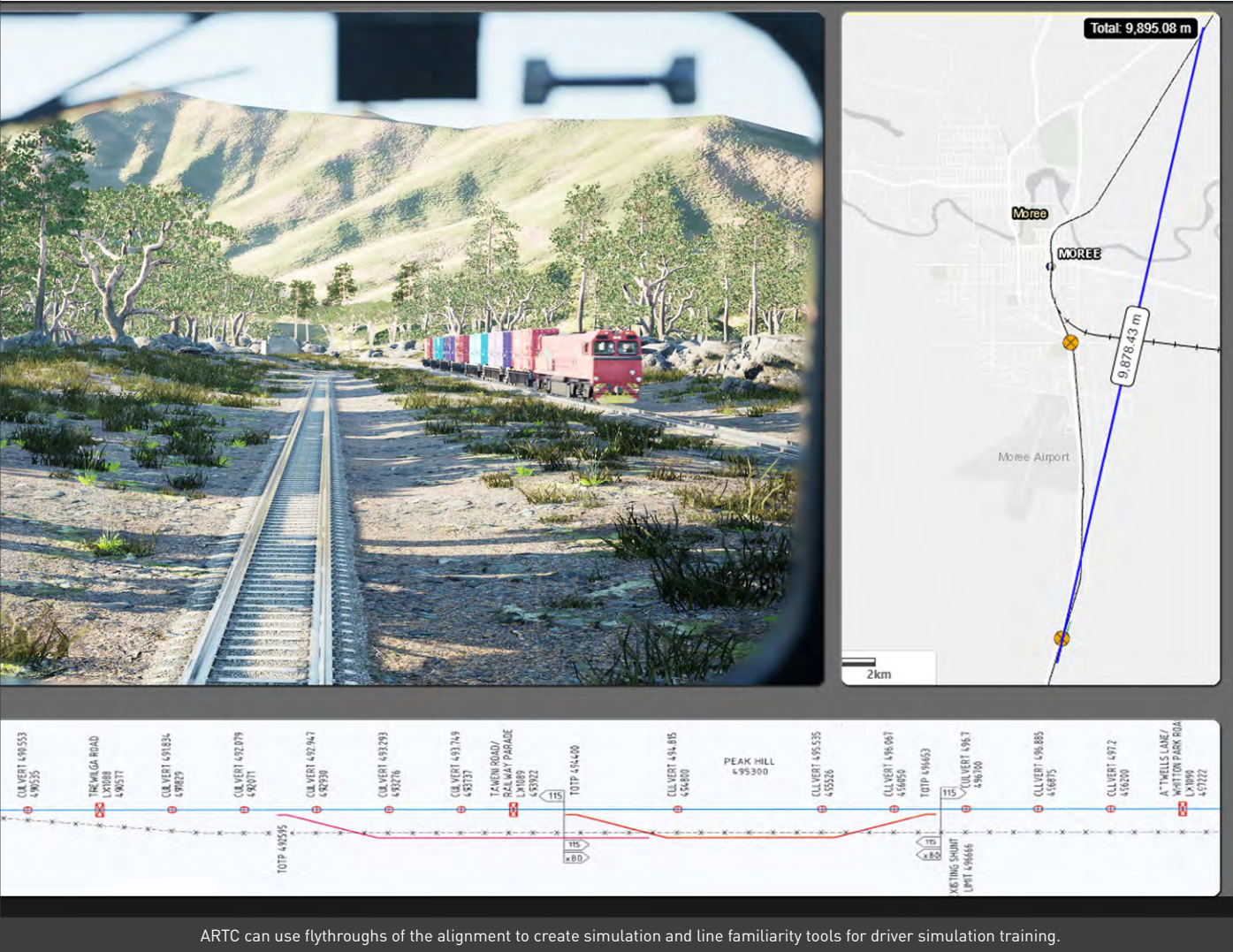
Applications include Building Information Management (BIM), Geographical Information Systems (GIS) and Visualisation all of which are implemented by the Inland Rail Engineering and Value Creation team.

