

# Sustainability Report 2024

Transforming Australia's supply chains



# Acknowledgement of country

National Intermodal acknowledges the Traditional Custodians of Country throughout Australia and their continuing connection to land, sea and community. We pay our respects to them, their cultures and to their Elders past and present. Front cover: Moorebank Precinct Flora  $\ensuremath{\mathbb{C}}$  National Intermodal Corporation Limited 2024

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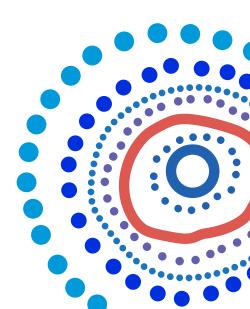
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## Contents

Letter from Chair and CEO	2
Who we are	4
Moorebank Intermodal Precinct sustainability dashboard	6
Our sustainability strategy	8
Our roadmap	10
PILLAR 1: Low emission freight	12
PILLAR 2: Climate resilient infrastructure	14
PILLAR 3: Sustainable design and procurement	16
PILLAR 4: Efficient and circular use of resources	18
PILLAR 5: Healthy biodiversity	20
PILLAR 6: Vibrant social inclusion	22
Our reconciliation journey	24



## Letter from Chair and CEO

Our sector has a tremendous opportunity to improve its beneficial impact on the lives of Australians through the sustainability of our national supply chains, and National Intermodal has an important role to play in supporting the Australian Government's ambitions to decarbonise our sector.

We are increasingly committed to making a difference in the environmental, social and economic impacts of our activities now, and for future generations. Over the past 12 months, we have begun to implement our foundational three-year sustainability strategy that reflects our objectives and we have additionally appointed a Chief Sustainability Officer who will, together with our broader team, embed sustainable principles in all that we do.

Our ambition is to drive continuous sustainability improvements and innovations both within our own operations and across the industry. Documenting our focus areas, progress, and challenges is the first step in bringing this to life. We are focused on four key areas to help achieve this goal: supporting modal shift, low emissions freight, 'true zero' precincts, and creating employment opportunities for local communities.

By ensuring rail plays a bigger role in our supply chain, we can benefit from more efficient freight movement through lower prices and significantly reduced transport emissions. Importantly, by reducing 90 per cent of all freight movements which are currently transported by road, we can make a meaningful difference to road safety through fewer trucks on the road.

We are exploring innovative technologies to further reduce our sector's impact on the environment, including the potential deployment of battery electric locomotives (BELs). Low emission freight is a key pillar of our sustainability strategy and we recognize the opportunity to make immediate environmental improvements in short-haul freight with new technology like BELs, which are particularly well-suited to urban areas, reducing noise, emissions, and pollution.

Our intermodal precincts themselves also present a significant opportunity to create a more sustainable supply chain. We are focused on pioneering the development of 'true zero' all-electric precincts which offer multiple sustainable benefits. Our precincts are also designed with substantial biodiversity zones: our plans at Beveridge Intermodal Precinct in Melbourne include almost 500 hectares of 'green wedge' land while Moorebank Intermodal Precinct – already home to Australia's largest rooftop solar installation – has more than 100 hectares of conservation areas. which is three times larger than the Sydney Botanic Gardens.

Our 'true zero' ambitions mean the energy used and stored on site at our precincts is generated from renewable sources that have been built into the initial design. At Beveridge, with a planned 850,000 sqm of warehouse and rooftop space, this delivers the equivalent amount of energy to that of a mid-sized power station.







The sustainability of our supply chain is also about our communities and the people in and around our precincts. As we build these advanced facilities, we are preparing our workforce for the future, which encompass traditional logistics skills and increasingly, a range of others including AI, robotics, data analysis, clean energy technologies, biodiversity curatorship and more. Our ambition is to have 70 per cent local employment at each of our precincts, and we will work with our precinct partners and other stakeholders to co-design relevant skills programs to realise this goal for our communities.

With these priorities, which we will test through the implementation of our three-year foundational strategy, we are taking significant steps toward a more sustainable freight sector that will truly transform our national supply chain and build a legacy for generations to come.

