

Transport  
for NSW

# Transport Sustainability Report 2022-23



# Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the lands, waters and seas and their rich contribution to society.



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# A message from the Secretary



**Josh Murray**  
Secretary,  
Transport for NSW

It's my pleasure to present Transport's Sustainability Report – an overview of our sustainability achievements throughout the 2022-23 financial year.

Transport's purpose is to provide a safe, integrated and efficient Transport network for the people of NSW. Our focus continues to be on putting our customers and communities at the centre of everything we do.

Championing sustainability and embedding it into every aspect of our work underpins this essential task.

Around the world, we have seen continued focus on moving to a decarbonised economy to safeguard our environment on a global scale. We're also working together with industry and the communities we serve to meet new expectations of how we demonstrate our commitment to sustainability through our decision making and action.

As one of the largest procurers of projects in Australia, and with approximately 19 per cent of the state's carbon emissions generated from the transport sector, we are aware of our great responsibility and unique ability to collaborate and instigate positive change beyond our own value chain.

At Transport, we will continue to take a global leadership role in supporting the shift to a low carbon economy and accelerate the sector's transition to net zero.

We aim to reduce 65 per cent of Transport operational emissions by 2030 and achieve net zero in Transport operational and fleet emissions by 2035.

Our Net Zero and Climate Change Policy sets ambitious targets to address emissions from our operations, maintenance, construction, and road use. Our recently released Towards Net Zero Emissions Freight Policy sets out the strategic direction and actions to support emissions reductions across the road and rail freight transport sector. Combined, the implementation of these policies will bring about positive environmental, social, economic and health outcomes for communities across NSW.

We have made great progress – now already halfway towards our sustainability target of net zero emissions from our operations and fleet. This has been achieved primarily through transitioning the electrified rail network to zero emissions electricity and through the roll out of energy efficiency measures and solar installations at suitable sites on our network. Initiatives like switching to zero emissions buses, and circular economy practices will help us deliver new standards and reach our net zero target in full.

Our goals are ambitious, and we are confident that through smart sustainable placemaking and collective action across government, industry, businesses, and the community, we can be a powerful force for shaping a better future.

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# A message from the Executive Director, Environment and Sustainability



**David Featherston**  
Executive Director,  
Environment and Sustainability  
Transport for NSW

At Transport, we recognise the interconnectedness of environmental, social, and economic responsibility, and it is this awareness that drives our commitment to sustainability. Our Sustainability Plan serves as a comprehensive framework, to integrate and align sustainability across Transport. Our eight focus areas come with their own set of goals and commitments and cover the breadth of Transport, from its operations, infrastructure development and delivery and our road users.

In our pursuit of sustainable development, we have expanded the scope of our data collection, enhanced evaluation processes through standardisation, and increased transparency. Acknowledging that our journey is ongoing, we have set ambitious goals for 2024, intent on bridging the existing data gaps and refining our sustainability plan targets.

The Environment and Sustainability branch within the Safety, Environment and Regulation Division plays a pivotal role in instilling the principles of social, economic, and environmental sustainability, accountability, risk management, and continuous improvement across our organisation. As custodians of Transport's Environment and Sustainability Management Framework (ESMF), the branch ensures an aligned and consistent approach to meeting environmental and sustainability requirements across our organisation. Within the ESMF, the 21 Mandatory Requirements set the minimum outcome for all Transport activities, underscoring our dedication to achieving positive environmental and sustainability outcomes in line with the objectives of Future Transport.

Our commitment to the long term extends to our customers, who remain at the core of our activities. Ambitious targets underscore our dedication to addressing the very real impacts of climate change, not only on our assets and transport network but on our community as a whole.

Recognising our responsibility to the people of NSW, we remain fiscally responsible. By operating sustainably and collaborating with industry partners and stakeholders, we strive to deliver not only greater financial value but positive environmental and societal impacts.

Over the past twelve months, it has been my privilege to lead Transport's Environment and Sustainability function and I am very proud of what we have achieved. There are too many achievements to call them all out individually, but there have been two outcomes that have really set the future direction for Transport.

Firstly, finalising the Transport Biodiversity Policy in August 2022. To implement the Policy we established a Transport Biobank to manage credit purchases, support forward acquisition and generation of credits using Transport land. A Transport Conservation Fund was also established to deliver conservation measures across Transport.

Secondly, we developed the Transport Net Zero and Climate Change Policy, which sets out ambitious and prescriptive targets and principles to support the transport sector's transition to net zero and continuing to create a transport network that is resilient, responsive and adapted to our changing climate.

This sustainability report, our third to date, outlines our progress in embedding sustainability focus areas into every area of our operations. While we celebrate achievements in certain areas, and acknowledge areas where growth and evolution are still underway, we continue our commitment to ensure that every journey is people and planet positive.

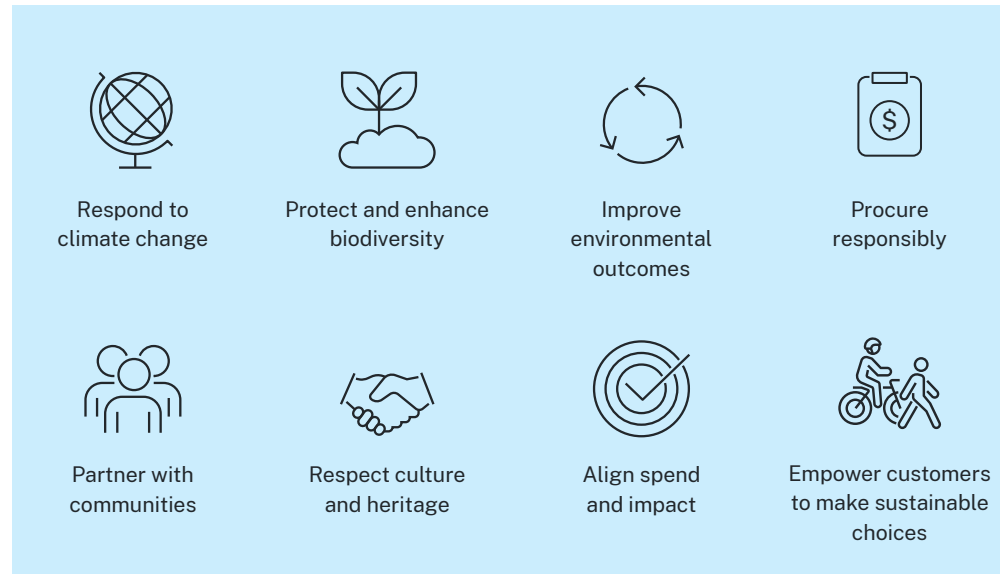
# Our sustainability vision








Transport manages and maintains \$211.3 billion in network assets. Our assets directly interact with communities and the natural environment across NSW, making sustainability a critical consideration in our decision making.

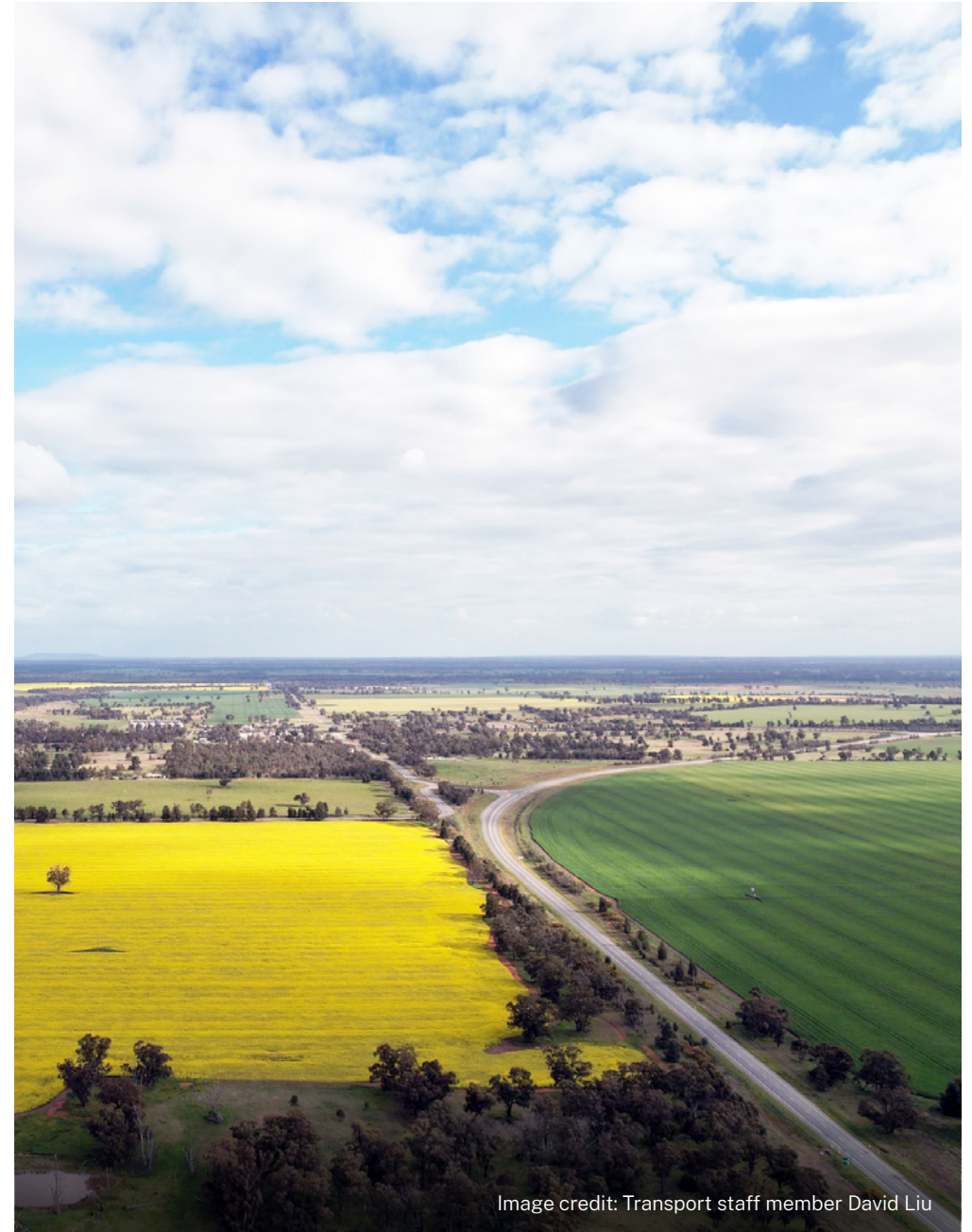
As a developer, deliverer, operator and maintainer of safe, efficient and reliable transport, we have a duty of care to ensure our activities are undertaken in an environmentally, socially and economically responsible manner for future generations.

Transport's ongoing commitment to delivering positive outcomes for the environment and people of NSW is reinforced through a number of strategic documents including our Environment and Sustainability Policy and Transport Sustainability Plan.

Our plan outlines eight key sustainability focus areas to help us achieve our vision of a NSW where every journey is people and planet positive.











 Respond to climate change	 Protect and enhance biodiversity	 Improve environmental outcomes	 Procure responsibly
 Partner with communities	 Respect culture and heritage	 Align spend and impact	 Empower customers to make sustainable choices





# Sustainability at Transport

Sustainability at Transport is informed by a number of drivers at an international, federal and state level including legislation, regulation, strategies and policies. These drivers help set the direction for our sustainability focused policies, strategies and systems that enable delivery of consistent sustainability outcomes across our activities. The below image depicts policies and strategies only. The associated action plans and documents are not depicted in this image.

International agreements/ federal	United Nations Sustainable Development Goals   Relevant Commonwealth Government legislation							
	Paris Agreement to the United Nations Framework on Climate 2015 National Climate Resilience and Adaptation Strategy 2021		National Waste Policy 2018			United Nations Declaration on the Rights of Indigenous Peoples		
NSW	Relevant NSW Government legislation							
	NSW Climate Change Policy Framework NSW Electric Vehicle Strategy 2021 NSW Net Zero Plan Stage 1: 2020-2030 EPA Climate Change Policy NSW Climate Change Adaptation Strategy		NSW Circular Economy Policy Statement 2019 NSW Government Resource Efficiency Policy NSW Waste and Sustainable Materials Strategy 2041 Clean Air Strategy	NSW Procurement Policy Framework 2022 NSW Aboriginal Procurement Policy 2021				NSW Public Spaces Charter NSW Movement and Place Framework
Transport	Future Transport Strategy   Transport Environment and Sustainability Policy							
	Future Energy Strategy Transport Asset Resilience Strategy	Transport Biodiversity Policy 2022		Transport Procurement Policy Transport Aboriginal Participation Strategy		Reconciliation Action Plan 2022-2025 Aboriginal Engagement Framework*		Transport Walking and Cycle Policy Active Transport Strategy
Transport Sustainability Plan	 Respond to climate change	 Protect and enhance biodiversity	 Improve environmental outcomes	 Procure responsibly	 Partner with communities	 Respect culture and heritage	 Align spend and impact	 Empower customers to make sustainable choices

\* Aboriginal Engagement Framework – Ngiyani Winagaybuwan Bunmay and associated frameworks and protocols

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# About Transport for NSW

## Our purpose

Making NSW a better place to live, work and visit by connecting people and communities through safe, integrated and efficient transport systems.

At Transport, our role is to set the strategic direction for transport across the state. This involves consolidating the planning, policy, strategy, regulation, resource allocation, and other service and non-service delivery functions for all modes of transport in NSW. The transport system is fundamental to the success of the NSW economy and wellbeing of the community. Transport keeps the state's more than eight million residents moving and enables over 800,000 businesses every day. It is estimated that in a year, more than 459 million tonnes of freight are moved and over 623 million trips are made on the Opal card network across NSW.

Transport touches everyone's lives by getting us to work, school, or to essential services and to all the other places we want to go. It connects us to each other and to the great social, cultural and leisure activities that NSW has to offer. Transport systems deliver the products we use every day, supports businesses to provide the goods and services we need, and helps grow our economy. Our work supports the safe and seamless movement of people and goods by road, metro, train, bus, ferry, light rail, point to point transport, on-demand services, community transport, cycling and walking.

The Future Transport Strategy sets the vision, direction and principles for customer mobility in NSW, guides transport investment over the longer term and underpins the creation and maintenance of a world-class, safe, efficient and reliable transport system. During the past financial year, Transport updated the strategy to reflect changes in local and global trends. The updated strategy was released in September 2022.

Across Transport our commitment to safety and sustainability supports the three outcome areas set out in our Future Transport Strategy.

Along with our industry partners, we oversee the delivery of transport infrastructure across NSW. We know that our business is more than trains, buses, roads and rail – it's about people. That is why a key strategic driver across our strategies is to place people at the heart and community at the centre of everything we do and when partnering with operating agencies.



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# About this report

At Transport, we are committed to sustainability principles being embedded in everything we do and take a triple bottom line approach to delivering sustainability outcomes.

The impact of these outcomes is measured and monitored based on the three pillars of sustainability: environment, social and economic. By applying the triple bottom line approach, we can reduce our resource consumption, waste, emissions and costs, while improving our social impact, value creation and long-term financial results.

At Transport, sustainability continues to be an integral part in the way we do business. This is our third report and covers our sustainability performance against our eight sustainability focus areas for the financial year from 1 July 2022 to 30 June 2023.

The report comprises four sections:

- Section 1 outlines our organisation, our governance, and our sustainability vision and approach.
- Section 2 reports our strategic achievements against our eight sustainability focus areas and associated goals.
- Section 3 provides highlights and case studies from across the organisation.
- Section 4 contains appendices including a list of industry awards.

In this report, the terms 'Transport', 'our business', 'us', 'we' and 'our' all refer to Transport for NSW and exclude the Transport portfolio and independent entities as well as Sydney Metro.

Unless otherwise stated, the data in this report relates to all parts of Transport as outlined above. Some Sydney Metro data is included in this report to be consistent with other organisational reporting. For more data and achievements delivered by Sydney Metro, refer to the Sydney Metro Annual Sustainability Report.

In line with NSW Treasury guidelines, additional sustainability information is now included in the Transport for NSW Annual Report. This sustainability report aims to avoid duplication of information outlined in other publications and therefore should be read in conjunction with:

- Transport for NSW Annual Report
- Sydney Trains Annual Report
- NSW TrainLink Annual Report
- Sydney Metro Annual Report
- Sydney Metro Annual Sustainability Report

Since the release of our sustainability plan in late 2021, we have been making progress to fulfil our commitments against our eight sustainability focus areas, as well as integrating sustainability principles into our operational procedures.



# Our focus areas

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This section outlines our key strategic achievements and the work undertaken to help us deliver against our eight sustainability focus areas and associated goals. For more detailed information about initiatives, refer to Section 3 or our sustainability website.