Visualisation provides a 'true to life' representation of the design and is used by Inland Rail to communicate the proposed design, project staging and potential impacts with stakeholders and the community.

These design visualisations and flythroughs can also be used by ARTC and rail freight services for driver simulation training and track familiarisation.

The visualisation enables train drivers to gain a level of familiarity with the track before getting in the cab. As shown, the line familiarity tool combines a cab view, map view and track diagram. Drivers can then gain a level of competency to know what to look for along the route.





ARTC can use flythroughs of the alignment to create simulation and line familiarity tools for driver simulation training.

Visualisation provides a ‘true to life’ representation of the design and is used by Inland Rail to communicate the proposed design, project staging and potential impacts with stakeholders and the community.

## Main Line Indicators

26 Main Line Indicators were installed on the Parkes to Narromine project and it's expected they'll be used across the rest of the Inland Rail program.



Main Line Indicator installed on Parkes to Narromine project.

## Safer rail maintenance

Tilt-down Main Line Indicators will be installed across more than 80% of the Inland Rail alignment including all greenfield projects, improving safety outcomes for our Signal Maintainer community.

The mast can be lowered with a standard cordless drill to a comfortable working height, meaning that Signal Maintainers no longer need a fixed or portable ladder to access the signal head and can work on the signal at ground level.

A small team of Signal Engineers worked with the supplier for two years to develop the mast. The tilt-down technology was trialled in New South Wales and South Australia and feedback sought from ARTC maintenance teams. Minor modifications were made to refine the design to its current approved standard.

Tilt-down Main Line Indicators will be installed across more than 80% of the Inland Rail alignment including all greenfield projects, improving safety outcomes for our Signal Maintainer community.



Inland Rail Engagement team members and festival participants at the Parkes Elvis Festival 2020, New South Wales.



## Peer reviewers

On 29 July 2020 industry colleagues participated in a peer review workshop to provide feedback on Inland Rail's annual sustainability reporting. This report has benefitted from their advice. Thank you also to ARTC and Inland Rail executives who attended the first part of the workshop.

### Industry Peers

- + **Jo Haggerty** – Senior Manager Sustainability City and Southwest Sydney Metro
- + **Fin Robertson** – Sustainability Manager Victorian Level Crossing Removal Authority
- + **Mihir Patel** – Senior Environment and Approvals Coordinator Cross River Rail
- + **Allison Thomas** – Sustainability Program Manager (2019) Paramatta Light Rail
- + **Andrew Masci** – Senior Sustainability Advisor Transurban
- + **Kirsty Bauer** and **Mark Sawatzki** – SMEC Arup Joint Venture
- + **Scott Losee** and **Andrew Aitken** – Losee Consulting

### ARTC and Inland Rail

- + **Mark Campbell** – ARTC Chief Executive Officer
- + **Rebecca Pickering** – Director Engagement, Environment and Property, Inland Rail, ARTC
- + **Brad Jackson** – Director Program Delivery, Inland Rail, ARTC
- + **Bas Bolyn** – General Manager Corporate Affairs, Corporate Services, ARTC
- + **Sarah Connelly** – Program Environment Manager, Inland Rail, ARTC
- + **Adrian Teaha** – Industry Policy and Strategy Manager, Corporate Services, ARTC



## **Inland Rail office locations**

### **Brisbane (Head Office)**

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Sydney NSW 2001

### **Melbourne Office**

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Melbourne VIC 3031

### **Toowoomba Office**

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Track Corporation  
Inland Rail  
143–145 Margaret Street  
PO Box 3093  
Toowoomba QLD 4350

### **Gatton Office**

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Suite 5–6,  
47 North Street  
Gatton QLD 4343

### **Parkes Office**

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Track Corporation  
Inland Rail  
290 Clarinda Street  
Parkes NSW 2870

### **Wagga Wagga Office**

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Wagga Wagga NSW 2650





### Further information

 1800 732 761

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[inlandrail.com.au](http://inlandrail.com.au)

# ARTC

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.