Chill

Erin A.M. Flaherty Chair

**James Baulderstone** Chief Executive Officer

## **Benefits of modal shift**

Rail freight produces **16** times less carbon pollution than road<sup>\*</sup>

92% less PM10 per tonne/km travelled by rail vs road<sup>\*</sup>



20% lower risk of accidents per tkm (tonne/km)\*

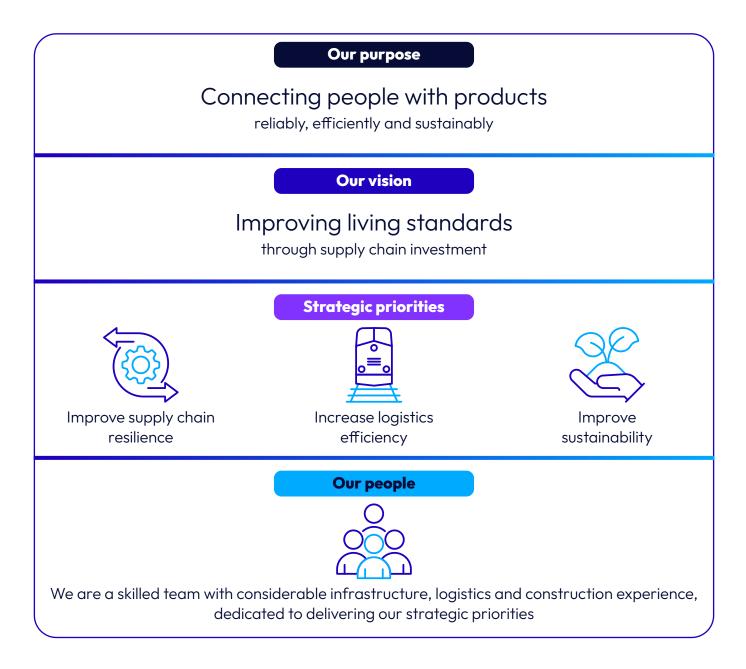


Australasian Railway Association



## Who we are

Wholly owned by the Australian Government, National Intermodal is committed to transforming Australia's supply chain by developing and operating world-class intermodal precincts. These precincts facilitate seamless freight movement between different transportation modes, enhancing efficiency and sustainability. Our mission is to support both current operations and future developments of critical logistics infrastructure on behalf of the Australian Government.

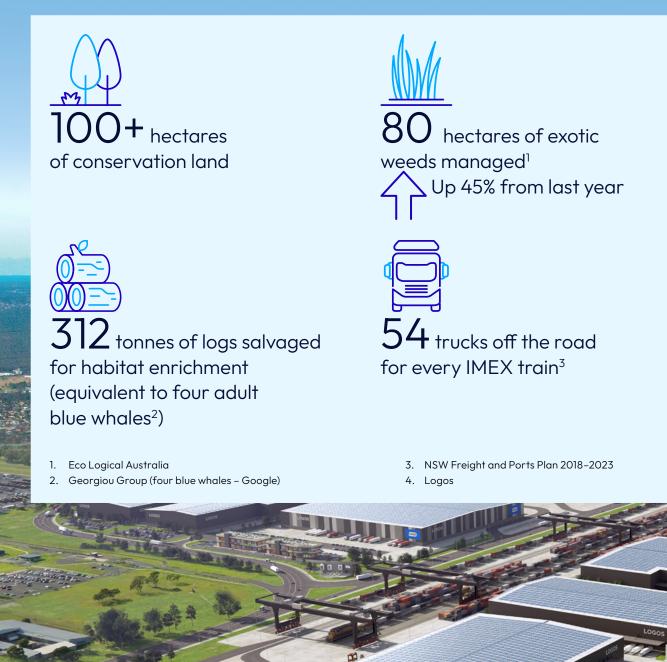






🜔 National Intermodal – Sustainability Report 2024 5

# Moorebank Intermodal Precinct sustainability dashboard

















# Our sustainability strategy

For National Intermodal, sustainability is about optimising our activities to create positive and enduring social, environmental, and economic benefits for all Australia, including those generations yet to come.

In creating our sustainability strategy, we are identifying ways in which we can deliver meaningful impact across three levels: our sector, our infrastructure, and our corporation.