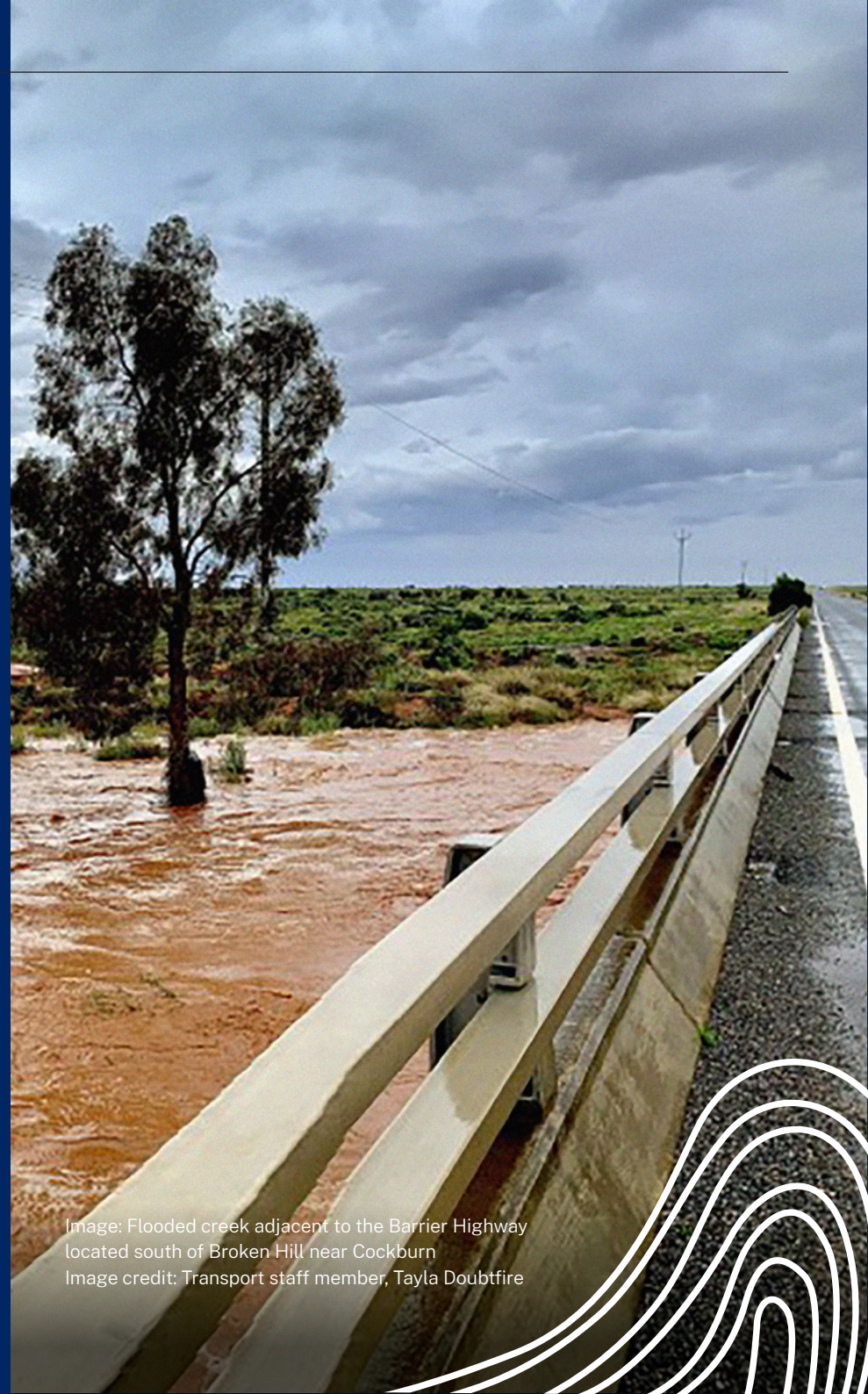
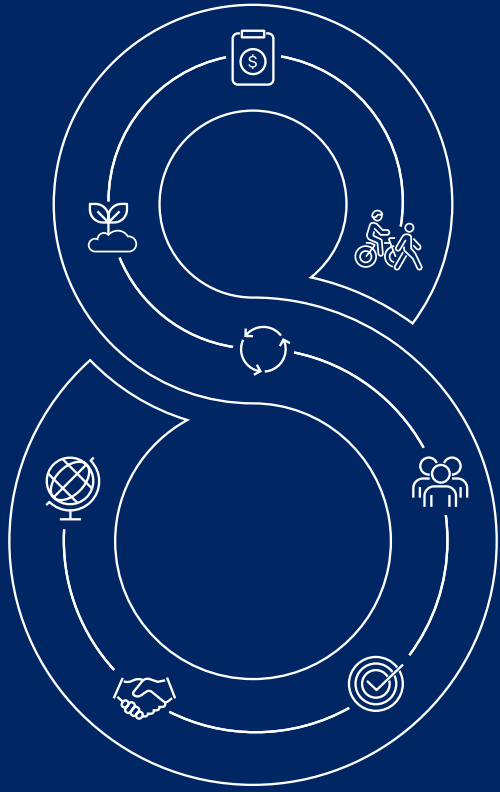


Image: Flooded creek adjacent to the Barrier Highway located south of Broken Hill near Cockburn  
Image credit: Transport staff member, Tayla Doubtfire



# Focus area 1 Respond to climate change



Image: Solar panels installed on a warehouse roof as part of Transport's Clyde Hub buildings

# Our goals to respond to climate change



Alignment to the United Nations Sustainable Development Goals

Consider climate change risks in all key decisions.

Net zero emissions by 2050.

Achieve net zero emissions from our operations and fleet by 2035.

Transport is committed to transformative action on climate change to achieve net zero greenhouse gas emissions consistent with Australia's commitments under the 2016 Paris Agreement. For us this means:

- ensuring we deliver, operate and maintain a transport network that is resilient to the effects of climate change
- reducing our emissions to achieve our net zero commitments.

The transport sector makes a significant contribution to NSW greenhouse gas (GHG) emissions, and with an increase in unprecedented weather events the importance of responding to climate change is more important than ever for Transport.

Our Executive Steering Committee for Net Zero and Climate Change provides oversight and clear governance arrangements for our net zero and climate change approach. Within the reporting period, the remit of the steering committee was expanded to include climate change with climate risk elevated to the number one enterprise risk for Transport. The elevation of climate risk makes it a key strategic priority across the organisation. Additionally, over the reporting period Transport has developed a Net Zero and Climate Change Policy, which will come into effect during the next reporting period. This is a key strategic policy which will help accelerate our transition to net zero.

Transport has a key role in ensuring our network can adapt and respond to the effects of climate change. To do this, we collaborate across government and industry, participating in NSW Government climate change and resilience working groups. We continue to work towards understanding and improving the resilience of our existing assets while building resilience through:

- asset management and emergency response/recovery
- infrastructure delivery.

Key to our approach is our Asset Resilience Strategy which sets out resilience principles and objectives for strategic, tactical and operational asset management. It considers climate change, among other shocks and stressors, to inform our asset management practices. Additionally, our Security, Crisis and Emergency Management branch directly supports state emergency management in response to shock events including acute climate disasters, informing prevention, preparedness, response and recovery procedures.

During the reporting period, Transport launched the \$312.5 million Regional Road and Transport Recovery Package (RRTRP), along with the Infrastructure Betterment Fund, the first betterment program to be launched in NSW. Under the Disaster Recovery Funding Arrangements, the RRTRP is funding the planning,





development and delivery of priority local and state transport infrastructure betterment resiliency works on transport infrastructure damaged or impacted by the February and March 2022 severe weather and flooding across northern NSW.

These specific projects have been reviewed to ensure compliance with the Disaster Recovery Funding Arrangements to maximise funding available and to achieve optimal betterment outcomes. These projects include:

- upgrading road pavements to improve resilience of road assets during floods to ensure timely recovery
- upgrading road corridors to provide improved resilience through enhanced culvert and drainage performance
- upgrading and replacing low level bridges to improve resilience on key corridors vulnerable to flooding.

The transport network will continue to be tested by disruptions such as natural disasters. At Transport, we are developing approaches to build resilience to natural disasters across regional NSW through our Network Resilience Program. The program comprises bushfire corridor resilience projects, customer journey resilience plans and Aboriginal cultural landscape management pilots. We are continuing to work with over 94 different councils across nine planning regions to assess network vulnerability aligned to customers and their journeys and provide potential options to build resilience. The development of customer journey resilience plans enables Transport to better prepare for, respond to, and manage disruption from natural disasters to the transport network into the future. Read more about these initiatives in Section 3 or connect to the programs using the links in Section 4.

To support new assets to be optimally adapted to climate change, we apply our Climate Risk Assessment Guideline and tools in infrastructure delivery, where appropriate. The guideline and tools are applied to assess climate risks associated with new projects and inform suitable design mitigation and adaptation measures, which are embedded through project delivery. Building on our Climate Risk Assessment Guideline and tools, over the past 12 months, we have developed additional fit-for-purpose tools to enable climate risk assessment for smaller road projects.

The newly developed Easing Sydney's Congestion Climate Risk Assessment tool uses a Geographic Information System and digital interface to visualise climate risks and natural hazards in project locations. The tool and digital interface provide a foundation to consider design modifications required to meet the future challenges of climate change. The tool streamlines the process of undertaking a climate risk assessment by using pre-loaded data and automated risk ratings to identify and treat risks throughout the project's lifecycle.

Our Future Energy Strategy and Future Energy Action Plan set out our vision and key actions to help achieve our net zero emissions commitments. The transport sector accounts for approximately 19 per cent of NSW's greenhouse gas emissions<sup>1</sup>. Transport's operations account for five per cent of the sector emissions and we continue to look to how we can further reduce emissions that we either directly control or can influence.

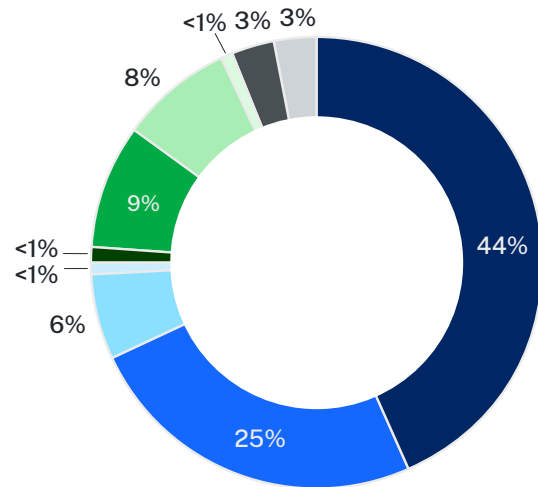
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1 Department of Environment Climate Change and Water (DECCW)

We are continuing to work across Transport to reduce greenhouse gas emissions associated with:

- our operations
- project delivery and maintenance
- users of our network.

Transport cluster emissions



- Buses (Sydney Metropolitan)
- NSW TrainLink (Train and coach services)
- Buses (Regional and outer metropolitan)
- Roads
- Ferries
- Sydney Metro
- Sydney Trains
- Maritime
- Transport Corporate\*
- Light Rail

\*Transport corporate includes Transport offices and passenger and light commercial vehicles for Transport staff

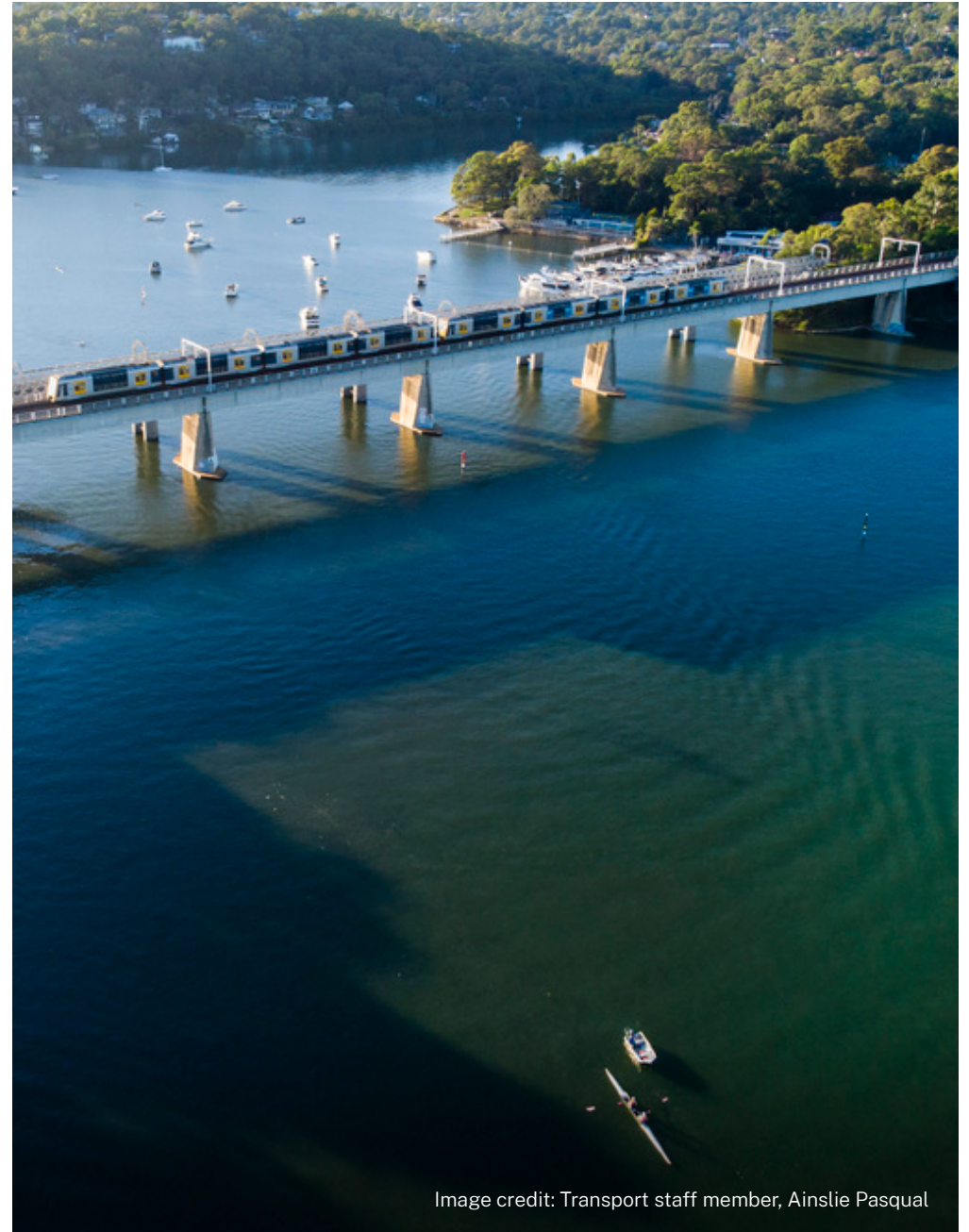


Image credit: Transport staff member, Ainslie Pasqual

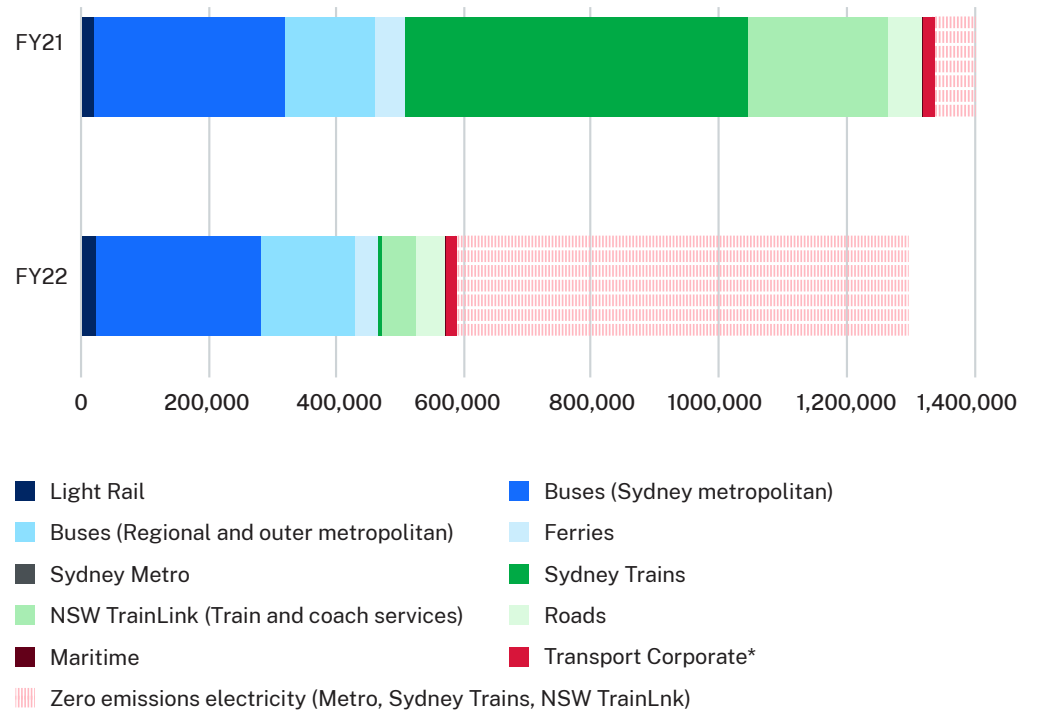


Over the previous financial year, Transport significantly reduced our greenhouse gas emissions by transitioning the Sydney Trains and NSW TrainLink electrified network to zero emissions electricity. We also continue to identify and implement energy efficiency projects across our assets. Refer to Section 3 and our [Sustainability website](#) for more details.

Within this reporting period, we have continued to work on a range of net zero programs that support our transition to net zero. Across the Sydney metropolitan area, there are more than 100 zero emissions buses (ZEB) and we continue to roll out ZEBs across Greater Sydney. Throughout the past year, Transport has been collaborating with regional and outer metropolitan bus and coach operators to prepare for a series of trials involving ZEBs in regional NSW. These trials, scheduled to begin in 2024, will encompass various configurations of battery electric and hydrogen fuel cell ZEBs, ranging from small-format to large school buses. The primary aim of these trials is to determine which technology best meets the specific requirements of regional and remote transport services.

### Carbon Emissions from TfNSW Operations by Mode (tonnes CO<sub>2</sub>e)

Emissions represented include direct emissions and emissions associated with electricity use in the operation of transport services<sup>2</sup>.



\*Transport for NSW Corporate includes Transport offices and passenger and light commercial vehicles for Transport staff.

<sup>2</sup> The emissions reported are based on actual figures from Financial year 2021-22 and 2022-23. The emissions shown are lower than the figures reported in the 2021–2022 Sustainability Report for the same reporting period. The previous report used a combination of forecast and actual data and had not taken into consideration the reduced emissions associated with reduced services during Covid-19 lockdowns. Moving forward all emissions will be reported using actual data a year in arrears.

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Over the past 12 months, we have built on the principles and actions set out in the Infrastructure NSW Discussion Paper on Decarbonising Infrastructure Delivery. Working collaboratively across government, we have contributed to the development and release of a Decarbonising Infrastructure Roadmap. The roadmap sets out an aligned NSW Government three-year workplan to address embodied emissions and facilitate the transition to net zero for our project delivery and maintenance activities.

Also within this reporting period, Transport released the Net Zero Cities Action Plan, which highlights opportunities to achieve net zero emissions in our homes, our communities and in cities and urban environments. The cross-government collaboration commits to implementing 16 actions over the next three years. The plan goes beyond industry-specific action to decarbonise our urban environments and puts forward cross-agency efforts aimed at accelerating the path to net zero. In the current reporting period, eight of 16 actions were either in delivery or scoping.

Transport continues to work with stakeholders to support areas that are not within our direct control by setting clear direction for users of our network to reduce carbon. During the reporting period, we have collaborated on a Towards Net Zero Freight Policy, which seeks to adopt a clear pathway and staged approach to decarbonising the freight industry. This policy will come into effect within the next reporting period. With a challenging commercial and operating environment as well as uncertain technological landscape, Transport recognises that a continued strong collaborative effort is required to decarbonise. That is why we continue to support the implementation of the NSW Government's Electric Vehicle Strategy and Hydrogen Strategy, which will help facilitate the broader transport sector to low-carbon alternatives.

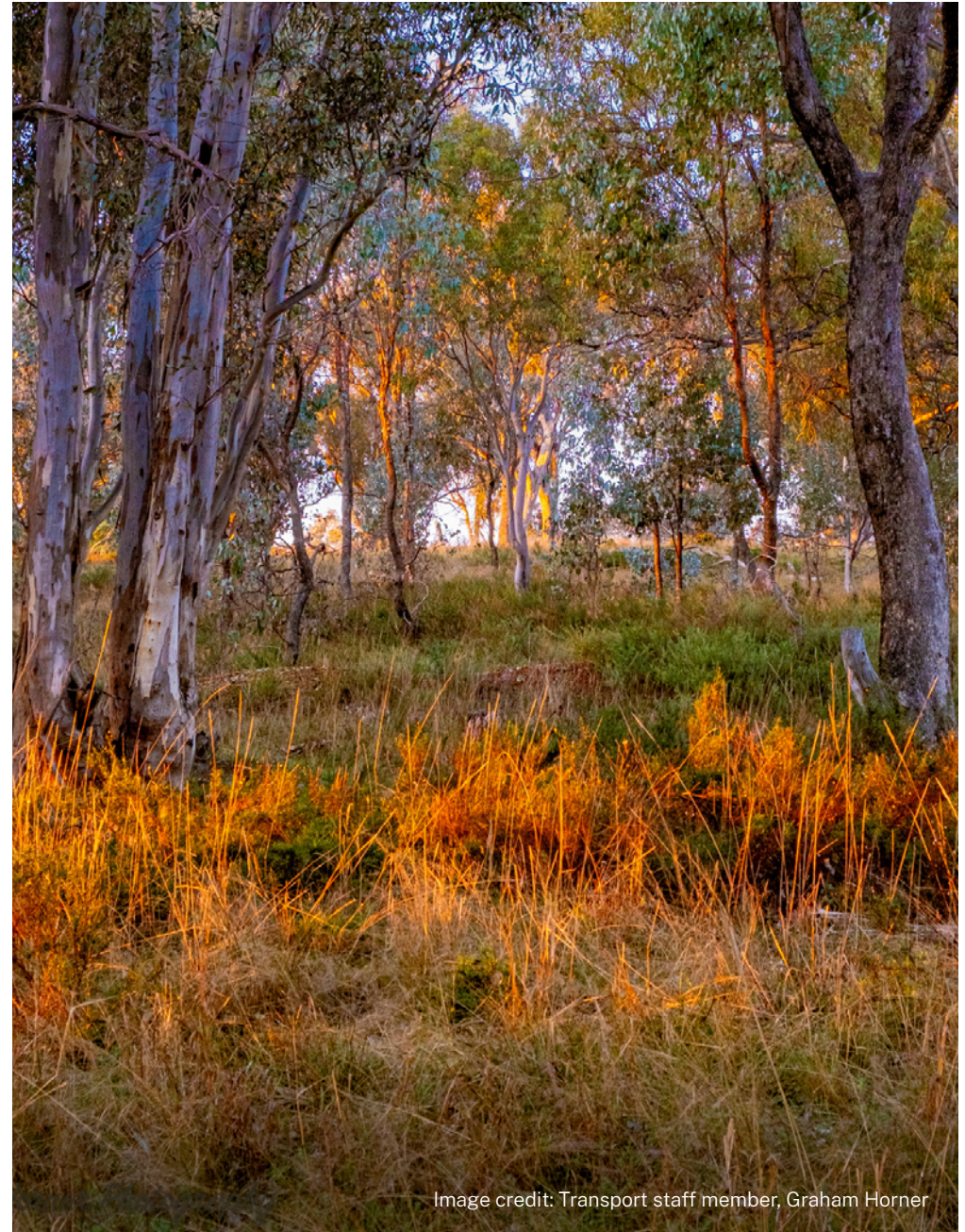
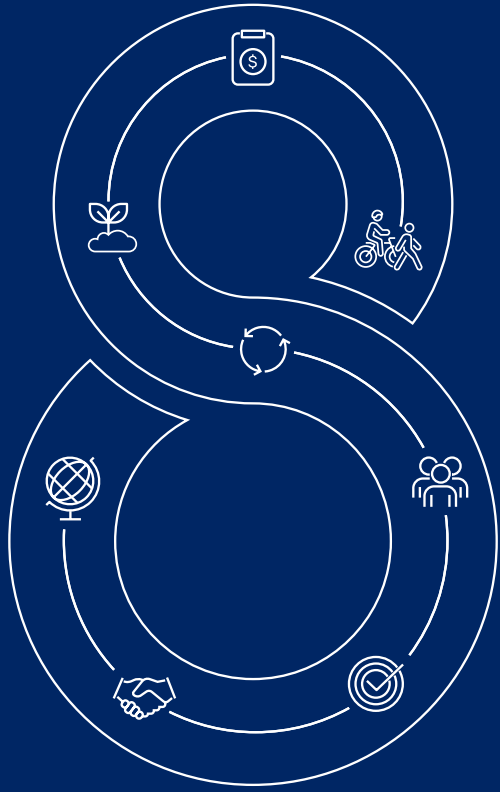


Image credit: Transport staff member, Graham Horner



## Focus area 2 Protect and enhance biodiversity



Image: Spotted Pardalote bird sitting in a carved hollow within a tree

Image credit: Transport staff member, Matt Stephens

# Our goals to protect and enhance biodiversity



Alignment to the United Nations Sustainable Development Goals

No net loss of biodiversity as a result of our infrastructure development program.

Transport operates in a diverse range of environments including ones next to and within areas containing important habitat for our native flora and fauna. From remnant urban habitats to marine parks and even World Heritage listed national parks, Transport's interface with our natural environment and associated biodiversity is extensive.

Within NSW there are more than 222,000km of public roads, including 40,000km of state and regional roads and over 180,000km of local roads. Many roads in rural areas exist within a roadside reserve that provides a buffer between the road and neighbouring lands, and it is in these areas that substantial amounts of biodiversity can be located.

Roadside reserves cover approximately one million hectares of land of which about 50 per cent contain native vegetation. Like road reserves, remnant vegetation can be found in some rail reserves. Across NSW, there are over 10,000km of rail lines including active and inactive freight and sidings, light rail, railways and metro lines. These rail reserves cover approximately 55,000 hectares of which 42 per cent contain native vegetation.

Infrastructure corridors, including road and rail reserves, often contain important biodiversity that is rare in the surrounding landscape and can provide the habitat connectivity needed to maintain viable habitats over time.



Image credit: Transport staff member, Damanjit Purewal



Over the reporting period, Transport has made a significant commitment to achieving our goal of no net loss biodiversity through the release of the Transport Biodiversity Policy. The policy took effect on 1 August 2022 and sets out our approach to protecting and enhancing biodiversity.

The Biodiversity Policy requires Transport to:

- adopt the avoid, mitigate and offset hierarchy during infrastructure development except for specific low risk activities outlined in the policy
- embed measures to avoid impacts from early strategic design through to construction
- develop connectivity strategies where landscape impacts are anticipated
- meet specified offsetting requirements, in addition to legal requirements, including tree and hollow replacement for the unavoidable loss of both native and amenity trees and habitats.

Since the adoption of the policy, a key focus has been to build internal capacity to help implement the policy effectively and report on performance against the policy. Additionally, a comprehensive set of biodiversity guidelines were created to deliver on our commitments. Adoption and implementation of the policy and guidelines were supported by briefings to over 900 Transport staff across NSW.

A key feature of the policy is the establishment of the Transport Biobank, which was developed to help Transport meet its biodiversity obligations under both NSW and Commonwealth law. The Biobank holds:

- biodiversity credits generated on Transport owned land
- credits purchased by projects that are in excess of project needs due to ongoing design refinements resulting in reduced impacts.

As at 30 June 2023, the Biobank held 4191 credits, at a value of \$1.7 million and is helping projects generate credits on five land holdings across NSW. These credits will be allocated as needed to future projects following all efforts to avoid and mitigate biodiversity impacts. The Biobank forms a subset of Transport's total biodiversity credit holdings of \$70.2 million with \$10.8 million being purchased by projects over the 2022-23 financial year.

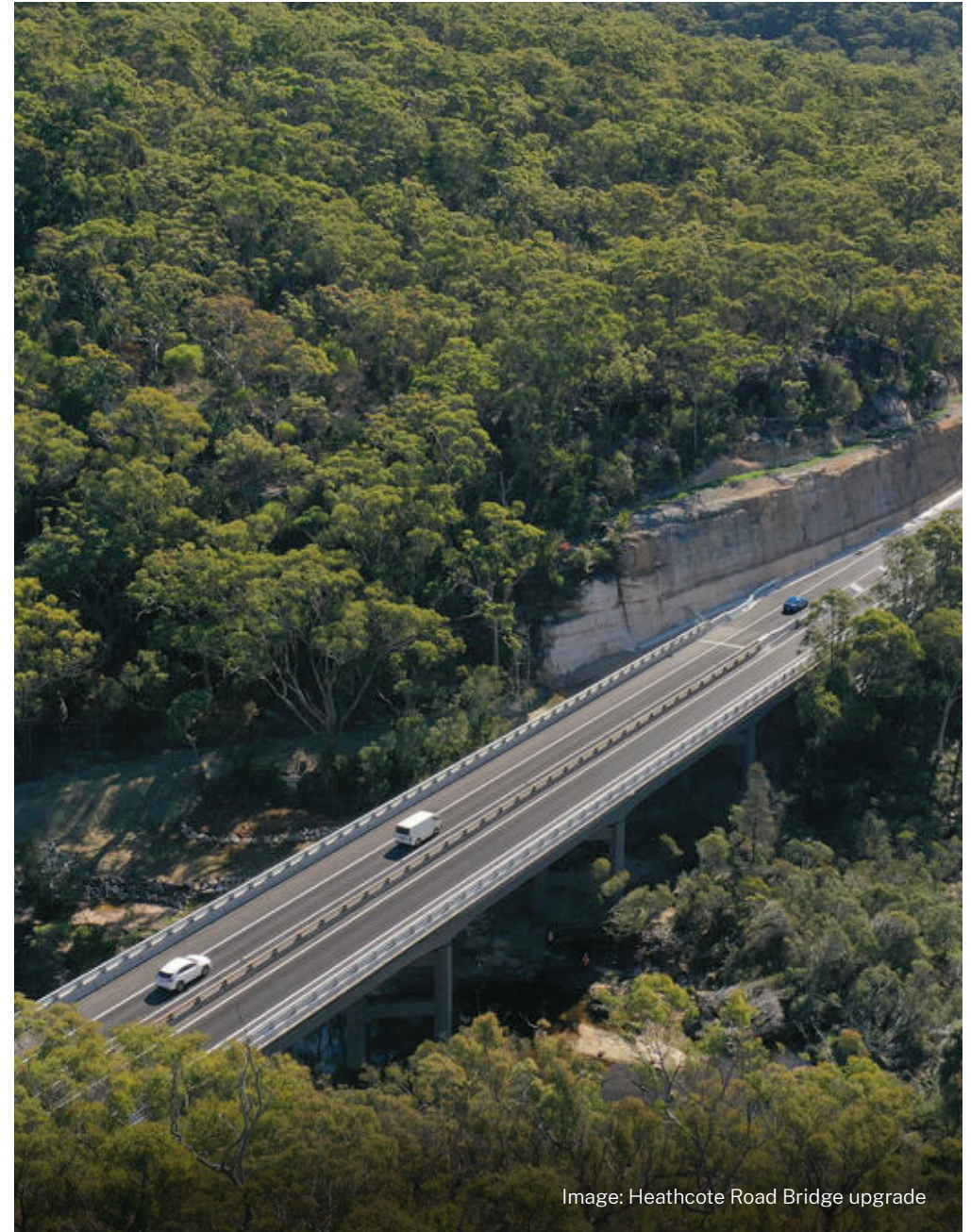


Image: Heathcote Road Bridge upgrade

The table below details Transport Review of Environmental Factors (REF) projects determined under Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979* that have triggered the Biodiversity Offset Scheme<sup>3</sup>.

Project name	Region	Date approved	Ecosystem credits required	Species credits required	Total credits required	Credits completed <sup>4</sup>	Credits substantially completed <sup>5</sup>
Western Sydney Airport - Sydney Metro	Western Parkland City	23/7/2021	846	539	1,385	969	310
Kamay Ferry Wharves	Eastern Harbour City	3/8/2022	4	10	14	0	0

The table below details Transport Review of Environmental Factors (REF) projects determined under Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979* that have triggered the Biodiversity Offset Scheme.

Project name	Region	Date approved	Ecosystem credits required	Species credits required	Total credits required	Credits completed <sup>4</sup>	Credits substantially completed <sup>5</sup>
Spring Farm Parkway <sup>6</sup>	Western Parkland City	1/12/2019	12	57	69	0	0
Henry Lawson Drive 1A -Part 4	Western Parkland City	6/12/2021	7	8	15	15	N/A
M1 to Raymond Terrace Hexham -Part 4 and 5	Hunter	22/6/2022	2	293	295	0	0
Mamre Road Stage 1	Sydney	30/6/2022	245	245	490	0	0

Refer to Section 4 for a list of projects that reported their biodiversity obligations as completed on or before the 2021–22 financial year.

Another key feature of the Biodiversity Policy has been the establishment of the Transport Conservation Fund. The fund was established to receive payments from infrastructure projects unable to fulfil their tree and hollow replacement obligations within project boundaries as required by the policy. All financial contributions received by the fund will be invested in NSW-based conservation projects in consultation with organisations such as the NSW National Parks and Wildlife Service, Landcare, local government and Aboriginal groups and organisations.

<sup>3</sup> Table does not include aquatic offsets required under Department of Primary Industry policy guidelines.

<sup>4</sup> Credits completed are credits purchased and retired or Biodiversity Conservation Fund payment made.

<sup>5</sup> Credits substantially complete are credits purchased but not yet retired or Biodiversity Conservation Fund payment made but not finalised.

<sup>6</sup> The Spring Farm offset obligation has changed from last year due to changes in project scope and associated environmental assessment identifying a decreased ecosystem impact and an increased species impact.

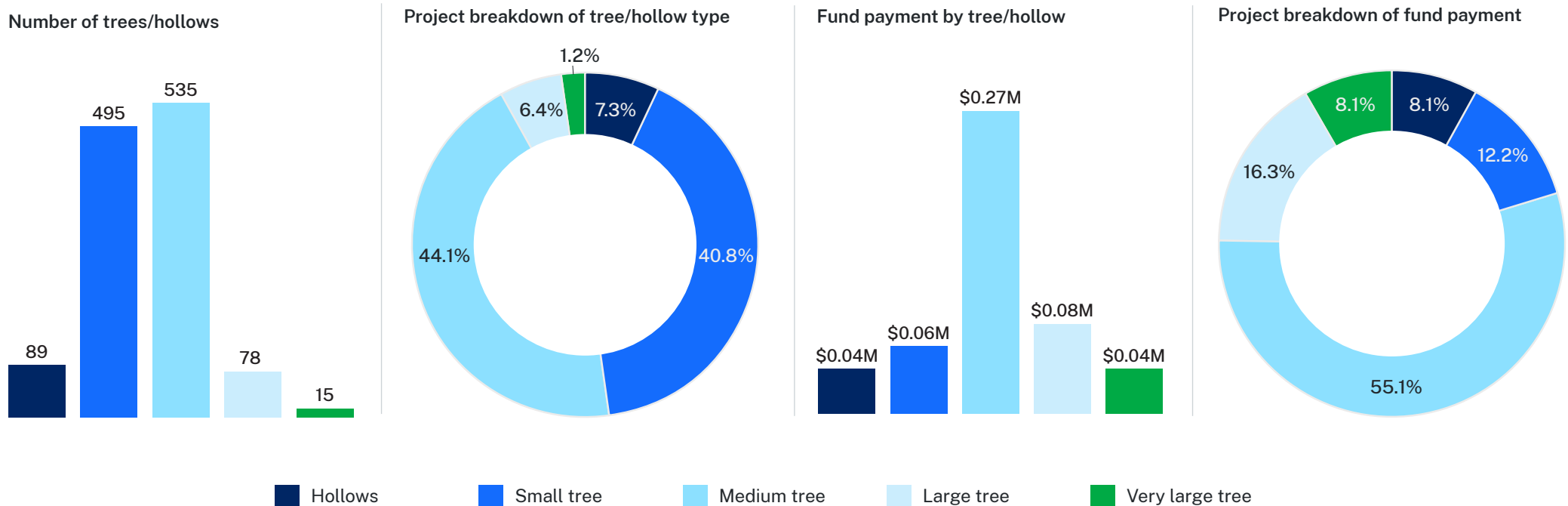
As at 30 June 2023, the fund had received 20 applications from projects totaling \$486,875 associated with the unavoidable loss of 1123 trees and 89 hollows. We are in the preliminary planning phase for two partnership projects that we anticipate will be delivered in the 2023-24 financial year.

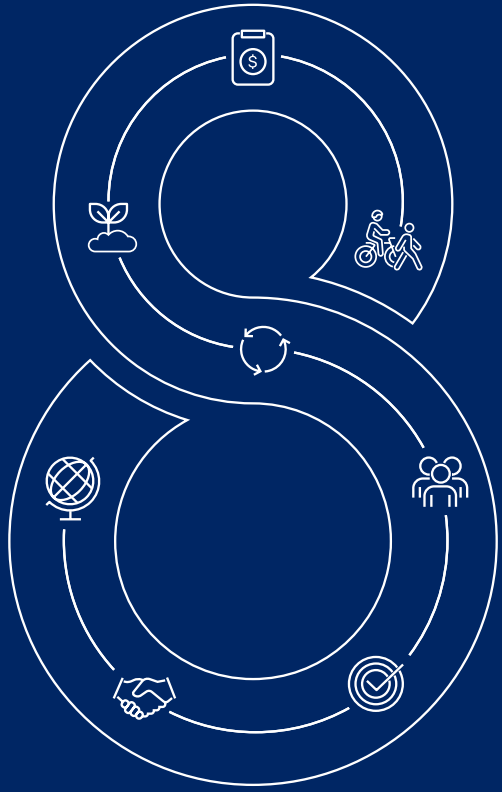
Throughout the reporting period, we have continued our collaborative partnerships with universities to support best practice biodiversity management. Section 3 outlines initiatives implemented to manage and offset the direct impacts associated with activities.

Transport also aims to reduce the biodiversity impacts that may occur as a result of transport network users. During the reporting period, Transport signed a Memorandum of Understanding (MOU) with the Department of Planning and Environment to agree a funding mechanism to retrofit the state road network with koala vehicle strike mitigation measures. This MOU will support Transport in addressing koala vehicle strikes on the NSW road network, as per the NSW Koala Strategy.

### Transport Conservation Fund payments from tree and hollow replacement requirements

The below graphs provide the breakdown of payments by projects that were unable to fulfill their tree and hollow replacement obligations within the project boundaries.