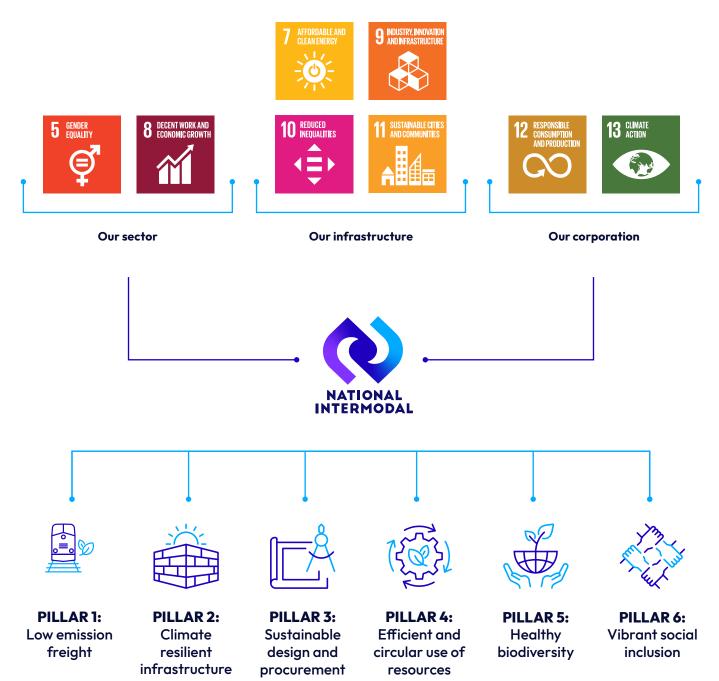
Challenging ourselves to think beyond our own corporate boundaries allows us to be more ambitious in exploring opportunities with others. It gives us wider scope to engage with the community, our employees, partners and our industry on issues of mutual importance. It also gives us the opportunity to become leaders in our industry.

Our sustainability strategy is built around six strategic pillars covering everything from designing climate resilient infrastructure, to employing more sustainable construction and operating models, advancing lower emission freight, supporting healthy biodiversity, diversifying our supplier base and contributing to the development of local, skilled workforces where our precincts operate. Our six pillars also align directly with eight of the United Nations Sustainable Development Goals (UN SDGs). This alignment is deliberate as it reinforces our commitment not just to achieving excellence in our industry, but also to meet the stringent requirements of global sustainability standards.

Beneath each of the six pillars are numerous individual initiatives, currently totaling around 20. This number will evolve over time as we gain insights and develop from our initial efforts. The aim of all these early efforts is to identify the initiatives which are the most beneficial for both our business and society. By prioritising activities that are impactful, scalable, and repeatable across multiple locations, we are ensuring our sustainability initiatives are not only effective but also adaptable to different contexts and capable of driving long-term change.



#### National Intermodal's strategy aligns with eight United Nations Sustainable Development Goals



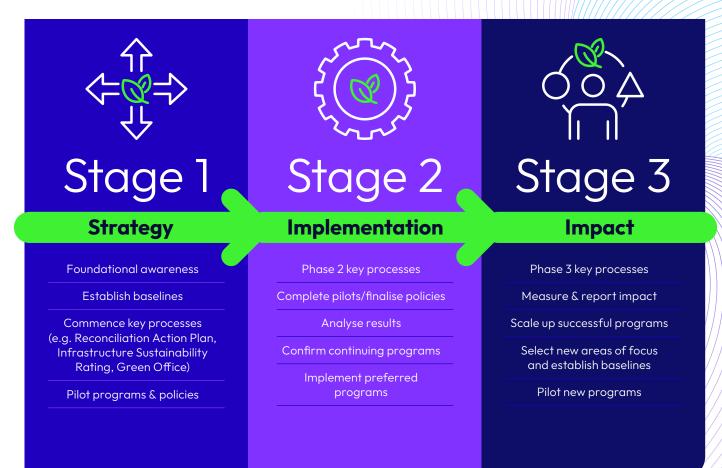


## Our roadmap

Our journey to creating a more sustainable supply chain for all Australians starts with us establishing a strong foundation from which to champion and drive positive change.

Over the next three years our focus will be on building this foundation and ensuring we are well placed for decades of positive impact. Our roadmap below illustrates how we will move through the process of establishing our baselines, our targets, running pilots and measuring their effectiveness before scaling up our most impactful activities. By the end of the three-year period the sustainable principles, practices and objectives explored in these foundational years will become "integrated" across all our operations.