# Focus area 3

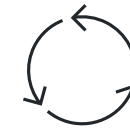
## Improve environmental outcomes



Image: Transport staff replanting the urban environment with native Australian plants and bushes



# Our goals to improve environmental outcomes



Develop a circular economy for Transport by designing waste and pollution out and keeping products and materials in use.  
Reduce environmental impacts of projects and operations.

Transport is committed to improving environmental outcomes for the communities of NSW. In Section 3, we highlight some of our projects that have contributed to achieving our goals. Our Environment and Sustainability Management Framework (ESMF), launched in financial year 2021-22, provided an aligned and consistent approach for delivering environment and sustainability outcomes across Transport. Over the reporting period, we have continued to improve and enhance our ESMF to provide relevant and up to date guidance, systems, and processes across a number of specialist technical areas for our staff, contractors and delivery partners.

Across Transport, we strive for continuous improvement by proactively identifying and managing environmental impacts associated with our projects and operations.

We undertake environmental assurance activities across infrastructure construction, maintenance and operations, including environmental inspections and audits to reduce these impacts. During the reporting period, we undertook 2060 environmental inspections across our activities compared with 1485 during the previous year.

The increase in inspections was due to:

- an increase in the number of active projects during the reporting period
- increased inspection regimes at some sites due to La Niña
- return to travel and field-based work post-COVID.

Of the inspections conducted in the last financial year, 81 per cent were classified as green light inspections, meaning that environmental risks are being effectively managed<sup>7</sup>. All environmental issues identified in remaining inspections were closed out promptly.

## Alignment to the United Nations Sustainable Development Goals

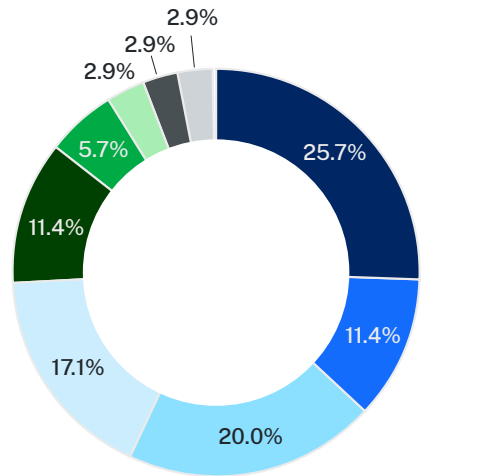


<sup>7</sup> Inspection classification data, using the traffic light system excludes Sydney Trains, NSW TrainLink and Sydney Metro as those entities do not use a traffic light inspection classification system.

Over the reporting period our top two environmental incident impact areas, for incidents with an environmental consequence rated moderate or above, were related to biodiversity and soil and water. While there was an increase in the percentage of biodiversity and soil and water incidents, this increase is attributed to one additional incident compared with the previous financial year.

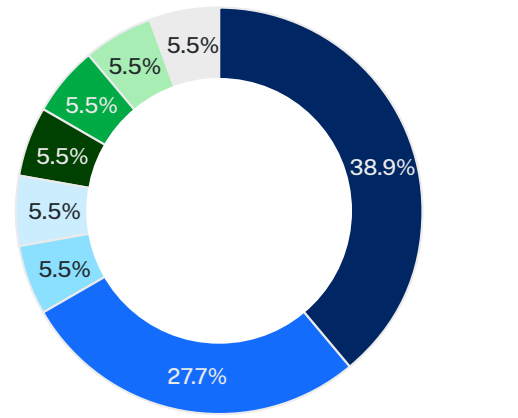
In this reporting period, there was an overall decrease in incidents classified as moderate (C4) and above across Transport. With over 100 additional active projects compared with last year, this decrease represents a performance improvement as an average across our active sites.

**C4 and above incidents by impact area 2021-22 Financial Year<sup>8,9</sup>**



- Soil and water
- Biodiversity
- Heritage
- Spills and leaks
- Unauthorised works
- Waste and materials
- Air and dust
- Noise and vibration
- Traffic management

**C4 and above incidents by impact area 2022-23 Financial Year<sup>9</sup>**



- Soil and water
- Biodiversity
- Heritage
- Spills and leaks
- Unauthorised works
- Waste and materials
- Air and dust
- Noise and vibration
- Traffic management
- Systems and documentation

Transport strives to deliver environmental outcomes that exceed minimum compliance requirements across a range of areas. For example, across our projects through the design and delivery phases, we work to improve the quality of stormwater runoff by incorporating water sensitive urban design into our projects. We are also working with stakeholders to remove barriers to innovation by amending technical specifications to enable new and emerging areas to be trialled across our projects. Our technical specifications are provided in contract documents to ensure consistency across our projects for the construction and maintenance of critical infrastructure. They instruct construction contractors on how the works are to be carried out, the quality of the workmanship and methods of quality assurance for the construction. Areas where we have collaborated with contract partners include the amount and use of recycled content in asphalt and amendments to concrete mix specifications used for pedestrian walkways.

A key component of improving environmental outcomes is promoting circular economy practices by designing waste and pollution out and keeping products and materials in use. In the 2021-22 financial year, Transport launched its Sustainable Procurement in Infrastructure Initiative. Over the reporting period, we worked with over 370 industry representatives across 135 organisations to inform how we best embed sustainability into projects. The initial outcomes of this partnership with industry are captured in the Sustainable Procurement in Infrastructure Industry Report. Further details can be found at the Transport Infrastructure Industry portal.

Our projects aim to incorporate a level of recycled content in construction activities, including through the use of suitable recycled and innovative materials. This may include partnering with other development sites to use materials that may otherwise end up in landfill. The Barton Highway Upgrade Stage 1 Project successfully imported over 257,000 tonnes of clean fill material from nearby development sites. This initiative reduced the reliance on virgin materials which also reduces carbon and project costs.

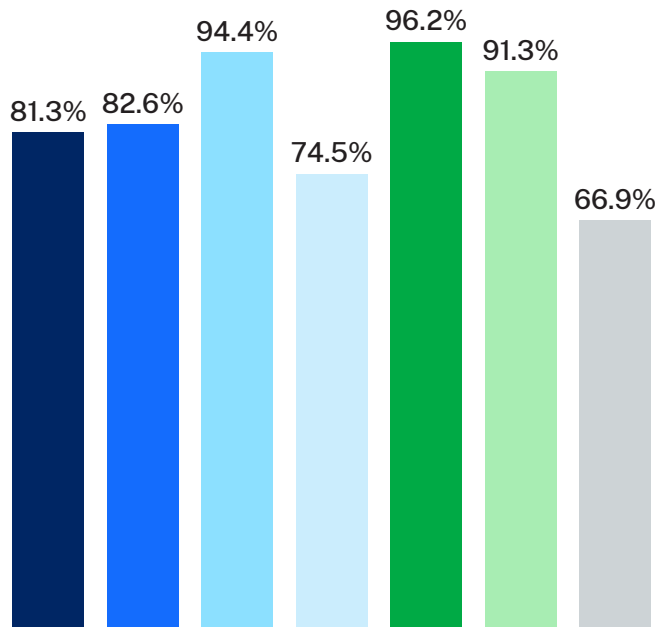
8 The data reported for the 2021-22 Financial Year is a restatement. A reporting error occurred in the 2021-22 report.

9 This includes Sydney Metro data.

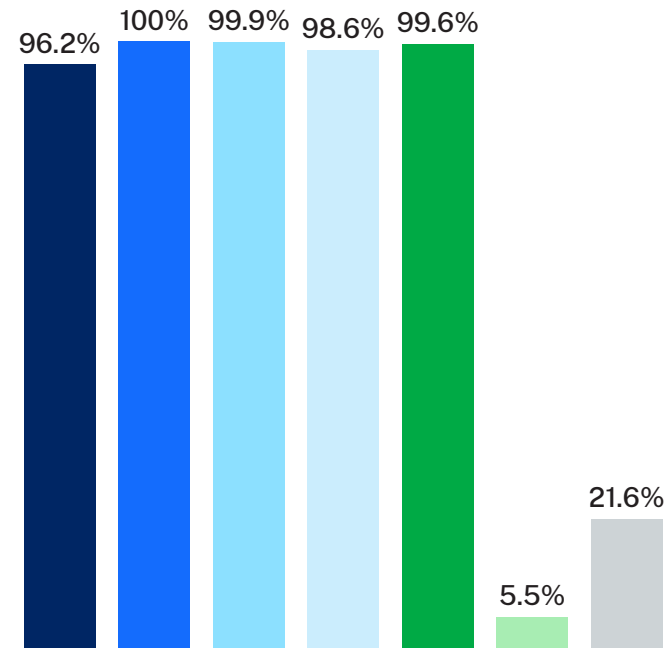
Transport’s significant portfolio of construction and maintenance activities involves the management of millions of tonnes of construction and demolition waste. We continue to exceed the NSW Government’s targeted recycling rate of 80 per cent for waste by diverting 96 per cent of our road and maintenance waste and over 95 per cent of project delivery waste away from landfill. The highlights section of this report details how we have achieved these results across our highway upgrade projects.

Transport has been working to reduce customer waste and improve recycling rates. Key achievements during the reporting period include the removal of plastic items from catering services on NSW TrainLink rail services, the reinstatement of BYO travel mugs on regional services and coffee cup recycling trials at key interchanges. The highlight addressing plastic waste in our operations in Section 3 showcases more ways we are addressing the issue of single use plastics across the portfolio.

Resource recovery rates from our road maintenance activities

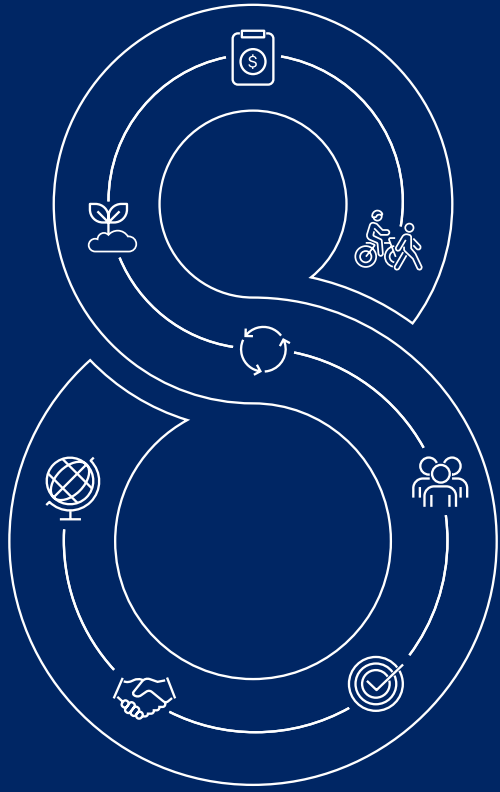


Resource recovery rates from our project delivery



■ Building and demolition materials ■ Metals ■ Paper and cardboard ■ Organics ■ Spoil ■ Contaminated materials\* ■ Office/Crib waste

\* Contaminated materials is represented by liquid wastes and waste tyres treated/recycled at NSW EPA licensed facilities.



# Focus area 4 Procure responsibly



Image: Transport staff meeting near concrete pipes at Coffs Harbour Bypass construction site

# Our goals to procure responsibly



Go beyond minimum compliance targets in the Aboriginal Procurement Policy.

Social and environmental outcomes are included in all procurement decisions.

Transport is committed to ensuring that our activities and the activities of our suppliers and delivery partners are undertaken in an economically, environmentally and socially responsible manner. We recognise our responsibility to protect the rights of individuals within the organisation and to work with supply partners to identify, mitigate and remediate any potential existence of modern slavery in the supply chain.

During the reporting period, Transport has made a number of steps toward mitigating modern slavery risk including:

- undertaking an assessment of our spend and supply chain to identify areas of high inherent modern slavery risk
- developing a harmonised Transport Goods and Services Procurement Framework
- implementing a risk navigation tool into our Goods and Services Procurement Policy framework, which incorporates 11 supplier risks including environmental, sustainability and modern slavery risks.
- development and release of supplier questionnaires
- participating in whole of government working groups and initiative pilots related to modern slavery.

Through these steps, Transport has made significant progress toward ensuring social and environmental outcomes are included in all procurement decisions. For more information on how we are addressing modern slavery risk, refer to our Modern Slavery Statement available in the Transport Annual Report 2022-23.

Transport procures a diverse range of goods and services to deliver our strategic priorities. Over the 2022-23 financial year, the Transport portfolio's total addressable spend was \$15.4 billion across 3,500 suppliers. The highest proportion of this spend was related to Infrastructure Works – Rail (approximately 31 per cent of spend) and Infrastructure Works – Road (approximately 18 per cent of spend). We have complex and extensive supply chains and an obligation to ensure effective and robust management of inherent risk within those supply chains.

To improve access to procurement opportunities for Aboriginal and Torres Strait Islander businesses, we aim to go beyond our minimum compliance targets within the NSW Aboriginal Procurement Policy. During this financial year, the Transport portfolio had a direct spend of \$135.5 million and 286 contracts with Aboriginal-owned businesses.

## Alignment to the United Nations Sustainable Development Goals



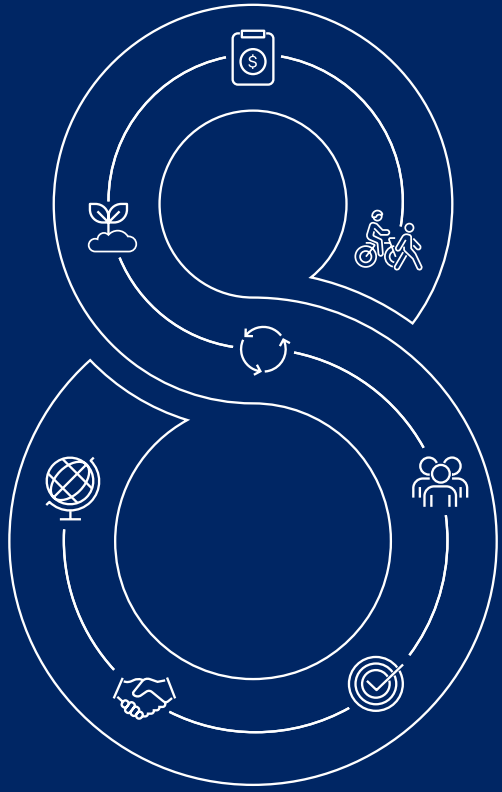
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Transport is committed to creating a more resilient, diverse and inclusive industry. We work collaboratively with our delivery partners to identify and implement initiatives to deliver our social procurement and workforce development outcomes. During the reporting period, Transport implemented the Social Procurement and Workforce (SPW) Development program. The program focuses on baseline contractual requirements for infrastructure projects linked to jobs, skills, diversity and business initiatives.

The baseline requirements provide consistency and clarity to industry around Transport's minimum requirements and expectations for SPW outcomes. Additional requirements may be identified based on specific project characteristics such as the physical location of the work, and types of work being carried out. Refer to the Delivering social outcomes through employment highlight in Section 3 for more examples of our approach.



Image credit: Transport staff member, Thomas Bulic



# Focus area 5 Partner with communities



Image: Children getting active in the park

# Our goals to partner with communities



Always leave a positive legacy for communities as a result of projects.  
Enable, apply and report on community engagement.

We acknowledge that delivering exceptional community spaces requires an understanding of the interconnectedness between social, cultural, economic and environmental factors. Through our projects, we actively promote social inclusion and the support of local economic development. Our sustainability plan reflects our commitment to leaving a positive legacy for communities impacted by our projects.

Social value is an emerging area of practice for many organisations that seek to measure and communicate the social values associated with projects and operations. In the reporting period, Transport has sought to explore ways that our programs and projects contribute to social value, through research and case studies. We are working to build our capability in understanding, identifying and articulating social value, to improve the delivery of our projects and benefit the community.

Throughout the reporting period, Transport conducted various community engagement activities aligned with our projects. We recognise the importance of early community engagement to enhance project outcomes and foster greater community participation. Activities such as community days and our participation in events like the

Murrumbateman Field Day and Yass markets, as part of our community consultation for the Barton Highway duplication, allowed us to connect with the community, listen to their concerns and gather valuable feedback to inform our projects.

We organised several public engagement events to foster collaboration and strengthen the sense of community. We also conducted extensive consultations for underused assets, including West Tamworth Railway Station and the Tamworth Station Master's Residence. These consultations sought to understand the community's sentiments toward these buildings and shape plans in line with their views.

As part of the Thornleigh Station Upgrade project, Transport explored opportunities to provide heritage interpretation, paying homage to the Thornleigh Zig Zag Railway in The Esplanade forecourt. Following community feedback and consultations with the Hornsby Shire Historical Society and Hornsby Shire Council, new design features were incorporated into the station's surroundings, which opened in June 2023.

## Alignment to the United Nations Sustainable Development Goals





A survey undertaken in 2021 revealed that 45 per cent of people were spending more time in public spaces than before the pandemic. Leveraging this insight as part of the Alfresco Restart Package, Transport delivered “The Festival of Place... in your streets” between October 2021 and June 2023. The initiative partnered with 93 local councils along with state agencies, including the Royal Botanic Gardens and Domain Trust, Place Management NSW and Property and Development NSW. Its coordinated approach aimed to revitalise and reimagine streets, providing high quality local public spaces to enhance community wellbeing and support economic recovery. The initiative transformed streets in diverse communities across NSW, benefitting local businesses and creatives.

During the reporting period, the initiative consisted of four key programs:

- Streets as Shared Spaces (round 2) – a \$20 million grant program testing permanent changes to strengthen local economic vitality
- Open Streets – a \$6.5 million program enabling metropolitan Sydney councils affected by the 2021 COVID lockdowns to open streets to activities and events
- Summer Night Fund – offering up to \$15,000 in funding to all NSW councils for free activities or events
- Long Summer Nights – reopening the Rocks, Darling Harbour and the Domain to the public over the summer with dance floors, live music, theatre and comedy shows.

Another initiative introduced during the reporting period as a part of The Festival of Place was reVITALise 2023. This program delivered targeted initiatives to trial interventions in public space to help improve walkability and place attachment. The reVITALise program commenced during the Sydney WorldPride Festival 2023 where temporary rainbow lighting artworks created by LGBTQIA+ artists were installed in four walkways, three within Sydney’s Inner West and one at Central Station. The project aimed to test the positive impacts of creative placemaking in underused transport assets. A recent community survey regarding these installations found that over 90 per cent of respondents agreed that the light-art installations improved their experience in the tunnels.



As a part of the The Festival of Place, the Safer Cities program is investing \$30 million over two years to enhance perceptions of safety in cities and towns, particularly for women, girls and gender diverse individuals. Transport is collaborating across several state government agencies and with 10 partner councils to deliver the program.

As part of the planning and research supporting the Safer Cities program, Transport developed the Safer Cities Survey, which was open to the community from 13 December 2022 to 8 February 2023. The survey gathered data on the perceptions of safety for people in NSW when travelling in and around public spaces and transport hubs. Across the online survey, poll and ideas board, we heard from nearly 5500 members of the community with over 4850 completed surveys. The key findings included that:

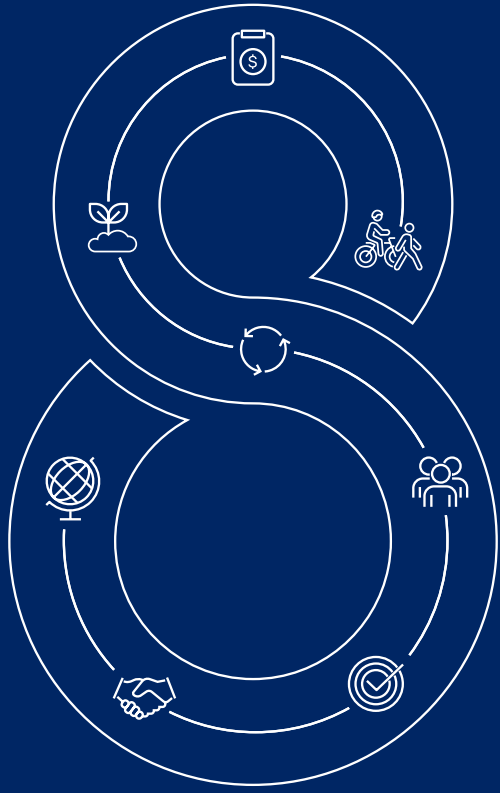
- most women do not feel safe in public spaces after dark
- a sense of safety in public spaces influences route choices
- people feel safer in activated public spaces with a higher number of people around.

With co-design at its foundation, the program held over 70 workshops and engaged with over 5000 individual community members, industry members and government representatives to shape the program initiatives and develop a suite of guides and tools incorporated in the Great Places Toolkit. This toolkit helps to embed the principals of the NSW Public Spaces Charter through a collection of free resources to support local government, state agencies, industry and the community. The Cities Revitalisation and Place section of the Transport website has a range of cases studies that highlight the initiatives undertaken within the reporting period.

Section 3 includes more information on how we are partnering with communities and ensuring we consider the needs of women's safety in planning within the Macquarie Park Precinct project.



Image credit: NSW Government



# Focus area 6 Respect culture and heritage



Image: Three Brothers story (Coolgardie - Northbound) Pacific Highway Aboriginal Art Trail

# Our goals to respect culture and heritage



Aboriginal culture is acknowledged, integrated and preserved.  
Acknowledging and incorporating culture through stories, examples and best practice.

NSW has a rich diversity of culture and heritage. At Transport, we recognise our activities can have direct and indirect impacts on cultural and heritage sites. Across our portfolio, we understand how vital it is to ensure we work consistently to preserve, acknowledge and celebrate our state's cultural and heritage sites.

Our commitment to reconciliation was strengthened with the release of our Stretch Reconciliation Action Plan (RAP) 2022–2025 within the reporting period. Building on the achievements of our Innovate RAP, this plan focuses on making a positive difference for Aboriginal and Torres Strait Islander peoples through employment, empowerment and economic development, while enhancing and developing the cultural understanding of our workforce. The Reconciliation Steering Committee was established to provide clear governance and accountability to deliver against our reconciliation commitments.

Key priorities of our Stretch RAP include:

- meaningful and collaborative community engagement in planning and designing Transport's infrastructure that values connecting to Country and the unique lived experience of Aboriginal people
- influencing community economic development by implementing the NSW Government Aboriginal Procurement Policy through Transport's Aboriginal Participation Strategy
- implementing and embedding Transport's Aboriginal Cultural Learning Framework to enhance cultural safety, cultural awareness and learning outcomes, including truth telling
- increasing Aboriginal recruitment and retention of Aboriginal employees through our Aboriginal Employment Strategy and Aboriginal Career Development and Mentoring Program.

Alignment to the United Nations Sustainable Development Goals



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Transport is committed to delivering positive Aboriginal culture and heritage outcomes in project development and delivery through embedding our Aboriginal Culture and Heritage Framework and Aboriginal co-design principles across the asset lifecycle. We understand meaningful engagement is critical to respectfully acknowledging and celebrating Aboriginal culture and heritage.

Over the reporting period, Transport has engaged with local Aboriginal communities to feature Aboriginal art and design elements in projects and to understand, acknowledge and celebrate the cultural significance of project sites. Section 3 details some of the ways we have worked with Aboriginal communities to deliver meaningful outcomes across our road and rail projects.

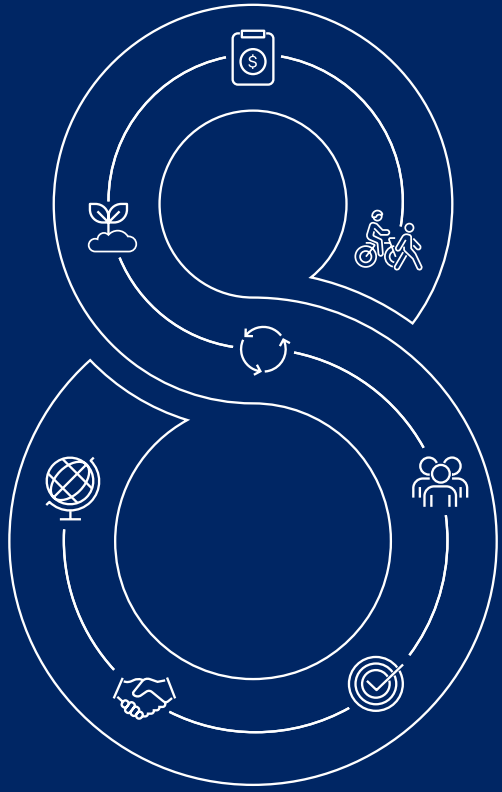
Key to acknowledging and celebrating culture and heritage is providing opportunities for the communities to connect with it. Our case study on the Parramatta Light Rail project details ways our project team worked to provide the local community with the opportunity to connect with historical information and artefacts preserved during construction.



Our Stretch RAP sets out a number of actions across our four RAP pillars that demonstrate our commitment to respecting culture and heritage. The table below highlights RAP actions that are aligned to the Sustainability

Plan Focus area – Respect culture and heritage. For more information on our Stretch RAP and our commitments, visit the website using the link in Section 4 of this report.

Stretch Reconciliation Action Plan pillars			
Relationships	Respect	Opportunities	Governance
<b>1. Establish and maintain relationships with Aboriginal stakeholders and organisations</b>	<b>5. Increase understanding, value and recognition of Aboriginal and Torres Strait Islander cultures, histories, knowledge and rights through cultural learning</b>	9. Improve employment outcomes by increasing Aboriginal and Torres Strait Islander recruitment, retention and professional development	16. Establish and maintain an effective Reconciliation Steering Committee to drive governance of the RAP
<b>2. Build relationships through celebrating National Reconciliation Week</b>	<b>6. Demonstrate respect to Aboriginal and Torres Strait Islander peoples by observing cultural protocols</b>	10. Increase Aboriginal and Torres Strait Islander supplier diversity to support improved economic and social outcomes	17. Provide appropriate support for effective implementation of RAP commitments
3. Promote reconciliation through our sphere of influence	<b>7. Promote the principles of truth telling within Transport</b>	<b>11. Promote Transport’s Aboriginal Art Strategy</b>	18. Build accountability and transparency through reporting RAP achievements, challenges and learnings both internally and externally
4. Promote positive race relations through anti-discrimination strategies	<b>8. Build respect for Aboriginal and Torres Strait Islander cultures and histories by celebrating NAIDOC Week</b>	<b>12. Promote and expand Transport’s Culture and Heritage Framework</b>	19. Continue our reconciliation journey by developing our next RAP
		13. Develop an evidence base to inform priorities for services provided to Aboriginal and Torres Strait Islander peoples and communities	
		14. Develop a Reconciliation Think Tank to work to identify solutions to Transport related challenges in NSW Aboriginal communities	
		15. Promote Aboriginal and Torres Strait Islander health and wellbeing through development and sponsorship of tailored programs that meet the needs of Aboriginal and Torres Strait Islander people and communities	



# Focus area 7

## Align spend and impact



Image credit: Transport staff member, Peter George

# Our goals to align spend and impact



Alignment to the United Nations Sustainable Development Goals

All decisions consider value created from sustainability alongside financial analysis. Reduce whole of life costs for the transport network.

Transport is committed to aligning spend and impact to provide value for money and positive environmental and social outcomes for the people of NSW. Effective planning and embedding sustainability considerations as early as possible in the asset lifecycle are critical to ensure the best value for money can be delivered while achieving our sustainability objectives.

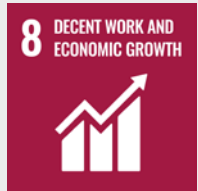
We are taking a proactive approach to planning for growth, identifying and protecting land that will be needed for critical transport links, particularly in the fast-growing area of Western Sydney. By taking this proactive approach Transport has the potential to provide a significant cost saving to future transport infrastructure projects.

Applying carbon externality values is the biggest opportunity Transport has to drive decarbonisation outcomes. Over the reporting period, Transport worked collaboratively with NSW Treasury to undertake research into 'target consistent' marginal abatement cost carbon values that align to our net zero targets. Additionally, Transport has been working to ensure embodied carbon emissions are considered in all business cases. This work will be key in aligning spend and impact by helping prioritise investment that supports low carbon outcomes.

Additionally, we aim to align impact and spend on projects through the application of third party sustainability rating and assurance tools. We recognise the value third party assurance provides in assessing the sustainability performance of our major projects.



Image credit: City of Parramatta Council





During the reporting period, Parramatta Light Rail infrastructure works package was awarded the highest ever 'As-Built' rating by the Infrastructure Sustainability Council. The 'Leading' score of 104.35 points reflects the commitment to achieving positive sustainability outcomes on the project. An additional 10 Infrastructure Sustainability (IS) ratings were achieved across our projects during the reporting period. Under the IS v1.2 rating tool there are three ratings available:

- Commended (25 to <50 points)
- Excellent (50 to <75 points)
- Leading (75 to 100 points).

A project can also be awarded up to 10 additional points for innovation but is not eligible for a rating if it achieves <25 points.

Once the As-Built component of the rating has been verified, the Design rating score is replaced with the final Design and As-Built rating score. Therefore, where a rating is shown in this table as 'Design and As-Built', the score shown reflects the final As-Built score even if the Design rating was achieved during the same reporting period.

### Transport Access Program 3

Towradgi Station 'Leading' IS Design rating Degnan	Como Station 'Excellent' IS Design rating Degnan	Redfern Station 'Excellent' IS Design rating NovoRail
Fairy Meadow and Mittagong Stations 'Excellent' IS Design and As-Built rating Degnan	East Hills and Yagoona Stations 'Excellent' IS Design rating Arenco	Bexley North and Petersham 'Leading' IS Design and As-Built rating Arenco

### M12

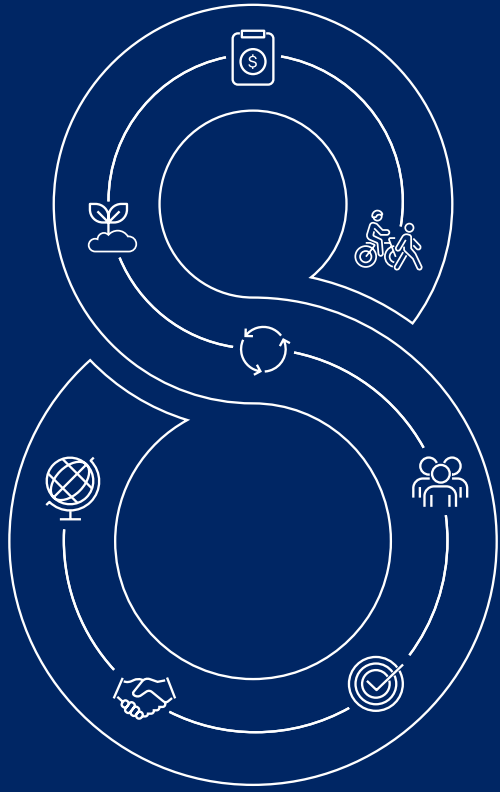
M12 West 'Leading' IS Design rating WSP	M12 Central 'Excellent' IS Design rating GHD
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### Parramatta Light Rail (PLR) Stage 1

PLR Stage 1 Infrastructure works 'Leading' IS Design and As-Built rating Parramatta Connect (CPB Contractors and Downer EDI)
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### More Trains, More Services

Stage 2 North 'Leading' IS Design rating Next Rail
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Focus area 8  
Empower  
customers to  
make sustainable  
choices



Image: Cyclist riding on Lilyfield Road Bridge, Sydney

# Our goals to empower customers to make sustainable choices



Use customer journeys to inform, engage and inspire more sustainable practices and demonstrate Transport's progress.

Transport is working to empower customers to make sustainable choices by delivering programs of work that encourage the use of more sustainable modes of travel such as active transport, public transport and low carbon road options.

During the reporting period, we released our Active Transport Strategy which aims to double the number of walking and cycling trips over the next 20 years. The strategy sets long term ambitions and priority moves aligned to five focus areas:

- enable 15-minute neighbourhoods
- deliver connected and continuous cycling networks
- provide safer and better precincts and main streets
- promote walking and riding and encourage behaviour change
- support our partners and accelerate change.

Since the release of the strategy and building on the strategic cycleways corridors released for the Eastern Harbour City, Transport has identified strategic cycleway corridors for Western Parkland City and Central River City. The focus of the strategic cycleway network is to provide safe cycleways for people of all ages and abilities and provide better connections between existing centres,

precincts and places, along with emerging centres. More information on this strategy can be found on the website

Transport is encouraging people to get out walking by ensuring everyone can access walkable, interesting and vibrant public spaces. In June 2023, we launched our Walks Near Me online digital platform and interactive map in partnership with the Department of Customer Service. The platform allows the community to plan and share walks, find local events, points of interest and other hidden gems, using active transport options.

In our previous reporting period, the NSW Government launched the NSW Public Spaces Charter to support the creation and improvement of high quality public spaces such as walkable streets, parks and community spaces in transport hub precincts. During the reporting period, the number of signatories to the charter has grown to 44, with all signatories committed to embedding the 10 principles and three core values for quality public spaces. The signatories comprise a mix of councils, peak bodies, consultancies, not-for-profit groups and state government departments and are invited to a quarterly community of practice to support them in implementing the Charter.

## Alignment to the United Nations Sustainable Development Goals



Transport is committed to providing equitable, accessible and secure transport for all. By removing barriers to using public transport we are empowering customers to be less reliant on private vehicles. The Transport Access Program is delivering accessibility upgrades at stations across our network with 15 upgrades completed during the reporting period.

Transport is delivering the Commuter Car Parks Program across our network at key transport interchanges providing more convenient access to public transport and seamless multimodal customer journeys. Over the reporting period, six commuter car park projects were delivered.

We are also facilitating the use of low emissions vehicles by deploying electric vehicle infrastructure at or near Transport-owned sites. Refer to Section 3 for more details.





# Case studies and highlights

This section outlines several case studies and highlights across initiatives and projects aligned to our eight sustainability focus areas. Visit Transport's Sustainability website for more examples of how we are working towards a NSW in where every journey is people and planet positive.



Image credit: Transport staff member, Adele Graham

# Aboriginal Cultural Landscapes Management project



Focus areas – Respond to climate change, Respect culture and heritage, Partnering with communities



At Transport, we are committed to strengthening our preparedness for the impacts of climate change and to ensure our communities remain safe, connected and supported. The Network Resilience Program recognises that customers and our network of assets, services and infrastructure will continue to be tested by disruptions from natural hazards and disasters.

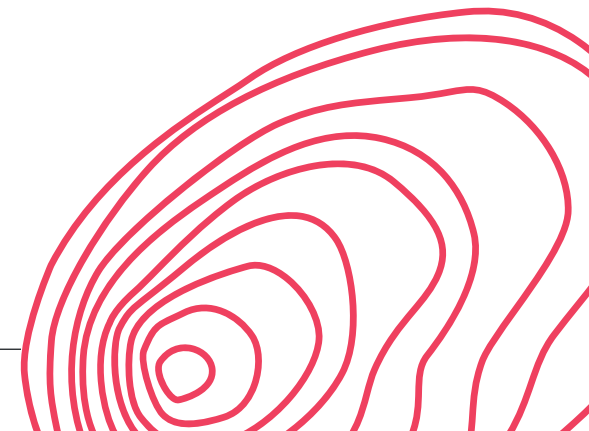
A collaboration with NSW Government and local government agencies, the program has three streams of focus:

1. Bushfire Corridor Resilience
2. Customer Journey Resilience Plans
3. Aboriginal Cultural Landscapes Management

Aboriginal people have cared, respected, and valued land and Country for thousands of years. The Aboriginal Cultural Landscapes Management stream seeks to embed practices that may help with the challenges of climate change and protect assets and services into the future.

This program stream is a \$4.5 million investment to engage with, listen to and co-design with Aboriginal people on ways to introduce traditional and cultural land management practices into organisational processes. During the reporting period, the design of the program, the selection process for pilot locations and a grant funding guide were completed.

We continued to work with communities across pilot locations in regional NSW and developed a spatial tool to align the land attributes, planning considerations and history of natural disasters with the transport network. The collation of this information will help identify opportunities where traditional land and sea management can contribute to building resilience to natural hazards.



# Reducing our reliance on grid supplied electricity



## Focus area – Respond to climate change



Part of the pathway to net zero emissions is through reducing our reliance on grid supplied electricity. We are achieving this by installing renewable energy generation and increasing energy efficiency across our operations.

Transport currently has approximately 5.1MW of behind-the-meter solar power that's produced onsite across the organization, with another 1.5MW of solar either under construction or in the planning pipeline. Locations of our solar installations include train stations, commuter car parks, maintenance buildings, office buildings and warehouses.

In mid-2023, a new 397kW solar PV system was installed on Sydney Trains' Clyde Hub office building and adjacent Clyde warehouse building, the main office for Sydney Trains' Engineering and Maintenance teams. This installation generates approximately 583MWh (megawatt-hours) of electricity per year, saving over \$100,000 in electricity costs. The solar panels will supplement the power requirements of both facilities, covering the entire daytime power requirements at the warehouse and up to 20 per cent of requirements for the Clyde Hub offices.

Sydney Trains is also currently implementing energy efficiency enhancements to the air conditioning systems on the Waratah and Sydney Growth Train fleet which is forecast to save more than 20GWh (gigawatt-hours) of electricity annually when fully deployed. The enhancements were successfully trialled in the 2021–22 financial year and demonstrated significant energy savings potential. The roll-out of the enhancements started in early 2023 and is scheduled to be completed across both fleets by end of 2023.