# Continuous innovation, improvement & learning









## **PILLAR 1:** Low emission freight



Every Australian relies on the logistics sector to receive the goods they need. However, moving those goods around the country comes with significant emissions impact. In 2022, the freight sector accounted for approximately 40 per cent of all transport emissions, with 83 per cent of those emissions produced by road freight, 11 per cent from rail and the remainder from sea freight.<sup>1</sup>

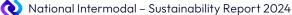
Road freight produces 16 times more carbon emissions than rail for equivalent loads and distances.<sup>2</sup> With around 90 per cent of all freight moving between east-coast capitals currently travelling by road, it is clear the single fastest and most impactful way to reduce freight emissions would be to get more freight onto rail, especially over long distances.

As important as getting the right load moving by the right mode of transport, is the need to reduce the rail industry's dependence on fossil fuels.

Many rail leaders in the Australian long distance, heavy-haul sector are already investing in the development and testing of hydrogen, hybrid or alternative fuel locomotives. However, when it comes to short- haul rail services, there is a distinct lack of investment in Australia, due in part to the smaller commercial returns earned from these routes.

Internationally battery electric locomotives (BELs) are well suited to short-haul routes and are on the cusp of being commercially available. BELs deployed on Australian shorthaul routes would deliver significant noise and air quality benefits to the densely populated urban areas through which these services often pass.

- 1 Department of Climate Change, Energy, the Environment and Water (2024).
- 2 Australasian Railway Association.





## **Battery Electric Locomotives from Port Botany**

#### CASE STUDY

Port Botany currently handles around 2.8 million Twenty-foot Equivalent Units (TEU) each year. With freight loads expected to increase to 7 million TEUs by 2030, it is critical that most of this freight is moved from the port by rail and not by road.

To this end a single 600m train running from Port Botany to Moorebank Intermodal Precinct can take at least 54 trucks off the roads. This delivers immediate benefits to local communities in the form of less congestion and fewer road accidents, as well as immediate decarbonisation benefits.

However, National Intermodal is helping to help the logistics industry to do better. We believe it is possible to deliver 100 per cent green port shuttle services on all short-haul routes around Australia.

To test this theory, we have been looking internationally for off-the-shelf BEL's already in short-haul pilot operations which might work in Australia. Concurrently, we are also looking at the supply of local locomotives which might be effectively modified or retro-fitted at scale, and lastly at new BEL designs which might be built from the ground-up to Australian specifications. Just like the cars and trucks, the electrification of locomotives requires us to consider the nature of the charging infrastructure to be installed at Moorebank. The rail industry is only at the start of its electrification transition in Australia. As such there are many lessons we need to consider from the electrification of small vehicles including how we might deliver universal charging facilities on-site, the speed of those facilities, the necessary high voltage powerlines and back up battery storage needed to ensure continuous operations at an affordable price and more.

Once these options have been considered, a preferred locomotive selected, and funding secured, National Intermodal will seek to run a pilot of a zero-emission BEL on the Port Botany to Moorebank route for a period of 12 months.

A successful BEL pilot at Moorebank should encourage other operators to replace their older, more emission intensive locomotives at an accelerated rate. National Intermodal estimates that there could be a national market for between 40–50 short-haul BELs around Australia. If this estimate is correct, the accelerated deployment of BELs would also stimulate new jobs in maintenance, electrical engineering and other associated roles.

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40–50 short-haul BELs around Australia

## **PILLAR 2:** Climate resilient infrastructure



Our climate is changing, bringing with it an increased frequency, intensity and risk posed by extreme weather events. These events can impact our staff, our precinct customers and our national supply chains. As a result, it is important that regular climate risk assessments become a normalised part of our business. Regular assessments help us evaluate potential hazards (like extreme wind, rain, flooding, heat and fires) and their likelihood, helping us to design for more resilient infrastructure.

National Intermodal has therefore committed to conducting climate risk assessments on all future greenfield infrastructure developments. Where assessments identify risks rated as Extreme or High, National Intermodal will consider the cost-benefit outcomes of various potential mitigations to identify the most suitable option.

Preliminary assessments on Beveridge Stage 1A's concept design were conducted in line with AS5334-2013 under the ISO31000 framework. This framework also aligns with the Australian Government's recently released guidelines for Climate Risk and Opportunity Management in the public sector.

Initiating the climate risk assessment process across our precincts means we can plan for and make adaptations to our built environment more easily. This in turn reduces costs, increases resilience and safety, and adds value to our precincts.







## **PILLAR 3:** Sustainable design and procurement

At its core, sustainable design and procurement principles are committed to the objective of meeting our generation's current needs without depleting the resources available for future generations to meet their own needs.