Transport continues to implement energy efficient LED lighting upgrades across its infrastructure. Areas that have already received upgrades include over 200 train stations, train tunnels and the Tangara fleet as well as some roads infrastructure. The iconic Sydney Harbour Bridge lighting has also been upgraded reducing electricity use by more than 30 per cent.

# Minimising our impact on marine ecology when upgrading ferry wharves



Transport is replacing the ferry wharves at La Perouse and Kurnell as part of the Kamay Botany Bay National Park, Kurnell Master Plan.

The wharves will provide a valuable recreational resource for the community and allow for future ferry access between both sides of the Kamay Botany Bay National Park. The new wharves will also provide additional temporary mooring for small commercial vessels and recreational boats and improve access for locals and visitors to swim, fish and enjoy the area. The area is both culturally significant and environmentally sensitive, with the waterway being home to threatened species including *Posidonia australis* seagrass and *Hippocampus whitei* (White's seahorse).

To mitigate the unavoidable environmental impacts of the project, a process known as 'ecological offsetting' is being implemented. Transport worked

with government, industry experts and research scientists, including the University of New South Wales (UNSW), to develop a Marine Biodiversity Offset Strategy (MBOS) for the project. The strategy sets out how we will manage and mitigate the residual impacts on marine ecology and biodiversity identified in the Environmental Impact Statement, including to the identified threatened species.

The first stage of the MBOS, translocating the seagrass from the project impact area at Kurnell to rehabilitation sites, has been completed. Over three weeks, a team of UNSW researchers relocated around 13,000 shoots of the seagrass from the project impact area to restoration sites at Kurnell. This was delicate work and required scientific divers to carefully remove the plants from the sediment by hand, keeping the rhizomes and root systems intact, and then replanting them on the same day.





# Doing our bit to protect flora



Focus areas – Protect and enhance biodiversity, Improve environmental outcomes



Within our vast network of public roads and rail infrastructure, we often encounter sites that contain important biodiversity. Our goal is to ensure that our infrastructure development program does not result in a net loss of biodiversity.

During the 2022-23 financial year, we have successfully delivered a range of initiatives aimed at flora protection across a range of natural and urban landscapes. Some of this includes vegetated sections of road, rail, drainage lines and waterways that contain important native flora.

The Nowra Bridge Project had unavoidable impacts on the endangered Magenta Lilly Pillies native to the area and we recognised the importance of preserving these plants before project initiation. Three years ago we collected seeds from these threatened plants and propagated them onsite until they were ready for replanting. In June 2023 the project team successfully planted these propagated specimens in a location adjacent to Bomaderry Creek as part of the final landscaping.

Our commitment to protecting and enhancing biodiversity extends beyond individual species to

rainforest preservation. In response to community feedback, we conducted a comprehensive investigation and redesign of the Coffs Harbour Bypass. The design changes will shift the alignment northward and save 100 per cent of the White Booyong Fig Subtropical Rainforest, known as Grandpa's Scrub. This initiative has preserved the entire remnant rainforest and the project is working with Coffs Harbour Regional Landcare to undertake further work to enhance the conservation value of the rainforest.

Equally important, our conservation efforts extend to urban areas. Trees in urban areas play a pivotal role in combating the urban heat island effect and improving air quality. We have joined forces with the City of Parramatta Council to plant a minimum of 2500 new trees by 2024 when the Parramatta Light Rail is expected to open. Separately, we are planting an extra 3000 trees across the Parramatta local government area as part of the project. Trees are replaced at a ratio ranging from 2:1 to 8:1, demonstrating our commitment to a net increase of urban trees. By 2024, Parramatta will have a greater number of trees than it had previously.

# Protecting turtles with AI technology



Focus areas – Protect and enhance biodiversity, Improve environmental outcomes



Fauna mortality on our roadways remains an issue and we are actively looking at innovative ways to address it. In response to community concerns about turtle mortality on the Northern Road upgrade (a part of the Western Sydney Infrastructure Plan), we joined forces with Western Sydney University to develop an innovative artificial intelligence (AI) enabled turtle mapping solution.

Despite being an important tool in developing mitigation measures, conventional road fauna mortality surveys are labour-intensive and time-consuming. The AI-enabled process delivers a safer and more efficient, cost-effective and accurate option to detect turtles on roads. During the turtle AI trial, vehicles were equipped with dash mounted cameras to gather data through live traffic assessments using dummy animals and other objects on sections of road that were under construction. The process then used AI to analyse the video data from the cameras to determine turtles from other objects.

The technology achieved an accuracy rate of over 90 per cent for turtle detection. A significant outcome considering the difficulty in identifying turtles on roads by the human eye compared to other fauna. Collaborating with ecologists at the Western Sydney University, this innovative solution was expanded as part of the 1 Million Turtles initiative – a national community conservation citizen science program.

By using AI technology, the trial provided quality insights to help protect the native freshwater turtles around Western Sydney wetlands. The potential application for this technology extends beyond the turtles, offering the capability to safeguard other native fauna. By better identifying fauna mortality hotspots, we can implement targeted mitigation and connectivity measures during road upgrade projects, reducing the incidence of native fauna mortality while enhancing road safety.

# Incorporating water sensitive urban design into landscaping



Focus areas – Improve environmental outcomes, Align spend and impact



Both our Commuter Car Park Program and More Trains, More Services Program are delivering much needed infrastructure across our network for our passengers. Many of these infrastructure projects integrate water sensitive urban design principles into their landscaping. This approach aims to replicate natural water treatment processes in constructed environments.

Our recently completed Schofields commuter car park, which provides 700 new parking spaces, features rain gardens to filter stormwater. The rain gardens' vegetation and soil capture the runoff and remove pollutants such as suspended solids, metals and hydrocarbons as the water seeps through the soil. Joining forces with our delivery partner, the project includes new landscaping with 254 trees matching those in the Cumberland Plain Woodland Endangered Ecological Community, enhancing biodiversity and providing shade.

In flood-prone areas, such as the new Emu Plains commuter car park, which offers 750 parking spaces, a similar approach was adopted. The rain gardens and a vegetated drainage channel were designed to capture excess rainfall, reducing the risk of flooding in the car park. Additionally, the commuter car park has been landscaped with native plants, providing a green buffer around the car park and contributing to enhanced amenity for the local community. The native floral species were carefully selected from the River Flat Forest to recreate the natural floral community that once thrived in this area.

Rain gardens also play a pivotal role in locations surrounded by national parks. In collaboration with our delivery partner, we are constructing five small rain gardens at the Waterfall Stabling Yard and Platform Extensions project, as part of the More Trains, More Services Program. Each rain garden covers an area of approximately 30 to 50 square metres. These rain gardens are strategically positioned next to the rail alignment to improve water runoff entering the Royal National Park. A weed infested area next to Waterfall Station will also be treated and revegetated.

# Addressing plastic waste in our operations



## Focus area – Improve environmental outcomes



Plastic waste is a global concern. According to the Secretary General of the United Nations, “every year, over 400 million tons of plastic is produced worldwide – one third of which is used just once.”<sup>10</sup> Unlike many other types of waste, most plastics do not biodegrade and NSW alone generates 800,000 tonnes of plastic waste every year, with only 10 per cent being recycled<sup>11</sup>.

Across regional services, NSW TrainLink has implemented targeted programs to help reduce plastic waste from our operations by reinstating the practice of allowing passengers to bring their own travel mugs, reducing waste from single-use coffee cups following the height of COVID restrictions. In addition to reducing waste, reinstating cups also offered potential cost savings estimated at over \$128,000.

NSW TrainLink actively explored recycling solutions for waste collected at our stations. In a trial, the team partnered with Simply Cups to become a cup collector at the Newcastle Interchange, where a total of 3594 cups were collected and upcycled. The Simply Cups team collaborate with organisations to repurpose collected cups into items such as for creating garden beds, reusable coffee cups, drink trays and even recycled asphalt for road construction

Across the maintenance and operations areas, we have been making progress in eliminating the use of single use plastic water bottles where possible. Staff working in rural and remote areas require access to fresh, clean drinking water, but some of our projects are nowhere near a tap. Instead of using single use water bottles, teams have switched to large refillable water bottles with some maintenance depots also installing ice machines. The drive to remove single use plastic water bottles is also seen across the Sydney Trains network with an increase of refillable water bottle stations installed across some stations.

In November 2022, the Infrastructure Sustainability Council recognised our ‘world first’ closed-loop soft plastic solution during the construction of the Mariyung Maintenance Facility, which was delivered during a previous reporting period. In collaboration with our partners, approximately 250kg of soft plastics were collected onsite and recycled into an asphalt called Reconophalt, which was used for the roadways around the facility.

Our commitment to waste reduction extends across our entire network, projects, and operations. As we address plastic waste, we recognise that even seemingly small individual actions can have a significant cumulative impact.

<sup>10</sup> [United Nations](#) website, World must work as one to end plastic pollution.

<sup>11</sup> NSW Department of Planning and Environment. NSW Plastics [Action Plan](#) - Outcomes for the future.

# Reuse with a purpose



Focus areas – Improve environmental outcomes, Protect and enhance biodiversity, Partner with communities



At Transport, we are committed to establishing a circular economy by reducing waste and promoting material reuse. During road widening and infrastructure development, native vegetation removal is sometimes unavoidable. However, we strive to repurpose these resources where possible. We aim to extend these efforts beyond Transport so that our recyclables are not limited to use solely by our projects, but also for the benefit of wider communities.

The Rankin Park and Jesmond Bypass project had approval to clear 44 hectares of vegetation. However, we attempted to limit the clearing as much as possible and achieved a lower requirement of 37 hectares of vegetation cleared to make way for the project. Before starting the clearing, we worked with communities to find ways to ensure the plants and trees did not go to waste. We provided 267 logs to Local Land Services for use in its Riverbank Rehabilitation Project. This project aims to protect high value rural, agricultural, cultural and environmental natural assets from riverbank erosion caused by floods or severe weather events.

Through the dedicated efforts of Indymarra Cultural Programs, some of the cleared vegetation was repurposed. Branches, roots and bark were

transformed into a variety of cultural weapons and tools, including boomerangs, clap sticks, coolamons (wooden dishes), and shields. This allowed for teaching and sharing to support the development of cultural practices within the community.

Even individual trees, like the Bunya Pine at Jesmond's main roundabout, found a unique second life within the community. A local guitar maker recognised its potential for crafting guitar soundboards, thereby preserving the tree's legacy through music.

Beyond repurposing, the project joined forces with the community to regenerate local vegetation. Landcare members from the community-run Trees in Newcastle collected seeds from felled trees and gathered *Tetratheca juncea* (Black-Eyed Susan) and native seeds from 14 varieties. These seeds, often challenging to obtain due to the species' height, are now being propagated in their nursery.

In partnership with our delivery partner, we are exploring the possibility of reintroducing plants from these propagated seeds back into the project during landscaping activities in 2024–25.

# Circular economy on our road and highway projects



Focus areas – Improve environmental outcomes, Respond to climate change, Align spend and impact



As one of the largest procurers of projects in Australia we have a significant demand for construction materials. As such, we have a responsibility to work with suppliers and delivery partners to encourage a shift towards low carbon and more sustainable materials. Our road and highway projects across the state are delivering on this by incorporating circular economy principles to reduce waste and pollution and to keep products and materials in use for longer.

## Nowra Bridge project

Rethinking traditional construction methodologies of hessian and plastics, the project team used reusable thermal curing blankets to maintain the optimum conditions for concrete curing, reducing this type of waste by approximately two skip bins per bridge segment. For an adjacent local road constructed as part of the project, our delivery partner developed an asphalt mix with 85 per cent recycled content, comprising of recycled slag (66 per cent), recycled asphalt pavement (15 per cent), recycled glass (2.5 per cent) and filler (1.5 per cent). The team also took an innovative approach by using varying slag particle sizes, resulting in the highest recycled content in asphalt across any of their infrastructure projects to date.

## Barton Highway upgrade

The project delivery alliance successfully imported 257,690 tonnes of end-of-life materials from several development sites including residential infrastructure and housing subdivisions where rock was encountered. Sourcing the material, the project team proactively engaged with developers to divert their project waste to the highway upgrade project. The emissions associated with these materials are less than those from virgin materials. By diverting this waste material from landfill and reusing it on the highway project site, the alliance saved over \$5 million in material costs. The early collaboration resulted in more developers approaching the project with additional opportunities to reuse materials in later stages.

## Sydney Gateway

This project reused 462,000 tonnes of construction spoil, diverting it from landfill or other disposal facilities. Among the main uses of the spoil is creating embankments for the new road network and forming a stable base for the road surface to be laid. It is also used to create noise mounds and other structures to help mitigate the impact of the increased traffic to nearby residents and businesses. The project team is on target to achieve 35 per cent cement replacement with supplementary cementitious materials across the project. The initiative is estimated to save over

1500 tonnes of greenhouse gas emissions over the project's lifetime, compared with the project base case, which assumes 30 per cent replacement.

### Sydney Road Asset Performance

In Greater Sydney, our maintenance contractors are continuously improving and introducing new ways of recycling and reusing materials. One of our delivery partners is reducing the need to replace pipes by relining the inside of the pipe, extending its life by 10 years. Relining can be undertaken without digging up the pipes or displacing vegetation, thus reducing environmental impacts and labour cost.

To manage mattresses that are illegally dumped, another delivery partner worked with social enterprise Soft Landing, which repurposes timber bases into mulch, recycles mattress springs for metal roofing and reuses mattress foam for carpet underlay, achieving a 75 per cent recycling rate for all mattress components.

A number of our delivery partners are implementing measures to improve asphalt sustainability including:

- recovering almost all waste asphalt within road maintenance for reprocessing into new asphalt.
- incorporating recycled content into asphalt mixes including crushed glass and steel furnace slag aggregate.
- using warm mix additives, which allows asphalt to be compacted at temperatures of up to 30°C below standard hot mix temperatures, reducing emissions from asphalt production by approximately 20 per cent.

### Regional roads and asset maintenance

Our regional road maintenance and delivery teams continue to proactively train staff in waste classification and effective documentation. As a result, our diversion from landfill rates is high including 100 per cent of asphalt, 99 per cent of uncontaminated excavated natural material, 92 per cent of excavated road pavement material, 81 per cent of concrete and 64 per cent of vegetation.

The NSW Environment Protection Authority's WasteLocate system has been implemented in all relevant depots across Transport. The system records the movement of waste tyres and asbestos, ensuring these are effectively tracked when removed from road corridors and construction sites, and legally stored, transported and disposed of.



# The Newell Highway upgrade



## Focus area – Procure responsibly



The Newell Highway is the longest highway in NSW stretching from the Victorian border up to the Queensland border. As a key transport route for freight and livestock transporters, tourism operators, and emergency services, it is being upgraded to support future growth and increase safety. A key priority in delivering each of the individual programs of work for the upgrade is enabling growth and opportunity for industry and employment in the region.

The Newell Highway Program Alliance is a collaboration between Transport and our delivery partners that is delivering 38 additional overtaking lanes and various safety upgrades along the Newell Highway. The program undertook a range of supplier information sessions, Meet the Buyer events, and engagement with the Yarpa Indigenous Business and Employment Hub. These engagements resulted in local supplier registration, contributing to approximately 60 per cent of local and regional spend. The team supported several youth career development opportunities by attending the Coonabarabran Career Expo and a 'Careers in Construction' talk with Coonabarabran High School to showcase the diverse range of career opportunities in the Central West of NSW. It also partnered with the Clontarf

Foundation to support young Aboriginal and Torres Strait Islander men transition into the workforce. Additionally, the alliance hosted two site visits in Narrabri and Forbes with local students to showcase career opportunities and what a day on a major construction site looks like.

The Newell Highway Heavy Duty Pavement Upgrade is upgrading four priority sections along this key highway. Local businesses have been sourced to supply concrete and quarry products, electrical and plumbing services, truck, plant and equipment hire, accommodation, catering, cleaning, traffic control and safety equipment. Several skills and industry sessions were held in Narrabri and Moree to enable local businesses and sole traders to talk directly to Transport and our delivery partners' project staff about employment and supplier opportunities. Our delivery partners also attended the Moree Careers Expo where over 200 students had the opportunity to talk to current trainees and cadets about their own experiences and learn about future opportunities at Transport as part of the Apprentice and Trainee Program.

Like other Newell Highway upgrades, there has been a strong emphasis on Aboriginal participation and hiring the local workforce. The project has employed 31 full time equivalent Aboriginal staff

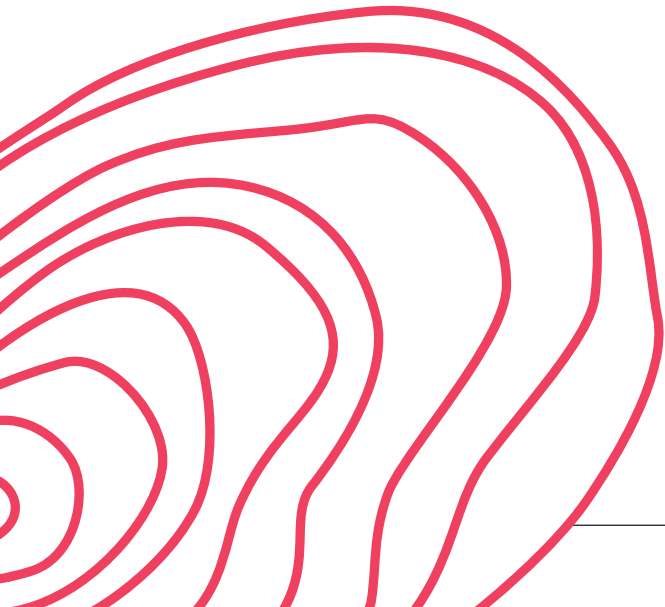


and subcontractors including six full time Aboriginal workers engaged on the project directly. This represents 224 per cent of the project's Aboriginal employment target. To date the project has spent \$2,126,483.48 with Aboriginal-owned business, representing 136 per cent of the project's target.

In late 2022, preparation for main works started for the New Dubbo Bridge project with construction commencing in early 2023. Ongoing engagement with Dubbo Regional Council and the Chamber of Commerce has put local suppliers at the forefront of service and supply arrangements and emphasised the inclusion of women, Aboriginal people, trainees and young workers. The project has employed up to 310 staff and subcontractors, with a strong emphasis on Aboriginal participation and hiring local workforce. To date, eight certified Aboriginal businesses have been engaged on the project and 29 per cent of employees identify as Indigenous people, 34 workers have come through

the Aboriginal Participation in Construction Program, 158 workers reside in the local area and 75 people employed on the project are under 25 years of age. Within the reporting period, the project hosted nine work experience students, providing them with a firsthand experience of working on a large-scale infrastructure project in their hometown. This was enabled through the Sista's in Trade program which connects local employers and training organisations to create a platform for local First Nations women to launch their careers in construction, infrastructure and manufacturing. The Sista's in Trade program has delivered three employment outcomes for the New Dubbo Bridge.