For new logistics precincts this requires the balancing of innovative design with cost-effective procurement and construction. In this manner we will be able to ensure our precincts are not simply best-in-class logistically, but also contribute meaningfully to the future decarbonisation of our industry.

A key part of this future ambition is to evaluate the potential for our operational precincts to be either all-electric or 'true zero', where all electricity consumed on site comes from renewable sources. When looking at the design of our first green-field precinct in Beveridge, Victoria we are estimating the energy needs, generation capacity and storage requirements that will be required once fully operational.

While we are at the early stages of planning our current and future energy needs, the overall, the overall principle is to electrify all or as many on-site functions as possible. This means all freight handling equipment from gantries to fork-lifts, all mobility services such as on-site shuttle buses, all warehouses, waste and water operations, as well as all our usual office and maintenance facilities. Importantly for non-tenant users of our facilities, it also means the potential provision of battery charging options for visiting locomotives, trucks and light-vehicles.

With a potentially significant tenant and visitor power need, we are currently considering the amount of on-site renewable energy generation and storage we will need to ensure we can meet the green electricity demand profile of our precinct – 24/7, 365 days a year.

In continuing to assess the needs and potential of Beveridge, we are transferring knowledge from lessons learned at Moorebank. As warehouses come out of construction and begin to operate, rooftop solar is being progressively installed. To date over 20MW panels have been installed making Moorebank Australia's largest industrial rooftop installation with around 15 per cent of capacity installed to date.

With over 850,000 sqm of potentially usable roof space, the site could have a total potential capacity of 130MW.

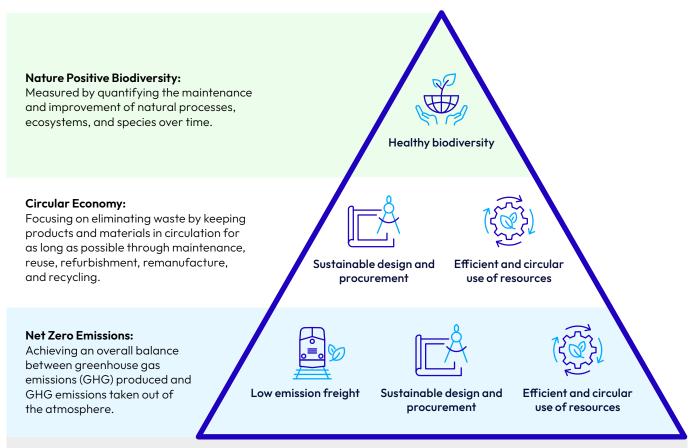
At our planned Beveridge facility, which will be almost three times the size of the Moorebank precinct, we estimate a roof-top capacity in excess of 200MW, which would put the precinct on an equivalent ranking with many of Australia's larger solar farms. Add to this a desire to ensure at least 400MWh – 800MWh hours of battery storage and it is clear that intermodal precincts like Beveridge have the potential to serve the nation in two-ways, both as a state-of-the-art logistics precinct and as a sizeable virtual power plant.





## **PILLAR 4:** Efficient and circular use of resources

In May 2024 National Intermodal became a proud member of Sustainability Advantage, a business support program of the NSW Department of Climate Change, Energy, Environment, and Water (DCCEEW). Sustainability Advantage has four priority areas and as a member of this network, we are seeking to raise ambition, accelerate action, and drive operational improvements and innovation in alignment with our own strategy.



#### **United Nations Sustainable Development Goals:**

Taking action within our sphere of influence to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice, inclusivity, and prosperity.





### Understanding our emissions impacts

#### **CASE STUDY**

National Intermodal is currently commissioning an emissions intensity baseline study. Think of it as our emissions health check. This study will give the organisation evidence-based industry averages for a range of activities, many of which we are yet to commence, across our three main areas of focus.

- 1. Corporate functions (office based)
- 2. Precinct construction (road, rail, warehouse, ancillary structures)
- 3. Precinct operations

Armed with an emissions intensity metric, or series of metrics relevant to our core functions. National Intermodal will be able to prioritise high impact areas for the additional cost-benefit analysis of alternative materials or practices which may deliver more sustainable outcomes. Consideration of our options will further inform our reduction targets and guide our planning, decisionmaking and reporting activities for many years to come.