These initiatives across the individual programs of work for the Newell Highway upgrade provide immediate benefit to the local economy, but also contribute to regional development by supporting a diverse industry base and skilled workforce in the regions.



# Delivering social outcomes through employment



## Focus area – Procure responsibly



Transport is committed to making responsible and sustainable procurement decisions and leveraging our procurement power to drive meaningful change and support local jobs. The Parramatta Light Rail project has been supporting local businesses and driving strong workforce development outcomes since its inception and throughout the reporting period.

Before and during major construction, more than 200 businesses were offered support to maximise their potential, build resilience and develop commercial strategies to navigate the challenges of a changing environment and make the most out of upcoming opportunities.

The project also supported strong social outcomes through employment where:

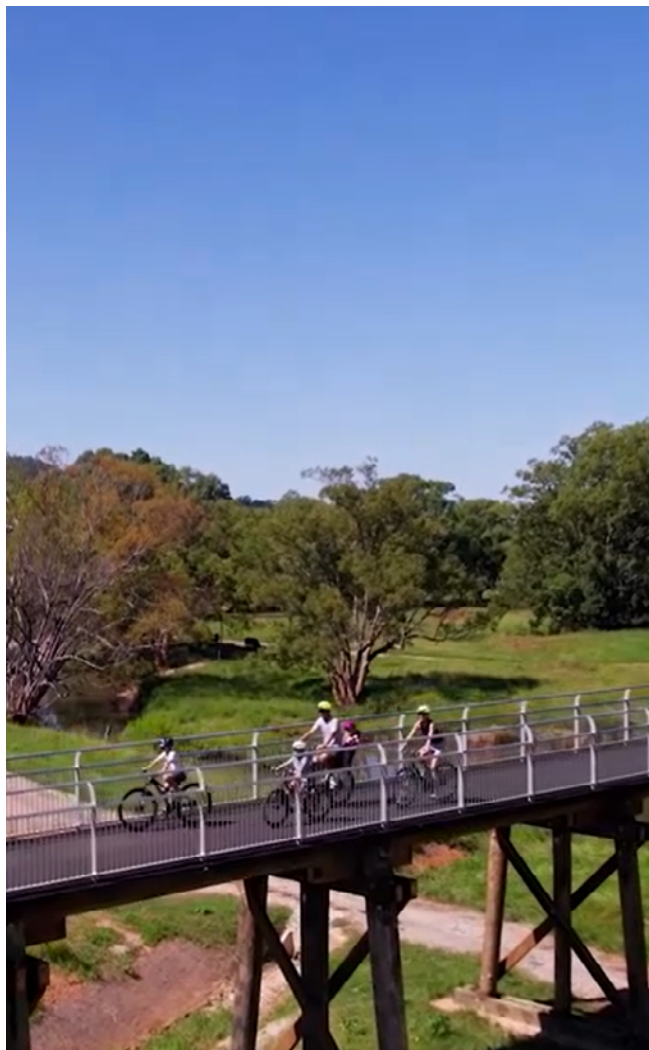
- 53.7 per cent of trades roles were apprentices and 39 per cent were learning workers (target: 20 per cent each)
- 14.6 per cent of the workforce were under 25 years old (target: 8 per cent)
- 2.6 per cent of the workforce were women in non-traditional roles (target: 2 per cent)
- 2.5 per cent of the workforce were Aboriginal (target: 2.4 per cent)
- 4.2 per cent of the overall workforce were from under-represented groups including disabled and disadvantaged groups.

Seven employees gained Civil Construction Certificate II after completing a program providing opportunities for Indigenous Australians, refugees and asylum seekers. To date, the Parramatta Light Rail project has exceeded its original target by \$7 million for Aboriginal procurement in the Infrastructure Works package and has delivered over \$2 million of social enterprise expenditure.

# Northern Rivers Rail Trail



Focus areas – Partner with communities, Improve environmental outcomes



The newly opened Northern Rivers Rail Trail is a 24-kilometre shared recreation and nature trail built on disused rail lines. Since opening in March 2023, the fully accessible trail has quickly become a popular attraction with thousands of visitors enjoying it for various activities including walking, bike riding, on-lead dog walking and even horse riding with a permit.

In designing and delivering the project, we collaborated closely with Tweed Shire Council, which will now manage and maintain the trail through a 30-year lease from the Transport Asset Holding Entity. The rail trail repurposed historic and unused railways into an active transport corridor that supports economic and tourism growth in the local community. Currently Transport has over 3000km of unused rail lines that we continue to look to sustainably repurpose for the benefit of the community.

During the previous reporting period, a bill successfully passed through Parliament to establish a new regulatory framework to enable the lease of disused rail corridors to council for rail trails. Prior to this, an Act of Parliament was necessary to formally close the rail line to enable its reuse, for example, as a rail trail. Under the new guidelines, the planning, funding, operation and maintenance of the rail trail can be done through regulation, which will help facilitate new rail trail projects across NSW.

Our close partnerships with communities enable us to take into account their needs while developing and managing public spaces that preserve their character. Collaborations like the rail trail project enable us to integrate aspects like safety, comfort, attractiveness, accessibility and broader social and community benefits into our projects, creating a positive legacy.

# Improving safety by looking through a woman's lens



Focus areas – Partner with communities, Improve environmental outcomes



Within the Macquarie Park Precinct project, our team applied a women's safety lens to identify opportunities and measures for improved safety outcomes for women, girls and gender diverse individuals.

A Women's Safety Working Group was formed, comprised of subject matter experts from Transport, the Greater Sydney Commission, the Department of Planning, the NSW Police Force and Macquarie University. Participants were invited to consider and provide feedback on how physical, behavioural and environmental factors contribute to their feelings of safety.

The audit revealed that a lack of people in public spaces and insufficient lighting on main pedestrian routes, residential areas and public spaces contributed to poor perceptions of public safety. Additionally, public toilets were often viewed as unsafe spaces for women and girls, highlighting the need for improved security around metro stations and bus stops.

The audit findings and recommendations have played a significant role in shaping the broader Macquarie Park Detailed Precinct Transport Plan. This women's safety audit represents one of the first of its kind conducted by a NSW Government agency.



# Working with communities to respect culture and heritage



## Focus areas – Respect culture and heritage, Partner with communities



The Transport Access Program is delivering a better experience for our passengers across NSW by upgrading stations to be more accessible, secure, and integrated.

The program collaborated with local communities to incorporate their stories into the legacy of several stations, including Cootamundra, Junee and East Hills.

Cootamundra and Junee are two of our longest serving stations and it was important to the community to preserve their heritage. Key design features of the original stations were restored and reinstated, including the formal station entrance, ticket office booth and the original timber flooring. The stations were painted in the historic colour scheme for the period.

Inclusivity was a priority and the program worked closely with Aboriginal Elders to incorporate Aboriginal artworks that reflect the identity of the local communities. Aboriginal artists Aunty Fay and Uncle Owen provided artworks that surround the station entrances. These artworks outline a personal history and contain inspiring stories of reconciliation and healing. Passengers can scan QR-codes adjacent to the artworks which explain the local Aboriginal artist's stories and our First Nations peoples' cultural history and connection with the Country where the stations are situated.

Adjacent to the Georges River, the East Hills Station upgrade provided the opportunity to highlight the community's connection with the river through a mosaic artwork. For the East Hills project, the team sought input from the community to collect their stories, memories, and history from around the area. The response from the community was overwhelming, with people from five to 93 years old sharing their fondest memories of life along the Georges River.

These memories were engraved onto 57 memory plaques and integrated into the mosaic lining the wall of the lift shafts, creating a legacy for the community. The plaques are at eye level so passengers can see each plaque and experience memories from the banks of the Georges River as they pass through the station.

One of the memories shared by a community member was about the old showboat named Mirabel that used to travel down to the wharf at Sylvania, offering lunch, live piano music and jazz dancing on the way back to the wharf. These kinds of stories and memories enrich the station experience, connecting passengers with the history and culture of their local communities.

# Connecting with communities for better cultural and heritage outcomes



## Focus area – Respect culture and heritage



Transport is deeply committed to reconciliation. A key priority of our Stretch Reconciliation Action Plan is meaningful and collaborative community engagement that values connecting to Country and the unique lived experiences of Aboriginal people. To ensure ongoing collaboration, the Parramatta Light Rail project team established an Aboriginal Focus Group comprising registered Local Aboriginal Parties. This group contributes to decisions related to the outcomes of archaeological testing and salvage works, management of Aboriginal archaeological artefacts recovered during works and feedback on project heritage initiatives.

Parramatta has a rich and significant heritage comprising both Aboriginal and European history. Developed in consultation with Heritage NSW, this unique heritage was respected in bespoke infrastructure designs. These designs included wire-free light rail for a significant portion of the Westmead to Camellia alignment, thin resin-bound footpath pavements to avoid disturbing unmarked graves, retaining heritage bridge abutments and the salvage and reuse of sandstone and bricks.

Heritage interpretation included paving inlays and interpretive signage, and the landscaping and installation of an Indigenous garden were used to retain and showcase local history.

Graham Davis King, a Design Review Panel member for Aboriginal cultural heritage and member of the Deerubbin Local Aboriginal Land Council, conducted a traditional ceremony to release the spirit of the trees when taking tree cuttings for propagation from fig trees before their necessary removal. Additionally, timber from 13 trees removed from outside Parramatta Gaol, have been given to the Deerubbin Local Aboriginal Land Council for repurposing in artworks and historical displays.

During the reporting period, a free public heritage exhibition, 'A Journey Through Time', was held at the Parramatta Heritage and Visitor Information Centre. The exhibition featured local historical information and artefacts preserved during construction from culturally and heritage-significant sites, including the Cumberland precinct and former Rum Corps Barracks at Robin Thomas Reserve.

# Encouraging sustainable choices with the Parramatta Light Rail



Focus areas – Empower customers to make sustainable choices, Improve environmental outcomes



The Parramatta Light Rail project connects our passengers to their destinations and empowers them to make sustainable choices while creating engaging spaces for the community.

During the reporting period, a 5.7km active transport link was opened as part of the project. This shared walking and bike path provides better access to facilities and recreational spaces in the area and promotes healthy and active lifestyles. Extending from Carlingford to Parramatta and taking in the newly delivered Bidgee Bidgee Bridge that spans James Ruse Drive in Rosehill, the shared path connects to local buses, the Parramatta Light Rail – once it opens in 2024 – and existing active transport links. LED lighting, water fountains, wayfinding signs, bike racks, accessibility ramps and seating are located on the shared path.

Enhancing the green spaces around the new infrastructure, Transport partnered with the City of Parramatta Council to plant at least 2500 new trees by 2024. This is in addition to the 3000 trees planted by Transport across Parramatta as part of the light rail project. To date, more than 1600 trees have been planted across the local area.

Transport is committed to reducing the environmental impacts of our operations through designing waste and pollutant products out of our projects and keeping materials in use for as long as possible at the highest material quality. During the construction of the Parramatta Light Rail, the project was able to recycle 99 per cent of construction waste, avoiding 145,906 tonnes of materials that would otherwise have been sent to land fill. This was achieved through many considered approaches across the entirety of the construction stage, such as reusing 50 per cent of the ballast, 60 per cent of the rail and 90 per cent of the sleepers extracted from the decommissioned T6 line.

Other achievements included recycling over 1000 tonnes of glass and 6000 tonnes of reclaimed asphalt pavement in newly laid asphalt surfaces. Forty per cent of all aggregates used for the project were recycled. Additionally, over 25,000 square meters of existing asphalt was milled and re-sheeted rather than rebuilding the entire profile. The project was able to reuse 100 per cent of usable spoil and over 95 per cent of topsoil in landscaping works.

# Delivering sustainable transport options for our passengers



## Focus area – Empower customers to make sustainable choices



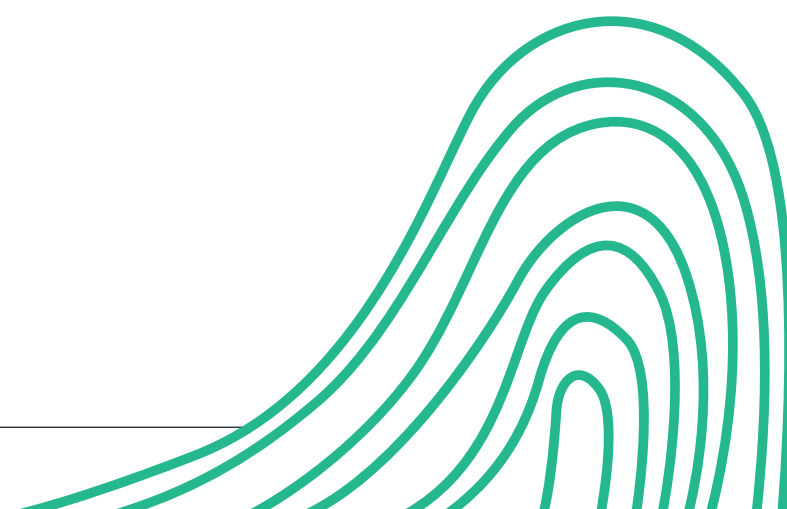
Transport is passionate about creating accessible, safe and reliable transport options for everyone, and encouraging customers to make sustainable choices. To help us do this, we have implemented key programs and initiatives.

The Transport Access Program (TAP), Commuter Car Park Program (CCPP), electric vehicle (EV) strategy and Park&Ride are working together to enhance public transport accessibility, offering sustainable, convenient and multi-modal transportation solutions.

During the reporting period, TAP successfully completed accessibility upgrades at 15 stations in our network, while CCPP expanded parking at six locations, adding about 2250 additional parking spaces across the Schofields, North Rocks, Hornsby, Revesby, Riverwood and Emu Plains commuter car parks.

Our existing Park&Ride initiative, in addition to CCPP, allows passengers to enjoy up to 18 hours of free parking after completing their journeys using public transport. Within the reporting period, we continued to expand the Park&Ride network along our train and metro lines, through working with various commercial car park providers.

We are also committed to supporting the transition to EVs by installing EV charging infrastructure at some commuter car parks. Through partnerships with charging point operators, we are trialling the hosting of charging infrastructure for commuter car parks. These trials are to support and inform the ongoing transition to EVs and grow the EV charging network in line with the NSW Electric Vehicle Strategy.





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Image credit: Transport staff member, Brenton Hays

# Glossary of terms

Term	Explanation
Active transport	Transport that requires individual physical effort to provide mobility. For personal travel, this includes walking, the use of a wheelchair or mobility aid, cycling using a bicycle (without power assistance) and power-assisted micromobility. Active forms of transport for freight delivery include both pedal-powered and electric power-assisted cargo bikes.
Carbon	Carbon refers to both pure carbon dioxide emissions and carbon dioxide equivalent emissions (refer below).
Carbon dioxide equivalent (CO <sub>2</sub> -e)	A metric used to compare the emissions from various greenhouse gases based on their global warming potential, by converting the other gases to the equivalent amount of carbon dioxide with the same global warming potential.
Climate risk assessment	<p>A process for identifying the likelihood of future climate hazards and their potential impacts on the subject of the assessment. In the Transport for NSW Climate Risk Assessment Guidelines, this is a three-stage process that involves:</p> <ol style="list-style-type: none"><li>1. Preparation: historical data analysis, relevant climate projections analysis and preliminary risk assessment (risk identification and consideration of adaptation measures)</li><li>2. Risk assessment workshop: review and allocate consequence and likelihood to risks, select adaptation measures, and assess residual risk</li><li>3. Post climate risk assessment: monitor implementation and effectiveness of adaptation measures, identify trigger points for future actions.</li></ol>
Delivery partner	An external organisation that is engaged by Transport to help deliver its works.
Greenhouse gas	Greenhouse gases are both natural gases (such as carbon dioxide) and artificial gases that have been significantly increasing in concentration in the Earth's atmosphere due to human activities. When the sun's energy reaches the earth, some of it is reflected back to space and some of it is trapped by greenhouse gases in the atmosphere and warms the Earth's surface. This is known as the greenhouse effect. The increased concentration of greenhouse gases in the atmosphere is trapping extra heat, causing the Earth's temperature to rise along with other negative environmental effects.
Rain garden	A shallow water sensitive urban design feature that temporarily captures stormwater runoff and filters out pollutants as the stormwater is absorbed into the soil.

Term	Explanation
Rhizomes	An underground stem that runs horizontally and can produce lateral roots and shoots.
Social enterprise	An organisation certified by Social Traders
Solar photovoltaic (PV) system/solar installation	A system that captures a proportion of the energy from sunlight and converts it into electricity. It is comprised of two main components: solar photovoltaic (PV) panels and an inverter. These are accompanied by wiring, which facilitates the flow of electricity within the system, and a load to use the electricity generated or a storage device, typically a battery, for later use.
Solar inverter	An electronic device which regulates the flow of electricity. In the context of a solar PV system, it changes the direct current (DC) electricity generated by solar PV panels into alternating current (AC).
Supplementary cementitious material	A broad range of materials that are widely used in concrete to partly substitute Portland cement, for example fly ash or slag.
Sustainability	Enabling, delivering and operating a transport system that meets the needs of the present while safeguarding the future by optimising environmental, social and economic outcomes.
Target consistent or marginal abatement cost	The cost of abating the last metric ton of carbon dioxide needed to meet a particular emissions target at the least cost to society <sup>12</sup> .
Triple bottom line	A framework that underpins a sustainability approach, consisting of three parts: social, environmental and economic.
Water sensitive urban design	The integration of water cycle management into planning, design and construction of the built environment. It replicates natural processes in the treatment of water in a constructed environment and is relevant to all built environments from highly urbanised rural settings.