Why do metrics matter? Metrics matter because they drive behaviour and track progress. For example, we may decide to set a target to reduce our construction emissions intensity by a certain percentage each year.

This target will drive the business to actively seek out more sustainable materials, energy sources and construction methodologies. This in turn delivers genuinely greener construction outcomes.

Once the baseline study is completed, National Intermodal will look to create an Emission Intensity Reduction Plan for rollout in the second and third year of the sustainability strategy. This will be our roadmap to making sure each new precinct we build is constructed more sustainably, while we continue to reduce the carbon footprint of our operating sites and corporate activities.

An emissions intensity baseline study will allow National Intermodal to set specific reduction targets



## **PILLAR 5:** Healthy biodiversity

While moving more of Australia's freight task from road to rail will deliver significant environmental benefits to all Australians, National Intermodal wishes to do more to integrate positive biodiversity actions directly and systematically into its own operations.

This will require a number of steps to be taken over the next few years including the establishment of specific and measurable goals for biodiversity offsets, conservation and continuous improvement. We will introduce robust biodiversity performance indicators to enable us to track our performance.

By establishing healthy biodiversity zones around our precincts, we aim to support better ecological values, and to strengthen the amenity, health and well-being of the communities hosting our precincts.



Currently, National Intermodal has direct custodianship of more than 100 hectares of dedicated biodiversity conservation areas surrounding the Moorebank Intermodal Precinct. This represents an area roughly three times the size of the Sydney Royal Botanic Gardens. In caring for this important area, we are committed to improving the ecological values of the land compared to the existing state when we assumed custodianship. Most recently this has included the widespread removal of exotic species and weeds from several priority areas including Lot 100, on the Eastern side of the precinct, a former tank-driving training area, and an area near the Casula commuter car park on the west.

We are utilising this area to explore several opportunities to do more than offset our development impacts as required by national and local regulations. At Moorebank, we are experimenting with approaches which, if successful, will be rolled out to other operational locations.

At Beveridge, we have undertaken a series of early design refinements to protect and preserve ecological features within our Stage 1A footprint, guided by expert hydrological and ecological technical advice.

Additionally, National Intermodal has engaged ecology consultants to undertake field surveys to identify native vegetation and wildlife within and around our Stage 1A footprint at Beveridge. This work has identified that much of the site area has already been highly modified due to more than a century of cattle grazing. Even so, a range of important ecological features remain, including patches of native vegetation, part of the Herne Swamp, drainage lines into the Merri Creek and a small number of scattered mature trees.

20



### Natural assets

#### Replanting

Large-scale removal of exotics has literally cleared the way for National Intermodal to restore these areas by replanting them with appropriate native species.

Replanting has commenced in these areas and will continue until all three are completed. The restored areas should provide quality habitat for various plant and animal species, including the Castlereagh Scribbly Gum Woodland, River-flat Eucalypt Forest, Hibbertia fumana, Little Lorikeet, Grey-headed Flying Fox, Eastern Pygmy-possum, and native snakes.

#### **Tracking improvements**

Restoring and replanting degraded areas throughout the conservation area should result in considerable uplift of ecological values over time. However, National Intermodal is keen to understand if the intended actions lead to the intended effect. For that reason, we are also investigating various ways to monitor and report on ecological values in addition to the annual reporting required by the NSW Biodiversity Conservation Trust (BCT). This has included the establishment of over 40 ecological monitoring sites located throughout the conservation zone. These sites will be monitored on a pilot basis for the next 12 months to see what insight we can gather on the changes to the composition, structure and function of the vegetation over time.

#### **Eco-tours**

The conservation areas at Moorebank are an amazing natural asset. They support better quality air, noise, water and habitat amenity for all sorts of amazing plants and animals, as well as neighbouring residents. However, as a conservation area, public access has to date been non-existent. CASE STUDY

National Intermodal has been investigating the potential to provide some form of guided access to small community groups.

After working closely with independent ecologists and in line with BCT guidelines for sensitive areas, National Intermodal has identified a number of potential eco-tour options which may be of interest to the local community. By keeping groups small and utilising existing fire-trails, we believe it will be possible to host five to six low-impact eco-tours each year. These tours will include activities such as flora and fauna spotting and non-intrusive nest box monitoring.

In June 2024, we successfully ran our first guided eco-tour with 20 enthusiastic students from Wattle Grove Public School who became some of the first public visitors to this ecologically sensitive and protected area. Led by ecologists from Arcadis, the children were delighted to spot sugar gliders, possums, and birds during the nestbox tour of the conservation zone, an area that has not been open to the public to protect it from unwitting damage. This native landscape is right in the local school's backyard and we're excited to continue exploring ways to engage the community at Moorebank.



## **PILLAR 6:** Vibrant social inclusion



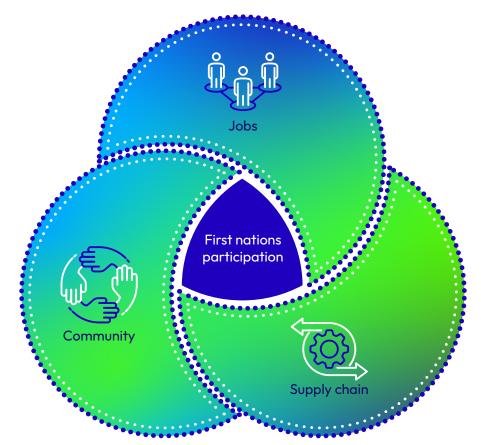
National Intermodal is committed to the creation of a vibrant, tolerant and prosperous society. This means focusing on ways we can ensure an inclusive and diverse workforce within our own operations, as well as ensuring we work with like-minded partners, suppliers and community organisations to achieve an even greater impact.

Over the past 12 months, we have been working on a number of key objectives to ensure we outline and embed our commitment to improve equitable access to economic opportunity for Aboriginal and First Nations people within our operations and sector.

Jobs and Skills Australia has noted that amongst the participating workforce in Australia, First Nations men and women are between 17 and 30 per cent more likely to be unemployed than non-indigenous men and women<sup>\*</sup>.

As such, it is clear that much more can be done to provide First Nations people with more equitable access to the economic opportunities within our sector.

22





## **Our early actions**

To date National Intermodal has:

- Commenced the development of a First Nations Strategy. The strategy will be finalised early next year and will include several specific actions aimed at improving First Nations participation in our own workforce, supplier base and skill development programs.
- Joined Supply Nation to help our workforce confidently procure more goods and services from suppliers owned by Aboriginal and Torres Strait Islander people. We have also introduced workforce participation criteria into all of our tender evaluation processes.
- Committed to the creation of a **REFLECT** Reconciliation Action Plan to try to understand the nature and impact of historical injustices faced by many First Nations people and to forge a more positive future for all through mutual respect and reconciliation efforts.

Delivered a Cultural Awareness workshop to our Sydney CBD-based workforce exploring some of the history and cultural aspects of the Gadigal people of the Eora nation and their experience with colonisation.

#### **CASE STUDY**

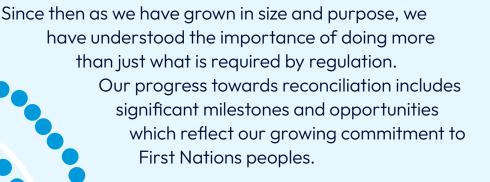


Our journey to reconciliation and inclusion has only just begun and we are excited to walk the future pathway together.



## Our reconciliation journey

As with many journeys, our first tentative steps focused on our specific Moorebank project where, together with our Precinct partners we focused on ensuring the areas ear-marked for development were properly assessed and designed around cultural heritage matters.



24



#### February 2023

#### **Reburial of artefacts at Moorebank**

Aboriginal artefacts were respectfully returned to Country at our Moorebank precinct in close consultation with local Aboriginal groups.



#### **Supply Nation Membership**

Boosting the procurement of goods and services from First Nations suppliers across our business.

#### November 2023

#### **Cultural Workshop**

Our Sydney CBD staff participated in a workshop exploring some of the history and cultural aspects of the Gadigal people of the Eora nation and their experience with colonisation.

#### December 2023

#### Commissioning of RAP artwork

Our corporate vision was supported with a visualisation from indigenous cultural group, Dalmarri.

#### February 2024

#### Mapping of First Nations stakeholders across all our locations

Beginning to build trustworthy long-term relationships with our local communities.

#### March 2024

#### **Industry Participation Plan**

Introduction of workforce participation criteria for Beveridge.

#### WE ARE HERE

**Creating our First Nations Strategy** Specific actions aimed at improving First Nations participation in our workforce and supplier base.





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