12 As defined by [Resources for the future](#) website. Estimating the Value of Carbon: Two Approaches.

# Industry recognition

Award Title	Award Category	Association	Project or team	Delivery partner (if relevant)	Links for more details
Sustainability leadership	Excellence in economic	Infrastructure Sustainability Council	M4 – M5 Link Tunnels	Acciona Samsung Bouyges Joint Venture	Winner <a href="#">Read further details</a>
Sustainability leadership	Excellence in economic	Infrastructure Sustainability Council	Rozelle Interchange	John Holland CPB	Finalist
Sustainability leadership	Excellence in economic	Infrastructure Sustainability Council	More Trains More Services (MTMS) north	Next Rail (John Holland, Jacobs and Transport for NSW)	Finalist
Sustainability leadership	Excellence in social	Infrastructure Sustainability Council	Parramatta Light Rail Activate Parramatta	CPB Contractors and Downer	Finalist
Sustainability leadership	Excellence in social	Infrastructure Sustainability Council	Rozelle Interchange	John Holland and CPB Contractors	Finalist
Sustainability leadership	Excellence in social	Infrastructure Sustainability Council	Rozelle Interchange	John Holland and CPB Contractors	Finalist
Sustainability leadership	Outstanding achievement award	Infrastructure Sustainability Council	Parramatta Light Rail	CPB Contractors and Downer EDI	Finalist
Industry impact	Public sector	Infrastructure Sustainability	Transport for NSW Commuter Car Parks Program	Various	Finalist
FMA Excellence Awards	FMA IAG Flood Risk Management of the Year	Floodplain Management Australia	Transport for NSW Severe Weather Dashboard	FloodMapp and Transport for NSW	Finalist
The core value awards	Infrastructure (construction stage)	International Association for Public Participation Australia (IAP2A)	M6 Stage 1 Community and Recreation Facilities	Ertech, Design Inc and Larke Industries	Winner <a href="#">Read further details</a>
Australasian Rail Industry Awards	Sustainability and Environmental Excellence	Australasian Railway Association	Sydney Trains Energy Efficiency Program	NA	Finalist

Award Title	Award Category	Association	Project or team	Delivery partner (if relevant)	Links for more details
Australasian Rail Industry Awards	Infrastructure Project Excellence	Australasian Railway Association	Parramatta Light Rail	CPB Contractors and Downer	Winner <a href="#">Read further details</a>
Australian Construction Achievement Award	N/A	Australian Construction Achievement Award	Parramatta Light Rail	CPB Contractors and Downer EDI	Finalist
Australian Construction Achievement Award	N/A	Australian Construction Achievement Award	M4 – M5 Link Tunnels Project (WestConnex Stage 3A)	ACCIONA, Samsung and Bouygues	Finalist
Australian Urban Design Awards	Leadership, advocacy and research – city and regional scale	Australian Urban Design Awards	Parramatta Light Rail	Transport for NSW, Urban Planning and Management, School of Social Sciences, Western Sydney University	Winner <a href="#">Read further details</a>
Australian Urban Design Awards	Leadership, Advocacy and Research – city and regional scale	2022 Australian Urban Design Awards	Parramatta Light Rail’s Urban Design Requirements (Blue Book)	Transport for NSW	Finalist
Place Leaders Awards	Large Scale Projects	Place Leaders Asia Pacific	Places to Love Program	Participating Local Councils	Winner <a href="#">Read further details</a>
Planning Excellence Award	Community Wellbeing & Diversity	Planning Institute of Australia (National)	Alfresco Restart Package – ‘The Festival of Place...in your streets’ Program	Participating Local Councils	Finalist
AILA NSW Landscape Architecture Award	Community Contribution	Australian Institute of Landscape Architecture (NSW)	Place to Love Program	Participating Local Councils	Winner <a href="#">Read further details</a>

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Award Title	Award Category	Association	Project or team	Delivery partner (if relevant)	Links for more details
AILA NSW Landscape Architecture Award	Small Projects	Australian Institute of Landscape Architecture (NSW)	Streets as Shared Spaces	City of Canterbury Bankstown	Winner <a href="#">Read further details</a>
AILA NSW Landscape Architecture Award	Small Projects	Australian Institute of Landscape Architecture (NSW)	Your High Street	Queanbeyan-Palerang Regional Council	Winner <a href="#">Read further details</a>

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# Further information

Display name	Link
<b>Federal Government</b>	
Disaster Recovery Funding Arrangements	<a href="https://disasterassist.gov.au/disaster-arrangements/disaster-recovery-funding-arrangements">disasterassist.gov.au/disaster-arrangements/disaster-recovery-funding-arrangements</a>
<b>NSW Government</b>	
Aboriginal Procurement Policy	<a href="https://info.buy.nsw.gov.au/policy-library/policies/aboriginal-procurement-policy">info.buy.nsw.gov.au/policy-library/policies/aboriginal-procurement-policy</a>
Decarbonising Infrastructure Roadmap	<a href="https://infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure-delivery">infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure-delivery</a>
Discussion Paper on Decarbonising Infrastructure Delivery	<a href="https://infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure-delivery">infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure-delivery</a>
Electric Vehicle Strategy	<a href="https://nsw.gov.au/driving-boating-and-transport/nsw-governments-electric-vehicle-strategy">nsw.gov.au/driving-boating-and-transport/nsw-governments-electric-vehicle-strategy</a>
Hydrogen Strategy	<a href="https://energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/nsw-hydrogen-strategy">energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/nsw-hydrogen-strategy</a>
Kamay Botany Bay National Park, Kurnell Master Plan	<a href="https://environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/community-engagement/kamay-botany-bay-national-park-public-consultation">environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/community-engagement/kamay-botany-bay-national-park-public-consultation</a>
Koala Strategy	<a href="https://environment.nsw.gov.au/topics/animals-and-plants/threatened-species/programs-legislation-and-framework/nsw-koala-strategy">environment.nsw.gov.au/topics/animals-and-plants/threatened-species/programs-legislation-and-framework/nsw-koala-strategy</a>
<b>Transport for NSW</b>	
Aboriginal Career Development and Mentoring Program	<a href="https://future.transport.nsw.gov.au/case-studies/aboriginal-career-development-and-mentoring-program">future.transport.nsw.gov.au/case-studies/aboriginal-career-development-and-mentoring-program</a>
Aboriginal Cultural Landscapes Management Pilots Grant Program	<a href="https://transport.nsw.gov.au/system/files/media/documents/2023/aclm-grant-program-document-jan-2023.pdf">transport.nsw.gov.au/system/files/media/documents/2023/aclm-grant-program-document-jan-2023.pdf</a>
Aboriginal Culture and Heritage Framework	<a href="https://future.transport.nsw.gov.au/sites/default/files/2022-10/aboriginal_culture_and_heritage_framework.pdf">future.transport.nsw.gov.au/sites/default/files/2022-10/aboriginal_culture_and_heritage_framework.pdf</a>
Aboriginal Cultural Learning Framework	<a href="https://future.transport.nsw.gov.au/case-studies/aboriginal-cultural-learning-framework">future.transport.nsw.gov.au/case-studies/aboriginal-cultural-learning-framework</a>

Display name	Link
Aboriginal Participation Strategy	<a href="https://future.transport.nsw.gov.au/documents/aboriginal-participation-strategy">future.transport.nsw.gov.au/documents/aboriginal-participation-strategy</a>
Active Transport Strategy	<a href="https://future.transport.nsw.gov.au/future-transport-plans/active-transport-strategy">future.transport.nsw.gov.au/future-transport-plans/active-transport-strategy</a>
Biodiversity Policy	<a href="https://transport.nsw.gov.au/about-us/access-to-information/policy-documents">transport.nsw.gov.au/about-us/access-to-information/policy-documents</a>
Climate Risk Assessment Guideline	<a href="https://transport.nsw.gov.au/industry/doing-business-transport/sustainability-at-transport">transport.nsw.gov.au/industry/doing-business-transport/sustainability-at-transport</a>
Commuter Car Park Program	<a href="https://transport.nsw.gov.au/commuter-car-park-program">transport.nsw.gov.au/commuter-car-park-program</a>
Future Energy Action Plan	<a href="https://future.transport.nsw.gov.au/future-transport-plans/future-energy-strategy">future.transport.nsw.gov.au/future-transport-plans/future-energy-strategy</a>
Future Energy Strategy	<a href="https://future.transport.nsw.gov.au/future-transport-plans/future-energy-strategy">future.transport.nsw.gov.au/future-transport-plans/future-energy-strategy</a>
Macquarie Park Precinct project	<a href="https://transport.nsw.gov.au/projects/current-projects/mac-park-precinct-and-bus-interchange">transport.nsw.gov.au/projects/current-projects/mac-park-precinct-and-bus-interchange</a>
More Trains, More services	<a href="https://transport.nsw.gov.au/projects/more-trains-more-services">transport.nsw.gov.au/projects/more-trains-more-services</a>
Net Zero and Climate Change Policy	<a href="https://transport.nsw.gov.au/about-us/access-to-information/policy-documents">transport.nsw.gov.au/about-us/access-to-information/policy-documents</a>
Network Resilience Program	<a href="https://transport.nsw.gov.au/projects/programs/regional-and-outer-metropolitan-network-resilience-program">transport.nsw.gov.au/projects/programs/regional-and-outer-metropolitan-network-resilience-program</a>
Park&Ride car park program	<a href="https://transportnsw.info/travel-info/ways-to-get-around/drive/parking/transport-parkride-car-parks">transportnsw.info/travel-info/ways-to-get-around/drive/parking/transport-parkride-car-parks</a>
Places to Love	<a href="https://transport.nsw.gov.au/industry/cities-and-active-transport/cities-revitalisation-and-place/festival-of-place-1">transport.nsw.gov.au/industry/cities-and-active-transport/cities-revitalisation-and-place/festival-of-place-1</a>
Safer Cities Program	<a href="https://transport.nsw.gov.au/industry/cities-and-active-transport/cities-revitalisation-and-place/festival-of-place">transport.nsw.gov.au/industry/cities-and-active-transport/cities-revitalisation-and-place/festival-of-place</a>
Strategic cycleway corridors for Greater Sydney	<a href="https://transport.nsw.gov.au/operations/walking-and-bike-riding/strategic-cycleway-corridors">transport.nsw.gov.au/operations/walking-and-bike-riding/strategic-cycleway-corridors</a>
Stretch Reconciliation Action Plan (RAP) 2022–2025	<a href="https://future.transport.nsw.gov.au/documents/transport-stretch-reconciliation-action-plan">future.transport.nsw.gov.au/documents/transport-stretch-reconciliation-action-plan</a>
Sustainable Procurement in Infrastructure Industry Report	<a href="https://link.caapp.com.au/sip-overview">link.caapp.com.au/sip-overview</a>



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Display name	Link
The Festival of Place	<a href="https://transport.nsw.gov.au/industry/cities-and-active-transport/cities-revitalisation-and-place/festival-of-place">transport.nsw.gov.au/industry/cities-and-active-transport/cities-revitalisation-and-place/festival-of-place</a>
Toward Net Zero Freight Policy	<a href="https://transport.nsw.gov.au/operations/freight-hub/towards-net-zero-emissions-freight-policy">transport.nsw.gov.au/operations/freight-hub/towards-net-zero-emissions-freight-policy</a>
Transport Access Program projects	<a href="https://transport.nsw.gov.au/projects/current-projects/transport-access-program-completed">transport.nsw.gov.au/projects/current-projects/transport-access-program-completed</a> <a href="https://transport.nsw.gov.au/projects-tap">transport.nsw.gov.au/projects-tap</a>
Walks Near Me	<a href="https://nsw.gov.au/visiting-and-exploring-nsw/walks-near-me">nsw.gov.au/visiting-and-exploring-nsw/walks-near-me</a>
Other	
1 Million Turtles	<a href="https://1millionturtles.com">1millionturtles.com</a>

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# Biodiversity offsets completed before 1 July 2022

The table below provides details of Transport State Significant Infrastructure (SSI) projects under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979*, that have triggered the Biodiversity Offset Scheme<sup>1</sup> which completed<sup>13</sup>d its biodiversity offsets in or before the 2021–22 financial year.

Project name	Region	Date approved	Ecosystem credits required	Species credits required	Total credits required	Credits completed <sup>14</sup>	Credits substantially completed <sup>15</sup>
M6 Extension Stage 1	Eastern Harbour City	18/12/2019	82	10	92	92	N/A
Sydney International Speedway – Sydney Metro <sup>16</sup>	Western Parkland City	23/12/2020	5	1	6	6	N/A
Western Harbour and Warringah Freeway	Eastern Harbour City	21/01/2021	0	2	2	2	N/A
Sydney Metro West – Concept Stage 1	Eastern Harbour City and Central River City	11/03/2021	3	4	7	7	N/A

The table below provides details of Transport Review of Environmental Factors (REF) projects determined under Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979*, that have triggered the Biodiversity Offset Scheme which completed its biodiversity offsets in or before the 2021–22 financial year.

Project name	Region	Date approved	Ecosystem credits required	Species credits required	Total credits required	Credits completed <sup>14</sup>	Credits substantially completed <sup>15</sup>
Great Western Highway – Little Hartley to Lithgow	Western	28/04/2022	2,474	3,333	5,807	5,807	N/A

<sup>13</sup> Table does not include aquatic offsets required under Department of Primary Industry policy guidelines.

<sup>14</sup> Credits completed are credits purchased and retired or Biodiversity Conservation Fund payment made.

<sup>15</sup> Credits substantially complete are credits purchased but not yet retired or Biodiversity Conservation Fund payment made but not finalised.

<sup>16</sup> One additional species credit was required and completed within the financial year 2021–22 however was not reported in the previous Sustainability Report due to it not being reflected in the Condition of Approval.

# Get involved



We know the best way to achieve a better, more sustainable future is through working hand-in-hand with our customers, partners, industry and the broader NSW community.

In the future we will refine our sustainability reporting systems and processes to enable us to clearly benchmark our performance and drive measurable improvements in our sustainability performance.

We will regularly share updates and achievements against our goals throughout the year.

Visit sustainability at Transport to see how we are progressing towards our vision and join us in creating a NSW where every journey is people and planet positive.



[sustainability.transport.nsw.gov.au](https://sustainability.transport.nsw.gov.au)



[environmentandsustainability@transport.nsw.gov.au](mailto:environmentandsustainability@transport.nsw.gov.au)



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# Image acknowledgement

A number of images used throughout this report were taken by our talented staff members. These images showcase NSW through the eyes of our staff either through their work or hobbies and enable them to show the rich and diverse landscape, flora and fauna. We are very proud of the unique talents of our staff and thank them for enabling us to use their images in this report.

## **David Liu**

Senior Project Engineer  
Regional and Outer Metropolitan  
Page 8 image: Canola field in full bloom adjacent to Newell Highway just north of Grong Grong, NSW

## **Amanda Elvy**

Project Portfolio Manager  
Safety Environment and Regulation  
Page 10 image: Sea Cliff Bridge at Stanwell Park, NSW

## **Tayla Doubtfire**

Works Support Officer  
Regional and Outer Metropolitan  
Page 13 image: Flooded creek adjacent to the Barrier Highway located south of Broken Hill near Cockburn

## **Kevin Bath**

Works Supervisor  
Regional and Outer Metropolitan  
Page 16 image: Outback NSW and a section of the Silver City Highway

## **Ainslie Pasqual**

Driver  
Sydney Trains  
Page 17 image: Train on a bridge over the Georges River in Sydney

## **Graham Horner**

Senior Transport Planner  
Regional and Outer Metropolitan  
Page 19 image: Eucalyptus trees at sunrise in Birramal Conservation Area, Wagga Wagga

## **Matt Stephens**

Environment Officer (Biodiversity)  
Safety Environment and Regulation  
Page 20 image: Spotted Pardalote bird sitting in a carved hollow within a tree

## **Damanjit Purewal**

Transport Officer  
Sydney Trains  
Page 21 image: Rainbow Lorikeet in trees near Sydney Harbour Bridge

## **Thomas Bulic**

Apprentice Telecommunications  
Sydney Trains  
Page 31 image: Train on the heritage listed Hawksbury River railway bridge located on the northern outskirts of Sydney

## **Peter George**

Track Stability Specialist  
Sydney Trains  
Page 39 image: Passengers and staff at Chatswood train station

## **Adele Graham**

Procure to Pay Manager  
Regional and Outer Metropolitan  
Page 45 image: Sea cliffs along Point Perpendicular located near Jervis Bay, NSW

## **Daniel Snell**

Digital Content Support Officer  
People and Culture  
Page 46 image: Transport NSW employee on the road side at the Silver City Highway sealing project

## **Graham Horner**

Senior Transport Planner  
Regional and Outer Metropolitan  
Page 49 image: Eucalyptus trees at sunrise in Birramal Conservation Area, Wagga Wagga

## **Brenton Hays**

Senior Environment Officer (Biodiversity)  
Safety Environment and Regulation  
Page 65 image: Tiger Orchid (*Diuris sulphurea*)

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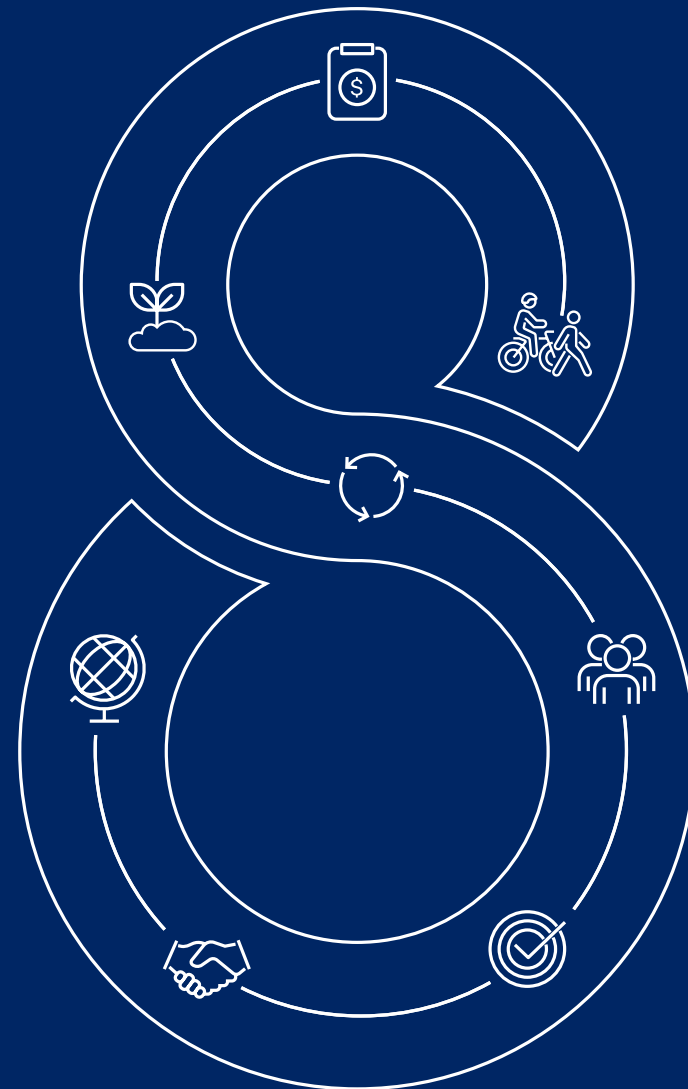
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December 2023

The information in this document is intended as a guide only and is subject to change at any time without notice. It does not replace the relevant legislation.

Pub no. 22.330



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